



THE UNIVERSITY OF HULL

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“Islamic Religious Beliefs and Brand Personality towards New Product Adoption in the Islamic Market, and Scale Development and Validation”

**In fulfilment for research for the degree of MPhil/PhD in Marketing
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By

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Abstract

Brand personality is considered as an important element in building and maintaining strong and valuable brands. Several brand personality scales have been proposed within the brand marketing literature, but no reliable and valid brand personality scale has yet been produced for the Islamic context. Therefore, scholars and practitioners have been unable to empirically assess brands' personalities, identity and image in such a context.

In addition to developing a brand personality measure for an Islamic context, this study explored Islamic religious beliefs' influence on brand personality. A related scale was conceptually and empirically explored in this research, and the influence of Islamic religious beliefs on subjective norms, perceived behavioural control, relative advantage, compatibility, complexity and new religious compliant product adoption was investigated. The study also examines the moderation effects of the demographic variables of age and income, and the mediation effects of the constructs of subjective norms, perceived behavioural control, relative advantage, compatibility and complexity. This study advances the marketing knowledge by presenting a more critical and empirical understanding of the degree to which Islamic religious beliefs influence a brand personality measure, consumers' favouring or not favouring a brand's personality, and their adoption of new religious compliant products in religiously featured societies. The influence of Islamic religious beliefs on new product adoption generally has not been investigated previously, with exception of the study by Shabbir (2010), and more specifically no previous study has examined the influential relationship between Islamic religious beliefs and new religious compliant product adoption. Given that the value of while the religious markets' is expanding, with the Muslim market value alone estimated to be US\$ 2.7 trillion currently, and expected to increase to US\$30 trillion by 2050, this makes this study a valuable addition to the marketing management field.

A quantitative methodology was employed to collect data from the three largest cities in Saudi Arabia: Riyadh, Jeddah and Dammam; a total of 352 usable questionnaires were returned. After verifying raw data coding accuracy, the missing values from the raw data

were assessed, and data tested for normality, outliers and multicollinearity. The brand personality scale development and the conceptual framework were assessed with 287 questionnaires. Exploratory factor analysis was employed to purify the scale, followed by confirmatory factor analysis to verify the scale and determine its psychometric properties. The hypothesised relationships were tested by employing structural equation modelling based on partial least square procedures. Mediation effects were examined using the Sobel test, and moderation effects were assessed using multi group analysis.

The findings yielded a unique Islamic brand personality with four dimensions and 28 sub items, which contained one dimension with five religious traits. Gender, age and income were found to moderate some of the hypothesised relationships. Significant influence of Islamic religious beliefs was observed on the Islamic brand personality scale, subjective norms, perceived behavioural control, relative advantage, compatibility, complexity and new religious compliant product adoption. The influence of Islamic religious beliefs on the brand personality measure was observed to be stronger than anticipated by this study. Also surprisingly it was found that the adoption behaviour differs between men and women with the same Islamic religious beliefs and values. Wealthy and educated participants were found to be more concerned with whether the personality of the products that they purchase contradicts with their Islamic religious beliefs or not. The developed Islamic brand personality scale will significantly support marketing managers who operate in the Muslim market to design a more desirable brand personality for their brands. Additionally, marketing practitioners will be helped understand the factors that affect their consumers' behaviour and purchasing activities, and carry out the segmentation process more effectively bearing in mind the differences observed between the age, gender and income groups. Finally, this study is one of the first that explores the links between Islamic religious beliefs, brand personality and new religious compliant product adoption in the light of the Theory of Planned Behaviour (TPB) and Diffusion of Innovation Theory (DIT). It develops a new Islamic brand personality scale and it is believed to provide a ground for different directions for future research.

Dedication

This research, which was achieved only by the grace of Al-mighty Allah, is dedicated to my father and mother, my grandmother, my beloved wife, my gorgeous little daughter, Haya, my four beloved brothers and five sweet sisters specially Al-hajla J. With their motivation and unlimited support I was capable of accomplishing my Ph.D thesis. I also dedicate my work to my dear cousins Abdulah, Saud and Khalid. The Prophet Muhammed (P.B.U.H) said, “When a person does a task, the person must do the task to match the best possible standards that can be met”. I have taken to heart this valuable teaching during the days I have invested into my PhD. Thank you all!

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Chapter One: Introduction

1.1. Background to the Research

It has been suggested that branding is one of the most significant marketing tools to have appeared for decades (e.g. Aaker, 1997; Arora and Stoner, 2009; Geuens et al., 2009; Wallenklint, 1998). Even though it remains uncertain how branding was founded or when, some researchers such as Wallenklint (1998) believe that branding has been practised for a long time, and he supports this argument by claiming that ancient Egyptian murals show the branding of different animals. Brands as applied in a modern-day context have been observed by Melin and Urde (1990: p.13) as follows:

“the modern brand first appeared at the end of the 1800s and is considered to have its origin in the USA and Great Britain. In these countries the achievements of the industrial revolution resulted in mass production, mass distribution and mass communication. The brand became a tool to differentiate all of these products and a way of enhancing the products in the companies’ marketing efforts.”

In other words, differentiating products based on their functional characteristics alone was not helping, and this is when branding strategies were considered. Later, these strategies were advanced by presenting the term “brand personality”, which stands for the characteristics that can be adopted by a brand throughout its branding activities to reflect a certain personality that may be favoured by consumers. The latest advanced technology enables products and services to be copied in many of the details of their characteristics and there is an increased level of similarity between the originals and the copies (Phau and Lau, 2000). This creates more demand for brand management to enable firms to compete in something more than merely the features of goods or services, which would limit competitive advantages. Managers and researchers agree that it is important to draw more attention to elements other than the features of services or goods, such as emotional connections (Aaker, 1997; Heylen et al., 1995; Huang, 2009; Karande et al., 1997; Siguaw et al., 1999). Yoon (2004) states that a great amount of interest has recently been directed to the theory of the role of brand personality; thus, investigation of the role of brand personality in customers’ behaviour has been raised.

A considerable number of practitioners such as Ogilvy (2010) and Plummer (2000) and academic scholars such as Aaker (1996a) and Keller and Richey (2006) recognise the importance and validity of brand personality. Phau and Lau (2000) believe that this concept is a globally recognised element of a brand, which is thought to increase usage, inclination

ties and linking (Yoon, 2004). Aaker (1997), Biel (1993) and Karande et al. (1997) were some of the first academics to carry out extensive research to examine the influence of brand personality on customers' behaviour (Yoon, 2004). In addition, similar studies in relation to the impact of brand personality on customers' behaviour, but focusing on a specified aspect of customers' actions, have been conducted by previous researchers (e.g. Achouri and Bouslama, 2010; Braunstein and Ross, 2010; Farhat and Khan, 2011; Fennis and Pruyn, 2007; Keller and Richey, 2006; Lin, 2010; Louis and Lombart, 2010b; Sung and Kim, 2010; Valette-Florence et al., 2011).

As we have observed, although a significant amount of attention has been directed to understanding the effects of brand personality, to the best of the author's knowledge, previous researchers have argued that Islamic religious beliefs as a cultural element have a significant impact on religious consumers' behaviour and purchasing decisions in accordance with their religious teachings (e.g. Essoo and Dipp, 2004; Fam et al., 2004; McDaniel and Burnett, 1990; Mokhlis, 2009; Kotlor, 2000; Shabbir, 2010; Sood and Nasu, 1995; Sood, 1993; Zaidman and Lowengart, 2001). Shabbir (2010) has examined the influence of Islamic religious beliefs on new product adoption in Pakistan, and concluded that Islam has a significant influence on Muslims' adoption of new brands. Essoo and Dipp (2004) have investigated how the shopping behaviour of religious consumers is impacted by their faith, and found that religious influence was strong. (Further examples are reported in section 2.5.1. of this thesis.) A few studies have stated that religious belief has an influence on people's personalities and behaviour and this impact was suggested to be positive (Cukur et al., 2004; Ellison et al., 1989; Hood Jr et al., 2009). However, no studies have investigated how Islamic religious beliefs (IRB) influence brand personality (BP). This is surprising, because Balabanis et al. (2002) have stated that one of the most important cultural factors is human values. Therefore, certain aspects of culture, such as religion, are associated with distinctive values, including those related to lifestyle choices, brand selection behaviour and purchasing (Essoo and Dibb, 2004; Kotlor, 2000; Sood and Nasu, 1995). Melewar and Smith (2003) state that multinational firms should be concerned with regard to their marketing activities' contents in different markets due to the high possibility that their meanings will differ according to contextual dissimilarity. According to Zakaria and Abdul-Talib (2010), for international firms that target Muslim markets to

profit and fit in these markets, their marketing strategies have to take account of Islamic values, standards and guidelines, which have been neglected in previous marketing studies.

Thus, an investigation of such an influence should present a critical and unique advancement of knowledge in the literatures of brand personality, subjective norms and religious/Islamic marketing (Alserhan, 2010a; Arham, 2010; Wilson and Liu, 2011; Zakaria and Abdul-Talib, 2010). Previous studies related to brand personality have not investigated the possibility of influential factors other than one basic cultural factor - language - and this adds to the importance of this study's consideration of the specific factor of RB.

Furthermore, to the author's best knowledge, there are no studies that have investigated the relationships (either direct or indirect) between RB, BP and new religion-compliant product adoption (NRCPA). Thus, since it was previously observed by some studies that consumers purchased brands that reflected their desired personality characteristics (e.g. Achouri and Bouslama, 2010; Karande et al., 1997; Kim et al., 2001; Lin, 2010; Park and Lee, 2005), better understanding of the relationship between RB, BP and NRCPA will advance the knowledge related to the consequences of BP and the antecedents of NRCPA that was called for by Shabbir (2010). There are theoretical grounds provided by some previous studies (e.g. Abou-Youssef et al., 2011; Alam et al., 2011; Azam et al., 2011; Bakar et al., 2013; Lindridge, 2005; Muhamad and Mizerski, 2010) that concluded that religious consumers' consumption or product adoption is strongly guided by their religious values. The research also responds to the call by Kahle et al. (2005) for studies to be conducted in relation to the impact of religiosity or religious beliefs on consumer behaviour aspects, of which new product adoption is one. Kahle et al. (2005: p.2) argue as follows:

“Many academics are less religious than the general population, thus tending to ignore religiosity in introspective evaluation of consumer processes. Although a few studies of religiosity occasionally appear in the consumer literature, for the most part the topic is conveniently ignored. Although religious advocacy may not have a place in meaningful scientific discussion, religion and religiosity can and should be studied with the same degree of rigor and objectivity as other influential social characteristics, if we hope eventually to develop a comprehensive understanding of consumer lifestyles and behaviour.”

One area where this may be of particular salience is the Muslim market, which represents an estimated value of approximately USD 2.7 trillion currently and is expected to increase

to USD 30 trillion by 2050. The Islamic branding field suffers a crucial dearth of knowledge and there is an increasing need for Islamic branding management material given that relevant markets are influenced by religious values (Alserhan, 2010b).

Therefore, the aim of this study is to extend the literature of branding knowledge in relation to BP by focusing on the impact of Islamic religious beliefs on BP perceptions among Muslim consumers. It explores the influence of Islamic religious beliefs on new religion-compliant product adoption via BP and as a direct influence.

1.2. Research Aim and Objectives

The aim of this thesis is to investigate the relationship between brand personality (BP) and Islamic religious beliefs (IRB) to develop a reliable, valid and practical Islamic brand personality (IBP) measurement for the Islamic context and to determine to what extent Islamic religious beliefs influence BP and new religion-complaint product adoption (NRCPA).

This aim of the thesis is translated into three research objectives, which are as follows: first, to develop a brand personality measurement scale, the dimensions of which are appropriate to the Islamic context, and to explore how Islamic religious beliefs influence the IBP scale. Second, to determine the degree to which IBP, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new religion-compliant product adoption variables are influenced by the independent variable of Islamic religious beliefs. Third, to determine the degree to which Islamic religious beliefs, IBP, subjective norms, perceived behavioural control, relative advantages, compatibility and complexity as dependent and independent variables influence the dependent variable of new religion-compliant product adoption.

The aim and objectives of this research will be explored via three sets of research questions:

Q1: What are the most commonly used traits to describe personality in an Islamic consumer market? Accordingly, what is the most appropriate brand personality

measurement scale that can be used in such a market? To what extent are the dimensions of this brand personality measurement scale influenced by Islamic religious beliefs (IRB)?

Q2: What kind of direct and indirect (mediated) relationships exist between Islamic religious beliefs (IRB) and the intention to adopt new religion-compliant products?

Q3: Do age, gender and income moderate the relationships between Islamic religious beliefs (IRB) and the antecedents of the intention to adopt new religion-compliant products?

1.3. Significance of the Study

Low and Tan (1995) have emphasised that there is a great dissimilarity between Eastern and Western beliefs and cultural values. According to Balabanis et al. (2002), one of the most important cultural factors is human values. Certain aspects of culture, such as religion, are associated with distinctive values, including those related to lifestyle choices, brand selection behaviour and purchasing (Essoo and Dibb, 2004; Kotlor, 2000; Sood and Nasu, 1995). Recently, researchers such as Zakaria and Abdul-Talib (2010) have argued, for example, that in order for international firms that target Muslim markets to profit and fit in these markets, their marketing strategies have to take account of Islamic values, standards and guidelines, which have been neglected in previous marketing studies.

Zakaria and Abdul-Talib (2010: p.57) emphasise that “Islam offers specific guidelines and principles for consumption of goods and services. Muslims have a high demand for products that comply with the Islamic approach”. This suggests a likelihood that Islam and culture have effects on perceptions of brand personality, and, since Saudi Arabia is at the heart of the Arab world and the Islamic group of nations and is considered a religious country (Hofstede et al., 2010), a study in that context would assist in the possibility of employing the proposed brand personality scale in other countries with generally similar religious beliefs, such as Kuwait, Qatar, the United Arab Emirates (UAE), Bahrain, Jordan, Libya, Egypt and Yemen. The researcher is aware of the differences in Islamic religious beliefs among Muslim countries; for example, Saudi Arabia is considered to be a very

conservative Muslim country and Lebanon is more liberal (Hofstede et al., 2010). Nevertheless, it is believed to be useful to explore brand personality measurement from a religious perspective with specific reference to Saudi Arabia as an Islamic country. The developed Islamic brand personality is likely to present advantages even for other religious markets and not benefit the Islamic market alone.

According to Melewar and Smith (2003), firms need to be concerned when using gestures or colours in their marketing activities in different markets due to the strong possibility that they reflect different meanings around the globe. Scarborough (1998) states that values are mainly culturally influenced and, as a result, cultural values direct people's beliefs, manners and behaviours. From a cultural perspective, Saudi Arabia provides an interesting context for studying how Islamic religious beliefs impact on brand personality measurement, as Saudi Arabia is distinctive in terms of culture, values, race, language and religion (Al-Nahdi et al., 2009; Davis and Hayashi, 2007). In terms of Hofstede's (2010) cultural dimensions, Saudi Arabia is included in the group of Arab countries, and scores high (80) on the power distance index (PDI), 50.2 on the masculinity index (MAS), 68 on the uncertainty avoidance index (UAI), and 38 on the individualism index (IDV). The group of Arab countries scores highest in terms of the long-term orientation index (LTO). In the more recently developed indulgence versus restraint index (IVR), Hofstede (2010) determines that restraint stands for a society that suppresses people's pleasures or desires by means of strict social regulations, and this is a characteristic of East Asia and the Muslim world, which includes Saudi Arabia. The result for the IVR index supports the proposition that religious beliefs have clear influences on values, and the findings on the PDI, MAS, UAI, IDV and LTO indices identify the distinctiveness of Saudi Arabia. For this reason, it is of interest in this study to establish whether the influence of Islamic religious beliefs extends to brand personality in a context such as Saudi Arabia.

Hofstede's findings have received criticism in regard to the limitation of data collection to one company, the level of analysis, its assumption of culture homogeneity, and the dynamic nature of culture (McCoy, 2003; Mooij and Hofstede, 2010). Nevertheless, despite these criticisms of Hofstede's cultural model, Hofstede (2010) is referred to in this study for his wide employment in many previous studies and benefiting from reasonable worldwide cultures cover (Taylor, 2010). Hofstede's cultural model is, moreover, employed in this

thesis for the simplicity of its dimensions, which are straightforward for the benefit of researchers and practitioners, unlike similar models (Mooij and Hofstede, 2010). Other cultural models, such as Trompenaars' (1994) model and House et al.'s (2004) GLOBE (Global Leadership and Organisational Behaviour Effectiveness) model, have also received criticism in regard to the examined population being limited to fewer than three social classes. The GLOBE study was viewed as being limited in the countries and regions covered (Rarick and Nickerson, 2008; Shi and Wang, 2011).

1.4. Brand Personality: Current Understanding, Research Gap and Justification for this Study

The aim of this study is to fill the current gaps in the literature pertaining to Islamic brand management in relation to brand personality measurement, the degree of influence of Islamic religious beliefs on brand personality measurement, and the nature of the linkage between these two concepts. Brand personality has been viewed by marketers such as Plummer (2000) as the main concept in evaluating and understanding customers' selection of products. Brand personality offers guidelines in regard to designing marketing strategies, allows firms to distinguish their brands, and strengthens the emotional ties between the brand and existing and potential customers to maintain a high level of satisfaction and loyalty (Aaker, 1996; de Chernatony, 1998; Karande et al., 1997; Plummer, 1985; Siguaw et al., 1999; Wee, 2004). Anderson et al. (1994), Bagozzi and Yi (1990), Kotler and Keller (2005) and Lin (2010) have suggested that customers tend to purchase a brand that reflects a self-concept that matches their own self-concept or personality.

Brand personality is defined as "the set of human characteristics associated with a brand" (Aaker, 1997). Aaker's (1997) definition of brand personality satisfies the concern of this study, which views brand personality as an emotional element of branding. Aaker (1996) argues that brand personality is a vital strategic element of brand image that helps those who are marketing a brand to be aware of customers' perception and build a unique brand identity. Brand identity and image are defined thus: "Identity is the way a company aims to identify or position itself or its products. Image is the way the public actually perceives them" (Kotler and Keller, 2008: p.288). This definition of brand identity and brand image

can, however, be criticised as being organisation-centric and ignoring the part that customers control (Coleman, 2011).

A more visionary, emotional and customer-centric definition of brand image and identity is provided by Joachimsthaler and Aaker (2000), who assert that brand image is a visualisation of how a brand is perceived by its potential audience and brand identity is a visualisation of how a brand intended to be seen by its target audience. Kapferer (2004) illustrates that brand personality plays a vital role in shaping the desired brand identity and that brand personality reveals a brand's features and attitude to the customers in an emotional way. Brand image is strongly related to brand personality; consequently, the terms "brand image" and "brand personality" are sometimes used similarly by Hendon and Williams (1993a) and Smothers (1993). Hosany et al. (2006) state that both brand image and brand personality are very similar but brand image is broader and brand personality is more concerned with the affective variables of brand image. However, the present research considers only brand personality, since it is regarded as a key element in delivering the desired brand image and shaping the ideal brand identity, as concluded by Coleman (2011) and Hosany et al. (2006).

1.4.1. Branding and Religion

Religious beliefs were identified by Pargament (1986) as offering guidance to help people understand, expect and manage events and sustain self-esteem. Religious beliefs are viewed by Delener (1990) as an integrated system of beliefs and traditions associated with holy things. Previous researchers have argued that religious beliefs as a cultural element have a significant impact on customers' behaviour, purchasing decisions, attitudes and values, because they provide direction to be followed on a day-to-day basis (e.g. Essoo and Dipp, 2004; Fam et al., 2004; Kotlor, 2000; McDaniel and Burnett, 1990; Mokhlis, 2009; Shabbir, 2010; Sood, 1993; Sood and Nasu, 1995; Zaidman and Lowengart, 2001). Shabbir (2010) has examined the influence of religious beliefs on new product adoption in Pakistan, and found that Islam significantly influences Muslims' product selection and adoption of new brands. Essoo and Dipp (2009) have examined how the shopping behaviour of Muslims, Catholics and Hindus is impacted by their faiths, and religious influence was clearly determined to be strong. Muhamad et al. (2012) have pointed out the importance of

the role of Islamic teachings in Muslims' selections of financial services. Mokhlis (2009) has explored how the purchasing decisions of young Malaysians are affected by their religion, namely Islam, and the study concludes that religion has a significant impact on followers' purchasing decisions. (Further examples are reported in section 2.5.1 of this thesis.) A few studies have stated that religious belief has an influence on people's personalities and behaviour and that this impact is suggested to be positive (Cukur et al., 2004; Ellison et al., 1989; Kau, 2004; Hood Jr et al., 2009).

Nevertheless, in the case of the Muslim market, whose size and importance has already been stated, little is known as yet about the Islamic branding field. If, as has been suggested, relevant markets are influenced by religious values as an important aspect of culture (Alserhan, 2010b), there is a need to remedy this deficiency.

Alserhan has provided the first step in understanding branding-Islamisation and how it is practised. For Muslims, as for Hindus, Jews and adherents of other religions, branding cannot be divided from faith (Alserhan, 2010b). Alserhan (2010b) conceptualised the term "Islamic branding" (IB) and explained how non-Muslims have failed to understand IB or its true sources in any depth. He also provides a definition of IB that has been used in a number of Islamic marketing studies, such as those by Alam et al. (2011) and Shachar et al. (2011). Although these studies were related to IB, they all called for research in IB in order to build a satisfactory body of literature that could help in understanding Islamic markets, both academically and practically. Plummer (1985) emphasises that human personality traits are gained from individuals' behaviour, attitudes and beliefs. Since beliefs influence personality traits, they are also expected to influence brand personality measurement, since this was developed based on human personality traits, and hence to influence religious consumers' behaviour.

1.4.2. Gaps in our Understanding

Although the above-mentioned studies commented on the impact of religious beliefs on customers' behaviour, attitudes, purchasing decisions and personality, they did not investigate the specific influence of Islamic religious beliefs on brand personality and its measurement. While religious beliefs are viewed as a key concept in the lives of many

people, the influence they have on consumer behaviour remains unclear (Arham, 2010; Delener, 1990; Essoo, 2004; Kahle, 2005). In relation to the context of this study, Sandikci (2011b: p.247) states that “in the consumer behaviour and marketing literatures, religion in general is an understudied area. Within this general scarcity, attention on Islam, consumption and the marketing relationship is even scarcer”. The dearth of material in regard to Islamic branding has similarly been stated by Alserhan (2010), who concludes that there is a vital need for future studies to be conducted that are relevant to Islamic branding in order to understand such a market and the role of religious beliefs in the branding process.

Several studies have been conducted by academics in relation to the influence of religious beliefs on customers’ behaviour, Islamic marketing and Islamic branding (e.g. Alserhan, 2010a and b; Arham, 2010; Delener, 1990; Koku, 2011; Muhamad, 2010; Peterson and Roy, 1985; Sandikci, 2011; Shabbir, 2010; Sood, 1995). The influence of Islamic religious beliefs on brand management concepts such as brand personality measurement has been suggested as a research topic related to the area of brand and brand preference by many academics (e.g. Alserhan, 2010; Essoo, 2004; Mittelstaedt, 2002; Muhamad, 2010; Ng and Houston, 2006; Wilson, 2011). Shachar (2011: p.15) supports the aim of this research by stating that

for future research, we reemphasize here that “brands” and “religion” are very broad concepts, and we have thus focused on specific aspects of each “brand” and “religion”. Examining other specific aspects of these concepts and tracing the web of the relationship between the two seems promising in the light of our results.

Nonetheless, none of the published research, to the best of the author’s understanding of this field, has investigated the degree to which Islamic religious beliefs influence brand personality measurement.

In addition, no prior study, to the best of the author’s knowledge, has proposed a brand personality measurement scale for an Islamic context such as Saudi Arabia, as identified in Table 1.1, to fill this gap in the literature. Most previous studies related to brand personality measurement have examined the generalisability of Aaker’s (1997) measure in different contexts such as d’Astous and Lévesque’s (2003) examination of the personality of stores in France, Smith et al.’s (2006) consideration of sports membership personality in Australia,

and Mendez et al.'s (2004) measurement of the personality of Ford in Chile. A few researchers have developed new measurements that are suited to their selected contexts. For example, Ekinici and Hosany (2006) developed a brand personality measurement to measure tourism destinations in the USA, and Ferrandi et al. (2002) developed a scale to measure store personality in France.

A few other prior studies have focused on employing methods and methodology that are different from those of Aaker (1997). For example, Arora and Stoner (2009) used a qualitative methodology to develop a brand personality measurement for megastores in the USA, and Geuens et al. (2009) published a brand personality measurement based on the rating of personality traits by a very large sample of approximately 12,700 Belgian respondents. Robie (2005) recommended future studies such as this one to assess brand personality measurement in new and different contexts. Malär (2011) states that there is a strong need for more detailed processed measurements.

Based on the previous studies related to brand personality measurement reported below in Table 1.1, no study has been conducted to explore the relationship between Islamic religious beliefs and a brand personality scale that could provide theoretical understanding of such a relationship and provide advantages for firms in competing across religious markets such as Saudi Arabia. By filling this gap, concepts of branding such as brand personality, brand image and brand identity may be better understood and brand personality measurement could be used more effectively in religious contexts such as Saudi Arabia. This thesis will be one of the early studies to address these issues and so fill the gap in the literature.

Table 1.1: Prior Studies Related to Brand Personality Measurement (BP).

Authors	Scale Used	Number of dimensions found	Context	Purpose of study
Aaker (1997)	Own	5	U.S.A	BPM
Aaker (2000)	Aaker (1997)	1	Japan	TVG of Aaker (1997)
Aaker et al. (2001)	Aaker (1997)	1	Japan/ Spain	TVG of Aaker (1997)
Arora and Stoner (2009)	Aaker (1997)	5	U.S.A	TVG of Aaker/ using mixed methodology (1997)
Birdwell (1968)	Own	1	U.S.A	BPM
Bosnjack et al. (2007)	Aaker (1997)	4	Germany	TVG of Aaker (1997)

Siguaw et al. (1999)	Aaker (1997)	5	U.S.A	TVG of Aaker (1997)
Caprara et al. (2001)	Goldberg (1990)	2	Italy	BPM
Davies et al. (2001)	Aaker (1997)	5	U.S.A	TVG of Aaker (1997)
Ekinci and Hosany (2006)	Own	1	U.S.A	BPM
Ferrandi et al (2000)	Aaker (1997)	5	France	TVG of Aaker (1997)
Karande et al. (1997)	Malhotra (1981)	1	U.S.A	BPM
Geuens et al. (2009)	Own	5	Belgium	Covering a larger sample/ filtering items differently than Aaker (1997)
Milas and Mlacic (2007)	Aaker (1997)	5	Croatia	TVG of Aaker (1997)
Supphellen and Grønhaug (2003)	Aaker (1997)	5	UK	TVG of Aaker (1997)
Müller and Chandon (2003)	Ferrandi et al. (2002)	2	France	Testing Ferrandi et al. (2002)
Rojas-Méndez et al. (2004)	Aaker (1997)	4	Chile	TVG of Aaker (1997)
Okazaki (2004)	Aaker (1997)	5	U.S.A, UK, France, Germany and Spain	TVG of Aaker (1997)
Venable et al. (2005)	Aaker (1997)	2	Russia	TVG of Aaker (1997)
Sung and Tinkham (2005)	Aaker (1997)	6	U.S.A and Korea	TVG of Aaker (1997)
Smith et al. (2006)	Aaker (1997)	5	Australia	TVG of Aaker (1997)
Fennis, et al. (2007)	Aaker (1997)	5	Netherlands	TVG of Aaker (1997)

Note: that TVG= testing validity and generalisability. Brand personality measurement (BPM)

Source: Ranjbar (2010) and Geuens et al. (2009).

An additional gap in the knowledge that this study aims to fill is related to the impact of Islamic religious beliefs on new product adoption. According to Shabbir (2010), religions have an influential role in relation to religious consumers' adoption of new products, and such an influence has been observed in relation to shopping behaviour and the favouring or disfavouring behaviour of consumers towards existing products or related marketing activities such as advertising (e.g. Alserhan, 2010b; Delener, 1990; Essoo and Dibb, 2004; Goff and Trawick, 2008; Lada et al., 2009; Sood and Nasu, 1995). Therefore, this study explores the possible influence of Islamic religious beliefs on new product adoption, referred to as new religion-compliant product adoption, since all products must be compliant with Islamic teachings in order for Muslims to adopt them. The exploration of such an influential relationship is supported by the recommendation of previous studies related to religious values and their influence on consumers' behaviour. Melewar and Smith

(2003: p.4) state that “Marketers still have to remain alert to the attitudes, norms, customs and values of the inhabitants of different countries when formulating their online global marketing strategies”. This statement clearly outlines the important and critical issues that are likely to face multinational corporations when entering new markets with different cultures and values, which further supports the claim of this research regarding the need for an Islamic brand personality for the Islamic market that matches the Islamic market’s values and consequently to better understand Muslims’ consumption and new product adoption behaviours.

A further gap in the knowledge that this study aims to satisfy is related to two widely-recognised consumer behaviour theories: the theory of planned behaviour (TPB) (Ajzen and Fishbein, 1980) and the diffusion of innovations theory (DIT). These two well-known theories have not been employed previously in relation to consumers’ behaviour in an Arab Islamic context such as Saudi Arabia to the best knowledge of the researcher. Thus, TPB and DIT will be integrated to fill this gap. These two theories have been used before in other contexts in a large number of studies (e.g. Cheng et al., 2004; Chou et al., 2012; Lim, 2009; Mazlan, 2005; Moore and Benbasat, 1996). Here, however, they are employed to help in understanding comprehensively the relationship and influences of religion on brand personality and new religion-compliant product adoption, and the relationship and influence of Islamic brand personality, subjective norms, perceived behavioural control, related advantage, compatibility and complexity on new religion-compliant product adoption as additional variables, as illustrated in the conceptual model in Figure 3.1 in Chapter Three. Finally, a table that presents key definitions of the study believed to be important to be included in this chapter as illustrated in Table 1.2.

Table 1.2: Key definitions of this Research.

Constructs	Definitions
<i>Islamic Brand Personality (IBP)</i>	the set of Islamic compliant human characteristics associated with a brand
<i>Islamic Religious Beliefs (IRB)</i>	Lifestyle guides and teachings given by Allah (God) directly in the Quran or indirectly through Allah’s last prophet Mohammed (PBUH).
<i>Theory of Planned Behaviour (TPB)</i>	Ajzen(1991) extended version of the theory of reasoned action TRA (Fishbein and Ajzen, 1975) with the new construct of perceived behavioural control to explain consumers’ intended behaviour.

<i>Diffusion of Innovation Theory (DIT)</i>	A widely used models to understand innovation adoption that developed by Rogers (Rogers, 1995).
<i>New Religious Compliant Product Adoption (NRCPA)</i>	The behaviour through which individual adopters pass from awareness to full acceptance of a new religious compliant product.

1.5. Context of the Study

From an economic perspective, Saudi Arabia is an influential country in the world's Islamic group of nations. The Saudi Arabian market has drawn more attention from international corporations in recent decades due to its developing economic importance and because it provides both local and international investors with a wide range of opportunities in different business sectors (Ali, 2005). The World Bank (2009) has stated that Saudi Arabia is the top oil producer in the world, holding 25% of the world's proven oil; it produces an aggregate gross domestic product (GDP) of USD 373 billion and 25% of the Arab world's GDP. Moreover, the economy of Saudi Arabia was rated by the Global Competitiveness Report (2009) as the 14th largest in the world and the highest in the Middle East and North Africa in receiving foreign direct investment (FDI) with a total of USD 38.2 billion. The same report views the Saudi Arabian economy as one of the fastest growing and the largest free economy in the Middle East and North Africa (World.Bank, 2009). Given the growing interest in the Saudi market, both international and local firms would benefit from a framework that could assist their brand personality in such a context in relation to brand image, brand association, brand differentiation and brand personality monitoring to gain more competitive advantages.

Finally, an additional motivation for utilising Saudi Arabia as the context of this research was the ease of access to the required data for this thesis. In particular, the experience and familiarity of the author as a practitioner in marketing in the examined context assisted in the implementation of the study data collection strategy, achieving its objectives and collecting and translating the traits that were to be assessed to develop the appropriate brand personality scale for such a culture. The author's understanding of the role of Islam within customers' daily lives in relation to customer behaviour and the purchasing process

helped in reducing difficulties that might otherwise have occurred during the implementation of this study in regard to Islamic values, norms, meanings and the causes of actions.

1.6. Contributions to Knowledge

The contributions of this thesis, based on what has been discussed above, are considered to offer incremental originality because they are partly developed based on existing theories but from an original perspective. They should fall into box number 2 of Corley and Gioia's (2011) model of current dimensions for theoretical contribution, since they provide theoretical directions to related studies that could be conducted in the future in similar Islamic contexts. The contributions should also fall into box number 3 because the findings of this research could help marketing managers to better understand how to brand and associate their brands' personalities in a context such as Saudi Arabia, as shown in Figure 1.1 (Corley and Gioia, 2011).

Anticipated Contributions of Knowledge to Fill the Identified Gaps in the Literature:

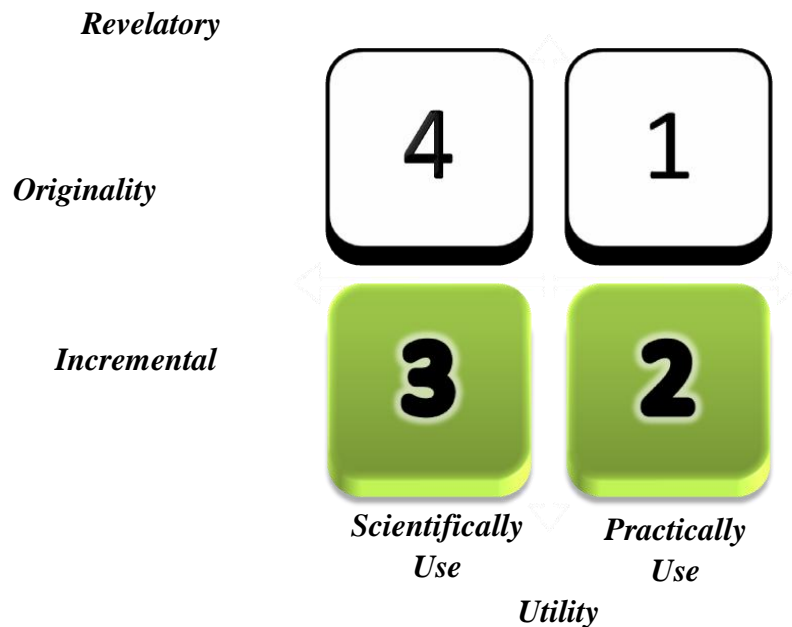
This study proposes an appropriate Islamic brand personality measurement for the Islamic context that could be employed in developing an ideal and desired brand personality, delivering the desired brand image, and accurately shaping the targeted brand identity of firms operating in such a context.

The study proposes an early religious belief-appropriate brand personality measurement, specifically an Islamic brand personality measurement, that could be used in other similar contexts or be the basis for developing similar measurements.

It will extend the knowledge in the literature in regard to a better understanding of the impact of Islamic religious beliefs on brand personality measurement, which would probably have an impact on the procedure of developing a brand personality.

It will also facilitate better understanding of the relationship between Islamic religious beliefs and brand personality measurement.

Figure 1.1: Current Dimensions for Theoretical Contribution.



Note: the coloured boxes with bold numbers (2 and 3) indicate the areas within which the implications of this study are expected to fall.

Source: Adapted from Corley and Gioia (2011).

Anticipated Contributions to the Managerial Context to be made Filling the Gaps in the Literature:

The dimensions of the proposed Islamic brand personality measurement should help international and local firms operating in an Islamic context to monitor their brand personality performance and respond to any issues that face their brand, design more accurate branding strategies in line with contextual cultural values and religious boundaries, and increase customers' emotional linkage with a brand so that organisations can benefit from such a context.

1.7. Thesis Structure

This chapter has stated the research aim, objectives, questions and importance. It has identified the gaps in the literature to be filled by the study and its anticipated contributions. The remainder of the thesis consists of seven chapters. Chapter Two is a review of the literature related to brand and the definitions of and linkage between brand personality, brand identity and brand image. It explores the concept of brand personality, its importance, brand personality sources, brand personality development and its measurement. Theories related to the relationship between human personality and brand personality will be considered. Literature related to the impact of Islamic religious beliefs on human personality and behaviour, Islamic marketing, TPB, DIT and moderators will be reviewed. Chapter Three addresses the creation of the theoretical framework for this research and related hypotheses. Chapter Four outlines and justifies the chosen philosophy, research design and methodology. This began with focus groups in the first stage of the study as a vital strategy recommended by Churchill (1979) and continued with a quantitative approach for all the following stages in line with the positivist philosophy underpinning the research. Chapter Five provides a description of the analysis and findings. Next, Chapter Six provides a description of the testing and findings of the developed hypotheses, mediation and moderation effects. Chapter Seven contains a discussion of the findings and the establishment of the best suggested brand personality measurement scale for the Saudi-Islamic context, the dimensions of the measurement, and its relationship to the context and an explanation of the relationship between Islamic religious beliefs and brand personality measurement. The final chapter of this thesis, Chapter Eight, summarises the study and its findings, presents the contributions and limitations of the study and offers suggestions for future research.

Chapter Two: Literature Review

2. Introduction

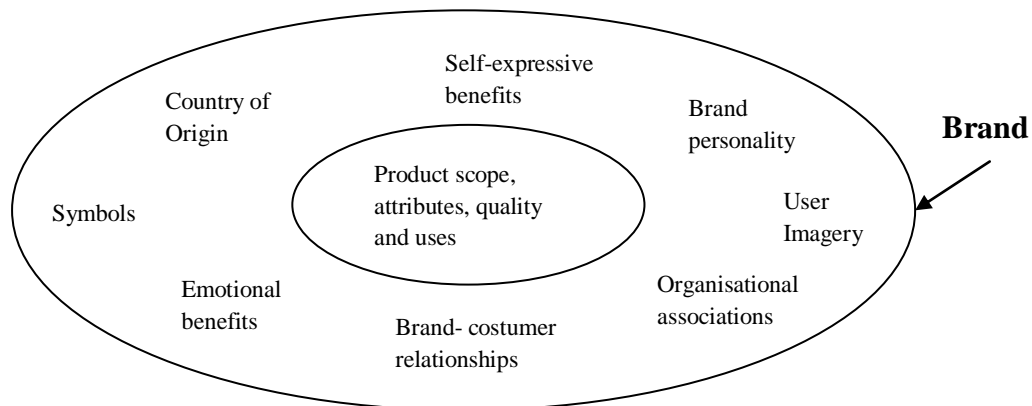
The aim of this chapter is to clarify background perspective and significance of the literature related to the impact of brand personality and distinguishes it from other related concepts such as brand, brand image and brand identity. Next the theories from which that brand personality has been gained are reviewed and discussed. It includes the importance of brand personality, the development of brand personality and finishes with brand personality measurement scales, Islamic religious beliefs influence, branding in Islam because it is related to the context of this study and the theoretical framework. Also in this chapter, the two well known theories that will be employed in this research which are the Theory of Planned Behaviour (TPB) and Diffusion Innovation Theory (DIT), will be introduced literature related to moderator and mediator effects is also discussed in this chapter. This chapter is a vital part of the study to clarify its goal, which is developing a suitable Islamic brand personality scale, examining the Islamic religious beliefs' influence on brand personality and its measurement and new religious compliant product adoption. Therefore, this chapter contributes to knowledge by exploring the links between religion, brand personality and its measurement and consumers' adoption of new religious compliant brands/products theoretically.

2.1. Understanding of Branding

In recent decades, consumers are more likely to prefer purchasing products (goods or services) that are branded because they have meanings and reflect attitudes (Biel, 1993). In order to understand brand personality, it is first necessary to define 'brand'. A brand is identified as "a name, term design, symbol or any other feature that identifies one seller's goods or services as distinct from those of other sellers" (American Marketing Association, 2007; Dibb et al., 2006: 316 and Kotler and Keller, 2006: 274). This definition shows that the brand is the face of company which the public perceive; it reveals its characteristics and differentiates it from competitors. Even though this definition is recognized by a number of academics (e.g. Aaker, 1997; Coleman, 2011; Hosnay et al., 2006; Kapferer, 2004; Kotler and Armstrong, 1999), it has been criticized for its mechanical nature and concentration on the company's input activity only (de Chernatony and Dall'Olmo, 1998) and its disregard of the important part that emotions have in brand creation (Keller, 2008).

Another perspective of what is a brand, is the view that considers the psychological dimension of a brand such as a logo, name, status and other external symbols (Aaker and Joachimsthaler, 2000; de Chernatony, 2006; Keller et al., 2008 and Kotler, 1991). Aaker (1996a) provided an idea of how a brand differs from a product, as shown in Figure 2.1. In the model below Aaker (1996a) argued that products have scope, attributes, quality and uses, whereas a brand contains these features plus brand users, symbols, brand-customer relationship, emotional benefits, self-expressive benefits, country of origin, brand personality and organisational associations.

Figure 2.1: A Brand is more than a Product



Source: Aaker (1996a: 74).

Kotler et al. (1999) stated that a brand is able to transfer four types of meaning, which are personality, values, attributes and benefits. According to Wood (2000) in firms the definition of brand differs based on their competitive advantages, which could be in terms of market share, profit and added value. Ranjbar (2010) stated that based on Wood's (2008) research findings, "benefits the consumer purchases may be real or illusory, rational or emotional, tangible or intangible." De Chernatony (1998) reduced the overlap in brand definition and overcame the lack of a completely satisfactory definition of brand by categorising the literature on brand definition into 12 themes of brand meaning as presented in Table 2.1. De Chernatony (1998) conducted a detailed literature review based on the views of a large number of academics and marketing experts.

Table 2.1: Themes of Brand Definitions and Their Antecedents and Consequences

Brand definition	Antecedents	Consequences
Legal Instrument	Mark of ownership, name, logo, design and trademark.	Prosecute infringers
Logo	Name, term, sign, symbol, design and product characteristics.	Identity, differentiate through visual identity and name. Quality assurance.
Company	Recognisable corporate name and image. Culture, people, programs of organisation define, corporate personality. CEO is brand manager.	Evaluate over long time horizon. Product lines benefit from corporate personality. Convey consistent message to stakeholders. Differentiation: proposition, relationship.
Shorthand	Firm stresses quality not quantity of information.	Rapidly recognise brand association. Facilitate information processing speed decisions.
Risk Reducer	Confidence that expectations being fulfilled.	Brand as a contract.
Identity System	More than Just a name. Holistic, structured with six integrated facets, including brand's personality.	Clarify direction, meaning, and strategic positioning. Protective barrier. Communicate essence to stakeholders.
Image	Consumer centred. Image in consumers' mind is brand (reality).	Firm's input activities managed using feedback of image to change identity. Market research important. Manage brand concept over time.
Value system	Consumer relevant values imbue the brand	Brand values match relevant consumer values.
Personality	Psychological values communicated through advertising and packaging defines brand's personality.	Differentiation from symbolism: human values projected. Stress added values beyond functional.
Relationship	Brand as person has attitude to consumer	Recognition and respect for personality. Develop relationship.
Adding value	Non-functional extras. Value satisfier. Consumers imbue brand with subjective meaning they value enough to buy. Aesthetics. Enhanced through design, manufacturing, distribution.	Differentiate through layers of meaning. Charge price premium. Consumer experiences. Perception of users. Belief in performance.
Evolving entity	Change by stage of development.	

Sources: Adapted from Yoon (2004) and de Chernatony and Riley (1998).

De Chernatony and Riley (1998) proposed the 12 themes of brand definitions as shown in Table 2.1 as follows: Legal instrument, i.e. legal rights of title and protect the brand from being copied; Logo i.e. knowing a brand as a symbol, sign and design or a mix of them to be differentiated; Company, i.e. using the corporate name as a brand name; Shorthand such as consumers using brand to spot specific desired functional and emotional characteristics, Risk reducer; i.e. a brand is a promise of receiving a certain level of quality; Identity

system, i.e. consumers use a brand to represent an integrated image, Image; i.e. how consumers see a brand; Value system, i.e. buyers get value from a brand through their consumption of it; Personality, such as how consumers see a brand psychologically as human; Relationship, i.e. consumers have a linkage or relationship with a brand through their previous experience with it; Adding value, i.e. a brand offers intangible benefits as well as tangible value; finally, evolving entity, i.e. brands evolve in levels starting with unbranded commodities and finishing with brand as policy (Yoon, 2004).

De Chernatony and Riley (1998) analysed the definitions of brand to identify similarities and dissimilarities in order to outline the construct of a brand. However, they concluded that the 12 themes of brand meanings do not totally differ from each other and they extend to cover other definitions. They also stated that a brand is a function of a number of stages such as value system, image, logo and personality (Yoon, 2004). In addition to these stages, de Chernatony and Riley (1998: 437) proposed “the opportunities for branding to be found in developing consumer-relevant values, and then in the use of symbols and designs to communicate them.”, and they add that if consumer-relevant values and symbols and designs are communicated successfully, these values can transfer into perceptions in the customer’s mind and with the repeated consumption of a brand these values become valued (de Chernatony and Riley, 1998). According to Yoon (2004: 18) “This view of understanding a brand is in accordance with most modern brand management academics.”

2.1.1. Purposes of a Brand

Keller (1998) proposed a typology of brand purposes, which helps in understanding the vital role that a brand plays in marketing management, as presented in Table 2.2. Purchasers can easily recognise the manufacturer or producer of certain goods or services, which supports customer decisions on whether to purchase or not. Purchasers can hold producers accountable for their products. Customers can lower product-seeking costs and time, easily distinguish certain products and be assured of what level of quality to expect. Whatever the brand promised to provide is most likely to be delivered and guaranteed to be gained by customers. A brand creates a recognisable symbol that supports development a relationship between a brand and its customers, like the relationship among people. This

relationship should increase customers' trust and loyalty towards a brand (e.g. Aaker, 1997; Fournier, 1998 and Keller, 1998).

Table 2.2: Functions that Brands Play

Manufacturers:

Means of identification to simplify handling or tracing

Means of legally protecting unique features

Signal of quality level to satisfied customers

Means of endowing products with unique associations

Source of competitive advantage

Source of financial returns

Consumers:

Identification of source of product

Assignment of responsibility to product maker

Risk reducer

Promise, bond, or pact with maker of product

Symbolic device

Signal of quality

Source: Keller (1998: 7)

Not only customers, but also firms derive benefits from branding. Differentiation of firms' products becomes much easier. Firms are enabled more easily to monitor products. Satisfied customers will give their trust and loyalty to firms by continually purchasing, which allow firms to predict their future performance and create a good market share without reducing product prices (Keller, 1998). Firms have rights to hold the benefits and exercise legal control of their trademark and brand name. A brand gives protection to products by distinguishing their intangible features. According to Aaker (1997) sales should be increased when the favourability and likability of a brand are increased. The immutability of a brand can be reduced through employing brand personality and other related branding concepts, namely, brand identity and brand image, in whose development brand personality plays a vital role.

2.2. Brand Personality Roots, Present and Related Branding Concepts

A considerable amount of attention in previous studies has provided evidence that customers perceive dissimilarity in regard to personalities of brands (e.g. Aaker, 1996; Aaker, 1997; Arora and Stoner, 2009; Guese and Haelg, 2009 and Karande et al, 1997). This supports the early statement of Ogilvy (1983) that goods have personalities, just as people do. The concept of human personality and its application to brands is discussed further in 2.5.3).

Aaker (1996a) views brand personality as a strategic method and image that can support brand tactics to be aware of consumers' perceptions of the brand and create a distinguished brand identity and build brand equity. Brand personality is defined by Dibb et al. (2005: 320) as "the psychological cues and less tangible desirable facets of a well-presented brand". Batra et al. (1993) stated that brand personality is the kind of human attribute which the brand reflects. Goodyear (1993: 23) defined brand personality as "the way in which a consumer perceives the brand on dimensions that typically capture a person's personality". Aaker (1997: 347) defined brand personality as "the set of human characteristics associated with a brand". This definition of brand personality is a widely accepted definition (Yoon, 2004), and therefore it is adopted as the definition for this research.

2.2.1. Human Personality and Brand Personality

A limited number of researches have included the theoretical background that explains how and where the concept of brand personality developed from, as stated by Aaker (1996a) and Aaker and Fournier (1995). Yoon (2004: 60) suggested that in order to provide such a theoretical background of brand personality, the simple question of "how an inanimate brand can have human personality characteristics" needs to be answered. Therefore the answer to this question will be explored in relation to related theories of human psychology.

2.2.1.1. Theory of Anthropomorphism

The etymology of Anthropomorphism can be broken down into two parts according to ancient Greek meanings and they are *anthropos* (human) and *morphe* (shape). Anthropomorphism is defined in the Oxford Dictionary as "the attribution of human

characteristics, or human behaviour to nonhuman things (e.g. god, object, or animal)” (Soanes and Stevenson, 2005: 66). It is claimed by a number of human personality psychology scholars (e.g. Epley, 2007; Boyer, 1996 and Guthrie, 1997) that anthropomorphism is involved in Islamic religious beliefs, culture and day-to-day life, and it can be seen or illustrated commonly in the way people treat their car or pets (Yoon, 2004).

Guthrie (1997) explained the nature of anthropomorphism through two perspectives. The first is the familiarity proposition. Based on this explanation, humans tend to employ their characteristics as symbols of the surrounding environment because they are well aware of these characteristics’ meanings. The second is the comfort proposition. Yoon (2004: 62) explained that this proposition “refers not to cognitive but to emotional motives”. In other words, this theory proposes that people prefer to attach human features to non-human things in order to make them recognisable and be comfortable with them.

On the other hand, Boyer (1996) views anthropomorphism differently from Guthrie’s (1997) ontological view. Boyer (1996) believed that anthropomorphism is counter-intuitive, and argued that it is generally involved in the culture of humanity because it demonstrates an appropriate counter-intuitive supposition through better recognition. According to Yoon (2004: 62) “Although the notion of anthropomorphism has been invasive in human culture throughout human history, undoubtedly there is a lack of parallelism in applying anthropomorphism to an inanimate object”, and he illustrated this by the case of someone actually believing that his laptop or car is able to feel loved when cleaned. It is suggested that the attribution of human characteristics to non-human entities is mainly to describe and provide knowledge about them in an easier and clearer way, as stated by Gallup Jr et al. (1997). For example, brands are not important entities because they do not exist functionally but their existence is established based on perceptions developed in customers’ mentality (Yoon, 2004).

2.2.1.2. Self-concept Theory

Self is a vital segregating dimension to differentiate people from others and it reflects its holder is behaviour as argued by (Ranjbar, 2010). According to Malär et al. (Malär et al.,

2011: p.42) the self-concept is defined as “the cognitive and affective understanding of who and what we are and can take two forms: the ‘actual self’ and the ‘ideal self’.” The actual self is developed from the reality (i.e. who I am and where I am now), and the ideal self is based on the desired or wished for personality that an individual aspires to or would like to become (Malär et al., 2011). Aaker (1999) concluded that the actual-self congruence represents the individual’s perception of how the brand’s personality matches his/her real self, and the ideal self-congruence represents the individual’s perception of how the brand’s personality matches the desired or imagined self.

In relation to the brand personality concept, it was concluded by Sirgy (1982) that people preferred brands that are congruent with another the actual self-schema or the ideal self-schema. It was suggested by Phau and Lau (2000) that customers are more likely to experience a familiarity and comfort and form a preference for brands whose personality is congruent with their self-schemas. For example, people who aspire to luxury would be interested in purchasing Rolex or LV brands. It has been concluded that higher self-congruence would improve customers’ affective, behavioural and attitudinal customer reaction to a brand (Grohmann, 2009). According to Park et al. (2010) self-schema are very effective elements in developing emotional ties between the brand and its customers.

Aaker (1999) determined that a self is malleable; it is basically a multidimensional construct that consists of different types of concept such as good self, bad self, ideal self, not me self, possible self, feared self, ought self and hoped-for self. Aaker (1999) suggested that self-schema develop mainly from two influences: personality and situation. Aaker stated that personality traits or a certain self concept may be influenced by situational factors. Therefore, the preference for a brand based on personality dimensions and association is likely to vary from one consumption situation to another.

This proposition has attracted some criticism. Yoon (2004) criticised the self-concept theory by stating that this intuitive proposition has met with limited support from experimental observations. An early explanation of this limited empirical achievement was provided by Sirgy (1982), who suggested that this problem is caused by theoretically examining a self as a collected assemblage. Self-concept was criticised for having a low linkage with human personality and brand image and there is no clear support for

employing it on customers' personality as a branding strategy (Yoon, 2004; Shank and Langmeyer, 1993). Finally, Ekinici and Riley (2002) argued that the majority of academics who studied the subject of self-concept mostly depended on measurement frameworks that are adopted from the field of personality psychology, without evaluating them in a marketing context.

2.2.1.3. Big Five Theory

According to Caparara et al. (2001) the Big Five theory developed in research that evaluated the language of personality through the framework of a psycholexical approach (descriptive adjectives used in day to day language). The psycholexical approach was generated by Gordon Allport in the late 1930s and was shaped by Raymond Cattell in the mid- 1940s as 'linguistic sedimentation or lexical hypothesis' (Caparara et al., 2001: p.381). This proposition simply suggests that the vocabulary of language is the main provider of nouns and adjectives to describe the characteristics of a personality. Researchers gathered thousands of mostly suitable, descriptive, frequently used and meaningful nouns and adjectives used to describe a characteristic across different languages. Factor analysis of their collected traits revealed five dimensions of personality; thus, this has been called the 'Big Five Model' (Geuens et al., 2009). The five dimensions are: first, **Extroversion**, which reflects a personality that desires social involvement and activity; second, **Agreeableness**, a personality that is described as compassionate and caring toward others; third, **Conscientiousness**, a personality that tends to be aim-oriented; fourth, **Emotional Stability**, representing the ability of a personality to withstand the shock of negative emotions and fifth, **Openness to Experience**, a personality that prefers trying new things and likes to experience new ideas (Geuens et al., 2009).

In an examination of these five dimensions, Digman (1997) determined that second-order dimensions are responsible for correlations among the five dimensions, and concluded that there are two higher level dimensions. In other words, the five dimensions are divided into two main factors; the first factor contains the dimensions of Agreeableness, Conscientiousness and Emotional Stability, and the second factor consists the Extroversion and Openness dimensions. Caparara et al. (2001) stated that the statement of Digman (1997) regarding the two higher order factors of personality dimensions does not invalidate

the proposition of the Big Five model because it can be founded in an earlier stage of factor analysis if employed on Big Five traits as the analysis process continues.

It has been stated by Ouwersloot and Tudorica (2001) that the outer look, attitude, beliefs and behaviour are presented in the literature of knowledge related to the Big Five personality model. This statement supports one objective of this research, which is to identify the influence of Islamic religious beliefs on brand personality measurement, since religion impacts human personality measurement, which is the theoretical ground for the development of brand personality measurement, as will be explored later.

The Big Five model faced criticism from Block (2001) for being limited as an explanatory and predictive theory; it was argued that the Big Five model, unlike its name, is unable to describe all human personality characteristics. Finally, the Big Five theory has been criticised as a data-oriented explanation, based on items that happened to cluster with each other based on factor analysis and it is not theory-oriented (Block, 2001). According to Block (2000) there is larger culture variability than cultural characterisation based on the sample locations of the Big Five theory, which views personality traits through a very simplified vision. It has been stated that personality items do not describe personality in an individualist context similarly to personality in a collectivist context (Church and Katigbak, 2000). Finally the sample frame of the Big Five theory was criticised for failing to include the view of how non-educated individuals would describe a personality, as the sample of the Big Five was drawn from university level students (Draguns et al., 2000)

Nevertheless, the capability of applying the Big Five theory to inanimate brands has been widely accepted by academics such as Aaker (1996a), Aaker (1997), Arora and Stoner (2009), Bouhlel et al. (2011), Caparara et al. (2001), Geuens et al. (2009) and Malär et al. (2011). Therefore, great attention has been paid recently, theoretically and empirically to examining this proposition as a strategic branding tool to increase the attachment and awareness of a brand. Although a number of studies have been conducted in relation to measuring the personality of a brand similarly to the way a human personality is measured, almost no research has been conducted to investigate the impact of Islamic religious beliefs on the measurement of brand personality (Zakaria and Abdul-Talib, 2010).

2.2.2. Brand Image as Related Concept to Brand Personality

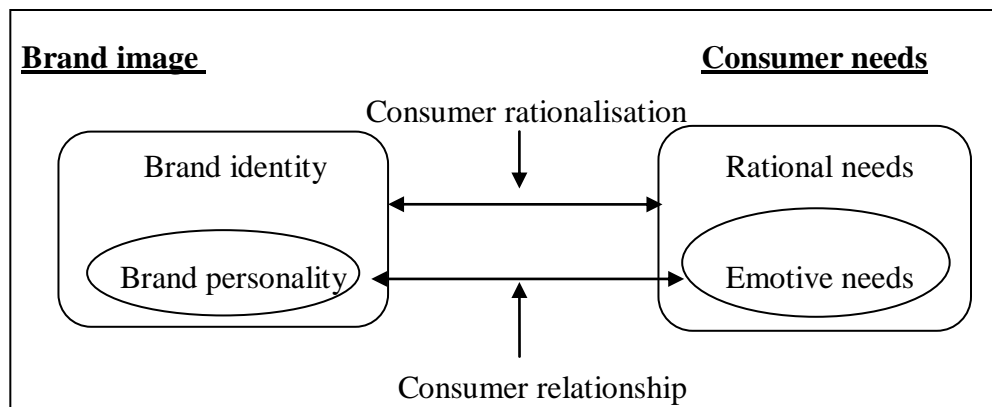
Brand image is discussed in this section in relation to brand personality since it is widely regarded as a very important and strongly linked element to brand personality. Aaker (1996) and Kapferer (1997) believed that brand image is an important aspect of a successful brand. Brand image reflects high quality in customers' perception (Erdem and Swait, 1998). Brand image is identified as a picture of brand which is shaped by the brand's associations within customers' minds (Keller, 1993). According to Kotler (1988: 197) brand image is "the set of beliefs held about a particular brand". Brand image is "the way the public actually perceives the brand" (de Chernatony, 2006; Kapferer, 2004 and Keller, 2003). Coleman (2011) however criticised this definition for being in favour of firms and neglecting the role that customers play in this relationship with a brand or firm.

According to Yoon (2004) brand image as a concept of branding has been viewed from two viewpoints which are, first, to view brand image holistically, based on Gestalt psychology literature: "Human psychological response is based less on specific facts than on total impression and defined image" (Yoon, 2004: p.70). In other words, the human mind pays more attention to the bigger picture of things than details of things. The second approach is to view brand image as a mix of functional and symbolic dimensions. Functional requirements are defined as "those that motivate the search for products that solve consumption-related problems.. a brand with a functional concept is defined as one designed to solve eternally generated consumption needs" and symbolic requirements are defined as "desires for products that fulfil internally generated needs for self-enhancement, role position, group membership or ego identification" (Ghodeswar, 2008: p.64). This view is based on the motivation theory which proposes that consumers tend to select brands relative to functional needs or symbolic needs; therefore consumption of a brand should satisfy one of these needs (Schiffman and Kanuk, 2000). Thus, functionally brand image-related products are demanded by customers with functional requirements and symbolically brand image-linked products are used by customers with emotional needs (Yoon, 2004). These two dimensions of the second perspective on brand image (functional and symbolic attributes) are seen as a whole to develop the first perspective, which is a holistic image of a brand (Schiffman and Kanuk, 2000).

2.2.2.1. Relationship between Brand Image & Brand Personality

It is important to provide a view of the linkage between brand image and brand personality, since brand personality is evidently regarded as a key dimension of brand image development (Aaker, 1996a; de Chernatony, 2006; Geuens et al., 2009; Hosany et al., 2009; Kapferer, 1997 and Yoon, 2004). Theoretically, brand image is frequently defined in terms of brand personality and sometimes the expressions brand personality and brand image are used similarly to refer to perception of brands (e.g., Graeff, 1997; Hendon and Williams, 1993; Patterson, 1999; Smothers, 1993; Upshaw, 1995 and Yoon, 2004). According to Schiffman and Kanuk (2000) a brand personality helps in delivering a brand image to customers' minds through characteristics of human personality. Customers tend to select brands that can reflect the type of personality they have or like. Thus, it has been argued that brand personality is a dimension of brand image that helps in presenting the brand as human (Yoon, 2004). Brand personality is seen as an important attribute of brand image or a brand itself (Plummer, 2000; Prayag, 2007). According to Hosany et al. (2006) both brand image and brand personality are the same except that brand image is broader, whereas brand personality is mainly concerned with affective dimensions of brand image. Heylen et al. (1995) argued that theoretically the brand image concept includes several dimensions, among them brand personality, product features, consumer image and user benefits (see Figure 2.2).

Figure 2.2: Heylen et al.'s Brand Image Model



Source: Heylen et al (1995: 61).

Figure 2.2 illustrates that brand personality is a component of brand image besides brand identity and these two components deliver the symbolic requirements of customers. According to Yoon (2004: 55), “It can be inferred that brand personality is based largely (but not completely) on symbolic attributes of brand image. Functional attributes of brand image could be part of brand personality. However, all functional and symbolic attributes of brand image cannot be the personality of a brand.” He stated that luxury, taste and exclusivity are attributes that are not human characteristics. In other words, attributes of brand personality can be used to deliver brand image, whereas attributes of brand image cannot be used to deliver brand personality.

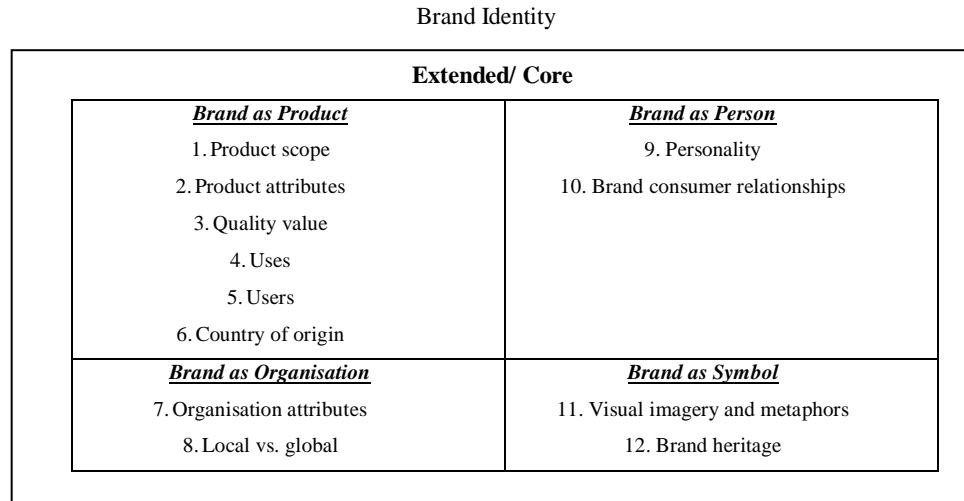
2.2.3. Brand Identity as Related Concept to Brand Personality

Aaker (1996a) stated that knowing how to build a brand identity is a vital element in brand-development, to acknowledge what a brand represents and to successfully illustrate that identity. Brand identity is defined as “..what the organisation wants the brand to stand for in the customer’s mind” (Aaker, 1996a: 25). Aaker and Joachimsthaler (2000) defined brand identity as the vision of how a brand is likely to be viewed by its potential customers. These definitions have been criticised by Coleman (2011: 54) as “several issues materialise from Aaker and Joachimsthaler’s (2000) definition. For example, these authors refer to a “vision” but do not elaborate on whose vision this actually is”. Contrary to this criticism, Aaker (1996a) has referred to strategists in his definition of brand identity (Coleman, 2011). According to Kotler and Keller (2008: 288) brand identity is “the way a company aims to identify or position itself or its product.. identity should be diffused in ads, annual report, brochures, catalogs, packaging, company stationery and business cards.”

2.2.3.1. Relationship between Brand Identity & Brand Personality

Brand personality has been illustrated as an important key element in developing brand identity (Aaker, 1996a; de Chernatony, 2006; Geuens et al., 2009 and Kapferer, 1997). Therefore, it is essential for this literature review to review the relationship between the two concepts. Aaker’s (1996a) model provided four categories that influence the building of brand identity: a product, organisation, a person and symbol as shown in Figure 2.3.

Figure 2.3: Brand Identity Planning Model



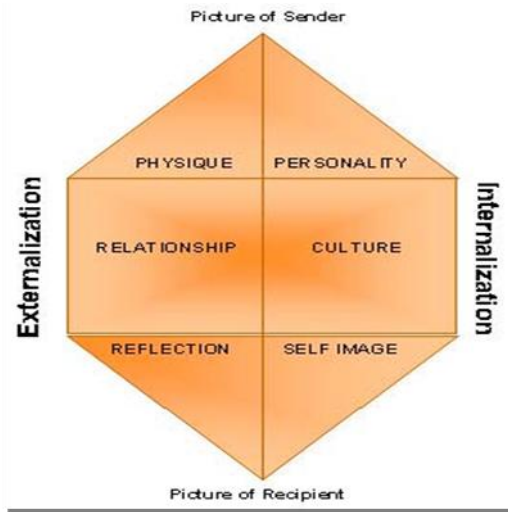
Source: Aaker (1996a: 177)

The product group is about the product associations, which are vital for building brand identity since they are mainly evolved in the brand selection process and consumption experience. The influence of organisation on brand identity development comes from concentrating more on the features of the firm rather than those of the product. Brand as person influence emphasises that a brand identity with humanised characteristics is attractive and preferred to those built on the basis of product features only. Finally, symbolic based brand identity is more likable and recognisable (Wallenklint, 1998). Kapferer’s (1997) model of brand identity prism illustrates the unique obvious role that brand personality plays in developing a unique brand identity as presented in Figure 2.4.

The physique facet focuses on the tangible attributes of the brand related to product attributes and symbols. The personality facet is related to attaching the brand to features of personification to humanise the brand. This facet was gained from Aaker’s (1997) brand personality model (Coleman, 2011). The culture facet highlights the influence of firms’ values on brand identity. The relationship facet is concerned with creating a kind of social linkage between the brand and its customers, which should move the brand from being mainly functionally based to being emotionally based. The reflection facet is about how the brand can be used to reflect the true or aspired self. Finally, the self image facet, according to Coleman (2011: 68), “relates to how the brand is viewed introspectively by the customer in terms of a personal evaluation.” Brand personality is a vital aspect of brand identity

(Keller, 1998). The importance of the relationship between brand identity and brand personality has been stated and supported by a number of scholars (Aaker, 1996a; Aaker, 1997; de Chernatony, 2006; Keller, 1998; Kapferer, 1997; Upshaw, 1995 and Wallenklint, 1998). Another key element according to Keller (1998) is brand personality, which is discussed next.

Figure 2.4: Brand Identity Prism Model



Source: Kapferer (1997: 100)

2.2.4. Customer-brand Relationship and Brand Personality

Power and Hauge (2008) argue that consumers have deep personal relationships with brands and brands' history. For instance, Tissot watches always contain a booklet called "The story of a watch factory" in the package. Moreover, Fournier (1998) suggested that customers can have an emotional relationship with brands. De Chernatony (2006) concluded that if a brand is personified, customers are willing to develop a relationship with it as if it was a human. Fournier (1998) concluded three propositions, namely: (1) customer and brand relationship are valid at the level of lived experience; (2) brands can and do serve as viable relationship partners and (3) the relationships between customers and brands can be directed in different ways. According to Yoon (2004: 73), "Customers in strong relationships with brand often exhibit very strong emotional attachments and consider them as irreplaceable and inseparable from their life." In other words, customers that have a strong relationship with brands hold high level of commitment and loyalty

towards these brands. This view of Fournier's (1998) is supported by researchers such as Aaker (2004), Caparara et al. (2001), Geuens et al. (2009), Heylen et al. (1995) and Siguaw et al., 1999). Aggarwal (2004) accepted that norms used to assess human personality relationship can be transferred to assess relationships between brands and customers. According to Ouwersloot and Tudorica (2001) practical or functional meanings are provided by customer-brand relationship to customers. For example if a customer is wearing Puma shoes to walk, with frequent usage the brand start to become trustworthy, habitual or convenient for the customer.

On the other hand, this proposition has been criticised as unrealistic because brands are inanimate and therefore they are not able to feel or act as human beings do, as argued by Bengtsson (2003) and O'Malley and Tynan (2000). It has been stated by Bengtsson (2003) that the meanings of feelings such as love differ when used in human situations and used between customers and brands.

Nevertheless, Aggarwal (2004) stated that customers can develop a relationship with a brand but this relationship will not be of the same texture and richness. Coleman (2011) argued that the relationship from a customer-brand perspective could be too limited in focus. Even so, Biel (1993) concluded that a brand can represent a big part of our self and based on this sense, a relationship with the brand can be built, especially now that we are in a rich 'brandscape'.

2.2.5. Brand Personality Importance

In recent years the increase of competition in most industries has made the distinguishing of brands based on physical characteristics only more difficult (Aaker, 1997; Keller, 1998; Siguaw et al., 1999). Phau and Lau (2000) claimed that goods are becoming easier to imitate on the basis of their characteristics and this increases the similarity between them. Services or products that compete on the basis of functions alone struggle with limitation of competitive advantages (Yoon, 2004). Therefore, the importance of symbolically differentiating a brand as well as functionally differentiating it was recognised (Siguaw et al., 1999; Heylen et al., 1995; Kapferer, 1997 and Yoon, 2004). According to Bosnjak et al. (2007) a large number of researchers on symbolic use of brands have concluded that

consumers tend to like brands that match their own human personality. Thus, brand personality is regarded as a vital element of developing the symbolic side of a brand, which can enhance the brand's likeability, consumption, loyalty, trust and emotional links (e.g. Aaker, 1996a; Aaker, 1997; Arora and Stoner, 2009; Guese and Haelg, 2009; Guthrie et al., 2008; Kapferer, 1997 and Plummer, 2000). Aaker (1996a) suggested that brand personality is one of the major factors of the brand identity and the closest dimension to the purchasing decision making process. According to Guthrie (2008) brand personality focuses on the uniqueness of relations in social actions, provides the brand with a higher position in the memory of customers and builds feelings of friendship and belonging toward brands. Therefore, brand personality has been acknowledged by an extensive society of academics (e.g. Aaker, 1996a; Guese and Haelg, 2009; Guthrie et al., 2008; Phau and Lau, 2000; Yoon, 2004) and practitioners (e.g. Plummer, 2000). According to Phau and Lau (2000) scholars of brand personality argue that brand personality is among the most widely mentioned attributes of a brand. Brand personality is a uniquely vital dimension of branding and this has caused a large amount of research to be carried out to explore its influence on consumer behaviour (e.g. Aaker, 1997; Biel, 1993; Guthrie et al., 2008; Hosany et al., 2006 and Kapferer, 1997).

2.2.6. Brand Personality Originators

Aaker (1996a) argued that brand personality originated through a few product-related or non-product related characteristics and personal factors (Phau and Lau, 2000); see Figure 2.5. The details of these characteristics are as follows:

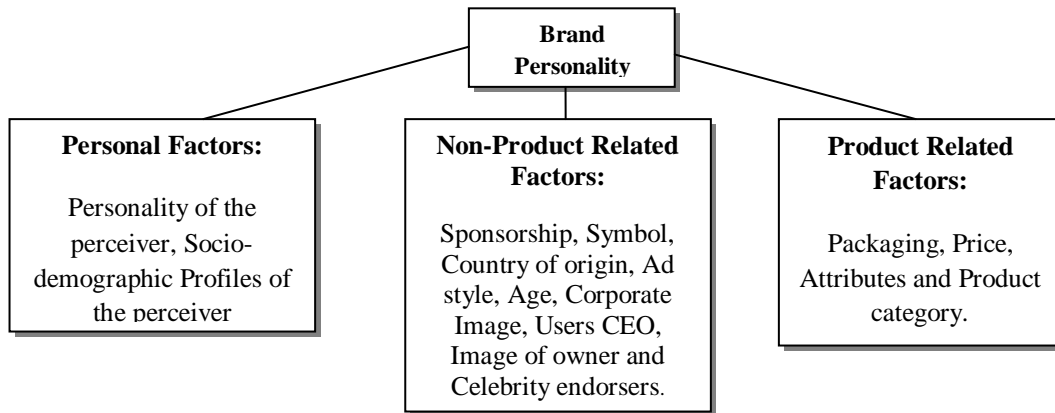
2.2.6.1. Product Related Originators

These originators are likely to be primary influencers of brand personality (Aaker, 1996a) and they are:

Product category: Categorising can affect consumers' expectations (Yoon, 2004) and affect the personality (Wallenklint, 1998). For instance, based on this characteristic Mercedes Benz could be perceived as luxury, rich and upper class.

Attributes of product: It is suggested that these characteristics often significantly influence a brand personality because they are difficult to change. For example, a brand that presents a healthier personality than competitors is more likely to be viewed as light, athletic and slender (Yoon, 2004).

Figure 2.5: Originators of Brand Personality



Source: *Adopted from Yoon (2004:37).*

Price of product: According to Aaker (1996a) sometimes customers face difficulty in evaluating products within the same category. Therefore, the price reflects the quality of a product and high priced brands such as LV, Burberry and Rolex are perceived as luxurious.

Package: All a company's activities are communication tools (Burnett and Moriarty, 1998); thus a firm must maximise the benefit of such activities. Packaging is one of these communication tools. Aaker (1996a) illustrated this characteristic by the example of the white box with black splotches used in the packaging of Gateway computers, which represents a down-to-earth personality.

2.2.6.2. Non-product Linked Characteristics

There are a number of non-product-related characteristics that influence a brand personality, as follows:

Sponsorship: It is argued by Aaker (1996a) that a brand needs to select the right events to sponsor. The events should be in keeping with the brand's expressed personality in order to achieve the desired aims of such sponsorship.

Symbol: Symbols are mostly preferred by firms to as a means to build the desired brand personality instead of real humans, because symbols tend to be more controllable than real people (Melin, 1997).

Country of Origin: This is explained by the argument of Schiffman and Kanuk (2000) when they claimed that country of origin can be a sign of quality and they cited as examples that customers associated France with good wine and perfumes, and Italy with stylish clothes and shoes.

Advertising: Style of advertisement has a clear impact on a brand personality. Customers assess a brand's personality and way of acting through its advertisement style (Aaker, 1996a and Melin, 1997). According to Yoon (2004: 40) advertising style can be achieved in different ways such as "animation of the brand itself (e.g. Duracell battery) or symbols (e.g. the Michelin man) and with a spokesperson (e.g. Michael Jordan with Nike)."

Age: Aaker (1996a) stated that the period of a brand being in the market influences the brand personality. Therefore, brands that have been in the market for years tend to have older brand personalities than brands that have recently joined the market. For example, Saturn and MCI have a younger brand personality than IBM (Wallenklint, 1998).

Corporate Image: It is stated that producer image has an influence on the brand personality (Biel, 1993). For example, the Body Shop image is of a social activity directed to cause positive change (Wallenklint, 1998).

User Image: This feature is vitally involved in developing a brand personality because it reflects an actual image within customers and it is hard to conceptualise the brand personality (Aaker, 1996a). Aaker also stated that user image can be developed from a typical image, which is the image of existing customers, or from ideal users, which are reflected in the brand advertising.

Image of CEO or Owner: The personality of a known company's CEO or owner, such as Bill Gates, the owner of Microsoft, supports developing a brand personality (Wallenklint, 1998).

Celebrity Endorsers: Branding strategists use this characteristic to associate a brand positively with well known people such as artists, actors and models. This characteristic helps in employing the celebrity to serve the brand by representing it in customers' mind.

2.2.6.3. Personality factors

Personality has an impact on brand personality sources and it impacts through two factors.

Personality of the perceiver: it has been suggested that when a customer likes a brand, the customer tends to visualise his ideal or desired personality in the preferred brand (Plummer, 2000 and de Chernatony and Riley, 1997). In line with this statement, Phau and Lau (2001) have argued that customers are not only involved in perceiving the personality displayed by a brand but they even begin to shape their own personality for the brand.

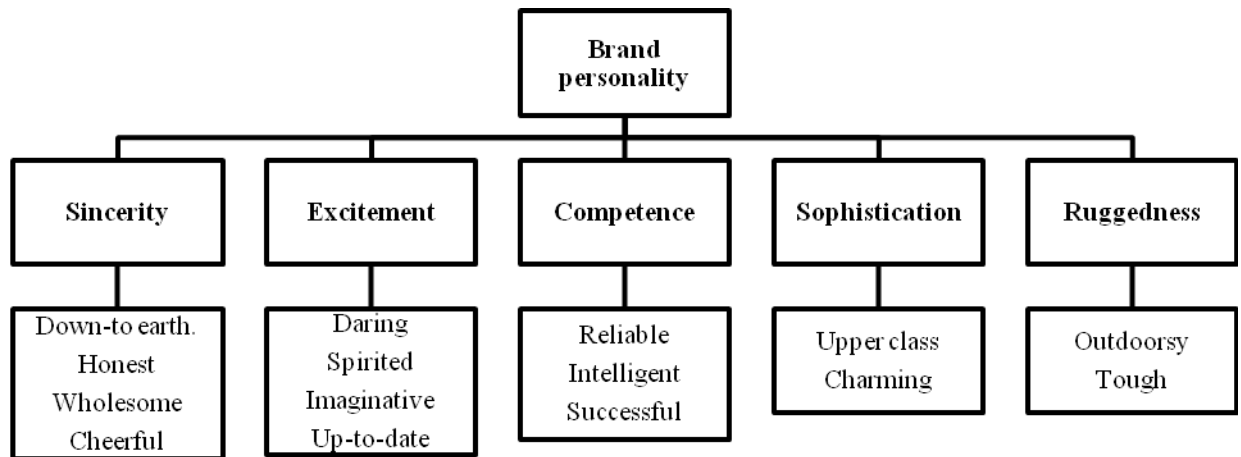
Socio-Demographic Profiles of the Perceiver: According to Aaker (1996a) customers from different socio-demographic profiles tend to perceive a brand personality differently. Some researchers such as Solomon (1999) and Kotler et al. (1999) suggested that male and female perceive the personality of a brand differently because they use different sources of information to assess a personality.

2.2.7. Brand Personality Measurement

As discussed above, the Big Five theory was developed on the basis of reducing the number of nouns and adjectives that are used to describe a human personality. An early study conducted to examine brand personality, Aaker's (1997) research guided by the Big Five theory from the psychology field, determined that factors of brand personality can be categorised through extending the Big Five dimensions to brand personality. Therefore, Aaker (1997) proposed a brand personality framework that can be used across cultures (Universal) to identify and measure brand personality factors.

Aaker (1997) generated 309 personality adjectives from gathering traits used to describe or assess the human personality in the psychology field. Next, Aaker carried out a number of studies using a wide range of 37 different brands from services and goods categories. From these studies Aaker (1997) proposed five factors based on 15 traits that can measure brand personality, similarly to the Big Five model. Aaker’s (1997) factors are named: Sincerity, Competence, Excitement, Ruggedness and Sophistication as presented in Figure 2.6.

Figure 2.6: Aaker’s Brand Personality Framework



Source: Aaker (1997: 352).

According to Yoon (2004) three dimensions of Aaker’s (1997) brand personality framework, Excitement, Competence and Sincerity, are similar to the Big Five model of human personality. However Yoon (2004) suggested that the Sophistication and Ruggedness dimensions differ from the Big Five model, which shows that brand personality factors affect users’ preference or characteristics in different ways and for different reasons. Recent studies have been inspired by Aaker’s (1997) brand personality framework dimensions and traits generating methodology.

2.2.7.1. Validity and Reliability of Brand Personality Scale across Cultures

It is evident from the prior brand personality studies presented in Chapter One in Table 1.1 that each culture is unique and different from others. Culture is defined as “a homogenous background phenomenon which determines the perception of the individual and simultaneously affects individual behaviour” (Czinkota and Ronkainen, 2003 : 347).

Usunier and Lee (2005) explain culture as a set of beliefs distributed among a set of people, which support members' decisions on what is, what can be, how to feel, what to respond, and how to act regarding something. Hsieh (2002) argued that consumers have different perceptions of brands, due to cultural heterogeneity. He also stated that "brands are perceived differently across international markets, and knowing which markets have different perceptions enables the global or regional manager to monitor the brands' competitive position and develop global branding strategy" (Hsieh, 2002: p.53). McCracken (1986) and Richins (1994) argue that brands are symbols that carry cultural values and vary in their expectations of the level of cross-cultural likeness in the perception of a brand personality. For instance, De Mooij (2010) stated that some studies have determined that traits such as 'friendly, prestigious and trustworthy' are associated with international brands that operate in high uncertainty avoidance and low power distance contexts. In contrast, in low power distance and low uncertainty avoidance contexts, people tend to ascribe traits like 'different' and 'innovative' to global brands.

The influence of cultural difference on brand personality measurement has gained attention recently and a number of studies related to brand personality measurement have been conducted in different cultures, to investigate such a relationship (e.g. Arora and Stoner, 2009; Ferrandi, et al., 2000; Geuens et al., 2009; Magin et al., 2003; Siguaw et al., 1999; Supphellen and Gronhaug, 2003). This interest was motivated when Aaker (1997) claimed that her scale is universally valid, reliable and usable for brand personality measurement. These academics found that Aaker's (1997) brand personality measurement scale cannot be universally valid or reliable, as she claimed, because of the distinctiveness of each language and cultural differences. Caprara et al. (2001) support this view: they stated that traits could reflect various meanings and levels of relevance in different contexts. Therefore, Caprara et al. (2001) suggested that personality descriptive adjectives might differ when assessing different brands and be located under different dimensions. Thus, adjustment is required before applying Aaker's (1997) measure in dissimilar contexts (e.g. Arab and Islamic cultures).

As examples of studies that examined the generalisability and validity of Aaker's (1997) scale across cultures, Geuens et al. (2009) conducted a study in relation to brand personality in the Belgian context based on traits generated from Aaker (1997) and other relevant

literature, and found five different dimensions of brand personality measurement. These dimensions are: Active, Responsibility, Aggressiveness, Simplicity and Emotionality, which did not replicate Aaker's (1997) dimensions due to cultural differences. Ferrandi et al. (2000) applied the dimensions of Aaker (1997) in the context of France and they determined that three factors were replicated (sincerity, excitement and sophistication), but another two different dimensions resulted relative to the context of study, namely "robustness" and "liking". In Russian culture Supphellen and Gronhaug, (2003) investigated the generalisability of Aaker's (1997) dimensions, and they concluded that brand personality in Russia contained six dimensions, two of which are not similar to Aaker's dimensions; they are "successful" and "contemporary". Mendez et al. (2004) conducted a research to measure the personality of Ford in the Chilean context based on Aaker's (1997) dimensions and he found that the dimensions of sincerity, competence, sophistication and excitement are replicated, but the dimension of ruggedness was not replicated in such a context. Venable et al. (2003) tested the brand personality measurement in non-profit firms, and he determined different dimensions namely: effective/competent and nurturance, which are not similar to Aaker's (1997). Aaker et al. (2001) examined Aaker's (1997) factors across the US, Spain and Japan, and they found that the factors of excitement, peacefulness, competence, sincerity and sophistication are related to the Japanese context, whereas, in Spain they found passion, peacefulness, excitement, sincerity and sophistication dimensions. Therefore, Aaker et al. (2001) stated that brand personality measurement dimensions may differ from one culture to another.

In conclusion, the influence of cultural elements on brand personality measurement dimensions is clearly suggested based on the studies provided above. This strand of the literature supports this research's objective of developing an appropriate brand personality measurement for the Saudi context in order to extend the literature of knowledge related to brand personality. Mooij and Hofstede (2010) have called for more studies in the future in relation to brand personality in different contexts in order to build a better empirical understanding of such a proposition. Phau and Lau (2000) concluded that brand personality developed specifically for a certain culture would most likely build a strong self-schema between the brand and the customers. An investigation of the impact of Islamic religious beliefs on such a measurement has not been undertaken, to the best knowledge of the

author. Therefore, Islamic religious beliefs' influence on brand personality and its measurement will be discussed next.

2.3. Understanding of Religious Beliefs and its relation to Branding

Chang (2005) stated that people's purchasing and consuming motives are strongly influenced by their culture. The culture is constructed of social class, subculture and culture as proposed by Alam et al. (2011). The subculture is constructed from nationality groups, racial groups, geographical and religious groups, and religion is possibly one of the most influential factors of people's behaviour (Alam et al., 2011). According to Mokhlis (2009) religious beliefs is a valuable cultural element since it is one universal and influential cultural factor, which significantly impacts individuals' values, behaviours and attitudes. In line with this statement, Kotler (2000) suggested that religious belief as a cultural factor is able to shape human behaviour. Essoo and Dibb (2004: 684) stated that "Religion is one of the fundamental elements of social behaviour and has been studied from various, often contrasting theoretical perspectives." As Shachar et al. (2011) argued, the concept of religious beliefs is very broad and it can be viewed as the degree to which a follower is living according to his/her religious beliefs' guidelines. Therefore, this thesis adopts the definition of Shachar et al. (2011: 2) of religious beliefs as "the centrality of religion to the individual as reflected in his or her attitude and behaviour towards life." This definition implies the potential importance and influential role of religious beliefs on brands and their associations.

2.3.1. Religious Beliefs Relationship with and Influence on Human Personality, Customer Behaviour and Brand Personality

There are studies that proposed that religious beliefs have a strong impact on a person's behaviour and personality (e.g. Duriez et al., 2004; Guzman and Carlo, 2004; Lau, 1989). Saroglou (2002: 1) stated that "Research into psychology of religious personality seems to confirm the hypothesis that religiosity corresponds to some individual differences." By Saroglou (2002), from a study of the relationship between religious beliefs and human personality, concluded that individuals with religious personalities are high in two factors of the Big Five factors model of personality, which are Agreeableness and Conscientiousness. Conversely, no obvious linkage was established between religious

beliefs and the other dimensions of the Big Five model. For example, some scholars argued that people with a religious personality should strongly reflect the factor of Openness to Experience, but it was empirically concluded that Openness to Experience explains very little about the relationship between religious beliefs and personality (McCrae, 1999; Taylor and MacDonald, 1999). The conceptual relationship between religious beliefs and personality is supported by MacDonald (2000: 192) who concluded that the “results are impressive and indicate that there is a conceptual relatedness between spirituality and the Five Factor Model”.

Guided by the findings of the above studies, psychologists proposed that social psychology concepts suggested that an entity or cluster like social perceptions, peer pressure, social origin, social sanctions and social impact have a great impact on a person’s purchasing behaviour, as argued by Ganassali et al. (2006).

Shachar et al. (2011) stated that the proposition of the possibility of a relationship between religious beliefs and brands has not gone unrecognised in the literature. Although this literature has not looked into the relationship between brand personality and religious beliefs, academics have mainly focused on different aspects of purchasing behaviour. For example, Essoo and Dibb (2004) determined that formal religious adherents’ shopping behaviour is different from that of those with informal religious affiliations. For example, informal Muslims and Hindus may not mind purchasing wine or consuming beef. Similarly, Alam et al. (2011: 86) argued that “religious values shape an individual’s emotional, cognition and psychological well-being, which in turn, affect the consumption choices that consumers make. There have been several investigations on the relationship between religiosity and consumer behaviour with general conclusion that the association is real.” As this statement outlined, religious beliefs influence or even form people’s emotional experience and psychology. Hence it can be proposed that there may be a relationship between brand personality and religious beliefs especially as brand personality is shaped based on human being’s characteristics. This view is supported by Essoo and Dibb’s (2004) studies examining the relationship between religious beliefs and behaviour of customers, which confirmed that religious beliefs clearly impact customers’ emotional experience, thinking, behaviour and psychological fit. Rindfleisch et al. (2010) concluded that religious

beliefs cause a strong brand loyalty and self-brand attachments, and suggested that when formal religious customers select a brand they tend to maintain a good level of loyalty to it.

Among studies conducted with a focus on religious beliefs' relationship to customer behaviour, Delener (1994) empirically examined the relationship between religious beliefs and the customer purchasing process in the context of automobiles, and determined that customers' religious beliefs strongly contributed in the purchasing process. Another study with a similar interest is the study of Esso and Dibb (2004), which examined the proposition that religious beliefs in certain religions are significantly involved in and shape the shopping behaviour of their followers. By examining the shopping behaviour of Muslims, Hindus and Catholics with specific reference to TV purchasing, Esso and Dibb (2004) found that religious affiliations do have a clear influence on followers' shopping behaviour. Therefore, Esso and Dibb (2004), based on the importance of religious beliefs' influence on customer behaviour, recommended that future research conducted on cultural difference or cross-culture should include this relationship (Koku, 2011).

Another study was conducted by Fam et al. (2004), to examine the role of religious beliefs in shaping or influencing customers' attitudes towards the advertisement of four types of controversial products. Based on a large-scale study, which covered Muslim, Christianity, Buddhism and non-religious students, Fam et al. (2004) concluded that students of these religions revealed different attitudes toward the examined four groups of products (e.g. Muslims found that ads of gender/sex related products most offensive relative to the other faiths).

Gayatri et al. (2005) investigated the relationship between religious beliefs and Muslim consumers' evaluation of hotels, restaurants and airlines' customer service quality in Indonesia. They found a strong relationship between religious beliefs and customers' evaluation of services and it an influential relationship led by religious beliefs. They also concluded that Muslims evaluated service quality based on their faith variables and teachings; thus Muslim customers' service quality evaluation differs from that of non-Muslims.

In later research, Ibrahim et al. (2008) investigated the relationship between a person's level of religiosity and firms' corporate social responsibility. Their study covered 411 managers and 506 students. Ibrahim et al. (2008) determined that there is a strong relationship between managers' degree of religiosity and their attitudes, and found a strong relationship between students' religiousness and their attitudes towards the ethical, economic and philanthropic accountability of business based on the statistical findings of the study.

In conclusion, the influence of religious beliefs on customers' behaviour is supported on the basis of the studies reported above. In line with this statement, Alam et al. (2011; 87) concluded that "Religiosity has been shown to influence one's makeup and lifestyle, information search, purchase risk aversion, attitude towards advertising, purchasing behaviour of major durables and selected aspects of behaviour." Kuko (2011) stated that the findings of previous studies in relation to religious beliefs support the proposition that religious beliefs critically influence lifestyle, attitudes towards life, consumption and purchasing behaviour. Therefore, it is very possible that religious beliefs play a significant influential role in favouring a specific brand and the development of brand personality, since personality is developed from traits as this thesis proposes, this is especially likely as it has been confirmed on the bases of the studies presented above that religious beliefs significantly influence customers' personality, purchasing and shopping behaviour. This thesis will examine the influence of religious beliefs on brand personality measurement in the context of Islamic markets with specific reference to Saudi Arabia. Therefore, Islamic branding is viewed and discussed next.

2.3.2. The Shariah Law and Marketing Practices

As explained by Fam et al. (2004), the term 'Islam' means to surrender a person's will to the supreme will of Allah (God). Shariah law (Islamic law) is shaped by the Quran and Sunnah, which are the sayings and practice of the Prophet Muhammad (pbuh). Shariah law shapes what is lawful for Muslims (*halal*) and forbidden (*haram*) (Al-Qardawi, 1997). Since this study fits within the Islamic marketing subject, it is important to define Islamic marketing. Wilson (2012) defined Islamic marketing based on three perspectives: first, a recognition of a God-conscious approach to marketing from both the marketer's and consumer's points of view which are guided by the teachings of Islam. Second, a marketing

approach that tends towards the ethical values of Islam and how these are interpreted by Muslims with different cultures. Third, “a multi-layered, dynamic and three-dimensional phenomenon of Muslim and non-Muslims stakeholder engagement, which can be understood by considering the creation of explicit and/or implicate signalling cultural artefacts - facilitated by marketing” (Wilson, 2012: p.2). It is vital to mention that the notion of Muslims’ consumption and adoption behaviour is not simply guided by *halal* and *haram* alone and Islam is not a tool but a source largely misrepresented in the literature (Alserhan, 2010b; Haque et al., 2010; Sandikci, 2011a; Wilson, 2012). It is also guided by *mustahabb* (favoured), *makruh* (disfavoured), *eegab* (punishment/fear of God) and *jazza* (reward for good actions) (Jafari, 2012). This means that the consumption of products categorised as *halal* is also divided into two sub-*halal* categories, which are as follows: first, it is *halal* to be used, second, it is *halal* and *mustahabb* (favoured) by Allah to be used. Nevertheless, products categorised as *haram* for consumption are divided into two sub-*haram* categories: first, products that can be consumed by Muslims but are not favoured and not regarded in Islam as a bad deed or sin, and there is no reward for using such products. Second, a product that cannot ever be used by Muslims except in very rare and extreme situations which are pointed out by Allah for Muslims directly via the Quran or through his messenger Mohammad (pbuh); other than that, using such products or goods is regarded as a sin, thus there are specified punishments for using these *haram* goods.

In relation to other constructs of this research, such as subjective norms, perceived behavioural control, relative advantages, compatibility, complexity, Islamic brand personality and new religion-compliant product adoption, it can be argued in light of what has been explained above that Muslim consumers’ behaviour in relation to each of the above-mentioned constructs must be in accordance with Islamic teachings in order to please Allah, which is the main aim of all Muslims’ actions. Nevertheless, some previous studies (e.g., Alserhan, 2010b; Alserhan and Alserhan, 2012; Arham, 2010; Haque et al., 2010; Jafari, 2012; Sandikci, 2011a; Wilson, 2012; Zakaria and Abdul-Talib, 2010) have stated how marketing actions and branding are not separated from religious values and norms. Thus, Muslims favour or disfavour a brand or a product in line with Islam’s guidance and due to their human desires. The Islamic brand personality, which is the main construct intended to be developed by this research, is inspired by the eleventh principle of

Islamic marketing that were introduced by Kartajaya and Sula (2006). This principle was mainly concerned with employing spiritual brand characteristics (Islamic characteristics). This leads to the next section of this study, which is concerned with understanding Islamic branding (IB).

2.3.3. What is Islamic Branding (IB)?

Wilson and Liu (2010) have argued that Islam and brands both motivate worship and provide customers with promises independently and collectively. In other words, Islam and brands develop an attachment with customers through tangible and intangible features (Kaul et al., 2010). According to Alserhan (2010a: 38) “Islamic branding can be defined in three different ways, in all of which the descriptor ‘Islamic’ is used: Islamic brands by compliance, by origin or by customer.” This definition includes Sharia-compliant brands, which means that these brands are specifically developed for Muslim customers and satisfy Islamic conditions. The second definition is by origin, which means brands that follow the guidelines of Islam and are produced in Islamic countries are called Islamic brands. For example, Turkey produces wine but we cannot claim that Turkish wine is an Islamic brand simply because it is produced in an Islamic country and neglecting the fact that wine is against the teachings (Haram) of Islam (Alserhan, 2010a). Finally, Islamic brands can be defined by customers, Alserhan (2010a: 38) explained this as “describing brands that emanate from non-Islamic countries, yet are designed specially to target the Muslim consumer. Although these brands are usually owned by non-Muslims they are described as Islamic based on their target customers, that is, Muslims.”

This conceptual perspective of IB is supported by Ogilvy (2010) who stated that IB is a branding approach which is compliant with Islamic teachings (Sharia). Prior to the development of this IB definition, Copinath (2007) argued that available definitions at that time could be criticised for not being clear about what IB means and sometimes the term IB is employed in an insensitive manner. Copinath’s (2007) criticism was illustrated by a situation where IB was explained based only on the product’s place of origin; consequently Egyptian, Jordanian and Tunisian wines can be characterised as Islamic (halal). However, the definition of Alserhan (2010a) has overcome this criticism.

2.3.3.1. Islamic Branding and Brand Personality

It was argued by Shachar et al. (2011) that brands increase the value of branded goods and services not only through the high level of quality standards but by emotionally attaching products to customers on the basis of a self-expressive role proposition. Interestingly Shachar et al. (2011: 5) went on to argue that the self-expressive advantage is provided by religious beliefs as well when they stated that “Brands are certainly not the only way that individuals can express their self-worth. One’s level of religiosity may also play a role in the expression of self-worth.” The view that religious beliefs can enhance the self-schema of an individual is supported by academics such as Crocker et al. (2003), Francis (2005) and Seul (1999). According to Shachar et al. (2011) it is identified in the literature of religiosity and self-expression that brands and religious beliefs similarly enable people to reflect characteristics of their personalities and express their emotions. Therefore, it was concluded by Shachar et al. (2011:5) that “it seems reasonable to expect that brands and religiosity will serve as substitutes for one another when it comes to the expression of self-worth.” Thus, it is proposed by this thesis, based on the presented literature, that religious beliefs significantly influence the development of brand personality, particularly in religious markets such as the Islamic group of nations such as Saudi Arabia, where there is a high demand for Sharia- compliant (halal) brands.

According to Wilson and Liu (2010) the halal food market in the UK is valued at £700 million and Tesco is planning to receive £148 million worth of halal products from Malaysia during the next four years. The product of HSBC Bank called Amanah is another example of the high demand for halal products and brands. Alserhan (2010b) stated that even on the level of academic journals, the establishment of the *Journal of Islamic Marketing* illustrated how significant is the Islamic market and the strong need for understanding Islamic branding in order to satisfy the high demand for Sharia-compliant brands. Although there is a journal that focuses on Islamic marketing, non-Muslim branding specialists have difficulty in distinguishing practising Islam from only knowing about it. Therefore, their “branding consultations fall short of appreciating the depth of a brand ingrained in religion” (Alserhan, 2010b: 105).

Although there are some studies, as discussed earlier, that explore religious beliefs’ relationship to customer behaviour, which suggest that customers’ shopping acts are related

to religious beliefs (Shachar et al., 2011), they did not investigate the relationship between religious beliefs and brand personality and its measurement, as identified in Table 1 in the first chapter. Consequently the theoretical foundation of a religious beliefs and brand personality measurement has not been provided. Therefore, it remains uncertain what kind of relationship (positive or negative) exists between religious beliefs and brand personality measurement. Thus, the aim of this thesis is to fill this gap of literature. Identification of this gap is supported by Nakata and Huang (2005) who stated that organisations that plan to enter Muslim markets have to employ strategies that differ from those used for non-Muslim markets, and prior studies are not able to provide such strategies because they only examined and developed knowledge of Western, non-Muslim markets. Consequently, Zakaria and Abdul-Talib (2010: 52) claimed that “there are still gaps in the attempt to understand strategies that are Islamically rooted”.

Since brand personality is related to customer-based perspectives of a brand (e.g. Aaker, 1997; Arora and Stoner, 2009 and Geuens et al., 2009), it can be argued that religious beliefs such as Islam influence brand personality. Wilson and Liu (2010) suggested that a framework is needed that helps Islamic brands to express their characteristics, and reflect favourable and unique linkages within the memory of customers. The absence of Islamic super-brands is caused by the lack of understanding that Islamic brands are viewed by Muslim customers as ‘good deeds’ (Alserhan, 2010b). Therefore, the development of a brand personality measurement that is compliant with Islamic teachings would extend the literature of Islamic marketing. Wilson and Liu (2011) included Personality among the characteristics of Muslim brands that are perceived by Islamic brand-friendly customers which are life-like, anatomy, physiology, identity and Islamic purity. This view is in favour of the strong linkage between Islam and Personality of an Islamic brand. Wilson and Liu (2011) have also argued that Islamic brands or halal brands will not remain in the stage of branding on the basis of functions alone; in fact, emotional and psychological branding strategies should be developed and employed, such as brand personality measurement. Alam et al. (2011) called for research related to the role of Islam in preference branded products. Since Wilson and Liu (2010) suggested that Muslim customers prefer high involvement in their favoured products because of their faith and a propensity for risk aversion, developing the right brand personality through the employment of Islamic

compliant brand personality measurement should enable brands to provide Muslim customers with high involvement and risk avoidance.

2.4. New Product Adoption , Brand Personality and Religiosity relationship and Study Guiding Theory Building

As discussed earlier in section 2.9.1, religious beliefs, according to consumer behaviour and Islamic branding literatures, evidently directly influence people's consumption and product favouring or disfavouring. According to Jamal (2003) religious commitments and beliefs impact peoples' attitudes and emotions towards consumption. Shabbir (2010) argued that religious beliefs determine prohibited and non-prohibited items and services, which influence customers' purchasing, consuming and adopting decisions. For instance, wine has a symbolic role in some religions, whereas in Islam wine is prohibited, and Judaism and Islam forbid consuming pork but it is not forbidden in Christianity. According to Yun et al. (2008) people consider buying new products if these new products do not violate or contradict with their religions sacred. Shabbir (2010: 3) suggested that "Religious commitment affects consumers' orientations regarding consumption patterns, as well as their social behaviour." In other words, people tend to adopt products or use services that are considered to be an accepted behaviour or correct choice to take by their surrounding society, which is driven by their practised religion such as Islam, Judaism and Christianity. Shabbir (2010) also stated that customers are strongly affected by a variety of elements during their decision making process about whether or not to adopt a new product or service, and religious values is one of these influential factors.

In relation to brand personality linkage to NPA, the present study proposes an expected influential relationship between the two concepts based on the suggestion of Phau and Lau (2000) that customers are more expected to experience a familiarity with and develop a preference towards brands whose personalities match with their self-schemas. For instance, consumers who desire religion-compliant brands (e.g. halal) are more likely to be interested in purchasing/adopting brands that are certified as halal. It has been concluded that higher self-congruence would increase consumers' affective, behavioural and attitudinal response to a specific brand (Grohmann, 2009). It was argued by Park et al. (2010) that self-schema

are a very successful component in building emotional attachments between the brand and its customers.

According to Bosnjak et al. (2007) a large number of researchers on symbolic use of brands have determined that consumers tend to like brands that match their own human personality. Thus, brand personality is regarded as a vital element of developing the symbolic side of a brand, which can enhance the brand likability, consumption, loyalty, trust and emotional links (e.g. Aaker, 1996a; Aaker, 1997; Arora and Stoner, 2009; Guese and Haelg, 2009; Guthrie et al., 2008; Kapferer, 1997 and Plummer, 2000).

Based on this previous view and empirical findings, this study grounded its proposition of the existence of an influential relationship between brand personality and NPA especially in societies with a higher level of religiosity, such as Saudi Arabia. Aaker (1996a) suggested that brand personality is one of the major factors of the brand identity and the closest dimension to the purchasing decision making process. Purchasing can be viewed as a form of NPA; thus the proposition of this study is logical and supported indirectly by the literature referred to.

Relevantly to the aim of the present study, Shabbir (2010) claimed that although many studies have been conducted to examine religion as an influential element in customers' life, the role that religion plays to drive consumers' adoption of new products or services is still suffering from a shortage of knowledge, especially in relation to Islam. Thus, similarly to Shabbir (2010) this study is motivated to provide a better understanding of new product adoption and religious influence with specific reference to Islam. It does so by employing the Theory of Planned Behaviour (Ajzen, 1991).

2.4.1. Theory of Planned Behaviour (TPB)

The TPB is a successful extension of the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), which was developed to clarify most of people's behaviour; it has been confirmed that TRA is capable of predicting and clarifying human beings' behaviour in different contexts and circumstances (Liao et al., 2007). TRA views a customer's behaviour as determined by the customer's intention to behave in a

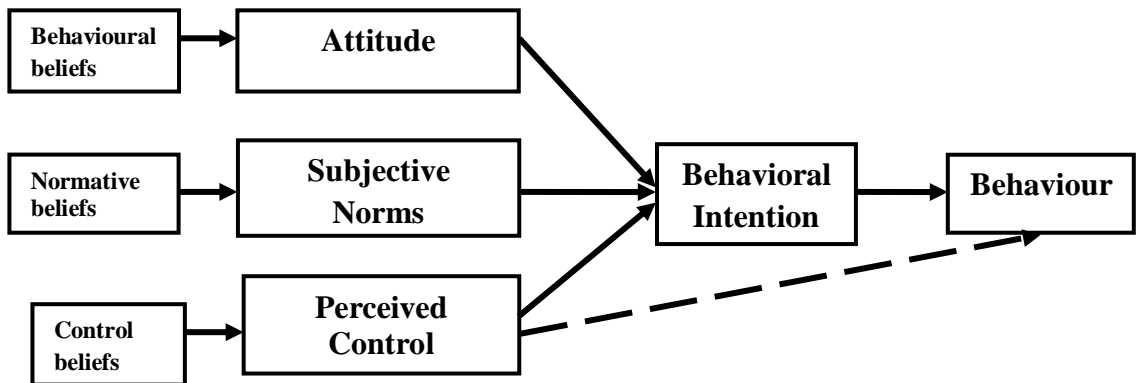
certain way (behavioural intention). Behavioural intention is a construct that includes the 'attitude' of people towards a behaviour, and 'subjective norms' (Fishbein and Ajzen, 1975).

Simply, the TRA can predict the intention held by customers to behave in a certain way towards a product or service based on their developed attitude regarding the product or service. This intention of behaviour is expected to be impacted by the social beliefs held by the customers (Hansen et al., 2004). Ajzen (1991) defined behavioural intention as an instrument to measure a person's willingness to try while performing certain behaviour. Based on the foundation of TRA, TPB was developed to reduce the restrictions of the original TRA when employed to predict behaviour over which humans lack total volitional control, as indicated in Figure 2.7.

The critical difference between the TRA and the TPB is that TPB includes an additional construct of perceived behaviour control, which Ajzen (1991) argued and proved has a direct influence on behavioural intention. As evidence of TPB's capability to better explain people's behaviour, Thompson et al. (1994) by conducting a meta-analysis determined that the constructs of attitude (A), subjective norm (SN) and perceived behavioural control (PBC) explain 40% to 50% of the variance in intention and that PBC explains 19% to 38% of the variance in behaviour.

Attitude (A) is defined as the "the degree of a person's favourable or unfavourable evaluation or appraisal of the behaviour in question" (Fishbein & Ajzen, 1975: cited in Liao et al., 2007: 6). Ajzen (1991) stated that a positive or negative attitude impacts the strength of the behavioural beliefs regarding an expected result and can be generated by employing an expectancy value framework. According to Ajzen (1991) attitude is the sum of attitudinal beliefs that are related to specific consequences, which are evaluated by favourableness of the consequences.

Figure 2.7: The Pure Model of TPB



Source: Ajzen (1991).

Subjective norm is defined by Ajzen (1991) (cited in Liao et al., 2007: 6) as “the perceived social pressure to perform or not to perform the behaviour.” Simply, subjective norm is related to the influence of normative beliefs regarding other people’s perceptions. This construct can be outlined as individuals’ normative belief about a certain situation evaluated by the motivation to comply with the situation in question. Despite the argument of Karahanna et al. (1999) that SN can be divided into normative beliefs and informational influences, the original model of TPB considered SN to reflect the impact of normative beliefs alone. Thus, this restriction might reduce the significance of the relationship between the dimensions of SN and behavioural intention as argued by, for example, Mathieson, (1991) and Taylor & Todd (1995). Nevertheless, such an argument was supported by Venkatesh and Davis (2000), when they determined that SN could positively impact the behavioural intention in compulsory situations, and the influence was insignificant in optional situations.

Finally, perceived behavioural control is defined by Ajzen (1991) (cited in Liao et al., 2007: 6) as “people’s perception of ease or difficulty in performing the behaviour of interest.” PBC is related to beliefs regarding the occurrence of control dimensions that could encourage or discourage people to perform the behaviour of interest (Ajzen, 1991). Therefore, this construct includes beliefs about opportunities that are related to PBC, which can be structured as control beliefs, and evaluated by the perceived power of the control

dimensions. It was also argued by Ajzen (1991) that control dimensions may be divided into exterior and interior dimensions. Interior control is associated with self efficacy/knowledge, and exterior control is associated with the environment.

The TPB has been criticised, although it was empirically demonstrated that the TPB model explains 40% to 50% of people's intentional behaviour, which is impressive. Ravis and Sheeran (2003: 2) nevertheless argued that "TPB leaves a substantial proportion of the variance in intentions and behaviour to be explained. While some of the unexplained variance can be attributed to methodological factors.. conceptual factors should also be considered." This view was supported by Armitage and Conner (2001b) who performed a meta analysis and concluded that subjective norm (SN) has a significantly lower correlation to intention (I) than the correlation between attitude (A) and I, and PBC correlation to I. Thus Ajzen (1991) argued that the weakness of relation between SN and I confirms that intentions are mainly impacted by A and PBC as personal factors.

In addition, later studies (e.g. Armitage & Conner, 2001; Sheeran & Orbell, 1999) concluded that the restrictive conceptualisation of the normative beliefs construct in the TPB could account for the weakness of the correlation between SN and BI. This criticism could be a justification of the later studies that proposed additional constructs to the TPB, such as self-identity, beliefs salience, past behaviour/habit, self-efficacy, moral norms and affective beliefs. Another criticism is that "although the discriminant and convergent validity of the descriptive norm and subjective norm constructs has been supported by factor analysis.. it remains unclear how well descriptive norms predict intentions" (Ravis and Sheeran, 2003: 3). Ravis and Sheeran (2003) supported this argument, reporting a moderate correlation between descriptive norms and intentions, and another study of Ravis and Sheeran (2001) discovered an insignificant correlation between descriptive norms and intentions. Also Stanton et al. (1996) reported a significantly weak correlation of .04 between these two concepts in the context of condom usage among African-Americans. Nevertheless, Armitage and Conner (2001a: 1) stated that "arguably the most widely researched models are the theory of reasoned action.. and the theory of planned behaviour." The TPB has also been applied to drive studies in relation to marketing matters, such as to determine halal food purchasing (Alam and Sayuti, 2011), predicting customer satisfaction with using e-service (Liao et al., 2007), internet purchasing (George, 2004) and

innovativeness and adoption of B2C (Herrero Crespo and Rodríguez del Bosque, 2008). Therefore, the TPB is adopted to drive the present study.

2.4.1.1. The TPB and Religious Beliefs

Religious belief is regarded as a strongly influential factor on consumers' behaviour, as discussed earlier in section 2.5.1 of this research. It has been widely recognised that religiosity plays a significant role in people's behaviour and attitude (e.g. Armstrong, 2001 and De Run et al., 2010). De Run et al. (2010: 3) suggested that "within the fabric of religion lies religiosity, the personal amount of adherence to religious callings. Religiosity impacts the effect of religion on individuals and their consumption behaviour." Relevantly to this study, the more religious the consumers are, the more their behaviour in regard to consumption or new product adoption is driven by their religious teachings.

Hence this concept might be quite beneficial to employ to predict religious consumers' behaviour towards a certain act (e.g. new product adoption). De Run et al. (2010: 3) supported this perspective when they stated that "Past research affirms that degree of religiosity is a better predictor than religion, when it comes to investigate individuals' consumption behaviour". For example, in Muslim communities implementing Sharia law (Islamic law) is found to have a strong impact on consumers' behaviour. These religious laws would obviously hinder the promotion, sales, consumption or adoption of specific goods and services, while at the same time encouraging adoption of new products and services that may be unimaginable in typical Western societies (De Run et al., 2010). Since religion is a kind of belief and beliefs play an essential role in predicting behaviour, this study is aiming to better understand this type of relationship.

Most religions, such as Islam, Judaism, Christianity and hedonism, guide their followers' behaviours by rewarding positive acts and punishing negative acts. An extensive body of findings has determined that religion has a strong ability to influence consumers' attitudes and behaviour in general (e.g. Bonne et al., 2007; Delener, 1994; Pettinger et al., 2004). Mannetti et al. (2002: 1) stated that "attitude is a function of the value that one assigns to the expected consequences of the behaviour, which are divided into two classes: rewards and punishments that can be the direct result of the behaviour". Based on this, religious

influence on brand personality and new product adoption is expected to be better explained by following the TPB.

In relation to the TPB, religiosity related literature still suffers a dearth of knowledge, and only a limited number of studies have been conducted, such as those of Pettinger et al. (2004) and Lada et al. (2009), which found that religiosity has an influence on customers' attitude and behaviour and consumption related decisions. A very recent study that regarded religion as an influential element on attitude is that of Shabbir (2010: 1) who stated that "Religious commitment plays an important role in people's lives shaping their beliefs, knowledge, and attitudes.. beliefs influence the feelings and attitudes of people towards consumption". The TPB was employed by researchers in the context of purchasing halal food (Bonne et al., 2007; Alam and Sayuti, 2011; Aziz et al., 2011; Lada et al., 2009; Nur Haslizatul Liza, 2011), and these studies indicated that the TPB provides an important logic to explain the behaviour of consumers.

Further, these studies have suggested that religion as a type of belief (behavioural, normative and control) showed an outstanding influential role in the intentions of Muslim consumers when about to consume or perhaps adopt new products or services. It is worth mentioning that the same studies mentioned earlier have determined SN to be the TPB construct most influential on intention. Therefore, this research is also proposing that religiosity influences behavioural intention towards new religious compliant product adoption, as discussed in section 2.6, via the mediating effect of brand personality, subjective norms, perceived behavioural control and direct influence from religious beliefs towards new religious compliant product adoption.

2.4.1.2. The TPB and Brand Personality

In relation to brand personality, Mannetti et al. (2002: 3) stated that "Within mainstream social psychology, the recognition of a symbolic function can be found in the domain of attitudes", which supports the idea of the relationship between the brand personality and consumer's behaviour toward the brand. According to Shavitt (1990) social identity includes private identity and public identity goals, which are regarded together as part of a wider symbolic category of attitude. Prior to Shavitt's (1990) study, literature concentrated

mainly on situational and personal aspects, whereas Shavitt (1990) obtained evidence that attitudes toward some items are likely to assess one function: things like coffee, or air conditioners persuade utilitarian attitude, and things like final exams and flu persuade personality/self-identity attitude.

Biddle et al. (1987: 326), when examining college retention decisions, referred to "the labels people use to describe themselves." Thus Mannetti et al. (2002: 4) stated that "self-identity contributes to the prediction of behavioural intentions independent of attitudes and norms." Also, according to Charng et al. (1988) identity and attitude are significantly statistically correlated as independent predictors of behavioural intention. Mannetti et al. (2002) argued that it is logical to assume that there are specific behaviours of which personality would be a vital predictor of intentions, and found that self-concept was a significant predictor of behaviour to act favourably across three behaviour situations: selected brands of books, selected watch brands and mobile phones.

Academics have determined that when an individual's personality matches a proposed behaviour, the motivation for that individual to behave favourably is stronger (Charng et al., 1988). According to Rapaport and Orbell (2000: 320) "If a person identifies with a specific role or action, they are more likely to express a positive attitude towards the action, which in turn may act as a predictor of intention". Kapferer and Laurent (1993) have named a factor as a sign which stands for the degree to which an individual's selection of products or services reveals critical information to others about the individual's personality. Page and Luding (2003) concluded that there is an insignificant relationship between the marketing media (e.g. brand personality) and intention, and intention (e.g. to purchase or adopt) is significantly influenced by an individual's attitude toward the marketing media.

A few studies have been conducted to understand the relationship between self-identity or personality and behaviour, mainly in medical contexts, such as Courneya et al. (1999), Rhodes and Courneya (2003) and Rhodes et al. (2004), whereas there has been little research to investigate the relationship between personality and behaviour in marketing contexts, specifically consumers' behaviour towards adopting new products, such as this study. Self-concept/personality encourages consumers to behave in a certain way in order to communicate to others and increases the consumer's self-concept (Grubb and Grathwohl,

1967). In other words, the consumer's personality is a vital motivator of behaviour (Fitzmaurice, 2005). The construct of self-identity can be defined as "a label that people use to describe themselves" Bonne et al. (2007: 3), which is almost the same as personality. A previous study related to green consumerism done by Sparks and Shepherd (1992) has indicated that personality significantly influences the behaviour of individuals, a view that is supported by Betsch et al (2001), Rise et al. (2010) and Sparks and Guthrie (1998) . Conner and Armitage (1998) argued that the influencing role of self-identity or personality differs in strength depending on how religious are the societies that are being examined; in this study the focus, Saudi Arabia, is a Muslim society where religious influences are strong.

It is vital to mention that previous studies in relation to self-identity influence and TPB have regarded self-identity as an additional concept to the TPB, whereas, the present study regards brand personality as an internal concept. The view of this study related to the self-identity (personality) construct is consistent with many studies (e.g. Armitage & Conner, 2001; Armitage & Conner, 1999 and Pellino, 1997) that determined self-identity/self-expression/personality to be an additional construct that predicts behavioural intention directly and indirectly within the TPB model.

Based on what is outlined above, it appears logical to employ the TPB to investigate the influence that brand personality has on consumers' behaviour. Almost all previous studies related to self-identity and behaviour have regarded self-identity as based on how an individual's behaviour can be directed to match his/her personality characteristics. In other words, previous studies tend to understand how to predict consumer's behaviour through understanding their self-identity (e.g. Hidlonen, 2001; Sheeran, 1998; Rise et al., 2010; Robinson and Smith, 2002). In contrast, this study aims to investigate how the personality of a brand, as behavioural, normative and control beliefs, can influence the impact of attitude, subjective norms and perceived behavioural control on intention to behave in a specific way towards religion-compliant brands.

In the end, such a brand personality measure would enable branding strategists to develop a brand personality that would be favoured by Muslim customers, which is expected to lead to positive behaviour towards a branded product or service and acquisition of the brand's

new products. Also, better investigation of the relationship between religious beliefs, brand personality and new product adoption is theoretically achievable based on the previous related literature. Therefore, the theoretical framework that will be followed in this thesis in order to develop such a measure and examine its relationship to religious beliefs and new product adoption will be discussed in the next chapter (Chapter Three) which is right after the Diffusion Innovation Theory (DIT) is discussed in relation to other proposed constructs of the framework.

2.4.2. Diffusion of Innovation Theory (DIT)

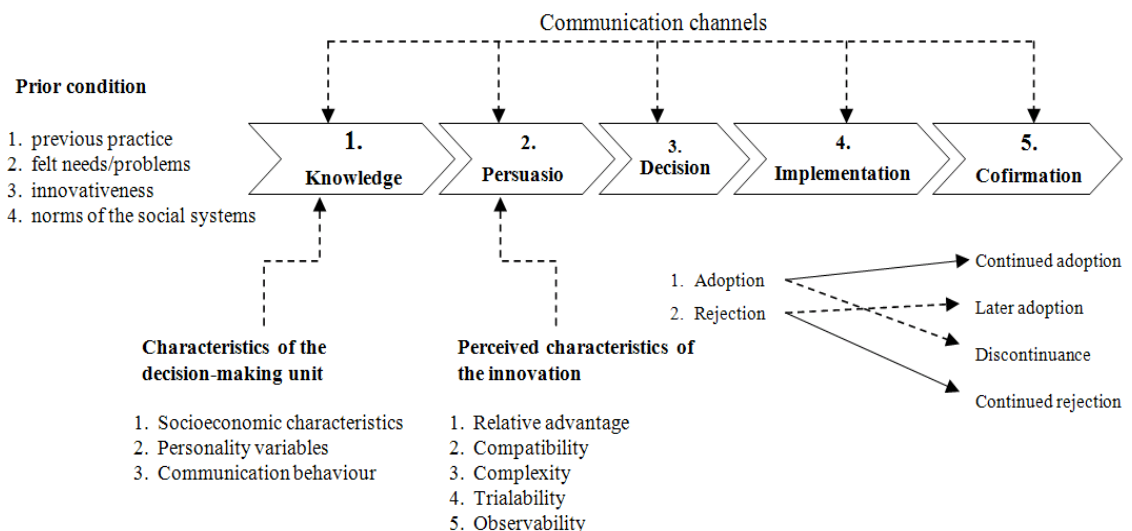
Rogers (1995: p.163) explained diffusion of innovation as “the process through which an individual (or other decision-making unit) passed from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision.” Thus, the DIT is regarded as one of the essential theories that enable researchers to explore and understand human adoption behaviour (Abbasi, 2011). In the DIT Rogers (1995) proposed five levels of adoption process according to distribution of innovations’ adopters based on adopting time’s standardised distribution but the adopting or rejecting decision is done by persons or groups. These five levels of adoption process as shown in Figure 2.8 are individually presented as follows: first, the level of knowledge which defined by Rogers (1995: p.162) as “knowledge occurs when an individual (or other decision-making unit) is exposed to an innovation’s existence and gains some understanding of how it functions.” Awareness-knowledge is the type of ***knowledge*** that Rogers emphasised was needed for this level along with persuasion and decision levels as well, and it can be accomplished via mass media (Abbasi, 2011).

Second, the level of ***persuasion*** was explained by Rogers (1995: p.162) as “persuasion occurs when an individual (or other decision-making unit) forms a favourable or unfavourable attitude towards the innovation.” In other words, when an adopter develops a view of an innovation, this can cause the adopter to either adopt or reject the underlying innovation. Third, the level of ***decision***, Rogers (1995: p.162) explained it as “Decision occurs when an individual (or other decision-making unit) engages in activities that lead to a choice to adopt or reject the innovation.” This means that rejection can be practised in

different forms: active rejection which is performed after adopting the innovation based on how-to-knowledge type, and passive rejection which is performed before adopting the innovation based on awareness-knowledge type (Abbasi, 2011).

Fourth, the level of **implementation**; this as explained by Rogers (1995: p.162) “occurs when an individual (or other decision-making unit) puts an innovation into use.” Now this stage begins after the adopter completed the decision making stage, thus any complexity related to the adopted innovation is raised in this stage, therefore the need of after sales supporting team should be more alert and always ready to provide any requested support to adopters (Cheng et al., 2004; Dearing, 2009; Rogers et al., 2005; Zhou, 2008). Finally there is the level of **confirmation** which, according to Rogers (1995: p.162) means that “Confirmation occurs when an individual (or other decision-making unit) seeks reinforcement of an innovation-decision already made, or reverses a previous decision to adopt or reject the innovation if exposed to conflicting messages about the innovation.” In other words, when an adopter is exposed to an alternative new innovation with better advantages, his/her satisfaction with the existing adoption is at risk of being reduced. This results in complete rejection with the previously adopted innovation and continuation of an adoption process in favour of the newer adoption (Azam et al., 2011; Carter and Bélanger, 2005; Seligman, 2006; Strutton et al., 2011).

Figure 2.8: Diffusion of Innovation Theory (DIT)



Source: Adopted from Rogers (1995: p.163).

The factors from the DIT most related to the present study are the factors that were proposed by Rogers (1995) to be under the level of persuasion called ‘attributes of innovation’. These five factors are expected to shape the overall perception of an innovation and to rate the speed of how likely the innovation to be adopted (Rogers, 1995; Völlink et al., 2002; Zhu et al., 2006), and they are as follows:

Relative advantage (RA): According to Rogers (1995: p.250) RA is “is the degree to which an innovation is perceived as better than the idea it supersedes.” Thus, Rogers (1995) argued that the RA is positively related to the adoption process by the social system’s members.

Compatibility (COM1): This factor is explained by Rogers (1995: p.250) as “the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters.” Also Rogers argued that COM1 is positively related to the adoption process.

Complexity (COM2): Complexity defined by Rogers (1995: p.250) as “the degree to which an innovation is perceived as relatively difficult to understand and to use.” Therefore, Rogers stated that COM2 is negatively related to the adoption process since it represents the dissatisfaction feeling within adopters (Völlink et al., 2002; Weerawardena et al., 2006).

Trialability (TRI): According to Rogers (1995: p.250) trialability is “the degree to which an innovation may be experimented with on a limited basis.” Consequently, the TRI was regarded to be positively related to the adoption process (Moore and Benbasat, 1996; Parthasarathy et al., 1995; Rogers et al., 2005).

Observability (OBS): According to Rogers (1995: p.250) observability is explained as “the degree to which the results of an innovation are visible to other.” In other words, OBS is based on the witnessed usage of an adopted innovation by other adopters that are known to the observing adopter, and this attribute is argued to be positively related to the adoption process.

The attributes of RA, COM1 and COM2 according to Taylor and Todd (1995a) were extensively regarded to be the most accurate ones among the perception factors of the adoption process. The DIT could be influenced by factors such as demographic factors, social factors, economic factors, cultural factors and so on (Daghfous et al., 1999). The level of religious beliefs’ impact on the adoption process was investigated by some scholars (Rindfleisch et al., 2010; Shabbir, 2010; Shachar et al., 2011; Vassilis, 2002). However, most of the prior studies were concerned with comparing different religions’ influence on consumption or adoption of new innovation such as Azam et al. (2011), Lindridge (2005), Mittelstaedt (2002), Sood and Nasu (1995) and Rindfleisch et al. (2010) or related to a certain industry, such as Thambiah et al. (2010).

Nevertheless, to the best of the author’s knowledge, the reviewed published previous studies, except for the works of (e.g Azam et al., 2011; Kalliny and Hausman, 2007; Shabbir, 2010) were mostly aiming to understand only the direct influence of religiosity on consumers’ consumption behaviour, evaluating new products perception and adoption of new innovation in general. In contrast, the present study is aiming to investigate the direct and the indirect influence of religious beliefs on new religious complaint products adoption (NRCPA) via the theories most commonly used in understanding or predicting consumers’ behaviour, the TPB and DIT. Thus, the constructs adopted from these two theories are set to examine their own influence on the NRCPA and to predict their role in mediating the indirect influence of religious beliefs on NRCPA.

2.4.3. Mediator and Moderators Influences

As presented and discussed previously in sections 2.7 and 2.8, the TPB and DIT models include mediation of attitude (AT), subjective norms (SN), perceived behavioural control (PBC), relative advantages (RA), compatibility (COM1) and complexity (COM2). The

present study is aiming to investigate possible moderators (e.g. age, gender and income) along with the investigation of the mediators, therefore, definitions and an overview of mediators and moderators are needed before proceeding to outline and argue the importance of testing for mediators and moderators. According to Baron and Kenny (1986: p.1176) “In general, a given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion.... A variable functions as a mediator when it meets the following conditions: (a) variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e., Path *a*), (b) variations in the mediator significantly account for variations in the dependent variable (i.e., Path *b*), and (c) when Paths *a* and *b* are controlled, a previously significant relation between independent and dependent variables is no longer significant, with the strongest demonstration of mediation occurring when Path *c* is zero.” In regard to moderators, Baron and Kenny (1986: p.1174) stated that “In general terms, a moderator is a qualitative (e.g. sex, race, class) or quantitative (e.g. level of reward) variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. Specifically within a correlation analysis framework. A moderator is a third variable that affects the zero-order correlation between two other variables.”

Baron and Kenny (1986) proposed three conditions to be met in order for a relationship to qualify for mediation testing and they are as follows: first, the exogenous variable must control for variations in the hypothesised mediating variable (i.e. Path A). Second, the variations of the hypothesised mediator should significantly produce variations in the endogenous variable (i.e. Path B). Three, in situations where both paths of A and B are monopolised and caused the relationship between the exogenous and endogenous variables to be insignificant after being observed to be significant, then a mediation effect exists and it is stronger when Path *c* is close to zero. On the other hand, Baron and Kenny (1986) argued that when supposing that the link from a predictor to a dependent variable (i.e. path *a*); the link from a moderator to dependent variable (i.e. path *b*), it can be concluded that the proposed moderation effect is observed and significant if path *c* which represents both the predictor and moderator variables is significant. A distinction between a mediator and a moderator is that a mediator can be found in both relationship roles of effecting and causing, but the moderator can only exist in a causal role (Allen and Griffeth, 2001; Baron and Kenny, 1986; Courneya et al., 1999; Muhamad and Mizerski, 2010). Thus, based on

this brief overview of mediators and moderator the present study set objectives that need to be achieved in order to answer the research questions as well to understand the strength an effect size of the involved mediators and moderators.

The logic and motivation for aiming to understand the effect of mediators and moderators on the conceptual model is that to the best of the author knowledge, up to today, there is almost no study in the field of marketing management or branding management conducted to understand the effects of mediators on new religious compliant product adoption (NRCPA) via the TPB constructs of SN, PBC and BP instead of AT, and the DIT constructs of RA, COM1 and COM2 as mediators. Plus there is almost no study in the field of marketing management or branding management conducted to understand the effects of moderatos such as age, gender and income on new religious compliant product adoption (NRCPA) via the TPB constructs of SN, PBC and BP instead of AT, and the DIT constructs of RA, COM1 and COM2 as mediators. In contrast, the same underlined relationships between the previous constructs of TBP and DIT and mediators' and moderators' influential roles have been extensively examined and better understood in other fields such as IT and new technologies acceptance studies (Abbasi, 2011; Al-Gahtani et al., 2007; Baker et al., 2007; Gefen and Straub, 1997; Hsu and Chiu, 2004; Karahanna et al., 1999; Liao et al., 2007; Lim, 2009; Mathieson, 1991; Moore and Benbasat, 1991, 1996; Venkatesh, 2000; Zhou, 2008; Zhu et al., 2006).

Nevertheless, Shabbir (2010: p.68) stated that “a major limitation of this study is that all respondents were university male students with limited disposable income. Therefore, it is anticipated that the strength of their beliefs leans towards idealism, which is also a characteristic of student populations. It is important to note that the consumption patterns and believes of consumers tend to change with the increase in their income. What people say that they would do when they are at a certain income level might be significantly different than that if they move to the next level. Therefore, a more heterogeneous sample composed of different individuals with different incomes, education, and age will be a better predictor of the strength of the relationship between religiosity and NPA.” According Alam et al. (2011: p.94), “Potential correlations between some of the independent variables (e.g. gender, race, education, and income level) are other implications that could also be revealed from future researches.” Therefore, according to these previous published papers

in relation to product adoption and the influences of religious beliefs, which are similar to the present study field, it can be claimed that there is a severe shortage and strong need for research to fill the gap of knowledge and provide more and better understanding to the relationship between religiosity and NRCPA and possible mediators and moderators.

2.5. Conclusion

The present chapter provided a comprehensive critical perspective of the hypothetical background to the present research. This chapter has reviewed the existing literature related to the designed objectives and research questions. Therefore, it started by explaining the term brand and the key emotional branding terms (Identity, Image and Personality of a brand). The brand personality then was further explained and reviewed, specifically, the importance of brand personality, brand personality generators and their theories, and systematically review almost all previously developed brand personality measurement as shown in Table 1.1. The empirical findings obtained by the earlier brand personality scales in Table 1.1 were described and evaluated to clarify the significance of developing a brand personality for the Islamic world.

The influence of religious beliefs on consumers' purchasing behaviour and attitude toward products have been examined by some previous studies (e.g. Abou-Youssef et al., 2011; Alam et al., 2011; Essoo and Dibb, 2004; Mokhlis, 2009b; Muhamad and Mizerski, 2010; Shabbir, 2010; Sood and Nasu, 1995). Thus, this chapter has presented a detailed review of the theoretical perspective that provides a foundation for the hypothesised relation between religious beliefs and brand personality and its scale and new religious compliant product adoption. Consequently, it was vital to devote a part of this chapter to the theories (TPB and DIT) employed in this study as a theoretical guide to achieve the designed aim and objectives, by developing an extended conceptual framework. The theoretical framework of this study is presented in the following chapter, based on the previous literature review.

Chapter Three: Theoretical Framework, Hypotheses and Conceptual Model

3. Introduction

Chapter Two presented theoretical literature on how brand personality has been conceptualised based on theories of personality literature from psychology and why the brand personality is regarded as an important concept for building a brand (e.g. Farhat and Khan, 2011; Freling and Forbes, 2005; Goff and Trawick, 2008; Guido et al., 2008; Keller and Richey, 2006; Malär et al., 2011; Valette-Florence et al., 2011) and emotional branding (Gobe, 2001; Malär et al., 2011; Orth et al., 2010). It was vital to systematically review the brand personality scale, its generalisability and prior findings in various contexts as shown in Table 1.1 to justify the significance of developing a brand personality scale for the Islamic context (see chapter 2). Therefore, this chapter focuses on developing the theoretical framework and the conceptually linked hypotheses for this research by integrating the models of the theory of Planned Behaviour (TPB) and Diffusion Innovation Theory (DIT) to better understand Islamic religious beliefs' influence on brand personality and new religious compliant product adoption. Additionally, in sections 3.5.1 and 3.5.2 the logic for employing Churchill's (1979) scale development paradigm is explained, based on the recommendations of some of the core previous studies in the related literature (e.g. Churchill, 1979; Cox III, 1980; DeVellis, 2011; Netemeyer et al., 2003). Next, the related measures to the constructs subjective norms, Islamic religious beliefs, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption are presented. Finally, section 3.5 introduces the demographic variables that are assumed to moderate the impact of Islamic religious beliefs on brand personality, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption, i.e. age, gender and income.

This thesis is conceptually designed to develop a brand personality measure specifically for the Islamic context and to investigate the relationship between this measure and Islamic religious beliefs. Identifying the relationship between this measure and Islamic religious beliefs contextually and theoretically should contribute to knowledge of Islamic branding, international branding and new product adoption, as well as to the literature of religion and customer behaviour and the TPB. Therefore, this chapter focuses on outlining the logics of

the guiding theory, paradigms and measures that will be employed in this thesis to achieve the objectives and answer the related questions.

3.1. The TPB and DIT as the Theoretical Guide for the Framework of Study

The TPB (Schifter and Ajzen, 1985) forms a broad framework to understand consumers' behaviour through the associations between beliefs, attitudes, subjective norms, behavioural perceived control and intention. Therefore, the TPB was employed in this research for a number of reasons: First, according to Herrero Crespo and Rodríguez del Bosque (2008) TPB is a recognized and extensively employed model. Second, the TPB is parsimonious compared to related models employed to clarify consumers' behaviour. Third, TPB includes a wide variety of variables (Herrero Crespo and Rodríguez del Bosque, 2008). Fourth, the TPB is simple yet has high explanatory power (Armstrong, 2001). Finally, the TPB is able to predict social influences, which are considered to be strongly related to new product adoption (Shabbir, 2010).

Further, regarding the extensive use of the TPB, the TPB has been employed in many different contexts to better understand certain behaviours. Despite the criticism of the TPB for some underlying limitations (e.g. Bagozzi, 1992 and Eagly & Chaiken, 2004), the TPB continues to be widely employed as a theoretical guide (e.g. Bosnjak et al., 2006; Liao et al., 2007; Luarn and Lin, 2005 and Hsu & Chiu, 2004) because “none of these alternative models have achieved universal acceptance, as each one presents particular strengths and weaknesses.. Models which have been developed include variables taken from the theory of planned behaviour in their structure.. the theory of planned behaviour seems to be particularly well fitted to be used as the theoretical base for studying the influence of additional variables (e.g. innovativeness).” (Herrero Crespo and Rodríguez del Bosque, 2008: 2).

According to the diffusion of innovation theory (DIT) (Rogers, 1983) before individuals adopt a new product, they will collect information to be knowledgeable about the proposed product and based on their knowledge individuals will adopt or reject it. Rogers (1995) suggested five characteristics that influence consumers' decision on adoption of a new

product: relative advantage, compatibility, complexity, trialability and observability. The diffusion of innovation theory has been extensively employed in studies related to explaining the adoption behaviour of consumers (e.g. Azam et al., 2011; Cheng et al., 2004; Choo, 2011; Chou et al., 2012; Hoffmann, 2011; Mazlan, 2005; Moore and Benbasat, 1996; Strutton et al., 2011; Rogers et al., 2005; Tourtoglou and Virvou, 2010; van Rompay and Pruyn, 2011; Wang and Wang, 2006). The perceived characteristics of an innovation (PCI) of Rogers (1962, 1995) has been extensively used in order to understand or predict consumers' behaviour in relation to their adoption of new products or innovations (Chou et al., 2012). Rogers (1995) introduced five characteristics of innovation: relative advantage, compatibility, complexity, observability and triability (Chou et al., 2012). These characteristics are supposed to explain from 49% to 87% of adoption decision variance. Nevertheless, according to Taylor and Todd (1995a) based on the diffusion innovation literature of Rogers (1983), the main and most accurate predicting factors of an innovation are only three characteristics, which are relative advantage, compatibility and complexity. Also it was stated that "a meta analysis of innovation..demonstrated that these three factors are consistently related to adoption decision." (Taylor and Todd, 1995a: 5).

Thus the TPB and DIT were integrated as has been done before by a large number of researchers (e.g. Cheng et al., 2004; Chou et al., 2012; Lim, 2009; Mazlan, 2005; Moore and Benbasat, 1996) and employed to comprehensively understand the relationship and influences of religion on brand personality and new product adoption, and the relationship and influence of Islamic brand personality, subjective norms, perceived behavioural control, related advantages, compatibility and complexity on new product adoption as additional variables, as illustrated in the conceptual model in Figure 3.1 on page 95.

3.2. Islamic Religious Beliefs

Islamic religious beliefs are defined by Shachar et al. (2011: 2) as "the centrality of religion to the individual as reflected in his or her attitude and behaviour towards life." This definition implies the potential importance and influential role of Islamic religious beliefs on brands and their associations. Mokhlis (2009) argued that Islamic religious beliefs is a valuable cultural factor since it is a universal and influential cultural factor, which

significantly impacts individuals' values, behaviours and attitudes. In line with this argument, Kotler (2000) suggested that religious belief as a cultural factor is able to shape human behaviour. Essoo and Dibb (2004: 684) stated that "Religion is one of the fundamental elements of social behaviour and has been studied from various, often contrasting theoretical perspectives." As Shachar et al. (2011) argued, the concept of religious beliefs is very broad and it can be viewed as the degree to which a follower is living according to his/her religious beliefs' guidelines. Alam et al. (2011) stated that people who have a religion follow specific values and teachings that are able to impact their actions. The religion of Islam directs Muslims in every part of life, which provides them with a certain way of life. In the holy Quranic verse of Al isra (26-27), Allah instructs Muslims not to consume extravagantly, but spend for the sake of Allah (Alam et al., 2011). Islamic religious beliefs or religiosity can be evaluated by employing a few previously developed measures, but the measure proposed by Shabbir (2010) is regarded as the most balanced measure which can be used across the Islamic context. Shabbir's religiosity measure has eight statements, which measure different Islamic religious aspects.

According to Kahle et al. (2005: p.2) "Many academics are less religious than the general population, thus tending to ignore religiosity in introspective evaluation of consumer processes. Although a few studies of religiosity occasionally appear in the consumer literature, for the most part the topic is conveniently ignored. Although religious advocacy may not have a place in meaningful scientific discussion, religion and religiosity can and should be studied with the same degree of rigor and objectivity as other influential social characteristics, if we hope eventually to develop a comprehensive understanding of consumer lifestyles and behaviour."

3.3. New Religious Compliant Product Adoption

Jamal (2003) argued that religious commitments and beliefs impact individuals' consumption behaviour. According to Shabbir (2010) religious beliefs determine prohibited and non-prohibited products, which influence customers' purchasing, consuming and adopting decisions. For instance, wine has a symbolic role in some religions, whereas in Islam wine is prohibited, and Judaism and Islam forbid consuming pork but it is not forbidden in Christianity. Yun et al. (2008) determined that people consider buying new

products if these new products do not violate or contradict with their religious creed. Shabbir (2010: 3) concluded that “Religious commitment affects consumers’ orientations regarding consumption patterns, as well as their social behaviour.” Shabbir (2010) also stated that customers are strongly affected by a variety of elements during their decision making process about whether or not to adopt a new product or service, and religious values is one of these influential factors. Therefore, individuals tend to adopt products that are considered to be an accepted behaviour or correct choice to take by their surrounding society, which is driven by their practised religion such as Islam, Judaism or Christianity. However, the relationship between Islamic religious beliefs and new religious compliant product adoption has still not be conceptually or empirically examined and fully understood, although such an examination was urged by some previous studies such Kahle et al. (2005). Finally, due to the strong lack of knowledge in relation to new product adoption literature, there is almost no single definition of this construct. However, new religious compliant product adoption is defined by this study as “the religious consumer’s adoption or liking behaviour towards newly introduced products of both goods and services, which are designed to not contradict with their Islamic religious beliefs and teachings.”

3.4. The Research Hypotheses

To answer the research questions and to achieve the research objectives, fifteen research hypotheses were proposed, as follows:

3.4.1. Islamic Religious Beliefs (IRB), Islamic Brand Personality (IBP) and New Religion Compliant Products Adoption (NRCPA)

Within the field of social psychology, the acknowledgment of a symbolic purpose is established within the area of attitudes (Mannetti et al., 2002). Shavitt (1990) argued that nearly 40 years previously (e.g. Katz, 1960; Kelman, 1961; Smith, et al., 1956) attitude was considered to encompass functional categories such as self-esteem maintenance, social identity and functional. In other words, attitude is conceptually equivalent to some extent to self-esteem/personality and social identity. According to Mannetti et al. (2002) attitudes can assist in self-expression/personality and social communication. It was argued by Shavitt (1990) that attitudes regarding certain products or items tend to aid only one function. For

example, objects like milk persuade utilitarian attitude, whereas objects such as examinations persuade only self-identity attitude. Therefore, Shavitt (1990) determined that the kind of function primarily persuaded by the attitude entity influences the nature of persuasive arguments that take place to be generally successful. In other words attitude can be viewed as synonymous with self-expression, which is synonymous to personality.

Aaker (1999: 1) stated that “the basic argument is that attitude objects, such as brands, can be associated with personality traits that provide self-expressive or symbolic benefits for the consumer.” So basically Aaker (1999) suggested that self-expression is an object of attitude, which supports the proposition that brand personality can be regarded as an attitudinal object. Based on such a view, self-expression/brand personality and attitude are similar. Therefore, brand personality conceptually can be employed to assist the symbolic function of people’s/consumers’ attitude towards a product (Aaker, 1999; Fishbein and Ajzen, 1975; Mannetti et al. 2002; Richins, 1994; Shavitt, 1990).

With regard to Islamic brand personality (IBP), this term was formulated by this study and it stands for the brand personality measure that is developed by the present study, which will lead to design of desirable personality characteristics that do not contradict with the Islamic values for brands that operate in the Muslim market. This concept of the IBP was based on some previous studies that argued that Islamic religious beliefs can reflect a certain personality. Relatively, Shachar et al. (2011: 5) argued that the self-expressive advantage is provided by religious beliefs when they stated that “Brands are certainly not the only way that individuals can express their self-worth. One’s level of religiosity may also play a role in the expression of self-worth.” The view that religious beliefs can enhance the self-schema of an individual is supported by academics such as Crocker et al. (2003), Francis (2005) and Seul (1999). According to Shachar et al. (2011) it is identified in the literature of religiosity and self-expression that brands and religious beliefs similarly enable people to reflect characteristics of their personalities and express their emotions. Therefore, it was concluded by Shachar et al. (2011:5) that “it seems reasonable to expect that brands and religiosity will serve as substitutes for one another when it comes to the expression of self-worth.” Thus, it is proposed by this thesis, based on the presented literature, that religious beliefs significantly influence the development of brand personality, particularly in religious markets such as the Islamic group of nations such as Saudi Arabia, where there

is a high demand for Sharia- compliant (halal) brands. Thus, since religiosity or religious beliefs can be used as self-expression, and the brand personality is developed based on personality characteristics, than it is logical to argue that religions will impact the brand personality via religious personality characteristics and this leads to what this study calls Islamic brand personality, since this study is examining the Islamic context.

In relation to the influence of Islamic religious beliefs, it has been argued that religion is possibly one of the most influential factors on people's behaviour (Alam et al., 2011). According to Mokhlis (2009) religious beliefs is a vital cultural factor since it is a universal and influential cultural factor, which significantly impacts a people's values and behaviours. In line with this statement, Kotler (2000) concluded that religious belief as a cultural factor is able to shape human behaviour. Essoo and Dibb (2004: 684) stated that "religion is one of the fundamental elements of social behaviour and has been studied from various, often contrasting theoretical perspectives." The power of religion as an influential factor on humans' behaviour can be clearly understood from Shabbir's (2010: 1) assertion that "religious commitment plays an important role in people's lives through shaping their beliefs, knowledge and attitudes."

Also, it was suggested that religious beliefs can influence consumers' behaviour, including their adopting or trying a new product (Delener, 1994). Therefore, it is widely accepted that religious beliefs/religion/religiosity (all synonymous) strongly influence different social aspects of people's lives. Religious beliefs shape the favourableness and unfavourableness of products in customers' perception, and based on religious beliefs they decide to adopt or try products or services that do not contradict their religious teachings (Abou-Youssef et al., 2011; Alam and Sayuti, 2011; Alam et al., 2011; Bonne et al., 2007; Delener, 1994; Mokhlis, 2009b; Muhamad and Mizerski, 2010; Haque et al., 2011; Lada et al., 2009; Shabbir, 2010; Yun et al., 2008).

Since brand personality is related to the customer-based perspective of a brand (e.g. Aaker, 1997; Arora and Stoner, 2009 and Geuens et al., 2009), it can be argued that religious beliefs such as Islam influence brand personality. Wilson and Liu (2010) suggested that a framework is needed that helps Islamic brands to express their characteristics, and reflect favourable and unique linkages within the memory of customers. Wilson and Liu (2011)

have also argued that Islamic brands or religious brands will not remain in the stage of branding on the basis of functions alone; in fact, emotional and psychological branding strategies should be developed and employed, such as brand personality. Alam et al. (2011) called for research related to the role of Islam in preference for branded products. Since Wilson and Liu (2010) suggested that Muslim customers prefer high involvement in their favoured products because of their faith and a propensity for risk aversion, understanding the relationship between religious beliefs and brand personality can assist in developing the right brand personality through the employment of an Islamic compliant brand personality measurement, which should enable brands to provide religious customers (e.g. Muslim customers) with high involvement and risk avoidance.

Finally, it was argued by Regnerus and Elder (2003) that people with high religiosity tend to behave in accordance with society or groups that follow the same religion, and they determined that consumers who are involved with religious groups build stronger social relationships which influence their behaviour and lifestyle. In addition, according to Ho et al. (2008) people are more motivated to behave in a way that is acceptable to or preferred by important referent groups or individuals. Azam et al. (2011: 2) stated that “religiosity and adoption of new product have a very close relationship. If consumers in some markets are more religious, then the new products and the way these products are promoted need to be prepared in accordance with the spiritual and religious dictates that influence consumers”, which means that consumers’ adoption decision process encourages adoption of products that match their religious teachings. Based on what is stated above and discussed earlier in the literature review in Chapter Two in relation to the important role that Islamic religious beliefs play in consumers’ social behaviour and economic behaviour (e.g. favouring and adopting certain products) towards products or brands that are religion-compliant or not, the following hypotheses are proposed:

H1: Islamic Religious beliefs and Islamic brand personality are positively related.

H2: Islamic Religious beliefs and new religious compliant product adoption are positively related.

3.4.2. Islamic Brand Personality (IBP) Measure, and IBP and New Religious Compliant Product Adoption (NRCPA)

The paradigms of DeVellis (1991) and Netemeyer et al. (2003) which are mainly formed on the basis of Churchill's (1979) unique paradigm, were employed to develop the appropriate brand personality measurement for Saudi Arabia as an Islamic market context. The motivations for employing Churchill's (1979) paradigm are; first, this paradigm academically assesses, structures and directs the process of measurement development (Geuens et al., 2009). Second, this particular paradigm is commonly utilised by academics when building a measurement in the marketing field, for example, brand identity in service (Geuens et al., 2009), Brand associations (Low and Lamb Jr, 2000), a measurement for store personality (d'Astous and Lévesque, 2003) and Aaker's brand personality scale in France (Ferrandi et al., 2000). Finally and importantly, Churchill's (1979) paradigm demands that researchers employ items that are backed theoretically, which is part of this thesis methodology.

This research, as advised by Churchill, included items that are used to describe brand personality or personality from previous related studies. These were evaluated by experts related to the field of study, who were also asked to recommend new items. Netemeyer et al. (2003) stated that such a step improved their developed scales' content validity.

Since this thesis utilised Churchill's (1979) paradigm, it is vital to mention that the first stage of the data collection plan was qualitatively implemented as advised by Churchill, through the employment of focus groups to evaluate and balance the traits that were theoretically generated, as well as to allow the researcher to generate new traits. Such a stage has been employed by a number of academics to generate traits from focus groups (e.g. Aaker, 1997; Geuens et al., 2009; Simões et al., 2005 and Walsh and Beatty, 2007).

3.4.3. Dimensionality of Islamic Brand Personality Measurement

This part of the theoretical framework of this thesis explains from where the traits or nouns used to describe brand personality were adopted, or how new ones were generated. As suggested by Churchill (1979) and supported by Netemeyer et al. (2003), when developing a scale, traits that are theoretically supported by previous studies should be included.

Therefore, theoretically supported traits as discussed in the literature of brand personality measurements and the human personality Big Five model were included in the development process of the brand personality measurement proposed in this study for the Islamic market context.

The first study from which traits were adopted by which to measure a brand personality in the context of the Muslim world is Aaker's (1997), because one of the motivations for developing an appropriate brand personality scale for the Islamic context was that Aaker's (1997) measure, based on the related argument in the literature review, is not universal, as she claimed. In addition, Aaker's (1997) was a very early study that aimed to measure a brand personality; therefore, it is seen by this research as a pioneer study. Aaker proposed 42 traits divided under five dimensions, namely, Sincerity, Excitement, Competence, Sophistication and Ruggedness. These dimensions and their traits were presented to focus groups formed of postgraduate and graduate level students in the marketing field, who were asked to evaluate the usability, meaningfulness and cultural suitability of these traits to describe brands in the Saudi context. Some dimensions were excluded or adjusted by the focus groups because they were seen as American-specific, such as ruggedness.

The second source of theoretically backed traits is the Big Five model and scales built to measure brand personality based on the Big Five model and Lexical approach, namely Caparara et al. (2001), Ferrandi et al. (2000) and Geuens et al. (2009) (*see Appendix 1*). The traits suggested in these studies were added to Aaker's traits, then a list of these traits was presented to the focus groups for evaluation and suggestions. At the end of this stage, the author conducted a manual analysis to refine the list of traits, keeping those that were meaningful, culturally suitable to the context of research and suitable to characterise a brand based on the view the of author of this study. These traits were then piloted to a sample of 40 respondents to confirm the finalised list, as recommended by Geuens et al (2009).

In the end, the final list of traits was presented to respondents, in order for them to rate the personalities of two-selected brands from one type of business industry such as telecommunications. Traits were rated on a seven-point Likert scale ranging from '1- very

strongly disagree' to '7- very strongly agree'. Churchill (1979) advocated having a clear definition of the measure in order to increase the focus of the development, as stated by Coleman (2011). Therefore, this thesis adopts Aaker's (1997: 347) definition of brand personality as "the set of human characteristics associated with a brand". The logic for adopting this definition is that it satisfies the aim and objectives of this thesis, even though the context of study is different.

SPSS 19 was used to conduct an Exploratory Factor Analysis (EFA) in order to identify the best number of dimensions of the brand personality measure, as suggested by Churchill (1979) and employed by, for example, Aaker (1997), Caparara et al. (2001) and Geuens et al. (2009). This step was followed by Confirmatory Factor Analysis (Dudley et al., 2005) as employed in studies such as Aaker (1997), Caparara et al. (2001), Coleman (2011), Ferrandi et al. (2000) and Geuens et al. (2009) in order to confirm the selection of the number of factors, and test the content validity and the reliability of the measurement by using AMOS. Finally, the AMOS program was also employed to perform Structural Equation Modelling (Kassem) to examine the relationship between the religious statements and the dimensions of the proposed measure of brand personality.

In relation to Islamic brand personality and new religious compliant product adoption, Bosnjak et al. (2007) stated that a large number of scholars on the symbolic function of brands have concluded that consumers tend to prefer brands that match their personality. Therefore, brand personality was regarded as a vital factor in designing the symbolic side of a brand, which can enhance the brand's likeability, consumption, loyalty, trust and emotional links (e.g. Aaker, 1996a; Aaker, 1997; Arora and Stoner, 2009; Guese and Haelg, 2009; Guthrie et al., 2008; Kapferer, 1997 and Plummer, 2000). Aaker (1996a) argued that brand personality is the closest dimension to the purchasing/adoption decision-making process. According to Guthrie (2008), brand personality focuses on the uniqueness of relations in social actions and provides the brand with a higher position in the memory of customers and builds senses of friendship and belonging towards brands.

On the other hand, Shachar et al. (2011) argued that it is identified in the literature of religiosity and self-expression that brands and religious beliefs similarly enable people to reflect characteristics of their personalities and express their emotions. Therefore, it was

concluded by Shachar et al. (2011:5) that “it seems reasonable to expect that brands and religiosity will serve as substitutes for one another when it comes to the expression of self-worth.” From what is underlined above, consumers are more likely to adopt new products that reflect and match their personality characteristics, which are shaped by their Islamic religious beliefs, and therefore, the following hypotheses are set forth:

H3: Islamic Brand personality is positively related to new religious compliant product adoption.

H3a: Islamic Brand personality mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

3.4.4. Islamic Religious Beliefs (IRB), Diffusion of Innovation Theory (DIT) and New Religion Compliant Products Adoption (NRCPA)

It was concluded by some of the very few studies that are related to Islamic religious beliefs' impact on adoption of new products, such as Azam et al. (2011), Gerrard and Cunningham (2003), Kalliny and Hausman (2007) and Shabbir (2010), that religious beliefs are tightly linked to new innovation adoption in the field of pure marketing management, but there remains a large gap of knowledge to filled in the literature, as claimed by the same scholars. According to Shabbir (2010), for markets with religiously featured consumers, new innovations/products and their promotion campaigns must be designed according to the targeted consumers' religious teachings and values. Only recently, Azam et al. (2011) and Shabbir (2010) conducted studies that aim to better understand the religious dimensions that most influence new product adoption, and they examined five dimensions: Ideological, Ritualistic, Experiential, Intellectual and Consequential.

According to Jamal (2003) religious beliefs' impact on product adoption or diffusion of innovation has been acknowledged in literature. Relevantly, Azam et al. (2011: p.2) stated that “it is evident from past research that religion affects the diffusion of Innovation but literature lacks evidence about relationship between religiosity and rate of diffusion of Innovation.” Thus, this research selected one part of diffusion of Innovation/ adoption to be examined in relation to Islamic religious beliefs and new product adoption, which is the perceived attributes of Innovation'. Perceived attributes of an innovation based on five

factors, three of which are widely regarded as capturing about 70% of new innovations' perceived attributes they are relative advantages (RA), compatibility (COM1) and complexity (COM2). Therefore, the concern of the present study is limited to investigating the relationship between Islamic religious beliefs and RA, COM1 and COM2, to better understand how religious consumers adopt new innovations or products.

Islamic Religious Beliefs (IRB), Relative Advantage (RA) and New Religion Compliant Products Adoption (NRCPA)

Now, as explained previously in section of 2.8 of this study, relative advantage (RA) is explained as the degree to which the new innovation is perceived to be better than the existing products (Rogers, 1995). Consequently, scholars such as Rogers (1995) and Gerrard and Cunningham (2003) determined that consumers perceived RA in relation to their own economic benefit and desired social status satisfaction, which can be viewed as factors that seem to be arranged under the RA construct, and therefore, the following hypotheses are set forth:

H4: Islamic Religious beliefs and relative advantage are positively related.

H5: Relative advantage and new religious compliant product adoption are positively related.

H5a: Relative advantage mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

Relative advantage refers to the possible benefit from adopting a certain product, whether an economic benefit, social status, improved image/personality reflection, convenience or satisfaction. Thus, the greater the relative advantage expected to be obtained when adopting a new product, the more likely it is that the new product will be adopted (Cheng et al., 2004; Chou et al., 2012; Taylor and Todd, 1995a). The desired personality reflection can be regarded as one of the relative advantages of a new product, which represents the desired personality of consumers, for example compliance with Islamic beliefs. This leads us to

propose a possible positive relationship between Islamic brand personality and relative advantage, and therefore, the following hypothesis is set forth:

H6: Islamic Brand personality and relative advantage are positively related.

Islamic Religious Beliefs (IRB), Compatibility (COM1) and New Religious Compliant Product Adoption (NRCPA)

The next construct is compatibility (COM1) explained by Rogers (1995) as the degree to which an innovation is viewed or perceived to be consistently matching the demands and values of targeted consumers. This would presumably include religious values, COM1 was regarded by Gerrard and Cunningham (2003) as a construct that evaluates an innovation's ability to match the needs of the consumers. It is assumed that for religiously motivated consumers, one of the needs is compliance with Islamic religious beliefs. Therefore, the following hypothesis is set forth:

H7: There is a positive relationship between Islamic religious beliefs and compatibility.

Compatibility refers to the extent to which an innovation is perceived as being consistent with the existing values, demands or needs, inner beliefs and past experiences of potential consumers (Moore and Benbasat, 1991, 1996). It is worth mentioning that Rogers (1995) concluded that COM1 is observed to be positively related to the decision on adoption of a new innovation based on its nature. Therefore, the greater the perceived compatibility of a new product, the greater the likelihood that consumers will adopt the product (Chou et al., 2012; Hoffmann, 2011). Therefore, the following hypotheses are set forth:

H8: Compatibility positively influences new religious compliant product adoption.

H8a: Compatibility mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

Islamic Religious Beliefs (IRB), Complexity (COM2) and New Religious Compliant Product Adoption (NRCPA)

The construct of complexity (COM2) was identified by Rogers (1995) as the degree to which a certain innovation/new product is seen to be not matching the needs and values of potential consumers, so they believe that it is difficult to use and consequently to adopt. According to this definition, COM2 is usually employed to evaluate the anticipated utility and simplicity when the innovation is used (Gerrard and Cunningham, 2003). According to Rogers (1995), COM2 is found to be negatively related to the innovation adoption rate. Therefore, this research proposed to investigate the relationship between Islamic religious beliefs (IRB) and COM2 as one of the most widely constructs that predict the rating of a new innovation's perceived characteristics because it reflects the possible difficulty or disadvantages related to a new product and what extent they are compliant with Islamic values. Thus, based on what was presented above and in section 2.8 of this study, the following hypothesis is proposed:

H9: Islamic Religious beliefs and complexity are positively related.

In general, “the simpler an innovation is to understand and use, the more likely it is to be adopted.” (Taylor and Todd, 1995a: 5), therefore, complexity was argued to have a negative impact on innovation adoption (BĂRBUȚĂ-MIȘU and STROE, 2011; Chou et al., 2012; Herrero Crespo and Rodríguez del Bosque, 2008; Seligman, 2006). Thus, for the context of the present study the following hypotheses are set forth:

H10: Complexity negatively influences new religious compliant product adoption

H10a: Complexity mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

3.4.5. Islamic Religious Beliefs (IRB), Subjective Norms (SN) and New Religion-compliant Product Adoption (NRCPA)

The indicator of social factors on consumers' behaviour is the subjective norm construct of the TPB (Ajzen, 1991). Subjective norm explains the social pressure on individuals to behave in accordance with teachings or values that their reference groups (e.g. religious groups) or community follow (Ajzen, 1991). Herrero et al. (2008) stated that subjective norm represents how a consumer is influenced by the perception of referents important to him or her. It was concluded by George (2004: 7) "an individual's normative structure, i.e. his or her beliefs about what important others think about the behaviour in question, should directly influence his or her subjective norms, or perceptions of the social pressure to comply with expectations about engaging in the behaviour. Subjective norms should in turn influence the individual's proclivity to engage in the behaviour. If social expectations are that people should engage in the behaviour in question, then the individual should be more likely to do so."

A few previous studies have proposed that subjective norms influence consumers' behaviour (e.g. Alam and Sayuti, 2011; Hansen, 2008; Nur Haslizatul Liza, 2011; Lada et al., 2009). These studies have hypothesised that religious individuals are expected to intend to perform a behaviour that is admired and favoured by people who are important to them (e.g. family, friends, religious people and colleagues), which causes preference for religious products or services (e.g. halal branded products or services). In the case of adopting a new product in religious communities such as Saudi Arabia, it is expected that subjective norms influence people's decision on product adoption, as discussed earlier in the literature. Also it has been proposed that consumers' society might be regarded as a vital factor that impacts customers' attitude (Ajzen and Fishbein, 1980). Relatedly, Reed (2004) and Thorbjørnsen et al. (2007) suggested that subjective norms influence on intention to behave in a specific way is mediated by social identity expressiveness. Fame et al. (2004) argued that society's beliefs and subjective norms cannot be neglected in relation to consumer behaviour. Thus, for the context of the present study we propose:

H11: Islamic Religious beliefs and subjective norm are positively related

H12: Subjective norms positively influence new religious compliant product adoption behaviour and

H12a: Subjective norms mediate the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.

H13: Subjective norms and Islamic brand personality are positively related.

3.4.6. Islamic Religious Beliefs (IRB), Perceived Behaviour Control (PBC) and New Religion-Compliant Products Adoption (NRCPA)

Ajzen (1991) identified perceived behaviour control as the degree to which an individual feels able to act or behave in a certain way. This construct of the TPB is determined through two features: the degree to which an individual can control his/her behaviour, and how confident is he/her feels about performing or not performing certain behaviour. It is indicated by the person's beliefs about the influence of both situational and inner aspects in facilitating the performance of the behaviour. The more an individual feels he/she has control over adopting a certain new product/brand, the higher the probability that he/she will behave favourably toward adopting the new product/brand. In the case of religious consumers' (e.g. Muslims') perceived behaviour control, studies (e.g. Alam and Sayuti, 2011; Aziz et al., 2011; Bonne et al., 2007; Lada et al., 2009; Nur Haslizatul Liza, 2011) proposed that consumers find better behaviour control when adopting or purchasing products that comply with their spiritual values, as discussed earlier in the literature. Thus it is hypothesised that:

H14: Islamic Religious beliefs and perceived behaviour control are positively related.

H15: Perceived behaviour control and new religious compliant product adoption are positively related.

H15a: Perceived behaviour control mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

3.5. Moderator Variables

After understanding of the meaning of moderators provided previously in section 2.9, the possibility of moderation effects on the proposed conceptual framework was vital to be assessed in the present study. The assessment of moderators' impact is believed to positively and significantly contribute in improving a model's predictive validity. According to Daghfous et al. (1999), the adoption decision differs from one individual to another relatively to their own demographic and socioeconomic characteristics.

Moreover, Morris et al. (2005: p.72) asserted "the need to extend existing theory and research in individual adoption and use of technology in order to account for the co-properties of gender and age." In other words, Morris et al. argued that the TPB, which is the theory they employed in their study, should include the variables of gender and age in order to provide a better and more accurate understanding of individuals' adoption behaviour. It was found by Judge et al. (2001), Roslow et al. (2000) and Serenko et al. (2006) that the variables of age, gender and income play a vital role in influencing the relationships' significance and paths' directions within a number of models related to marketing. Serenko et al. (2006) suggested that age, gender and income are the most important demographic variables. Therefore, the present study investigated the possible moderation effects of age, gender and income.

3.5.1. Age

In relation to age, some previous studies concluded, based on age as a variable, that older participants have far less need for autonomy than younger participants (workers) (Morris et al., 2005). Additionally, according to Venkatesh et al. (2003) and Morris et al. (2005), age moderates adoption of new ideas and the same was found in the online shopping context (Hernández et al., 2011), which causes different findings (dissimilar behaviour) based on the group under investigation. The age factor is considered in this study due the lack of knowledge in relation to how age impacts religious consumers' behaviour towards adopting brands, or favouring or not favouring brands. The closest study in relation to the impact that age might have on religious consumers' behaviour is the study conducted by Haque et al. (2011), which concluded that Malaysian Muslim consumers are strongly influenced by corporate image, ethnocentrism behaviour and religious behaviour prior to purchase a

foreign brands. According to Terpstra et al. (1993: p.380) “Most empirical data have indicated that age is positively related to individuals’ ethical attitudes, beliefs, and behaviours.” This statement supports the decision in this thesis to propose a positive moderating impact of age on the relationship between Islamic brand personality and new religious compliant product adoption. Such a proposition was called for by Shabbir (2010: p.60), who suggested that “age will be a better predictor of the strength of the relationship between religiosity and NPA”, which implies that different age groups are likely to have different consumption behaviours and brand selection criteria.

Some previous studies that examined age as a moderation variable in different marketing subjects have concluded different findings, such as Zhang (2009) who found age to a relevant factor to explain consumers’ behaviour in regards with online shopping, and Al-Somali et al. (2009) who in contrast found that age had no moderation impact on consumers’ attitude towards e-banking. In the present study a positive moderation affect on the extended modelis proposed due to the salience of age in the unique examined cotext, a Muslim society. Haque et al. (2011: p.104) when they examined the influence of brand image and religiosity on young Muslims’ brand selection, concluded that “young Muslim consumer exhibit a high degree of ethnocentrism and have a strong preference of goods are ‘made in Malaysia’.”, which indicates that age can be regarded as a moderator in relation to religious beliefs’ impact on brand personality perception and consumption behaviour. Terpstra et al. (1993: p.380) reported that younger people are more Machiavellian than older people, which again implies that age can be a moderator in relation to examining a specific behaviour. It is worth mentioning that the context of this study scored (80) on the power distance index (PDI) (Hofstede et al., 2010), which means that older people hold the decision power. Therefore, this study aimed to find out how the different age groups impact on consumer behaviour and if there is a link between the older group and the younger group of consumers that can impact the latter’s consumption behaviour. As age increases, it is expected to strengthen the relationships between Islamic religious beliefs and perceived behavioural control, subjective norms, IBP, relative advantage, compatibility, complexity and new religious compliant product adoption. It is also expected to strengthen the relationships between IBP and relative advantage and IBP towards new religious compliant product adoption. Positive impact of age is also expected in the relationship between subjective norms, relative advantage, perceived behavioural control, compatibility and complexity towards new religious beliefs compliant product adoption, and that between

subjective norms and IBP. Therefore, for the context of the present study the following hypothesis is set forth:

H16: Age will moderate the relationship between Islamic religious beliefs 'IRB' and subjective norms 'SN', brand personality 'BP', perceived behavioural control 'PBC', relative advantage 'RA', compatibility 'COM1', complexity 'COM2' and new religious compliant product adoption 'NRCPA', IBP towards RA and NRCPA, SN towards IBP, and SN, RA, PBC, COM1 and COM2 towards NRCPA.

3.5.2. Income

In regard to income, Serenko et al. (2006) suggested that "From economic and marketing viewpoints, income is one of the major determinants of product and service demand, and is used for forming market segments with varying purchasing powers." This supports the claim that income should be regarded as a significant moderating factor when considering behaviour towards adopting new products. Hernández et al. (2011) and Roslow et al. (2000) determined that the demographic factor of income influences purchasing intention and behaviour, and Wong and Yu (2002) empirically determined that income impacts consumers' consumption behaviour. According to Hernández et al. (2011) individuals with high income level perceive lower risk in relation to adoption behaviour. Shabbir (2010) suggested that religious beliefs impact on consumption behaviour might be decreased as the income increases.

However, since Muslim consumers' consumption is guided by their Islamic religious beliefs (Alserhan, 2010b), it is logical to propose that Muslims with high or low income will be likely to behave in a very similar way that is in accordance with their religious values. However, for a product that is religiously compliant, while both may be in principle willing to adopt it, income may make a difference in actual ability to do so. Therefore, this study expects that as income increases, the relationships will strengthen between Islamic religious beliefs and each of perceived behavioural control, subjective norms, Islamic religious beliefs towards IBP, relative advantage, compatibility, complexity and new religious beliefs compliant product adoption, IBP towards relative advantage and new

religious compliant product adoption, subjective norms, relative advantage, perceived behavioural control, compatibility and complexity towards new religious beliefs compliant product adoption, and subjective norms towards IBP. Therefore, for the context of the present study the following hypothesis is set forth:

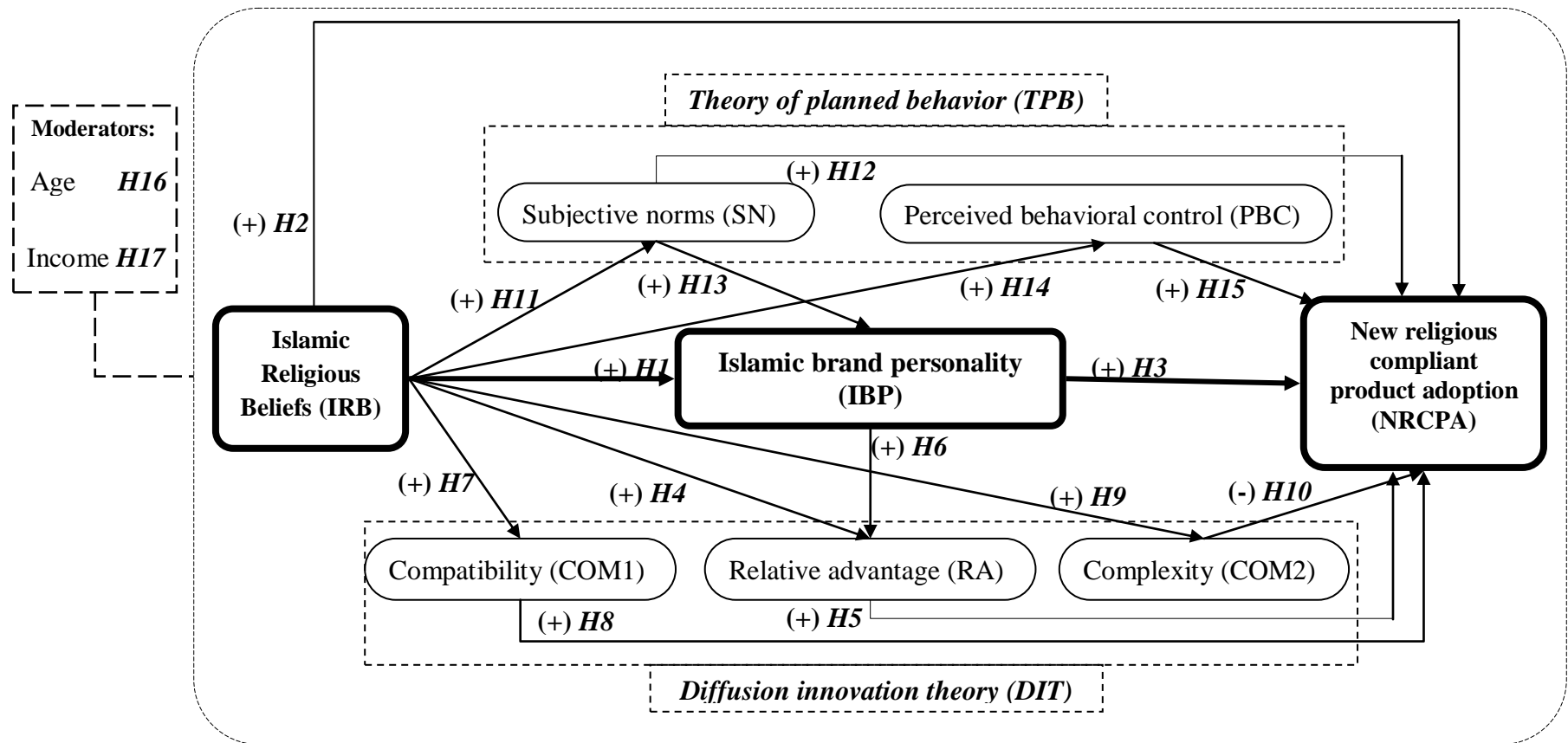
H17: Income will positively moderate the relationship between Islamic religious beliefs ‘IRB’ and subjective norms ‘SN’, brand personality ‘BP’, perceived behavioural control ‘PBC’, relative advantage ‘RA’, compatibility ‘COM1’, complexity ‘COM2’ and new religious compliant product adoption ‘NRCPA’, IBP towards RA and NRCPA, SN towards IBP, and SN, RA, PBC, COM1 and COM2 towards NRCPA.

3.1: Outline of Hypotheses

Hypothesis' number	Hypothesis' text
H1	Islamic Religious beliefs and Islamic brand personality are positively related.
H2	Islamic Religious beliefs and new religious compliant product adoption are positively related.
H3	Islamic Brand personality and new religious compliant product adoption are positively related.
H3a	Islamic Brand personality mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.
H4	Islamic Religious beliefs and relative advantage are positively related.
H5	Relative advantage and new religious compliant product adoption are positively related.
H5a	Relative advantage mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.
H6	Islamic Brand personality and relative advantage are positively related.
H7	Islamic Religious beliefs and compatibility are positively related.
H8	Compatibility and religious compliant product adoption are positively related.
H8a	Compatibility mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.
H9	Islamic Religious beliefs and complexity are positively related.
H10	Complexity and new religious compliant product adoption are negatively related.
H10a	Complexity mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.

H11	Islamic Religious beliefs and subjective norm are positively related.
H12	Subjective norms and new religious compliant product adoption are positively related.
H12a	Subjective norms mediate the relationship between Islamic religious beliefs and new religious compliant product adoption.
H13	Subjective norms and brand personality are positively related.
H14	Islamic Religious beliefs and perceived behaviour control are positively related.
H15	Perceived behaviour control and new religious compliant product adoption are positively related.
H15a	Perceived behaviour control mediates the relationship between Islamic religious beliefs and new religious compliant product adoption.
H16	Age will positively moderate the relationship between Islamic religious beliefs 'IRB' and subjective norms 'SN', brand personality 'BP', perceived behavioural control 'PBC', relative advantage 'RA', compatibility 'COM1', complexity 'COM2' and new religious compliant product adoption 'NRCPA', IBP towards RA and NRCPA, SN towards IBP, and SN, RA, PBC, COM1 and COM2 towards NRCPA.
H17	Income will positively moderate the relationship between Islamic religious beliefs 'IRB' and subjective norms 'SN', brand personality 'BP', perceived behavioural control 'PBC', relative advantage 'RA', compatibility 'COM1', complexity 'COM2' and new religious compliant product adoption 'NRCPA', IBP towards RA and NRCPA, SN towards IBP, and SN, RA, PBC, COM1 and COM2 towards NRCPA.

Figure 3.1: Conceptual Model of the Study.



Note: Mediators between RB and NRCPA: SN (H12a), IBP (H3a), RA (H5a), COM1 (H8a), COM2 (H10a) and PBC (H15a). Direct Hypotheses →, Moderators - - - .

3.6. Summary

This chapter presented a theoretically based framework and scale development approach in response to the identified gaps in the literatures of brand personality, brand personality's scale, Islamic religious beliefs' influence on consumers' behaviour and new religious compliant product adoption. Consequently, conceptually related hypotheses were developed as shown in Table 3.1. Subsequently, the hypothesised relationships between the constructs were illustrated in Figure 3.1. The next chapter explains the methodology and method that adopted to develop the scale and investigate the hypothesised relationships introduced in this chapter.

Chapter Four: Methodology and Method

4. Introduction

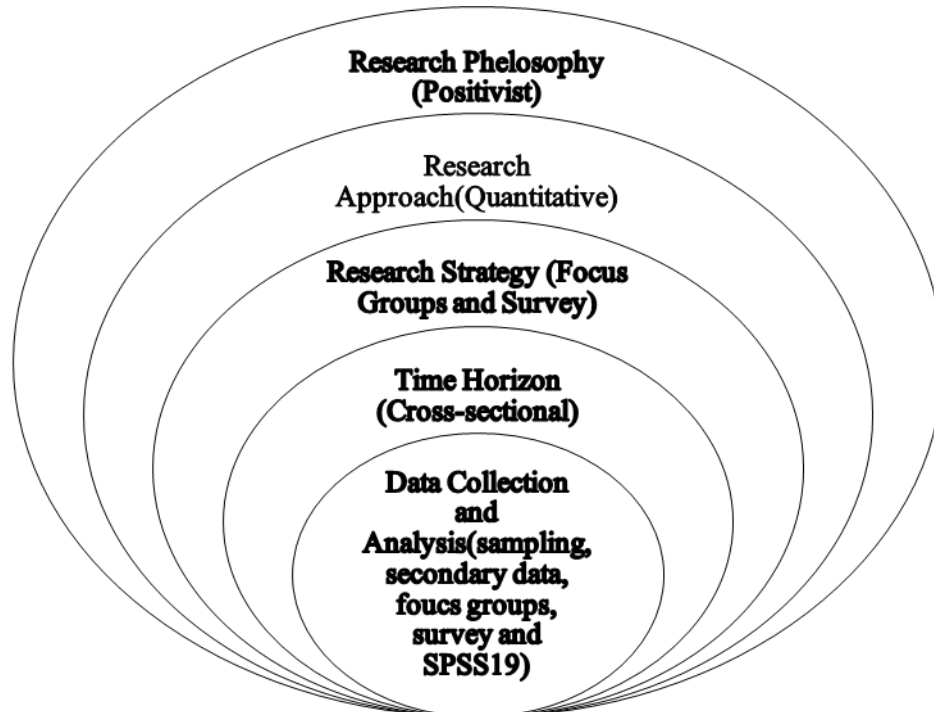
The purpose of this study is to develop an appropriate Islamic brand personality scale and investigate the relationship between Islamic religious beliefs and such measurement, brand personality and new religious compliant product adoption by employing the TPB and DIT. This chapter outlines the methodology that was employed to achieve the aim of this study, the research design, which includes the research philosophy, research approach and strategy. It introduces the research population and sample, questionnaire design, wording, content and distribution procedures, and statistical analysis methods.

The measurement development and related adopted items are also discussed. Finally, focus groups, the pilot study and data analysis with exploratory factor analysis (EFA), confirmatory factor analysis (Dudley et al., 2005), and structural equation modelling (SEM) using AMOS for the brand personality scale development and PLS for the conceptual model relations testing are also presented.

4.1. The Research Design

The importance of research design comes from its function as a main link between the discussion and the assumptions that inform the research and the observed information collected (Nachmias and Nachmias, 2008). Churchill (1979) argued that research design provides general guidelines for the data gathering and analysis of a study. To assist in development of the measurement of brand personality, the research development “Onion” structure was employed (see Figure 4.1) to focus the research approach and process.

Figure 4.1: The Research Process Onion



Source: Saunders et al. (2009).

4.1.1. Philosophy of Research

Research philosophy is a notion regarding the way in which information concerning a phenomenon can be collected and examined (Kleinberg-Levin, 1988). Also research philosophy could be identified as distinctive theoretical views employed to explore and explain an event that seems to be awkward for naturalist researchers (May, 2011). To understand the world we live in, we need techniques to observe and methods of interpreting the surrounding evidences, ideas, and phenomenon.

For a theoretical model to clarify something it is essential to have a proper connection between the arguments of this research, the tools employed to produce the arguments and the philosophical view used to inform the techniques (Ponterotto, 2005). These theoretical views concern issues regarding research ontology and epistemology. Ontology mainly focuses on the nature of reality. Its core ideology is divided into two characteristics which are both appreciated by business researchers to generate valid knowledge.

The first characteristic is *objectivism*. According to Saunders et al. (2007) this aspect presents the idea that social entities exist in nature independently of human awareness of their existence. The second characteristic is *subjectivism*. This is explained by Saunders et al. (2007:173) as a view “that social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence.” The second concern, *epistemology*, explores what counts as valid knowledge in a field of research, and whether this knowledge constitutes facts that are believed to be part of reality (e.g. vehicles and equipment) or considered intangible and incapable of being measured and manipulated. Saunders et al. (2007) stated that main question of epistemology is “can the approach to the study of the social world, [...], be the same as the approach to studying the natural sciences?”

It was decided in this thesis to employ a positivist philosophy, which as Crotty (1998) stated, implies a strong belief in the ability to study and examine facts in an objective way. Ponterotto (2005) explained research design components, which flow from the philosophy adopted, as follows. Ontology simply is being, Epistemology means knowing, Axiology is the positioning of values in the study development, Rhetorical structure is the language used in the study and Methodology is examining.

Given that the positivist philosophy was applied in this study, the relevant ontological assumption was that social reality is objective and external to the examiner, which means that the researcher cannot influence it and is only able to observe and examine, while believing its one singular reality. The epistemological assumption was that only what is measurable and observable can be treated as accurate knowledge. Since the aim of this study is to develop a framework to measure brand personality in the Saudi Arabian context and investigate its relationship with Islamic religious beliefs, this phenomenon can be observed and measured because it reflects the social actors’ existing perceptions of selected brands and how they are formed under the influence of Islamic religious beliefs. The axiological assumption was that the research is value-free because the researcher is examining established perceptions among consumers and the existing relationship between brand personalities of brands and whether they are influenced by or related to Islamic

religious beliefs. Rhetorically, the style adopted to match the purpose of this research is a formal style with usage of the passive voice (Ponterotto, 2005).

4.1.2. Research Approach

Consistent with the exploratory purpose of this research and the research philosophy (positivism), a quantitative, deductive research approach was adopted, as this emphasises the exploration of specific phenomena (Collis and Hussey, 2003). The deductive approach starts with reviewing theory and proceeds successively to designing questions and hypotheses that depend on theories, then gathering data, finishing up with examining the theory. It was suggested to adopt a deductive approach if the positivist approach was selected, as in this research (Saunders et al., 2009). Conversely, the inductive approach begins with observation, then designing hypotheses and in the last stage producing theory (Collis and Hussey, 2003).

A quantitative approach was regarded as appropriate for this research, since one of its objectives was to generalise the developed brand personality measurement scale for Saudi Arabia as an Islamic context and to generalise the findings of the relationship between Islamic religious beliefs and the measurement and according to Bryman and Bell (2007: 132) the “quantitative approach is designed to provide conclusions of statistics that support generalisability about the phenomenon under examination since it is dealing with a representative sample of the research population”.

4.1.3. Research Strategy

According to Crotty (1998: 55) methodology is “the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes”. A two stage design was adopted. First, the focus group strategy was utilised to evaluate the traits gathered from the literature and generate new context-related traits for the purpose of the development of the brand personality measurement, as advised by Churchill (1979) and Netemeyer et al. (2003). This strategy was suggested to generate the items that would be rated quantitatively in all the later stages. Therefore, the second strategy of this study was a survey to cover a large random sample (Bryman, 2004; Saunders et al. 2003).

Finally, as for the time horizon, a cross-sectional design was applied, in which a “snapshot” was obtained, as suggested by Saunders et al. (2003). This strategy provided quantifiable data that enabled the author to spot linkage among objectives and variables.

4.1.4. Data Sources

Primary data: Focus groups were used in the stage of generating traits. Based on the findings from the focus groups, a survey was designed for the specific purpose of this study. This included the final list of traits generated from the literature and focus groups, to describe a personality in the study context.

Secondary data: Previous measurements and works related to brand personality and the influence of Islamic religious beliefs in a marketing context were obtained from journals, published theses, books and academic online resources.

4.2. Research Population, Sampling Frame and Sample

According to Zikmund (2000), the research population, especially in business studies, is a group of people who have common features or characteristics and from whom the sample is chosen. Therefore, the target population of this thesis included all Saudi Arabian citizens and foreign people who are living in Saudi Arabia and speak fluent Arabic, because this study was examining Saudi Arabia as an Islamic context, to provide face validity to the research.

Another reason for these specific characteristics of the study population is that this thesis was aiming to understand the relationship between Islamic religious beliefs and brand personality measurement through examining the relationship between Islam and brand personality measurement. Therefore, based on these criteria, the relevant population was estimated to be all the population of Saudi Arabia who are above 18 years (adults). Since full coverage of the population is not feasible, a sample was selected, and for this purpose, a sampling frame needed to be determined.

4.2.1. Sample Frame of the Research

According to Churchill (1999) a sampling frame is the characteristics from which the sample is drawn. This criterion was designed in order to limit the sample size and to achieve the most useful and accurate findings of the data collection process. The study focused on Saudi Arabia's biggest three cities (Riyadh, Jeddah and Dammam) as the respondents' sampling ground. Based on this criterion, the sampling frame consisted of adults/males and females, either Saudi Arabian or foreigners who speak Arabic fluently, as recommended by Cychota and Harrison (2002) and suggested and followed by Geuens et al.(2009). On this basis respondents were randomly drawn from public places such as malls. This sampling frame was estimated to number thousands.

The number of respondents selected had to be sufficient to satisfy the minimum requirements for employing factor analysis to develop a measurement and SEM analysis to investigate the exact relationship between the measurement and the Islamic religious beliefs, as outlined in Chapter Three of the theoretical framework and as advised by Churchill (1979) and Netemeyer et al. (2003). The sample frame guides researchers to accurately set the suitable sample size, which will be highlighted next.

4.2.2. Sample Size

The intended number of respondents in this study was about 400 respondents. The logic for this number was that there were two and a half months available for data collection, with 60 days to distribute and collect surveys and if the author managed to collect 8 fully completed surveys a day, the total would be about 480. The researcher scheduled 15 days of the two and a half months data collection period for survey preparation prior to printing, checking prior to distribution, checking surveys after collection and data shipment back to the location of the programme to begin data analysis.

In addition, Kline (2005) stated that when using factor analysis, fewer than 300 respondents is weak, 300 respondents is good, and 400 to 500 respondents is very good. Thus by distributing 600 surveys, the author was hoping to obtain about 400 surveys fully, correctly completed and usable for the data analysis. Collis and Hussey (2003) suggested that about 400 questionnaires enable researchers to avoid bias when conducting such a research

approach and data analysis. Saunders et al. (2003) concluded that a larger sample size decreases the possibility of errors related to generalising findings, and generalising findings of the study to the nation of Saudi is a sub-objective of this thesis.

Nevertheless, Hinkin (1995) stated that the rate of response to items should range from at least 1:4 to 1:10 for a sample size to be scientifically significant. Keeping in mind the considerable length of the questionnaire of this study, with a total of 105 items included, the most suitable and achievable item-to-response rate would be 1:4. Therefore, a sample size of 350 to 400 respondents was set.

4.2.3. Sampling Technique of the Research

Sampling methods can be categorised in two categories, which are random (probability) and non-random (non-probability) samples. Probability sampling was selected as the method of the present study. The distinctive feature of probability samples is that the elements in the research population have an equal chance of being included in the sample (Sekaran, 2006). According to Yoon (2004: 138) “Probability sampling is usually used when the representativeness of the sample is of importance in the interest of wider generalisability”, and it is vital to state that this research aims to generalise its findings to whole population of Saudi Arabia. Probability sampling methods include systematic sampling, simple random sampling, stratified random sampling, area sampling, double sampling, proportionate and disproportionate stratified random sampling and cluster sampling (Sekaran, 2006).

Cluster sampling is the type of probability sampling selected for this study for several reasons. First, in this study data collection had boundaries, in that the biggest three cities of Saudi Arabia were chosen to be the data collection ground. Second, the researcher randomly selected a few identified locations (shopping malls). Third and last, the researcher set a criterion by which the participants were randomly selected, and this criterion was to approach each fifth person who walked into the mall. These criteria gave an equal probability to the population to be included in the study (Hair et al., 1998; Sekaran, 2006).

Collis and Hussey (2003) proposed some points to be considered in order to select a good representative sample from whom the findings could be generalised. Ideally, participants should be randomly selected. To meet this criterion, the questionnaires were administered in public places such as shopping malls, parks and places of entertainment, as recommended by Bryman and Bell (2007) to ensure equality of opportunity for participants.

4.3. The Development of IBP scale Techniques and Steps

The procedure that was followed in this study in order to accomplish the introduction of a IBP scale for the Islamic context, was guided by the scale development of Churchill's (1979) paradigm. This paradigm was followed because it has been extensively employed in studies that aimed to produce or propose the best possible steps to produce measuring scales, such as Coleman (2011); Geuens et al. (2009) and Netemeyer et al (2003). The employment of Churchill's (1979) scale development paradigm combined with internal stages for some of the main steps is outlined as follows in Figure 4.2.

4.3.1. Stage of identifying domain of construct

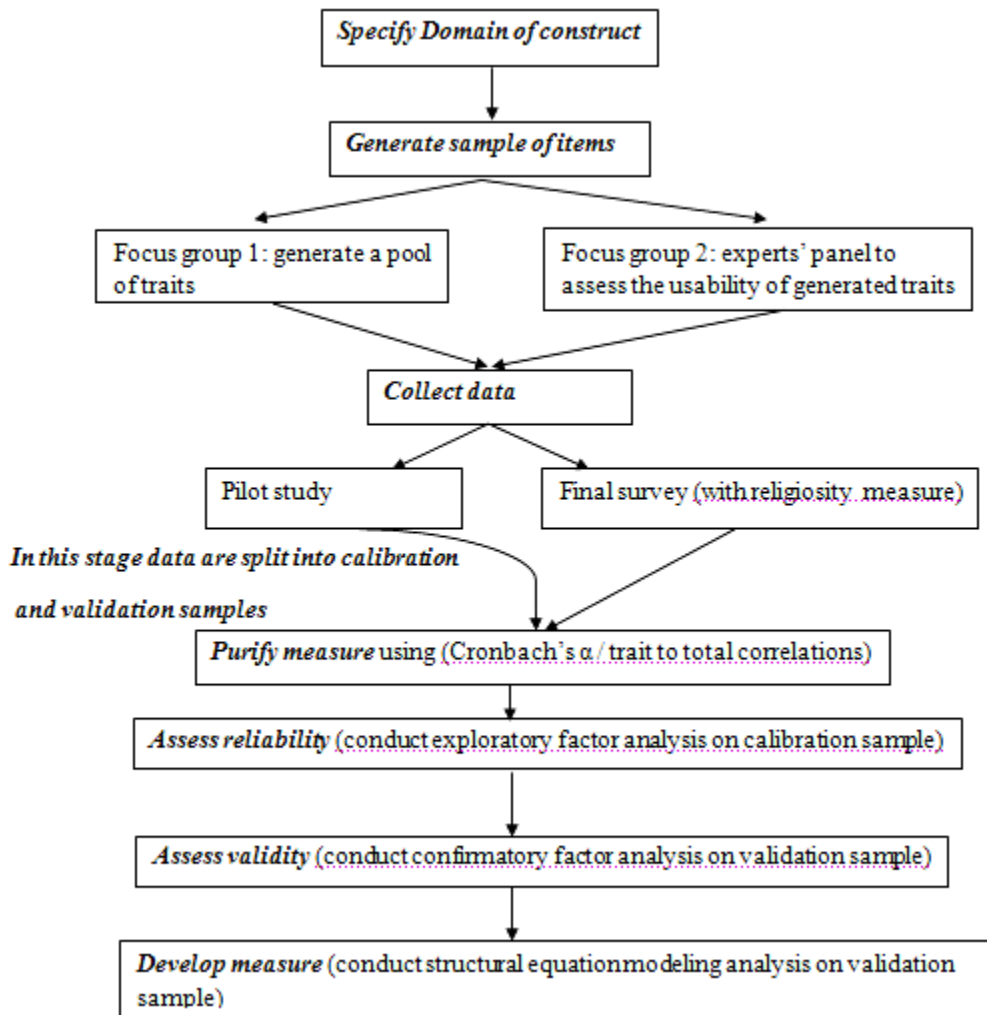
According to Churchill (1979: 4) "The researcher must be exacting in delineating what is included in the definition and what is excluded." As explained earlier in this thesis (Section 2.3), the definition of brand personality that was provided by Aaker (1997) was adopted to support the identification of the domain of this construct. The definition of brand personality was "the set of human characteristics associated with a brand" (Aaker, 1997). Specifying the domain of construct was considered by Netemeyer et al. (2003) to be a vital step in the process of building a measurement scale.

4.3.2. Stage of Generating Sample of items

After identifying the domain of this study measurement, which is brand personality, the following step as shown in Figure 4.2 was to generate a pool of items or (traits) that build up dimensions (latent variables) (Netemeyer et al., 2003). A list of items was developed in order to form dimensions for scale to be used in later stages. Such a list of traits was recommended in this stage for various reasons; most importantly, first, multiple items

improve measurement scale reliability. Second, no item is capable of sufficiently measuring a construct on its own. Finally, it is hard to evaluate accurately the attributes of one-item scales, as stated by (Churchill, 1979; Diamantopoulos and Souchon, 1999; Netemeyer et al., 2003).

Figure 4.2: Measuring Scale Developing Procedure followed in this study.



Sources: Churchill (1979), Coleman (2011) and Netemeyer et al.(2003).

As Churchill's (1979) paradigm advised, the generation procedure was done through two different methods. The first method was culling or gaining items from previous relevant studies such as Aaker's (1997). Aaker's (1997) 42 items that she analysed and used in her five factor brand personality measurement scale were used in this study's item generation stage because her scale is theoretically established and widely cited in the field of branding

and brand personality (Aaker et al., 2001; Arora and Stoner, 2009; Caprara et al., 2001; Davies et al., 2004; Ferrandi et al., 2000; Geuens et al., 2009; Yoon, 2004). Even though this study does not agree on the suitability of Aaker's brand personality scale across cultures and countries, as discussed in the literature review of this study, items of Aaker's scale were used because they were viewed to be common in the Saudi context and to enhance the size of the pool of potential items during developing the scale (Netemeyer et al., 2003). Also multiple items provided better factorability for the factor analysis to be conducted in later stages and to investigate the relationship between brand personality and Islamic religious beliefs. The second method of generating items was in the form of a qualitative strategy as recommended by Churchill's (1979) paradigm. Churchill stated that this qualitative strategy could exploit focus groups or experience interviews to collect items. This stage was employed in this research in form of focus groups to enhance items' contextual relevance and face and content validity (Coleman, 2011).

4.3.2.1. Focus Groups Rational and Procedure

Churchill's (1979) paradigm is considered to be an old work, and researchers who accepted this view did not employ a qualitative approach in any of their scale development procedures (Coleman, 2011; Bennett et al., 2005; Guiry et al., 2006; Sin et al., 2005b). For this thesis, a qualitative approach was employed in the form of focus groups as a data collection strategy to evaluate traits gleaned from the literature and generate new traits, as recommended by Churchill (1979) and employed by Aaker (1997) and Geuens (Geuens et al., 2009), and highlighted as a vital step by Netemeyer et al. (2003) to develop a scale as explained above.

The rationale for employing a focus group approach to generate items is based on the following aspects related to the approach, as follows: first, according to Sarantakos (1998), focus groups are helpful in exploratory studies with an acceptable group size of six-ten participants. Therefore, each focus group contained a minimum of eight people. Second, it enables the researcher to view participants' responses in a clear way (Kitzinger, 1995). Third, the focus group approach is particularly appropriate when the researcher uses open-ended questions (Kitzinger, 1995), which in this study included "What other personality traits do you think it is worth including in the items pool?" Fourth, the focus group approach is more culturally sensitive and flexible, which encourages participants to give

their honest opinion comfortably (Halcomb et al., 2007; Kitzinger, 1995). Fifth, focus groups enable participants to interact actively with each other, which helps in confirming the responses within the group argument (Webb and Kevern, 2001). These focus groups were structured, taking place in three steps (warm-up, confrontation and relaxation). The ‘funnel’ approach of designing the questioning route was also implemented (Beyea and Nicoll, 2000; Morgan, 1996). The ‘funnel’ questioning approach started with an introductory question to the subject for the focus groups, which in this research was “Can you tell me the first objectives that come to your mind when seeing Mecca cola, Saudi Airlines?” This was followed by the key question: “How would you rate the suitability of the trait for your society (Islamic context)?” Next was the second key question: “What other traits do you think it is worth adding to the list?” The final question was designed to end the focus group session: “Are there any items you would like to re-rate or to add but forgot?” The focus groups included a facilitator and a recorder (note taker) (Litosseliti, 2003; Webb and Kevern, 2001). The facilitator managed the meeting agenda, introduced the questions and directed the conversation to ensure that information was not repeated, and the note taker’s function was to listen to the conversation and write down the rating of introduced items, new items, and suitable items to be applied to products (in the second focus group only) as suggested by some previous studies (e.g. Creswell, 2007; Sarantakos, 1998; Saunders et al., 2009).

Two focus groups were conducted as follows: the first focus group was organised to evaluate the traits gathered from the literature and generate new context-related traits for the purpose of the development of the Islamic brand personality measurement. This focus group was held with the aim of covering different parts of the Islamic world and generations to enhance the probability of producing new and unique context-related traits that could be used to describe a human personality. This focus group was formed of ten men and eight women and was held on 4 March 2012. As advised by Burrows and Kendall (1997), the participants of the focus groups were selected in order to have similar socio-characteristics, represent different parts of the Islamic world, and feel comfortable arguing with and talking to each other. This generated a list of 74 traits to describe a personality in the Saudi context, as presented in Table 4.1. A sample of the original list of traits gathered from the literature and presented to the focus groups is presented in Appendix 2.

It is worth mentioning that each of the items was presented to the focus groups for them to discuss its appropriateness for the Islamic context (first group) and for describing a brand (second group) and rate its appropriateness on a scale of five points (1 = strongly not appropriate and 5 = strongly appropriate). Thus the findings yielded were analysed using the same steps that were conducted by Aaker (1997) and Geuens et al. (2009), which were based on setting a percentage cut-off point of agreement among the groups on each item of the pool after excluding items that were rated with less than 4 (4 = appropriate). Every item that was agreed by 70% (15 men and women) of the focus group was kept and regarded as representative and items that were agreed on by less than 70% of the focus group were discarded or regarded as not descriptive, as advised by Bearden et al. (2001). These analytical steps are regarded as being suitable only if all the respondents are asked the same questions (Carey, 1995) and the questions asked directly (Robinson, 1999). Otherwise, the results would be regarded as less meaningful. There were some traits that were excluded from the traits gained through the culling approach (sexy, hot, muscular and feminine), as these traits were viewed by this focus group as not appropriate and not common in the Islamic context. This focus group generated 13 new contextual traits: *Muslim, Bedouin, decent, extremist, manly, ordinary, supportive, nationalist, traditional, religious, liberal, responsible* and *formal*.

Table 4.1: Traits Generated by Focus Group One.

English Translation	Arabic Original Terms	English Translation	Arabic Original Terms
Active	نشييط / عملي	Unique	فريد
Adventurous	مغامر، مجازف	Up-To-Date	متطور
Assertive	غير متردد	Independent	مستقل
Down-To-Earth	متواضع	Contemporary	حديث
Sincere	مخلص	Reliable	يعتمد عليه
Real	واقعي	Hardworking	مجتهد
Wholesome	مفيد	Intelligent	ذكي
Original	مميز	Technical	تقني

Cheerful	مرح	Corporate	متعاون
Friendly	اجتماعي	Successful	ناجح
Daring	جريء	Confident	واثق
Trendy	أنيق	Upper class	راقي
Exciting	مشوق	Innovative	متجدد الأفكار / مبتكر
Spirited	معنوياته مرتفعه	Lively	مفعم بالحيوية
Cool	زاحف	Good-Looking	جميل المظهر
Young	شبابي	Outdoorsy	محب للأنشطة خارج المنزل
Imaginative	واسع الخيال	Competitive	تنافسي
Rational	عقلاني	Trustworthy	جدير بالثقة
Popular	مشهور	Open minded	متقبل للأفكار الجديدة
Sporty	رياضي	Riche	غني
First mover	مبادر	High taste	ذو ذوق رفيع
Experienced	خبير / متمرس	Conservative	محافظ
Liberal	منفتح ثقافيا	Urban	متحضر
Traditional	ملتزم بالتقاليد	Religious	مطوع / متدين
Responsible	جدير بالثقة	Stable	متزن
Consistent	ذات مبادئ ثابتة	Rational	واقعي
Genuine	غير زانفا / أصيل	Dynamic	فعال / ديناميكي
Energetic	متجدد النشاط / نشيط	Sentimental	حساس / عاطفي
Emotional	مثير للعاطفة / وجداني	Ordinary	مثل الآخرين / مألوف
Simple	غير / عادي / بسيط معقد	well mannered	محترم / مهذب
Muslim	مسلم	Nationalist	وطني

Extremist	متشدد / متطرف	Supportive	داعم
Bedouin	بدوي	Generous	كريم
Manly	رجولي	Decent	محتشم
Warm-hearted	ودود	Idealistic	مثالي
Eloquent	بليغ	Nice	ونيس
Illiberal	متعصب	Helpful	فزاع

Note: Generated by 'Culling approach' and focus group.

As suggested by Geuens et al. (2009) a second focus group took a place in the stage of generating a traits pool for measurement development. This focus group included seven experts in marketing management, all Saudi PhD students (Coleman, 2011). This focus group evaluated each item's ability to describe the personality of a product in a manner relevant to the Saudi social environment and to meet the domain of this research, consistent with Churchill (1979). The number of seven knowledgeable people of branding management is very close to the number of experts that Bearden et al. (2001) and Netemeyer et al (2003) recommended in order to enhance panel reliability. This stage generated the final list of items that was rated quantitatively in all the later stages. Every item that was agreed on by 70% (four experts) of the focus group was kept and regarded as representative and items that were agreed on by less than 70% of the focus group were rejected or regarded as not descriptive as advised by Bearden et al. (2001). Therefore, this focus group generated 63 traits that were considered suitable for describing a brand personality, whether a good or a service brand, as presented in Table 4.2.

However, this focus group rejected the following items, based on Bearden et al.'s (2001) item retention criteria: *assertive, sincere, spirited, independent, innovative, emotional, eloquent, warm-hearted, rich, high taste, stable, dynamic, sentimental, nice* and *illiberal*. This focus group replaced *rich* with *classy*, *sentimental* with *sensitive* and *Muslim* with *Islamic*, and added four new traits: *formal, economical, Mohsen (excellence of act in all aspects of daily life)* and *expensive*.

Table 4.2: Traits Generated by Focus Group Two.

English Translation	Arabic Original Terms	English Translation	Arabic Original Terms
Active	نشيط	Unique	فريد
Adventurous	مغامر، مجازف	Up-To-Date	متطور
Helpful	فزاع	Formal	رسمي
Down-To-Earth	متواضع	Contemporary	حديث
Economical	اقتصادي	Reliable	يعتمد عليه
Real	واقعي	Hardworking	عملي
Wholesome	مفيد	Intelligent	ذكي
Original	مميز	Technical	تقني
Cheerful	ونيس	Corporative	متعاون
Friendly	اجتماعي	Successful	ناجح
Daring	جريء	Confident	واثق
Trendy	أنيق	Upper class	راقي
Exciting	مشوق	Expensive	غالي
Conservative	محافظ	Lively	مفعم بالحيوية
Cool	زاحف	Good-Looking	جميل المظهر
Young	شبابي	Outdoorsy	محب للأنشطة خارج المنزل
Imaginative	واسع الخيال	Competitive	تنافسي
Idealistic	مثالي	Trustworthy	جدير بالثقة
Popular	مشهور	Open minded	متقبل للأفكار الجديدة
Sporty	رياضي	Classy	كلاسي
First mover	مبادر	Urban	متحضر

Experienced	خبير / متمرس	Religious	مطوع / متدين
Liberal	منفتح ثقافيا	Sensitive	حساس
Traditional	ملتزم بالتقاليد	Effective	فعال
Responsible	مسؤول	Nationalist	وطني
Consistent	مستواه ثابت	Rational	واقعي
Genuine	غير زائف / اصلي	well mannered	محترم / مهذب
Energetic	متجدد النشاط / نشيط	Supportive	داعم
Simple	عادي	Ordinary	عادي / مألوف
Islamic	مسلم	Extremist	متشدد / منطرف
Bedouin	بدوي	Decent	محتشم
Manly	رجولي	Mohsen	مُحسِن

Moreover, it is very important to outline the critical differences between some traits that are named exactly the same in Aaker's (1995) or Geuens et al. (2009) and this research's generated traits as presented in Table 4.3. First the similar traits between Aaker's (1995) and this study's were 'Young', 'Cool', 'Cheerful' and 'Outdoorsy'. The traits 'Young' and 'Cool' were used by Aaker as youth descriptions, whereas, this study found that 'Young' and 'Cool' traits were used to describe a personality of both young and old people because they are more linked to actions or behaviour and not age. 'Cheerful' in this research reflected a deeper and stronger meaning which was closer to happiness and smile inducing, which is slightly different from Aaker's. The 'Outdoorsy' trait was used by Aaker to refer to someone who liked to spend time outdoors, whereas, in this research 'Outdoorsy' was seen and measured as a lifestyle of some people in the context of this study. Second, the similar traits to Geuens et al. (2009) were 'Ordinary' and 'Simple'. However, this study viewed 'Ordinary' and 'Simple' as traits differently from Geuens et al. (2009) because this study measured 'Ordinary' and 'Simple' as Islamic preferred features to be adopted by Muslims to reflect the opposite of arrogance. In an Islamic Arab context such as the one of

this research, ‘Ordinary’ and ‘Simple’ are regarded as special traits that make a personality outstanding, which is totally opposite to the Western view. Geuens et al. (2009) used ‘Ordinary’ and ‘Simple’ to describe a personality that is not different or special.

Table 4.3: Common Traits between this Research and Prior Studies.

Description	Item	Source	Location
Common Items between this research and Aaker’s (1995) but with different meanings.	Young, Cool, Cheerful and Outdoorsy.	Aaker’s (1995)	U.S.A
Common Items between this research and Geuens et al. (2009) but with different meanings.	Ordinary and Simple.	Geuens et al. (2009)	Belgium

Finally, it important to mention that this section of this study addresses some issues of comparability and equivalence related to the Islamic brand personality (IBP) construct. It is vital for a construct or measurement development to ensure construct comparability and equivalence, especially when aiming to evaluate a construct across different groups. However, this study partly assesses the comparability and equivalence issues in relation to the meaning of the construct’s indicators, which was done by forming the focus groups from Muslims from different parts of the Islamic world. This criterion enhanced the generalisability of the meanings of the generated traits for the Islamic world because the members of the focus groups share a similar understanding of the measure/construct indicators (Little, 2000; Pellegrini and Scandura, 2005; Zumbo et al., 2003). In other words, proposed IBP instrument items will be less likely to be strongly influenced by cultural values when examined across Islamic countries (Billiet and Welkenhuysen-Gybels, 2004; Little, 2000). Consequently, since intersubjectivity is regarded as a key issue for the social sciences generally and social behaviour particularly (Gillespie and Cornish, 2010), and is defined as the degree of agreement about an objective definition (Mori and Hayashi, 2006), it can be argued that the intersubjectivity of the IBP construct is partly held.

4.3.3. Traits Editing (Wording)

According to Churchill (1979), at the end of the item generation stage, editing of item wording is suggested. Therefore, the researcher distributed five surveys, which included the final generated items from the focus groups, to two marketing management researchers, two business management researchers not related to the study held and one researcher from the Business School. These participants were asked to answer the survey and provide details of issues and difficulties faced during the completion of the survey. Participants only reported some layout suggestions and a few linguistic issues in some questions. This final step in this stage of scale development is recommended by (Churchill, 1979; Coleman, 2011; Geuens et al., 2009; Netemeyer et al., 2003) to avoid having ambiguous, double-barrelled and double-negative items, which improved traits' reliability. The final edited items as presented in Table 4.2 were considered to be ready for the final questionnaire.

4.4. Development of Questionnaire

With the finding of 63 edited traits from the previous stage of the measurement scale development procedure according to Churchill's paradigm, this chapter has arrived at the discussion of how the questionnaire was designed, question formats included in the questionnaire, the translation technique used to translate the questionnaire from English to Arabic, how the brand personality traits were presented to participants and how the religiosity measurement statements were presented to participants.

4.4.1. Questionnaire Design

The current research adopted and adapted construct measures that have been frequently used in a large number of prior studies. The constructs' measures presented in Table 4.4 were adopted and adapted because they are quantitatively validated and approved as reliable, and this is a vital motivation to adopt or adapt measures instead of qualitatively developing them, as pointed out by Diamantopoulos and Souchon (1999) and Patton (1980). Thus the measures were designed based on theoretical foundations that provided this study with adequate boundaries within which this research examined the conceptual framework construct with exception for the Islamic brand personality construct. These measures were employed due to their strongly established validity and consistency in measuring behaviour, social influence and intention across different literatures (Herrero Crespo and Rodríguez del Bosque, 2008), and to reduce complexity and errors (Kitchell, 1995). The adoption and adaptation style was found in a large number of previous studies in different literatures, such as literature on the adoption of IT (e.g. Lu et al., 2003; Luarn and Lin, 2005; Moore and Benbasat, 1991; Pedersen and Nysveen, 2002), the literature of religious consumption (e.g. Delener, 1990, 1994; Einstein, 2011; Ho et al., 2008; Kalliny and Hausman, 2007; Shachar et al., 2011), and consumption and adoption behaviour in general and among Muslims (e.g. Alam et al., 2011; Al-Nahdi et al., 2009; Amin, 2013; Bagozzi and Foxall, 1996; Cheng et al., 2004; Chou et al., 2012; De Run et al., 2010; Lada et al., 2009; Shabbir, 2010; Taylor and Todd, 1995a; Yusof, 1999; Bonne et al., 2007). These constructs and their scales are summarised as follows:

Table 4.4: A Summary of Constructs' Definitions, Measures, Reference and Modifications.

<i>Adapted Constructs</i>	<i>Definitions/Reference</i>	<i>Measures</i>	<i>Reference</i>	<i>Adoption</i>
Islamic Religious beliefs (IRB)	“The centrality of religion to the individual as reflected in his or her attitude and behaviour towards life.” (Shachar et al., 2011: 2)	<ul style="list-style-type: none"> • I regularly practise the five prayers a day. • I fast the month of Ramadan. • I pay Zakat Alfiter annually if I meet the criteria. • I always pray Friday's prayer. 	Shabbir (2010)	<ul style="list-style-type: none"> • I pray five times a day in the Masjed. • I always fast the month of Ramadan. • I pay Zakat Alfiter annually if I meet the criteria. <ul style="list-style-type: none"> • I always pray Friday's prayer. • I always avoid Haram (prohibited)

		<ul style="list-style-type: none"> • I always avoid Haram (prohibited) earning. • I regularly study and read the Holy Quran. • I always try to keep myself from minor and major sin. 		<p>earning.</p> <ul style="list-style-type: none"> • I regularly study and read the Holy Quran. • I always try to keep myself from minor and major sin. • I do my best to follow the teachings of Islam in all matters of life.
Subjective norms (SN)	“The perceived social pressure to perform or not to perform the behaviour.” (Ajzen, 1991)	<ul style="list-style-type: none"> • People important to me supported my (behaviour of question). <ul style="list-style-type: none"> • People who influence my behaviour wanted me to perform (behaviour of question). • People whose opinions I valued preferred that I perform (behaviour of question). 	Lada et al.(2009)	<ul style="list-style-type: none"> • People important to me would think that I should buy Islamic-compliant brands. • People whose opinions I valued preferred that I buy Islamic-compliant brands. • People whose opinions I valued preferred that I buy Islamic-compliant brands.
Perceived behaviour control (BPC)	“People’s perception of ease or difficulty in performing the behaviour of interest.” (Ajzen, 1991)	<ul style="list-style-type: none"> • I am capable of performing (behaviour of question). • Performing the (behaviour of question) is completely within my control. <ul style="list-style-type: none"> • I have the resources and knowledge to perform (behaviour of question). 	Lada et al.(2009)	<ul style="list-style-type: none"> • I am capable of buying Islamic-compliant brands. • Buying Islamic-compliant brands is completely within my control. • I have the resources to buy Islamic-compliant brands. • I have the knowledge to buy Islamic-compliant brands.
Relative advantage (RA)	“the possible benefit from adopting certain products whether an economic benefits, social status benefits, improving image/personality reflection benefits and convenience and satisfaction.” (Rogers, 1995).	<ul style="list-style-type: none"> • The VCR-Plus +TM would allow me to tape more shows. • The advantages of VCR-Plus +TM outweigh the disadvantages. • The new product will not offer me any new benefits. 	Taylor and Todd (1995: 152)	<ul style="list-style-type: none"> • Buying an Islamic-compliant products allows me to satisfy my religious values. • The advantages of buying an Islamic-compliant product outweigh the disadvantages. • Buying an Islamic-compliant product will not benefit me in any way.

		<ul style="list-style-type: none"> • When your company adopts green practices, how likely is it that it will achieve/be: improve my image. 	Chou et al. (2012: 710)	<ul style="list-style-type: none"> • Buying an Islamic-compliant product enables me to reflect my desired personality.
Compatibility (COM1)	<p>“the extent to which an innovation is perceived as being consistent with the existing values, demands or needs, inner beliefs and past experiences of potential consumers.” (Rogers, 1995).</p>	<ul style="list-style-type: none"> • The VCR-Plus +TM will fit well with my lifestyle. • When your company adopts green practices, how likely is it that it will achieve/be: matching my culture. 	<p>Taylor and Todd (1995: 152-153)</p> <p>Chou et al. (2012: 710)</p>	<ul style="list-style-type: none"> • An Islamic-compliant product will fit well with my lifestyle. • The Islamic-compliant product will not offer me any new benefits. • The Islamic-compliant product will fit well with my religious teachings.
Complexity (COM2)	<p>“the extent to which a new product is perceived to be relatively difficult to understand, use, learn or benefit of.” (Rogers, 1995).</p>	<ul style="list-style-type: none"> • The VCR-Plus + TM will be difficult to learn. • The VCR-Plus +TM will be easy to operate. • The VCR-Plus +TM will be frustrating to Learn. 	Taylor and Todd (1995: 153)	<ul style="list-style-type: none"> • An Islamic-compliant product will be difficult to purchase. • An Islamic-compliant product will be difficult to benefit from. • An Islamic-compliant product will be less satisfying.
New religion compliant product adoption (NRPA)	<p>“A new product that matches Consumers’ religious values and beliefs.”</p>	<ul style="list-style-type: none"> • I prefer to buy (products of research) recommended by friends and neighbors. • I prefer to buy (products of research). • I prefer to try new (products of research). • I choose to purchase (products of research) even if I’m not familiar with the brand. • I choose to purchase (products of research) even if it is quite 	<p>Wang et al. (2008: 9)</p> <p>Haslizatul Liza (2011: 60)</p>	<ul style="list-style-type: none"> • I prefer to buy Islamic-compliant products. • I prefer to try new Islamic-compliant products. • I choose to purchase Islamic-compliant products even if I’m not familiar with the brand. • I choose to purchase Islamic-compliant product even if it is

		expensive.		quite expensive.
Marker Variable: Fantasizing (FA)		<ul style="list-style-type: none"> • I daydream a lot. • When I go to the movies I find it easy to lose myself in the film. • I often think of what might have been. 	O'Guinn and Faber (1989)	<ul style="list-style-type: none"> • I daydream a lot. • When I watch the movies I find it easy to lose myself in the film. • I often think of what might have been.

4.4.1.1. First Section of the Questionnaire

The questionnaire incorporated three components. The first section of the questionnaire presented eight statements to measure participants' religiosity level, adopted from Shabbir (2010) in order to determine its relationship to the brand personality. These statements are presented in Table 4.4 and were discussed earlier in the literature review, in the section on the theoretical framework. Prior to the next section of the questionnaire, participants were provided with two top brands in the Saudi Arabian context, Mobily and STC, as the top two telecommunications brands that are well known to people who live in Saudi Arabia. The rationale behind the selection of

these particular brand is; first, that the listed brands were ranked among the top 40 Saudi brands as stated by Brandirectory website, Forbes Arabia Top 40 Arab brands on Oct 2006 and Business Insider Advertising on Jan 2012. Second, the author has carefully selected these brands from the top 40 brands to ensure presentation of well known brands , in order to enhance the generalibility, reliability and validity of the scale across the Saudi context, guided by some previous studies used methods (Aaker, 1997; Geuens et al., 2009). Participants were asked to select a brand they were familiar with from the provided two options or select them both, prior to commencing the questionnaire (Yoon, 2004).

4.4.1.2. Second Section of the Questionnaire

In this section, the questionnaire was concerned with measuring participants' perception of the selected brand. They were given 64 traits (*see Appendix Table 3*) to rate their chosen brand's personality. The traits were presented in the questionnaire, starting with traits with straightforward meaning and the newly generated traits that seemed to be strongly related to the Saudi context, based on the findings of the focus groups, as recommended by Baker (2003) and Dillman (2000).

4.4.1.3. Third Section of the Questionnaire

The third section was designed to obtain participants' view regarding the influence of Islamic religious beliefs on the constructs of SN (*with 3 items*), RA (*with 4 items scale*), PBC (*with 4 items*), COM1 (*with 3 items*), COM2 (*with 3 items*), NRCPA (*with 4 items*) and a marker variable (*with 3 items*). This section contained 28 statements to be rated by the participants on a seven-point Likert scale arranged as '1: Agree Very Strongly, 2: Strongly Agree, 3: Agree, 4: Not Sure, 5: Disagree, 6: Strongly Disagree and 7: Disagree Very Strongly'. These 28 statements were adopted from the TPB (Ajzen, 1991) and DIT (Rogers, 1995).

4.4.1.4. Fourth section of the questionnaire

The fourth and final section aimed to collect participants' socio-demographic data, such as gender, age, education level and monthly income. This section was added at the end of the survey and the logic for this was, first, if the participant became tired at this part, it would

not be an issue, since the vital and critical sections were completed earlier (Baker, 2003). Second, if this part were placed first it could cause some participants to withdraw from participation due to feeling uncomfortable, because they could perceive these matters to be private and not pertinent to the study (Dillman, 2000; Saunders et al., 2009).

4.4.2. Questionnaire and Questions Design

In this stage of methodology, multiple-choice questions were designed and assessed to collect demographic data. Closed-ended questions were employed to rate the generated traits to measure brand personality of selected brands in Saudi Arabia and to rate the level of respondents' religiosity on a seven-point Likert scale, as mentioned in the section on the theoretical framework of this study, because a Likert scale supports the employment of factor analysis and structural equation modelling (Netemeyer et al., 2003). Coleman (2011) argued that the seven-point Likert scale was extensively used in marketing studies. Some scholars argued that Likert scales of six or seven points enhance the findings reliability (Cox III, 1980; DeVellis, 2011; Kennedy et al., 1996; Weng, 2004). Nevertheless, Garland (1991) stated that the number of scale points is mostly subjective to the researcher's own preference. In this thesis a seven-point Likert scale was used because it was widely employed and supported by previous marketing research researchers (Cox III, 1980; Dawes, 2012; DeVellis, 2011; Garland, 1991; Netemeyer et al., 2003; Saunders et al., 2009; Smith and Snell, 1996; Supphellen and Gronhaug, 2003).

Dawes (2012) argued that employing scales with more than seven points would not enhance findings' validity. According to Cox III (1980) using a scale with seven points improves the relaxation of participants during the completion of the survey. A seven-point Likert scale ranged as '1: Agree Very Strongly, '2: Strongly Agree, '3: Agree, '4: Not Sure, '5: Disagree, '6: Strongly Disagree and 7: Disagree Very Strongly was used. The direction of the scale points of Garland (1991) and Dillman (2000) was practised in this study.

4.4.3. Back Translation of Questionnaire

The questionnaire was developed in English, and so it had to be translated into Arabic to be more convenient for the research sample, who were located in Saudi Arabia. Thus, the technique of back translation was applied, as recommended by Usunier and Lee (2005).

This strategy of translation is regarded as a vital technique to produce an equivalent translation. According to Usunier and Lee (2005: 218) “the back-translation technique is the most widely employed method”. The aim of the back-translation technique was to outline possible mistakes and to reduce translation bias (Usunier and Lee, 2005).

The first phase of the translation process was completed as follows. The finalised questionnaire was distributed to a number of Saudi students (4 PhD and 2 Master Degree) in the University of Hull, who had a very good level of English language knowledge and had obtained high scores in their undertaken courses and IELTS. It is worth mentioning that all the selected student are professionals back in Saudi Arabia; some of them are managers in well known corporations and some are academics in some of the top universities in Saudi Arabia These students were grouped into two groups; each group consisting of 2 PhD students and 1 Master Degree student. The author provided one group with the questionnaire and asked them to translate it into Arabic. Then, the second group were given the translated questionnaire and asked to back-translate the questionnaire into English.

Subsequently, the researcher provided the back-translated questionnaire to two English language experts (two PhD Linguistics researchers from Saudi Arabia) and asked for their view about the translation, to assure an appropriate translation of questionnaire and to obtain the most appropriate and suitable translation for each item of the survey, to be ready for distribution in the Saudi context.

4.4.4. Possible bias of questionnaire

Any decent research that involves a survey should consider possible bias as naturally common to face during the employment of a survey. Therefore, the researcher was very concerned about common bias when designing the survey to be conducted in the data collection stage. It was understood from related literature that the most likely types of bias to occur with this survey design were Acquiescence response style and Non response bias.

4.4.4.1. Acquiescence Response Style Bias

When a participant answers a survey in a cynical way, it is referred to as acquiescence (Cheung and Rensvold, 2000; Hurd, 1999). One common suggestion to avoid this bias is to

include positive and negative traits in the survey (Churchill, 1979). Nevertheless, there are considerations that prevented applying this suggestion in this thesis. First, negative traits are more likely to make their factor analysis complicated by requiring high cognitive reprocessing (DeVellis, 2011). Second, a combination of positive and negative traits would negatively influence the factor analysis and structural equation model loadings (Dillman, 2000; Netemeyer et al., 2003). Finally, combined positive and negative traits have been found to severely damage the responses of participants (Baker, 2003; Cox III, 1980; Creswell, 2007; Saunders et al., 2009). Thus all traits included in the survey were positive.

4.4.4.2. Non-response Bias

Non-response is referred to by Berg (2010: p.2) as “a survey response that falls outside the range of responses that the survey designers consider to be valid.” Non-response could be in regard to some of the survey questions or a certain item rating. Therefore, this type of bias was considered relatively to the brand personality traits rating scale. This issue was dealt with by employing the “Imputation” approach developed by Rubin (1996). This approach simply advises researchers who are facing non-response bias in some survey items to surmise the most likely answer to be chosen by respondent based on his/her provided answers to other items, to enable the following stage of data analysis to be conducted.

This approach faces one main criticism, which is the level of acceptability of answers collected partly by the practice of simulation and interference in the collected data. Rubin (1996: 8) addressed this criticism saying:

“it is critical to remember that multiple imputation does not pretend to create information through simulated values but simply to represent the observed information.. to make it amenable to valid analysis using complete-data tools.”

It is vital to mention here similar methods developed, such as Jackknife and Bootstrap, suggested by Efron and Tibshirani (1993) and Dorfman et al. (1992), and the Gibbs sampler (Berg, 2010; Casella and George, 1992; Hill et al., 1997; Liu et al., 1994). Based on the

consideration of this similar and supporting related literature, the ‘Imputation’ approach was suggested to be employed when non-response bias was faced during the data collection and entering stage. In practice, although considered, this type of bias was not faced, due to personal distribution of surveys to a non-random sample in this study, as explained earlier.

4.4.5. Design of the TPB Measuring items in the Questionnaire

In relation to the measures of the TPB the items by which the constructs of the TPB were measured in relation to Islamic religious beliefs’ influence on new product adoption and in relation to brand personality influence on new product adoption as well, were adopted from previous related studies and modified to fit the purpose of this study. Their sources are as follows:

1. ‘***Subjective norms***’ were measured by three items {*people important to me supported my (behaviour of question), people who influence my behaviour wanted me to perform (behaviour of question) and people whose opinions I valued preferred that I perform (behaviour of question)*}, adopted from Ajzen (1991), George (2004), Teo and Lee (2010) and Lada et al.(2009) .
2. ‘***Perceived behavioural control***’ were measured by three items {*I am capable of performing (behaviour of question), Performing the (behaviour of question) is completely within my control and I have the resources and knowledge to perform (behaviour of question)*}, adopted from Ajzen (1991).

The items that were adopted to measure the construct of subjectiv norms are:

- People important to me would think that I should buy Islamic-compliant brands.
- People whose opinions I valued preferred that I buy Islamic-compliant brands.
- People who influence my behaviour wanted me to buy Islamic-compliant brands.

The items that were adopted to measure the construct of Perceived behavioural control are:

- I am capable of buying Islamic-compliant brands.
- Buying Islamic-compliant brands is completely within my control.

- I have the resources and knowledge to buy Islamic-compliant brands.

All the above items related to the three construct of predicting intention in the TPB were modified to match the purpose of the present study, as was done in many previous studies related to consumers' behaviour such as Ajzen (1991), George, (2004), Lada et al. (2009) and Teo. Lee (2010). The sources of these items were presented earlier in the section on the theoretical framework.

4.4.6. Design of Measuring items of DIT in the Questionnaire

The diffusion of innovation theory (DIT) of Rogers' (1962, 1995) has been extensively employed for the purpose of understanding or predicting consumers' behaviour in relation to their adoption of new products or innovations (Chou et al., 2012). Nevertheless, according to Taylor and Todd (1995a) based on diffusion of innovation literature (Rogers, 1983), the main and most accurate predicting factors of an innovation are only three characteristics, which are relative advantage, compatibility and complexity. Also it was stated that "a meta analysis of innovation..demonstrated that these three factors are consistently related to adoption decision." (Taylor and Todd, 1995a: 5).

The items that were adopted to measure the construct of relative advantage are:

- Buying an Islamic-compliant product allows me to satisfy my religious values.
- The advantages of buying an Islamic-compliant product outweigh the disadvantages.
- Buying an Islamic-compliant product will not benefit me in any way.
- Buying an Islamic-compliant product enables me to reflect my desired personality.

The items that were adopted to measure the construct of Compatibility are:

- An Islamic-compliant product will fit well with my lifestyle.
- An Islamic-compliant product will not offer me any new benefits.
- An Islamic-compliant product will fit well with my religious teachings.

The items that were adopted to measure the construct of Complexity are:

- An Islamic-compliant product will be difficult to purchase.
- An Islamic-compliant product will be difficult to benefit from.

- An Islamic-compliant product will be less satisfying.

4.4.7. Design of Islamic Religious Beliefs Measuring items in the Questionnaire

The source of items that were included in the questionnaire of this survey is papers by Shabbir (2010) Alam (2011) as discussed earlier in the literature review, in the section on the theoretical framework. Alam (2011) supported and adopted the six statements of Shabbir (2010) that are designed to measure the religiosity of a person plus two measures Alam developed, which modified and adopted by this study and are as follows:

Before modifications:

- I regularly practise the five prayers a day.
- I fast the month of Ramadan.
- I pay Zakat Alfiter annually if I meet the criteria.
- I always pray Friday's prayer.
- I always avoid Haram (prohibited) earning.
- I regularly study and read the Holy Quran.
- I always try to keep myself from minor and major sin
- I do my best to follow the teachings of Islam in all matters of life.

After modifications:

- I pray five times a day in the Masjed.
- I always fast the month of Ramadan.
- I pay Zakat Alfiter annually if I meet the criteria.
- I always pray Friday's prayer.
- I always avoid Haram (prohibited) earning.
- I regularly study and read the Holy Quran.
- I always try to keep myself from minor and major sin.
- I do my best to follow the teachings of Islam in all matters of life.

The above statements were presented to the volunteer participants after being adjusted to match the need of this research, to rate their own religiosity level through answering a seven-point Likert scale, rated as '1: Agree Very Strongly, '2: Strongly Agree, '3: Agree,

‘4: Not Sure, ‘5: Disagree, ‘6: Strongly Disagree and 7: Disagree Very Strongly was used. The direction of the scale points of (DeVellis, 2011; Dillman, 2000; Garland, 1991) was used in this study.

4.4.8. Design of New Product Adoption (Jarvenpaa and Majchrzak) Measurement items in the Questionnaire

New Religious Compliant Product Adoption (NRCPA) Measures

In order to measure the construct of NRCPA in this study, a few items were adopted from previous studies related to product adoption/purchasing. The items were adopted from Nur Haslizatul Liza (2011), Shabbir (2010) and Wang et al. (2008) since they were among the most recent and most relevant to the subject of the present research. It is important to mention that all the items adopted for the NRCPA measure were modified in order to match the purpose of the present study and collect data that would reveal the needed information about the relationships between constructs in the conceptual model of this research.

They are as follows:

- I prefer to buy an Islamic-compliant brand recommended by friends and neighbours.
- I prefer to buy an Islamic-compliant brand.
- I prefer to buy a new an Islamic-compliant brand.
- I choose to buy an Islamic-compliant brand even if not familiar with the brand.
- I choose to buy an Islamic-compliant brand even if it is quite expensive.

4.4.9. Piloting Measures and Questionnaire

Previously the procedure of developing a brand personality measurement and religiosity level measurement was explained, followed by outlining how the survey was constructed. This section outlines the last step prior to the administration of survey, which was piloting the survey widely, as recommended by scholars (Baker, 2003; Bryman and Bell, 2007; Cheung and Rensvold, 2000; Churchill, 1979; Dillman, 2000; Saunders et al., 2009). A pilot study was conducted to assess the validity and clarity of the traits generated to describe a brand personality. This pre-test/pilot questionnaire was distributed individually to assure the clarity and ease of understanding of the questionnaire. The questionnaire

contained closed-ended questions to rate the developed Islamic brand personality measures and the other adopted measures for the remaining constructs based on any known brands that participants know from their context; they were also provided with seven selected well-known brands (Al-Rajhi Bank, Al-Baik, Almajd Media network, Mobily, STC, Arabian Oud, Almaray) to help in selecting brands, which included goods brands and services brands. The survey also contained closed-ended statements related to measuring respondents' Islamic religiosity level, subjective norms and perceived behaviour control influence, relative advantages, compatibility and complexity influence, adoption behaviour among Muslims of new religion-compliant products, and multiple-choice questions to collect demographic data. A sample of the first piloted questionnaire in English and Arabic is illustrated in Appendix 4. The pilot study protocol was carried out in two stages.

4.4.9.1. First Stage of Pilot test

The first stage was carried out similarly to some previous studies, such as in Zaichkowsky (1985), Coleman (2011) and Geuens et al. (2009). Based on the approaches that they followed, a pilot survey was distributed to 12 Muslim researchers and postgraduates who were studying marketing (one PhD student at Durham University, eight PhD students at Hull University and three postgraduate students), all of whom have work experience in their fields and are conducting their studies in relation to the Islamic context. These researchers were asked to review carefully and complete the survey, and rate each item and report any issues they encountered. This protocol was employed to ensure a good adaptation process of the adopted measures, as discussed earlier in section 4.4.1 and shown in Table 4.4, and to evaluate further the developed Islamic brand personality measures. Since the adopted measures content validities and reliabilities are provided across different literatures by a large number of studies, as mentioned in section 4.4.1, and the developed Islamic brand personality measures content validity was assessed by the focus groups, the researcher asked the participants in these pilot tests to comment on ambiguity or lack of clarity to enhance reliability (Kitchell, 1995). Although the distribution of this pilot questionnaire was done individually, it was conducted in three phases: first, it was distributed to four of the PhD students whose subject of research is strongly related to marketing in the Islamic context. Second, the questionnaire was distributed at the same time to the remaining five PhD candidates who are conducting their research in general

marketing. Third, the researcher distributed the questionnaire to the three MSc students. This procedure was conducted in light of Geuens et al. (2009) and Kitchell (1995). These previous researchers reported a number of critical issues and suggestions for the measures and design of the survey. The only issue they reported in regard to the general design of the survey was that they found it to be somewhat long. The specific issues reported from this survey evaluation in relation to the constructs are presented individually in detail in the next section.

Issues related to the TPB measures

The first stage of the pilot study was to identify any issues related to the TPB measures; the only issue found from the pre-testing first stage more specifically first and second phases groups was that the last statement of the behaviour perceived control, “I have the resources and knowledge to buy Islamic-compliant brands.” was considered slightly confusing. The reason is that this particular statement included two factors to be measured, which are ‘resources’ and ‘knowledge’. The participants of the pilot study suggested that these two factors be designed in separate statements in order to be clearly measured and avoid any possible confusion that might cause bias. The statement was therefore divided to be as follows:

- I have the resources to buy Islamic-compliant brands.
- I have the knowledge to buy Islamic-compliant brands.

Thus, the measure of behaviour perceived control was increased from three items to four items. However, the other TPB measures remained the same.

Issues related to religiosity measures

In the first stage of the pre-test the survey 10 of the participants reported a critical issue in relation to religiosity measure as follows; they removed the word ‘regularly’ from the item related to prayers and added the phrase ‘in the Masjed’ because they stated that a religious person would pray five times in the Masjed and a less religious person would not pray all

prayers in the Masjed. Thus only one item was modified based on the pilot findings to measure the religiosity of a person, and it as follows:

- I pray five times a day in the Masjed.

Issues related to New Religious Compliant Product Adoption (NRCPA) Measures

Relevantly to the measurement of NRCPA items, the first pre-test stage of the questionnaire proposed just one recommendation which highlighted by 6 of the PhD participants. This recommendation was in regard to the first statement of the NRCPA measure: “I prefer to buy an Islamic-compliant brand recommended by friends and neighbours”. The professional participants raised the concern that this statement is not purely and clearly related to consumers’ indented behaviour to adopt new religious-compliant brands. Therefore, they suggested that the statement should be excluded from the survey and the other four statements remain the same.

4.4.9.2. The Second Stage of Pilot test

Finally, the second stage of survey piloting was conducted on a small number of randomly chosen respondents (10 male and 10 female), in Saudi Arabia. They were selected from a group of lecturers, marketing seniors, postgraduates and undergraduates whose studies were related to the marketing or business management field. This group of participants were asked to complete the survey and report any issues and difficulties they came across. The first issue that was reported by 17 of this group was that the opening statement that explained what needed to be done in regard to selecting one of the listed brands and how to rate the items should be extended, in order to make these two points clearer. This comment from the second group was dealt with by rewriting the opening statement and question in simpler and clearer language. The second issue that resulted from this group was that 14 participants of this group found that providing a list of 15 brands to select from was very confusing, and they preferred to reduce the list to a small number of brands. Therefore, the final survey contained two top Saudi brands in the same industry, communications, to avoid this problem and to match the purpose of this research. The last problem that was found by the same group was that exchangeable usage of phrases like ‘select’ and ‘mark’ your answer was inconsistent. Thus the researcher decided to include only the ‘mark \surd ’ next to

the answer, in order to be consistent. Finally, after these comments were addressed and the modifications made, the survey was considered to be final and ready to be administered.

4.5. Conclusion

In this chapter the justification of the employed philosophy of positivism and the research methodology was discussed, followed by some critical stages of the research design and contextual settings. The cross-sectional questionnaire methodology to examine the proposed hypothetical relationships between the constructs of the developed theoretical framework in Chapter Three was presented. Next, the approach adopted for developing the measurement and its detailed steps were described. Lastly, the data analysis methods; EFA, CFA, CB-SEM (AMOS) and PLS-SEM (PLS) were outlined. Therefore, the next chapter will introduce in details the findings obtained from the quantitative data, developed and purified scale.

Chapter Five: Findings

5. Introduction

The previous chapter described how the questionnaire was designed and data collected in order to examine the proposed hypotheses, test for moderation and mediation and develop the scale. This chapter starts with describing characteristics of the sample. Then it describes how the data was cleaned, missing data checked, data prepared, normality tested, and multicollinearity and multivariate assessed. It is explained how the scale was developed based on the scale developing literature (Cox III, 1980; DeVellis, 2011; Netemeyer et al., 2003), and scale reliability and validity are explained, and the developed scale's named dimensions are presented. Finally, the EFA findings of the conceptual model's constructs, reliability and validity are presented.

5.1. Cleaning and Checking Accuracy of Data Coding

A descriptive analysis is suggested by Becker and Byman (2004). The Statistical Package for the Social Sciences (SPSS version 18) was used to analyse the collected data to present conclusions on the sample's demographical information. This program links variables in order to test them in various ways and is able to determine the reliability of the findings and indicate any missing data (Joseph et al., 2008). This stage of the data analysis process was completed in two stages. In the first stage, the surveys collected from participants/consumers in the three largest cities in Saudi Arabia (Jeddah, Riyadh and Dammam) were entered in an SPSS coding sheet designed by the author. Next, the coded-in data results from the collected usable questionnaires (N=352) were carefully compared with the original hard copy during a 12-day period. In the second stage, the raw data was screened by using descriptive analysis in SPSS 19 to examine the means, standard deviations, missing data and ranges. This data screening, which is advised by Field (2009), helped in detecting values that fell out of the coding range and spotting any missing values.

5.1.1. Investigating the Data of Study

At the start of the data analysis action with the SPSS, the raw data was looked at carefully through illustrated graphics (pie charts), which were produced from frequency and descriptive analysis. These analyses provided the means, skew, variance, range and

kurtosis, which enabled the author to be more familiar with the data and look for any early alerting issues related to the data.

5.1.2. Missing Data

Although the data were collected from a probability sample, the missing data procedure was conducted for more accurate and statistically valid data, even though the findings are ignorable according to Hair et al. (1998). The reasons were; first, a probability sample approach is likely to cause missing data. Second, with likert scale rated items it is quite possible to have missing data issues, but missing data were not considered as a vital problem, especially with 10% of missing values (Coleman, 2011).

With the above being stated, the result of the missing data analysis in SPSS 19 revealed that there were no missing data in this study. This can be explained by the hard, careful work and time put into collecting usable questionnaires. Please refer to Appendix 5 for an illustrative table of missing data analysis findings by questionnaire items, which indicates the completeness of data within the regarded usable surveys. After assuring clarity of the entered data, a more detailed descriptive analysis was conducted in the next section of the study.

5.1.3. Summary of Participants' Profile

Data were collected in Jeddah, Riyadh and Dammam during the period 19th June until 3rd September 2012. The questionnaires were given to participants on a probability approach basis which provided an equal opportunity to participate for the study's population in different locations in different mega shopping malls in those three cities. According to the approach to questionnaire distribution, every fifth person coming out of the shopping malls was given the questionnaire (Saunders et al., 2009). Face validity was partly assessed when questionnaires were distributed to Arabic-fluent speakers and readers. In order to collect the required number of questionnaires for factor analysis to be run, 500 questionnaires were distributed and 369 questionnaires were collected. From these collected questionnaires, 352 were counted as useable and 17 counted as unusable due to the high number of uncompleted questions (more than the half of the questionnaire), and the obvious careless

completion of the questionnaires (e.g. participants checked the same response number from the first item to the last one) which caused strong contradictions of the participants' opinions from one item to another. The socio-demographic information and the selected brand to rate of participants were as follows.

Gender: The sample presented the answers of 210 females or 59.7% of the total sample, and 142 males or 40.3% of the total sample.

Age: Table 5.1 presents the frequency and percentage of the age groups in the sample of this study, as follows; first, age group 18-25 with a frequency of 106 and percentage of 30.1% from the total sample size. Second, age group 26-35 with a frequency of 157 and percentage of 44.6% from the total sample size. Third, age group 36-45 with a frequency of 73 and percentage of 20.7% from the total sample size. Fourth, age group 46-55 with a frequency of 14 and percentage of 4.0% from the total sample size. Fifth, age group 56-65 with a frequency of 2 and percentage of .6% from the total sample size. The total variable of age group produced a mean of 2 and standard deviation of .849.

Table 5.1: Frequencies & Percentages of Age Group of the Participants

Groups	Frequency	Percent
18-25	106	30.1
26-35	157	44.6
36-45	73	20.7
46-55	14	4.0
56-65	2	.6
Total	352	100.0
Mean		2.00
Std. Deviation		.849

Educational level: Table 5.2 displays the data regarding the educational level distribution among the total sample of this study. It can be seen that, first, those with less than high school education numbered 54, accounting for 15.3% of the total sample. Second, the high school category obtained a frequency of 99 and a percentage of 28.1% of the total sample size. Third, the college or university category numbered 184, representing 52.3% of the total

sample size. Finally, the number of postgraduates was 15, constituting 4.3% of the total sample size. This indicates that more than half of the total examined sample held a Bachelor degree or equivalent.

Table 5.2: Frequencies & Percentages of Educational Level of the Participants (N=352)

Type of Education	Frequency	Percent
Less than high school	54	15.3
High school	99	28.1
College/University	184	52.3
Postgraduate	15	4.3
Total	352	100.0

Monthly income: It was argued by Shabbir (2010) that income might play some essential role in the adoption of new products based on religious values. Therefore, the income of the examined sample was elicited in order to investigate this proposition. It is worth mentioning that the GDP of the study's context (Saudi Arabia) is \$ 9913 per capita (World Bank, 2011). The income variable findings were as follows:

- Less than SR 5.000 with a frequency of 121 and a percentage of the total sample of 34.4%.
- SR 6.000-SR 11.000 with a frequency of 146 and a percentage of the total sample of 41.5%.
- SR 12.000-SR 17.000 with a frequency of 66 and a percentage of the total sample of 18.8%.
- SR 18.000-SR 23.000 with a frequency of 9 and a percentage of the total sample of 2.6%.
- SR 24.000-SR 29.000 with a frequency of 1 and a percentage of the total sample of .3%.
- SR 30.000-SR 35.000 with a frequency of 3 and a percentage of the total sample of .9%.
- More than SR 40.000 with a frequency of 6 and a percentage of the total sample of 1.7%.

Table 5.3: Frequencies & Percentages of Monthly Income of the Participants (N=352)

Income in K.S.A Riyals/ GBP	Frequency	Percent
Less than SR 5.000/ £863.56	121	34.4
SR 6.000-SR 11.000/ £1036- 1899.82	146	41.5
SR 12.000-SR 17.000/£2072.54-2936.10	66	18.8
SR 18.000-SR 23.000/£3108.81-3972.37	9	2.6
SR 24.000-SR 29.000/£4145.07-5008.64	1	.3
SR 30.000-SR 35.000/£5181.35-6044.91	3	.9
More than SR 40.000/£6908.46	6	1.7
Total	352	100.0

Note: exchange rate £5.79.

Rated brands: In order for the participants to rate the 64 personality traits developed for this study, two well known brands were selected due to their nation wide recognition by consumers and the provision of services to almost 90% of the Saudi market according to the Saudi telecommunication association. The rationale behind the selection of these particular brands are; first, that the listed brands were ranked among the top 40 Saudi brands as stated by Brand directory (<http://brandirectory.com>), by Forbes Arabia Top 40 Arab brands on Oct 2006 and by Business Insider Advertising on Jan 2012. Second, the author has carefully selected these brands from the top 40 brands to ensure presentation of well known brands , in order to enhance the generalibility, reliability and validity of the scale across the Saudi context, guided by some previous studies used methods (Aaker, 1997; Geuens et al., 2009). Finally, Mobily and STC are the oldest telecommunications brands operating in Saudi Arabia, and thus they are well known to people who live in Saudi Arabia. Participants were asked to choose and rate their favourite or, if they preferred they could rate both brands. The Mobily brand on its own was rated by 145 participants, accounting for 41.2% of the total sample. The STC brand on its own was rated by 125 participants, constituting 35.5% of the total sample. Finally, participants who chose to rate both brands, STC and Mobily, were 82 participants with a percentage of 23.3% of the total sample. This variable ‘brand selection’ produced a mean of 1.88 and a Std. Deviation of .785.

Table 5.4: Frequencies & Percentages of Brand Selection of the Participants (N=352)

Brands	Frequency	Percent
STC	125	35.5
MOBILY	145	41.2
Both	82	23.3
Total	352	100.0
Mean		1.88
Std. Deviation		.785

5.2. Multicollinearity and Singularity Assessment

After the presentation of the sample's demographic information, it is vital to assess the status of any possible multicollinearity as an initial step to complete prior to developing the hypothesised conceptual model and the brand personality measurement scale (Banerjee et al., 2008; Hair et al., 1998). This inspectional step derives its importance from the possible undesirable effects on estimated coefficients produced via regression (Gorsuch, 1990). The degree of multicollinearity can be indicated by examining the R-matrix (Hair et al., 1998) and the Tolerance and Variance Inflation Factor (VIF) averages (Field, 2009). R-Matrix analysis was conducted in previous research that produced scale measurements (e.g. Coleman, 2011; Ranjbar, 2010). Multicollinearity (items with frequently extremely high correlations) and Singularity (items with frequently extremely low correlations) were addressed by producing an R-Matrix table, by employing Spearman's Correlation test. The Spearman's correlation test is usually performed if the data are non-normally distributed, which was in the case in this study, as explained and illustrated later in section 5.3.1. Multicollinear items regularly produce correlations higher than .9, and Singular items frequently produce correlations less than .20 (Field, 2009; Pallant, 2010).

Pallant (2010: p.158) explained Tolerance as an "indicator of how much of the variability of the specified independent variable is not explained by the other independent variables". Thus, Pallant (2010) and Hair et al. (1998) concluded that a tolerance with a value exceeding 0.10, indicates of a high correlation, and hence the possibility of multicollinearity cases. When the VIF average exceeds 10, it indicates multicollinearity (Costello and Osborne, 2011).

SPSS 19 was employed to produce the R-Matrix, the collinearity statistics between variables and collinearity diagnostic via regression analysis. Based on the obtained R-Matrix no multicollinear items were found among the measurement traits. Therefore, multicollinearity was not regarded as an issue for this study based on the R-Matrix. The same data revealed very few Singular items, which were (*Contemporary, Successful, Friendly, Expensive, Conservative and Trustworthy*). Singularity of these items was regarded as potentially an issue in this research, and so it was decided that these items should be looked at closely when conducting the exploratory factor analysis and deleted if they strongly influenced the dimensionality extraction stage.

Based on the findings obtained from these analyse, the averages of VIF and tolerance were observed. The tolerance values ranged between 0.23 and 0.82, which are both less than 1.00. The VIF values ranged between 1.2 and 4.3, which are below the benchmark value that indicates multicollinearity, 10.00. Therefore, it was concluded that no multicollinearity was present in the data set. Please refer to Table 5.5 for details.

Table 5.5: The Values of VIF and Tolerance.

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.843	.693		1.217	.225		
FACTORONE	.005	.062	.005	.080	.936	.554	1.805
FACTORTWO	-.009	.039	-.012	-.239	.811	.809	1.236
FACTORTHREE	-.090	.067	-.068	-1.341	.181	.755	1.325
FACTORFOUR	.085	.047	.101	1.819	.070	.630	1.588
PBC2AND3	.172	.098	.162	1.761	.079	.229	4.366
PBC.FACTOR	.182	.113	.148	1.615	.107	.231	4.326
COM1.FACTOR	.005	.068	.003	.068	.946	.822	1.216
COM2.FACTOR	-.136	.050	-.135	-2.695	.007	.768	1.302
NRCPA.FACTOR	.281	.075	.276	3.753	.000	.357	2.803

RA.FACTOR	.080	.066	.069	1.215	.225	.598	1.673
FA.FACTOR	.060	.046	.067	1.297	.196	.733	1.364
RB.FACTOR	.173	.088	.097	1.963	.051	.798	1.253
a. Dependent Variable: SN.FACTOR. VIF is significant at <10.00. Tolerance is significant at <1.00.							

5.3. Testing the Data Normality and Outliers

5.3.1. Normality Analysis

Churchill (1979) advised exploring the data before exploratory and confirmatory factor analysis are conducted. Therefore, the normality assumption for the entered data on the bases of each individual items of the questionnaire was addressed through an examination of Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W) analysis and normality boxplot of the theoretical framework's constructs via SPSS 19. It is suggested by Field (2009) that the S-W test provides more accurate results than K-S. Nevertheless, Barnes (2001) argued that the K-S test is considered to be not as reflective of normality as S-W. The two tests, however, were conducted on all items of the questionnaire and the findings from the two tests were significant (i.e. $p < 0.000$). Therefore, it can be determined that the data was non-normally distributed. Please refer to Appendix 6 for normality test results of all items.

These results from the above table of normality were compared against the histograms and the Q-Q plots of the items, which also revealed non-normal distribution of data and that values did not fall in a direct line. According to Hair et al. (1998) and Field (2009) such results are likely to be obtained.

Field (2009: 144) stated, "However, K-S and S-W have their limitations because with large sample size it is easy to get significant results from small deviations from normality, and so a significant test doesn't necessarily tell us whether the deviation from normality is enough to bias any statistical procedures that we apply to the data." This means that it is very common to obtain non-normally distributed data with a large sample size such as the present sample (N=352). Furthermore, it was stated by a number of scholars such as

Cudeck (2001) and Malthouse (2002) that it is unlikely that normally distributed data results will be obtained when employing Likert scales, which were used in this research.

In addition, Cudeck (2001: 80) in relation to the rarity with which insignificant normality results are obtained concluded that “Virtually no variable follows a normal distribution”. In the light of the above, the sample size of the present research (N=352) is considered as a large sample size based on the conclusion of Hair et al. (1998), who regarded samples that exceeded 200 as large. In the end, it was stated by Coleman (2011: 255) that “exploratory factor analysis and confirmatory factor analysis, in practice, are relatively robust against violations of normality.”

Finally, to assure the accuracy of the normality test findings, tests of Skewness and Kurtosis were conducted. These two tests were conducted in similar previous studies (e.g. Tay, 2006) in order to calculate the normality of the raw data. Additionally, the recommendations of Hair et al (1998) were that Skewness and Kurtosis values should range between 2.00 and 7.00, and the recommendations of Kline (2010) were that the Skewness and Kurtosis values should range between +/- 3.0 and +/- 10.0. The data of the present study was regarded as normally distributed based on Kline’s (2010) recommendations of since the Skewness and Kurtosis of the current data ranged between -2.69 and 8.14. The multivariate value obtained for the model’s data set was 91.405 (critical ratio => 21.072) (see Appendix 7).

According to Pallant (2010) any case with a value of standard error exceeding the mean value of three Std of each test (Skewness and Kurtosis) is considered as a univariate outlier. This was tested next and will be reported in the following section.

5.3.2. Assessing the Outliers

Outliers’ findings are categorised into two types; first, outliers that have cases with an unusual mix of values for more than one variable, called ***multivariate outliers***; second, outliers that have cases with unusual values for only one variable, called ***univariate outliers*** (Field, 2009; Pallant, 2010). First, the analysis to find the outliers of the data was conducted via the following steps using SPSS 19. In line with Field (2009), an exploratory analysis of the data was conducted via descriptive analysis in the SPSS 19. Next, the histogram of each

variable was examined to spot any extreme values. Values falling from the drawn line by more than 1.5 boxes were considered to be outliers (Field, 2009; Pallant, 2010). Finally, the boxplot of every individual variable was checked, as will be discussed next.

5.3.2.1. Islamic Religious Beliefs (IRB) and Brand Selection Univariate Outliers

The outlier boxplot of the religious beliefs variable is illustrated in Figure 5.1. The boxplot suggested that the items of the Islamic religious beliefs variable contained outliers, which are detailed in Table 5.6. Although the findings from the boxplot suggest that there are errors in the raw data related to those items, the data were rechecked for any unfamiliar values and the results led to the conclusion that there were no mistakes in the entered raw data and all the scores were within the possible range in relation to the Islamic religious beliefs variable.

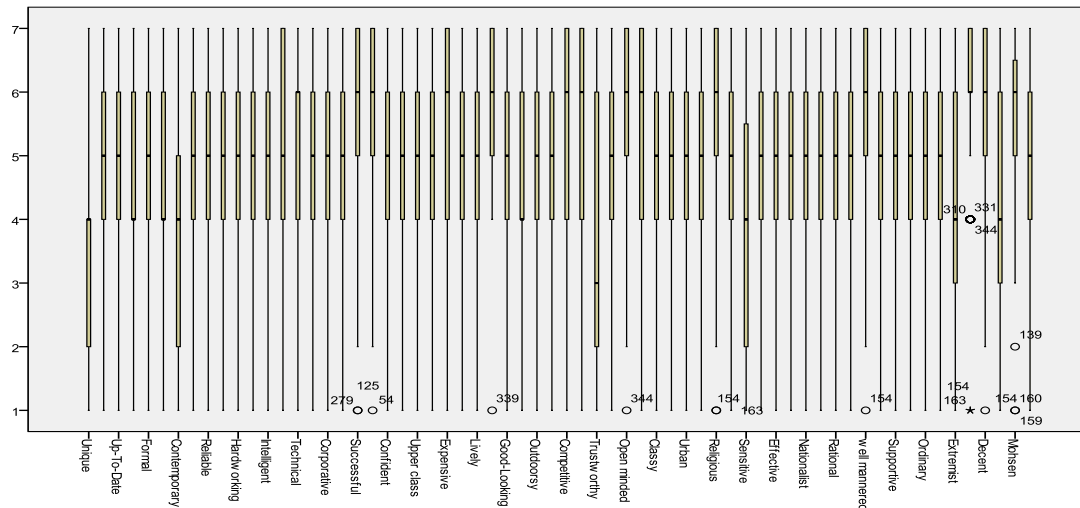
Table 5.6: Summary of Outliers Found in the Data Related to Islamic religious beliefs and Brand Selection

Items	Outlier cases Found
RB/ I pray five times a day in the Masjed.	4 cases
RB/ I always pray Friday’s prayer.	8 cases
RB/ I pay Zakat Alfitr annually if I meet the criteria.	2 cases
RB/ I do my best to follow the teachings of Islam in all matters of life.	12 cases
RB/ I regularly study and read the Holy Quran.	2 cases
RB/ I always try to keep myself from minor and major sin.	3 cases
RB/ I always fast the month of Ramadan.	8 cases
RB/ I always avoid Haram (prohibited) earnings.	14 cases
BS/Which Brand name of the followings are you selecting to rate its personality in this questionnaire	0 cases

Pallant (2010: 64) stated that “if the trimmed mean values are very different, you may need to investigate these data points further.” However, based on the trimmed mean values and the mean values of each of the Islamic religious beliefs variable’s items, the outliers were found to be less serious, because the trimmed mean and the mean values were very similar.

Religious	2 cases
Islamic	5 cases
Mohsen	3 cases
The entire rest of traits	0 cases

Figure 5.2: Outliers of IBP Scale's Traits.



Note: the numbers inside the plot are the IBP items' numbers.

5.3.2.3. Univariate Outliers of the Adopted Variables of the TPB, IDT and Marker Variable

Similarly to sections 5.3.2.1 and 5.3.2.2, outliers' analysis was conducted for the last part of the questionnaire, which covered the items of the following variables: Relative-advantage, Compatibility and Complexity (from IDT), and Brand personality (=Attitude), Subjective Norms and Perceived behaviour control (from TPB). Table 5.8 illustrates a summary of the findings of these variables' outliers, and the boxplot is provided in Figure 5.3 to provide a clear explanation of the outliers' results and decisions taken based on such results.

Table 5.8: Summary of Outliers Found in the Data Related to the Adopted Variables of the TPB, IDT and Marker Variable

Variables of the TPB, IDT and Marker Variable	Outliers Cases Found
Buying an Islamic-compliant brand is. GOOD	4 cases
People important to me would think that I should buy Islamic-compliant brands	4 cases
The Islamic-compliant product will not offer me any new benefits	4 cases

data. These data were removed based on the findings of a repetition of the Mahalanobis distance test because these cases were believed to be influential outliers. That is, the correlations for these cases are significantly different when compared to the rest of the data set. Thus, by removing these cases it was expected to improve the model fit and effect sizes.

However, it was believed that removing more cases would lead to more than 25% of the original data being removed, which it was believed could cause unreliable and valid findings. Thus the final multivariate assumption included a very few multivariate cases as presented in Appendix 8.

5.4. Development of IBP Scale

After the settlement of the data outliers, normality, clearing and screening and missing data assumptions, the exploratory factor analysis and confirmatory factor analysis were conducted on the traits included in the data of this study. This stage of analysis was guided by the most widely employed scale paradigm, which is the paradigm developed by Churchill (1979) and extensively recommended for studies with the purpose of developing a reliable and valid scale by a number of previous researchers (e.g. Abou-Youssef et al., 2011; Ambler and Styles, 1996; Braunstein and Ross, 2010; Clark and Watson, 1995; Coleman, 2011; Dawes, 2012; DeVellis, 2011; Ferrandi et al., 2000; Malhotra, 1981; Netemeyer et al., 2003; Ranjbar, 2010; Sin et al., 2005a; Walsh and Beatty, 2007; Worthington and Whittaker, 2006).

5.4.1. Exploratory Factor Analysis of IBP Scale

The first step of this stage was to carry out an exploratory factor analysis in order to determine the measurement dimensionality assumptions (Aaker, 1997; Churchill, 1979; DeVellis, 2011).

5.4.1.1. Appropriateness of the Study's Sample for Factor Analysis

It was advised by Field (2009) and Pallant (2010) that prior to conducting exploratory factor analysis, the factorability (suitability) of the examined sample size should be assessed. Thus, the factorability of the examined sample was investigated based on related literature. The related literature outlined the most appropriate sizes of collected sample that would produce valuable findings via exploratory factor analysis, as follows:

- The sample size should be about 300 as advised by Field (2009).
- The sample size should be about 200 as advised by Ferguson and Cox (2007).

Some statistics scholars have advised guidance of sizes of examined samples based on the responses' ratio of the respondents. Among these scholars were Hair et al. (1998), who advised that the appropriate sample size for factor analysis is one that achieves a response ratio of 1:5.

Therefore, based on what has been outlined above, this study's sample size is suitable for factor analysis. The sample size of the present study with regard to Hair et al.'s (1998) response ratio 1:5 is suitable because the examined sample had a response ratio of 5.5:5, which means that for each individual item of the brand personality scale, there were 5.5 respondents because the $N=352$. The sample size of 352 participants is acceptable as it exceeded the size recommended as appropriate size by Field (2009).

5.4.1.2. Factorability of the Data

After the suitability and Multicollinearity and Singularity tests were completed, it was vital that the factorability of the data was examined next. The factorability of the data was tested via SPSS 19, which provides the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity, which simply investigate if the total set is an identity matrix or not.

After these two tests were conducted on the total set of traits (64 traits), the findings of each test as illustrated in Table 5.9 were as follows: first, the KMO test for the entire 64 traits was .943 which is considered to be a 'Marvellous' result as argued by DeVellis (2011). Second, the findings of Bartlett's Test of Sphericity was *approx. Chi-Square = 13120.107*

and $df = 2016$ ($P < 0.000$), which is identified as a significant *Chi-Square*. In other words, the examined data reflected a very high factorability. Thus, it was expected that these data would result in unique factors with high reliability.

Table 5.9: Results of KMO and Bartlett’s tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.943
Bartlett's Test of Sphericity	Approx. Chi-Square	13120.107
	df	2016
	Sig.	.000

Next, the Anti-image Matrix was examined as suggested by Field (2009: 659): “It is important to examine the diagonal elements of the anti-image correlation matrix: the value should be above the bare minimum of 0.5 for all variables (and preferably higher).” The anti-image correlation matrix of the entire 64 traits was examined for each individual trait. All examined variables obtained diagonals higher than 0.5 and most of them were higher than 0.7, which is preferred by Field (2009). According to the findings of KMO, Bartlett’s Test of Sphericity and the Anti-image correlations matrix, we could be confident that the dataset was appropriate for factor analysis to be conducted.

5.4.1.3. Production of Islamic Brand Personality (IBP) Scale Dimensions

Following assessment of the appropriateness of the data and its factorability, the exploratory factor analysis was conducted. Based on the literature related to measurement developing or to developing brand personality measures, two types of factor analysis have been widely employed: Common Factor Analysis (Dudley et al., 2005) and Principal Components Analysis (PCA) (Coleman, 2011). According to Netemeyer (2003) and d’Astous and Lévesque (2003) the PCA is more suitable with data reduction. Thus, the PCA was employed in this study in order to identify the conceptually scale’s items. On the other hand, the CFA type according to Anna and Osborne (2005), Field (2009) and Costello (2009) focuses more on revealing constructs’ dimensionality. CFA can be conducted in different forms such as principal axis factor analysis, maximum likelihood analysis and un-weighted least squares.

The data from 287 participants' cleaned and prepared rating of two telecommunication brands in Saudi Arabia (Mobily and STC) on a seven-point Likert scale was subjected to PCA in order to produce the most reliable and accurate factorial measure of Islamic brand personality. PCA was preferred instead of CFA for the following reasons: firstly, the CFA is mainly suggested if the aim is to form dimensions based on common variance instead of forming dimensions based on distinctive variance (Coakes and Steed, 2009; Hair et al., 1998; Netemeyer et al., 2003; Norusis, 2008). Secondly, from the assumptions of the EFA it was noted that the EFA produced some factors with small numbers of items. Thirdly, a number of factors that are uninterpretable in theory resulted from the exploratory run of EFA. Finally, according to Costello and Osborne (2011) and Fabrigar et al. (1999), when the data obtained is non-normally distributed it is best to employ the PCA method of EFA. Therefore, in this study the PCA was conducted to develop the brand personality measurement scale.

The data were rotated via the PROMAX method instead of VARIMAX for a few reasons: firstly, PROMAX rotation enables factors to correlate, which is what the present study required (Floyd and Widaman, 1995). This was supported by Anderson and Gerbing (1988b), who argued that the PROMAX method indicates the essential structure of the data more accurately than orthogonal methods (e.g. VARIMAX). Secondly, VARIMAX rotation may produce a model with extremely low correlation (e.g. zero), which would not be beneficial if CFA is going to be employed on the same model (Thompson, 2004; Wood, 2008). Thirdly, as a consequence of the second reason, it is argued that frameworks developed via the VARIMAX method are likely to lack practicality due to the disabled correlation between factors (Anna and Osborne, 2005; Costello and Osborne, 2011; Gorsuch, 1990). Lastly, for most likely development of a logical and understandable framework/model, PROMAX should be employed (Conway and Huffcutt, 2003; Ferguson and Cox, 2007; Yang, 2005).

Next, the rotation of factors was conducted (Aaker, 1997; Churchill, 1979; DeVellis, 2011). The EFA via Oblique/PROMAX method was conducted on all 64 traits that were developed in this study for the purpose of producing an Islamic brand personality scale that is suitable for the Islamic world. First the EFA was conducted and item loadings were set to be 0.50 as advised by Hair et al. (1998) and Tian et al. (2001) for this study's dataset's size.

Next, items with same loadings 0.50 were rotated based on the recommendation of Herche (1992). This was done for several reasons: first, to able SPSS to reduce the original set of 64 traits to a more manageable set. Second, with SPSS conducted on loadings from 0.5 and higher, it was found from the examination of the component correlation matrix that some factors correlated very highly, which means that those factors were loading on each other strongly (Field, 2009). Finally, items with loadings of 0.4 and lower are unlikely to contribute significantly to any factor (Churchill, 1979). As a result of the PROMAX rotation, a model of five logically interpretable factors was found. The procedure of this model is development was as follows:

Initial Rotations

Factor rotation was conducted with items loading >0.50 as outlined earlier (Hair et al., 2006), extraction with Eigenvalue >1 and an unlimited number of factors on the 64 traits. This rotation set of multiple options yielded a framework of thirteen factors, some of which contained only one item. Factors with only one item are unreliable and should be excluded (Hair, et al., 1998; Churchill, 1979). The thirteen factors explained about 67% of the total variance. At this stage, a few items that did not correlate to any other items were found. Thus, further rotation was required based on the Scree polt solution and the total variance explained.

Subsequently, the purified dataset was repeatedly rotated with the same multiple options, i.e. loadings >0.50 but the Eigenvalue option was set to be off and 5 factors extracted from the dataset based on the previous findings' Scree plot. Therefore, 34 items/traits were excluded based on the findings yielded during these rotations.

Final Rotation

The EFA was re-conducted with a different set of options, decided based on the first rotation round. The item loadings were set to be greater than 0.5, five factors to be extracted, instead of Eigenvalue greater than 1 due to the number of factors that were interpreted in the previous step of rotation. From after the first rotation until this stage yielded a model with five factors which was interpreted to be retained from the Scree Plot as well. The final model interpreted from this rotation stage contained 30 items, which was

considered to be a large number in comparison with previous studies (e.g. Aaker 1997; Coleman, 2011; Geuens, 2009) but will provide a better reflection of the Islamic brand personalities.

The thirty traits retained because they yielded high loadings on the five factors were as follows; *urban, first mover, religious, sensitive, traditional, well-mannered, energetic, simple, extremist, economical, formal, Islamic, decent, Bedouin, manly, liberal, Mohsen, adventurous, experienced, up-to-date, down-to-earth, idealistic, popular, sporty, imaginative, rational, responsible young, classy, supportive and nationalist*. The KMO test of this framework was .913, the Bartlett's test was Chi-Square>6491.69, degree of freedom was 465 and significance at .000, these indicators are comfortably over the recommended thresholds.

This framework's item communalities, which are the percentage of variance that every individual item can explain after conducting rotation (Coleman, 2011), all exceeded 0.4 or slightly lower. In other words, the internal reliability of this framework is high.

Table 5.10: Factor Structure of EFA with Factor Loadings, Eigenvalue, Variance Explained and Cronbach's Alpha of Each Factor.

Pattern Matrix ^a						
Items/traits	Component					Communalities
	1	2	3	4	5	
Urban	.848					.708
Liberal	.847					.682
First mover	.801					.586
Idealistic	.794					.705
Imaginative	.786					.686
Sporty	.771					.497
Rational	.728					.620
Experienced	.714					.586
Energetic	.710					.552
Young	.700					.494
Supportive	.699					.631
Responsible	.697					.548
Classy	.666					.576
Popular	.632					.571
Up-To-Date	.508					.892
Simple		.932				.849
Traditional		.929				.876
Manly		.899				.831

Bedouin		.758				.629
Nationalist		.674				.561
Islamic			.912			.801
Well mannered			.867			.737
Decent			.822			.666
Religious			.653			.468
Mohsen			.593			.466
Formal				.930		.885
Down-To-Earth				.917		.892
Economical				.889		.807
Extremist					.939	.878
Sensitive					.924	.899
Eigenvalues	11.36	3.15	2.41	2.08	1.62	
% of Variance Explained	36.64 %	10.16 %	7.79%	6.70%	5.24 %	
Cronbach's Alpha	.94	.90	.84	.94	.93	

Note: Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization. a.
Rotation converged in 5 iterations.

It is essential to point out that all developed factors' items were accepted, because it was believed that they reflected the sample's view of how certain traits were related. The second, third and fifth factors contained items that are logically related to some degree based on literature. The first and fourth factors contained a mix of items, some of which were related and others that appeared unrelated to each other. This unexpected mixture of items may be linked to the uniqueness of the Islamic context. Therefore, this unique grouping of items under five factors will be discussed in more detail in the discussion chapter.

In the end, the final framework rotation was additionally supported by the results of the Component Correlation Matrix which indicates the relationship between factors. So, the final brand personality measurement framework that is illustrated above yielded very significant correlations between the five factors. As presented in Table 5.11. two of the five factors of the developed model produced a high Cronbach's α , were slightly exceeded 0.90. According to DeVellis (2011), Hair et al. (1998) and Netemeyer et al. (2003), such a result is likely to be a feature of the model's length and is not necessarily an alert for item removal.

Table 5.11: Factors' Correlations Based on the Final Component Correlation Matrix.

Component	1	2	3	4	5
1	1.000				
2	.324	1.000			
3	.405	.221	1.000		
4	.545	.225	.311	1.000	
5	.203	.044	.132	.264	1.000

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization. *p<0.05 **p<0.01 (two tailed).

5.4.1.4. Reliability Analysis of the Developed IBP Scale Five Factors

It is a vital step to assure that the produced scale measures the specific domain that was designed to be measured correctly (Yoon, 2004). Thus, reliability measuring techniques are always considered be critical. Reliability was identified by Sekaran (2000) as the extent to which a measurement scale can provide consistent and stable findings. The most commonly reliability technique employed in measurement scale developing-related literature is 'Consistency' (DeVellis, 2011; Field, 2009; Hair et al., 1998; Netemeyer et al., 2003). Therefore, as suggested by Churchill's (1979) paradigm, which this study employed, the quantitative data analysis stage should start with examining the reliability of the scale. According to Sekaran (2000) and Netemeyer et al. (2003) a measurement scale is regarded as reliable if it yields high internal Cronbach's alpha findings. The consistency reliability can be determined by total sample split-half reliability (Sekaran, 2000).

According to Pallant (2010: 97) "One of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient." This claim was supported by scholars such as DeVellis (2011), Field (2009) and Hair et al. (1998). Cronbach's alpha coefficient indicator determines the degree to which a scale's items belong to each other, and strongly correlated traits indicate their ability to measure the same latent variable (Pallant, 2010). DeVellis (2011) stated that a Cronbach's alpha score of 0.7 to 0.8 is acceptable and a Cronbach's

alpha score of 0.8 to 0.9 is excellent, whereas a Cronbach's alpha score of 0.9 and greater calls for shortening the scale length. Oppositely, Churchill Jr and Peter (1984) argued that traits with a high score of consistency reliability destructively impact a scale's construct validity. Consistent with this argument, traits with a high reliability score are most likely to be excluded because no new findings would be found. Finally, Clark and Watson (1995) considered a Cronbach's alpha score of 0.7 for a scale to be reliable. This study has followed the view of DeVellis (2011) in regard to addressing the scale reliability.

As for validity, for this study content validity or 'face validity' was considered, which aims to determine to what degree the traits are representing the domain to be measured. This validation technique can be done through determining the correspondence among the traits and the domain through specialists' evaluation or a pre-test (Hair et al., 1998). In this thesis, the author assessed the content validation through employing pilot-study and sampling techniques and assessing the average variance extracted (AVE) validity as well. Additionally, the discriminant validity was assessed since it was considered to be one critically important method to establish a scale's validity by some previous studies (e.g. Bagozzi and Foxall, 1996; Byrne, 2001; Sheeran and Orbell, 1999). This validity was investigated via the dimensions internal correlation and the root square of their correlations as well. According to Churchill (1979), the factors of the proposed model must be purified by excluding 'garbage' items, which means excluding any item with a total corrected correlation lower than 0.3. The following Tables 5.12, 5.13, 5.14, 5.15 and 5.16 show details of the reliability analysis for: Factor 1, Factor 2, Factor 3, Factor 4 and Factor 5.

Table 5.12 illustrates the strong reliability of the first factor of the IBP scale obtained from the EFA final rotations which, supports the grouped IBP traits under discussion. The reliability of this factor if items were deleted ranged between 0.939 and 0.942, which is comfortably above the acceptable reliability benchmark of 0.70 (Hair et al., 1998, 2006; Tabachnick and Fidell, 2007). In order to further investigate the reliability of the purified scale, inter-item and item-to-total correlations was obtained via SPSS 19 as done by Diamantopoulos and Souchon (1999) and Nunnally and Bernstein (1994). Based on these indices, any items that are negative or near to zero are regarded as candidates for removal. The inter-item correlations ranged between .338 and .76 and the item-to-total correlations ranged between .608 and .794 as shown in Table 5.12 and these findings are

according to common recommendations (e.g. d'Astous and Lévesque, 2003; DeVellis, 2011; Hair et al., 2006; Netemeyer et al., 2003; Nunnally and Bernstein, 1994) very satisfactory for a scale to be regarded as reliable.

Table 5.12: Reliability Analysis of Factor 1.

Factor's Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Up-To-Date	73.41	234.432	.615	.941
Young	73.33	233.902	.644	.940
Imaginative	73.25	228.981	.761	.937
Idealistic	73.40	226.268	.781	.936
Popular	73.11	233.794	.608	.941
Classy	73.63	232.269	.701	.939
Sporty	73.47	233.684	.610	.941
Urban	73.24	228.269	.794	.936
First mover	73.49	232.174	.711	.938
Experienced	73.39	232.252	.701	.939
Liberal	73.32	226.722	.762	.937
Responsible	73.46	229.997	.690	.939
Rational	73.39	230.156	.742	.937
Supportive	73.48	231.209	.718	.938
Energetic	73.28	235.539	.678	.939
Cronbach's α / Factor	.94			

Table 5.13: Reliability Analysis of Factor 2.

Factor's Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Traditional	18.88	37.806	.888	.872
Nationalist	18.34	44.654	.639	.921
Simple	18.89	37.267	.871	.875
Bedouin	19.25	40.531	.655	.922
Manly	18.93	37.141	.867	.875
Cronbach's α /Factor	.90			

Table 5.13 is illustrative of the strong reliability of the second dimension of the IBP scale obtained from the EFA final rotations. The reliability of this factor if items were deleted

ranged between 0.872 and 0.922, which is above the acceptable reliability benchmark of 0.70 (Hair et al., 1998, 2006; Tabachnick and Fidell, 2007). This finding is in favour of the traits grouped under this dimension. Next, the inter-item correlations ranged between .423 and .879 and the item-to-total correlations ranged between .602 and .878 as shown in Table 5.13. Thus, this dimension was considered to be reliable according to the earlier mentioned common guidelines.

Table 5.14: Reliability Analysis of Factor 3.

Factor's Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Religious	23.44	11.57	.536	.839
well mannered	23.22	10.62	.738	.786
Islamic	23.11	10.62	.788	.775
Decent	23.42	10.36	.675	.801
Mohsen	23.59	11.39	.529	.843
Cronbach's α /Factor	.84			

Table 5.14 shows the strong reliability of the third factor of the IBP scale that obtained from the EFA final rotations. The reliability of this factor if items were deleted ranged between 0.775 and 0.843 which means that removing any of them would not improve reliability. The Factor α of .843 is above the acceptable reliability benchmark of 0.70 (Hair et al., 1998, 2006; Tabachnick and Fidell, 2007). Next, the inter-item correlations ranged between .321 and .727 and the item-to-total correlations ranged between .529 and .788 as shown in Table 5.14. Thus, this dimension can be considered to be reliable according to the earlier mentioned common guidelines.

Table 5.15: Reliability Analysis of Factor 4.

Factor's Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Formal	9.62	9.013	.898	.900
Down-To-Earth	9.56	9.114	.900	.898
Economical	9.60	9.129	.838	.946
Cronbach's α /Factor	.94			

Table 5.15 illustrates the strong reliability of the fourth factor of the IBP scale obtained from the EFA final rotations. The reliability of this factor if items were deleted ranged between 0.898 and 0.946, which is an indication that their removal would not improve reliability: at .829 α for the factor is well above the benchmark of 0.70 (Hair et al., 1998, 2006; Tabachnick and Fidell, 2007). Next, the inter-item correlations ranged between .815 and .898 and the item-to-total correlations ranged between .838 and .900 as shown in Table 5.15. Thus, this dimension is considered to be reliable according to the earlier mentioned common guidelines.

Table 5.16: Reliability Analysis of Factor 5.

Factor's items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation
Extremist	4.13	3.216	.869
Sensitive	4.15	3.460	.869
Cronbach's α /Factor	.93		

Table 5.16 illustrates the strong reliability of the fourth factor of the IBP scale obtained from the EFA final rotations. The reliability of this factor is indicated to be above the acceptable benchmark of 0.70 (Hair et al., 1998, 2006; Tabachnick and Fidell, 2007). Next, the inter-item correlation was .869 and the item-to-total correlations were the same as shown in Table 5.16. Thus, this dimension is considered to be reliable according to the earlier mentioned common guidelines.

According to the results of the above reliability analysis, all items of all five dimensions or factors of the developed model were retained, and the item (ADVENTUROUS) was excluded because if the item were deleted, the total scale's Cronbach's α would increase. Consequently all subscales resulted in a reliability over 0.7. According to Churchill (1979), DeVellis (2011), Hair et al. (1998) and Netemeyer et al. (2003) a scale is regarded as reliable if it produces a Cronbach's α more than 0.7. The fact that several subscales produced Cronbach's α over 0.90, was not reviewed as an alert for item redundancy, because such α values are more likely to be caused by factor length, and their ability to correlate to each other, as highlighted in section 5.4.1.4. In other words, these Cronbach's α values were interpreted as positive findings and not negative (DeVellis, 2011; Netemeyer et

al., 2003). Next the validity of the CFA based developed model for Islamic brand personality was examined and factors are named.

Selection of IBP Scale Estimation Method

The method of model estimation was chosen with great care regarding the effects model estimation has on the model fit (Coleman, 2011; Kenny and McCoach, 2003; Marsh et al., 2004). The employed model estimation method was the Maximum likelihood estimation method. Coleman (2011) summarised several reasons for a researcher to select the MLE method based on the related literature. Some of these reasons are as follows: first, several scholars stated how MLE is widely employed as a CFA estimation method such as DeVellis (2011), Hair et al. (1998) and Netemeyer et al. (2003), which suggested that this method of estimation is the most suitable one. Second, MLE was employed in many well recognised branding studies. Third, MLE was regarded as a very appropriate method of estimation with non-normal data such as the data of this study (Coleman, 2011). Fourth, according to Dijkstra (1983), the MLE method is rather more scale-invariant and mostly Fisher-consistent, which are the needed features of a measure or scale developing method. Fifth, MLE produces better hypothetical fit in regard to measure/scale development in comparison to other estimation methods such as Generalised Least Squares (GLS) (Banerjee et al., 2008; Enders and Bandalos, 2001; Kleinbaum and Klein, 2010; McDonald and Ho, 2002).

Asymptotic Distribution Free (ADF) estimation was criticised by Olsson et al. (2000) that for producing an estimated parameter value that differs from the true estimated parameter value comparing to MLE. Therefore, the ADF estimation method was not considered to be suitable for this study. The MLE does provide a researcher with some of the critical indices that help researchers in developing a measure/scale but are less required during hypothesis testing, as follows:

- The chi square is considered to be quite sensitive to the sample size; therefore, it was suggested to combine the chi square figure with additional goodness-of-fit measures

(Hair, *et al*, 1988). It was concluded by Hair *et al* (1988) that the model absolute fit assessment is based on the likelihood-ratio chi-square (X^2), the root mean square residual and the root-of-fit index.

- The goodness of fit index (GFI) and relatively adjusted goodness of fit index (AGFI) methods evaluate a hypothesised model comparing to no model at all. The recommended cut off value is 0.90 as a good indication of a good fit (Tay, 2006).
- Root mean square error of approximation (RMSEA), enables the evaluation of fit level among a model with most appropriate selected parameter values and the covariance output if found (Byrne, 2001). The RMSEA values should be less than 0.10 the lower the best the good fit indicated for the model.
- The comparative fit index (CFI) was developed based on the findings of the normed fit index (IFI). The NFI was developed to investigate the incremental fit of a hypothesised model but the NFI values are likely to be influenced by a small sample size. Therefore, Bentler (Bollen and Long, 1993) proposed the CFI method which enabled to overcome the influence of the sample size. The CFI recommended values to be close to or 0.95. The Incremental Index of Fit (IFI) was developed by Bollen (1989) to overcome the problem of parsimony and the sample size related to the NFI by considering the degrees of freedom (DF) values (1990).
- The Parsimony goodness-of-fit index (PGFI) “was introduced by James, Mulaik, and Brett (1982) to address the issue of parsimony in SEM. The PGFI takes into account the complexity of the hypothesised model in the assessment of overall model fit.., thereby providing a more realistic evaluation of the hypothesised model” (Byrne, 2001: p.79).
- The Tucker-Lewis index (TLI) is similar to the CFI and TLI with value of 0.95 or closer is regarded to be an indication of a good fit as claimed by (Byrne, 2001: p.78).

- The GLS estimation method is empirically supported to be employed with non-normal data (Hu and Bentler, 1999).
- The indices of PCFI and PNFI as extra good fit indications should exceed the advised cut off value of 0.50 (Hair *et al*, 2006).

The model fit indication indices outlined previously were followed in the process of assessing the goodness-of-fit of IBP scale development. The reason behind employing these particular indices from the 21 indices provided by AMOS 19 was that these indices were extensively employed by researchers and regarded as very satisfactory for indicating a measure's/scale's fit (Coleman, 2011). Note that in this study the Likelihood ratio test statistic CMIN was referred to as X^2 and the CMIN/DF referred to as X^2/df .

5.4.2. Confirmatory Factor Analysis for IBP Scale

The CFA was important to be employed since it is a required stage prior to SEM analysis as has been stated by Schreiber et al. (Byrne, 2001; Chen et al., 2008; Hair et al., 1998; Kline, 2010) “the power of SEM is seen most full when multiple indicators for each latent variable are first tested through CFA to establish the conceptual soundness of latent variable used in the final structural model”. This section provides details about the CFA procedure and findings of Islamic Brand Personality Measurement (IBP) scale that was developed for the Islamic world with reference to the Saudi Arabian culture based on the previous Exploratory Factor Analysis (EFA) results.

The prior EFA resulted in a five dimensional measurement model framed of 30 items or traits categorised under five factors, collected using the Promax method. The first factor contained 15 items. The second factor contained five items. The third factor contained also five items. The fourth factor contained three items and lastly. Refer to section 5.4.1.3 in this study for details.

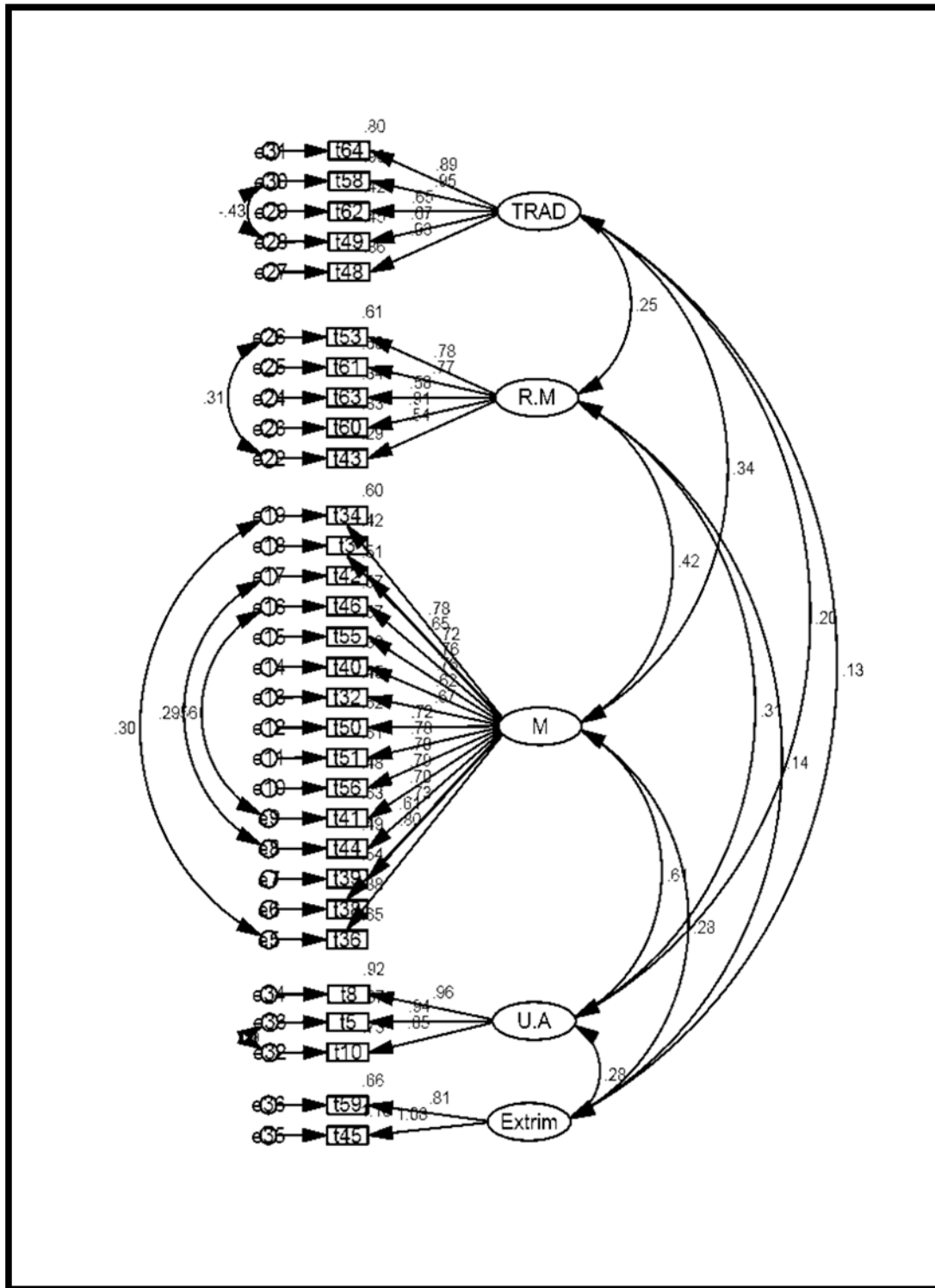
5.4.3. Initial Estimation of the IBP Scale Model fit Evaluation

The CFA tactic was employed on the IBP scale yielded from the EFA that was accomplished previously. The factor loading (FL) cutt off/ removing point was decided to be <0.50 to support the validity of the scale or cross loading items in order to obtain the best possible model fit for the IBP scale (2006: p.334). According to this decision, items that yielded a FL <0.50 were excluded from the model. The recommended values for the same indices are as follows and shown in Table 5.17: ($\chi^2/df \geq .05$), (CFI $>.90$), (NFI $>.90$), (GFI $>.90$) and (RMR <0.05), which are contradicted from the yielded values.

Table 5.17: An Illustration of Recommended Cut off Values of Indices from AMOS.

Indices	Codes	Cut off values	References
Absolute/predictive fit X2/df	X2/df	≤ 0.3	Kline,1998
		< 5	Schreiber et al., 2006
Comparative fit Normed fit index	NFI	≥ 0.90	Matsunaga,2010
		≥ 0.95	Schreiber et al., 2006
Incremental fit index	IFI	≥ 0.90	Matsunaga,2010
		≥ 0.95	Schreiber et al., 2006
Tucker-Lewis index	TLI	≥ 0.90	Matsunaga,2010
		≥ 0.95	Schreiber et al., 2006
Comparative fir index	CFI	≥ 0.95	Schreiber et al., 2006
Parsimonious fit Parsimony-adjusted NFI	PNFI	>0.5	Schreiber et al., 2006
Parsimony-adjusted CFI	PCFI	>0.5	Schreiber et al., 2006
Other Goodness of fit index	GFI	≥ 0.90	Matsunaga,2010
		≥ 0.95	Schreiber et al., 2006
Root mean square residual	RMR	<0.05	Hair et al ,1988
		<1.00	Schreiber et al., 2006
Root mean square error of approximation	RMSEA	$<.060$ to $.080$	Schreiber et al., 2006
		<0.10	Matsunaga,2010

Figure 5.4: Islamic Brand Personality (IBP) Scale First Order CFA Model (1) with 30 Items.



The CFA first order approach yielded results based on the 30 items of IBP scale, which are illustrated in Figure 5.4. According to the advice of Byrne (Hair et al., 1998) the five factors of the IBP scale were allowed to covary. In regard to fit of the IBP Scale Model 1

achieved a fit that was low in some indices; ($X^2= 1515.327$, $df= 555$, $X^2/df= 2.730$ GFI= 0.75, CFI= 0.86, RMR= 0.15, AGFI= 0.71, PGFI= 0.65, TLI= 0.85, IFI= 0.86, PCFI= 0.79, PNFI= 0.74 and RMSEA= .07). The yielded AGFI, GFI, CFI, TLI, IFI, PCFI, PNFI indices values showed that steps could be taken to improve the model fit. On the other hand, the values of the indices of DF, CMIN/DF, RMSEA and PCLOSE were very acceptable.

5.4.3.1. Re-specified IBP Scale Model Estimation

Consequently to the yielded values of the first IBP scale model estimation, it seemed that the model fit could be improved to more satisfactory. It is argued by Byrne (2001) that when using AMOS a researcher should not be aiming to produce an ideal fit but should try to produce the best possible and interpretable model fit. Also it was advised by Byrne (2001) to use the CFA in an exploratory manner when aiming to improve the fit. This tactic was practically supported by Anderson and Gerbing (2001) who approved that this style is usually important, and it was stated by Chin (1988b) that this approach is justifiable in CFA stages.

Therefore, the re-specification approach was repeatedly followed in this stage of analysis. The argument of Segars and Grover (1998) that removing variables at once could impact the proposed model was not neglected. Therefore, removal of items was based on three vital guides; Standardised Residuals (SR), Modification Indices (MI) and Theory as done by (Segars and Grover, 1993). Items with cross loading were checked for in the Modification Indices and removed, and items with Standardised Residuals exceeding the value of 2.58 are regarded as removable items and removed if matching with theory (Coleman, 2011). By employing these three criteria before removing items, the finalised model is acceptable for generalisation to a broader population (Hair et al., 1998).

Consequently, based on the outlined approach and criteria above, two items were excluded from the re-specified IBP scale model, and the rational justifications for removing the two items and six covariance between 12 items are provided next individually as recommended by some previous studies (e.g. Chin, 1998; DeVellis, 2011; Hair et al., 1998; Kline, 2010; Iacobucci et al., 2007). According to the initial estimation of IBP scale model findings the yielded values clearly indicated that there was still room for model fit

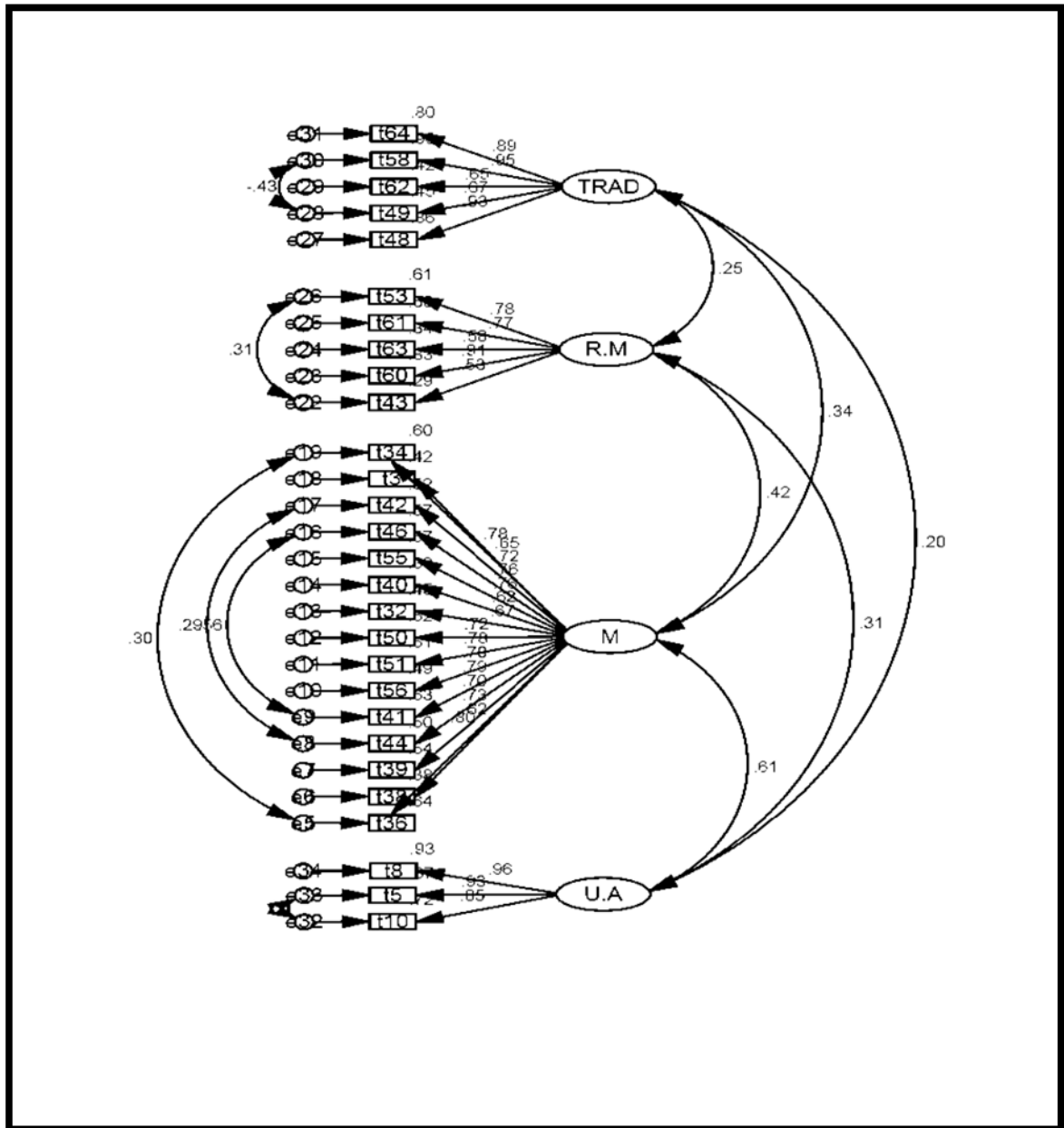
improvement. The Item T45 (Sensitive= 36) resulted in too low FL (FL= 0.15) and negative covariance which were indications of removal concern. Due to the inability of AMOS to operate with a factor with only one observed variable, it was decided to add item T59 to another factor with some theoretical similarities, which was F2, as done by Byrne (Byrne, 2001; Kline, 2010; Schreiber et al., 2006) in a similar situation: “One approach that can be taken in such instances is to combine the measures as indicators of only one of the two factors involved” (Byrne, 2001: p.68). Consequently, it was decided based on the FL of T59 (Extremist= e35) to be eliminated due to its very low FL (FL= 0.10) which was <0.50, the cut off value of the FLs, even after combining it with F2 due to their similar theoretical meaning. Thus, a complete sub-dimension was removed from the IBP scale and accordingly four sub-dimensions remained.

Next there were indications of items that should be covary to improve the fit based on the MI. These covariances were as follows: e5 \leftrightarrow e19 value= 68.81, e17 \leftrightarrow e8 value= 38.35, e16 \leftrightarrow e9 value= 25.0, e26 \leftrightarrow e22 value= 22.5, e30 \leftrightarrow e28 value= 18.44 and e32 \leftrightarrow e33 value= 17.0. In regard to the fit-of-goodness of the BP Scale re-specified Model achieved a very good fit in general; its indices were as follows; (X^2 = 673.178, df= 338, X^2 /df= 1.99 GFI= 0.85, CFI= 0.94, RMR= 0.12, AGFI= 0.82, PGFI= 0.71, TLI= 0.93, IFI= 0.94, PCFI= 0.84, PNFI= 0.80 and RMSEA= .059). Additionally, it is worth mentioning the Expected Cross-Validation Index (ECVI), which was explained by Byrne (2001: p.170) as follows:

“The ECVI was proposed, initially, as a means of assessing, in a single sample, the likelihood that the model cross-validates across similar-sized samples from the same population (Browne & Cudeck, 1989). Specifically, it measures the discrepancy between the fitted covariance matrix in the analyzed sample, and the expected covariance matrix that would be obtained in another sample of equivalent size. Application of the ECVI assumes a comparison of models whereby an ECVI index is computed for each model, and then all ECVI values are placed in rank order; the model having the smallest ECVI value exhibits the greatest potential for replication... In assessing our hypothesized four-factor model, we compare its ECVI value of .888 with those of both the saturated model (ECVI = 1.030) and the independence model (ECVI = 6.548). Given the lower ECVI value for the

hypothesized model, compared with both the independence and saturated models, we conclude that it represents the best fit to the data.”

Figure 5.5: The Final best Fitted IBP Scale typified based on four dimensions and 28 items.



According to this quotation on the explanation of the ECVI purpose, it was concluded that the fit of the fourth estimated IBP scale model is the best fitted model based on the examined data. The related indices values supporting such a claim were as follows; Default model ECVI= 2.82, Saturated model ECVI= 2.83 and Independence model ECVI= 21.33.

Thus, the final IBP scale as presented in Figure 5.5 was regarded to be obtained based on the above findings, since they yielded the best achieved fit.

The findings of all performed re-specification stages are presented in comparing manner in Table 5.18 in order to provide a better illustration of the estimation procedure and the values of the followed indices as model fit criteria for each decision that was understandably and interpretably made. Along to the followed indices recommended cut off values it was believed it is vital to present the obtained values as well. This table highlights all the changes during model fit until the best possible model fit was achieved.

Table 5.18: An Illustration of Recommended Cut off Values of Indices Followed and Obtained values 2 Estimations of Fit via AMOS.

Indices	Codes	Cut off value	References	Obtained values of ES1	Obtained values of final ES
Absolute/predictive fit X2/df	<u>X2/df</u>	≤ 0.3	Kline,1998	2.73	<u>1.99</u>
		< 5	Schreiber et al., 2006		
Adjusted Goodness-of-fit index	<u>AGFI</u>	Closer to 1.00 better	Matsunaga,2010	0.71	<u>0.82</u>
Incremental fit index	<u>IFI</u>	≥ 0.90	Matsunaga,2010	0.86	<u>0.94</u>
		≥ 0.95	Schreiber et al., 2006		
Tucker-Lewis index	<u>TLI</u>	≥ 0.90	Matsunaga,2010	0.85	<u>0.93</u>
		≥ 0.95	Schreiber et al., 2006		
Parsimony Goodness-of-fit index	<u>PGFI</u>	≥ 0.50	Byrne (2001)	0.65	<u>0.71</u>
Parsimony-adjusted NFI	<u>PNFI</u>	> 0.5	Schreiber et al., 2006	0.74	<u>0.80</u>
Parsimony-adjusted CFI	<u>PCFI</u>	> 0.5	Schreiber et al., 2006	0.79	<u>0.84</u>
Goodness-of-fit index	<u>GFI</u>	≥ 0.90	Matsunaga,2010	0.75	<u>0.85</u>
		≥ 0.95	Schreiber et al., 2006		
Comparative fir	<u>CFI</u>	≥ 0.95	Schreiber et al.,	0.86	<u>0.94</u>

index		2006		
Root mean square residual	<u>RMR</u>	<0.05	Hair et al ,1988	
		<1.00	Schreiber et al., 2006	0.15 <u>0.12</u>
Root mean square error of approximation	<u>RMSEA</u>	<.060 to .080	Schreiber et al., 2006	
		<0.10	Matsunaga,2010	0.08 <u>0.05</u>

Note: estimation (ES)

Additionally, the regression weights table from the final fitted model is presented in Table 5.19. The P values in the regression weights table significantly support a IBP scale measured by the four modified factors (F1, F3 and F4) which were gained from the EFA. After all the steps for CFA of Model fit were completed, it was vital to assess the Validity and Reliability of the final IBP scale Model, which are presented next.

Table 5.19: Regression weights, Standardised Items FLs and Standard Errors of the Final IBP Scale Model Paths.

Paths/directions	Estimate	S.E.	C.R.	P
t36 <--- M	1.346	.106	12.704	***
t38 <--- M	1.031	.104	9.957	***
t39 <--- M	1.140	.097	11.790	***
t44 <--- M	1.095	.096	11.403	***
t41 <--- M	1.242	.098	12.683	***
t56 <--- M	1.000			
t51 <--- M	1.229	.099	12.458	***
t50 <--- M	1.214	.104	11.625	***
t32 <--- M	1.065	.099	10.735	***
t40 <--- M	1.033	.104	9.964	***
t55 <--- M	1.188	.098	12.136	***
t46 <--- M	1.283	.105	12.180	***
t42 <--- M	1.103	.095	11.579	***
t3 <--- M	1.052	.101	10.423	***
t34 <--- M	1.235	.100	12.296	***
t43 <--- R.M	1.000			
t60 <--- R.M	1.565	.168	9.298	***
t63 <--- R.M	1.139	.151	7.523	***
t61 <--- R.M	1.552	.177	8.794	***

Paths/directions	Estimate	S.E.	C.R.	P
t53 <--- R.M	1.413	.137	10.348	***
t48 <--- TRAD	1.000			
t49 <--- TRAD	.614	.045	13.601	***
t62 <--- TRAD	.780	.058	13.334	***
t58 <--- TRAD	1.055	.035	29.829	***
t64 <--- TRAD	.982	.039	25.224	***
t10 <--- U.A	1.000			
t5 <--- U.A	1.066	.045	23.612	***
t8 <--- U.A	1.084	.059	18.253	***

Note: SE= standard errors and CR= Critical Ratio. Significant at P<0.001. FL cut off point <0.50.

5.5. Exploratory Factor Analysis of the TPB, DIT and RB

Exploratory factor analysis for the theory of planned behaviour (TPB), diffusion innovation theory (DIT) and Islamic religious beliefs (IRB) was conducted by the same steps that were previously followed in the EFA of the brand personality model. This part of the analysis was conducted to explore in which order the factors of the adopted theoretical constructs would be sorted, and whether the items of these constructs' factors loaded similarly to the theories or differed. Thus the EFA was conducted on TPB, Islamic religious beliefs and DIT separately.

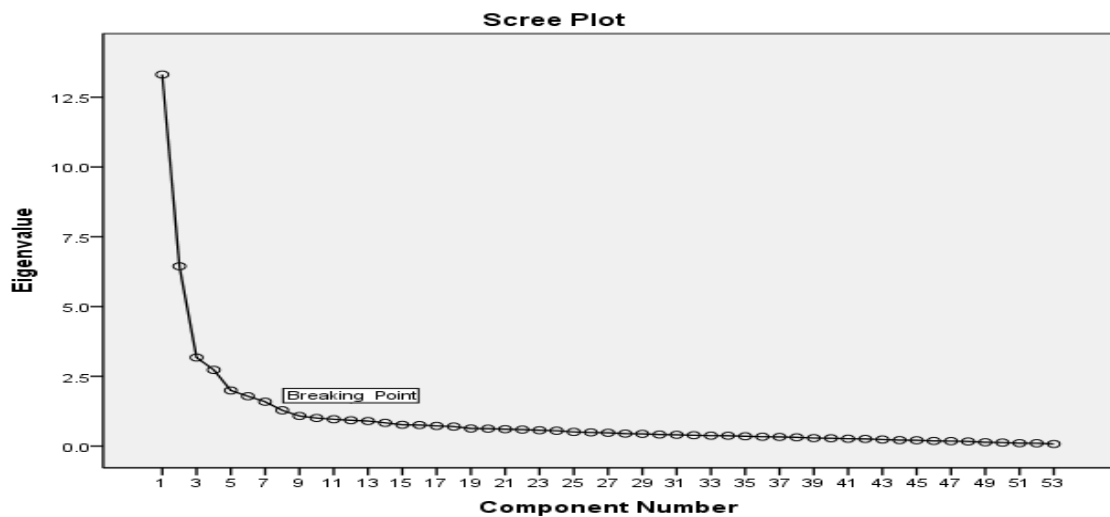
5.5.1. Exploratory Factor Analysis of the TPB

This EFA was conducted on eighteen items that measure subjective norms (SN), perceived behavioural control (PBC) (Lada et al., 2009), new religious-compliant products adoption (NRCPA) (Nur Haslizatul Liza, 2011; Wang et al., 2008) and the items of the IBP scale which was developed previously as explained in detail above in section 5.4. Thus, this EFA was conducted on fifty two items. The KMO measure of sampling adequacy test result was 0.898, which is a very good score. Also the Bartlett's test and Chi-Square test findings were 11669.580 with a DF 1378 at a significance level of $p < 0.000$.

This EFA was requested to force items into nine factors which are theoretically and practically supported for the examined constructs, namely, the IBP scale's five factors

established above, subjective norms one factor, perceived behavioural control one factor, new religious compliant product adoption one factor and FA one factor. The total variance explained by these nine factors was 62.7%, which is not logical in comparison to the number of factors. The scree plot suggested a model of seven factors as shown in Figure 5.6. Additionally, the component matrix of the nine-factor solution was poorly interpretable (See Appendix 9). Thus the EFA was re-conducted for the same constructs with the number of factors set at seven and loadings ≥ 0.50 . When the EFA was forced to produce a model with seven factors, the findings were more logically explainable theoretically. The seven factors were capable of explaining 58.6% of total variance, and there was a very good level of correlation between the seven factors. Please refer to Appendixes 10 and 11.

Figure 5.6: Scree Plot of EFA of the TPB with Eigenvalue >1 .



5.5.1.1. Reliability of the TPB and FA Factors

After the findings of the EFA for the seven factors were established, it was necessary to investigate each factor's reliability. In this section of the study the reliability of the subjective norms, perceived behavioural control and new religious compliant product adoption as constructs of the TPB theory are reported. BP replaced attitude, as explained in the theoretical chapter, and the BP reliability is not reported in this section because it has already been reported in section 5.4.1.5.

The reliability of the first factor yielded by the EFA, which contained items from subjective norms, perceived behavioural control and new religious complaint product adoption constructs was very high with a Cronbach's Alpha of 0.90 which is as argued by Hair et al. (1998) very high. For more details please see Appendices 12 and 13.

5.5.2. Exploratory Factor Analysis of the DIT

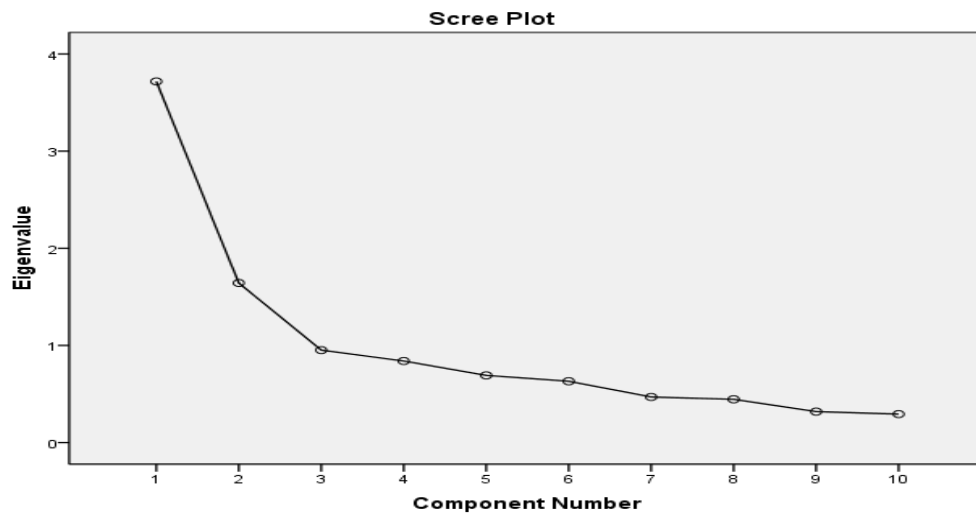
The EFA was run repeatedly to explore the order in which the items of the diffusion innovation theory (DIT) constructs would fall. The constructs of the DIT contained ten items, four items for relative advantages (RA), three items for compatibility (Com1) and three items for complexity (Com2) (Chou et al., 2012; Taylor and Todd, 1995a). The KMO test finding for the DIT items was 0.84 which indicated a very good factorability. The Chi-square was 1103.253, with significance of $p < 0.000$.

The Promax rotation method was again employed and yielded two factors that explained 53.59% of total variance. As presented in the scree plot below in Figure 5.7, a two factor solution was suggested by the EFA as shown in Appendix 14. Therefore, the EFA was rerun with three factors but the findings yielded a very strong suggestion of only a two factor solution. Thus, the first output from the EFA was regarded as the most suitable based on the view of the examined sample.

5.5.2.1. Reliability of the DIT Factors

The EFA of the DIT constructs produced two factors. The first factor included five items, three items from the relative advantage construct and two items from compatibility. This factor demonstrated a high reliability with a Cronbach's Alpha of 0.87 (see Appendix 15). The second, however, produced a Cronbach's Alpha of 0.57 which is considered weak according the reliability guides of DeVellis (2011), Hair et al., (1998) and Netemeyer et al. (2003) (see Appendix 16).

Figure 5.7: Scree Plot of EFA of the DIT with Eigenvalue>1.

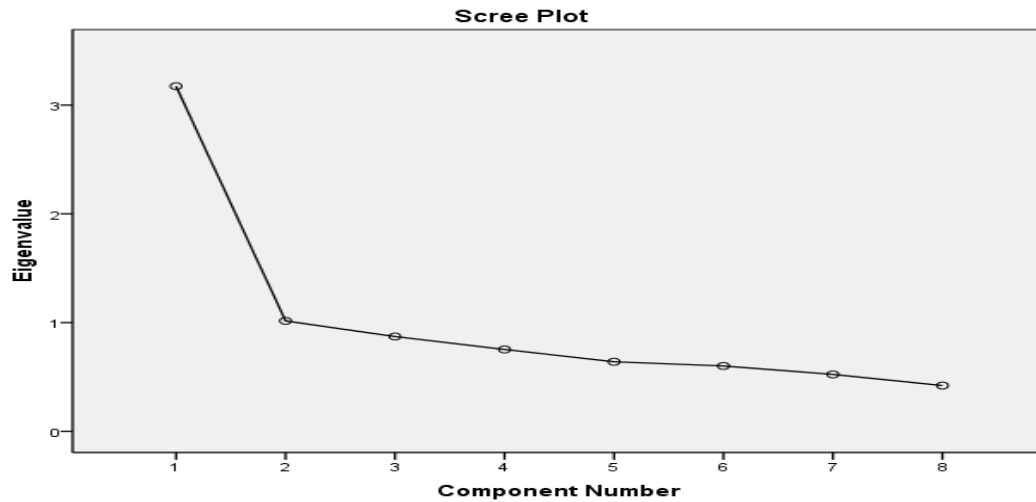


5.5.3. Exploratory Factor Analysis of the RB Construct

The final EFA was conducted to explore the possible dimensionality interpretable from the SPSS using the Promax method. The EFA was rerun on eight items that measure the Islamic religious beliefs construct with an eigenvalue greater than >1 and loadings ≥ 0.30 as suggested by Hair et al. (1989). This factor analysis yielded communalities of 0.46 and higher which indicated that all items are valuable and there was no need for purification by excluding items. The factorability tests of KMO and Bartlett's test of Sphericity yielded KMO of 0.830 and approximate Chi-Square of 596.902 with DF of 28 and significance of $p < 0.000$.

The scree plot of the EFA of the Islamic religious beliefs construct indicated that only one factor should be extracted as illustrated in Figure 5.8. This indication was supported by the reading of the Component Matrix (see Appendix 17). However, the Pattern Matrix and the Structure Matrix suggested extraction of two factors, because three items, specifically the sixth, the seventh and the eighth, loaded on the other factor with higher loadings ≥ 0.20 differences. Eventually, it was decided to extract only one factor, although some findings implied otherwise.

Figure 5.8: Scree Plot of EFA of the Islamic religious beliefs with Eigenvalue >1 and loadings ≥ 0.30 .



The extraction of only one factor was supported by the Component Correlation Matrix (see Appendix 18) which yielded a slightly high correlation between the two factors. In other words, the two factors are very similar. The Component Correlation Matrix weighted the Libra hand in favour of the one factor solution. The calculated total variance explained by this factor was found to be 52.45%, which is a very acceptable percentage. Additionally, the one factor solution was more explainable and better logically linked to the literature on religiosity evaluation measure, specifically Islamic community evaluation.

5.5.3.1. Reliability Analysis of the Islamic Religious Beliefs Factor

Using similar procedure to that described in sections 5.5.1 and 5.5.2, reliability analysis was conducted for the Islamic religious beliefs EFA findings. The analysis indicated good reliability of this construct's items, with a Cronbach's Alpha of 0.78. This Cronbach's Alpha value was considered to be very reliable according to the reliability guidelines suggested by DeVellis (2011), Hair et al. (1998) and Netemeyer et al. (2003). Finally, the readings from the test of reliability if an item was deleted also yielded very stable Cronbach's Alpha values; the lowest value was 0.721 and the highest was 0.765, which indicated a strong reliability for all the items within the Islamic religious beliefs factor. Please refer to Appendix 19 for details.

5.6. Confirmatory Factor Analysis of the Measurement Model

Previously in sections 5.4 and 5.5, the first part of factor analysis, EFA, was repeated. The EFA was employed to develop an appropriate brand personality measurement scale for the context of this study, which is Saudi Arabia as an Islamic context. Next the EFA was run to explore the constructs of subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption. Thus, it was vital to employ confirmatory factor analysis (Dudley et al., 2005) on the same dataset to be able to confirm the proposed Islamic brand personality (IBP) scale with four factors and 30 internal variables, and confirm the order or factors in which the sub variables of subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption constructs were found to be sorted from the previous EFA after the reliability of the IBP scale was obtained via Cronbach's α inter-item correlation and item-to-total correlations (Churchill, 1979; Clark and Watson, 1995; d'Astous and Lévesque, 2003; DeVellis, 2011; Field, 2009; Hair et al., 2006).

CFA enables researchers to assess constructs' unidimensionality and validity and provides better readings of the appropriateness of constructs' sub variables as a preparation for structural equation modelling. As explained by Hair et al. (1998), CFA provides a researcher with total control in specifying which variables to use to describe a construct and the constructs are freely able to correlate with each other. Additionally, the CFA provides a comparison between the original constructs and the constructs of the theoretical framework (Leong, 2009).

5.6.1. Conceptual Model Estimation via SEM Method

The method of model estimation was chosen with great care regarding the effects model estimation has on the model fit (Coleman, 2011; Kenny and McCoach, 2003; Marsh et al., 2004). The employed model estimation method was PLS-SEM. The author summarised the several reasons for a researcher to select the PLS-SEM method next in sections 5.6.4 and 5.7.4.1. PLS-SEM estimation was said by Chin (2010) to produce an accurate estimated parameter value comparing to MLE. Therefore, the PLS-SEM estimation method was

considered to be suitable for this study. The R^2 is regarded to be relatively satisfactory for the examined data (Hair et al., 2012).

5.6.2. Logic for Selecting PLS-SEM Approach

The selection of the SEM statistical technique either covariance-based (CBSEM) such as AMOS, LISREL or invariance-based SEM such as PLS, PLS Graph, should be done with respect to the goals of the research.

Some facts about CBSEM are; first, the data are assumed to be normally distributed as a main criterion to accomplish the goodness-of-fit indices such as χ^2 (chi square); statistically a smaller χ^2 value indicates a good model fit, whereas, statistically a higher χ^2 value indicates insignificant fit. The Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) were criticised by researchers as unstable when the sample was increased (Coleman, 2011; Netemeyer et al., 2003). Thus, care is advised in dependence on GFI and AGFI for the purpose of assessing a model or a measurement fit (Netemeyer et al., 2003). Second, as stated by Hair et al. (2006) the sample size must be 150 or 200 and more in order to achieve a good model fit, which is viewed as a limitation of the CBSEM. Third, CBSEM does not usually converge and revealed un-interpretable findings, which might result in model modifications or a reassessment of hypothesised theory (Chin, 1998; Hair et al., 2012; Kline, 2010).

In contrast, according to Gefen and Straub (2005) PLS-SEM employs ordinary least squares (OLS) as estimation technique to predict the total variance. The PLS produces OLS repeatedly for every individual construct separately in order to reduce the residual variance of the dependent variables and to result in a significant average of R^2 . Therefore, the PLS-SEM is less concerned with multivariate normally distributed data (Chin, 1998; Gefen and Straub, 2005; Hair et al., 2006). The same reason was given for PLS-SEM usage in 102 previous studies (Hair et al., 2012).

The PLS-SEM was employed for the assessment of the full conceptual model's SEM for a number of reasons, as follows; first, since the present research objective is predicting confirmed post structural relationships, the PLS-SEM is the most appropriate statistical

technique for analysis as argued by Hair et al. (2012). Second, PLS-SEM overcomes the critical issues of inadmissible solutions and factor indeterminacy by performing the OLS in sequence for each construct as explained above (Chin, 1998; Fornell and Larcker, 1981). Third, according to Henseler et al. (2009) after the addition of Finite Mixture Partial Least Squares (FIMIX-PLS) and non-linear effects, PLS-SEM usage in marketing research has increased and become widespread. Hair et al. (2012: p.15) note, “Our review substantiates that PLS-SEM has become a more widely used method in marketing research”. However, there has been a lack of use of PLS-SEM method in studies related to brand personality and the influence of Islamic religious beliefs in brand personality and new product adoption, to the best of the author’s knowledge, so its use here makes a new contribution.

Fourth, the framework which the present research was intended to examine empirically contains eight constructs and one of the constructs is a high-order that contains four sub-constructs. Thus this conceptual model is perceived to be complex, based on Hair et al. (2012), and therefore, the PLS-SEM method is the most suitable for data analysis. Fifth, the PLS-SEM is regarded as the most appropriate method for complex models with a large number of constructs, variables and measuring items, because the PLS-SEM method is able to estimate a complex model, avoiding problematical estimation issues (Wold, 1985). Fifth, Dijkstra (1983) stated that PLS is far from normal and a distribution-free method that aims only at consistency, which is what was needed for this study in order to assess the hypothesised relationships.

Finally, often in the SEM domain a two-step method is preferred to a one-step method (Abbasi, 2011). The two-step method is based on estimating unidimensionality, reliability and convergent and discriminant validity in first step. The second step is based on estimating the structural model via the calculation of the hypothesised relationships between constructs (Abbasi, 2011). Accordingly, scholars such as Hair et al. (2012), Gefen and Straub (2005) and Chin (1998) concluded that the two-step method is preferable for studies of a prediction and dimensionality developing nature. Therefore, based on all the above stated reasons for a study to employ PLS-SEM method, it was believed that the most beneficial, useful and accurate findings would be obtained via the PLS-SEM method.

5.6.2.1. Rationale for Selecting SEM to assess the Conceptual Full Model

For this stage, Structural Equation Modelling (Kassem) analysis was carried out by means of the Smart-PLS 2.0 program. It could be asked that why regression was not employed instead of SEM. The reason for employing SEM analysis is that SEM is widely used and recommended by some scholars (e.g. Cox III, 1980; DeVellis, 2011; Field, 2009; Netemeyer et al., 2003; Wood, 2008), and it is not possible to employ this required type of confirmatory factor analysis with regression, as stated by Coleman (2011). The tool of normal least squares regression could have been used but as outlined above, SEM was recommended, unlike least squares regression, which was criticised by Coleman (2011: 251): first, basic least squares regression “makes no allowance for measurement (random and systematic) error given it is subsumed into the overall measurement term for each factor/construct.” Second, least squares regression measures individual items by taking one figure alone, either the sum or the mean as explained by Iacobucci et al.(2007). Third, according to Jarvis et al. (2003) least squares regression neglects measurement scale error. Finally, as where regression enables a researcher to analyse one type of relationship among variables, SEM is capable of analysing multiple types of relationship between a large number of variables wither are dependent and independent (Götz et al., 2010; Kline, 2010; Chin, 1998; Byrne, 2001). According to Hair et al. (2006) for a framework with complex relationships and a large number (more than 6) of dependent and independent variables, it is most appropriate to employ SEM analysis.

SEM includes the calculation of measurement error based on examining the errors of every individual item under the categories of indicator items and construct items (Coleman, 2011). It increases findings’ reliability and gernalisability based on an accurate population estimation (Iacobucci et al., 2007). Finally, since this study was aiming to develop a brand personality measurement and investigate the relationship of Islamic religious beliefs to brand personality, subjective norms, perceived behavioural control, relative advantage, compatibility, complexity and intention to adopt a new religious compliant brand, structural equation modelling allowed accurate assessment of the latent variable due to its inclusion of the errors of the developed measure, as argued by Jarvis et al. (2003).

5.6.2.2. Conceptual Model Evaluation via PLS-SEM

To confirm the determined relationships of the proposed model, a two step approach through PLS-SEM was used. This involves an Inner-model, the ‘measurement model’, which links observed variables to their construct and an Outer-model, the ‘structural model’, which links the dependent and independent constructs to each other based on the hypothesised direction of linkage. These steps were employed sequentially (Chin, 1998; Gefen and Straub, 2005; Hair et al., 2006). This analysis approach begins with the Inner-model stage through determining the reliability and validity of the measurement model’s sub items. This ‘measurement model’ is regarded as the CFA stage within the PLS-SEM method (Henseler et al., 2009). From the CFA step or ‘Inner model’ stage, vital indices are obtainable such as Composite reliability (CR), Cronbach’s alpha reliability (α) and validities (e.g. convergent validity and discriminate validity). These indices were used in this present study.

The second stage ‘structural model’ or Outer-model, provides very important indicators by which the hypothesised relationships among endogenous and exogenous latent variables can be examined (Götz et al., 2010; Hair et al., 2012; Henseler et al., 2009). These indicators, which are produced by bootstrapping techniques, include path coefficients, significance of path coefficients and R^2 .

By following the analysis methods mentioned above, a reliable, valid, generaliseable critical understanding of the relationship between the Islamic religious beliefs and brand personality, subjective norms, perceived behaviour control, relative advantage, compatibility, complexity and intention to adopt a new religious compliant brand was determined. During the course of the development of the Islamic brand personality measurement and the SEM, the fit of the Outer-model and the proposed relationships among constructs were estimated and assessed. The fit of the obtained measurements and the model was assessed by utilising the method most widely used with PLS-SEM, which is non-parametric statistical tests (Abbasi, 2011). Thus the model fit was obtained based on the values of estimation of path coefficient (β), effect size (f^2), coefficient of determination (R^2) and predication relevance (q^2) (Hair et al., 2012; Sarstedt et al., 2011; Chin, 2010).

The previously mentioned indices and the CFA via PLS-SEM were utilised in this study, in order to obtain a well explained fit of the measurement and the model, and to confirm the type of relationships that exist between Islamic religious beliefs, Islamic brand personality, subjective norms, perceived behaviour control, relative advantage, compatibility, complexity and intention to adopt new religious compliant products adoption.

5.6.3. SEM of the Antecedents Variable of New Religious Compliant Product Adoption Evaluation and Findings

CFA was employed on the findings in relation to Islamic religious beliefs, subjective norms, perceived behaviour control, relative advantage, compatibility, complexity and new religious compliant products adoption yielded by the EFA accomplished previously via PLS. The CFA is regarded as the first step or ‘outer-model’ in PLS based analysis. This stage, as explained previously, is mainly concerned with assessing the reliabilities and validities of the examined model. Thus, factor analysis was used to relate each measuring item accurately to its construct. Outer-model analysis is recommended even some or all of the measure items are adopted from well established and widely recognised theories such TPB or DIT (Chin, 2010; Götz et al., 2010; Hair et al., 2011; Reinartz et al., 2009). The settings for the PLS-SEM algorithm used in the present study were recommended by Hair et al (2012), Henseler et al. (2009) and Wold (1985). These settings according to Hair et al (2012: p.429) were as follows: first, “Use a uniform value of 1 as an initial value for each of the outer weights”. Second, “Use path weighting scheme” for the weighting scheme criterion. Third, “Sum of the outer weights’ changes between two iterations $<10^{-5}$ ” for the stop criterion. Fourth, the maximum value of iterations should 300. Finally, the software details such as version and default settings should be reported in the research analysis chapter. According to Hair et al. (2011: p.145):

“Each indicator’s reliability needs to be taken into account, whereby each indicator’s absolute standardized loading should be higher than 0.70. Generally, indicators with loadings between 0.40 and 0.70 should only be considered for removal from the scale if deleting this indicator leads to an increase in composite reliability above the suggested threshold value. Another consideration in the decision to delete indicators is the extent to

which their removal affects validity. Weaker indicators are sometimes retained on the basis of their contribution to content validity.”

Thus, the factor loading (FL) cut off point for removal was decided to be <0.70 for items whose removal increased validity and which did not make a theoretically significant contribution, but if the opposite was the case, then the cut-off point was decided to be ≤ 0.60 , which is still a strong loading, or cross-loading of items in order to obtain the best possible model fit for the IBP scale, Islamic religious beliefs, Islamic brand personality, subjective norms, perceived behaviour control, relative advantage, compatibility, complexity and new religious compliant products adoption. According to this decision, items that yielded an absolute FL <0.60 were excluded from the model. The values for the observed latent variables of the Inner-model are as shown in Table 5.20.

Table 5.20: An Illustration of Endogenous Variables’ Values from PLS-SEM.

Constructs/ Codes/Measures	FL	Cut off values
(Islamic religious beliefs) IRB1	0.60	0.70 and less than
(Islamic religious beliefs) IRB2	0.70	0.60, negative and cause fit improve
(Islamic religious beliefs) IRB3	0.60	
(Islamic religious beliefs) IRB4	0.42*	
(Islamic religious beliefs) IRB5	0.80	
(Islamic religious beliefs) IRB6	0.80	
(Islamic religious beliefs) IRB7	0.61	
(Islamic religious beliefs) IRB8	0.50*	
(Subjective norms) SN1	0.80	
(Subjective norms) SN2	0.86	
(Subjective norms) SN3	0.85	
(Perceived behavioural control) PBC1	0.66	
(Perceived behavioural control) PBC2	0.83	
(Perceived behavioural control) PBC3	0.84	
(Perceived behavioural control) PBC4	0.71	
(Compatibility) COM1.1	-0.62*	
(Compatibility) COM1.2	0.87	
(Compatibility) COM1.3	0.83	
(Complexity) COM2.1	0.71	
(Complexity) COM2.2	0.91	
(Complexity) COM2.3	0.42*	
(Relative advantage) RA1	0.91	

(Relative advantage) RA2	0.89
(Relative advantage) RA3	-0.29*
(Relative advantage) RA4	0.86
(New religious compliant product adoption) NRCPA1	0.89
(New religious compliant product adoption) NRCPA2	0.73
(New religious compliant product adoption) NRCPA3	0.81
(New religious compliant product adoption) NRCPA4	0.91
(Brand personality)/T5/ (Up-to-Date)	0.68
(Brand personality)/T5/ (Formal)	0.91
(Brand personality)/T8 /(Down-to-earth)	0.77
(Brand personality)/T10/(Economical)	0.85
(Brand personality)/T32/(Young)	0.70
(Brand personality)/T34/(Imaginative)	0.81
(Brand personality)/T36/(Idealistic)	0.81
(Brand personality)/T38/(Popular)	0.70
(Brand personality)/T39/(Classy)	0.74
(Brand personality)/T40/(Sporty)	0.63
(Brand personality)/T41/(Urban)	0.82
(Brand personality)/T42/(First mover)	0.73
(Brand personality)/T43/(Religious)	0.70
(Brand personality)/T44/(Experienced)	0.73
(Brand personality)/T46/(Liberal)	0.80
(Brand personality)/T48/(Traditional)	0.93
(Brand personality)/T49/(Nationalist)	0.80
(Brand personality)/T50/(Responsible)	0.73
(Brand personality)/T51/(Rational)	0.81
(Brand personality)/T53/(Well mannered)	0.90
(Brand personality)/T55/(Supportive)	0.80
(Brand personality)/T56/(Energetic)	0.72
(Brand personality)/T58/(Simple)	0.91
(Brand personality)/T60/(Islamic)	0.91
(Brand personality)/T61/(Decent)	0.80
(Brand personality)/T62/(Bedouin)	0.80
(Brand personality)/T63/(Mohsen)	0.71
(Brand personality)/T64/(Manly)	0.91

Note: items with (*) next to their factor loading and highlighted are removed.

It was advised by Byrne (2001) that CFA be used in an exploratory manner when aiming to improve the fit. This tactic was practically supported by Anderson and Gerbing (2001) who argued that this approach is usually important, and it was stated by Chin (1988b) that this approach is justifiable in CFA stages. Therefore, based on the cut off values of FLs, a few measuring items were excluded, but many were retained due to their satisfactory FLs' values.

Accordingly, the re-specification approach was repeatedly followed during this stage of analysis. The argument of Segars and Grover (1998) that removing variables at once could impact the proposed model was not neglected. Therefore, removal of items was based on three vital guides; factors loadings (FLs), cross loading items (CL) and cross loading value > 0.20 as explained in the methodology chapter and in line with the theory (Segars and Grover, 1993). Items with cross loading were checked and items regarded as removable items were removed if this was consistent with theory and CR or AVE improved (Hair et al., 2012). By employing these three criteria before removing items, the finalised model was acceptable for generalisation to a broader population (Hair et al., 1998). Please refer to Table 5.21 for cross loading details.

Consequently, based on the outlined approach and criteria above, five items were excluded from the re-specified full model. The rationale for removing each of these 5 items is provided individually as recommended by previous studies (e.g. Chin, 1998; DeVellis, 2011; Hair et al., 1998; Kline, 2010; Iacobucci et al., 2007). The item coded as **RB4** (*I do my best to follow the teachings of Islam in all matters of life*), item coded as **RB3** (*I pay Zakat Alfitr annually if I meet the criteria*), item coded as **RB8** (*I always avoid Haram (prohibited) earnings*) from the Islamic religious beliefs construct were removed for resulting loadings of 0.24, 0.28., 0.50 respectively, which are below 0.60, the benchmark for removals in the present study and because that was no negative impact on theory from such a decision. The item coded as **COM1.1** (*The Islamic-compliant product will not offer me any new benefits*) yielded a negative loading of -0.62 which strongly indicates removal (Anderson and Gerbing, 1988a; Chin, 2010; Hair et al., 2012). The item coded as **COM2.3** (*An Islamic-compliant product will be less satisfying*) yielded a loading of 0.42; thus it was regarded as indicating removal. Finally, the item coded as **RA3** (*Buying an Islamic-compliant product will not benefit me in any way*) yielded a negative loading of -0.29, which, similarly to item **COM1.1**, was regarded as an indication for removal.

Table 5.21: Cross loading of Indicators.

Items	BP	COM1	COM2	M	NRCPA	PBC	R.M	RA	IRB	SN	TRADI	U.A
COM1.2	0.14	<u>0.93</u>	-0.22	0.14	0.50	0.49	0.11	0.60	0.22	0.43	0.10	-0.02
COM1.3	0.07	<u>0.91</u>	-0.28	0.09	0.43	0.38	0.04	0.52	0.17	0.32	0.09	-0.10
COM2.1	0.09	-0.09	<u>0.71</u>	0.13	-0.21	-0.14	-0.01	-0.11	-0.11	-0.20	-0.03	0.06
COM2.2	0.09	-0.30	<u>0.92</u>	0.10	-0.41	-0.31	-0.01	-0.32	-0.18	-0.33	0.02	0.12
NRCPA1	0.16	0.49	-0.34	0.13	<u>0.89</u>	0.53	0.17	0.49	0.34	0.53	0.14	0.01
NRCPA2	0.15	0.44	-0.35	0.09	<u>0.74</u>	0.53	0.18	0.54	0.26	0.48	0.23	0.00
NRCPA3	0.24	0.31	-0.28	0.21	<u>0.80</u>	0.50	0.22	0.42	0.38	0.42	0.19	0.04
NRCPA4	0.20	0.43	-0.35	0.18	<u>0.88</u>	0.51	0.16	0.46	0.32	0.47	0.16	0.01
PBC1	0.12	0.34	-0.15	0.15	0.41	<u>0.66</u>	0.00	0.35	0.30	0.42	0.10	-0.06
PBC2	0.15	0.37	-0.22	0.13	0.50	<u>0.83</u>	0.08	0.35	0.36	0.50	0.14	0.08
PBC3	0.13	0.37	-0.31	0.12	0.52	<u>0.84</u>	0.09	0.37	0.30	0.47	0.11	0.03
PBC4	0.27	0.37	-0.23	0.22	0.46	<u>0.71</u>	0.24	0.53	0.28	0.38	0.24	0.12
RA1	0.20	0.56	-0.28	0.17	0.56	0.46	0.20	<u>0.91</u>	0.27	0.44	0.17	0.04
RA2	0.16	0.51	-0.29	0.16	0.48	0.48	0.10	<u>0.90</u>	0.22	0.44	0.12	-0.01
RA4	0.20	0.56	-0.22	0.17	0.51	0.46	0.15	<u>0.88</u>	0.27	0.46	0.20	0.03
IRB1	0.08	0.03	-0.11	0.08	0.15	0.21	0.05	0.14	<u>0.58</u>	0.22	0.02	0.06
IRB2	0.10	0.12	-0.19	0.09	0.27	0.33	0.03	0.21	<u>0.71</u>	0.26	0.08	0.02
IRB5	0.18	0.18	-0.12	0.17	0.30	0.31	0.08	0.24	<u>0.79</u>	0.30	0.12	0.16
IRB6	0.13	0.24	-0.12	0.12	0.37	0.35	0.07	0.24	<u>0.80</u>	0.33	0.11	0.05
IRB7	0.01	0.14	-0.12	0.01	0.26	0.23	0.02	0.15	<u>0.63</u>	0.22	0.00	0.00
SN1	0.15	0.31	-0.25	0.15	0.49	0.52	0.08	0.44	0.35	<u>0.77</u>	0.09	0.08
SN2	0.17	0.32	-0.26	0.14	0.48	0.49	0.07	0.38	0.33	<u>0.86</u>	0.19	0.12
SN3	0.14	0.40	-0.33	0.12	0.46	0.43	0.11	0.42	0.26	<u>0.86</u>	0.12	0.07

T10	<u>0.57</u>	-0.09	0.09	0.50	0.00	0.04	0.29	-0.05	0.08	0.08	0.21	0.88
T3	<u>0.64</u>	0.14	0.15	<u>0.67</u>	0.15	0.09	0.30	0.16	0.10	0.12	0.22	0.55
T32	<u>0.63</u>	0.12	0.04	<u>0.69</u>	0.07	0.13	0.28	0.13	0.00	0.03	0.20	0.43
T34	<u>0.73</u>	0.10	0.13	<u>0.80</u>	0.11	0.12	0.29	0.15	0.07	0.09	0.25	0.50
T36	<u>0.74</u>	0.06	0.19	<u>0.82</u>	0.08	0.10	0.29	0.11	0.05	0.08	0.26	0.54
T38	<u>0.66</u>	0.08	0.02	<u>0.66</u>	0.21	0.15	0.27	0.11	0.19	0.13	0.40	0.41
T39	<u>0.71</u>	0.06	0.14	<u>0.75</u>	0.06	0.10	0.41	0.10	0.04	0.09	0.21	0.52
T40	<u>0.59</u>	0.11	0.15	<u>0.65</u>	0.14	0.19	0.16	0.13	0.11	0.08	0.27	0.35
T41	<u>0.77</u>	0.14	0.07	<u>0.83</u>	0.21	0.19	0.39	0.18	0.17	0.13	0.24	0.48
T42	<u>0.70</u>	0.09	0.07	<u>0.75</u>	0.16	0.19	0.31	0.14	0.13	0.17	0.26	0.42
T43	<u>0.44</u>	0.08	0.04	0.32	0.12	0.09	<u>0.69</u>	0.11	0.10	0.08	0.16	0.27
T44	<u>0.72</u>	0.08	0.07	<u>0.75</u>	0.20	0.22	0.31	0.19	0.15	0.20	0.37	0.43
T46	<u>0.75</u>	0.12	0.03	<u>0.80</u>	0.17	0.18	0.35	0.18	0.17	0.14	0.27	0.46
T48	<u>0.52</u>	0.13	0.04	0.33	0.21	0.16	0.22	0.17	0.07	0.12	0.93	0.21
T49	<u>0.49</u>	0.17	-0.04	0.33	0.24	0.26	0.28	0.23	0.13	0.19	<u>0.75</u>	0.19
T5	<u>0.61</u>	-0.03	0.11	0.55	0.00	0.05	0.27	0.03	0.09	0.14	0.23	0.91
T50	<u>0.69</u>	0.15	0.06	<u>0.74</u>	0.12	0.17	0.34	0.09	0.20	0.18	0.23	0.47
T51	<u>0.74</u>	0.13	0.13	<u>0.79</u>	0.11	0.14	0.32	0.16	0.02	0.11	0.31	0.51
T53	<u>0.50</u>	0.09	-0.01	0.34	0.16	0.12	<u>0.85</u>	0.13	0.03	0.07	0.24	0.24
T55	<u>0.72</u>	0.02	0.15	<u>0.76</u>	0.13	0.14	0.42	0.11	0.06	0.12	0.19	0.50
T56	<u>0.68</u>	0.01	0.08	<u>0.72</u>	0.10	0.11	0.39	0.12	0.06	0.15	0.19	0.45
T58	<u>0.48</u>	0.09	-0.03	0.28	0.19	0.16	0.18	0.14	0.10	0.14	0.91	0.19
T60	<u>0.50</u>	0.06	-0.01	0.33	0.21	0.13	<u>0.88</u>	0.14	0.06	0.11	0.23	0.26
T61	<u>0.47</u>	0.04	-0.01	0.31	0.15	0.05	<u>0.80</u>	0.13	-0.02	0.06	0.21	0.28
T62	<u>0.41</u>	-0.05	0.06	0.20	0.08	0.10	0.24	0.10	0.07	0.08	<u>0.75</u>	0.29
T63	<u>0.52</u>	0.04	-0.04	0.40	0.22	0.12	<u>0.71</u>	0.15	0.11	0.09	0.24	0.31

T64	<u>0.53</u>	0.08	0.00	0.31	0.18	0.14	0.27	0.15	0.08	0.15	<u>0.91</u>	0.27
T8	<u>0.59</u>	-0.03	0.09	0.54	0.04	0.05	0.30	0.09	0.04	0.06	0.24	<u>0.74</u>

Note: Brand personality ‘BP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COME1’, Complexity ‘COM2’ and New religious compliant products adoption ‘NRCPA’.

5.7. Reliability and Validation of the Conceptual Model

The following sections are vital to achieve during the outer-model stage of the model’s CFA. In these sections the outer-model’s reliability, validity and fit will be investigated. This stage was achieved by following the presented criteria in Table 5.22. As an initial step of assessing the reliabilities, measure items or indicators were regarded to be acceptable because the indicators’ FLs’ were ≥ 0.60 as suggested by (Hair et al., 2012; Hulland, 1999).

Table 5.22: The Criteria for the Measurement Model

Criterion	Description	Acceptable fit
Construct reliability CR	Is measure of internal consistency and is calculated by formula $pc = (\sum \lambda)^2 \text{var } F / (\sum \lambda)^2 \text{var } F + \sum \Theta u$, Where λ , ι and Θu are the factor loadings, factor variance, and error variance respectively (Werts et al., 1974; cited in Abbasi, 2011)	Value > 0.6 (Hair et al., 2006; Bagozzi and Yi, 1990)
Construct reliability Cronbach’s α	Measures the indicators uni-dimensionality (inter-correlation) with their latent construct. It is calculated by $\alpha = \frac{N}{N-1} * \frac{\sum_{i=1}^N \sigma_i^2}{\sigma_r^2}$ Where, N is number of indicators σ_i^2 indicates variance of indicator i, and σ_r^2 represents the variance of the sum of all the indicators scores (Cronbach, 1951; cited in Abbasi, 2011)	Value > 0.6 (Hair et al., 2006) and value > 0.8 or 0.9 is better (Nunnally and Bernstein, 1994)
Indicator	Is absolute standardised outer loading. It indicates the variance explained by	Value > 0.7(, $\sqrt{0.5}$) is better (Henseler et

reliability	the observed variable towards underlying latent construct (Churchill, 1979)	al., 2009), and value > 0.4 is acceptable (Churchill, 1979)
Convergent validity	Is the degree to which two measures of the same concepts are correlated. It is demonstrated by the uni-dimensionality using average variance extracted (AVE)= (Fornell and Larcker, 1981)	Value > 0.5 (Fornell and Larcker, 1981)
Discriminant validity Construct-level	Is the degree to which two conceptually similar concepts are distinct (Hair et al., 2006). It ensures that each latent variable shares more variance with its own block of indicators than with another latent variable	$\sqrt{AVE} >$ latent variable correlation (Fornell and Larcker, 1981)
Discriminant validity Item-level	Is the degree to which two conceptually similar concepts are distinct from each other (Hair et al., 2006)	Loading of each indicator > cross loadings (Chin, 2010; Götz et al., 2010), and Cross loading < 0.4 (Hair et al., 2006)

Source: Adopted from (Abbasi, 2011: p.228).

5.7.1. Composite Reliability (CR) of Antecedents of New Religious Compliant Product Adoption, and IBP Scale

According to Bagozzi and Foxall (1996), it is strongly addressed that the reliability of whole constructs based on the complete set of indicators under each construct and BP scale is examined. The following vital step to the development of the outer-model, therefore, CFA was to investigate the antecedents of new religious compliant product adoption and IBP scale's reliability. This stage was achieved via two methods: first, Composite Reliability (CR) analysis, which is widely accepted and utilised, Second, Cronbach's Alpha (α), which is also extensively used to indicate a scale's reliability. It is worth mentioning that the Cronbach's Alpha (α) values in regard to the IBP scale have already been presented in the CFA section.

Composite reliability (CR) was determined in order to estimate the internal consistency of the IBP scale with 28 items and the conceptual model's constructs (subjective norms, Islamic religious beliefs, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption). This estimation was recommended by Anderson and Gerbing (1988b: p.191) who stated that "after the unidimensionality of a set of scales has been acceptably established, one would assess its reliability. Even a perfectly unidimensional scale will not be useful in practice if the resultant scale has unacceptably low reliability." According to Nunnally and Bernstein (1978) the CR value of the factors should be equal to or greater than 0.60. The CR was obtained via Smart PLS 2.0 M3 since it is automatically calculated which was calculated via the following equation:

$$CR = \frac{\text{Squared } \sum \text{ factor standardised loadings for construct items}}{(\text{Squared } \sum \text{ factor standardised loadings for construct items}) + \sum \text{ estimation indicator error}}$$

(Hair et al, 1988).

As shown in Table 5.23 all the obtained **CR** values of the outer-model's constructs and the IBP scale's four dimensions exceeded 0.60, the benchmark recommended in order to carry on the next stage, which relates to the Average Variance Extracted (AVE) (DeVellis, 2011; Hair et al., 1998; Netemeyer et al., 2003). Therefore, it is fair to claim that the proposed scales for measuring IBP and measures of subjective norms, Islamic religious beliefs, perceived behavioural control, relative advantages, compatibility, complexity and new religious compliant product adoption in the Islamic world are reliable. Nevertheless, it was still necessary to investigate their validities.

5.7.2. Cronbach's Alpha (α) Reliability of the Antecedents of New Religious Compliant Product Adoption.

After accomplishing the CR of the developed outer-model, the Cronbach's Alphas (α) for the outer-model's individual constructs were investigated as a further check of the proposed scale reliability as recommended by Churchill Jr and Peter (1984), DeVellis (2011) and Sin

et al. (2005b). The α that were obtained for the outer-model constructs were all acceptable since they all exceeded or equalled the value of ≥ 0.60 recommended by Nunnally and Bernstein (1978). The Cronbach's Alpha values as presented in Table 5.23 were 0.94 for BP, 0.82 for compatibility, was 0.56 for complexity, 0.85 for new religious compliant product adoption, 0.75 for perceived behavioural control, 0.88 for relative advantage, 0.75 for Islamic religious beliefs and 0.90 for subjective norms.

5.7.3. Content Validity (Face Validity) of Antecedents of New Religious Compliant Product Adoption, and New Religious Compliant Product Adoption Construct

Content validity was defined as “face validity and the representativeness or sampling adequacy of the content of a measuring instrument.” (Byrne, 2001: p.82). With regard to the face validity of the developed IBP scale, it was addressed by examining the relevance of the subscales' items to each factor. Therefore, two stages were performed, as follows: the first stage was piloting the generated scale's items and collecting views from academics (PhD researchers in marketing). The second stage was obtaining views and comments from marketing academics and experts regarding the degree to which each of the generated items was significantly related to the IBP scale, as discussed in detail in Chapter Four of this study. Based on these stages it was concluded that the IBP scale has face validity.

Similarly, the face validity of the full hypothesised model was obtained by examining the relevance of the subscales' items to each factor adopted from TPB and DIT. This was again done in two stages, firstly, piloting the adopted measuring items and collecting views from academics PhD researchers in marketing, and secondly, obtaining views and comments from marketing academics and experts regarding the degree to which each of the adopted measuring items was related to the hypothesised model. Additionally, these items were regarded as valid since they all were adopted from well established and recognised theories, TPB and DIT. Thus, it was concluded that the hypothesised full model has face validity.

5.7.4. Construct Validity of Antecedents of New Religious Compliant Product Adoption, and New Religious Compliant Product Adoption Construct

Construct validity, according to Netemeyer et al. (2003: 8), is “the assessment of the degree to which a measure actually measure the latent construct it is intended to measure.” In other

words, it concerns whether the instrument is predicting or measuring the variables that it is expected to measure. Construct validity is mainly focused on the degree to which the latent variable's items adequately sample the domain of a construct (Coleman, 2011). This validity can be assessed through convergent validity, discriminant validity and nomological validity. Construct validity, according to Hair et al. (1998) and Bagozzi and Foxall (1996), refers to the degree to which theoretically the constructs of model do actually vary or do not highly correlate to each other. These two types of validity were investigated, as presented next.

5.7.4.1. Convergent Validity of Antecedents of New Religious Compliant Product Adoption, and New Religious Compliant Product Adoption

As the CR of the conceptual model's constructs was obtained, the convergent validity was estimated by two unique approaches for the conceptual model's constructs. First, based on Steenkamp and Van Trijp (1991) an instrument with item loadings ≥ 0.50 is regarded as valid. Therefore, since the FL cut-off point adopted by this study was greater than or equal to 0.50, the produced outer-model can be regarded as valid.

The second approach involved estimating the Average Variance Extracted (AVE) validity individually for each of the outer-model's constructs. The most extensively recognised equation for AVE calculation purposes is Fornell and Larcker's (1981) which is used by Smart PLS 2.0 M3 and as follows:

$$AVE = \frac{\sum (\text{Squared Standardised factor loadings})}{\sum (\text{Squared Standardised factor loadings}) + \sum \text{estimation indicator error variance}}$$

(Fornell and Larcker, 1981: p.46)

Accordingly, as reported above in details, all the AVE for each of the eight constructs of the outer-model was > 0.50 , except for one construct, IBP, which produced an AVE value of 0.39, which is < 0.50 . These results indicated that the conceptual model's

constructs resulted an acceptable convergent validity for seven constructs ‘Islamic religious beliefs=> 0.50, subjective norms=> 0.69, perceived behavioural control=> 0.68, relative advantage=> 0.80, compatibility=> 0.84, complexity=> 0.68 and new religious compliant product adoption=> 0.69’ out of eight, whereas the AVE for ‘BP=> 0.39’ was not satisfactory (Fornell and Larcker, 1981; Hair et al., 1998; McDonald and Ho, 2002). The IBP scale dimensions’ AVEs were indicated to be satisfactory by the PLS findings and they were as follows: dimension M=> 0.56, dimension R.M=> 0.62, dimension TRAD=> 0.73 and dimension U.A=> 0.72. Please refer to Table 5.23 for more details of AVE values.

Table 5.23: CRs, AVEs, AVEs’ Roots, Inter correlation between constructs.

Con/Dim	AVE	$\sqrt{\text{VAE}}$	Composite Reliability	IBP	COM1	COM2	M	NRCPA	PBC	R.M	RA	IRB	SN	TRADI	U.A
IBP	0.39	0.62	0.94	1.00											
COM1	0.84	0.92	0.92	0.12	1.00										
COM2	0.68	0.80	0.81	0.10	-0.27	1.00									
M	0.56	0.75	0.95	0.94	0.12	0.13	1.00								
NRCPA	0.69	0.82	0.89	0.23	0.51	-0.40	0.18	1.00							
PBC	0.58	0.82	0.85	0.22	0.48	-0.30	0.20	0.62	1.00						
R.M	0.62	0.79	0.89	0.62	0.08	-0.01	0.43	0.22	0.13	1.00					
RA	0.80	0.89	0.92	0.21	0.61	-0.29	0.19	0.58	0.52	0.17	1.00				
IRB	0.50	0.75	0.83	0.15	0.21	-0.18	0.14	0.40	0.41	0.07	0.29	1.00			
SN	0.69	0.83	0.87	0.19	0.41	-0.34	0.16	0.57	0.59	0.10	0.50	0.38	1.00		
TRADI	0.73	0.85	0.93	0.57	0.10	0.00	0.35	0.21	0.19	0.28	0.18	0.11	0.16	1.00	
U.A	0.72	0.85	0.88	0.70	-0.06	0.12	0.63	0.02	0.06	0.34	0.03	0.08	0.11	0.27	1.00

Note: Islamic Brand personality ‘IBP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’ and New religious compliant products adoption ‘NRCPA’.

5.7.4.2. Discriminant Validity

Discriminant validity of the outer-model/conceptual model's constructs was investigated via three different methods as follows: the diagonal elements and off-diagonal elements approach of Fornell and Larcker (1981), the Cross loading approach of Chin (1998) and the Inter correlation Matrix values approach (Hair et al, 1988).

The first approach is based on comparing the Diagonal Elements (DE), which are the square root of AVE and Off-Diagonal Elements (ODE) which are correlations between constructs approach by Fornell and Larcker (1981). According to Fornell and Larcker (1981) the discriminant validity is confirmed for a scale when the lowest DE values are greater than ODE values. In other words, if the obtained AVE is greater than the squared pairwise correlations between two variables, it can be stated that the discriminant validity is obtained (Byrne, 2001; Sin et al., 2005b).

Therefore, based on the AVEs obtained from the Smart PLS 2.0 M3 previously, the DEs values for the outer-model were as follows: IBP $\sqrt{0.39} = (0.61)$, compatibility $\sqrt{0.84} = (0.92)$, complexity $\sqrt{0.66} = (0.82)$, new religious compliant product adoption $\sqrt{0.70} = (0.83)$, perceived behavioural control $\sqrt{0.67} = (0.82)$, relative advantages $\sqrt{0.80} = (0.89)$, Islamic religious beliefs $\sqrt{0.50} = (0.75)$ and subjective norms $\sqrt{0.67} = (0.83)$. According to the inter correlation between outer-model constructs results, the highest correlation between two constructs was 0.60. Subsequently, the ODE values between the outer-model constructs were below the AVEs and AVEs roots. Thus it can be concluded that the discriminant validity of the outer-model eight constructs, including the IBP sub-dimensions is confirmed as illustrated in Table 5.23.

Second, discriminant validity assessment through the cross loading approach that proposed by Chin (1998) was employed. According to Chin (1998) an indicator's loading on its underlying construct must be higher than its loading with all other constructs, as shown in Table 5.21. Therefore, the Discriminant validity is additionally confirmed based on Chin's (1998) approach.

Third, it was suggested by Kline (1998) that with evidence of correlations among a IBP scale and outer-model of the conceptual model's constructs lower than 0.70, the discriminant validity of that model is supported because the discriminant validity refers to the degree to which a model's constructs or sub-dimensions are distinct. This method can be employed based on the inter correlations matrix of the scale, which was suggested to be used for discriminant validity by Hair et al. (1988). The correlations between the constructs and the dimensions of the IBP scale should be < 0.70 , and a correlation > 0.70 is an indication of a majority of shared variance between the constructs. The 0.70 value of correlation means that there is about 49% shared variance between the constructs. Based on this approach the discriminant validity is once again proved to be supported for the final outer-model of the present study, as shown in Table 5.23. All the inter correlations values ranged between -0.36 and 0.60.

Additional Discriminant Validity for the IBP Scale

The discriminant validity of the IBP scale was further investigated by two different approaches in order to validate the developed measure. The **first** approach employed the approach of Bagozzi and Phillips (1982) to assess the discriminant validity, as was done in many previous studies such as Coleman (2011). As argued by Bagozzi and Phillips, (1982: p.476) "This test involves comparing the model of Figure 3 to a similar model in which the (D correlations among A1 -A4 are constrained to equal 1.0. A significantly lower X2 value for the model in which the trait correlations are not constrained to unity would indicate that the traits are not perfectly correlated and that discriminant validity is achieved. A X2 difference (X3) value with an associated p value less than .05 supports the discriminant validity hypothesis". This means performing the CFA on the final IBP scale and constraining all constructs to be equal 0.10, next constraining two constructs of the four dimensions of the final IBP scale, and then running the CFA on the scale with no constructs of the four constrained to be equal to 0.10, and comparing the χ^2 of all the different models. The discriminant validity is achieved if the default model with four factors of the final IBP scale is found to have the lowest χ^2 compared to the contained models. Based on this approach the discriminant validity is additionally supported as illustrated in Table 5.24.

Table 5.24: Discriminant Validity via Bagozzi and Phillips Approach.

Model	χ^2	DF	P	CMIN/DF	Difference Of χ^2
One factor model: Φ (R.M, M, U.A, TRAD) =1	831.146	342	.000	2.430	n/a
Two factors model: Φ (R.M, M, TRAD) =1	803.881	341	.000	2.357	26.265
Three factors model: Φ (R.M and TRAD) =1	802.547	340	.000	2.360	1.334
Default model (Four factors)	673.178	338	.000	1.992	129.369

Key notes: R.M (Religiosity-Minority) factor, M (Modernity) factor, TRAD (Traditional) factor and U.A (Usefulness-Adventurousness) factor. $\chi^2 \rightarrow$ Chi-square. Φ R.M, M, U.A, TRAD = 1 (combined factors). Φ R.M, M, TRAD =1 (combined factors). Φ R.M, TRAD =1 (combined factors).

Second, discriminant validity of the IBP was also assessed by using Fornell and Larcker's (1981) approach. It was suggested by Fornell and Larcker that the discriminant validity can be predicted by carrying out a comparison of the values obtained from the squared correlations between factors of the final IBP scale and the obtained values for the AVE for every two possible factors of the scale. In other words, if the AVE is greater than the squared pairwise correlations between the two variables, it can be stated that the discriminant validity is obtained (Byrne, 2001; Sin et al., 2005b). It is illustrated in Table 5.25 that the Discriminant validity is additionally confirmed based on Fornell and Larcker's (1981) approach.

Table 5.25: Fornell and Larcker's Discriminant Validity Approach.

Baths/ Dimensions	Estimated Correlations	Squared Correlations	Lowest AVE for variables
M <--> R.M	.424	.179	M \rightarrow .56
M <--> TRAD	.340	.116	M \rightarrow .56
M <--> U.A	.613	.376	M \rightarrow .56
R.M <--> TRAD	.245	.060	M \rightarrow .62
R.M <--> U.A	.306	.094	M \rightarrow .62
TRAD <--> U.A	.198	.039	U.A \rightarrow .72

Note: the dimension presented in (lowest AVE for variables) is the one with the lowest AVE value.

5.7.4.3. Nomological Validity

The nomological validity was explained by previous studies as the degree to which a measure/scale behaves according to the related theoretical prediction (e.g. Bagozzi et al., 1991; d'Astous and Lévesque, 2003; Hair et al., 2006; Netemeyer et al., 2003). According

to Churchill (1979) nomological validity represents the ability of an instrument to behave as theoretically predicted in relation to other theoretically related constructs. Accordingly, grounded theoretical facts to propose positive relations between IBP and Islamic religious beliefs, relative advantage, new religious compliant product adoption and subjective norms were previously presented in section 3.4. Therefore, it is anticipated by this research that nomological validity would be obtained if the IBP measure was positively related to the constructs of Islamic religious beliefs, relative advantage, new religious compliant product adoption and subjective norms.

The Table 6.1 illustrates the paths' coefficients values among the IBP and Islamic religious beliefs (IRB), relative advantage (RA), new religious compliant product adoption (NRCPA) and subjective norms (SN). These paths' were all found to be positively correlated as expected by this study (IRB→IBP, IBP→RA, IBP→NRCPA and SN→IBP). Additionally, the same associations between RB→IBP, IBP→RA, IBP→NRCPA and SN→IBP were all obtained to be statistically significant at 0.01*** and 0.05** levels except for the association between RB and IBP was not significant. Thus, this study concluded that the nomological validity of the developed IBP scale is achieved. Consequently, this study has demonstrated the discriminant validity and nomological validity, which supports the construct validity of the proposed IBP scale.

5.7.5. Criterion Validity

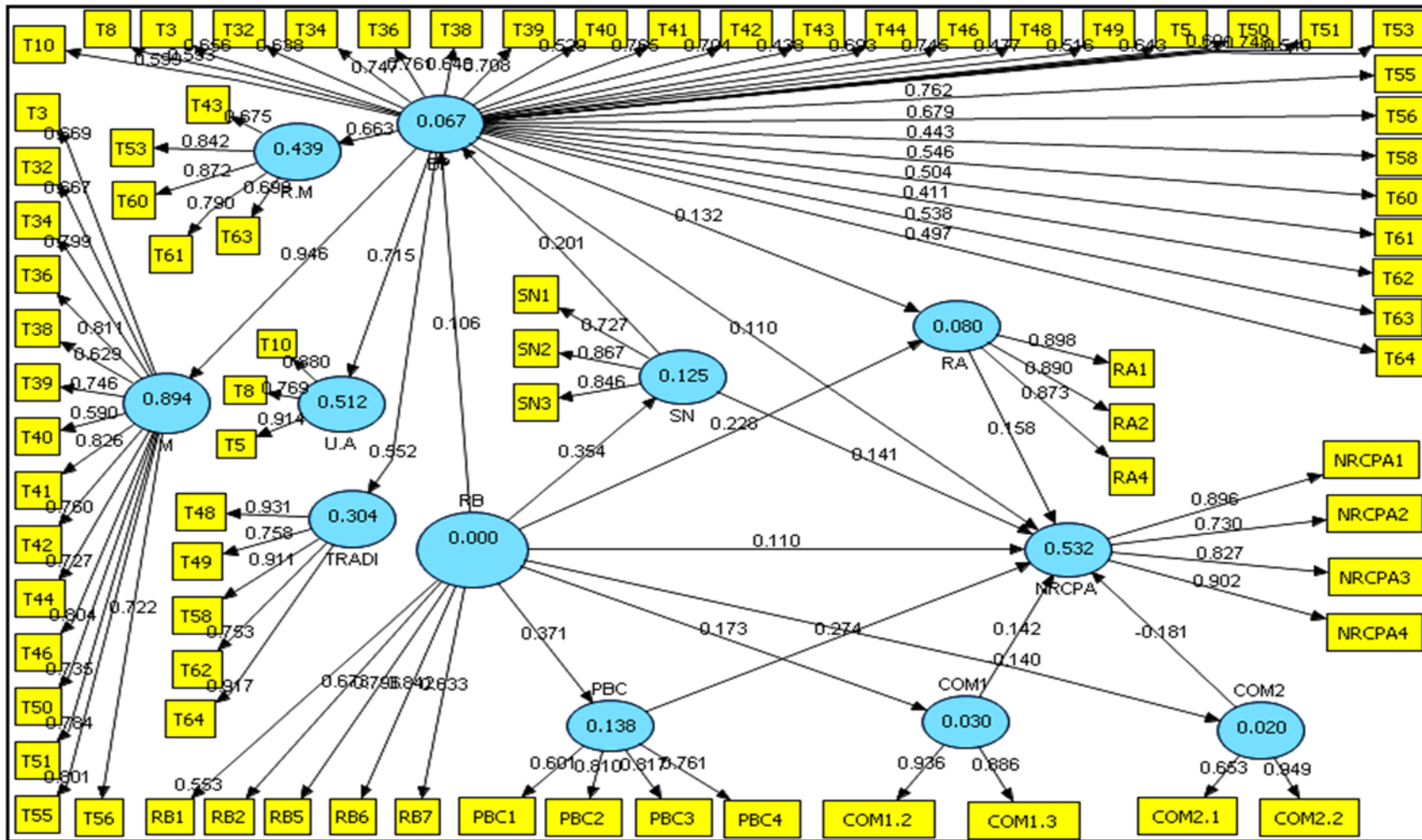
The criterion validity of the developed IBP scale according to the findings based on correlating the developed scale with similar existed scale of the same variables/constructs as explained by some previous studies was not assessed by the present study (e.g. Byrne, 2001; Sheeran and Orbell, 1999). The reason for not assessing the criterion validity of the developed IBP scale is that there was previously validated IBP scale. there are valid scales for the other constructs of the conceptual model such as relative advantage, compatibility and complexity (Rogers, 1995), and Islamic religious beliefs, subjective norms, perceived behavioural control and new religious complaint product adoption (Alam et al., 2011; Ajzen, 1991) but they were not previously validated in the same constructs and numbers of sub-items.

5.8. Proposing the Final IBP Scale and its Sub Dimensions

The reliability and validity obtained for the outer-model including the final developed brand personality measurement scale were as follows: *Modernity* => AVE= 0.55 and CR= 0.95, *Religiosity-Minority* => AVE= 0.61 and CR= 0.89, *Usefulness-Adventurousness* => AVE= 0.73 and CR= 0.89 and *Traditional* => AVE= 0.74 and CR= 0.93 as presented in Table 5.23. Thus this scale can be regarded as reliable and valid. The produced and confirmed five dimensions of the proposed brand personality measurement scale for the Saudi culture were named as follows: the first dimension, with nineteen items was named '*Modernity*'. The second dimension, with five items was named '*Religiosity-Minority*'. The third dimension, with another five items was named '*Usefulness-Adventurousness*'. The fourth dimension, with five items was named '*Traditional*', as presented in Figure 5.9. Each of the four factors' names was chosen to reflect all items under the factor or at least to reflect most of the items (Churchill, 1979). The four factors' items are as follows:

- 1) Items under the dimension of '*Modernity*': *Young, Imaginative, Idealistic, Urban, Up-to-Date, Liberal, Rational, Sporty, First-mover, Experienced, Popular, Energetic, Classy, Supportive* and *Responsible*.
- 2) Items under the dimension of '*Religiosity-Minority*': *Religious, Well mannered, Islamic, Mohsen* and *Decent*.
- 3) Items under the dimension of '*Usefulness-Adventurousness*': *Formal, Economical* and *Down-to-Earth*.
- 4) Items under the dimension of '*Traditional*': *Manly, Simple, Bedouin, Nationalist* and *Traditional*.

Figure 5.9: The Outer-model Constructs and Sub Dimensions with Measures Shown of IBP.



Note: The IBP latent variable as a second order construct contains all the indicators that are indicating its sub-dimensions (Gefen and Straub, 2005; Götz et al., 2010; Henseler and Fassott, 2010).

5.9. Bias Analysis of the Hypothesised Full Model

After the CFA stage was achieved, it was important to assess the Common Method Variance (CMV) of the full hypothesised model, the Inner-model, to examine the level of the CMV effect on the produced measures. CMV refers to as the extent of covariance shared among constructs/dimensions due to the common approach practised in data collection and external factors to the measurement (Bagozzi and Yi, 1990; Malhotra et al., 2006). This problematic bias can be caused by things such as social desirability, ambiguous wording, negative affectivity and scale length (Podsakoff et al., 2003b). The social desirability and negative affectivity are regarded to be personality variables in their own right and this is likely to bias assessment of self-reports (Spector, 2006). According to Malhotra et al (2006: p.1874) “Although researchers generally agree that CMV has the potential to affect the results of a single-method study, no consensus exists about the seriousness of such biases.” Since the commonly used surveys are usually rated at the same point in time, which make it likely to be susceptible to CMV (Richardson et al., 2009; Sharma et al., 2009). The marker variable technique was criticised by Podsakoff et al. (2003b) to neglect some powerful causes of method biases such as the bias caused by implicit theories. Sharma et al. (2009) argued that sources of CMV are not indicated by a marker like age and gender of participants because these marker are basically similar instrument format. Malhotra et al (2006) described only four approaches to capture sources of CMV and suggested they followed by an empirical comparison. These four approaches are as follows; first, the traditional multitrait-multimethod (MTMM) approach. Second, the modern MTMM approach by confirmatory factor analysis (CFA). Third, Harman’s single-factor test. Finally, the marker-variable approach.

However, this study has regarded the CMV as a vital theoretical issue that needed to be assessed for further confirmation of the reliability and validity of this study’s findings. The CMV was assessed via a combination of four ways of testing for CMV bias: 1) Harman’s single-factor test, 2) common latent factor method, 3) the marker-variable method (Podsakoff et al., 2003b), and 4) Bagozzi et al.’s (1991) CMV method.

5.9.1. Harman's Single-factor test of CMV

According to Podsakoff et al. (2003a: p.889), Harman's single-factor "actually does nothing to statistically control for (or partial out) method effects". However, it is still recommended and regarded as the most widely used test to assess CMV by important scholars in the CMV literature, such as Bagozzi and Yi (1990), Malhotra et al. (2006) and Pavlou et al. (2007). Harman's single-factor procedure was as follows: the EFA was performed on the total items of the fitted hypothesised model, with SPSS ordered to extract only one factor from the data. If the findings of the EFA suggested only one factor based on the unrotated factor assumptions, then the CMV is indicated to be effect the model and the opposite is also true. Also, if the total variance explained table of the EFA suggests that the majority of the variances is explained by the first factor alone, which is greater than 50% of explained variance, then the CMV is indicated to be strongly influencing the model and the opposite is correct (Malhotra et al., 2006; Podsakoff et al., 2003b).

Table 5.26: Harman's single-factor Test for CMV via Single Factor Extracted.
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
<u>1</u>	<u>9.600</u>	<u>24.614</u>	<u>24.614</u>	<u>9.600</u>	<u>24.614</u>	<u>24.614</u>	<u>7.682</u>
2	6.303	16.162	40.776	6.303	16.162	40.776	5.906
3	2.462	6.313	47.089	2.462	6.313	47.089	4.594
4	1.961	5.027	52.117	1.961	5.027	52.117	4.895
5	1.613	4.136	56.253	1.613	4.136	56.253	5.319
6	1.300	3.333	59.586	1.300	3.333	59.586	3.784
7	1.108	2.840	62.426	1.108	2.840	62.426	4.891
8	1.058	2.713	65.140	1.058	2.713	65.140	3.903
9	.974	2.496	67.636				
10	.880	2.257	69.893				
11	.872	2.236	72.129				
12	.805	2.064	74.193				
13	.749	1.920	76.113				
14	.682	1.749	77.862				
15	.648	1.661	79.524				
16	.573	1.469	80.992				
17	.549	1.409	82.401				
18	.539	1.381	83.782				
19	.494	1.266	85.048				
20	.456	1.170	86.218				
21	.446	1.144	87.362				
22	.424	1.087	88.449				
23	.415	1.065	89.514				
24	.402	1.032	90.546				

25	.386	.990	91.536			
26	.358	.918	92.454			
27	.334	.856	93.311			
28	.321	.824	94.134			
29	.308	.791	94.925			
30	.279	.715	95.641			
31	.269	.690	96.330			
32	.239	.614	96.944			
33	.202	.518	97.462			
34	.199	.509	97.971			
35	.178	.456	98.427			
36	.170	.435	98.862			
37	.162	.414	99.276			
38	.152	.390	99.666			
39	.130	.334	100.000			

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

The results from the EFA performed on all the items within the fitted hypothesised model were strongly indicated no influence of CMV on the model. First, the EFA showed that the first factor is accounted for only 24.614% of the total variance explained. Second, the unrotated factor solutions suggested more than one factor based on the data, as illustrated in Table 5.26. Thus, it was concluded that the CMV bias was not a problem for the hypothesised model based on the presented findings.

5.9.2. Common Latent Factor Method of CMV

The results that were obtained from performing CFA on the hypothesised model were almost the same except for the relative advantage construct, where R^2 was slightly increased with CMV included as illustrated in Table 5.27. These results indicated a very good fit of the hypothesised model. In order to test for CMV the original findings of the model were compared to the findings after including the Common Method Factor (CMF) or the Common Latent Factor (CLF) as some scholars refer to it in the model. The CMV is influencing the model if the fit results of both models are similar, but if the findings of the model with CMF or CLF are different from the original model's fit results (negatively different) then there are no significant effects of CMV on the hypothesised model, as illustrated in Table 5.27, due to the very unsatisfactory model fit results when including CMF or CLF.

Additionally, it was recommended to calculate the difference between the correlation or path coefficients in Smart PLS of constructs for each model based on the standardised values of both models as presented in Table 5.28 and in Figure 5.9 (Malhotra et al., 2006). The differences in path coefficients were very low, which indicates no CMV. Consequently, it can be stated that this model is clear from any critical CMV bias, which further supports the validity and reliability of the developed model.

Table 5.27: Comparison between the Original Outer-model and CMF/CLF Outer-Model results.

Marker outer-model	AVE	Composite Reliability	R Square	Cronbachs Alpha
BP	0.39	0.951	0.091	0.946
COM1	0.84	0.914	0.058	0.815
COM2	0.693	0.818	0.035	0.563
NRCPA	0.687	0.897	0.553	0.845
PBC	0.578	0.844	0.229	0.753
RA	0.802	0.924	0.219	0.877
IRB	0.503	0.833	0.000	0.752
SN	0.692	0.870	0.175	0.777
Original outer-model	AVE	Composite Reliability	R Square	Cronbachs Alpha
BP	0.372	0.951	0.036	0.946
COM1	0.843	0.915	0.045	0.815
COM2	0.681	0.808	0.034	0.563
NRCPA	0.687	0.897	0.554	0.845
PBC	0.579	0.845	0.167	0.753
RA	0.802	0.924	0.103	0.877
IRB	0.503	0.833		0.752
SN	0.692	0.870	0.145	0.777

Notes: common method factor (CMF), common latent factor (CLF) and marker variable. Brand personality 'BP', Islamic religious beliefs 'IRB', Subjective norms 'SN', Perceived behavioural control 'PBC', Relative advantage 'RA', Compatibility 'COM1', Complexity 'COM2' and New religious compliant products adoption 'NRCPA'.

Table 5.28: Comparison of the Original Outer-Model and CMF/CLF Outer-Model Path coefficients.

Paths directions	Path coefficients	Path coefficients with 'marker'	difference of path coefficients
M <--- IBP	0.944	0.955	0.039
U.A <--- IBP	0.739	0.752	-0.013
R.M <--- IBP	0.594	0.577	0.072
TRAD <--- IBP	0.519	0.491	0.028
BP <--- RB	0.097	0.083	0.014

SN	<---	RB	0.381	0.359	0.032
PBC	<---	RB	0.409	0.374	0.035
RA	<---	RB	0.264	0.229	0.035
COM1	<---	RB	0.214	0.199	0.015
COM2	<---	RB	-0.185	-0.188	-0.003
NRCPA	<---	RB	0.102	0.103	-0.001
BP	<---	SN	0.131	0.084	0.047
NRCPA	<---	SN	0.168	0.172	-0.004
NRCPA	<---	PBC	0.262	0.268	-0.006
NRCPA	<---	RA	0.194	0.179	0.015
NRCPA	<---	COM1	0.123	0.131	-0.008
NRCPA	<---	COM2	-0.165	-0.164	-0.01
NRCPA	<---	BP	0.067	0.061	0.006
RA	<---	BP	0.149	0.069	0.08

NOTE: Brand personality ‘BP’, Religious beliefs ‘RB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantage ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’ and New religious compliant products adoption ‘NRCPA’.

5.9.3. Marker-variable Method (MVM) of CMV

The CMV was lastly tested via the MVM test. This test is also extensively suggested to assess the CMV bias of a proposed model (Lindell and Whitney, 2001; Pavlou et al., 2007; Sharma et al., 2009). Its advocates also considered the MVM test as the most widely employed CMV test. This test was recommended to be employed on an additional construct that is theoretically completely unrelated to the constructs of study as Sharma et al (2009: p.A1) stated, “Application of the marker variable technique requires the inclusion in the study of a variable that is theoretically unrelated to at least one of the focal variables”. The correlations or path coefficients obtained in this study because it uses Smart 2.0 M3 PLS-SEM between the marker variable (MV) and model constructs that are unrelated theoretically are explained as an estimate of the CMV bias (Richardson et al., 2009).

Consequently, this study was designed to include an additional construct that is theoretically unrelated to the hypothesised model’s constructs. The MVM construct adopted in this study was the same variable that was adopted in Malhotra et al (2006), which is Fantasising (FA). The measures of the fantasising construct were presented in detail in Chapter Four of this study. The path coefficients that were obtained for the MV when added into the outer-model are presented in Figure 5.10. The x^2 value of this

correlation was 0.10, which means that the CMV based on the MVM test is = 1%, which is regarded as very low and insignificant by some previous studies (e.g. Lindell and Whitney, 2001; Pavlou et al., 2007; Sharma et al., 2009). Further, when comparing the fit results of the original, CMF/CLF and MV models as presented in Table 5.27, it was observed that the fit was decreased and not satisfactory. Thus, CMV bias was indicated via the MVM to be not significantly affecting this study's findings.

5.9.4. Bagozzi's CMV Bias test Method

Lastly, in this section the CMV bias test approach of Bagozzi et al. (1991), which is based on the correlation level between constructs of a model, is reported. According to Bagozzi et al. (1991) if any high correlation is obtained between constructs ($r > .90$), then CMV bias is evidently influencing the constructs' findings. Thus, based on Bagozzi et al.'s (1991) CMV approach, none of the constructs is highly ($r > .90$) correlated to any other construct. The highest correlation obtained only from the outer-model's constructs is equal to 0.42, which is the correlation between the relative advantages and Marker constructs. Therefore it can be concluded that no evidence of CMV bias was found in this study's data based on the results of Bagozzi et al.'s (1991) MCV method.

Additionally, during the EFA stage the MV (FA) variable was sorted under a separate dimension, which means that the external effect mentioned above in section 5.7 is very low and thus had no significant effects on the findings. Finally, it can be concluded, based on all the above three CMV tests, that CMV bias is proved to be not problematic for this study's findings, which additionally supports the reliability and validity of the outer-model and the developed IBP scale for the Islamic context.

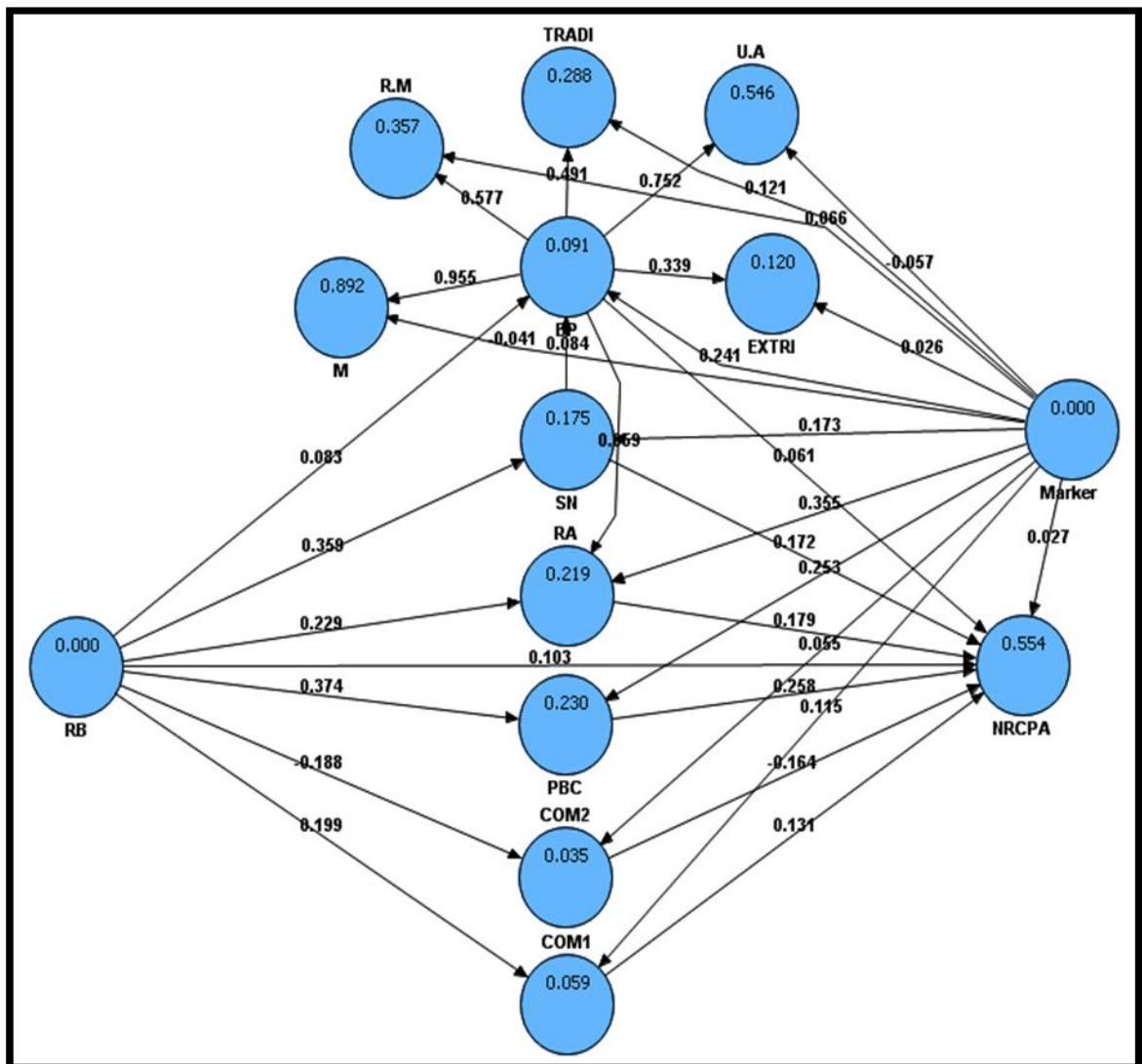
Table 5.29: Illustration of correlation between the Original model's constructs with Marker Variable included.

Variable/sub dimension	BP	COM1	COM2	Marker	NRCPA	PBC	RA	RB	SN
BP	1.000								
COM1	0.103	1.000							
COM2	0.108	-0.265	1.000						

<u>Marker</u>	<u>0.243</u>	<u>0.164</u>	<u>0.007</u>	<u>1.000</u>					
NRCPA	0.192	0.508	-0.399	<u>0.251</u>	1.000				
PBC	0.194	0.478	-0.298	<u>0.295</u>	0.624	1.000			
RA	0.188	0.610	-0.288	<u>0.422</u>	0.579	0.520	1.000		
RB	0.157	0.224	-0.180	<u>0.182</u>	0.409	0.410	0.295	1.000	
SN	0.168	0.412	-0.335	<u>0.210</u>	0.575	0.585	0.500	0.383	1.000

Notes: Brand personality ‘BP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’, New religious compliant products adoption ‘NRCPA’ and Marker variable method (Marker).

Figure 5.10: Model of the Marker Variable Method of CMV Bias Analysis via Smart 2.0 M3 PLS-SEM.



5.10. Structural Equation Model and fit of the Hypothesised Model ‘Inner-Model’

Following the first step of the PLS-SEM procedure testing the ‘Outer-model’, the structural relational model/ Inner-model was assessed by examining the hypothetical directed relationships between the endogenous and the exogenous latent variables (Chin, 1998; Götz et al., 2010). As argued by Abbasi (2011: p.232), “unlike covariance-based approaches PLS does not purport to statistically evaluate the overall goodness of fit of the model that is based on assumption of distribution-free variance (e.g. GFI, AGFI, CFI, REMSI); therefore, non-parametric statistical tests were applied to evaluate the overall model fitting.” The a recommended to be used in assessing the inner-model by a number of scholars such as Anderson and Gerbing (1988b), Chin (2010), Gefen and Straub (2005), Götz et al. (2010) and Hair et al. (2012) are as follows:

- Coefficients of determination ‘ R^2 ’ which are obtainable only for dependent variables via the Smart PLS-SEM 2.0 M3 program. The R^2 is concerned with measuring the percentage of variability of the results captured by the independent latent variables (Hair et al., 2006). According to Chin (1998) values of R^2 are assessed as follows: 0.67 substantial, 0.33 moderate and 0.19 weak. Nevertheless, Hair et al. (2011) argued that the acceptance level of R^2 depends on the study context.
- Path coefficient estimates ‘ β ’. This criterion is based on correlation coefficients among all types of latent variables of the model and the value of β is assessed according to significance level via t-test values (Tabachnick and Fidell, 2007). The significance of the t-test values is evaluated in accordance with recommended values of $t= 2.326$ at $***p<0.01$, $t= 1.96$ at $**p<0.05$ and $t= 1.64$ at $*p<0.10$ (Hair et al., 2006: p.390; Keil et al., 2000: p.312).
- Effect size ‘ f^2 ’. As explained by Tabachnick and Fidell (2007) this criterion measures the ratio of the fitted model’s improvement in predicting based on the inner-model results. In assessing the values of f^2 , are 0.02 is regarded as weak, 0.15 is regarded as medium and 0.35 is regarded as a strong effect, as recommended by Chin (1998).

- Prediction relevance ‘ Q^2 ’. According to Henseler et al. (2009) Q^2 is meant to evaluate the ability of a model to indicate R^2 via cross-validation, and their benchmarks are 0.02 weak, 0.15 medium and 0.35 strong (Chin, 1998).
- Goodness of fit ‘**GOF**’. According to Abbasi (2011: p.232), this is a criterion of global goodness of fit, which is computed through the geometric mean of the average communality and average R^2 . The closer the **GOF** value to 1, the better (Tenenhaus et al., 2005).

However, it is important to point out that in the present study only four of the model fit criteria were employed these were the main and most commonly used and accepted ones, namely, the Goodness of fit ‘**GOF**’, Path coefficient estimates ‘ β ’, Effect size ‘ f^2 ’ and Coefficient of determination ‘ R^2 ’ (Chin, 1998; Götz et al., 2010; Hair et al., 2011; Wetzels et al., 2009).

5.10.1. Coefficient of Determination (R^2) for Original Dataset

This study refers to the dataset that reflects the responses of 287 participants, which is the final prepared and cleaned dataset, as either the ‘original’ or ‘overall’ dataset. In the EFA an index called the percentage of explained variances is produced and in the ‘Inner-model’ the R^2 similarly produces the variance explained by endogenous latent variables. The R^2 regarded as the main criterion for assessing the inner-model. According to Hair et al. (2011) R^2 value of 0.20 is regarded as high in some academic areas such as consumer behaviour, which this study can be regarded as falling within. However, it is widely admitted that R^2 on its own is not enough to assess a model’s fit; therefore, additional criteria should be applied as explained above (Vinzi et al., 2010). In this study, R^2 values of the endogenous latent variables that exceeded or equalled 0.20 it are considered to be high and the lower values to be moderate or weak. As illustrated in Table 5.30 the R^2 values ranged between 0.034 and 0.555. The highest obtained shared variance ‘ R^2 ’ is for the construct of new religious compliant product adoption with a value of 0.555 → 56%, which means that new religious compliant product adoption is impacted by the level of Islamic religious beliefs of customers. Second was perceived behavioural control with a value of 0.167 → 20%. Third was subjective norm with a value of 0.145 → 15%, regarded as moderate. Fourth was

relative advantage with a value of 0.103 → 10%, also regarded as moderate. Fifth was compatibility with a value of 0.046 → 5%, regarded as weak. Sixth was BP with a value of 0.036 → 4%, regarded as weak. Seventh was complexity with a value of 0.034 → 3%, regarded as weak. It is vital to point out that there is no benchmark for the acceptable value of R^2 that is extensively accepted (Hair et al., 2011). The structural model based on the R^2 values achieved provided an acceptable amount of variation explained via the endogenous latent variables new religious compliant product adoption, perceived behavioural control, relative advantage and subjective norms, that is, four of seven. Therefore, the structural model of this study was regarded to have a moderate level of fit based on Chin (1998)

Additionally, since the purpose of the R^2 is to explain the relationship of the endogenous latent variables to the exogenous latent variables, and this study contains seven endogenous latent variables namely, BP, subjective norms, new religious compliant product adoption, perceived behavioural control, relative advantage, compatibility and complexity. The F test was conducted to overcome the lack of PLS ability to produce P value prior to hypothesis evaluation. The results for the F test based on the equation developed by Falk and Miller (1992) $F = \frac{R^2}{(1-R^2)/(N-M-1)}$ and a sample size 'n= 287' were as follows: F value of BP = 9.474 (with 28 items), F value of subjective norms = 48.33 (with 3 items), F value of perceived behavioural control = 57.58 (with 4 items), F value of relative advantage = 32.187 (with 3 items), F value of compatibility = 13.524 (with 2 items), F value of complexity = 10 (with 2 items) and finally F value of new religious compliant product adoption = 346.2 (with 4 items).

5.10.2. Path Estimations (β) Assessment for Original Dataset

The path estimations criterion is also referred to by other phrases such as hypothetical paths/relationships and nomological validity of the inner-model (Keil et al., 2000). According to Hair et al. (2011) the calculated path coefficients calculated via PLS-SEM present the kind and strength of the relationship between exogenous and endogenous latent variables. The path coefficients' values reflect the degree to which the exogenous and endogenous latent variables are related, and the sign of the path determines if the relationship between the two variables is positive or negative.

However, the t-test value for individual coefficient is a vital criterion to evaluate the hypothesised relationship among latent variables in the structural model (Götz et al., 2010; Hair et al., 2012). These path coefficients were evaluated via employing the PLS Bootstrap method in Smart PLS 2.0 M3 since it was considered to be the most efficient method in PLS (Chin, 1998). In the present study the PLS bootstrap method was employed with 5000 samples, which is much greater than the number of valid observations of this study and as advised by Hair et al. (2012). Based on the obtained bootstrap evaluation, the highest significant relationship was between Islamic religious beliefs towards perceived behavioural control with $\beta = .409 = 41\%$ and t value= 8.204, and the lowest significant relationship was between BP and new religious compliant product adoption with $\beta = .067 = 7\%$ and t value= 1.701. Please refer to Table 6.1 for the results of more hypothetical relationships. The assessment of the path coefficients significance of the model are according to $t = 2.326$ at $***p < 0.01$, $t = 1.96$ at $**p < 0.05$ and $t = 1.64$ at $*p < 0.10$ (Hair et al., 2006: p.390; Keil et al., 2000: p.312).

5.10.3. Effect Size 'f²' for Original Dataset

The total effect criterion was employed in this study as an additional assessment of the vitality of constructs and model fit. The total effect ' f^2 ' enables the hypothesised relationships between constructs to be further explained (Henseler et al., 2009). It is worth mentioning that the ' f^2 ' is only produced based on the population of the examined data and not the sample size of study; thus no df is required to calculate the values of ' f^2 '. This study assessed the values of ' f^2 ' according to the criteria recommended by Cohen (1988), which are 0.02 weak, 0.15 moderate and 0.35 large. Calculation of the total effect of the total paths starting from independent latent variable 'Islamic religious beliefs' and ending at the dependent latent variable 'new religious compliant product adoption' was recommended by Bollen (1989) and it was performed based on multiplying the effect of each direct path from Islamic religious beliefs to new religious compliant product adoption.

The findings were as follows: the total effect of the relationship's paths in Islamic religious beliefs towards BP towards new religious compliant products adoption was 0.014. The total effect of the relationship's paths in Islamic religious beliefs towards subjective norms

towards new religious compliant products adoption was 0.069 (moderate). The total effect of the relationship's paths in Islamic religious beliefs towards perceived behavioural control towards new religious compliant products adoption was 0.107 (moderate). The total effect of the relationship's paths in Islamic religious beliefs towards relative advantages towards new religious compliant products adoption was 0.055 (moderate). The total effect of the relationship's paths in Islamic religious beliefs towards compatibility towards new religious compliant products adoption was 0.026 (weak). Finally the total effect of the relationship's paths in Islamic religious beliefs towards complexity towards new religious compliant products adoption was -0.030 (moderate). All paths were found to be significant at $p < 0.05$ except for the paths BP towards new religious compliant products adoption and compatibility towards new religious compliant products adoption, which were partially significant due to their insignificant level, and for complexity towards new religious compliant products adoption, where the path value was negative, which is not acceptable based on the employed criterion.

Finally, the statistically significant total effect was Islamic religious beliefs towards perceived behavioural control towards new religious compliant products adoption 0.107, followed by Islamic religious beliefs towards subjective norms towards new religious compliant products adoption 0.069. Thus, the construct of Islamic religious beliefs was indicated to be the most vital variable based on the examined data. Additionally, this means that consumers, when attempting to adopt a new product, evaluate its features based on their Islamic religious beliefs' values.

5.10.4. Global fit Measure (Goodness of fit 'GOF') for Original Dataset

The global fit measures explained by Tenenhaus et al. (2005) to be the geometric mean of the average communality of outer-mode/measurement model and average R square, which is the explained variance based on dependent variable for dependent latent variable of a model. Unlike the covariance based structural equation model, there is no goodness of fit for the whole model, such as X^2 . Therefore, PLS is unable to produce an index that evaluates the overall fit of the hypothesised model (Hulland, 1999). The PLS-SEM mainly reduces the standard errors or increases R square values of the dependent latent variables (Hair et al., 2011). Thus, the goodness of fit criterion was employed in this study to further

indicate the validity of the model produced via PLS-SEM and the benchmarks for it were adopted from the recommendation of Wetzels et al. (2009). Thus the goodness of fit results in the present study were assessed according to the following criteria: $GoF \geq 0.36$ regarded as high, $GoF \geq 0.25$ regarded as moderate and $GoF \geq 0.1$ regarded as low. The outcome revealed that the goodness of fit of the present study's model was within the moderate level with a value of 0.320 → 32% as shown in the Table 5.31; therefore, the model of this study was accepted at moderate rank (Wetzels et al., 2009; Chin, 1998; Götz et al., 2010)

Table 5.30: Communalities, GoF and R^2 .

Exogenous/Endogenous latent variables	R^2	Communalities
IRB (exogenous)	0.000	0.5035
SN	0.1451	0.6927
BP	0.364	0.3727
PBC	0.1671	0.5797
COM1	0.0458	0.8434
COM2	0.0341	0.6816
RA	0.1034	0.8025
NRCPA	0.5541	0.6876
Average	0.1545	0.6456
GoF	0.32 (32%)	

Note: Brand personality 'BP', Islamic religious beliefs 'IRB', Subjective norms 'SN', Perceived behavioural control 'PBC', Relative advantages 'RA', Compatibility 'COM1', Complexity 'COM2', New religious compliant products adoption 'NRCPA'. $GoF = \sqrt{\text{Average } R^2 * \text{Average communalities}^2}$.

5.11. Conclusion

This chapter presented a description of the characteristics of the sample. The data was cleaned from missing values and prepared, and normality tested. Multicollinearity and multivariate results were also provided. Then the Islamic brand personality scale was developed and its reliability, validity, named dimensions was provided. The CFA findings of the Islamic brand personality scale, conceptual model's constructs, reliability and validity were outlined as well. In the Chapter Six will present the results of hypothesis testing and related decisions of acceptance or rejection, and the findings on mediators' and moderators' effects.

Chapter Six: Hypotheses Testing

6. Introduction

This chapter outlines the hypothesis testing for this study and the assessment of the mediators, and moderators, roles. First the hypotheses were assessed based on the original dataset collected by this study. Second, the mediators that are theoretically justified were examined by the Sobel test. Third, by the employment of the multiple-group analysis (MGA) the moderation effects of age, gender and income level were tested.

6.1. Hypothesised Relationships Testing Based on the Original Dataset

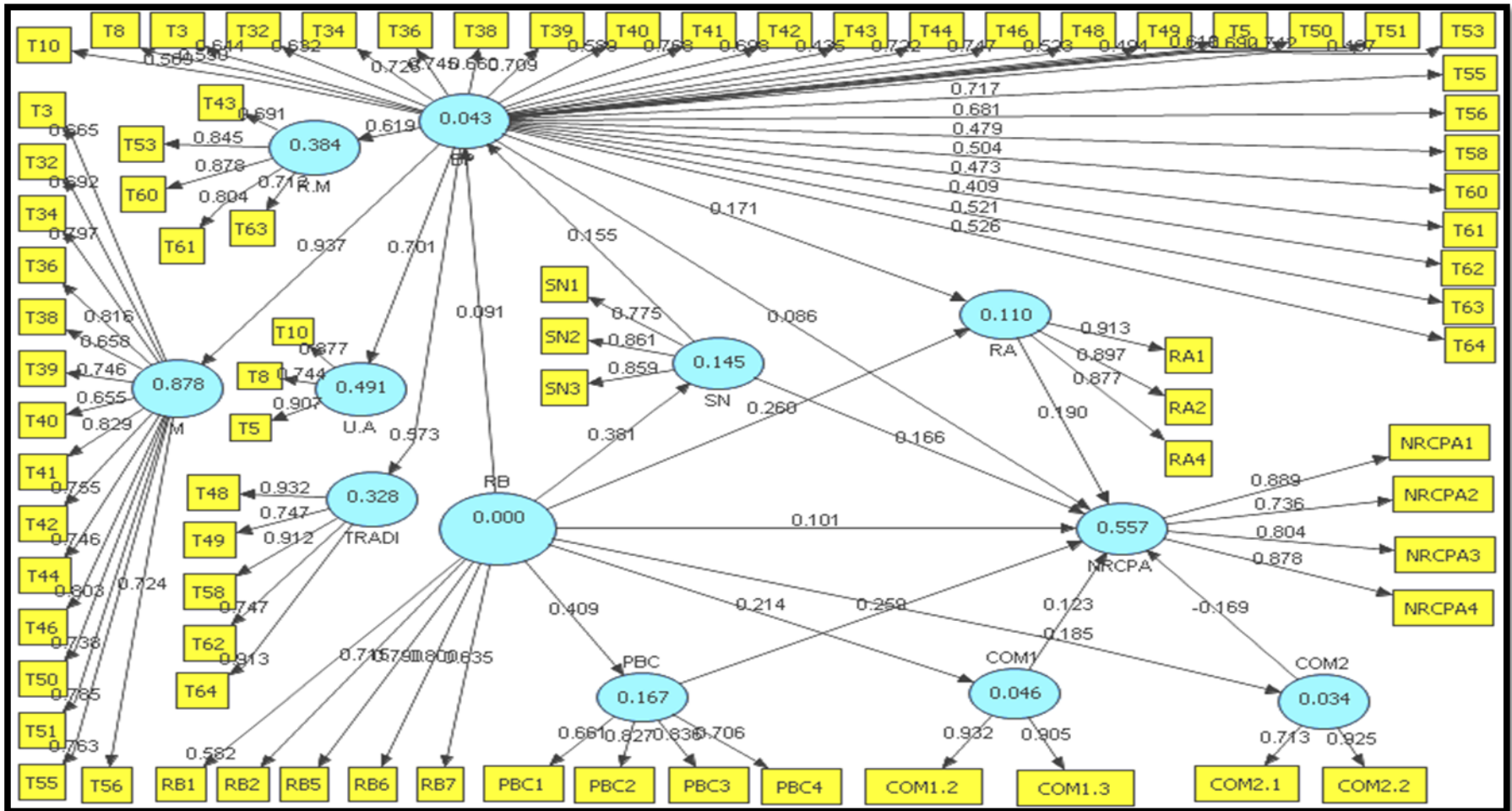
In this section of the data analysis, the hypothesised relationships between independent and dependent latent variable are assessed based on the findings obtained from the original data set via PLS-SEM. Therefore, the findings from the structural equation model/inner-model based on Smart PLS 2.0 M3 are presented below in Table 6.1 in order to summarise the hypothesised relationships between the model's constructs, proposed in the third chapter of the thesis. Please refer to Figure 6.1 and Appendix 20 for more details of the paths and T values. It should be noticed that the path coefficients among the independent and dependent latent variables are regarded as significant or valid if the T-values of these links are exceeding $t = 2.326$ with $***p < 0.001$, $t = 1.96$ with $**p < 0.05$ and 1.64 with $*p < 0.10$.

As shown in Table 6.1, the proposed hypothesised positive influential relationship between Islamic religious beliefs and IBP, indicated as Islamic religious beliefs towards IBP (H1), was determined to be not statistically significant; thus it was rejected. Therefore, the positive influence of Islamic religious beliefs on IBP was not evident in this study's original dataset. In regards, to the hypothesised influence of Islamic religious beliefs on subjective norms (H11), this was statistically significant at $P < 0.01$. Therefore the hypothesised influence of Islamic religious beliefs on subjective norms was accepted based on the original dataset. The positive influence of Islamic religious beliefs on perceived behavioural control (H14) was proved to be supported and thus this hypothesis was accepted, with a significance level of $p < 0.01$. Next the hypothesised positive impacting link directed from Islamic religious beliefs to new religious compliant product adoption (H2) was observed to be significant at $p < 0.05$. The following hypothesis was based on a positive impact of Islamic religious beliefs on relative advantages (H4), and it was accepted due to the observed significant t-test at $p < 0.01$. The hypothesised positive effect

relationship from Islamic religious beliefs to compatibility (H7) was accepted with a significance level of $p < 0.01$. As for the hypothesis that Islamic religious beliefs positively impacts complexity (H9), this was statistically significant at $p < 0.001$ but the hypothesis was rejected due to the negative influence from Islamic religious beliefs to complexity. The proposed positive influence of IBP on relative advantages (H6) was accepted with significance $p < 0.01$.

On the second level of the hypotheses of the conceptual model of the present study, the hypothesised positive effect relationship denoted as IBP towards new religious compliant product adoption was supported with significance level of $p < 0.05$. Next the hypothesised positively influential relationships of subjective norms towards new religious compliant product adoption, relative advantage towards new religious compliant product adoption and perceived behavioural control towards new religious compliant product adoption were all accepted with a $p < 0.01$ level of significance, and the positively impacting relationship of compatibility towards new religious compliant product adoption was accepted as well, but with $p < 0.05$ significance. The last hypothesised positive relationship in the second level of the proposed conceptual model of the present study, complexity towards new religious compliant product adoption, was found to be significant but not accepted because the influential link was negative instead of positive. Finally, the third level of hypotheses of the present study contained only one hypothesis, denoted directed as subjective norms towards IBP (positive influence) and it was accepted based on $p < 0.01$ significance.

Figure 6.1: Illustration of the Paths Coefficients from PLS-SEM based on Original Dataset.



Note: Islamic Brand personality 'IBP', Islamic religious beliefs 'IRB', Subjective norms 'SN', Perceived behavioural control 'PBC', Relative advantage 'RA', Compatibility 'COM1', Complexity 'COM2', New religious compliant products adoption 'NRCPA'

Table 6.1: Path Coefficients and the Hypothesised Relationships Testing of Conceptual Model.

Hypothesise	Relationship/Direction	Path Coefficients/Signe	T-tests	Decision
H1	IRB → IBP	(+) 0.091	1.362	Not supported
H11	IRB → SN	(+) 0.381***	7.463	Supported
H14	IRB → PBC	(+) 0.409***	8.390	Supported
H2	IRB → NRCPA	(+) 0.101**	2.068	Supported
H4	IRB → RA	(+) 0.260***	4.790	Supported
H7	IRB → COM1	(+) 0.214***	3.998	Supported
H9	IRB → COM2	(-) 0.185***	3.642	Not supported
H6	IBP → RA	(+) 0.171***	4.790	Supported
H3	IBP → NRCPA	(+) 0.086**	2.164	Supported
H12	SN → NRCPA	(+) 0.166**	2.252	Supported
H15	PBC → NRCPA	(+) 0.259***	4.589	Supported
H15	RA → NRCPA	(+) 0.190***	3.222	Supported
H18	COM1 → NRCPA	(+) 0.123*	2.151	Supported
H10	COM2 → NRCPA	(-) 0.169***	3.316	Not supported
H13	SN → IBP	(+) 0.155***	2.714	Supported

Note: Islamic Brand personality ‘IBP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’, New religious compliant products adoption ‘NRCPA’ Significance level ***p<0.01 (t= 2.326), **p<0.05 (t= 1.96) and t= *p<0.10 (1.64) and two-tailed probability test. Degree of freedom (5000). Sign changes (no sign changes).

6.2. Testing of Hypothesised Mediator Effects

With the hypothesised direct and indirect relationships' paths examined, it is logical to assess the mediating influence from the IBP, subjective norms, relative advantage, perceived behavioural control, compatibility and complexity, which mediate the indirect paths from the only exogenous latent variable of the present study 'IRB' and the endogenous latent variable 'NRCPA', which is the only common dependent variable of all relationships' paths. Cohen et al. (2003: p.457) stated that "some theories provide, at least partially, for explicit inclusion of some of these mechanisms, they are called mediators of the impact of X on Y." The mediator could be found to have a full mediator effect or partial mediator effect.

In order to assess this type of effect, the present study employed both informal and formal methods. The informal method is widely employed (Sosik et al., 2009). This method is explained by Cohen et al. (2003) as indicating a full mediation relationship when the paths from the independent variable 'A' to the dependent variable 'B, mediator' and from B to the dependent variable at the end of the hypothesised relationship 'C', and from 'A' to 'C', are all significant. A partially mediated relationship is observed when the paths from the independent variable 'A' to the dependent variable 'B, mediator' and from B to the dependent variable at the end of the hypothesised relationship 'C' are significant, but the path from 'A' to 'C', which is the direct path is insignificant. This formal method, called the Sobel test, it is the most used formal mediation effect test in MLR (Sosik et al., 2009).

The Sobel test statistic formula is $Z = \frac{ab}{\sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}}$, where A is the path coefficient

for the link between the independent variable and the mediator, B is the path between the mediator and the dependent variable C, SE_a is the standard error of the path between A and B, and SE_b is the standard error of the path between B and C (Sobel, 1982; Soper, 2013). The Sobel test enables researchers to indicate the significance of the mediation, and the confidence level used in the present study was 95% $\rightarrow p < 0.05^{**}$ and ($t = > 1.96$).

According to Bontis et al. (2007) a few steps must be satisfied in order to examine the mediation effect, as follows: first, to ensure the existence of a mediated relationship, a direct hypothesised relationship must be developed between the exogenous and endogenous latent variables. Second, a similar relationship is required to be established between the exogenous variable and the mediator variable. Third, the mediator variable and the endogenous variable have to be related in the hypothesised model. Finally, the hypothesised relationships between the exogenous, mediator and endogenous variables have to be theoretically supported by literature.

6.2.1. Mediation Findings for Each Mediator

According to the approach explained previously, the Smart PLS 2.0 M3 was run for the full hypothesised model using the original dataset. The β s, standard errors (SE) and the t-test values were obtained for each individual path coefficient ‘relationship’ to be able to indicate the type of mediation and the differences between the direct and indirect paths’ effects. Subsequently, the author applied a PLS Algorithm repeatedly on sub-models representing each individual hypothesised relationship and its mediator construct in order to obtain the data needed to carry out the Sobel test via <http://www.danielsoper.com/statcalc>. The procedure of mediation testing was done via two steps: First, the PLS algorithm was run on the sub-model both with and without the mediator included. This step allowed the researcher to obtain the path coefficients for the direct link with and without the mediator. Second, the PLS bootstrapping method was conducted in order to obtain the β and the SE for the paths from A to B and from B to C (Sobel, 1982; Soper, 2013). Therefore, to sum up what presented above Bontis et al. (2007: p.11) stated that “Mediation exists if the coefficient of the direct path between the independent variable and the dependent variable is reduced when the indirect path via the mediator is introduced into the model.” Table 6.2 summarises the mediation hypothesised results, which will be presented in detail next.

Table 6.2: Hypothesised Mediation Results via PLS algorithm, PLS bootstrapping and Sobel test.

Hypothesise	Relationship/Direction/ (Mediation)	Significance	Z-value	Decision
H3a	IRB →(IBP)→ NRCPA	No	1.194	Not Supported
H5a	IRB →(RA)→NRCPA	Yes	4.706	Supported
H8a	IRB →(COM1)→NRCPA	Yes	3.768	Supported
H10a	IRB →(COM2)→NRCPA	Yes	3.286	Supported
H12a	IRB→(SN)→NRCPA	Yes	5.955	Supported
H15a	IRB→(PBC)→NRCPA	Yes	6.237	Supported

Note: Islamic Brand personality ‘IBP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’, New religious compliant products adoption ‘NRCPA’. Sobel test (z) Significance level > 1.96 and two-tailed probability test <0.05. Degree of freedom (5000). Sign changes (no sign changes).

IBP mediation: the obtained standardised β of the direct link from Islamic religious beliefs to new religious compliant product adoption was 0.414 and the same path’s β when the IBP was introduced as mediator was 0.495. The Sobel test (z) result based on Islamic religious beliefs towards IBP beta (0.152) with SE (0.0604), IBP towards new religious compliant product adoption beta (0.167) with SE (0.0545) was Z= 1.95 with two-tailed probability of 0.05. Thus, based on the z findings, the IBP construct does not mediate the effect between the Islamic religious beliefs and the new religious compliant product adoption because $Z < 1.96$ with two-tailed probability > 0.05. Figures 6.2 and 6.3 present the beta of paths with mediator BP included and the t-test from PLS bootstrapping.

Figure 6.2: An Illustration of PLS Algorithm of IBP Mediation Model.

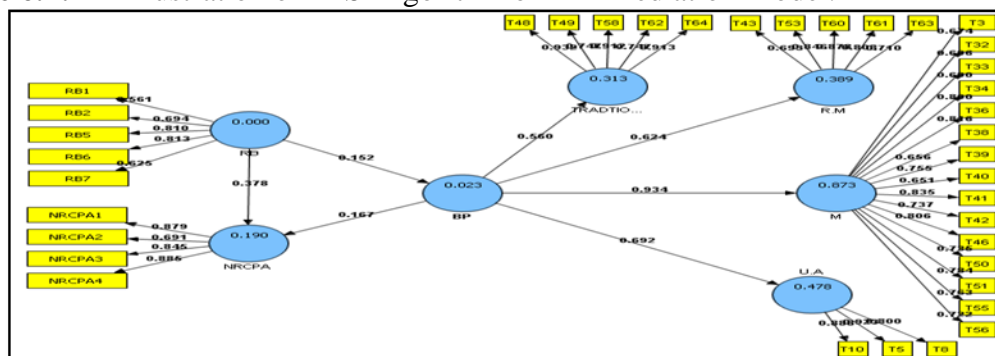
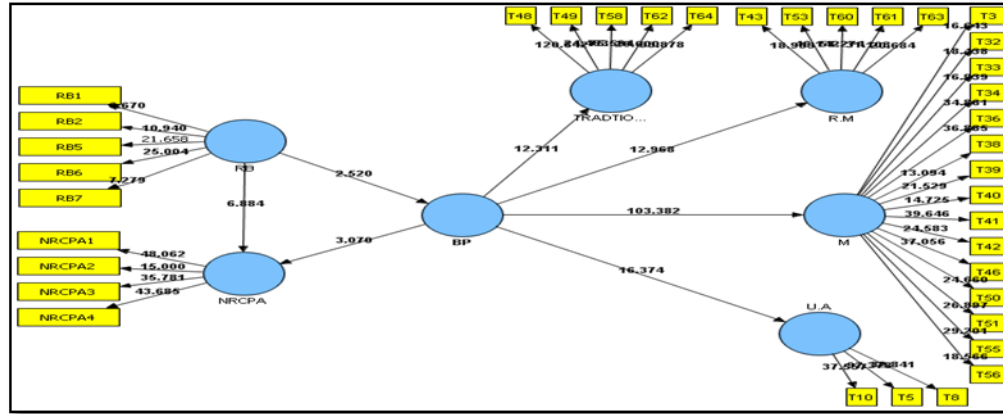


Figure 6.3: An Illustration of PLS Bootstrapping of IBP Mediation Model.



Subjective norms mediation: the obtained standardised β of the direct link from RB to new religious compliant product adoption was 0.538 and the same path's β when the IBP construct was introduced as a mediator was 0.336. The Sobel test (z) result based on Islamic religious beliefs towards subjective norms beta (0.498) with SE (0.0589), and SN towards new religious compliant product adoption beta (0.4071) with SE (0.0589) was $Z=5.955$ with two-tailed probability of 0.00. Therefore, according to the z findings, the subjective norms construct does mediate the effect between Islamic religious beliefs and new religious compliant product adoption because $Z > 1.96$ with two-tailed probability < 0.05 and at a significant level. The type of mediation was indicated to be partial mediation, since the t-test value of the direct path between Islamic religious beliefs and new religious compliant product adoption was still significant with a value of 5.856, which is > 1.96 . Figures 6.4 and 6.5 present the beta of paths with mediator included and the t-test from PLS bootstrapping.

Figure 6.4: An Illustration of PLS Algorithm of subjective norms Mediation Model.

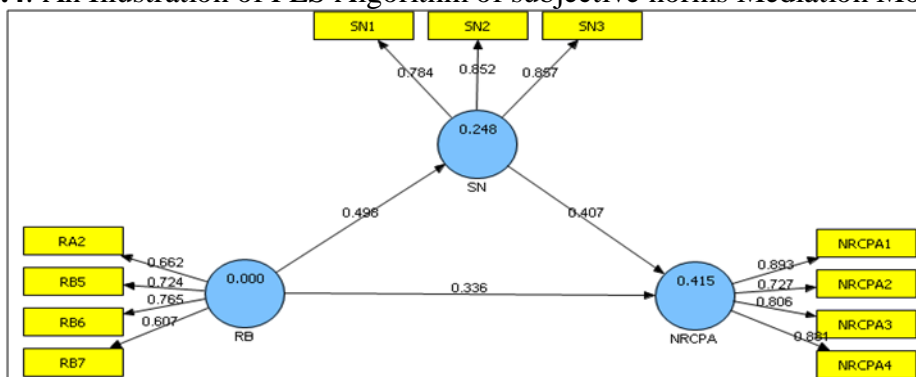
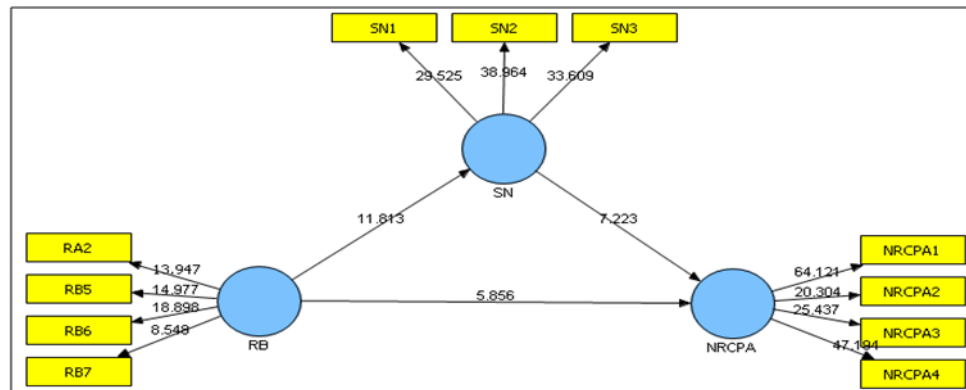


Figure 6.5: An Illustration of PLS Bootstrapping of subjective norms Mediation Model.



Perceived behavioural control mediation: the obtained standardised β of the direct link from Islamic religious beliefs to new religious compliant product adoption was 0.414 and the same path's β when the perceived behavioural control construct was introduced as a mediator was 0.213. The Sobel test (z) result based on RB towards perceived behavioural control beta (0.375) with SE (0.0491), and perceived behavioural control towards new religious compliant product adoption beta (0.522) with SE (0.0483) was $Z= 6.237$ with two-tailed probability of 0.00.

According to the z findings, the perceived behavioural control construct does mediate the effect between RB and new religious compliant product adoption because $Z > 1.96$ with two-tailed probability < 0.05 and at a significant level. The type of mediation was indicated to be partial mediation as the t -test value of the direct path between Islamic religious beliefs and new religious compliant product adoption was still significant with a value of 5.856, which is > 1.96 and the beta of the direct path of Islamic religious beliefs towards new religious compliant product adoption decreased. Figures 6.6 and 6.7 present the beta of paths with mediator included and the t -test from PLS bootstrapping.

Figure 6.6: An Illustration of PLS Algorithm of perceived behavioural control Mediation Model.

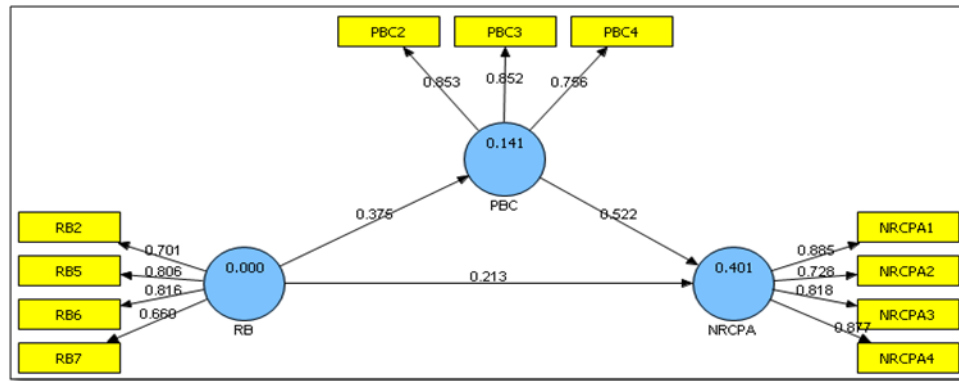
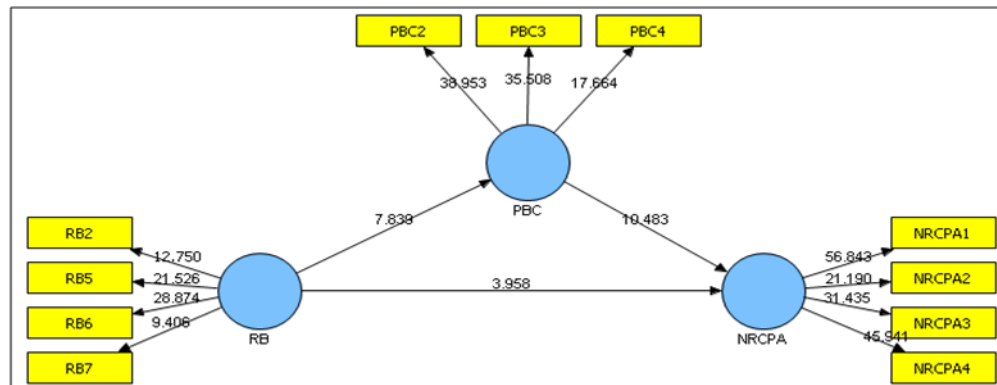


Figure 6.7: An Illustration of PLS Bootstrapping of perceived behavioural control Mediation Model.



Relative advantage mediation: the obtained standardised β of the direct link from Islamic religious beliefs to new religious compliant product adoption was 0.414 and the same path's β when the relative advantage construct was introduced as mediator was 0.265. The Sobel test (z) result based on Islamic religious beliefs towards relative advantage beta (0.2856) with SE (0.0544), and relative advantage towards new religious compliant product adoption beta (0.5011) with SE (0.0472) was $Z= 4.706$ with two-tailed probability of 0.00. Accordingly to the z findings, the relative advantage construct does mediate the effect between Islamic religious beliefs and new religious compliant product adoption because $Z > 1.96$ with two-tailed probability < 0.05 and at a significant level. The type of mediation was indicated to be partial mediation, as the t -test value of the direct path between Islamic religious beliefs and new religious compliant product adoption remained significant with a value of 5.030 which is > 1.96 and the beta of the direct path of RB towards new religious

compliant product adoption decreased by about 0.15. Figures 6.8 and 6.9 present the beta of paths with mediator included and the t-test from PLS bootstrapping.

Figure 6.8: An Illustration of PLS Algorithm of relative advantages Mediation Model.

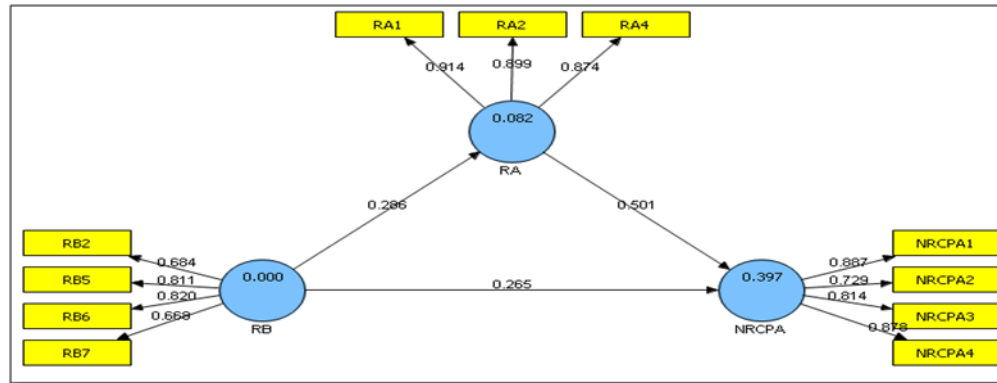
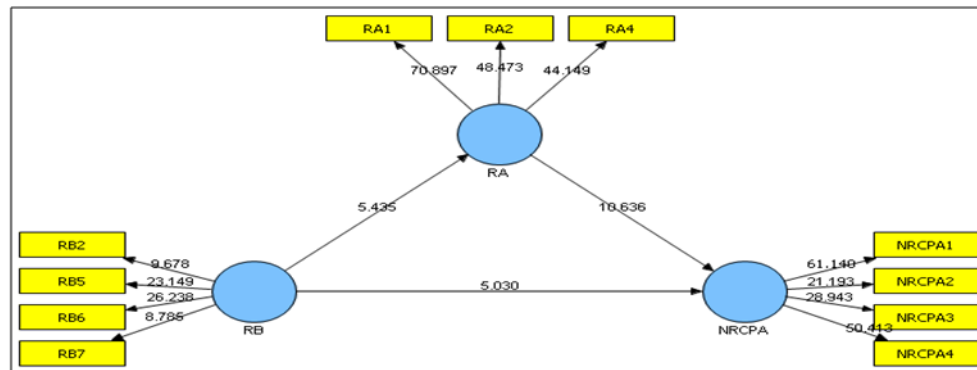


Figure 6.9: An Illustration of PLS Bootstrapping of relative advantages Mediation Model.



Compatibility mediation: the obtained standardised β of the direct link from compatibility to new religious compliant product adoption was 0.414 and the same path's β when the compatibility construct was introduced as a mediator was 0.306. The Sobolev test result based on Islamic religious beliefs towards compatibility beta (0.2345) with SE (0.0539), and compatibility towards new religious compliant product adoption beta (0.4348) with SE (0.0577) was $Z = 3.768$ with two-tailed probability of 0.00. Therefore, the compatibility construct does mediate the effect between Islamic religious beliefs and new religious compliant product adoption because $Z > 1.96$ with two-tailed probability < 0.05 and at a significant level. The mediation is indicated to be a partial mediation, as to the t-test value

of the direct path between RB and new religious compliant product adoption remained significant with a value of 5.615, which is > 1.96 and the beta of the direct path of Islamic religious beliefs towards new religious compliant product adoption decreased by about 0.11. Figures 6.10 and 6.11 present the beta of paths with mediator included and the t-test from PLS bootstrapping.

Figure 6.10: An Illustration of PLS Algorithm of compatibility Mediation Model.

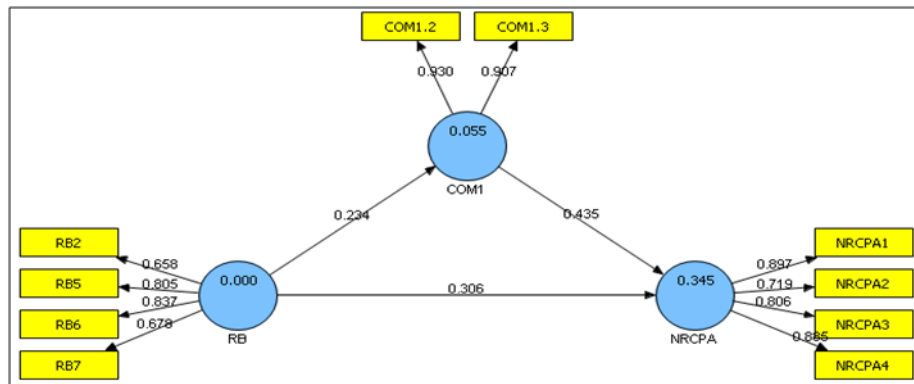
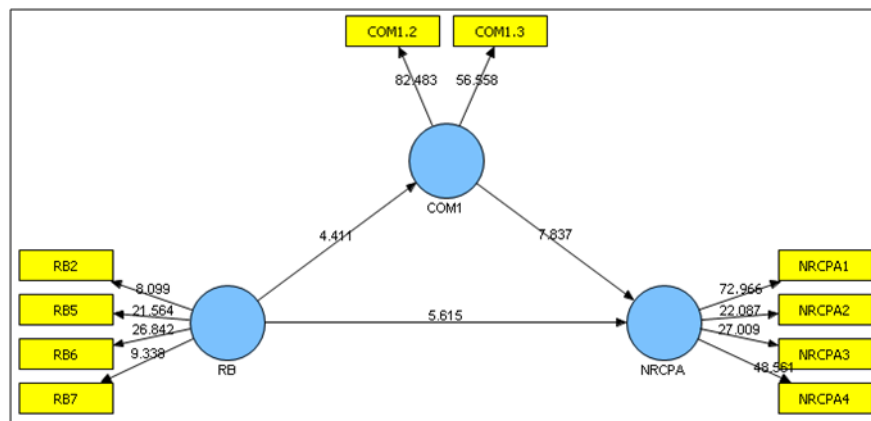


Figure 6.11: An Illustration of PLS Bootstrapping of compatibility Mediation Model.



Complexity mediation: the obtained standardised β of the direct link from complexity to new religious compliant product adoption was 0.414 and the same path's β when the complexity construct was introduced as a mediator was 0.346. The Sobel test result based on Islamic religious beliefs towards complexity beta (-0.1845) with SE (0.0495), and complexity towards new religious compliant product adoption beta (-0.3342) with SE

(0.0480) was $Z = 3.286$ with two-tailed probability of 0.00. Thus, the complexity construct does mediate the effect between Islamic religious beliefs and new religious compliant product adoption because $Z > 1.96$ with two-tailed probability < 0.05 and at a significant level. The mediation is indicated to be a partial mediation, as the t-test value of the direct path between Islamic religious beliefs and new religious compliant product adoption remained significant with a value of 6.326, which is > 1.96 and the beta of the direct path of Islamic religious beliefs towards new religious compliant product adoption increased. Figures 6.12 and 6.13 present the beta of paths with mediator included and the t-test from PLS bootstrapping.

Figure 6.12: An Illustration of PLS Algorithm of complexity Mediation Model.

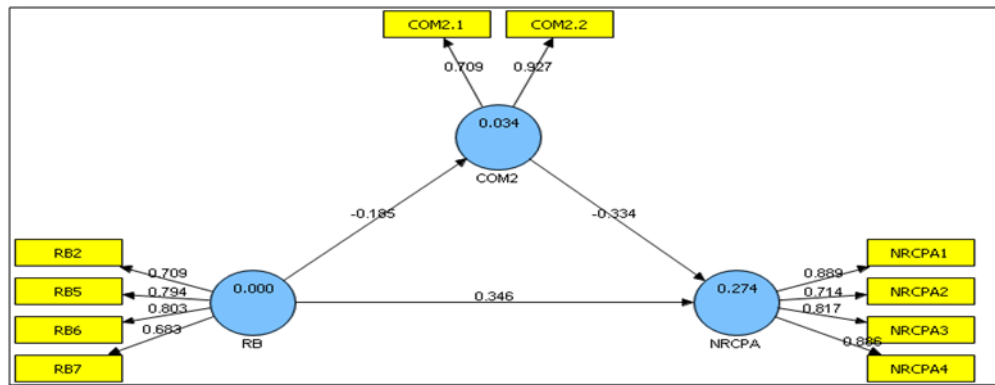
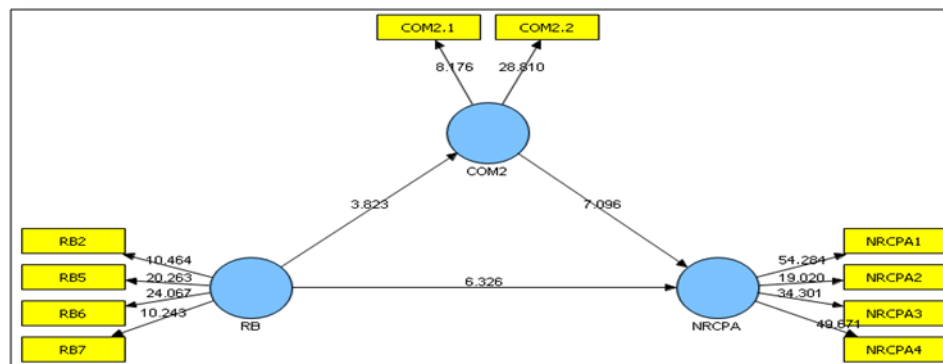


Figure 6.13: An Illustration of PLS Bootstrapping of complexity Mediation Model.



Finally, based on the obtained Sobel tests and t-tests reported above for every individual mediator, it can be concluded that all mediators were indicated to be effectively and partially

mediating the relationship between the Islamic religious beliefs and the new religious compliant product adoption constructs, except for the IBP, due to its low Sobel test findings and the two-tailed probability.

6.3. Test of Hypothesised Moderating Effects of Gender, Income and Age.

In Chapter Three of this study, it was hypothesised that the relationship between the Islamic religious beliefs and new religious compliant product adoption constructs is moderated by the demographic variables (age and income), which are featured as categorical variables (Abbasi, 2011). It was believed that the best method to employ to investigate differences between groups is what is extensively referred to as Multiple-group analysis (MGA) and it was performed via four important steps as recommended by Cohen (1988). The MGA was recommended as well by Chin (1998), Hair et al. (2012) and Sarstedt et al. (2011) to be utilised to test groups' difference or moderating effects. As mentioned earlier, since that the moderator variables are categorical, this feature is regarded as an essential criterion that must be assured prior to conducting MGA (Sarstedt et al., 2011).

The MGA method's four steps are as follows: first, the model is examined based on a purpose matching generated dataset, which is generated from dividing the original sample into two categories as needed for undertaking the research, such as old and young participants as categorical samples. Subsequently, the model is examined every time based on a different sub-sample to obtain individual sub-sample findings. Second, goodness-of-fit, validity, reliability and R^2 are assessed. Finally, bootstrapping is performed on each individual sample to assess the significance of the concerned path coefficient according to the t-test results and they are compared based on the obtained standard error from each sub-sample. It is worth mentioning that the bootstrapping was performed based on the 500 repeated sampling technique and the equation employed to assess group differences was adopted from Chin (1998), due to appearance of difference in standard errors, and it was as follows:

$$t = \frac{\text{path (sample1)} - \text{path (sample2)}}{\sqrt{\text{s.e. (sample1)}^2 + \text{s.e. (sample2)}^2}}$$

Note: S.E. → standard error.

6.3.1. Hypothesised Relationships Differences testing for Age's Datasets

Since the nature of the groups that are the concern of this section of the study is categorical, the groups were developed by splitting the original sample into two datasets, because some categories were represented by a very small number of participants. Accordingly, the age moderator was separated into 'old-participants' and young-participants' groups. The young group was represented by 217 male and female participants based on age groups 1 and 2 in the questionnaire, and the old group was represented by 70 male and female participants based on age groups 3, 4, 5 and 6 in the questionnaire. As illustrated in Table 6.3, the AVE of all variables were satisfactory except for the IBP variable but its discriminant validity based on the internal correlations between variables was accepted since it was higher than in all correlations (Bagozzi and Foxall, 1996). In regard to the reliability of the models, all the variables' CRs for both models ranged between 0.84 and 0.95, while the Cronbachs alpha for both models ranged between 0.74 and 0.95, which means that both models had high reliability (Hair et al., 2006). The R² values from the 'old group' were IBP= .02, compatibility= .13, complexity= .10, new religious compliant product adoption = .69, perceived behavioural control= .34, relative advantage= .25 and subjective norms= .21, and for the 'Young group' were IBP= .06, compatibility = .04, complexity = .02, new religious compliant product adoption = .53, perceived behavioural control = .13, relative advantage = .08 and subjective norms = .13. Finally, the GoF of the old group was 38%, which is higher than the young group's GoF (28%) by 10% but they were both considered to reflect moderate fit based on Chin's (1998) recommendations.

Table 6.3: Illustrative overview of Age Moderator Models'.

<i>Old group</i>					
Construct	AVE	CR	R Square	Cronbachs Alpha	Communality
IBP	0.36	0.95	0.02	0.94	0.35
COM1	0.88	0.94	0.13	0.87	0.88
COM2	0.70	0.82	0.10	0.59	0.70
NRCPA	0.63	0.87	0.69	0.80	0.63
PBC	0.62	0.87	0.34	0.79	0.62
RA	0.84	0.94	0.25	0.90	0.84
IRB	0.57	0.84	0.00	0.75	0.57
SN	0.77	0.91	0.21	0.85	0.77
Average			0.22		0.67
GoF	0.38				

<i>Young group</i>					
IBP	0.39	0.95	0.06	0.95	0.38
COM1	0.83	0.91	0.04	0.80	0.83
COM2	0.66	0.79	0.02	0.55	0.66
NRCPA	0.71	0.91	0.53	0.86	0.71
PBC	0.57	0.84	0.13	0.74	0.57
RA	0.79	0.92	0.08	0.87	0.79
IRB	0.56	0.83	0.00	0.74	0.56
SN	0.67	0.86	0.13	0.75	0.67
R² average			0.12		0.65
GoF	0.28				

Note: Islamic Brand personality ‘**IBP**’, Islamic religious beliefs ‘**IRB**’, Subjective norms ‘**SN**’, Perceived behavioural control ‘**PBC**’, Relative advantages ‘**RA**’, Compatibility ‘**COM1**’, Complexity ‘**COM2**’, New religious compliant products adoption ‘**NRCPA**’.

In regard to the specific difference between the groups, the β_s and t-tests of each hypothesised relationship of the model are shown in Table 6.4 and Figure 6.12. The differences were as follows: first, H2 was significantly supported in young participants at $p < 0.01$ and rejected by the old group. Next, H9 was significantly accepted by the young group at $p < 0.05$ and rejected with a negative sign by the old group. Next, H15 was significantly accepted by the young group at $p < 0.01$, whereas it was rejected by the older group. Next, H8 was significantly supported in young participants at $p < 0.05$ and rejected by the old group. Next, H10 was significantly and negatively supported in young participants at $p < 0.01$ and rejected by the old group. Finally, H13 was significantly supported in young participants at $p < 0.01$ and rejected by the older people. Therefore, it was found that age does moderate the relationships between the examined constructs, and that the younger participants generally supported the hypothesised relationships.

When the findings from the model based on the overall dataset were compared to the findings from the Young and Old groups’ datasets, it was determined that some of the paths resulted differently, as follows: the H2 (Islamic religious beliefs towards new religious compliant product adoption) was significantly and positively accepted in both overall and young group and rejected by the old group, and they were respectively $\beta = 0.102$ with $t\text{-test} = 2.041$ ($p < 0.05$), $\beta = 0.065$ with $t\text{-test} = 0.616$ and $\beta = 0.129$ with $t\text{-test} = 2.363$ ($p < 0.01$). As for the H9 (Islamic religious beliefs towards complexity), it was supported

with a negative sign by all ‘overall, Old and Young’ datasets but with different levels of significance and they were respectively $\beta = 0.185$ with $t\text{-test} = 3.788$ ($p < 0.01$), $\beta = 0.309$ with $t\text{-test} = 3.010$ ($p < 0.05$) and $\beta = 0.134$ with $t\text{-test} = 2.264$ ($p < 0.05$). Next H6 (IBP towards relative advantages) was supported by all ‘overall, Old and Young’ datasets but with different levels of significance, respectively, $\beta = 0.149$ with $t\text{-test} = 2.758$ ($p < 0.01$), $\beta = 0.267$ with $t\text{-test} = 2.623$ ($p < 0.01$) and $\beta = 0.111$ with $t\text{-test} = 1.859$ ($p < 0.10$). H3 (IBP towards new religious compliant product adoption) was supported by the overall and the young groups’ datasets at different levels of significance and rejected with a negative sign by the old group; they were, respectively, $\beta = 0.067$ with $t\text{-test} = 1.682$ ($p < 0.10$), $\beta = 0.089$ with $t\text{-test} = 2.013$ ($p < 0.05$) and $\beta = (-) 0.013$ with $t\text{-test} = 0.157$. The H15 was significantly supported by the overall and young datasets with values of $\beta = 0.262$ and $t = 4.619$ ($p < 0.01$) for overall data, and $\beta = 0.277$ and $t = 4.55$ ($p < 0.01$) for the young dataset.

The same hypothesis was rejected by the old group dataset with $\beta = 0.176$ and $t = 1.286$. Next, H8 was supported by the overall and young dataset with of (overall = 0.123 and young = 0.138) and t test values as (overall = 2.114 and young = 2.072 ($p < 0.05$)), but the same hypothesis was not supported when examining the old dataset. The H10 was significantly supported by the overall and young datasets with values of $\beta = 0.165$ and $t = 3.219$ ($p < 0.01$) for overall data, and $\beta = 0.176$ and $t = 3.064$ ($p < 0.01$) for the young dataset, and the same hypothesis was not supported when examining the old dataset. Finally, H13 was significantly supported by the overall and young datasets with values of $\beta = 0.131$ and $t = 2.334$ ($p < 0.01$) for overall data, and $\beta = 0.176$ and $t = 2.723$ ($p < 0.01$) for the young dataset, and the same hypothesis was not supported when examining the old dataset.

In regards with assessing the age moderation of the influence of Islamic religious beliefs, subjective norms, IBP, perceived behavioural control, relative advantages, compatibility and complexity on new religious compliant product adoption, this was examined via the most widely used method, which is the Smith-Satterthwait test (S-S) (Chin, 1998; Henseler and Fassott, 2010; Kim and Moon, 2009; Ramaseshan and Tsao, 2007; Shervani et al., 2007). The findings from the S-S test, as presented in the Table 6.4, indicated that the significant difference among the old and young groups existed only in the hypothesised

relationship of the Islamic religious beliefs independent variable influencing the perceived behavioural control dependent variable with S-S test = 2.220 ($p < 0.05$). Therefore, it can be concluded that age as moderates the influential relationship between Islamic religious beliefs towards perceived behavioural control variables only. Accordingly, the hypothesis H16 that age moderates the impact of Islamic religious beliefs towards subjective norms, IBP, perceived behavioural control, relative advantages, compatibility and new religious compliant product adoption was partially accepted due to the observed moderating of the link from Islamic religious beliefs to perceived behavioural and not accepted, in regard to the moderating effect of age on the links from Islamic religious beliefs directed to Islamic religious beliefs direct to subjective norms, IBP, perceived behavioural control, relative advantages, compatibility and complexity on new religious compliant product adoption.

Table 6.4: Illustration of Path Coefficients, Hypothesis, Standard Errors, t-tests and S-S test findings for Age Moderation Testing Model.

Hypothesise/Relationship/Direction		Path/Sign/Overall	t-tests	Path/Sign/Old	t-test	S.E.	Path/Sign/Young	t-test	S.E.	S-S test
H1	RB→IBP	+ 0.097	1.485	+ 0.115	0.276	0.14	+ 0.042	1.419	0.08	0.456
H11	RB → SN	+ 0.381***	7.388	+ 0.456***	4.530	0.10	+ 0.357***	6.175	0.06	0.825
H14	RB → PBC	+ 0.167***	8.427	+ 0.586***	7.342	0.08	+ 0.364***	6.541	0.06	2.220**
H2	RB→NRCPA	+ 0.102**	2.041	+ <u>0.065</u>	<u>0.616</u>	0.10	+ <u>0.129***</u>	<u>2.362</u>	<u>0.06</u>	-0.533
H4	RB → RA	+ 0.264***	4.812	+ 0.400***	3.965	0.10	+ 0.235***	4.193	0.06	1.375
H7	RB → COM1	+ 0.214***	4.015	+ 0.365***	2.857	0.12	+ 0.189***	3.360	0.06	1.354
H9	RB → COM2	- 0.185***	3.728	- 0.309***	3.010	0.10	- 0.134**	2.264	0.06	-1.458
H6	IBP → RA	+ 0.149***	2.758	+ 0.267***	2.623	0.10	+ 0.111*	1.859	0.06	1.300
H3	IBP→NRCPA	+ 0.067*	1.682	- <u>0.013</u>	<u>0.157</u>	0.07	+ <u>0.089**</u>	<u>2.013</u>	<u>0.05</u>	-1.133
H12	SN→NRCPA	+ 0.168***	2.703	+ 0.272***	2.322	0.12	+ 0.142**	1.893	0.07	0.929
H15	PBC→NRCPA	+ 0.262***	4.619	+ <u>0.176</u>	<u>1.286</u>	0.14	+ <u>0.277***</u>	<u>4.555</u>	<u>0.07</u>	-0.631
H5	RA→NRCPA	+ 0.194***	3.305	+ 0.315***	2.942	0.10	+ 0.160***	2.566	0.06	1.292
H8	COM1→NRCPA	(+) 0.123**	2.114	+ <u>0.076</u>	<u>0.775</u>	0.09	+ <u>0.138**</u>	<u>2.072</u>	<u>0.06</u>	-0.564
H10	COM2→NRCPA	-0.165***	3.219	- <u>0.155</u>	<u>1.372</u>	<u>0.10</u>	- <u>0.176***</u>	<u>3.064</u>	<u>0.06</u>	0.175
H13	SN→IBP	+ 0.131***	2.334	+ <u>0.086</u>	<u>0.693</u>	0.12	+ <u>0.176***</u>	<u>2.723</u>	<u>0.07</u>	-0.643

Notes: Significance level ***p<0.01 (t= 2.326), **p<0.05 (t= 1.96) and t= *p<0.10 (1.64). Degree of freedom (5000). Sign changes (no sign changes). Differences between the Young and Old groups are presented underlined. Young ‘young group dataset’ and old ‘old group dataset’. Differences between the Overall, Young and Old datasets findings are highlighted. S-S (Smith-Satterthwait test). Islamic Brand personality ‘IBP’, Islamic religious beliefs ‘IRB’, Subjective norms ‘SN’, Perceived behavioural control ‘PBC’, Relative advantages ‘RA’, Compatibility ‘COM1’, Complexity ‘COM2’, New religious compliant products adoption ‘NRCPA’.

6.3.2. Testing of Difference in Hypothesised Relationships for Income's Dataset

The categorised high income participants numbered by 62 and the categorised low income participants numbered by 125. Table 6.7 illustrates that the AVE of all variables were accepted except for the BP in both groups. However, the BP discriminant validity based on the internal correlations between variables was accepted since it exceeded all the correlations of IBP with other variables (Bagozzi and Foxall, 1996). All the variables' CRs for both models ranged between 0.75 and 0.96, and the Cronbachs alpha for both models ranged between 0.84 and 0.95. Thus, both models generally resulted in high reliability (Hair et al., 2006). The R² values from 'High income group' were IBP= .25, compatibility= .02, complexity= .00, new religious compliant product adoption= .73, perceived behavioural control= .14, relative advantages= .07 and subjective norms= .12, and for the 'low income group' they were IBP= .05, compatibility = .06, complexity = .04, new religious compliant product adoption = .55, perceived behavioural control = .17, relative advantages = .13 and subjective norms = .15. The GoF of the high income's group was 34%, which is higher than the low income's group's GoF (30%) by 4% but they were both regarded to be moderately fit based on Chin'S (1998) recommendations.

Table 6.5: Illustration of Income Moderator Models' overview.

<i>High income</i>					
	AVE	CR	R Square	Cronbachs Alpha	Communality
IBP	0.42	0.96	0.25	0.95	0.42
COM1	0.88	0.93	0.02	0.86	0.88
COM2	0.62	0.75	0.00	0.48	0.62
NRCPA	0.69	0.90	0.73	0.85	0.69
PBC	0.61	0.86	0.14	0.78	0.61
RA	0.84	0.94	0.07	0.90	0.84
IRB	0.53	0.81	0.00	0.69	0.53
SN	0.71	0.88	0.12	0.79	0.71
Average			0.17		0.66
GoF	0.34				
<i>Low income</i>					
IBP	0.34	0.94	0.05	0.94	0.34
COM1	0.84	0.91	0.06	0.80	0.84
COM2	0.69	0.82	0.04	0.58	0.69
NRCPA	0.68	0.89	0.55	0.84	0.68

PBC	0.57	0.84	0.17	0.74	0.57
RA	0.79	0.92	0.13	0.87	0.79
IRB	0.56	0.84	0.00	0.74	0.56
SN	0.69	0.87	0.15	0.77	0.69
Average			0.14		0.64
GoF	0.30				

Note: Islamic Brand personality ‘**IBP**’, Islamic religious beliefs ‘**IRB**’, Subjective norms ‘**SN**’, Perceived behavioural control ‘**PBC**’, Relative advantages ‘**RA**’, Compatibility ‘**COME1**’, Complexity ‘**COM2**’, New religious compliant products adoption ‘**NRCPA**’.

Findings obtained from the model based on the overall dataset were compared to the findings from the income’s groups’ datasets and it was found that a number of the paths were resulting differently, as follows: H1 (Islamic religious beliefs towards IBP) was positively supported in the high income (HI) dataset with beta of 0.476 and $t = 4.113$ ($p < 0.01$), and rejected by the overall and low income (LI) datasets respectively with beta = 0.097 and $t = 1.485$ and beta = 0.081 and $t = 1.079$. H2 (Islamic religious beliefs towards new religious compliant product adoption) was significantly and positively accepted in the overall and HI groups and rejected by the LI group, and their figures were respectively as beta = 0.102 with t -test = 2.041 ($p < 0.05$), beta = 0.195 with t -test = 2.318 and beta = 0.085 with t -test = 1.438. H5 (Islamic religious beliefs towards relative advantages) was significantly supported by both groups of overall and LI respectively with values of beta = 0.264 and $t = 4.812$ and beta = 0.286 and $t = 4.948$, and rejected by the HI group with beta = 0.007 and $t = 0.037$. H6 (Islamic religious beliefs towards compatibility) was significantly supported by both groups of overall and LI respectively with values of beta = 0.214 and $t = 4.015$ and beta = 0.250 and $t = 4.101$, and rejected by the HI group with beta = 0.151 and $t = 1.029$. As for the H7 (Islamic religious beliefs towards complexity), it was supported with negative sign by both overall and LI datasets with values of beta = -0.185 with t -test = 3.728 and beta = -0.201 with t -test = 3.500 ($p < 0.01$), and rejected by the HI group with beta = -0.029 with t -test = .272.

Next H3 (IBP towards new religious compliant product adoption) supported by the overall and the LI groups’ datasets with respectively values as beta = 0.067 with t -test = 1.682 ($p < 0.10$), beta = 0.104 with t -test = 2.177 ($p < 0.05$), and rejected by the HI group with a beta = -0.032 with t -test = 0.419. H12 (subjective norms towards new religious compliant

product adoption) was also accepted by both overall and LI groups respectively as $\beta = 0.168$ and $t = 2.703$ and $\beta = 0.301$ and $t = 4.727$ and not accepted by the HI group with $\beta = 0.093$ and $t = 0.790$. H15 (perceived behavioural control towards new religious compliant product adoption) was accepted by both overall and LI groups respectively as $\beta = 0.262$ and $t = 4.619$ ($P < 0.01$) and $\beta = 0.104$ and $t = 2.177$ ($P < 0.05$) and not accepted by the HI group with $\beta = 0.160$ and $t = 1.488$. H5 (relative advantages towards new religious compliant product adoption) was accepted by both groups of overall and HI groups with respectively as $\beta = 0.194$ and $t = 3.305$ and $\beta = 0.624$ and $t = 6.171$ ($p < 0.01$), whereas the LI group rejected the same hypothesis with $\beta = 0.097$ and $t = 1.437$. H8 (compatibility towards new religious compliant product adoption) was significantly supported by the overall and LI datasets as $\beta = 0.123$ and $t = 2.114$ ($p < 0.05$) for overall data, and $\beta = 0.126$ and $t = 1.814$ ($p < 0.05$) for the LI group. The same hypothesis was rejected by the HI group with $\beta = 0.034$ and $t = 0.514$. H10 (complexity towards new religious compliant product adoption) was accepted by both overall and LI's groups respectively as $\beta = -0.165$ and $t = 3.219$ ($P < 0.01$) and $\beta = 0.194$ and $t = 3.404$ ($P < 0.05$) and not accepted by the HI group with $\beta = 0.016$ and $t = 0.174$. Lastly, H13 was significantly supported by the overall's and LI groups with values of $\beta = 0.131$ and $t = 2.334$ ($p < 0.01$) for overall data, and $\beta = 0.178$ and $t = 2.707$ ($p < 0.01$) for the LI dataset, and the same hypothesis was not supported when examining the HI dataset with $\beta = 0.065$ and $t = 0.615$.

Next, assessment of gender moderation of the influential direct links between the constructs of Islamic religious beliefs towards IBP, subjective norms, relative advantages, compatibility, and complexity on new religious compliant product adoption construct via the S-S test produced the findings that presented in Table 6.8. Therefore, the indications suggested that the significant difference among the males' and females' groups observed only in the hypothesised relationship between the independent variable 'Islamic religious beliefs' and the dependent variable 'IBP with S-S test = 2.469 ($p < 0.05$), and relationship between the independent and dependent variables of 'Islamic religious beliefs towards complexity, relative advantages towards new religious compliant product adoption and complexity towards new religious compliant product adoption' differed respectively as S-S tests' of 1.769 ($p < 0.10$), 3.764 ($p < 0.01$) and 1.909 ($p < 0.10$).

Therefore, it can be concluded that income as a moderator variable dose moderate the influential relationships between Islamic religious beliefs towards IBP, new religious compliant product adoption towards complexity, RA towards new religious compliant product adoption and complexity towards new religious compliant product adoption variables. Consequently, the hypothesise of H18 that income dose moderate the impacting relationships between new religious compliant product adoption towards IBP, subjective norms, relative advantages, compatibility, complexity, new religious compliant product adoption and perceived behavioural control, and IBP, subjective norms, perceived behavioural control, compatibility, complexity and relative advantages towards new religious compliant product adoption was partially accepted due to the observed limited moderation to the relationships from new religious compliant product adoption to IBP, Islamic religious beliefs towards complexity, relative advantages towards new religious compliant product adoption and complexity towards new religious compliant product adoption.

Table 6.6: Illustration of Path Coefficients, Hypothesis, Standard Errors, t-tests and S-S test findings for Income Moderation Testing Model.

Hypothesis/Relationship/Direction		Path/Sign/Overall	t-tests	Path/Sign HI	t-test	S.E.	Path/Sign LO	t-test	S.E.	S-S test
H1	IRB → IBP	+ 0.097	1.485	<u>0.476***</u>	<u>4.113</u>	0.12	<u>0.081</u>	<u>1.079</u>	0.11	2.469***
H11	IRB → SN	+ 0.381***	7.388	0.343***	2.920	0.11	0.386***	6.489	0.08	-0.307
H14	IRB → PBC	+ 0.167***	8.427	0.374***	3.178	0.11	0.415***	7.326	0.07	-0.315
H2	IRB → NRCPA	+ 0.102**	2.041	<u>0.195***</u>	<u>2.318</u>	0.09	<u>0.085</u>	<u>1.438</u>	<u>0.08</u>	0.917
H4	IRB → RA	+ 0.264***	4.812	<u>0.007</u>	<u>0.037</u>	0.19	<u>0.286***</u>	<u>4.948</u>	0.08	-1.329
H7	IRB → COM1	+ 0.214***	4.015	<u>0.151</u>	<u>1.029</u>	0.14	<u>0.250***</u>	<u>4.101</u>	0.08	-0.619
H9	IRB → COM2	- 0.185***	3.728	<u>0.029</u>	<u>0.272</u>	0.10	<u>-0.201***</u>	<u>3.590</u>	0.08	1.769*
H6	IBP → RA	+ 0.149***	2.758	0.263**	2.145	0.12	0.185***	3.323	0.08	0.557
H3	IBP → NRCPA	+ 0.067*	1.682	<u>-0.032</u>	<u>0.419</u>	0.08	<u>0.104**</u>	<u>2.177</u>	<u>0.06</u>	-1.360
H12	SN → NRCPA	+0.168***	2.703	0.093	0.790	0.12	0.187**	2.530	0.10	-0.588
H15	PBC → NRCPA	+ 0.262***	4.619	0.160	<u>1.488</u>	0.12	0.301***	4.727	<u>0.09</u>	-0.940
H5	RA → NRCPA	+ 0.194***	3.305	<u>0.624***</u>	<u>6.171</u>	0.10	<u>0.097</u>	<u>1.437</u>	0.09	3.764***
H8	COM1 → NRCPA	+ 0.123**	2.114	<u>0.043</u>	<u>0.514</u>	0.09	<u>0.126*</u>	<u>1.814</u>	<u>0.09</u>	-0.638
H10	COM2 → NRCPA	- 0.165***	3.219	<u>0.016</u>	<u>0.174</u>	<u>0.09</u>	<u>-0.194***</u>	<u>3.404</u>	<u>0.07</u>	1.909*
H13	SN → IBP	+ 0.131***	2.334	<u>0.065</u>	<u>0.615</u>	0.11	<u>0.178***</u>	<u>2.707</u>	<u>0.09</u>	-0.807

Notes: Significance level ***p<0.01 (t= 2.326), **p<0.05 (t= 1.96) and t= *p<0.10 (1.64). Degree of freedom (5000). Sign changes (no sign changes). Differences between the Male and Female groups are presented underlined. M 'males' group dataset' and F 'females' group dataset'. Differences are presented underlined. HI 'high income's group dataset' and LI 'low income's group dataset'. S-S (Smith-Satterthwait test). Islamic Brand personality 'IBP', Islamic religious beliefs 'IRB', Subjective norms 'SN', Perceived behavioural control 'PBC', Relative advantages 'RA', Compatibility 'COM1', Complexity 'COM2', New religious compliant products adoption 'NRCPA'.

6.4. Conclusion

This chapter aimed to outline the hypotheses test for this study and the assessment of the mediators and moderators roles. The hypotheses were indicated to be mostly supported. The mediators were found to be mostly partially mediating the underpinning paths of the conceptual model based on the obtained findings from Sobel. Finally, the MGA method identified that the moderators; age, gender and income level does not moderate all the hypothesised paths, yet they moderated some of the paths. Next, Chapter Seven will present the logical discussion of the obtained results and the degree to which these findings are matching or not matching the related literatures.

Chapter Seven: Discussion

7. Introduction

The statistical findings were presented in Chapter Five, which assessed the data gathered from the Islamic context based on the description given in Chapter Four according to the aim, objectives and questions of this research provided in Chapter One. Thus, this chapter aims to discuss the quantitative findings obtained in relation to the relevant literature. The present chapter opens with an overview of the present study's aim, objectives and questions, followed by the results in relation to the Islamic brand personality scale and its related questions. Next, findings related to the hypotheses are discussed and evaluated in accordance with the relevant literature.

7.1. Overview of the Aim, Objectives, Questions and Related Hypotheses

As presented in Chapter One, the aim of this research is

to investigate the relationship between brand personality (BP) and Islamic religious beliefs, to develop a reliable, valid and practical Islamic brand personality (IBP) scale for the Islamic context and to determine to what extent Islamic religious beliefs influence Islamic brand personality (IBP) and new product adoption (Jarvenpaa and Majchrzak, 2008).

This aim was translated into three research objectives, as follows: **first**, to develop an Islamic brand personality (IBP) measurement scale, the dimensions of which are appropriate to the Saudi Arabian context, and to explore how Islamic religious beliefs influence IBP measurement. **Second**, to determine the degree to which IBP, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new product adoption as dependent variables are influenced by the independent variable of Islamic religious beliefs. **Third**, to determine the degree to which Islamic religious beliefs, IBP, subjective norms, perceived behavioural control, relative advantages, compatibility and complexity as dependent and independent variables influence the dependent variable of new product adoption. In order to accomplish these objectives, they were broken down into a number of questions whose answers which would meet the objectives. These questions were as follows:

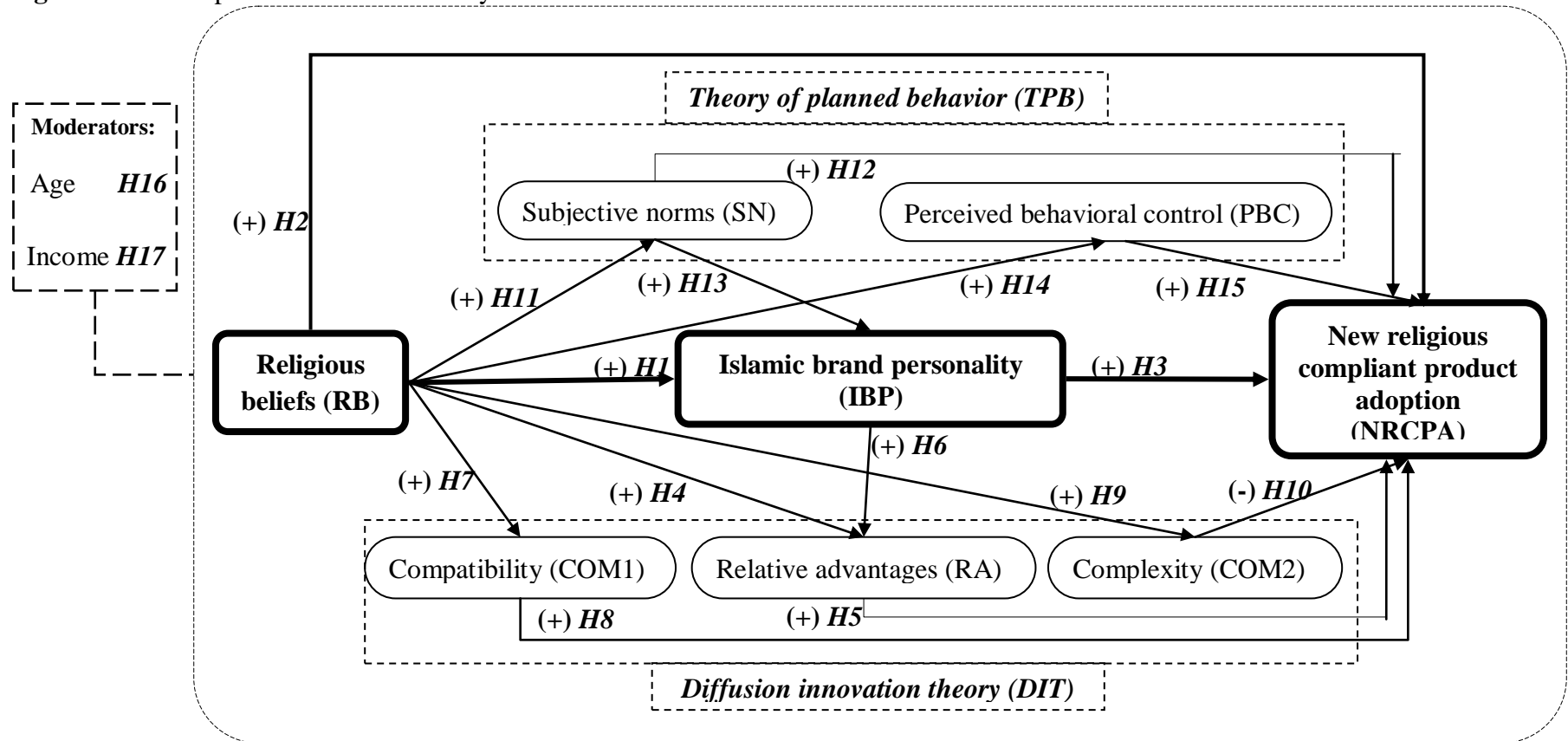
Q1: What are the most commonly used traits to describe a personality in an Islamic consumer market? Accordingly, what is the most appropriate brand personality measurement scale that can be used in such a market? To what extent are the dimensions of this brand personality measurement scale influenced by Islamic religious beliefs (IRB)?

Q2: What kind of direct and indirect (mediated) relationships exist between Islamic religious beliefs (IRB) and the intention to adopt new religion-compliant products?

Q3: Do age, gender and income moderate the relationships between Islamic religious beliefs (IRB) and the antecedents of the intention to adopt new religion-compliant products?

Lastly, the second and third questions were translated into hypotheses developed from the literature, as presented in Chapter Three. The proposed hypotheses (H1-H15) represent 15 paths among the constructs of the conceptual framework, six hypotheses (H3a, H5a, H8a, H10a, H12a and H15a) representing the mediation role of the related variables, and three (H16-H18) representing the moderating variables as shown in Figure 7.1. The hypotheses were grouped in relation to the research questions and are presented in the following discussion.

Figure 7.1: Conceptual Model of the Study.



Note: Mediators between RB and NRCPA: SN (H12a), IBP (H3a), RA (H5a), COM1 (H8a), COM2 (H10a) and PBC (H15a). Direct Hypotheses →, Moderators - - - - .

7.2. The First Research Question

As represented in the foregoing overview of the aim, objectives and questions of the present study, the first question was concerned with the personality traits used in the Islamic context, whether they differ from previous BP scales, and what would be the most appropriate BP scale for the Islamic context based on the developed and finalised BP traits. This question, as discussed in Chapter One, was generated based on the following: first, since human personality traits are gained from individuals' behaviour, attitudes and beliefs (Plummer, 1985) and BP scales are developed by adopting the traits of human personality, it was anticipated that beliefs/Islamic religious beliefs would influence the BP scale. Second, a number of prior studies advise that the influence of Islamic religious beliefs on brand concepts should be explored (e.g. Alserhan, 2010; Essoo, 2004; Mittelstaedt, 2002, Muhamad, 2010; Ng and Houston, 2006; Wilson, 2011). Finally, as presented in Table 1.1, no previous research has explored the impact of Islamic religious beliefs on BP. All prior studies were conducted in non-Islamic contexts and can be categorised as follows: first, studies concerned with examining the generalisability of Aaker's (1997) BP scale (e.g. Aaker et al., 2001; Bosnjak et al., 2007; Ferrandi et al., 2000; Rojas-Méndez et al., 2004; Smith et al., 2006; Yoon, 2004) and consequently developing context-specific BP scales; second, studies that focused on employing methods and methodology different from Aaker's (1997), such as those by Arora and Stoner (2009) and Geuens et al. (2009).

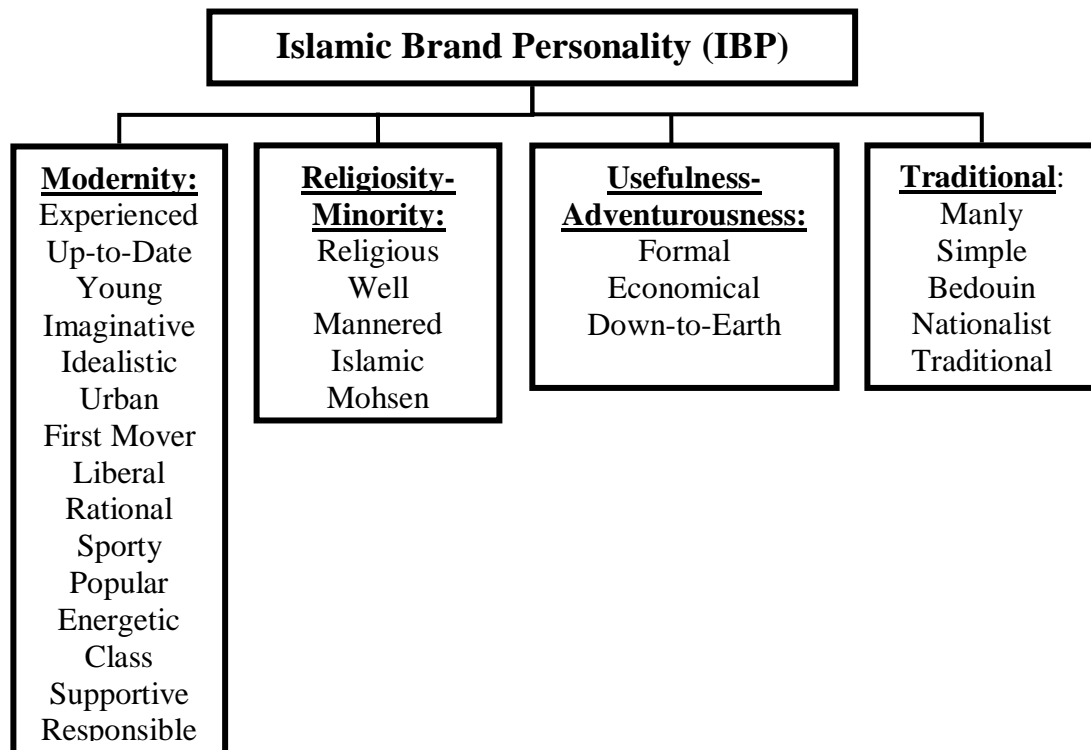
7.2.1. Islamic Brand Personality

The findings were obtained based on the analysis of 287 participants' opinions. Guided by the widely-employed scale development process of Churchill (1979), DeVellis (2011) and Netemeyer et al. (2003), as was done by some previous studies that developed measures in branding fields (e.g. Coleman, 2011; Melewar, 2001), the author generated a pool of 74 traits in the initial stage, as illustrated in Table 4.2. In the next stage, the item pool was reduced to 64 traits, which were regarded by the focus groups to be contextually appropriate and commonly used to describe a personality (see Table 4.3). By employing the extraction method in principal component analysis (PCA) and the rotation method of Promax with Kaiser normalisation, cross loadings and factor loadings ≥ 0.50 , the

confirmatory factor analysis (CFA) performed via SPSS 19 yielded a scale of four dimensions with 28 sub-items.

Next, the IBP scale developed was confirmed and validated via performing CFA and the following figures were obtained: **Modernity (M) dimension**=> average variance extracted (AVE) = 0.56 and composite reliability (CR) = 0.95; **Religiosity-Minority (HUDEA and PAPUC) dimension**=> AVE = 0.62 and CR = 0.89; **Usefulness-Adventurousness (UA) dimension**=> AVE = 0.72 and CR = 0.89; and **Traditional (TRAD) dimension**=> AVE = 0.73 and CR = 0.93. Thus, this research can claim that a reliable and valid IBP scale for the Islamic context has been obtained. Each of the four dimensions' names was chosen to reflect all the items under the factor or at least to reflect most of the items (Churchill, 1979). The four factors' items are illustrated in Figure 7.2.

Figure 7.2: Proposed IBP Scale with 28 Personality's traits for the Islamic Context.



Now based on the illustrated IBP scale related findings above, the most contextually appropriate and commonly used traits which do not conflict with Islamic religious beliefs to

describe a personality and, accordingly, the appropriate IBP scale have both been determined, and shown to be reliable and valid to identify a brand personality in the Islamic context.

7.2.2. Islamic Brand Personality and Islamic Religious Beliefs

Another part of the first question was designed based on the wide argument in the literature regarding the relationship of religiosity to human personality and cultural differences. Some scholars argue that people with a religious personality should strongly reflect the factor of openness to experience (e.g. McCrae, 1999; Taylor and MacDonald, 1999). The conceptual relationship between Islamic religious beliefs (IRB) and personality is supported by MacDonald (2000: p.192), who concludes that the “results are impressive and indicate that there is a conceptual relatedness between spirituality and the Five Factor Model”. In the field of marketing it has been demonstrated that religiosity/Islamic religious beliefs influence people’s consumption, product adoption and the type of product characteristics and advertisements to be favoured or disfavoured (e.g. Alam et al., 2011; Khraim, 2010; Koku, 2011; Lindridge, 2005; McDaniel and Burnett, 1990; Mokhlis, 2009b; Rindfleisch et al., 2010; Shabbir, 2010; Sood and Nasu, 1995). It is worth mentioning that *IBP measurement is a scale which is able to measure the BP of a product in an Islamic context.*

The findings of the present research have clearly indicated that the variable of Islamic religious beliefs has an impact on the IBP scale, at least in the context of this research. The degree to which Islamic religious beliefs influence the IBP scale was observed through the traits that were generated by this study by focus groups up to the second stage of culling (Churchill, 1979; Clark and Watson, 1995; d’Astous and Lévesque, 2003; DeVellis, 2011; Field, 2009; Hair et al., 2006), and the four dimensions subsequently developed. The developed IBP scale contains a whole dimension which has been typified based on traits that reflect or represent Islamic religious beliefs/values or characteristics, which is named in the proposed IBP scale as “Religiosity-Minority”. The traits that fall within the “Religiosity-Minority” dimension are as presented earlier: first, “Religious”, which represents an individual who strongly adopts religious teachings and behaviour in his/her daily life, to the extent that he/she favours or disfavours needs such as products and their

linked personalities according to religious teachings. Second, “Well-mannered”: this adjective represents the personality of an individual/brand that performs behaviours that are regarded as gracious, a trait that was found to be strongly and commonly used in the context of this study. Third, “Islamic”: this adjective is clearly religiously linked as a result of the strongly impacting role that the contextually-relevant religion, Islam, plays in shaping the desired personality’s features. Fourth, “Decent”, which is a confirmation of normally accepted moral behaviour and simply the opposite of shameless. Decent is one of the most appreciated characteristics of a personality in Islam because, according to Islamic teachings, an individual Muslim should always behave in an acceptable way according to righteousness. The last trait is “*Mohsen*”, which has no meaning except in the Islamic context. *Mohsen* stands for the personality characteristic of living an entire way of life and its aspects strongly and passionately according to the teachings of Allah (Ille et al., 2011)/Islam in the hope of completely satisfying Allah’s requirements of his followers. Therefore, a personality of a brand that falls within this dimension would be regarded as Religious and this illustrates the degree to which the contextual IBP scale is influenced by RB/religiosity.

7.2.3. Islamic Brand Personality and Culture

With regard to the degree to which the developed IBP scale is influenced by culture, as argued previously by a number of studies in the literature regarding brand personality (e.g. Aaker et al., 2001; Bosnjak et al., 2007; Ferrandi et al., 2000; Rojas-Méndez et al., 2004; Smith et al., 2006; Yoon, 2004), there is no universal BP scale for all contexts with different cultures such as the Islamic context. The four dimensions of the proposed IBP scale theoretically and empirically answer the first question of this study and illustrate that every context with a unique culture actually requires a contextually-specific IBP scale, due to the difference in the contextually-used personality traits.

The proposed IBP scale also includes a dimension called “Traditional”, which was formed from five personality traits (Manly, Simple, Bedouin, Nationalistic and Traditional) that were highly rated by the 287 participants. As previously discussed in section 2.4.3.5., culture strongly impacts the meanings of traits and the degree to which some traits are related (e.g. Caprara et al., 2001; De Mooij, 2010; Phau and Lau, 2000; Roth, 1995). This

was empirically demonstrated by this research when the traits of the Traditional dimension were obtained; they all reflected adjectives applied to an actual or desired personality in the examined contextual culture that were exclusively generated by the present study and were agreed upon by the present study's sample.

The influential role of culture was obvious in this dimension, since the traits within it reflect the features of people who live in a desert region or are still somehow linked to the desert life. Thus, all the traits adopted from previous studies based on the culling approach of generating traits were correlated differently in the present study; therefore, they were typified under a completely different dimension. The traits that correlated differently from prior studies are Imaginative, Experienced, Up-to-date and Young (Aaker, 1997). These traits were sorted under three different dimensions in Aaker's work: Excitement, Competence and Sophistication; whereas in this study they were all interpreted under one single dimension, "Modernity". In addition, "Simple" which adopted from Geuens et al. (2009) was categorised under the dimension of Simplicity, while in the current study it was interpreted under the dimension of Traditional.

To summarise, the most commonly contextually-used traits were obtained in this research and an IBP scale of four dimensions developed and determined to be reliable and valid. Some of the gaps within the literature of BP in different unique contexts (Malär et al., 2011; Robie et al., 2005) were partially filled by the findings of this research.

7.3. The Second Research Question

As presented previously, the second question asked in this research was concerned with investigating direct and indirect (mediated) relationships between the independent latent variable of Islamic religious beliefs and the following dependent variables: BP, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity, and new religion-compliant product adoption. Consequently, hypotheses were developed in order to achieve the most accurate possible answer to this question according to the examined dataset. These hypotheses were designed to be direct independent-to-dependent and dependent-to-dependent links and indirect "mediators". These will be discussed next in depth and in accordance with the findings obtained.

7.3.1. Independent-to-dependent Variables

Seven relationships of independent variables to dependent variables were hypothesised in relation to the second research question. These hypothesised relationships were developed according to the existing literature related to previously underinvestigated variables. The outcomes regarding these relationships are shown in Table 7.1.

Table 7.1: Illustration of the independent-to-dependent variable hypothesis results.

Hypothesis	Paths/ β	Decision
H1: Islamic religious beliefs and Islamic brand personality are positively related.	IRB === (+) ===> BP (+ 0.091)	Not supported
H2: Islamic religious beliefs and new religious compliant product adoption are positively related.	IRB === (+) ===> NRCPA (+ 0.101**)	Supported
H4: Islamic religious beliefs and relative advantage are positively related.	IRB === (+) ===> RA (+ 0.260***)	Supported
H7: Islamic religious beliefs and compatibility are positively related.	IRB === (+) ===> COM1 (+ 0.214***)	Supported
H9: Islamic religious beliefs and complexity are positively related.	IRB === (+) ===> COM2 (- 0.185***)	Supported
H11: Islamic religious beliefs and subjective norm are positive related.	IRB === (+) ===> SN (+ 0.381***)	Supported
H14: There is a positive relationship between Islamic religious beliefs and perceived behaviour control.	IRB === (+) ===> PBC (+ 0.409***)	Supported

Note: *H* (hypothesis numbering code), Islamic religious beliefs (IRB), subjective norms (SN), perceived behavioural control (PBC), relative advantages (RA), compatibility (COM1), complexity (COM2), Islamic brand personality (IBP), new religious compliant product adoption (NRCPA), ===> direction of paths, (0.0) Betas values. $p < 0.05$ **, $p < 0.10$ ***.

As discussed previously in Chapter Five, the above hypotheses were assessed via the PLS-SEM according to the highlighted PLS-SEM selection logic and based on the complete dataset. As illustrated in Chapter Six, the path values of the coefficients and the t-test of each relationship were examined prior to reaching a decision in the forms of “supported” or “not supported”.

In regard to **H1**, it was suggested that Islamic religious beliefs influence consumers’ behaviour, including their adopting or trying a new product (Delener, 1994). Indeed, it is widely accepted that Islamic religious beliefs/religion/religiosity strongly influence

different social aspects of people's lives. Islamic religious beliefs have been found to shape the favourableness and unfavourableness of products in customers' perception and, in accordance with their Islamic religious beliefs, they decide to adopt or try products or services that do not contradict their religion's teachings (Abou-Youssef et al., 2011; Alam and Sayuti, 2011; Alam et al., 2011; Bonne et al., 2007; Delener, 1994; Mokhlis, 2009b; Muhamad and Mizerski, 2010; Haque et al., 2011; Lada et al., 2009; Shabbir, 2010; Yun et al., 2008). According to the literature, brand personality is strongly linked to the customer-based perspective of a brand (e.g. Aaker, 1997; Arora and Stoner, 2009; Geuens et al., 2009). Thus, it was hypothesised by this study that Islamic religious beliefs/religion/religiosity such as those seen in Islam would positively influence IBP and its perception by consumers. However, this study's findings, as presented in Table 6.1, revealed that the proposed hypothesised positive influential relationship between Islamic religious beliefs and IBP, denoted as Islamic religious beliefs towards IBP, was not statistically significant; thus, it was not supported. This means there was no evidence of a positive significant influence of Islamic religious beliefs on IBP as denoted in this study's dataset. This conclusion based on the empirical findings of this study was not consistent with the argument developed based on the existing literature.

However, although the empirical findings of this study do not correspond to the literature, such an outcome can be explained and better understood if it is acknowledged that the consumers from the examined context might not all be fully aware of the messages and meanings of characteristics used through a brand's social media to deliver a specific IBP. In particular, such a critical view or perception might not be held by consumers of BA education level or lower and in fields that are unrelated to marketing or branding management. The influential role of education level on preferring a brand or relatively an IBP was shown by Jamal and Goode (2001), who concluded that consumers with a high education level display more brand preference.

In regard to **H11** and **H14**, Regnerus and Elder (2003) argue that religious consumers tend to behave in accordance with a society or group that follows the same beliefs, and they determine that these consumers' behaviour and lifestyle are influenced by similar religious groups and social relationships. According to Ho et al. (2008), religious consumers are encouraged to behave in a way that is acceptable to or preferred by important referent

groups or individuals. The findings of the present study were consistent with the literature in revealing that the hypothesised influence of Islamic religious beliefs on subjective norms (H11) was statistically significant at $p < 0.01$. Consequently, the hypothesised influence of Islamic religious beliefs on subjective norms was supported based on the complete dataset. Similarly, the hypothesised positive influential relationship of Islamic religious beliefs on perceived behavioural control (H14) was determined to be supported at a significance level of $p < 0.01$. This can be interpreted to mean that although it was not empirically found that Islamic religious beliefs have an impact on IBP, consumers in the examined context will adopt or prefer brands with personalities that are socially and commonly accepted by the community and its values/Islamic religious beliefs. Thus, Muslims are more likely to not prefer or hold a positive perception of a BP that reflects liberal and non-religious personalities, a view supported by some previous studies (e.g. Alam et al., 2011; Alam and Sayuti, 2011; Arham, 2010; Essoo and Dibb, 2004; Lada et al., 2009; Sood and Nasu, 1995; Wilson and Liu, 2011).

In regard to **H2**, according to consumer behaviour and Islamic branding literatures, Islamic religious beliefs evidently and directly influence consumers' favouring or disfavouring of consumption and products. Moreover, the literature supports the proposition that Islamic religious beliefs also have an impact on consumers' emotions towards consumption and determine prohibited and non-prohibited items and services, which influences customers' purchasing, consuming and adopting decisions (e.g. Shabbir, 2010; Jamal, 2003). According to Yun et al. (2008), people consider buying new products if these items do not violate or contradict their religious principles. For instance, wine has a symbolic role in some religions, whereas in Islam wine is prohibited, and while Judaism and Islam forbid the consumption of pork, it is not forbidden in Christianity. The empirical findings of the present study related to a hypothesised positive influential link between Islamic religious beliefs and new religion-compliant product adoption (H2), revealing it to be significant with $p < 0.05$. In other words, the more religious the consumer, the more the consumer will adopt or favour/disfavour a new product in accordance with his/her religion's teachings.

Lastly, in regard to **H4**, **H7** and **H9**, some studies were reported in Chapter Three that concluded that Islamic religious beliefs are closely linked to new innovation adoption in the field of pure marketing management. However, attention was drawn to a large gap in the

knowledge regarding this area claimed by the same scholars, such as Azam et al. (2011), Gerrard and Cunningham (2003), Kalliny and Hausman (2007) and Shabbir (2010). More specifically, Shabbir (2010) recommends that in markets with religiously-minded consumers, new innovations/products and their promotional campaigns should be designed according to the targeted consumers' religious teachings and values. As explained previously in section 2.9 of this study, relative advantage is perceived in conditions of consumers' economic benefit and desired social status satisfaction. Next, compatibility is perceived to be the consistent matching of the demands and values of targeted consumers. Thus Rogers (1995) determines that both relative advantage and compatibility are positively related to the decision to adopt a new innovation such as new religion-compliant product adoption based on its nature. In contrast, complexity is determined to reflect the degree to which a certain innovation/new product is seen as not matching the needs and values of potential consumers (Gerrard and Cunningham, 2003). Thus, complexity was hypothesised to be negatively related to new religion-compliant product adoption.

The findings obtained in this study relatively agree with the literature. The hypothesised positive influential relationship between Islamic religious beliefs and relative advantages (H4) was accepted due to the observed significant and positive t-test at $p < 0.01$, and the hypothesised positive influential relationship between Islamic religious beliefs and compatibility (H7) was accepted with a positively significant level of $p < 0.01$. The hypothesis that Islamic religious beliefs have a positive impact on complexity (H9) was again statistically significant at $p < 0.001$ but negatively which is not as hypothesised. In other words, religious consumers are more likely to observe relative advantages and better compatibility with their needs by new religion-compliant product adoption, and the more the new religion-compliant product adoption matches their religious values and teachings, the more strongly they are emotionally linked and loyal to the brand. In relation to complexity, surprisingly, according to this study's findings, the difficulty of using a new product does not cause religious Muslim consumers to adopt or favour that product less.

7.3.2. Independent-to-dependent Variables, Direct and Mediated Paths

This section of the discussion concerns the hypothesised relationships between the dependent variables and their roles in mediating the influence of Islamic religious beliefs

on new religion- compliant product adoption, as illustrated in the conceptual model of the present study. These hypotheses were assessed via PLS 2.0 M3 and the Sobel test. There are eight hypotheses in total, as presented in Table 7.2.

Table 7.2: Illustration of the dependent-to-dependent variables' hypotheses findings.

Hypothesis	Paths/ β	Decision
H13: Subjective norms and Islamic brand personality are positively related.	SN == (+) ==> IBP (+) 0.155***	Supported
H6: Islamic Brand personality and relative advantage are positively related.	IBP == (+) ==> RA (+) 0.171***	Supported
H3a: Islamic Brand personality mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == IBP == (+) ==> NRCPA (+) 0.086**	Supported
H12a: Subjective norms mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == SN == (+) ==> NRCPA (+) 0.166**	Supported
H15a: Perceived behavioural mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == PBC == (+) ==> NRCPA (+) 0.259***	Supported
H5a: Relative advantage mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == RA == (+) ==> NRCPA (+) 0.190***	Supported
H8a: Compatibility positively mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == COM1 == (+)==> NRCPA (+) 0.123*	Supported
H14: Complexity negatively mediates the indirect relationship between Islamic religious beliefs and new religious compliant product adoption.	IRB == COM2 == (-)==> NRCPA (-) 0.169***	Supported

Note: *H* (hypothesis numbering code), Islamic religious beliefs (**IRB**), subjective norms (**SN**), perceived behavioural control (**PBC**), relative advantages (**RA**), compatibility (**COM1**), complexity (**COM2**), Islamic brand personality (**IBP**), new religious compliant product adoption (**NRCPA**), ==> direction of paths, (0.0) Betas' values. $p < 0.05$ **, $p < 0.10$ ***. Please note that the decision was taking in regards with the β values of the paths from the mediators (antecedents of **NRCPA**), which leaves the β of the paths from **RB** to the mediators and the **NRCPA** out of decision.

The proposed influential relationship between subjective norms and brand personality, denoted as subjective norms towards BP, was developed in accordance with the argument presented by Reed (2004) and Thorbjørnsen et al. (2007), who suggest that subjective norms have a positive impact on the intention to behave in a specific way, which is mediated or translated/performed by adopting/reflecting a socially acceptable identity expressiveness/personality. In the present case, it was assumed that identity expressiveness

acceptable to society can be performed by adopting a new product with an IBP. Such an interpretation is further supported by the findings of some previous studies related to BP and consumer personality that consumers tend to use brands to reflect their own personality (e.g. Fennis and Pruyn, 2007; Fiske and SL, 1990; Sengupta et al., 1999). Fennis and Pruyn (2007: p.634) conclude that “a transfer effect is observed from a salient brand personality trait to perceptions of the personality of the owner of the brand. More specifically, all else being equal, someone wearing a competent brand is perceived to be more competent than someone wearing an incompetent brand”. Thus, since subjective norms have been confirmed to have an impact on consumers’ personalities, the same impact is possibly transferred to the brand personality selection as well. This study’s findings appear to be consistent with the related literature cited above and in the second chapter as well. In statistical terms, this hypothesised positive influential relationship between subjective norms and IBP was found to be significant in the present study’s context, with a p-value < 0.01 . This means that consumers view the opinions of their referents as an important factor when planning to adopt or favour a brand or product.

As expected, the hypothesis of a positive influential relationship directed from IBP to relative advantages was formed based on the fact that personality was one of the components of relative advantages presented in the diffusion of innovations theory (Rogers, 1995), and since relative advantage as a variable was perceived as the extent to which an innovation/product/BP is perceived to match consistently the demands and values of potential consumers (Gerrard and Cunningham, 2003; Rogers, 1995). The outcome of this research has significantly supported the hypothesis that IBP impacts relative advantages positively, as the analysis yielded a statistically significant t-test with $p < 0.01$. Consequently, this study’s results are consistent with the literature. Thus, it can be determined that a brand with an obvious advantage and the potential to satisfy needs which can be perceived from the underlying brand or product personality is more likely to be favoured and adopted.

The relationship proposed in **H3a** yielded a Sobel test value (z) of 1.95 with a two-tailed probability of 0.05. Thus, based on the z-value of the IBP, the IBP does not mediate the influence of Islamic religious beliefs upon new religion-compliant product adoption because it yielded $z < 1.96$ with a two-tailed probability > 0.05 (as presented in Figures 6.2

and 6.3). This finding is highly valuable for the field of knowledge within which this study falls, because it is the first to propose this kind of mediation in this particular relationship theoretically and the first to investigate such mediation empirically.

The other part of hypothesis **H3**, whereby IBP is theoretically assumed to have a positive impact on new religion-compliant product adoption, was statistically supported based on the context of this study, with a significance level of $p < 0.05$. Related literature suggests that Islamic religious beliefs are one of the main elements that shape or guide consumers' consumption/adoption/purchasing behaviour (e.g. Ahmad et al., 2011; Alam et al., 2011; Alserhan, 2010b; Essoo and Dibb, 2004; Lada et al., 2009; Mokhlis, 2009a; Sood and Nasu, 1995; Wilson and Liu, 2011). Other studies have found that BP is a very important construct in the process of adopting/purchasing/favouring a brand among others if the personality of the brand under consideration does not contradict the consumer's needs/values and desired personality, which are more likely to be in accordance with the consumer's Islamic religious beliefs (e.g. Bosnjak et al., 2007; Farhat and Khan, 2011; Francis, 1997; Haugtvedt et al., 1992; Horton, 1979; McCrae, 1999; Taylor and MacDonald, 1999; Vassilis, 2002). Therefore, it can be stated that the finding of **H3** is partially consistent with the literature. More specifically, the mediation of IBP between Islamic religious beliefs and new religion-compliant product adoption (**H3a**) was not supported but the positive influence of IBP on new religion-compliant product adoption was supported.

In relation to hypothesis **H12**, subjective norms were found in some previous studies to influence consumers' intentions to behave in a certain way, such as adopting a specific brand or product or favouring one and not another (e.g. Ajzen, 2002; Alam and Sayuti, 2011; Lada et al., 2009; Liao et al., 2007; Lim and Dubinsky, 2005). In addition, according to the widely-recognised TPB, the same studies and many others have regarded subjective norms as one of the constructs that mediate the influential relationship between Islamic religious beliefs and behavioural intention in relation to, as in this study, new religion-compliant product adoption (e.g. Alam and Sayuti, 2011; Hansen, 2008; Nur Haslizatul Liza, 2011). The present study is consistent with the literature in yielding a statistically

significant t-test in regard to the influential link from subjective norms to new religion-compliant product adoption with $p < 0.01$. Further, **H12a** was predicted based on the literature in relation to subjective norms as a mediator, and in this study context it was confirmed that subjective norms mediate the influence from Islamic religious beliefs to new religion-compliant product adoption positively with $z > 0.96$ ($p < 0.05$), which means that the stronger the influence of Islamic religious beliefs on the subjective norms in a society, the more likely the consumers are to select carefully which brand to favour in order to avoid contradiction with Islamic religious beliefs and the more likely they are to purchase new religion-compliant products. However, the mediation of subjective norms, although confirmed, was found to be a partial mediation, as shown in Figures 6.4 and 6.5. Thus, when subjective norms are controlled, the influences of Islamic religious beliefs on new religion-compliant product adoption can only be predicted partially, because there is also a direct influence from Islamic religious beliefs to new religion-compliant product adoption.

H15 relates to the influence of perceived behavioural control on new religion-compliant product adoption and **H15a** to perceived behavioural control mediating the relationship between Islamic religious beliefs and new religion-compliant product adoption. Similarly to the subjective norms construct, the related literature suggests that perceived behavioural control mediates the influence of Islamic religious beliefs on behaviour intention/new religion-compliant product adoption and has a positive influence on new product adoption as well. According to the present study, the perceived behavioural control construct was found to have a positive influence on new religion-compliant product adoption and also partially to mediate the relationship between Islamic religious beliefs and new religion-compliant product adoption, with a z-value of 6.237 at $p < 0.05$. This means that Islamic religious beliefs directly influence new religion-compliant product adoption in the presence of perceived behavioural control, yet perceived behavioural control can still explain part of the impact of Islamic religious beliefs on new religion-compliant product adoption. In other words, consumers who care strongly about their important referents' characters will only favour brands and products that match their referents' Islamic religious beliefs and values and what they regard as acceptable behaviour. This makes it vital for new religion-compliant product adoption to reflect the acceptable features and values that are set by religious societies.

Finally, **H5** and **H5a**, **H8** and **H8a**, and **H14** and **H10a** are concerned with the effects of relative advantages, compatibility and complexity on new religion-compliant product adoption and the mediating effect they might possibly have on the relationship between Islamic religious beliefs and new religion-compliant product adoption. These three constructs were established in the literature to enable researchers to predict consumers' behaviour in relation to their adoption of a new product or innovation (e.g. Chou et al., 2012; López-Nicolás et al., 2008; Mazlan, 2005; Moore and Benbasat, 1996; Mustonen-Ollila and Lyytinen, 2003). In relation to relative advantages, the greater the relative advantage expected to be received when adopting a new product, the more likely it is that the new product will be adopted (Cheng et al., 2004; Chou et al., 2012; Taylor and Todd, 1995a). The compatibility of an innovation is perceived as being consistent with the existing values, demands or needs, inner beliefs and past experiences of potential consumers (Moore and Benbasat, 1991, 1996). Therefore, it is expected that the greater the perceived compatibility of a new religion-compliant product, the higher the likelihood that consumers will adopt the product (Chou et al., 2012; Hoffmann, 2011). Lastly, complexity refers to the extent to which a new product is perceived to be relatively difficult to understand, use, learn or benefit from (Rogers, 1995). Therefore, complexity was predicted in the literature to have a negative impact on innovation adoption/new religion-compliant product adoption (BĂRBUȚĂ-MIȘU and STROE, 2011; Chou et al., 2012; Herrero Crespo and Rodríguez del Bosque, 2008; Seligman, 2006).

Empirically, in relation to **H5a**, **H8a** and **H10a**, this research found that the three constructs partially mediate the influential relationship between Islamic religious beliefs and new religion-compliant product adoption, with z-values of 4.706, 3.768 and 3.286, respectively, which revealed a $p > 1.96$ with $p < 0.05$. Therefore, consumers who are strongly concerned with whether a new religion-compliant product does or does not match their needs and is easy to benefit from or not, would favour brands and products that offer such features but also match their Islamic religious beliefs and values and what they regard as acceptable behaviour. This makes it vital for new religion-compliant product adoption to reflect the acceptable features and values that are set by religious societies. On the other hand, in relation to **H5**, **H8** and **H10**, these three constructs were found to have a significant influence on new religion-compliant product adoption with $p < 0.01$ for relative advantage, $p < 0.05$ for compatibility, and $p < 0.01$ for complexity, but the influence was negative.

This means that the more a new religion-compliant product is perceived to match consumers' needs and be easy to benefit from, the more the new religion-compliant product will be favoured and adopted. However, in relation to compatibility, the more new religion-compliant product adoption is perceived to be difficult to use or not match the consumer's needs, Islamic religious beliefs and values, the more likely it is that the new religion-compliant product will be disfavoured and, consequently, not be adopted.

7.4. The Third Research Question

The last question of the present study was designed to reveal possible differences between segments of participants (consumers) towards the importance of Islamic religious beliefs, subjective norms, IBP, perceived behavioural control, relative advantages, compatibility and complexity constructs in shaping their new religion-compliant product adoption (NRCPA) according to demographic characteristics of age and income. The related hypotheses are shown in Table 7.3. As illustrated and explained in the fifth chapter of this study (Findings), the multiple-group analysis (MGA) approach was employed to assess the three moderators' influence by running the model for each group's dataset separately. In so doing, the approach practised by Morris et al. (2005) and Abbasi (2011) was used. Consequently, age was split into a younger group with ages ≤ 35 and an older group with ages ≥ 36 ; income was split in a similar way to age with participants with an income level \leq SAR (Saudi rials) 11,000 (GBP 1,912.24) referred to as the low-income group and participants with an income level \geq SAR 12,000 (GBP 2,086.08) designated the high-income group. The differences were assessed in accordance with the results of the Smith-Satterthwaite (S-S) test. It is worth mentioning that all the hypothesised relationships were investigated via MGA in an exploratory way, which means that only paths that significantly differed among the groups were explored.

Table 7.3: Illustration of the moderator related hypotheses

Hypothesis	Moderated Paths/S-S
H16: Age will positively moderate the relationship between Islamic religious beliefs and subjective norms, IBP, perceived behavioural control, relative advantage, compatibility, complexity and new religious compliant product adoption.	Islamic religious beliefs \rightarrow perceived behavioural control (2.220**)
H17: Income will positively moderate the relationship between Islamic religious beliefs and	Islamic religious beliefs \rightarrow BP (2.469***) Islamic religious beliefs \rightarrow complexity

subjective norms, IBP, perceived behavioural control, relative advantage, compatibility, complexity and new religious compliant product adoption.	(1.769*)
	relative advantages → new religious compliant product adoption
	(3.764***)
	complexity → new religious compliant product adoption
	(1.909*)

Note: Smith-Satterthwait test (S-S), *H* (hypothesis numbering code), Islamic brand personality (IBP), direction of paths (→), p<0.01, p< 0.05 **, p<0.10 ***.

7.4.1. Age

Age was the first demographic characteristic to be assessed in this study in order to determine whether there were differences in the hypothesised relationships between the independent variable, Islamic religious beliefs, and each of the following dependent variables: subjective norms, perceived behavioural control, IBP, relative advantages, compatibility, complexity, and new religion-compliant product adoption. The hypothesis related to this moderator is illustrated in Table 7.3.

As presented in section 6.4.1, the younger group was typified based on 217 participants and the older group contained 70 participants. Consequently, the findings of this study in relation to the older unit should be viewed with care due to the low number of participants forming the group (Abbasi, 2011). The R^2 values for the age groups were different in relation to the new religion-compliant product adoption variable; the older group was found to be more sensitive and careful when adopting new products than the younger group (i.e. $R^2 = 0.69$ or 69% and $R^2 = 0.54$ or 54%, respectively). This result contradicts the proposition of Shabbir (2010) that Muslims might show less care towards favouring a new religion-compliant product/new product adoption as they aged due to improvement in their income level.

The most significant relationship for both the older and younger groups was for Islamic religious beliefs towards perceived behavioural control. Consequently, it can be concluded that both groups' datasets indicate the critical significance of the effects of Islamic religious beliefs on establishing positive and acceptable perceived behavioural control or behaviour that is likely to be regarded as acceptable by society and important people. The least significant relationships for the older and younger groups were for subjective norms

towards new religion-compliant product adoption and IBP towards relative advantages, respectively. Therefore, although subjective norms are found to have an impact on new religion-compliant product adoption, they are nevertheless not seen as important by older consumers. This could indicate that older people perform their usual behaviour with no regard to how other people would judge them as long as they are convinced that they are doing what is right in their own view.

Next, brand personality was not strongly important to younger people when evaluating the perceived advantages of purchasing a certain brand, which is not consistent with some of the literature (e.g. Fam et al., 2004; Francis, 1997; Koku, 2011; Muhamad and Mizerski, 2010). This can be explained by younger consumers within this research context probably not being familiar with the meaning of brand personality, especially with the existence of a number of brands with which care is not taken in selecting and reflecting their personality through advertisements because they mainly focus on short-term profit rather than a long-lasting brand name. Moreover, the advertisements used for the examined context by some brands, such as P&G and Mercedes-Benz, are designed for Western or East Asian markets, and do not reflect a proper brand personality in the target market. In addition, many younger consumers in the examined context are not very knowledgeable about branding activities.

In regard to the moderation role of age, whether or not age moderates a relationship was tested relative to the findings of the S-S test of differences. Table 6.4 illustrates that age only moderates the relationship of Islamic religious beliefs towards perceived behavioural control. Islamic religious beliefs towards perceived behavioural control was the most significant and positive relationship in the overall dataset (the dataset that includes all ages, genders and income levels) as discussed previously. Accordingly, Islamic religious beliefs positively affect perceived behavioural control across datasets and are very important when consumers from the examined context seek to impress their opinion influencers and people they regard as important to them. This finding is consistent with those obtained previously by Alam and Sayuti (2011), Delener (1994), Ho et al. (2008) and Regnerus and Elder (2003). Relative to this, **H16** was partially supported, as although age moderates the relationship between Islamic religious beliefs towards perceived behavioural control, it does not moderate the relationships between Islamic religious beliefs towards subjective

norms, Islamic religious beliefs towards IBP, Islamic religious beliefs towards relative advantages, Islamic religious beliefs towards compatibility, Islamic religious beliefs towards complexity, IBP towards relative advantages, Islamic religious beliefs towards new religion-compliant product adoption, IBP towards new religion-compliant product adoption, subjective norms towards new religion-compliant product adoption, relative advantages towards new religion-compliant product adoption, perceived behavioural control towards new religion-compliant product adoption, compatibility towards new religion-compliant product adoption, complexity towards new religion-compliant product adoption, and subjective norms towards IBP.

7.4.2. Income

The second demographic characteristic tested as a moderator in this study is income and it was examined according to the related hypothesis illustrated in Table 7.3.

As observed and presented in section 6.3.3, the HI group was represented by 62 participants and the LI group by 125. The R^2 values for the HI and LI groups differed in relation to new religion-compliant product adoption, complexity, BP and perceived behavioural control. For new religion-compliant product adoption, complexity and IBP, the HI group had the highest R^2 s, which were $R^2 = 0.73$ (73%) and $R^2 = 0.25$ (25%), respectively. This implies that those in HI are more sensitive and careful when adopting new products and more cautious about selecting a brand or product with a brand personality that is desired and acceptable within their related society than the LI group. However, the LI group had the highest R^2 for new religion-compliant product adoption, complexity and perceived behavioural control, $R^2 = 0.55$ (55%) and $R^2 = 0.17$ (17%), respectively. This indicates that although LI featured consumers who are cautious when purchasing/adopting a new brand/product, they also care more about their perceived behavioural control than those in HI. With regard to Islamic brand personality, HI consumers care strongly about the influence of Islamic brand personality when favouring or adopting a new brand. This result is not consistent with the suggestion of Shabbir (2010), who highlights that Muslim consumers with high incomes are likely to be less influenced by Islamic religious beliefs when adopting a new product and consequently less sensitive about ensuring that their adopted products/brands reflect an acceptable brand personality that complies with their

religious teachings. This can possibly be explained in relation to the context of this study (the Islamic world) by the stereotype that people with high incomes are more likely to be better educated and more familiar with the term “brand personality”. In particular, they are perceived to be more likely to select luxury brands which usually attract consumers by satisfying their own desired personalities that they wish to reflect when using such brands (e.g. Achouri and Bouslama, 2010; Fennis and Pruyn, 2007; Kim et al., 2001; O’zsomer, 2007; Polonsky and Coulter, 2009).

The most significant paths based on income groups differed. They were relative advantages towards new religion-compliant product adoption and complexity for the HI group, and Islamic religious beliefs towards perceived behavioural control for the LI group, which is similar to the most significant paths for age and gender. Consequently, it can be argued that the HI group perceived the critical significance of the effect of relative advantage on causing positive and favourable behaviour among consumers, which led them to adopt a specific brand or product. Those in the LI group seemed to agree on the important significance of the effects of Islamic religious beliefs on establishing positive and acceptable perceived behavioural control or behaviour that is likely to be regarded as acceptable by society and important people. The least significant relationships based on income group were IBP towards relative advantage for HI and compatibility towards new religion-compliant product adoption and complexity for LI, all of which were positive.

In regard to the moderation impact based on income group, it was indicated that income had a significant moderation impact on the paths between Islamic religious beliefs towards IBP, Islamic religious beliefs towards complexity, relative advantages towards new religion-compliant product adoption and complexity towards new religion-compliant product adoption. The difference in the moderating impact of income group on Islamic religious beliefs towards IBP was positive across all groups but only significant based on the dataset for HI, which indicates that consumers with high incomes, unlike those with low incomes, are strongly impacted by their religious values and choose their favoured brands in accordance with their Islamic religious beliefs as well. This finding is partially consistent with the work of the researchers mentioned previously in section 7.3.2 in relation to the same path. The next paths moderated by income group were Islamic religious beliefs towards complexity and complexity towards new religion-compliant product adoption,

which were negatively significant based on the overall and LI datasets and positive but not significant based on the HI group. The findings yielded by the overall and LI groups are in agreement with the hypothesised logic developed by this research based on previous studies in relation to DIT (e.g. Azam et al., 2011; Rogers, 1995).

Finally, differences due to the moderating impact of income group on relative advantages towards new religion-compliant product adoption and complexity were positive across all groups and only significant based on the overall and HI groups, which indicates that these two groups find the relative advantages element vital in the process of developing a positive favouring behaviour during the adoption of a new product. These findings for the HI and overall groups are partially consistent with the related literature (e.g. Azam et al., 2011; Cheng et al., 2004; López-Nicolás et al., 2008; Mazlan, 2005; Moore and Benbasat, 1996; Mustonen - Ollila and Lyytinen, 2003; Rogers, 1995; Zhu et al., 2006).

Accordingly, **H17** was partially supported, as income was observed to moderate the relationships between Islamic religious beliefs towards IBP, Islamic religious beliefs towards complexity, relative advantages towards new religion-compliant product adoption, and complexity towards new religion-compliant product adoption; income does not moderate the relationships between Islamic religious beliefs towards subjective norms, Islamic religious beliefs towards relative advantages, Islamic religious beliefs towards compatibility, Islamic religious beliefs towards perceived behavioural control, IBP towards relative advantages, Islamic religious beliefs towards new religion-compliant product adoption, IBP towards new religion-compliant product adoption, subjective norms towards new religion-compliant product adoption, perceived behavioural control towards new religion-compliant product adoption, compatibility towards new religion-compliant product adoption, and subjective norms towards IBP.

7.5. Conclusion

The present chapter indicated that the influence of Islamic religious beliefs was further advanced in relation to consumers' behaviour and Islamic brand personality developed by this study relative to the brand personality scale (Aaker, 1997; Arora and Stoner,

2009; Batra et al., 1993; d'Astous and Lévesque, 2003; Ferrandi et al., 2000; Geuens et al., 2009; Wallenklint, 1998). Such an influence from Islamic religious beliefs on the scale was justified by outlining the religious items the proposed scale contains by employing CB-SEM (AMOS). Next, the type of relationship between Islamic religious beliefs, Islamic brand personality, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity, and new religion-compliant product adoption was indicated and further understood based on the PLS-SEM (PLS) findings of the hypothesised paths. It was indicated that Islamic religious beliefs positively impacted subjective norms, perceived behavioural control, relative advantages, compatibility, and new religion-compliant product adoption, and negatively impacted complexity, as anticipated based on TPB (Ajzen and Fishbein, 1980) and DIT (Rogers, 1995) literatures. The effects of age and income moderation were also explained. Consequently, this chapter answered the research questions set for this study.

Chapter Eight: Conclusion

8. Introduction

The importance of brand personality and its measurement is extensively acknowledged within the branding subject as a vital component on its own and a critical element of the brand identity (Coleman, 2011; Ghodeswar, 2008), organisation identity (Karaosmanoglu and Melewar, 2006; Melewar and Karaosmanoglu, 2006), brand image (Achouri and Bouslama, 2010; Hosany et al., 2006; Hussey and Duncombe, 1999; Parker, 2009; Polonsky and Coulter, 2009) and emotional branding (Gobe, 2001; Malär et al., 2011; Orth et al., 2010; Thomson et al., 2005) literatures, and such recognition is also evidenced for TPB (Ajzen and Fishbein, 1980) and DIT (Rogers, 1995). However, there is a remaining gap in the knowledge related to the brand personality scale and new religion-compliant product adoption literatures, specifically for the Islamic world.

Consequently, the aim of the present study was to advance the literatures of the influence of Islamic religious beliefs on consumers' behaviour (Abou-Youssef et al., 2011; Aziz et al., 2011; Delener, 1994; Essoo and Dibb, 2004; Mokhlis, 2009b; Muhamad and Mizerski, 2010), brand personality and its scale (Aaker, 1997; Aaker and Fournier, 1995; Arora and Stoner, 2009; Azoulay and Kapferer, 2003; Bouhlel et al., 2011; Braunstein and Ross, 2010; Degn and Ebbesen, 2010; Freling and Forbes, 2005; Geuens et al., 2009; Lee and Back, 2010; Maehle et al., 2011), new religion-compliant product adoption/new product adoption (Kalliny and Hausman, 2007; Lada et al., 2009; Mazlan, 2005; Shabbir, 2010; Thambiah et al., 2010), and Islamic marketing/branding (Al-Nahdi et al., 2009; Alserhan, 2010b, a; Arham, 2010; Bhatti et al., 2011; De Run et al., 2010; Khraim, 2010; Ogilvy, 2010; Sandikci, 2011b; Wilson and Liu, 2011).

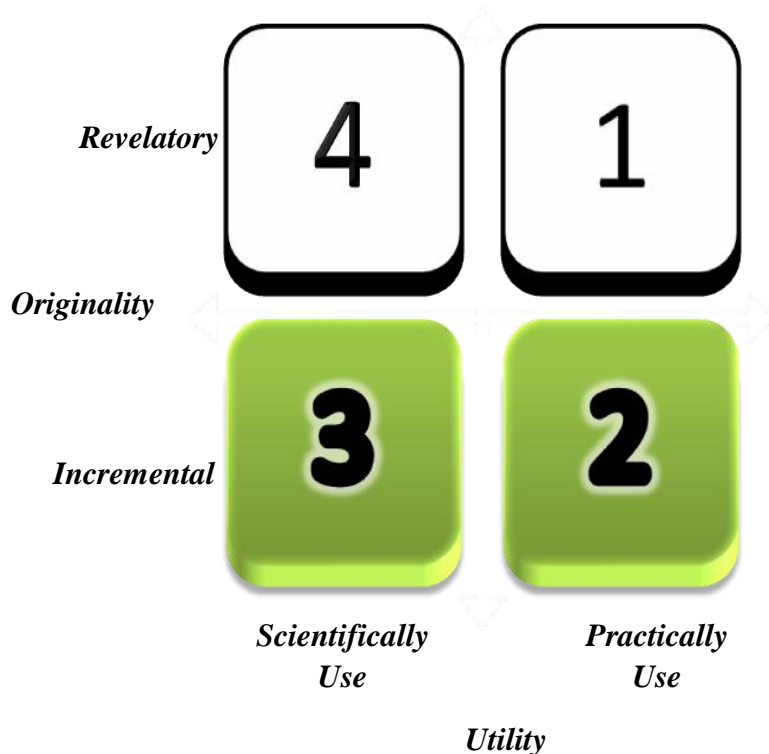
Therefore, this study proposed a reliable and validated brand personality for the Islamic context. In addition, this study presented empirical findings that further explain the relationships between Islamic religious beliefs, brand personality, subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and new religion-compliant product adoption, the mediating roles of these constructs, and the moderating effects of age, gender and income. Finally, this chapter provides theoretical contributions in accordance with the literature and has contributed to the sum of intellectual knowledge with regard to the influence of religion on the brand personality scale and brand

personality construct in general, and new product adoption in particular. The methodological and managerial contributions, limitations, future research recommendations and concluding remarks regarding this research are presented in the following sections.

8.1. Theoretical Contributions

In regard to theoretical contributions, this thesis advances knowledge in relation to brand personality, the influence of Islamic religious beliefs on consumer behaviour, religion/Islam-compliant marketing and specifically religious/Islamic branding, the theory of planned behaviour (TPB) and the diffusion of innovations theory (DIT) literatures. This research provides incremental contributions in both scientific and practical forms, as illustrated in Figure 8.1. These contributions will be discussed in relation to the relevant literatures respectively as shown in the following figure.

Figure 8.1: Conceptualising the Research Implications



Note: the coloured boxes with bold numbers (2 and 3) indicate the areas where the implications of this study have fall within. Adapted from Corley and Gioia (2011).

8.1.1. Theoretical Contribution Related to the Brand Personality (BP) Literature

This research has explored brand personality critically from a religious perspective, specifically the Islamic religion, which has resulted in creating an Islamic brand personality (IBP) scale. Consequently, this study's exploration of brand personality in relation to the Islamic context provides a further stage in the understanding of BP across different cultural perspectives and presents unique IBP traits that were first developed by this study (*Mohsen, Classy, Traditional, Bedouin, Religious, Economical, Supportive, Idealistic, Urban, Liberal, Popular, Well-mannered, Islamic, Decent, Formal and Nationalistic*). Thus, the findings related to the IBP scale represent both types of incremental contribution, as shown in Figure 8.1.

8.1.1.1. Theoretical Contribution: The Development of an IBP Scale

The first objective of the present study was *to develop an Islamic brand personality measurement scale, the dimensions of which are appropriate to the Islamic context, and to explore how Islamic religious beliefs influence brand personality measurement*. Correspondingly, the following main question was designed: what are the most commonly used traits to describe a personality in an Islamic context? Accordingly, what is the most appropriate brand personality measurement scale that can be used in such a context? To what extent are the dimensions of this brand personality measurement influenced by Islamic religious beliefs and culture?

As discussed in the first chapter and illustrated in Table 1.1, to the best of the researcher's knowledge, no study has previously investigated the assessment of brand personality measurement in relation to the Islamic context. All previous studies were accomplished in non-Islamic contexts and categorised as follows: first, studies that are concerned with investigating the claimed generalisability of Aaker's (1997) BP scale (e.g. Aaker et al., 2001; Bosnjak et al., 2007; Ferrandi et al., 2000; Rojas-Méndez et al., 2004; Smith et al., 2006; Yoon, 2004), proved that she was wrong, and consequently developed context-specific BP scales. Second, studies that focused on employing methods and methodology different from Aaker's (1997), such as Arora and Stoner (2009) and Geuens et al. (2009). This gap in relation to BP scales was identified from the recommendations presented by previous researchers, who advised that the influence of Islamic religious beliefs on

branding concepts such as brand personality should be explored in future research to overcome the serious lack of knowledge in the related literature (e.g. Alserhan, 2010; Essoo, 2004; Mittelstaedt, 2002; Muhamad, 2010; Ng and Houston, 2006; Wilson, 2011). Thus, the IBP scale developed in this study is regarded as an incremental contribution since it represents the first step in understanding the impact of Islamic religious beliefs on brand personality measurement.

Subsequently, by employing the scale development method of Churchill (1979) along with the recommendations of DeVellis (2011), Hair et al. (2006), Netemeyer et al. (2003) and Worthington and Whittaker (2006), a valid and reliable IBP measurement with four dimensions consisting of 28 items was obtained for the examined context, as illustrated in Figure 7.2. In addition, cultural factors were found to influence the IBP scale in some previous studies (e.g. Azoulay and Kapferer, 2003; Bosnjak et al., 2007; Ekinci and Hosany, 2006; Ranjbar, 2010; Rojas-Méndez et al., 2004; Smith et al., 2006; Sung and Tinkham, 2005; Wallenklint, 1998) and religious beliefs were regarded as the main or strongest cultural factor by a number of previous researchers (e.g. Einstein, 2011; Francis, 1997; Francis, 2005; Kahle et al., 2005; Koku, 2011; McCrae, 1999; Moon et al., 2008; Muhamad and Mizerski, 2010; Vassilis, 2002). Consequently, this research has further contributed to the literature regarding BP scales by proposing 19 sub-items for the developed IBP measurement which are all new and contextually developed. It is important to mention that five of the newly- and contextually-developed sub-items were adjectives that are only applicable to religious personalities; thus, they were statistically grouped under a single dimension, called “Religiosity-Minority”.

Finally, the present research will enable future researchers to assess the personality of a brand that performs specifically in an Islamic context. In addition, this research provides the first step in better assessing brand personality in the Islamic context, which will allow forthcoming researchers to replicate the proposed IBP measurement in other Islamic contexts with may have cultural differences from the context of this study, as previously done with Aaker’s BP scale (e.g. Azoulay and Kapferer, 2003; Bosnjak et al., 2007; Ekinci and Hosany, 2006; Ranjbar, 2010; Rojas-Méndez et al., 2004; Smith et al., 2006; Sung and Tinkham, 2005; Wallenklint, 1998). The study’s findings in relation to the influence of Islamic religious beliefs on BP measurement are a first step towards theoretically and

practically understanding such an influential relationship and set directions for future theoretical work on Islamic/religious branding or marketing and assessing exactly how religion influences brand selection in different faiths.

8.1.1.2. Theoretical Contribution: Development to the Understanding of Brand Personality

This study was also partly concerned with understanding the relationship between Islamic religious beliefs/religiosity and brand personality (BP) as a construct and this aim was translated into the second objective and third research question of the present study. Some previous studies have determined that Islamic religious beliefs/religiosity strongly impact human personality (e.g. McCrae, 1999; Taylor and MacDonald, 1999). In addition, an influence of religious beliefs on consumers' behaviour was also discovered by some earlier studies (e.g. Alam et al., 2011; Al-Nahdi et al., 2009; Arham, 2010; Bonne et al., 2007; Delener, 1994; Essoo and Dibb, 2004; Fam et al., 2004; Haque et al., 2011; Lada et al., 2009; Lindridge, 2005; Sood and Nasu, 1995). However, the influential relationships between Islamic religious beliefs towards BP, BP towards relative advantages (RA), subjective norms (SN) towards BP, and BP towards new religion-complaint product adoption (NRCPA) were investigated for the first time by this research, which makes an additional contribution to brand personality literature by identifying critical influential factors in BP and influential effects from BP on other constructs and empirically applying them to a new context (the Islamic world).

Consequently, this research contributes to the literature of BP in four different perspectives: first, by determining that Islamic religious beliefs (IRB) positively impact BP but not significantly, and only significantly influence BP among females and people with high incomes. Islamic religious beliefs additionally influence BP among males but in a negative way, which is simply referred to as unexplained behaviour by religious men in the literature regarding behaviour and it is important that this is investigated further in future research. Second, the link between subjective norms and BP was examined for the first time by this study, which makes it an incremental type of contribution. The related findings present a very important new perspective for the BP literature and possible antecedents of the general BP evaluation of a brand. It was indicated by this study that subjective norms have a

significant impact on BP within the examined context, but this impact was stronger among young males and those with low incomes, which agrees with the expectation of Shabbir (2010).

A third incremental contribution in relation to BP was achieved based on the findings that are related to the impact of BP upon relative advantages; such a relationship was explored for the first time in this study due to the limitation of previous studies related to the diffusion of innovations theory (e.g. Azam et al., 2011; Cestre, 1996; Cheng et al., 2004; Dearing, 2009; Gerrard and Cunningham, 2003; López-Nicolás et al., 2008; Taylor and Todd, 1995a; Völlink et al., 2002; Zhou, 2008). This relationship was posited based on the fact that personality was regarded as one of the antecedents of relative advantages (Rogers, 1995). Consequently, BP was found to have a strong positive influence on relative advantages among consumers in the context concerned, and to positively and very significantly affect young and old male consumers with both high and low income levels. Thus, this conclusion is a new direction in considering relative advantages as an element to indicate consumers' behaviour by controlling the BP.

Finally, the present study investigated the assumption that BP influences new religion-compliant product adoption in a religious context. This was tested by indicating how consumers perceived the BP adjectives of the examined brands (STC and Mobily), which are both well-known Saudi brands operating within the same industry: communications. Next, the relationship between the rated BP adjectives and the preference of consumers towards new products was investigated. Thus, this study found that BP is regarded as an important element when consumers in the examined context are considering adopting a new product. In addition, it was found that young consumers, males and those with a low-income level prefer to adopt a new brand/product that reflects their desired brand personality that does not contradict their religious teachings. However, older consumers, females and those with high incomes are less concerned about whether or not their preferred brand represents a BP that matches their religious values. This partly agrees with the assumption made by Shabbir (2010), as discussed in more depth in Chapter Seven.

Subsequently, this research further contributes to the literature regarding new religion-compliant product adoption by setting the ground for future studies to investigate

theoretically why religious males differ from religious females, whether old or young and whether of high or low income, in regard to the importance of BP when adopting a new product. Such an exploration is recommended by this study and previous studies (Delener, 1990, 1994; Einstein, 2011; Goff and Trawick, 2008; Kalliny and Hausman, 2007; Shachar et al., 2011) in order to enhance religious/Islamic marketing and branding knowledge.

8.1.2. Theoretical Contribution Related to Islamic Religious Beliefs (IRB) Literature

This study aimed to better understand the influential role that Islamic religious beliefs may possibly play in relation to BP, subjective norms, relative advantages, compatibility, complexity, perceived behavioural control and adopting new products, as can be observed from the aim of this study and the related objectives and questions (see Chapter One). A number of prior studies have investigated the influential role of religions such as Islam on consumer behaviour; some of these studies used TPB as a guiding theory (e.g. Alam and Sayuti, 2011; Al-Nahdi et al., 2009; Aziz et al., 2011; Bonne et al., 2007; Lada et al., 2009; Mazlan, 2005; Nur Haslizatul Liza, 2011), yet were limited to empirical investigations of the influential role of Islamic religious beliefs on purchasing *halal* goods. However, with the exception of the studies of Alserhan (2010a), Alserhan (2010b), Azam et al. (2011), Kahle et al.(2005), Muhamad and Mizerski (2010), Shabbir (2010), Wilson and Liu (2010) and Wilson and Liu (2011), no other study has theoretically studied the influential role of Islamic religious beliefs within the marketing context on constructs such as BP, new religion-compliant product adoption (NRCPA), and the constructs of DIT (relative advantages, compatibility and complexity). Thus, this study is the first to investigate the influence of Islamic religious beliefs on BP, relative advantages, compatibility and complexity. In addition, this study has contributed by enriching the literature on new religion-compliant product adoption, subjective norms and perceived behavioural control, as one of the very few studies that have done so.

The findings related to the above-claimed contributions are as follows: first, it was observed that Islamic religious beliefs have a statistically positive and significant influence on subjective norms, relative advantages, compatibility, complexity, perceived behavioural control and new religion-compliant product adoption. Second, it was found that Islamic religious beliefs have a statistically positive influence on BP. Finally, it was observed that

Islamic religious beliefs have a statistically negative and significant influence on complexity. (Please refer to section 6.1 for more details.) In relation to the influence of Islamic religious beliefs on subjective norms, perceived behavioural control and new religion-compliant product adoption, this study's results match those reported previously (e.g. Alam and Sayuti, 2011; Lada et al., 2009; Nur Haslizatul Liza, 2011). However, this study differed from the aforementioned studies since it was conducted in a very conservative religious context, which indeed strengthens the relations and roles of Islamic religious beliefs, subjective norms, perceived behavioural control and new religion-compliant product adoption (Hood Jr et al., 2009; Mittelstaedt, 2002; Seul, 1999). In regard to the influence of Islamic religious beliefs on relative advantages, compatibility and complexity, the findings matched the theoretical anticipation of this study in accordance with some previous studies (e.g. Azam et al., 2011; Cheng et al., 2004; Gerrard and Cunningham, 2003; Mazlan, 2005; Rogers, 1976; Rogers, 1995). Consequently, the above combination of original and incremental contributions related to the influence of Islamic religious beliefs provides a base for forthcoming research towards understanding the behaviour of religious consumers and their possible circumstances during marketing-related activities such as shopping.

8.1.3. Theoretical Contribution to the Literature Related to TPB and its Mediation role

The theory of planned behaviour (TPB) was one of the theoretical guides for this study. Thus, the third research question was designed to satisfy the related objective and consequently assist in accomplishing the aim. What is regarded as a theoretical contribution in relation to TPB by this study can be categorised in two parts: first, the contribution in relation to the newly-investigated links between the BP construct, which was inserted into the extended TPB instead of Attitude based on the logic provided in Chapter Three, and the subjective norms construct, which was examined almost for the first time in this study. Second, this study was the first to provide an understanding of the mediating roles that the constructs of BP, subjective norms and perceived behavioural control play in the indirect relationship between Islamic religious beliefs and new religion-compliant product adoption in an Islamic context.

First, subjective norms were found in some previous studies to influence the way people or consumers behave (e.g. Ajzen, 2002; Alam and Sayuti, 2011; Lada et al., 2009; Liao et al., 2007; Lim and Dubinsky, 2005) and this study has supported this proposition. However, this study developed an assumption that subjective norms may influence BP since it is indicated that subjective norms influence human personality (e.g. Fennis and Pruyn, 2007; Fiske and SL, 1990; Sengupta et al., 1999). Consequently, this study found empirical evidence that subjective norms positively and significantly impact BP.

Second, the mediation roles of BP, subjective norms and perceived behavioural control between Islamic religious beliefs and new religion-compliant product adoption were empirically examined by this study. Subjective norms were observed to mediate the effect partially from Islamic religious beliefs to new religion-compliant product adoption, with $z > 0.96$ and $p < 0.05$. In addition, BP was indicated not to mediate the effect from Islamic religious beliefs to new religion-compliant product adoption, which is not in agreement with previous studies. Thus, this study was the first to introduce such findings and this might be the first step in a new theoretical and empirical understanding of the underlying assumption. Next, this study observed that perceived behavioural control partially mediates the relationship from Islamic religious beliefs to new religion-compliant product adoption and was found to be the strongest mediator of the three constructs used in TPB, which is explained in relation to the conservative nature of Islamic society with its high power distance index rating (Mooij and Hofstede, 2010), which results in a strong influence from people who are regarded as important by consumers.

8.1.4. Theoretical Contribution to the Literature Related to DIT and its Mediation Role

The theory of the diffusion of innovations has hardly ever been used in a similar context to that of the current study, to the best of the researcher's knowledge. This was an additional motivation to use DIT combined with TPB in order to understand the behaviour of the consumers in this context. This study is one of the very few that have integrated both TPB and DIT (Moore and Benbasat, 1996), which would represent an additional step in how to integrate theories to achieve one complex aim. This study was also the first to investigate the mediation role of relative advantage, compatibility and complexity between Islamic religious beliefs and new religion-compliant product adoption. The findings yielded in

Chapter Five are that the three constructs of relative advantages, compatibility and complexity partially mediate the influential relationship between Islamic religious beliefs and new religion-compliant product adoption, with z-values of 4.706, 3.768 and 3.286, respectively, which are > 1.96 with $p < 0.05$. Accordingly, these findings offer an additional perspective of DIT in understanding exactly how Islamic religious beliefs cause consumers to behave in relation to marketing activities. This study sets the first step in theoretically examining further possible factors that may potentially contribute to the effect of Islamic religious beliefs on new religion-compliant product adoption in a religious context.

8.1.5. Theoretical Contribution to the Literature Related to Understanding the Islamic Context

It was outlined in a number of prior studies that brand personality is a vital element in developing a strong emotional link, loyalty and satisfaction between consumers and a brand but the available brand personality measurement scales to assess brand personality were primarily developed within European, North American, Far East Asian and African contexts, as illustrated in Table 1.1 (e.g. Aaker, 1997; Aaker et al., 2001; Arora and Stoner, 2009; Beldona and Wysong, 2007; Bosnjak et al., 2007; Braunstein and Ross, 2010; Ekinci and Hosany, 2006; Ferrandi et al., 2000; Geuens et al., 2009; Opoku et al., 2006; Pitt et al., 2007; Rojas-Méndez et al., 2004; Smith et al., 2006; Sung and Tinkham, 2005; Wallenklint, 1998). In relation to Islamic religious beliefs and their role in the new religion-compliant product adoption process, previous studies were mostly conducted in IT or banking contexts (Mazlan, 2005; Thambiah et al., 2010; Yusof, 1999). There have been very few studies conducted in a marketing context (e.g. Delener, 1990; Essoo and Dibb, 2004; Shabbir, 2010). The expanding practice of international trading raises the critical value of the Islamic market, which is expected to exceed USD 30 trillion by 2050 (The-World-Bank, 2008; World.Bank, 2009), which increases the need to better understand branding-Islamisation and marketing-Islamisation (Alserhan, 2010a; Shabbir, 2010; Wilson and Liu, 2011). To the best of the researcher's knowledge, no study has previously been conducted to assess an IBP scale or BP in relation to new religion-compliant product adoption, the influence of Islamic religious beliefs on BP, subjective norms, relative advantages, compatibility, complexity, perceived behavioural control and new religion-

compliant product adoption in the Islamic world, or the influential relationships between BP, subjective norms and relative advantages, as well as the demographic factors (age, gender and income) featured in the extended model developed by this study, in marketing in an Islamic context. Subsequently, the present study represents the first step within BP literature, since it is the only study to date that has assessed BP and its measurement in an Islamic and Arabic context. This study is also one of the very few to examine the impact of subjective norms, relative advantages, BP, compatibility, complexity and perceived behavioural control on new religion-compliant product adoption in an Arab context (Saudi Arabia). This study drew a random sample of individuals of different ages and incomes, which represents a contribution to the religious influence and new religion-compliant product adoption literatures due to the fact that most previous studies investigated religious influence and new religion-compliant product adoption based on non-random samples, young consumers and students (e.g. Alam et al., 2011; Francis, 1997; Francis, 2005; Haque et al., 2011; Shabbir, 2010). Thus, assessing the extended model of this study, investigating religious influence on new religion-compliant product adoption with a random sample that contains students and non-students, high-income and low-income earners, and old and young people also contributes to the related literature.

8.1.6. Theoretical Contribution to the Literature Related to Demographic Factors

The proposed model of this study was examined with age and income as potentially moderating demographic factors. These comparisons were assessed based on the Beta values obtained via the computed multiple-group analysis (MGA) method. This study contains 19 different paths which were examined comprehensively based on two groups for each demographic factor, as follows: first, age (217 young and 70 old); second, income (62 high and 125 low). Therefore, 119 different paths were carefully examined in order to investigate the critical differences between the constructs moderated by the two factors.

The MGA method indicated that age moderates the influence of relative advantages on perceived behavioural control. Younger consumers, in contrast to older ones, regarded subjective norms (SN) as an important factor in selecting which relative advantages to adopt, and the younger consumers did not attach strong importance to the personality of a brand. Finally, the income factor was observed to moderate strongly the paths between

Islamic religious beliefs towards BP, Islamic religious beliefs towards complexity, relative advantages towards new religion-compliant product adoption, and complexity towards new religion-compliant product adoption. In this regard, it was observed that the high-income group gave high importance to the role of religious values when selecting a brand based on its personality characteristics. In regard to the importance of a product/brand matching the religious values of consumers, for those with low incomes it was found to be high, while consumers with high incomes were less concerned about the degree to which a brand matched their religious values. Thus, this study further contributes by presenting an in-depth comparison of the developed model according to the different groups of age, gender and income, which will assist future studies in exploring such differences via the same methods (MGA) for chosen relationships in other religious contexts.

8.1.7. Methodological Contribution

The methodology of the present study provided a few additional contributions, as follows: first, this research has examined indicators that belong to extensively-recognised theories (TPB, BP and DIT) of consumer behaviour and branding management in a context that critically differs ethnically and culturally from those in which they were established (European and North American environments). Accordingly, this study adopted, verified and modified the examined indicators' sub-items, and this supported the study in obtaining well-accepted convergent and discriminant validity, as well as high reliability. Consequently, this study contributes to the literature of these well-known theories by assessing their main constructs in a new and unique context: the Islamic context.

Second, since this study has developed a highly complex theoretical framework, it was more beneficial to assess the development of a BP scale by employing exploratory factor analysis (EFA), confirmatory factor analysis (CFA) (Dudley et al., 2005) and structural equation modelling (SEM) . These methods enable researchers to obtain results concurrently in a specific complex framework. Moreover, SEM enables researchers to evaluate the examined paths systematically (Byrne, 2001; Chin, 1998; Iacobucci et al., 2007; Kline, 2010). Partial least squares (PLS) analysis was also employed to examine the proposed relationships of the complex conceptual framework developed in this study

because the data obtained were non-normal, which is regarded as another methodological contribution.

As a final contribution, this is one of the very rare studies that have employed the multiple-group analysis (MGA) approach to compute the total effects of the moderators statistically. To date, to the best of the researcher's knowledge, the only studies worth mentioning that have used MGA are those by Abbasi (2011), Chin et al. (2003), Eggert et al. (2005) and Henseler and Fassott (2010). According to the PLS official forum board (www.smartpls.de), the employment of the MGA approach in assessing moderators' effects via PLS remains a new approach, due to the large effort it requires to be performed (Abbasi, 2011). Therefore, this study contributes to the literature of MGA by demonstrating step-by-step in detail how to perform this method for future research, based on the recommendations of the previously-mentioned studies.

8.2. Practical Implications

After referring to the theoretical contributions above, this section of the study will outline the practical implications obtained by this study. The practical implications are divided into two parts. The first is related to BP and the IBP scale; the second relates to new religion-compliant product adoption.

8.2.1. Implications of BP and its Measurement Scale

In order for marketing managers to develop and administer the personality of a brand or a product, it is vital for them to identify dimensions that will enable them to create the desired brand personality, especially in an Islamic context. Thus, this study represents a detailed process of how to select the most favoured BP within an Islamic context, and provides directions for how to evaluate the perception of consumers regarding the selected BP in order to make a managerial marketing decision regarding adopting the selected BP, modifying its characteristics, or adopting a better BP. It would be a critical misunderstanding if some managers were to regard BP as the same as brand image, because, as discussed in the second chapter, there is a critical difference between them and their benefits for the brand or product. Consequently, it is important for marketing

managers to address the following questions: do we need to introduce a personality to a brand or to a single product? In relation to this, what is the most suitable personality that matches our set goals? What are the specific characteristics that we desire to reflect via the personality of the brand or product? Do the adopted BP's characteristics contradict the religious and cultural values of our targeted consumers? This study presented an IBP scale based on four dimensions with 28 sub-items, which will enable marketing managers to configure and manage their brands' or products' personalities accurately in such a context.

8.2.2. Implications Related to New Religious Compliant Product Adoption (NRCPA)

This study, as outlined earlier, refers to new product adoption as new religion-compliant product adoption (NRCPA), since all products must be compliant with the teachings of Islam (*halal*), which is the religion of the examined context. New product adoption was found to be affected by Islamic religious beliefs, subjective norms, relative advantages, compatibility, complexity and perceived behavioural control constructs. Therefore, this study provides a clear perspective for the marketing managers of foreign brands of the circumstances and external influences experienced by consumers in an Islamic context when adopting a new product. Such an understanding of these influential constructs by foreign brands that wish to enter an Islamic market is essential for these brands' success, as outlined by some previous Islamic marketing studies (e.g. Alserhan, 2010b; Arham, 2010; Khraim, 2010; Wilson and Liu, 2011). In addition, this study helps marketers of foreign corporations or brands to overcome or reduce the difficulties that are likely to be faced due to Liabilities-of-Foreignness (Chen, 2006; Johanson and Vahlne, 2009) and Psychic-Distance (Dikova, 2009; Sousa and Bradley, 2005) when planning to enter new markets, specifically Islamic ones. Along with the previous practical implications related to BP and its measurement, foreign marketers would be better able to achieve their brands' goals in such a context.

8.3. Limitations, Future Research Recommendations and Conclusion

This study has introduced unique findings related to IBP measurement, and the relation of BP and Islamic religious beliefs to TBP and DIT constructs, as well as new product

adoption (NPA). However, this study recognises a few limitations in relation to methodology and context that could be addressed in forthcoming studies, as follows.

8.3.1. Methodological Limitations

As mentioned previously, in Chapters Four and Five, data for this study were collected in a random manner in the three largest cities in Saudi Arabia (Donoghue, 2010; Sekaran, 2006). It was observed during the analysis stage that some of the findings are not consistent with the literature as anticipated and this may be due to the fact that a large proportion of the sample were people of BA-level education and below (96.7%), low income (75.9%) and younger than 35 years of age (75.7%). These percentages may have critically influenced the findings in some way. In addition, the number of usable surveys collected, although they represented an acceptable response rate and met the recommendations for the analysis methods used, was relatively small. Consequently, this sampling approach prevented this study from obtaining a more balanced sample that represented the different segments of society equally. Forthcoming studies are encouraged to employ a non-random or stratified sampling approach in order to obtain a balanced sample that would be more reflective of all the varieties in the context, especially as the meaning of the term “brand personality” and how it can be seen in brand communications activities are not well understood by younger people of a lower education level, who are likely to be able to afford only low-price brands that are less likely to invest in their BP and its related branding activities.

By obtaining a larger sample (e.g. at least 1,000) in further research to re-examine the moderation effects of age and income, it may be found that this study’s sample size was problematic and different results may be obtained. In addition, since this study is the first to propose an IBP scale for an Islamic context, it was not intended to assess the nomological, predictive and criterion validities, due to their requirement of comparison to previous studies. Thus, it would be interesting to obtain such validities for the proposed IBP measurement. Finally, this study employed the PLS-SEM approach to assess the relationships between Islamic religious beliefs, subjective norms, relative advantages, compatibility, complexity, perceived behavioural control and new religion-compliant product adoption, so it would be interesting to investigate whether the same or similar findings would be obtained if employing the CB-SEM approach.

8.3.2. Contextual and Generalisability

The next limitation is related to additional validation and generalisation of the proposed IBP scale and the finding of the examined relationship in the conceptual model. This study has only examined the Islamic context with reference to Saudi Arabia's three largest cities. According to Hofstede et al. (2010), Saudi Arabia as an Arab-Islamic context is indicated to be rated highly on the PDI, UAI, MAS and IR indices, in contrast to European contexts such as France. However, there exist non-Arab-Islamic contexts such as European-Islamic (e.g. Turkey and Bosnia) and African-Islamic (e.g. Mauritania, Comoros). Therefore, it is assumed that since these non-Arabic-Islamic contexts differ from the specific context of this study, findings related to the conceptual model and IBP scale might differ as well. Although this study produced validated and reliable findings based on a sample drawn from Saudi Arabia's three largest cities, which was justified by the literature, this is also viewed as a possible limitation.

Consequently, it is advised that future studies replicate the proposed conceptual model and IBP scale in different Islamic contexts, such as those mentioned above, and indicate any possible differences or similarities, which will help in assessing the generalisability, comparability and equivalence of the proposed IBP scale based on obtained figures based on Multi groups analysis with SEM or factor analysis as done in different literature by Little (2000). It would also be interesting for future research to conduct a re-examination of the proposed IBP scale in the same context (Saudi Arabia) but with different brands and draw a sample from the northern, eastern, western, southern and central provinces of Saudi Arabia to add credibility to the IBP scale.

8.3.3. Moderation and Mediation Related Limitations

A few possible limitations were observed during analysis of the moderation effect and mediation roles. In regard to moderation effects, assessment in this study was limited to age and income as the main demographic factors (Bruwer et al., 2012; Lee and Hwang, 2011; Reicks et al., 2011; Serenko et al., 2006). It was observed that these factors moderated some of the conceptual model's paths differently. For instance, the path from Islamic religious beliefs to IBP was found to be less significant based on the income factor and highly significant based on age. In addition, this study indicated differences between

two groups with the same demographic factor of gender: men were observed to be adopting new brands or products quite differently from women. Therefore, investigating an additional demographic factor such as education (Akhter, 2003; Bigne et al., 2005), and investigating more deeply the motives behind the different results obtained for the moderation effect of Islamic religious beliefs towards BP/IBP and the reasons why men adopt new brands or products differently from women, would be an interesting and vital theoretical contribution to moderation and contextual literatures. These moderators' effects were examined in relation to the paths of the theoretical framework. Therefore, it is recommended that forthcoming research investigate the moderation effect of demographic factors (age, gender, income and education) on the proposed IBP scale. This would be the first such assessment of moderation effects, to the best of the researcher's knowledge.

Finally, as outlined in Chapter Three, this study has adopted specific constructs from well-recognised theories (TPB and DIT) in order to pursue its aim, objectives and questions. Consequently, the adoption decision of religious consumers in the present study was investigated through the mediation role of the most recommended constructs the DIT's which are relative advantages, compatibility and complexity constructs as the DIT's perceived characteristics of the innovation and excluded the trialability and observability constructs. Therefore, forthcoming studies are encouraged to replicate the conceptual model developed by this study and include trialability and observability in order to assess their importance in the process of new religion-compliant product adoption.

8.4. Conclusion

This research has explored identified gaps in the knowledge in regard to brand personality, brand personality scale, the influence of Islamic religious beliefs on brand personality and its scale, and new religion-compliant product adoption and its antecedents (subjective norms, perceived behavioural control, relative advantages, compatibility, complexity and brand personality as an attitudinal component). The findings of this thesis were acquired from a dataset that was gained quantitatively via questionnaires collected from consumers in an Islamic context (Saudi Arabia). Consequently, this thesis presented a single reliable and validated Islamic brand personality scale and theoretically and empirically explored the link between religion and brand personality and its scale. In addition, it is believed that this

thesis has further advanced the literatures of Islamic marketing and branding, the influence of Islamic religious beliefs in a marketing context and new product adoption, and provided a theoretical understanding of the influence of religion on brand personality and its scale, which is also empirically supported.

Subsequently, an Islamic brand personality scale was introduced that contains a number of religion-specific personality traits. This new scale is expected to assist marketing managers who work in an Islamic context in their brand identity, image, emotional linkage and positioning activities by indicating the most appropriate and advantageous personality characteristics that are favoured by their targeted market. Men's and women's consumption behaviour in the context of this thesis were indicated to be differently influenced by Islamic religious beliefs and some differences were also observed between old and young consumers. Although the behaviour of consumers with low incomes was observed to be influenced by their religion and the personality of the considered brand, it was found that high-income consumers were more strongly impacted by such factors. The researcher hopes that this research will encourage forthcoming academic work in regard to the role of Islamic religious beliefs in consumer behaviour and brand adoption, and the influence of the role of Islamic religious beliefs on brand personality. Moreover, it is hoped that this thesis will help marketers to better shape their brands' personality in religious contexts and inspire future academic researchers to investigate the theoretical model developed and brand personality in different contexts for more advanced understanding.

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Appendix

Appendix 1: Table of Brand Personality Consequences.

Authors/ Year/ Journal	Dependent variables/ Consequences	Sample	Findings/ Conclusions	Contexts/ Location
Kim et al. <i>Japanese Psychological Research</i>	Brand loyalty	180 University students	“Indicated that there are positive relationships between attractiveness, distinctiveness, and self-expressive value of brand personality, and these relationships had a statistically significant effect on consumers’ identification with a brand. Furthermore, brand identification had a direct effect on word-of mouth reports and an indirect effect on brand loyalty.” (2001: 1)	Korean Cellular phone brands/ Seoul, Korea.
Kim et al (2001). <i>International Journal of Hospitality Management</i>		336 Random adults	It was found that for both chains, brand personality perceptions have a positive effect on brand preference and attitudinal loyalty, brand preference has a positive impact on attitudinal loyalty, and attitudinal loyalty has a positive influence on positive word-of-mouth (W-O-M)	Chilli’s and Olive Garden restaurant chains/ USA

			communication. (2011: 1)	
Madrigal (2001). <i>Advances in Consumer Research</i>	Brand evaluation	297 Undergraduates.	“When a new product is seen as being consistent with a company’s image, consumers are more likely to transfer attitudes and beliefs held about the company to the new product. If the fit is perceived as being poor, consumers use a piecemeal approach whereby new product evaluation relies less on what they think about the company and more on the specific attributes offered by the new product.” (2000: 1)	CEX and CEF companies/ UK
Aaker et al.(2011). <i>Journal of Consumer Research</i>		69 University students	“Relationships with sincere brands suffered in the wake of transgressions, whereas relationships with exciting brands surprisingly showed signs of reinvigoration after such transgressions. Inferences concerning the brand’s partner quality mediated the results. Findings suggest a dynamic construal of brand personality, greater attention to interrupt events, and consideration of the relationship contracts formed at the hands of different brands.”	Captura company/ USA.
Madrigal and Boush (2000). <i>Psychology & Marketing</i>	Social responsibility	234 College-aged female students.	The results indicate that SR is a distinct brand personality dimension and that willingness to reward moderates the effect of SR on attitudes toward the product, advertisement, and brand. Specifically, in all but one case across both	Nike Air Jordan Shoes. USA

			studies, the positive effect of SR on attitude was greater for those most willing to reward.	
Hem and Iversen (2004). <i>Advances in Consumer Research</i>	Brand extension	701 Norwegians	We find that similarities between an original brand and its brand extensions have to be measured using several items that better cover the similarity construct. We furthermore find that brand personality impacts brand extension evaluations, when there is a high degree of congruity between an individual's self-image and salient personality traits of the brand extension.	Snacks (Maarud), cars (Ford) and telecommunications (Telenor). Norway.
Ramaseshan and Tsao (2008). <i>Journal of Brand Management</i>	Perceived brand quality	N/a Due to source Louis and Lombart (2010: 116).	“Whatever the brand considered, the excitement and sophistication traits of brand personality have a significant positive influence on the perceived brand quality While excitement has a significant positive influence on perceived quality of symbolic brands, sophistication has a significant positive influence on perceived quality of experiential brands.” Louis and Lombart (2010: 116)	Top six products and six brands/ Australia.
Beldona and Wysong (2007). <i>Journal of Product & Brand Management.</i>		139 Graduate business students	“Of the 15 traits of brand personality that were studied, 12 are correlated with perceived quality, for all national and store brands. Such correlations are positive, except for one trait, Tough.” Louis and Lombart (2010: 116)	Stores' brand/ Southwest, USA.

Supphellen and Gronhaug (2003). <i>International Journal of Advertising</i>	Attitude towards brand	a	357 Adults (128 US, 132 Slovenia, 97 Kazakhstan)	“The Ruggedness and Sophistication personality traits have a significant positive impact on attitude towards the Ford brand. The Sophistication personality trait has a significant positive impact on the attitude towards the Levi’s brand while the Sincerity personality trait has a significant negative impact”. Louis and Lombart (2010: 116)	Levi’s and Ford Brands. USA.
Helgeson. <i>International Journal of Market Research</i>			Swedish female.	“The Modern and Classic personality traits have a significant positive influence on attitude towards the brand. In addition, Social Desirability has a moderating role. Indeed, the relationship is stronger when Social Desirability is medium or strong. The relationship is weaker – or even not significant when Social Desirability is low.” Louis and Lombart (2010: 116)	Sweden.
Freling and Forbes . <i>Journal of Product & Brand Management</i>			192 Marketing undergraduates.	“Using an experiment, these authors showed that consumers exposed to a product (bottle of water) with a vignette presenting information about the brand personality of that product have a more	Jatim’s/ southwestern university, USA.

<p>Ambroise (2005, 2006). <i>Revue Française du Marketing</i>.</p>		<p>N/a Due to source Louis and Lombart (2010: 116).</p>	<p>favourable attitude towards that brand than consumers exposed to the same product, without brand personality information.” Louis and Lombart (2010: 116)</p> <p>“These authors highlighted the influence of brand personality on consumer attitude towards the brand for the two product categories considered in their research: cola and sportswear.” Louis and Lombart (2010: 116)</p>	<p>Visa-a-Visa brand/ France.</p>
<p>Freling and Forbes (2005). <i>Journal of Product & Brand Management</i></p>	<p>Future behavioural intention</p>	<p>192 Marketing undergraduates.</p>	<p>“Using an experiment, these authors showed that consumers exposed to a product (bottle of water) with a vignette presenting information about the brand personality of that product have stronger brand purchase intentions than consumers exposed</p>	<p>Jatim’s/ southwestern university, USA.</p>

<p>Ambroise (2006). <i>Revue Française du Marketing</i></p>		<p>N/a Due to source Louis and Lombart (2010: 116).</p>	<p>to the same product, without brand personality information.” Louis and Lombart (2010: 116).</p> <p>“The studies conducted by this author show that the five dimensions of the developed brand personality barometer explain on average 27.4 per cent of the intent to purchase a brand.” Louis and Lombart (2010: 116)</p>	<p>Visa-a-Visa brand/ France.</p>
<p>Zentes et al.(2008) <i>The International Review of Retail, Distribution and Consumer Research</i></p>		<p>1337 Germans.</p>	<p>“The Competence, Sincerity, and Excitement personality traits have a significant positive impact on store loyalty measured by the intent to recommend that retail outlet. The Sincerity trait has the strongest influence. The Ruggedness personality trait has a significant negative impact on store loyalty. Lastly, there is no significant impact of the Sophistication personality trait on store loyalty.” Louis and Lombart (2010: 116)</p>	<p>Store brand/ Germany.</p>

O'zsomer and Lerzan (2007). <i>Proceedings of the 36th EMAC Colloquium.</i>		N/a Due to source Louis and Lombart (2010: 116).	“The Excitement and Traditionalism personality traits have a significant positive influence on the intent to purchase a brand, whereas Rebelliousness has a significant negative influence on this variable. Lastly, the interaction between the Competence personality trait and perceived brand quality has a significant positive influence on the intent to purchase a brand.” Louis and Lombart (2010: 116)	Iceland.
Hess et al. (2007). <i>Proceedings of the 36th EMAC Colloquium</i>	Brand trust	N/a Due to source Louis and Lombart (2010: 116).	“The Reliability and Temperament personality traits have a significant positive impact on trust in the brand. The Reliability trait has the strongest influence. The Instinctiveness personality trait has an indirect impact on trust in the brand via the Temperament personality trait.” Louis and Lombart (2010: 116)	Iceland.
Sung et al. (2005). <i>Asia-Pacific Advances in Consumer Research</i>	Consumers' attachment to the brand	N/a Due to source Louis and Lombart (2010: 116).	“Brand personality has a significant positive influence on attachment to the brand.” Louis and Lombart (2010: 116)	n/a
Ambroise (2005, 2006). <i>Revue Française du Marketing</i>		N/a Due to source	“The studies conducted by this author show that the five dimensions of the developed brand	Visa-a-Visa brand/ France.

		Louis and Lombart (2010: 116).	personality barometer explain on average 32.4 per cent of attachment to the brand.” Louis and Lombart (2010: 116)	
Ambroise et al. (2005). <i>Revue Française du Marketing</i>	Consumers’ commitment to the brand	N/a Due to source Louis and Lombart (2010: 116).	“At first, these authors showed the impact of brand personality on consumer commitment to the brand for sportswear brands, but not for cola brands. Then they showed that this impact is indirect via the attitude towards the brand. Lastly, those authors took into account a moderating variable: involvement in the product category. When involvement is high, personality has a significant positive impact on commitment and attitude is a partial mediator of the relation between brand personality and commitment. When the involvement is low, the brand personality has a significant negative impact on commitment and the attitude is not a mediator of the relation.” Louis and Lombart (2010: 116)	Visa-a-Visa brand/ France.

Sources: updated table of Louis and Lombart (2010b).

Appendix 2: A sample of Original traits generated by literature and focus groups first and second.

First focus group:

English Translation	Arabic Original Terms	English Translation	Arabic Original Terms
Active	نشط / عملي	Unique	فريد

Adventurous	مغامر، مجازف	Up-To-Date	متطور
Assertive	غير متردد	Independent	مستقل
Down-To-Earth	متواضع	Contemporary	حديث
Sincere	مخلص	Reliable	يعتمد عليه
Real	واقعي	Hardworking	مجتهد
Wholesome	مفيد	Intelligent	ذكي
Original	مميز	Technical	تقني
Cheerful	مرح	Corporate	متعاون
Friendly	اجتماعي	Successful	ناجح
Daring	جريء	Confident	واثق
Trendy	أنيق	Upper class	راقي
Exciting	مشوق	Innovative	متجدد الأفكار / مبتكر
Spirited	معنوياته مرتفعه	Lively	مفعم بالحيوية
Cool	زاحف	Good-Looking	جميل المظهر
Young	شبابي	Outdoorsy	محب للأنشطة خارج المنزل
Imaginative	واسع الخيال	Competitive	تنافسي

Rational	عقلاني	Trustworthy	جدير بالثقة
Popular	مشهور	Open minded	متقبل للأفكار الجديدة
Sporty	رياضي	Riche	غني
First mover	مبادر	High taste	ذو ذوق رفيع
Experienced	خبير / متمرس	Conservative	محافظ
Liberal	منفتح ثقافيا	Urban	متحضر
Traditional	ملتزم بالتقاليد	Religious	مطوع / متدين
Responsible	جدير بالثقة	Stable	متزن
Consistent	ذات مبادئ ثابتة	Rational	واقعي
Genuine	غير زائف / أصيل	Dynamic	فعال / ديناميكي
Energetic	متجدد النشاط / نشيط	Sentimental	حساس / عاطفي
Emotional	مثير للعاطفة / وجداني	Ordinary	مثل الآخرين / مألوف
Simple	غير معقد / عادي / بسيط	well mannered	محترم / مهذب
Muslim	مسلم	Nationalist	وطني
Extremist	متشدد / متطرف	Supportive	داعم

Bedouin	بدوي	Generous	كريم
Manly	رجولي	Decent	محتشم
Warm-hearted	ودود	Idealistic	مثالي
Eloquent	بليغ	Nice	ونيس
Illiberal	متعصب	Helpful	فزاع

Generated by: focus group

First focus group produced 74 traits that can be used to describe a human personality in Saudi Arabian culture at 4/3/2012. Total people in this focus group (male: 11 and female: 8) all from Saudi Arabia and covering all parts of Saudi Arabia.

Second Focus group:

English Translation	Arabic Original Terms	English Translation	Arabic Original Terms
Active	نشيط	Unique	فريد
Adventurous	مغامر، مجاز	Up-To-Date	متطور
Helpful	فزاع	Formal	رسمي
Down-To-Earth	متواضع	Contemporary	حديث
Economical	اقتصادي	Reliable	يعتمد عليه

Real	واقع	Hardworking	عملي
Wholesome	مفيد	Intelligent	ذكي
Original	مميز	Technical	تقني
Cheerful	ونيس	Cooperative	متعاون
Friendly	اجتماعي	Successful	ناجح
Daring	جريء	Confident	واثق
Trendy	أنيق	Upper class	راقي
Exciting	مشوق	Expensive	غالي
Conservative	محافظ	Lively	مفعم بالحيوية
Cool	زاحف	Good-Looking	جميل المظهر
Young	شبابي	Outdoorsy	محب للأنشطة خارج المنزل
Imaginative	واسع الخيال	Competitive	تنافسي
Idealistic	مثالي	Trustworthy	جدير بالثقة
Popular	مشهور	Open minded	متقبل للأفكار الجديدة
Sporty	رياضي	High class	كلاسي
First mover	مبادر	Urban	متحضر

Experienced	خبير / متمرس	Religious	مطوع / متدين
Liberal	منفتح ثقافيا	Sensitive	حساس
Traditional	ملتزم بالتقاليد	Effective	فعال
Responsible	مسؤول	Nationalist	وطني
Consistent	مستواه ثابت	Rational	واقعي
Genuine	غير زائف/ اصلي	well mannered	محترم / مهذب
Energetic	متجدد النشاط/ نشيط	Supportive	داعم
Simple	عادي	Ordinary	عادي/ مألوف
Muslim	مسلم	Extremist	متشدد/ متطرف
Bedouin	بدوي	Decent	محتشم
Manly	رجولي	Mohsen	مُحسِن

Notes: Second focus group (experts) on 9/3/2012. Total people in this focus group (7).

Traits that have been excluded by the second focus group are as following:

Assertive	Sincere	Spirited	Independent
Innovative	Emotional	Eloquent	Warm-hearted
Riche	High taste	Stable	Dynamic

Sentimental Nice Illiberal

All the above traits have been excluded by the focus group members thus to its unsuitability to be applied on products.

On the other hand a few traits have been replaced with more suitable ones from their own view and they agreed on the replacements 100%. These traits are:

Rich with High class Sentimental with Sensitive Muslim with Islamic

The second group has added new traits and they are:

Formal Economical Expensive Mohsen

Appendix 3: Table of Traits sources That Used for The Final Survey.

Traits	Traits Sources	Adopted
Original, Cheerful, Friendly, Daring, Trendy, Exciting, Sporty, Cool, Young, Imaginative, Upper class, Confident, Reliable, Contemporary, Technical, Unique, Up-to-date, Hardworking, Outdoorsy, Good-looking, Intelligent, Successful, Down-To-Earth and Wholesome.	Aaker's (1995)	Cheerful, Outdoorsy and Cool are different from Aaker's meaning and is more context-related meaning.
Ordinary, Simple and Active.	Geuens et al. (2009)	As it is

Islamic, Bedouin, Mohsen, Forma, Adventurous, Helpful, Religious, Economical, Nationalist, Manly, Decent, Traditional, Liberal, Extremist, Conservative, Expensive, Lively, competitive, Idealistic, Popular, Trustworthy, Open minded, Classy, Urban, First mover, Experienced, Genuine, Sensitive, Effective, Energetic, Consistent, Rational, Well mannered and supportive.	Generated by the author (2012)	As generated from the focus groups.
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Appendix 4: A sample of the Final questionnaire in English and Arabic.



This questionnaire survey is formed as part of the research for the PhD thesis regarding to the study of brand personality in the Saudi Arabian context and understand the link between religion and brand personality.

This survey will take approximately 10 minutes to complete. There are no right or wrong answers, so answer the questions as *honestly* as you can. Please answer all the questions in all the pages even though you will notice that some statements are very similar. This is deliberate and is needed for statistical purposes. All responses you provide will be *confidential* and will only be used for academic purposes. Please feel *free to withdraw* at any time and *without adverse consequences* and your given answer will be confidential.

Thank you for your cooperation:

FOR ANY ENQUIRES PLEASE CONTACT ONE OF THE FOLLOWING:

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Section A:

Please indicate the extent to which you agree with the following statements by ticking the most appropriate number. 1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = neutral, 5 = agree, 6 = strongly agree, 7 = very strongly agree.

1. How do you rate your religiosity level according to the following statements?

- I pray five times a day in the Masjed. ①---②---③---④---⑤---⑥---⑦
- I always pray Friday's prayer. ①---②---③---④---⑤---⑥---⑦
- I pay Zakat Alfitr annually if I meet the criteria. ①---②---③---④---⑤---⑥---⑦
- I do my best to follow the teachings of Islam ①---②---③---④---⑤---⑥---⑦
in all matters of life.
- I regularly study and read the Holy Quran. ①---②---③---④---⑤---⑥---⑦
- I always try to keep myself from minor and major sin. ①---②---③---④---⑤---⑥---⑦

- I always fast the month of Ramadan. ①---②---③---④---⑤---⑥---⑦
- I always avoid Haram (prohibited) earnings. ①---②---③---④---⑤---⑥---⑦

2. Which Brand name of the followings are you selecting to rate its personality in this questionnaire?



Section B:

Please indicate the extent to which you agree with the following adjectives by ticking the most appropriate number. 1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = neutral, 5 = agree, 6 = strongly agree, 7 = very strongly agree.

If you asked about your impression of a particular person, you might use a number of adjective to describe his/her personality. Now, let's imagine that Mobily, STC or both are human beings, how would you describe Mobily, STC or both by using the following list of traits?

Islamic	①---②---③---④---⑤---⑥---⑦	Bedouin	①---②---③---④---⑤---⑥---⑦
Adventurous	①---②---③---④---⑤---⑥---⑦	Mohsen	①---②---③---④---⑤---⑥---⑦
Helpful	①---②---③---④---⑤---⑥---⑦	Formal	①---②---③---④---⑤---⑥---⑦
Religious	①---②---③---④---⑤---⑥---⑦	Contemporary	①---②---③---④---⑤---⑥---⑦
Economical	①---②---③---④---⑤---⑥---⑦	Reliable	①---②---③---④---⑤---⑥---⑦
Real	①---②---③---④---⑤---⑥---⑦	Nationalist	①---②---③---④---⑤---⑥---⑦
Decent	①---②---③---④---⑤---⑥---⑦	Manly	①---②---③---④---⑤---⑥---⑦
Original	①---②---③---④---⑤---⑥---⑦	Traditional	①---②---③---④---⑤---⑥---⑦
Cheerful	①---②---③---④---⑤---⑥---⑦	Cooperative	①---②---③---④---⑤---⑥---⑦
Friendly	①---②---③---④---⑤---⑥---⑦	Liberal	①---②---③---④---⑤---⑥---⑦
Daring	①---②---③---④---⑤---⑥---⑦	Confident	①---②---③---④---⑤---⑥---⑦
Extremist	①---②---③---④---⑤---⑥---⑦	Upper class	①---②---③---④---⑤---⑥---⑦
Exciting	①---②---③---④---⑤---⑥---⑦	Expensive	①---②---③---④---⑤---⑥---⑦
Conservative	①---②---③---④---⑤---⑥---⑦	Lively	①---②---③---④---⑤---⑥---⑦

Cool	①---②---③---④---⑤---⑥---⑦	Ordinary	①---②---③---④---⑤---⑥---⑦
Young	①---②---③---④---⑤---⑥---⑦	Simple	①---②---③---④---⑤---⑥---⑦
Imaginative	①---②---③---④---⑤---⑥---⑦	Competitive	①---②---③---④---⑤---⑥---⑦
Idealistic	①---②---③---④---⑤---⑥---⑦	Trustworthy	①---②---③---④---⑤---⑥---⑦
Popular	①---②---③---④---⑤---⑥---⑦	Open minded	①---②---③---④---⑤---⑥---⑦
Sporty	①---②---③---④---⑤---⑥---⑦	High class	①---②---③---④---⑤---⑥---⑦
First mover	①---②---③---④---⑤---⑥---⑦	Urban	①---②---③---④---⑤---⑥---⑦
Experienced	①---②---③---④---⑤---⑥---⑦	Trendy	①---②---③---④---⑤---⑥---⑦
Genuine	①---②---③---④---⑤---⑥---⑦	Sensitive	①---②---③---④---⑤---⑥---⑦
Technical	①---②---③---④---⑤---⑥---⑦	Effective	①---②---③---④---⑤---⑥---⑦
Responsible	①---②---③---④---⑤---⑥---⑦	Energetic	①---②---③---④---⑤---⑥---⑦
Consistent	①---②---③---④---⑤---⑥---⑦	Rational	①---②---③---④---⑤---⑥---⑦
Unique	①---②---③---④---⑤---⑥---⑦	well mannered	①---②---③---④---⑤---⑥---⑦
Up-To-Date	①---②---③---④---⑤---⑥---⑦	Supportive	①---②---③---④---⑤---⑥---⑦
Wholesome	①---②---③---④---⑤---⑥---⑦	Outdoorsy	①---②---③---④---⑤---⑥---⑦
Active	①---②---③---④---⑤---⑥---⑦	Good-Looking	①---②---③---④---⑤---⑥---⑦
Down-To-Earth	①---②---③---④---⑤---⑥---⑦	Intelligent	①---②---③---④---⑤---⑥---⑦
Hardworking	①---②---③---④---⑤---⑥---⑦	Successful	①---②---③---④---⑤---⑥---⑦

Section C:

Please indicate the extent to which you agree with the following statements by circling the most appropriate number. 1 = very strongly disagree, 2 = strongly disagree, 3 = disagree, 4 = neutral, 5 = agree, 6 = strongly agree, 7 = very strongly agree.

	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
A: Buying an Islamic-compliant brand is Good	1	2	3	4	5	6	7
SN: People important to me would think that I should buy Islamic-	1	2	3	4	5	6	7

compliant brands.								
CO1: The Islamic-compliant product will not offer me any new benefits.	1	2	3	4	5	6	7	
A: Buying an Islamic-compliant brand is Pleasant .	1	2	3	4	5	6	7	
SN: People whose opinions I valued preferred that I buy Islamic-compliant brands.	1	2	3	4	5	6	7	
A: I Like buying an Islamic-compliant brand.	1	2	3	4	5	6	7	
NPRA: I prefer to buy new an Islamic-compliant brand.	1	2	3	4	5	6	7	
PBC: I have the knowledge to buy Islamic-compliant brands.	1	2	3	4	5	6	7	
A: Buying an Islamic-compliant brand is Good	1	2	3	4	5	6	7	
NPRA: I choose to buy an Islamic-compliant brand even not familiar with the brand.	1	2	3	4	5	6	7	
PBC: I am capable of buying Islamic-compliant brands.	1	2	3	4	5	6	7	
A: Buying an Islamic-compliant brand is Wise .	1	2	3	4	5	6	7	
PBC: I have the resources to buy Islamic-compliant brands.	1	2	3	4	5	6	7	
NPRA: I prefer to buy an Islamic-compliant brand.	1	2	3	4	5	6	7	
PBC: Buying Islamic-compliant brands is completely within my control.	1	2	3	4	5	6	7	
NPRA: I choose to buy an Islamic-compliant brand even it is quite expensive.	1	2	3	4	5	6	7	
RA: Buying an Islamic-compliant product will not benefit me in any way.	1	2	3	4	5	6	7	
CO1: An Islamic-compliant product will fit well with my lifestyle.	1	2	3	4	5	6	7	
RA: The advantages of buying an Islamic-compliant product outweigh the disadvantages.	1	2	3	4	5	6	7	

CO1: The Islamic-compliant product will fit well with my religious teachings.	1	2	3	4	5	6	7
CO2: An Islamic-compliant product will be difficult to purchase.	1	2	3	4	5	6	7
FA1. I daydream a lot.	1	2	3	4	5	6	7
RA: Buying an Islamic-compliant products allow me to satisfy my religious values.	1	2	3	4	5	6	7
CO2: An Islamic-compliant product will be less satisfying.	1	2	3	4	5	6	7
RA: Buying an Islamic-compliant product enables me to reflect my desired personality.	1	2	3	4	5	6	7
SN: People who influence my behaviour wanted me to buy Islamic-compliant brands.	1	2	3	4	5	6	7
FA2. When I watch movies I find it easy to lose myself in the film.	1	2	3	4	5	6	7
CO2: An Islamic-compliant product will be difficult to benefit of.	1	2	3	4	5	6	7
FA3. I often think of what might have been.	1	2	3	4	5	6	7

Demographic questions for classification purposes only. Please tick the appropriate box for your response.

1. Your Gender:	
Female <input type="checkbox"/>	Male <input type="checkbox"/>
2. What age group do you belong to?	
<input type="checkbox"/> 18-25	<input type="checkbox"/> 26-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-55 <input type="checkbox"/> 56-65 <input type="checkbox"/> 66 or more.
3. What is the highest level of completed education?	
<input type="checkbox"/> Less than a high school graduate	<input type="checkbox"/> High school graduate
<input type="checkbox"/> Undergraduate degree	<input type="checkbox"/> Postgraduate degree
4. Monthly Personal Income:	
<input type="checkbox"/> Less than SR 5,000	<input type="checkbox"/> SR6,000- SR11,000 <input type="checkbox"/> SR12,000- SR17,000
<input type="checkbox"/> SR18,000- SR23,000	<input type="checkbox"/> SR24, 000- SR29, 000
<input type="checkbox"/> SR30, 000- SR35, 000	<input type="checkbox"/> over SR40, 000

THE Arabic version of the final questioner:



إستبيان عن تأثير الدين على اختيار و شراء المنتجات ذات الطابع الديني

هذه الاستمارة هي نموذج لدراسة تحضيرية لدرجة الدكتوراه و هدفها هو (معرفة الشخصية التجارية للشركة المختارة لأن تكون موضع الدراسة في المملكة العربية السعودية، ومعرفة مدى و نوع التأثير الحاصل من القيم الدينية على اختيار المنتج ذات الطابع و الصفات الدينية و عوامل أخرى لها علاقة مباشرة و غير مباشرة على شراء و اختيار المنتجات). لذا أود أن أعلمكم بأن المعلومات التي ستجمع سوف يتم استخدامها لأغراض الرسالة الأكاديمية في البحث فقط وهذا لتحقيق الخصوصية للمشاركين في هذا الاستبيان شاكراً لكم تعاونكم:

في حال وجود أي إستفسار يرجى الاتصال بأحد الأرقام التالية

البريفوسور: شنكا جياوارد هينا

الباحث: علي حميد آل حجلاء

كلية إدارة الأعمال ، جامعة هل البريطانية

كلية إدارة الأعمال ، جامعة هل البريطانية

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الفقرة الأولى:

الرجاء إختيار الإجابة الأمثل من وجهة نظرك الخاصة مع العلم انه ليس هناك إجابة صحيحة أو خطأ. قم بوضع علامة √ فوق رقم الإجابة المناسب لك مع العلم أن كل رقم يرمز لإجابة محددة كما يلي: (1) جداً لا يصفني نهائياً، (2) لا يصفني نهائياً، (3) لا يصفني، (4) محايد (5) يصفني، (6) يصفني تماماً، (7) جداً يصفني تماماً.

1- كيف تقيم مستوى أو درجة تدينك من خلال تقييم العبارات التالية؟

①---②---③---④---⑤---⑥---⑦

- أنا أصليّ الخمس صلوات في المسجد

①---②---③---④---⑤---⑥---⑦

- أنا دائماً أصلي صلاة الجمعة

①---②---③---④---⑤---⑥---⑦

- أنا دائماً أقرأ و أتعلم القرآن

①---②---③---④---⑤---⑥---⑦

- أنا أصوم شهر رمضان

①---②---③---④---⑤---⑥---⑦

- أنا دائماً أحاول إجتنب كبائر وصغائر الذنوب

- أنا أبذل قصارى جهدي لإتباع تعاليم الإسلام في كل أمور الحياة ①---②---③---④---⑤---⑥---⑦
- أنا دائماً أتجنب الكسب الحرام ①---②---③---④---⑤---⑥---⑦
- أنا أدفع زكاة الفطر سنوياً إذا كنت أستوفي الشروط ①---②---③---④---⑤---⑥---⑦

2- اختر الشركة التي لديك خلفية ممتازة عنها و عن النشاطات الإعلانية و الدعائية لمنتجاتها: (بإمكانك اختيار كلا الإجابتين معاً)



الفقرة الثانية:

الرجاء إختيار الإجابة الأمثل من وجهة نظرك الخاصة مع العلم انه ليس هناك إجابة صحيحة أو خطأ. قم بوضع علامة √ فوق رقم الإجابة المناسبة لك مع العلم أن كل رقم يرمز لإجابة محددة كما يلي: (1) جداً لاتنطبق نهائياً، (2) لاتنطبق نهائياً، (3) لاتنطبق، (4) محايد (5) تنطبق، (6) تنطبق تماماً، (7) جداً تنطبق تماماً.

لو أنه طلب منك تقييم إحدى الشركات التالية من خلال أن تتخيل أن موبايلى أو الاتصالات السعودية شخصية بشرية (إنسان) إلى أي مدى ترى كلاً من هذه الصفات تصف أو تنطبق على موبايلى إذا طلب منك وصفه من خلال هذه الصفات أرجوا أن تضع علامة عند الرقم المرادف :

①---②---③---④---⑤---⑥---⑦	نشط	①---②---③---④---⑤---⑥---⑦	فريد
①---②---③---④---⑤---⑥---⑦	مغامر، مجازف	①---②---③---④---⑤---⑥---⑦	متطور
①---②---③---④---⑤---⑥---⑦	فزع	①---②---③---④---⑤---⑥---⑦	رسمي
①---②---③---④---⑤---⑥---⑦	متواضع	①---②---③---④---⑤---⑥---⑦	حديث
①---②---③---④---⑤---⑥---⑦	اقتصادي	①---②---③---④---⑤---⑥---⑦	يعتمد عليه
①---②---③---④---⑤---⑥---⑦	واقعي	①---②---③---④---⑤---⑥---⑦	عملي
①---②---③---④---⑤---⑥---⑦	مفيد	①---②---③---④---⑤---⑥---⑦	ذكي
①---②---③---④---⑤---⑥---⑦	مميز	①---②---③---④---⑤---⑥---⑦	تقني
①---②---③---④---⑤---⑥---⑦	ونيس	①---②---③---④---⑤---⑥---⑦	متعاون
①---②---③---④---⑤---⑥---⑦	اجتماعي	①---②---③---④---⑤---⑥---⑦	ناجح
①---②---③---④---⑤---⑥---⑦	جريء	①---②---③---④---⑤---⑥---⑦	واثق
①---②---③---④---⑤---⑥---⑦	أنيق	①---②---③---④---⑤---⑥---⑦	راقي
①---②---③---④---⑤---⑥---⑦	مشوق	①---②---③---④---⑤---⑥---⑦	غالي

①---②---③---④---⑤---⑥---⑦	محافظ	①---②---③---④---⑤---⑥---⑦	مفعم بالحيوية
①---②---③---④---⑤---⑥---⑦	زاحف	①---②---③---④---⑤---⑥---⑦	جميل المظهر
①---②---③---④---⑤---⑥---⑦	شبابي	①---②---③---④---⑤---⑥---⑦	محب للأنشطة خارج المنزل
①---②---③---④---⑤---⑥---⑦	واسع الخيال	①---②---③---④---⑤---⑥---⑦	تنافسي
①---②---③---④---⑤---⑥---⑦	مثالي	①---②---③---④---⑤---⑥---⑦	جدير بالثقة
①---②---③---④---⑤---⑥---⑦	مشهور	①---②---③---④---⑤---⑥---⑦	متقبل للأفكار الجديدة
①---②---③---④---⑤---⑥---⑦	رياضي	①---②---③---④---⑤---⑥---⑦	كلاسي
①---②---③---④---⑤---⑥---⑦	مبارد	①---②---③---④---⑤---⑥---⑦	متحضر
①---②---③---④---⑤---⑥---⑦	خبير / متمرس	①---②---③---④---⑤---⑥---⑦	مطوع / متدين
①---②---③---④---⑤---⑥---⑦	منفتح ثقافيا	①---②---③---④---⑤---⑥---⑦	حساس
①---②---③---④---⑤---⑥---⑦	ملتزم بالتقاليد	①---②---③---④---⑤---⑥---⑦	فعال
①---②---③---④---⑤---⑥---⑦	مسئول	①---②---③---④---⑤---⑥---⑦	وطني
①---②---③---④---⑤---⑥---⑦	مستواه ثابت	①---②---③---④---⑤---⑥---⑦	واقعي
①---②---③---④---⑤---⑥---⑦	أصلي	①---②---③---④---⑤---⑥---⑦	محترم / مهذب
①---②---③---④---⑤---⑥---⑦	متجدد / نشيط النشاط	①---②---③---④---⑤---⑥---⑦	داعم
①---②---③---④---⑤---⑥---⑦	عادي	①---②---③---④---⑤---⑥---⑦	مألوف / عادي
①---②---③---④---⑤---⑥---⑦	مسلم	①---②---③---④---⑤---⑥---⑦	متطرف / متشدد
①---②---③---④---⑤---⑥---⑦	بدوي	①---②---③---④---⑤---⑥---⑦	محتشم
①---②---③---④---⑤---⑥---⑦	رجولي	①---②---③---④---⑤---⑥---⑦	مُحسن

الفقرة الثالثة:

الرجاء إختيار الإجابة الأمثل من وجهة نظرك الخاصة مع العلم انه ليس هناك إجابة صحيحة أو خطأ. قم بوضع علامة √ فوق رقم الإجابة المناسبه لك مع العلم أن كل رقم يرمز لإجابة محددة كما يلي: (1) جداً لائق نهائياً، (2) لائق نهائياً، (3) لائق، (4) محايد (5) أتفق، (6) أتفق تماماً، (7) جداً أتفق تماماً.

جداً لأوافق نهائي	لأوافق نهائي	لأعلم	أوافق	أوافق تماماً	جداً أوافق تمام		
1	2	3	4	5	6	7	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام امر جيد
1	2	3	4	5	6	7	الناس المهمين إلي يفضلون أن أشتري منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام لاتحقق لي أي منفعة إطلاقاً
1	2	3	4	5	6	7	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام امر مرضي
1	2	3	4	5	6	7	الأشخاص الذين أهتم لأرأنهم و ملاحظاتهم يفضلون أن أشتري منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	الأشخاص الذين يؤثرون في تصرفاتي يردون مني أن أشتري منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تتم باختيار التام
1	2	3	4	5	6	7	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام امر عقلائي
1	2	3	4	5	6	7	لدي الموارد اللازمة لاقتناء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	لدي المعرفة اللازمة لاقتناء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	أنا أفضل شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام امر أفضله
1	2	3	4	5	6	7	أنا أفضل شراء المنتجات الجديدة للعلامات التجارية الملتزمة بتعاليم و آداب الإسلام
1	2	3	4	5	6	7	أنا أختار شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام حتى وإن لم يكن منتج مألوف بالنسبة إلي
1	2	3	4	5	6	7	أنا أختار شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام

7	6	5	4	3	2	1	حتى وإن كانت أسعارها أعلى شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تساعدني على إرضاء القيم والتعاليم الإسلامية
7	6	5	4	3	2	1	المزايا من شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام أكثر من المساوي
7	6	5	4	3	2	1	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام لاتحقق لي أي منفعة إطلاقاً
7	6	5	4	3	2	1	شراء منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تمكنني من إظهار الشخصية التي أرغب في إظهارها للمجتمع
7	6	5	4	3	2	1	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تتماشى مع نمط حياتي
7	6	5	4	3	2	1	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تتماشى مع قيم و تعاليم ديني الإسلامي
7	6	5	4	3	2	1	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام يصعب شراءها أو الحصول عليها
7	6	5	4	3	2	1	أنا كثيراً ما أحلم أحلام اليقظه
7	6	5	4	3	2	1	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام يصعب الاستفادة منها
7	6	5	4	3	2	1	منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام تكون دائماً أقل إرضاء لاحتياجاتي عند استعمالها
7	6	5	4	3	2	1	عندما أشاهد أفلام أجد أنه من السهل أن أفقد نفسي في الفيلم.
7	6	5	4	3	2	1	أنا قادر على منتجات العلامات التجارية الملتزمة بتعاليم و آداب الإسلام
7	6	5	4	3	2	1	أنا كثيراً ما أفكر فيما قد كان أو حدث

الأسئلة الديموغرافية لأغراض التصنيف المتعلق بالإجابات فقط. يرجى وضع علامة في الخانة المناسبة لإجابته.

1- حدد جنسك: ذكر أنثى

2- إلى أي من هذه الفئات العمرية تنتمي:

25-18 35-26 45-36 55-46 65-56 66 فما فوق

4- المستوى التعليمي:

أقل من المدرسة الثانوية كلية- جامعة

ثانوي دراسات عليا

5- الدخل الشهري:

أقل من 5,000 ريال 6,000-11,000 ريال 12,000-17,000 ريال 18,000-23,000 ريال

24,000-29,000 ريال 30,000-35,000 ريال أكثر من 40,000 ريال

Appendix 5: Table of Missing Data Procedure Findings Based on Frequency Distribution

Items	N	Missing	
		Count	Percent
Q2.NO.1	352	0	.0
Q4.NO.1	352	0	.0
Q4.NO.2	352	0	.0
Q4.NO.3	352	0	.0
Q4.NO.4	352	0	.0
Q1.NO.1	352	0	.0
Q1.NO.2	352	0	.0
Q1.NO.3	352	0	.0
Q1.NO.4	352	0	.0
Q1.NO.5	352	0	.0
Q1.NO.6	352	0	.0
Q1.NO.7	352	0	.0
Q1.NO.8	352	0	.0
Q2.NO.2.1	352	0	.0
Q2.NO.2.2	352	0	.0
Q2.NO.2.3	352	0	.0
Q2.NO.2.4	352	0	.0
Q2.NO.2.5	352	0	.0
Q2.NO.2.6	352	0	.0
Q2.NO.2.7	352	0	.0
Q2.NO.2.8	352	0	.0
Q2.NO.2.9	352	0	.0
Q2.NO.2.10	352	0	.0
Q2.NO.2.11	352	0	.0

Q2.NO.2.12	352	0	.0
Q2.NO.2.13	352	0	.0
Q2.NO.2.14	352	0	.0
Q2.NO.2.15	352	0	.0
Q2.NO.2.16	352	0	.0
Q2.NO.2.17	352	0	.0
Q2.NO.2.18	352	0	.0
Q2.NO.2.19	352	0	.0
Q2.NO.2.20	352	0	.0
Q2.NO.2.21	352	0	.0
Q2.NO.2.22	352	0	.0
Q2.NO.2.23	352	0	.0
Q2.NO.2.24	352	0	.0
Q2.NO.2.25	352	0	.0
Q2.NO.2.26	352	0	.0
Q2.NO.2.27	352	0	.0
Q2.NO.2.28	352	0	.0
Q2.NO.2.29	352	0	.0
Q2.NO.2.30	352	0	.0
Q2.NO.2.31	352	0	.0
Q2.NO.2.32	352	0	.0
Q2.NO.2.33	352	0	.0
Q2.NO.2.34	352	0	.0
Q2.NO.2.35	352	0	.0
Q2.NO.2.36	352	0	.0
Q2.NO.2.37	352	0	.0
Q2.NO.2.38	352	0	.0
Q2.NO.2.39	352	0	.0
Q2.NO.2.40	352	0	.0
Q2.NO.2.41	352	0	.0
Q2.NO.2.42	352	0	.0
Q2.NO.2.43	352	0	.0
Q2.NO.2.44	352	0	.0
Q2.NO.2.45	352	0	.0
Q2.NO.2.46	352	0	.0
Q2.NO.2.47	352	0	.0
Q2.NO.2.48	352	0	.0
Q2.NO.2.49	352	0	.0
Q2.NO.2.50	352	0	.0
Q2.NO.2.51	352	0	.0
Q2.NO.2.52	352	0	.0
Q2.NO.2.53	352	0	.0
Q2.NO.2.54	352	0	.0
Q2.NO.2.55	352	0	.0
Q2.NO.2.56	352	0	.0
Q2.NO.2.57	352	0	.0
Q2.NO.2.58	352	0	.0
Q2.NO.2.59	352	0	.0

Q2.NO.2.60	352	0	.0
Q2.NO.2.61	352	0	.0
Q2.NO.2.62	352	0	.0
Q2.NO.2.63	352	0	.0
Q2.NO.2.64	352	0	.0
Q3.NO.1	352	0	.0
Q3.NO.2	352	0	.0
Q3.NO.3	352	0	.0
Q3.NO.4	352	0	.0
Q3.NO.5	352	0	.0
Q3.NO.6	352	0	.0
Q3.NO.7	352	0	.0
Q3.NO.8	352	0	.0
Q3.NO.9	352	0	.0
Q3.NO.10	352	0	.0
Q3.NO.11	352	0	.0
Q3.NO.12	352	0	.0
Q3.NO.13	352	0	.0
Q3.NO.14	352	0	.0
Q3.NO.15	352	0	.0
Q3.NO.16	352	0	.0
Q3.NO.17	352	0	.0
Q3.NO.18	352	0	.0
Q3.NO.19	352	0	.0
Q3.NO.20	352	0	.0
Q3.NO.21	352	0	.0
Q3.NO.22	352	0	.0
Q3.NO.23	352	0	.0
Q3.NO.24	352	0	.0
Q3.NO.25	352	0	.0
Q3.NO.26	352	0	.0
Q3.NO.27	352	0	.0
Q3.NO.28	352	0	.0

Appendix 6: Normality of Data Distribution via Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W).

Items of Survey	df	K-S	S-W	Skewness		Kurtosis	
		Sig.	Sig.	Skewness	STD	Kurtosis	STD
Unique	352	.000	.000	-.028	.130	-.870	.259
Active	352	.000	.000	-.792	.130	.021	.259
Up-To-Date	352	.000	.000	-.463	.130	-.656	.259
Adventurous	352	.000	.000	-.374	.130	-.457	.259
Formal	352	.000	.000	-.644	.130	-.268	.259
Helpful	352	.000	.000	-.433	.130	-.592	.259
Contemporary	352	.000	.000	-.001	.130	-.603	.259
Down-To-Earth	352	.000	.000	-.612	.130	-.237	.259
Reliable	352	.000	.000	-.671	.130	-.209	.259
Economical	352	.000	.000	-.656	.130	-.326	.259
Hardworking	352	.000	.000	-.656	.130	-.024	.259
Real	352	.000	.000	-.639	.130	-.185	.259
Intelligent	352	.000	.000	-.836	.130	.245	.259
Wholesome	352	.000	.000	-.947	.130	.550	.259
Technical	352	.000	.000	-.993	.130	.418	.259
Original	352	.000	.000	-.645	.130	-.362	.259
Corporative	352	.000	.000	-.654	.130	-.330	.259
Cheerful	352	.000	.000	-.569	.130	-.403	.259

Successful	352	.000	.000	-.986	.130	1.286	.259
Friendly	352	.000	.000	-.631	.130	.287	.259
Confident	352	.000	.000	-.762	.130	-.144	.259
Daring	352	.000	.000	-.617	.130	-.230	.259
Upper class	352	.000	.000	-.752	.130	-.125	.259
Trendy	352	.000	.000	-.709	.130	-.109	.259
Expensive	352	.000	.000	-.927	.130	.056	.259
Exciting	352	.000	.000	-.535	.130	-.465	.259
Lively	352	.000	.000	-.657	.130	-.197	.259
Conservative	352	.000	.000	-.743	.130	.505	.259
Good-Looking	352	.000	.000	-.705	.130	-.246	.259
Cool	352	.000	.000	-.384	.130	-.604	.259
Outdoorsy	352	.000	.000	-.665	.130	-.129	.259
Young	352	.000	.000	-.757	.130	.202	.259
Competitive	352	.000	.000	-.803	.130	-.031	.259
Imaginative	352	.000	.000	-.888	.130	.362	.259
Trustworthy	352	.000	.000	.267	.130	-1.531	.259
Idealistic	352	.000	.000	-.768	.130	-.176	.259
Open minded	352	.000	.000	-.905	.130	.597	.259
Popular	352	.000	.000	-1.018	.130	.447	.259

Classy	352	.000	.000	-.543	.130	-.321	.259
Sporty	352	.000	.000	-.685	.130	-.308	.259
Urban	352	.000	.000	-.779	.130	-.078	.259
First mover	352	.000	.000	-.639	.130	-.150	.259
Religious	352	.000	.000	-.859	.130	1.307	.259
Experienced	352	.000	.000	-.658	.130	-.087	.259
Sensitive	352	.000	.000	-.211	.130	-.966	.259
Liberal	352	.000	.000	-.818	.130	-.191	.259
Effective	352	.000	.000	-.821	.130	.319	.259
Traditional	352	.000	.000	-.536	.130	-.750	.259
Nationalist	352	.000	.000	-.846	.130	.175	.259
Responsible	352	.000	.000	-.765	.130	.055	.259
Rational	352	.000	.000	-.692	.130	-.092	.259
Consistent	352	.000	.000	-.541	.130	-.287	.259
well mannered	352	.000	.000	-.904	.130	.807	.259
Genuine	352	.000	.000	-.789	.130	.259	.259
Supportive	352	.000	.000	-.651	.130	-.159	.259
Energetic	352	.000	.000	-.943	.130	.841	.259
Ordinary	352	.000	.000	-.642	.130	.293	.259
Simple	352	.000	.000	-.495	.130	-.786	.259

Extremist	352	.000	.000	-.225	.130	-.863	.259
Islamic	352	.000	.000	-1.284	.130	2.444	.259
Decent	352	.000	.000	-.906	.130	.792	.259
Bedouin	352	.000	.000	-.251	.130	-.960	.259
Mohsen	352	.000	.000	-.635	.130	.412	.259
Manly	352	.000	.000	-.562	.130	-.695	.259
I pray five times a day in the Masjed.	352	.000	.000	-1.188	.130	1.557	.259
I always pray Friday's prayer.	352	.000	.000	-1.602	.130	2.614	.259
I pay Zakat Alfitr annually if I meet the criteria.	352	.000	.000	-.615	.130	-.125	.259
I do my best to follow the teachings of Islam in all matters of life.	352	.000	.000	-2.696	.130	7.308	.259
I regularly study and read the Holy Quran.	352	.000	.000	-1.320	.130	2.257	.259
I always try to keep myself from minor and major sin.	352	.000	.000	-1.367	.130	2.821	.259
I always fast the month of Ramadan.	352	.000	.000	-2.538	.130	8.145	.259
I always avoid Haram (prohibited) earnings.	352	.000	.000	-2.245	.130	5.344	.259
Which Brand name of the followings are you selecting to rate its personality in this questionnaire?	352	.000	.000	.208	.130	-1.234	.259
A.Buying an Islamic-compliant brand is.GOOD	352	.000	.000	-1.558	.130	2.514	.259
SN: People important to me would think that I should buy Islamic-compliant brands.	352	.000	.000	-.760	.130	.158	.259
COMPAT1: The Islamic-compliant product will not offer me any new benefits.	352	.000	.000	1.083	.130	.622	.259
A.Buying an Islamic-compliant brand is.PLEASANT	352	.000	.000	-1.203	.130	1.230	.259
SN: People whose opinions I valued preferred that I buy Islamic-compliant brands.	352	.000	.000	-.972	.130	.500	.259

SN: People who influence my behaviour wanted me to buy Islamic-compliant brands.	352	.000	.000	-.808	.130	.319	.259
PBC: Buying Islamic-compliant brands is completely within my control.	352	.000	.000	-1.188	.130	1.384	.259
A.Buying an Islamic-compliant brand is.Wise	352	.000	.000	--1.034	.130	1.289	.259
PBC: I have the resources to buy Islamic-compliant brands.	352	.000	.000	-.697	.130	.481	.259
PBC: I have the knowledge to buy Islamic-compliant brands.	352	.000	.000	-.571	.130	.332	.259
NPA: I prefer to buy an Islamic-compliant brand.	352	.000	.000	-1.210	.130	1.515	.259
A.Buying an Islamic-compliant brand is.LIKE	352	.000	.000	-1.350	.130	1.612	.259
NPA: I prefer to buy new an Islamic-compliant brand.	352	.000	.000	-1.014	.130	.844	.259
NPA: I choose to buy an Islamic-compliant brand even if not familiar with the brand.	352	.000	.000	-.484	.130	-.089	.259
NPA: I choose to buy an Islamic-compliant brand even if it is quite expensive.	352	.000	.000	-.697	.130	-.354	.259
RA: Buying an Islamic-compliant product allows me to satisfy my religious values.	352	.000	.000	-1.143	.130	1.202	.259
RA: The advantages of buying an Islamic-compliant product overweight the disadvantages.	352	.000	.000	-.773	.130	.144	.259
RA: Buying an Islamic-compliant product will not benefit me in any way.	352	.000	.000	.732	.130	-.340	.259
RA: Buying an Islamic-compliant product enables me to reflect my desired personality.	352	.000	.000	-.883	.130	.313	.259
COMPAT1: An Islamic-compliant product will fit well with my lifestyle.	352	.000	.000	-.914	.130	.747	.259
COMPAT1: An Islamic-compliant product will fit well with my religious teachings.	352	.000	.000	-.896	.130	.509	.259
COMPLETE2: An Islamic-compliant product will be difficult to purchase.	352	.000	.000	.072	.130	-.955	.259
FA: I daydream a lot.	352	.000	.000	-.362	.130	-.644	.259
COMPLETE2: An Islamic-compliant product will be difficult to benefit of.	352	.000	.000	.489	.130	-.404	.259

COMPLETE2: An Islamic-compliant product will be less satisfying.	352	.000	.000	.209	.130	-.644	.259
FA: When I watch movies I find it easy to lose myself in the film.	352	.000	.000	-.043	.130	-.982	.259
PBC: I am capable of buying Islamic-compliant brands.	352	.000	.000	-.780	.130	.370	.259
FA: I often think of what might have been.	352	.000	.000	-.692	.130	-.242	.259

Appendix 7: Observations from the Multivariate cases (Mahalanobis distance).

Observation number	Mahalanobis d-squared	p1	p2
136	88.701	.000	.000
251	69.880	.000	.000
195	59.639	.000	.000
211	58.296	.000	.000
37	56.396	.000	.000
199	53.886	.001	.000
129	51.367	.001	.000
253	50.872	.002	.000
28	50.392	.002	.000
42	48.837	.003	.000
258	47.397	.004	.000
126	47.267	.005	.000
80	47.083	.005	.000
143	45.922	.007	.000
130	45.626	.007	.000
5	45.495	.007	.000
141	45.167	.008	.000
237	45.091	.008	.000
51	45.038	.008	.000
210	44.789	.009	.000
144	44.279	.010	.000
125	44.166	.010	.000
247	44.102	.011	.000
245	43.477	.012	.000
183	42.992	.014	.000
222	42.785	.015	.000
104	42.442	.016	.000
265	41.090	.022	.000
35	40.832	.024	.000
95	40.754	.024	.000
236	40.499	.026	.000
198	39.896	.030	.000
54	39.722	.031	.000
61	39.600	.032	.000
270	39.570	.032	.000
68	39.101	.036	.000
39	38.812	.038	.000
17	38.343	.043	.000
206	37.878	.048	.000
9	37.871	.048	.000

Observation number	Mahalanobis d-squared	p1	p2
79	37.635	.050	.000
138	37.215	.055	.000
275	36.997	.058	.000
282	36.980	.058	.000
132	36.657	.062	.000
227	36.576	.063	.000
14	36.207	.069	.000
170	35.994	.072	.000
280	35.976	.072	.000
123	35.751	.075	.000
56	35.534	.079	.000
124	35.226	.084	.000
113	34.728	.093	.000
112	34.677	.094	.000
75	34.456	.099	.000
65	34.312	.101	.000
55	33.764	.113	.000
1	33.712	.114	.000
38	33.430	.121	.000
100	33.293	.124	.000
190	32.595	.142	.001
283	32.541	.143	.001
122	32.502	.144	.000
96	32.370	.148	.000
34	31.994	.158	.002
49	31.831	.163	.002
203	31.128	.185	.023
208	30.899	.192	.035
102	30.608	.202	.065
131	30.530	.205	.062
201	30.450	.208	.060
41	30.436	.208	.047
13	30.400	.210	.039
114	30.280	.214	.043
192	30.099	.221	.058
108	30.074	.222	.047
150	29.982	.225	.048
181	29.977	.225	.036
81	29.970	.225	.028
59	29.907	.228	.025
105	29.875	.229	.021
276	29.734	.234	.026

Observation number	Mahalanobis d-squared	p1	p2
43	29.564	.241	.035
109	29.340	.250	.056
217	29.124	.259	.085
99	29.020	.263	.091
274	28.733	.275	.160
134	28.513	.285	.224
188	28.471	.287	.207
268	28.384	.290	.211
154	28.105	.303	.323
174	28.049	.306	.311
83	27.850	.315	.390
47	27.830	.316	.355
2	27.820	.316	.315
12	27.732	.320	.324
254	27.574	.328	.378
118	27.377	.337	.463
278	27.359	.338	.426
30	27.317	.340	.406

Appendix 8: Assessment of Multivariate.

Variable	min	max	skew	c.r.	kurtosis	c.r.
RA2	2.000	7.000	-.522	-3.611	-.663	-2.292
RA1	1.000	7.000	-.744	-5.143	-.033	-.113
PBC2	1.000	7.000	-.222	-1.536	-.440	-1.521
NRCPA2	1.000	7.000	-.410	-2.839	-.189	-.653
SN1	1.000	7.000	-.682	-4.717	.013	.046
COM1.3	1.000	7.000	-.579	-4.008	-.057	-.197
COM1.2	1.000	7.000	-.494	-3.415	-.099	-.341
PBC4	1.000	7.000	-.593	-4.104	.323	1.117
NRCPA4	2.000	7.000	-.543	-3.756	-.395	-1.366
SN2	1.000	7.000	-.572	-3.959	-.329	-1.136
RA4	1.000	7.000	-.791	-5.473	.395	1.364
NRCPA1	1.000	7.000	-.627	-4.335	-.025	-.085
PBC3	1.000	7.000	-.017	-.118	-.534	-1.847
RB3	1.000	7.000	-.568	-3.931	-.201	-.694
COM2.2	1.000	7.000	.334	2.308	-.576	-1.991
SN3	1.000	7.000	-.473	-3.272	-.341	-1.179
COM2.1	1.000	7.000	.065	.448	-.849	-2.935
RB2	1.000	7.000	-1.696	-11.728	3.169	10.959

Variable	min	max	skew	c.r.	kurtosis	c.r.
RB5	1.000	7.000	-1.282	-8.869	2.045	7.073
RB6	2.000	7.000	-.823	-5.689	.250	.864
RB1	1.000	7.000	-.852	-5.893	.466	1.610
<u>Multivariate</u>					<u>91.405</u>	<u>21.072</u>

Appendix 9: EFA of the TPB and FA Constructs with Eigenvalue >1.

Component Matrix^a

	Component								
	1	2	3	4	5	6	7	8	9
Urban	.755								
Liberal	.734								
Idealistic	.709								
Rational	.682								
Hardworking	.676								
First mover	.674								
Supportive	.665								
Upper class	.660								
Intelligent	.659								
Energetic	.639								
Classy	.636								
Responsible	.632								
Confident	.631								
Popular	.628								

Imaginative	.618						
Competitive	.615						
Technical	.579						
Sporty	.567						
Young	.556						
Formal	.539						
Helpful	.528						
Adventurous							
Economical							
A.Buying an Islamic-compliant brand is.LIKE	.661						
NPA: I prefer to buy new an Islamic-compliant brand.	.649						
PBC: I have the resources to buy Islamic-compliant brands.	.616						
NPA: I prefer to buy an Islamic-compliant brand.	.611						
A.Buying an Islamic-compliant brand is.GOOD	.602						
PBC: Buying Islamic-compliant brands is completely within my control.	.584						
NPA: I choose to buy an Islamic-compliant brand even it is quite expensive.	.583						

SN: People important to me would think that I should buy Islamic-compliant brands.		.580					
PBC: I have the knowledge to buy Islamic-compliant brands.		.570					
SN: People whose opinions I valued preferred that I buy Islamic-compliant brands.		.569					
A.Buying an Islamic-compliant brand is.Wise		.558					
NPA: I choose to buy an Islamic-compliant brand even not familiar with the brand.		.557					
A.Buying an Islamic-compliant brand is.PLEASANT		.544					
SN: People who influence my behaviour wanted me to buy Islamic-compliant brands.		.510					
PBC: I am capable of buying Islamic-compliant brands.							
Simple			.740				
Traditional			.733				
Manly			.725				
Bedouin			.659				
Nationalist	.503		.555				
Islamic				.770			
well mannered				.722			

Decent					.693				
Religious					.630				
Mohsen									
Sensitive							.687		
Extremist							.676		

Extraction Method: Principal Component Analysis.

a. 9 components extracted.

Appendix 10: Correlation Matrix of the Nine factors of the TPB and FA constructs with Eigenvalue < 1.

Component Matrix

Component	1	2	3	4	5	6	7	8	9
1	1.000	.244	.334	.301	.496	.259	.033	.133	.169
2	.244	1.000	.239	.086	.118	-.032	.137	.284	.121
3	.334	.239	1.000	.182	.191	.105	.232	.122	.129
4	.301	.086	.182	1.000	.255	.170	.086	.083	.168
5	.496	.118	.191	.255	1.000	.250	.096	.116	.216
6	.259	-.032	.105	.170	.250	1.000	-.033	.010	-.010
7	.033	.137	.232	.086	.096	-.033	1.000	-.046	.222
8	.133	.284	.122	.083	.116	.010	-.046	1.000	.058
9	.169	.121	.129	.168	.216	-.010	.222	.058	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Appendix 11: EFA of the TPB and FA with Seven Factors Extraction and Loadings ≥ 0.50 .

	Structure Matrix						
	Component						
	1	2	3	4	5	6	7
Urban	.821						
Liberal	.803						
Idealistic	.775						
Hardworking	.730						
First mover	.725						
Rational	.712						
Upper class	.711						
Intelligent	.706				.556		
Energetic	.701						
Imaginative	.698						
Confident	.691						
Competitive	.686						
Responsible	.679						
Supportive	.676						
Technical	.668						
Popular	.666						
Classy	.659						
Sporty	.623						
Young	.621						
NPA: I prefer to buy new an Islamic-compliant brand.		.803					
A.Buying an Islamic-compliant brand is.LIKE		.800					
A.Buying an Islamic-compliant brand is.GOOD		.728					

PBC: I have the resources to buy Islamic-compliant brands.	.718			
SN: People whose opinions I valued preferred that I buy Islamic-compliant brands.	.711			
A.Buying an Islamic-compliant brand is.Wise	.708			
NPA: I prefer to buy an Islamic-compliant brand.	.707			
SN: People important to me would think that I should buy Islamic-compliant brands.	.706			
PBC: Buying Islamic-compliant brands is completely within my control.	.705			
PBC: I have the knowledge to buy Islamic-compliant brands.	.691			
NPA: I choose to buy an Islamic-compliant brand even it is quite expensive.	.669			.509
A.Buying an Islamic-compliant brand is.PLEASANT	.658			
SN: People who influence my behaviour wanted me to buy Islamic-compliant brands.	.626			
NPA: I choose to buy an Islamic-compliant brand even not familiar with the brand.	.624			
PBC: I am capable of buying Islamic-compliant brands.	.548			.548
Traditional		.930		
Simple		.924		
Manly		.921		
Bedouin		.770		
Nationalist		.738		
Islamic			.895	
well mannered			.862	

Decent				.801			
Religious				.709			
Mohsen				.653			
Formal					.858		
Economical					.826		
Adventurous					.723		
Helpful					.694		
Sensitive						.914	
Extremist						.911	

Extraction Method: Principal Component Analysis.
 Rotation Method: Promax with Kaiser Normalization.

Appendix 12: Internal Correlation of the Seven Factors of the TPB and FA with Loadings ≥ 0.50 .

Component Correlation Matrix

Component	1	2	3	4	5	6	7
1	1.000	.256	.353	.311	.457	.225	.175
2	.256	1.000	.227	.088	.104	.010	.314
3	.353	.227	1.000	.183	.177	.084	.248
4	.311	.088	.183	1.000	.252	.132	.133
5	.457	.104	.177	.252	1.000	.161	.170
6	.225	.010	.084	.132	.161	1.000	-.002
7	.175	.314	.248	.133	.170	-.002	1.000

Component Correlation Matrix

Component	1	2	3	4	5	6	7
1	1.000	.256	.353	.311	.457	.225	.175
2	.256	1.000	.227	.088	.104	.010	.314
3	.353	.227	1.000	.183	.177	.084	.248
4	.311	.088	.183	1.000	.252	.132	.133
5	.457	.104	.177	.252	1.000	.161	.170
6	.225	.010	.084	.132	.161	1.000	-.002
7	.175	.314	.248	.133	.170	-.002	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Appendix 13: Reliability Analysis of the First Factor TPB (SN, PBC and NRCPA).

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SN: People important to me would think that I should buy Islamic-compliant brands.	89.32	250.069	.656	.895
SN: People whose opinions I valued preferred that I buy Islamic-compliant brands.	89.41	246.266	.665	.894

SN: People who influence my behaviour wanted me to buy Islamic-compliant brands.	89.55	250.881	.566	.897
PBC: Buying Islamic-compliant brands is completely within my control.	89.12	252.781	.596	.897
PBC: I have the resources to buy Islamic-compliant brands.	89.52	251.396	.649	.895
PBC: I have the knowledge to buy Islamic-compliant brands.	89.55	252.305	.625	.896
PBC: I am capable of buying Islamic-compliant brands.	89.62	252.840	.550	.898
NPA: I prefer to buy an Islamic-compliant brand.	89.06	253.672	.606	.897
NPA: I prefer to buy new an Islamic-compliant brand.	89.27	246.619	.730	.893

NPA: I choose to buy an Islamic-compliant brand even not familiar with the brand.	89.97	249.814	.606	.896
NPA: I choose to buy an Islamic-compliant brand even it is quite expensive.	89.80	243.771	.651	.895
Cronbach's α	0.89			

Appendix 14: EFA of the DIT with loadings ≥ 0.30 and Eigenvalue < 1 .

Structure Matrix		
	Component	
	1	2
COMPAT1: An Islamic-compliant product will fit well with my lifestyle.	.853	
RA: Buying an Islamic-compliant products allow me to satisfy my religious values.	.845	
COMPAT1: The Islamic-compliant product will fit well with my religious teachings.	.800	
RA: The advantages of buying an Islamic-compliant product overweight the disadvantages.	.796	
RA: Buying an Islamic-compliant product enables me to reflect my desired personality.	.759	
COMPLETE2: An Islamic-compliant product will be difficult to benefit of.		.672

RA: Buying an Islamic-compliant product will not benefit me in any way.		.668
COMPLETE2: An Islamic-compliant product will be difficult to purchase.		.624
COMPLETE2: An Islamic-compliant product will be less satisfying.		.564
COMPAT1: The Islamic-compliant product will not offer me any new benefits.	-.459	.466

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Appendix 15: Reliability Analysis of the First Factor of the DIT's EFA with Loadings ≥ 0.30 .

Factor's items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RA: Buying an Islamic-compliant products allow me to satisfy my religious values.	21.38	23.682	.746	.835
RA: The advantages of buying an Islamic-compliant product overweight the disadvantages.	21.51	24.695	.682	.850
RA: Buying an Islamic-compliant product enables me to reflect my desired personality.	21.81	23.982	.634	.864
COMPAT1: An Islamic-compliant product will fit well with my lifestyle.	21.58	24.233	.758	.833
COMPAT1: The Islamic-compliant product will fit well with my religious teachings.	21.43	24.712	.693	.848
Cronbach's α	0.87			

Appendix 16: Reliability Analysis of the Second Factor of the DIT's EFA with Loadings ≥ 0.30 .

Factor's items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RA: Buying an Islamic-compliant product will not benefit me in any way.	12.36	16.916	.406	.470
COMPLETE2: An Islamic-compliant product will be less satisfying.	11.77	19.336	.250	.559
COMPLETE2: An Islamic-compliant product will be difficult to benefit of.	12.06	17.743	.378	.488
COMPLETE2: An Islamic-compliant product will be difficult to purchase.	11.47	17.412	.321	.522
COMPAT1: The Islamic-compliant product will not offer me any new benefits.	12.81	19.245	.299	.532
Cronbach's α	0.57			

Appendix 17: Component Matrix of the RB's EFA with Loadings ≥ 0.30 .

Component Matrix^a

Items	Component	
	1	2
I always pray Friday's prayer.	.729	
I regularly study and read the Holy Quran.	.712	
I always try to keep myself from minor and major sin.	.706	
I always fast the month of Ramadan.	.636	.359
I pray five times a day in the Masjed.	.586	-.348
I do my best to follow the teachings of Islam in all matters of life.	.583	.465
I always avoid Haram (prohibited) earnings.	.538	.474
I pay Zakat Alfitr annually if I meet the criteria.	.510	-.500

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Appendix 18: Internal Correlation of the Factor of the RB's EFA with Loadings ≥ 0.30 .

Component Correlation Matrix

Component	1	2
1	1.000	.509
2	.509	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Appendix 19: Reliability Analysis of the RB Factor

Factor's items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I pray five times a day in the Masjed.	43.16	23.667	.445	.749
I always pray Friday's prayer.	42.71	23.518	.596	.721
I pay Zakat Alfitr annually if I meet the criteria.	43.51	24.171	.372	.765
I do my best to follow the teachings of Islam in all matters of life.	42.24	27.107	.434	.753
I regularly study and read the Holy Quran.	42.89	23.831	.561	.728

I always try to keep myself from minor and major sin.	42.92	23.712	.555	.728
I always fast the month of Ramadan.	42.52	24.746	.471	.743
I always avoid Haram (prohibited) earnings.	42.59	24.880	.387	.758
Cronbach's α	0.78			

Appendix 20: Illustration of t-test values based on the Original data set for the relationships between constructs.

