Strathclyde Business School

Department of Marketing

Investigating Consumer Confusion from a Cultural Perspective: Evidence from the Saudi Arabian Smartphone Market

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Date: 08/07/2019

Abstract

With the increase of digital media, there is an excess of information about products and services in the marketplace. In addition, products are becoming more complex. These factors are contributing to consumer confusion, which is an uncomfortable psychological experience caused by exposure to marketing information that could be similar, misleading, ambiguous, or unnatural. Such a problem could increase in the future, as rapid developments in technology are contributing to multiply sources of information. In recent years, many studies have concluded that consumer confusion proneness, as it has several influences on behavioural outcomes, is a topic in need of ongoing investigation. With this in mind, the present study seeks to shed light on the phenomenon of consumer confusion in the Saudi Arabian smartphone market by identifying and analysing the cultural factors contributing to consumer confusion. The overall aim of this thesis is to explore the impact of cultural dimensions on consumer confusion in the Saudi Arabian smartphone market. Furthermore, the research objectives of this study are fourfold: (1) to explore the aspects of consumer confusion influencing consumers in the Saudi Arabian smartphone market; (2) to investigate the effect of consumer confusion proneness on three behavioural outcomes: customer satisfaction, word-of-mouth behaviour, and brand loyalty among consumers in the Saudi Arabian smartphone market; (3) to examine the moderating role of cultural dimensions on the relationship between consumer confusion proneness and its consequences; and (4) to identify the main strategies for minimising consumer confusion based on cultural factors. A conceptual model based

on consumer confusion and the culture literature was developed in order to form hypotheses to predict the causality between the selected variables.

A quantitative research approach was adopted in this research, reflecting a post-positivist philosophical framework. A self-administrated questionnaire was generated to collect the data, and the analysis technique employed to test the research hypotheses was structural equation modelling (SEM).

As one of this first studies in this area to examine a Middle East society, it was found that incertitude confusion (overload/ambiguity) is the most influential aspect on consumer confusion for consumers purchasing smartphones in Saudi Arabia. The findings also highlight that customers in Saudi Arabia do not perceive the similarity of smartphones as contributing towards confusion. In addition, customers prone to incertitude confusion are likely to be dissatisfied and engage less in word-of-mouth behaviour, but they are more likely to display brand loyalty. The findings outline a role for previously unexplored cultural variables, i.e. social interaction, language barriers, and risk aversion, and their probable moderating influences on consumer confusion proneness and its behavioural consequences. This study has responded to previous calls for research to explore the cultural elements impacting on the construct of consumer confusion (Shukla, Banerjee and Adidam, 2010; Walsh et al., 2016) and to establish the cultural variables influencing consumers proneness to confusion while purchasing smartphones. By exploring the role of cultural dimensions in consumer confusion and its consequences, this research provides key managerial implications as well as theoretical contributions by extending the understanding of consumer confusion in relation to the role of cultural variables, thus enriching the construct of consumer confusion.

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Consequently, a number of theoretical, marketing, and consumer implications have been identified from this study's empirical results. This thesis also opens the door for fellow researchers to expand upon the concept of consumer confusion by calling for future consumer confusion-based research from the perspective of other cultural dimensions, B2B consumer confusion, or the impact of social media.

Dedication

Thanks be to ALLAH (GOD) for everything.

This work is dedicated to:

My father, Abdullah, and my mother, Mona, for their prayers and inspiration over the years.

My beloved wife, Noura, for her patience and encouragement, as well as my lovely sons Hamad and Abdullah.

My brothers, for their continual support throughout my journey to complete this thesis.

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CHAPTER ONE

Introduction

The modern consumer market is characterised by a wide variety of products promoted through countless channels. Although this freedom of choice is often regarded by experts as a move towards a higher standard of living (Schweizer, Kotouc and Wagner, 2006), the repercussions are, however, also quite disturbing. This realisation has led to the emergence of the phenomenon of consumer confusion – a situation wherein it becomes difficult for customers to make the correct purchasing decisions. In recent years, this concept has become popular, largely because of its wide implications in the field of consumer behaviour, examples of which include Foxman, Meuhling and Berger (1990), Turnbull, Leek and Ying (2000), Mitchell, Walsh and Yamin (2004), Walsh et al. (2006), Leek and Kun (2006), Leek and Chansawatkit (2006), Walsh, Hennig-Thurau and Mitchell (2007), Walsh and Mitchell (2010), Leek and Szmigin (2015) and Moon, Costello and Koo (2017). Although the above studies have examined various aspects of consumer confusion, little attention has been paid to non-Western cultures and how it is important to expand existing knowledge of consumer confusion through an exploration of the potential impact of cultural dimensions on consumer confusion. This chapter will outline the theoretical research in this area, the research problem and rationale for the present study, including the research aim and objectives, a brief review of the study's methodological approach, and the thesis structure.

1.1 **Research Background**

The literature on consumer confusion suggests that there are three main antecedents leading to confusion: overload confusion, similarity confusion and ambiguity confusion (Mitchell, Walsh and Yamin, 2005). Overload confusion arises when consumers are unable to make the correct purchasing decisions as a result of an abundance of product-related information that cannot be processed in a limited amount of time. Research indicates this happens for two principal reasons: first, marketers today are increasingly offering a large number of brands, and, second, these brands are also accompanied by an increasing amount of decision-relevant information for products, thus leading to confusion (Mitchell, Walsh and Yamin, 2005).

Similarity confusion occurs when consumers incorrectly evaluate products because of their perceived physical similarity with other products on the market. As a result, consumers' choices are altered. Similarity confusion is a regular phenomenon in the modern world, with product and brand imitation being common issues. However, Kent and Allen (1994) argue that similarity confusion cannot occur if consumers are unable to distinguish between two similar looking brands. Another important source of brand similarity is advertisements and commercials. In this sense, marketers often try to imitate a famous product's advertising message in order to capture market share, which, in turn, leads to consumer confusion.

Ambiguity confusion occurs when customers are faced with ambiguous information relating to products or brands (Mitchell, Walsh and Yamin, 2005). This type of confusion is often caused by product complexity, misleading advertisements, poorly designed product manuals, and untrue product claims. In this regard, it is important

to note that ambiguity confusion creates a conflict between consumers' existing beliefs and what they actually find in such false advertisements and complex products. A good example of this can be seen in the advertising related to health products, which is often found to make false claims. As a result, consumers become confused.

Previous studies on consumer confusion have given little consideration to its affective component (Mitchell, Walsh and Yamin, 2005). In this regard, Ghosh and Rao (2014) observe that the behavioural outcomes of consumer confusion differ depending on what dimension of consumer confusion is at play in a given situation. Recent studies argue that consumer confusion has a profound impact on individuals' emotions. For example, as a result of confusion, a consumer may become frustrated, angry, or irritated. In addition, consumers' characteristics also decide how they react to confusion. For example, confusion often results in decreased consumer loyalty, while other consequences of consumer confusion include dissatisfaction, reduced word-of-mouth (WOM) behaviour, shopping fatigue and purchase postponement.

The literature on consumer behaviour suggests that national culture has a significant impact on consumers' decision-making styles (Nayeem, 2012). Thus, it can be argued that, when confused, consumers may react differently in different countries, in accordance with their particular national cultures. In this regard, reactions are caused by consumers' attitudes, which are largely shaped by culture, and, therefore, cultural values and the influence of cultural groupings and cultural points of reference are, in turn, key environmental factors impacting on consumer behaviour (De Mooij, 2004). It has been found that, due to cultural differences impacting on the decision-making process, Asian consumers look for different information compared

to those from Western countries (De Mooij, 2011). Such differences in the decision-making process can be attributed to whether the cultural is individualistic or collectivist in nature. For example, in collectivist cultures, it is not information but loyalty or obligation that drives consumer behaviour, while, in individualistic cultures, emotional factors are more likely to drive and influence consumer choice (De Mooij, 2011). However, there has been little research into how consumer confusion is experienced differently in different cultures. For example, Leek and Kun (2006) noted that studies into consumer confusion tend to focus on how the phenomenon is experienced in Western countries, thus neglecting the experiences of consumer confusion in non-Western cultures. This may be because consumer confusion is associated with capitalist cultures, and, as many non-Western countries have only recently adapted their economies to more capitalist, market-driven lines, until relatively recently there has been little call for research into consumer confusion in these cultures.

In the context of consumer confusion, it can be seen that culture moulds perceptions of consumer confusion. Based on Jones' (2007) conceptualisation of culture and its role in determining individuals' norms, understandings, beliefs, ways of reacting to messages, practices, customs and convictions, this thesis defines consumer confusion from a cultural perspective as 'an emotional state of mind that leads to inappropriate buying decisions as a consequence of the incremental cultural effects associated with risk aversion, language barriers, and social interaction.' These three elements were selected as culturally-based consumer confusion dimensions as they may potentially have an impact on customer loyalty and purchase postponement (Walsh and Mitchell, 2010).

The literature on consumer confusion suggests that the consequences of confusion depend, to a great extent, on the risk-perception of individuals (Leo, Bennett and Härtel, 2005). For example, individuals with a high aversion to risk do not like to process new information when faced with information overload and similar or ambiguous information. As a result, they may become dissatisfied or experience a reduction in brand loyalty. On the other hand, individuals who have a low aversion to risk tend to clarify the situation by asking for more information. Such an attribute is shaped by national culture, and, in this regard, an understanding of the dimension of risk aversion is of vital importance.

Leek and Kun (2006) are of the view that much of the research carried out on consumer confusion has mainly focused on Western individualistic societies, such as the UK, Germany and the US, and that there is a need to study consumer confusion in collectivistic cultures. Research on the relationship between confusion and national culture to date has presented different outcomes. For example, a study conducted by Leek and Chansawatkit (2006) on the Thai mobile phone market revealed that the elements responsible for creating confusion in Thailand – a collectivistic society – and the UK mobile phone market were the same. However, when it came to confusion reduction strategies, consumers in Thailand relied heavily on their social groups, such as friends and family, which is a feature of a society with high levels of social interaction. Doran (2002), concurring with Leek and Chansawatkit (2006), was of the view that, in order to avoid or minimise confusion, members from a high social interaction society rely on social networks and reference groups, such as friends and family, when making purchasing decisions. On the other hand, members of a low social interaction society depend on their internal

knowledge, which is developed as a result of the exposure to information. Research by Doran (2002) implies that members from high social interaction cultures (such as Saudi Arabia) gather a great deal of information before making a purchase decision and that individuals from high social interaction cultures are more vulnerable to confusion as a result of choice overload and uncertainty than those from low social interaction cultures.

It is a fact that, despite the world being increasingly connected and the homogenisation of cultures as a result of globalisation, all countries remain unique in terms of marketing. Walsh and Mitchell (2010) have outlined the concept of consumer sovereignty as a situation wherein individuals are provided with all the brand information they want, are able to understand this information, and are able to make informed decisions about the brand, such as whether it is worth buying into a brands' image, and, eventually, purchasing the brand. One important factor that can result in individual sovereignty becoming problematic is language: if customers, because of a 'simple' language barrier that has been introduced into the information through translation, cannot come to a quick understanding about a brand and, because of this, cannot make an informed decision, then the brand marketing in that language will have failed. In terms of how language barriers impact on consumer confusion proneness, they imply that information about brands, including names, instructions and manuals, can be simply presented in a different language and then translated into the language of the nation in which the brand is intended to be sold. However, the translation process can lead to mistakes in information about brands, which can, in turn, then lead to misunderstandings or information overloaded with regard to the product, resulting in uncertainty and confusion. If translations are not

presented accurately, with the precise checking of the wording used, there is also the potential for similarity confusion, which can lead to high levels of consumer confusion.

Therefore, this research responds to several calls for research examining, first, the phenomenon of consumer confusion in new cultural contexts (i.e. the Saudi Arabian smartphone market), and, second, how the three culturally-based dimensions, i.e. risk aversion, social interaction, and language barriers, shape perceptions of consumer confusion and how they may affect the relationships between consumer confusion and its important marketing outcomes.

1.2 Research Problem and Rationale

Largely because of its impact on consumer behaviour, the phenomenon of consumer confusion has gained popularity in the modern world of marketing and has been investigated in several markets and countries. Although research into consumer confusion in Western countries has been extensive, there has been relatively few studies on consumer confusion in non-Western cultures (Leek and Chansawatkit, 2006; Leek and Kun, 2006; Cobanoglu and Tutuş, 2014; Tjiptono, Arli and Bucic, 2014; Walsh et al., 2016). Shukla, Banerjee and Adidam (2010) further suggest exploring the cross-cultural impact of consumer confusion in order to further enrich the construct. Therefore, the potential role of cultural dimensions as moderating factors on the existing relationships between consumer confusion proneness and consumer confusion consequences remains to be investigated. This is important for marketers and companies who may have failed to market their products abroad due to neglected confusion factors, as the pertinent literature suggests that consumer behaviour differs across cultures. Thus, the consumer confusion scale and its

measurements need to be explored in a new context, e.g. the Middle East, which is considered to contain unique societies and cultures. In addition, whether cultural factors affect the construct of consumer confusion also requires analysis. This lack of research enables the researcher to contribute to the consumer confusion literature by extending our understanding of how culture affects consumers' purchasing decisions and, in turn, marketers' decision-making. Further, it is suggested that future studies would be able to make use of the resultant moderating variables in seeking to understand the impact of confusion on consumer behaviour (Walsh, Hennig-Thurau and Mitchell, 2007).

Therefore, this research attempts to addresses the research gaps outlined by Leek and Kun (2006), Walsh, Hennig-Thurau and Mitchell (2007), Walsh and Mitchell (2010), and Tjiptono, Arli and Bucic (2014), who all encourage further research into different geographical contexts. The present study investigates the confusion-consequences relationship in a technology-based market (i.e. the Saudi Arabian smartphone market) and, most importantly, explores such an association in light of relevant moderating variables (i.e. cultural elements). In this sense, the three selected cultural dimensions, i.e. social interaction, language barriers and risk aversion, are likely to moderate the effects of the three dimensions of consumer confusion proneness on outcomes such as word-of-mouth behaviour, consumer satisfaction and brand loyalty. This research differs from previous studies, as it specifically focuses on the cultural dimensions that influence consumer confusion, in addition to focusing on Saudi Arabia, whereas most other studies have focused on consumer confusion in Western cultures.

On the basis of this rationale, the research aim is as follows: To explore the impact of cultural dimensions on consumer confusion in Saudi Arabia.

The research objectives are:

- to explore the aspects of consumer confusion that influence consumers in the Saudi Arabian smartphone market;

- to consider the effect of consumer confusion proneness on customer satisfaction, word-of-mouth behaviour and brand loyalty among consumers in the Saudi Arabian smartphone market;

- to evaluate the moderating role of cultural dimensions on the relationship between consumer confusion proneness and its consequences; and

- to identify, based on cultural factors, the main strategies that could be applied to minimise consumer confusion.

1.3 **Methodological Approach**

The research approach chosen to realise the main aim and objectives of this study is based on a post-positivist philosophical framework. The researcher believes that a post-positivist epistemological position is appropriate for the current study due to its empiricist viewpoint, given that a quantitative research method, in which knowledge stems from human experience, is utilised. As such, a post-positivist philosophical framework is appropriate as it enables the scientific measurement of the research variables. Further, the research follows the deductive method, by using empirical data to test a theoretical marketing framework in the analysis of the topic of consumer confusion. Hence, data were gathered to explore how consumer confusion is affected and influenced by cultural elements regarding consumer decisions in the

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Saudi Arabian smartphone market. Thus, the deductive approach adopted in this study provides a scientific and objective understanding of consumer confusion, thereby enhancing the quality of the research findings.

The primary research was undertaken through use of a quantitative survey method. As such, a questionnaire was employed for the collection of empirical data in order to test the conceptual model. More specifically, a self-administrated questionnaire was distributed to a sample of Saudi Arabian consumers who had previously bought or intended to buy smartphones. Around 700 questionnaires were distributed to random customers outside of the largest electronic stores in the eastern region of Saudi Arabia, generating a usable sample of 401 responses. The data were collected in order to be appropriate for structural equation modelling.

1.4 The Structure of the Thesis

This thesis is divided into nine separate chapters, each of which addresses a separate facet of the research. The first chapter introduces the topic, the second explores consumer confusion, while the third examines consumer confusion from a culture perspective. The research context is outlined in Chapter Four, and the study's conceptual framework is delineated in Chapter Five. The sixth chapter explores the methodology used to complete the research, the seventh analyses the primary research data, and the eighth discusses the results of the primary research and the study's conclusions.

Chapter One *presents the background to this research, introducing consumer confusion and explaining the research problem, rationale, aims and objectives, methodology, and thesis structure.*

Chapter Two *explores the topic of consumer confusion by defining it and examining the factors predisposing consumers to consumer confusion and its consequences.*

Chapter Three *examines consumer confusion from a cultural perspective, considering how culture can be interpreted, how consumer confusion can be investigated from a consumer perspective, and what the culturally-based consumer confusion dimensions are. The three cultural dimensions, i.e. risk aversion, language barriers and social interaction, are outlined in this chapter to provide a theoretical understanding of how culture may shape perceptions of consumer confusion.*

Chapter Four *presents a conceptual framework of consumer confusion from a cultural perspective through exploring theoretical models and concepts linked to cultural understandings of consumer confusion and why different cultures may be prone to consumer confusion. Chapter Four then presents hypotheses for the study based on previous research.*

Chapter Five *puts the research into context by exploring the culture of Saudi Arabia and the background and current character of the smartphone sector in Saudi Arabia.*

Chapter Six *explores the research methodology used to complete the thesis. As such, this chapter presents the research philosophy, design, methods and instrument used (i.e. a questionnaire), the study's target population, data analysis techniques, a guarantee of research quality and the ethical considerations that needed to be taken into account.*

Chapter Seven *analyses the research data gained from the questionnaires, including descriptive statistics of the questionnaire responses from those who have purchased or intend to purchase smartphones. This chapter discusses the statistical analyses*

carried out, such as outlier analysis, normality analysis, multicollinearity analysis, reliability analysis and confirmatory factor analysis. Structural equation modelling was used to test the study's hypotheses and produce a comprehensive model of consumer confusion from a cultural perspective.

Chapter Eight *presents and discusses the study's overall results and compares them with previous studies. The theoretical contributions to theory and the marketing implications of this thesis are then discussed. Furthermore, the limitations of this study and suggestions for future research are outlined. The chapter ends by drawing a short conclusion on the thesis.*

1.5 Summary

This chapter has achieved the goal of introducing the research. As such, the background to the study has been discussed alongside the importance of consumer confusion and the need to examine this phenomenon in non-Western cultures. Furthermore, the research problem at hand and the need to explore the potential role of cultural dimensions on consumer confusion among consumers purchasing Smartphones in Saudi Arabia have been outlined. In addition, the main aim and objectives of this study, as well as the methodological approach utilised, have also been delineated. Finally, this chapter has provided a structure for the entire thesis. Chapter Two will review the literature on consumer confusion, while Chapter Three will consider consumer confusion from a cultural perspective.

CHAPTER TWO

Consumer Confusion

This chapter is divided into three parts. The first section provides an in-depth insight into the literature related to the creation and development of consumer confusion as a concept. More precisely, definitions of the concept of consumer confusion are reviewed and compared. This is followed by a detailed review of the three main factors relating to consumer confusion proneness (i.e. information overload, similarity confusion and ambiguity confusion). The chapter ends with a discussion of the most influential consequences of consumer confusion (i.e. brand loyalty, consumer satisfaction and word-of-mouth behaviour).

2.1 Defining Consumer Confusion

In recent years, consumers have been inundated with both an extensive range of different products and services alongside an ever-increasing amount of information about them, accompanied by the widespread marketing communication methods used in their promotion (Mitchell, Walsh and Yamin, 2005). Inter-brand similarity and the increasing costs of searching for product/service information mean that almost every purchasing decision can become a complex task due to the difficulty of processing information for each product or service (Walsh and Mitchell, 2010). In the end, consumers are faced with a deluge of products, leading to confusion and an inability to make efficient or rational buying decisions. Consequently, it has been argued that, given such a confusing situation, consumers are likely to be frustrated and stressed and make sub-optimal choices (Mitchell and Papavassiliou, 1999).

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The concept of consumer confusion is still relatively new in the marketing field. Indeed, only a small number of studies have tested consumer confusion in various markets, a few examples of which include the research carried out by Turnbull, Leek and Ying (2000) in the United Kingdom market, Foxman, Meuhling and Berger (1990) in the United States market, Leek and Chansawatkit (2006) in the Thai market, and Leek and Kun (2006) in the Chinese market. An explanation of the concept of consumer confusion is important for ensuring a complete understanding of the phenomenon. General confusion happens if a consumer is not able to think clearly or is facing difficulties comprehending something (Cambridge Advanced Learner's Dictionary, 2007), in addition to being understood as 'a confused situation in which people do not know what action to take' (Oxford Advanced Learner's Dictionary, 2005). Neurology has defined confusion as the 'disturbance of consciousness characterized by an inability to engage in orderly thought or by a lack of power to distinguish, choose, or act decisively' (MedlinePlus Medical Dictionary, 2007). Thus, when consumers experience confusion, the normal functioning of the brain may be defective.

Scholars have shown a growing interest in the phenomenon of consumer confusion as a result of the increase in product variety and the vast amount of related information (Mitchell and Papavassiliou, 1999; Mitchell, Walsh and Yamin, 2005; Leek and Kun, 2006). Consumers who encounter confusion in making a buying decision are unable to make purchases confidently (Schweizer, Kotouc and Wagner, 2006). Schweizer, Kotouc and Wagner (2006) consider confusion as the difficulty faced by customers in choosing products, resulting in an emotional impact on motivation. Consumer confusion has been defined as 'consumer failure to develop a

correct interpretation of various facets of a product/service during the information processing procedure' (Turnbull, Leek and Ying, 2000, p. 145), in addition to being a situation wherein a consumer has a 'feeling of confusion of not having obtained the best buy, and a feeling that another brand was better' (Jacoby, Speller and Kohn, 1974, p. 66). It has also been argued that confusion happens when the similarity of brands leads consumers to mistakenly select the wrong brand (Khohli and Thakor, 1997 cited in Mitchell, Walsh and Yamin, 2005). Furthermore, Mitchell and Papavassiliou (1999) define consumer confusion as the negative impact on the mind in terms of information processing and purchasing decisions. Therefore, the main consequence of consumer confusion is considered to be a reduction in the probability of making a rational buying decision (Huffman and Khan, 1998). However, even though the term 'consumer confusion' has been frequently used in the consumer behaviour literature, agreement does not yet exist about its exact definition. Table 2.1 highlights various definitions of consumer confusion.

Moreover, earlier studies have indicated that consumer confusion occurs because of many factors, including brand claims, pricing, advertising and product complexity, and packaging (Mitchell, Walsh and Yamin, 2005). Nevertheless, researchers agree that consumer confusion stems from three main dimensions: too similar, too many and unclear stimuli (Mitchell, Walsh and Yamin, 2005). Mitchell and Papavassiliou (1999) and Leek and Kun (2006) have described these three aspects of confusion as information overload (caused by an excessive choice of products), brand similarity and ambiguous information (i.e. a lack of clarity and confusion).

Mitchell, Walsh and Yamin (2005) developed a model of consumer confusion involving its antecedents, moderators and mediators, coping strategies and consequences, which can be seen in Figure 2.1.
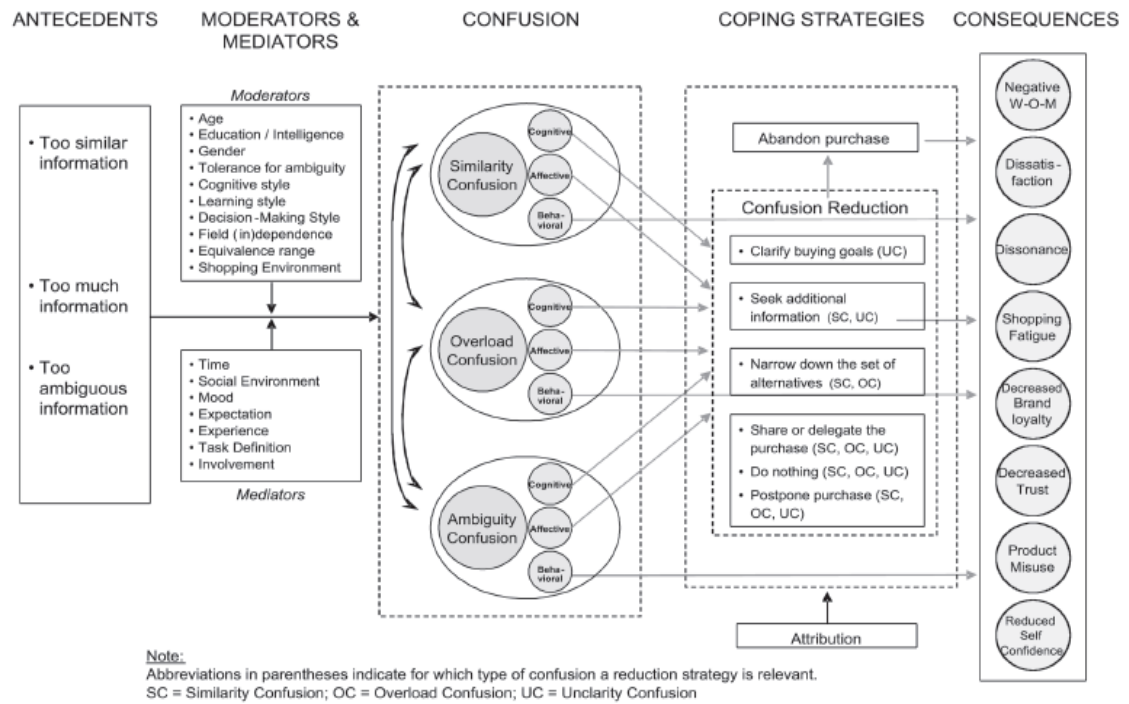
Figure 2.1: A Model of Consumer Confusion (Mitchell, Walsh and Yamin, 2005)

One of the most important researches in the area of consumer confusion was conducted by Walsh, Hennig-Thurau and Mitchell (2007) and is considered as the main reference for the later studies in the field of consumer confusion. The study measures consumer confusion proneness as a general trait or individual difference characteristic and is considered significant because it contributes to the scale development and refinement process (see Figure 2.2).

The study concludes that consumer confusion is a generic label for phenomena which cannot be explained with existing constructs. The new revised scale provides evidence on how consumer confusion proneness affects consumer behaviour. The

scale provides a sophisticated understanding of the dimensions and outcomes of consumer confusion proneness, thereby building on previous work. In addition, the study also emphasises that consumer awareness of being confused is an important aspect of consumer confusion (Mitchell and Papavassiliou, 1999). After reviewing the previous studies, consumer confusion proneness can be viewed as 'a consumers' general tolerance for processing similarity, overload or ambiguity information, which negatively affects consumers' information processing and decision-making abilities' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 699). Therefore, the current research concentrates on empirically examining the three dimensions of consumer confusion proneness and their effect on the three consequences, namely (customer satisfaction, brand loyalty and word-of-mouth behaviour). In addition, the current research explores the role of cultural dimensions as moderators of the relationship between consumer confusion proneness and its consequences.
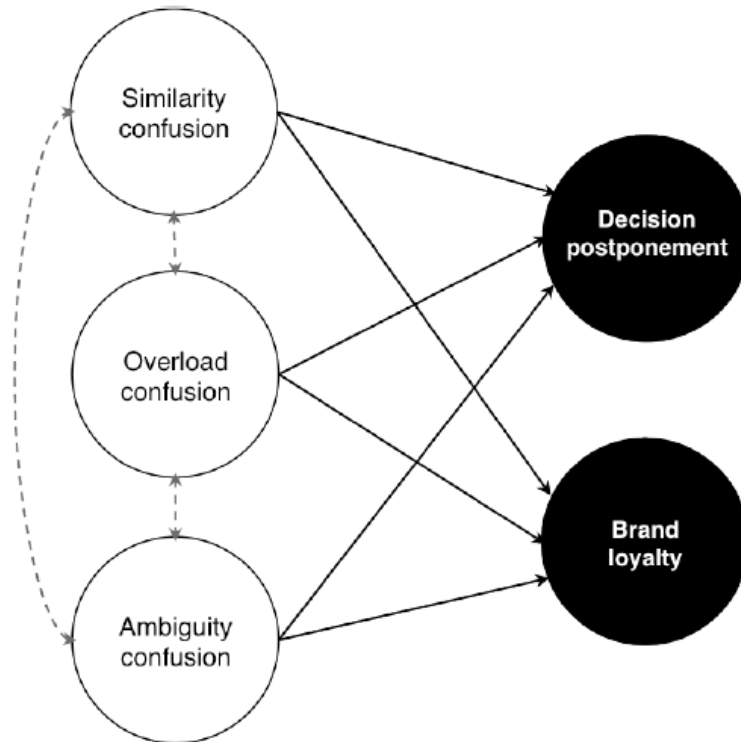
Figure 2.2: The Consumer Confusion Proneness Model (Walsh, Hennig-Thurau and Mitchell, 2007)

Table 2.1: Consumer Confusion Definitions

Author	Definition
Mitchell and Papavassiliou (1999)	'Confusion is more than subconscious mistakes; it is a state of mind which affects information processing and decision making. The consumer may therefore be aware or unaware of confusion.' (p. 327)

Turnbull, Leek and Ying (2000)	'[…] consumer confusion is defined as consumer failure to develop a correct interpretation of various facets of a product/service during the information processing procedure.' (p. 145)
Schweizer (2004)	'Consumer confusion is an emotionally loaded, dysfunctional state of mind, which makes it difficult for consumers to efficiently and effectively select and interpret stimuli.' (p. 34)
Mitchell, Walsh and Yamin (2005)	Proposed a conceptual model of consumer confusion: '[…] conceptualizing confusion as having three consequences, i.e. cognitive, affective and behavioural, which we suggest are positively correlated, irrespective of the antecedents' confusion experienced.' (p. 143)
Walsh and Mitchell (2010), based on Walsh, Hennig-Thurau and Mitchell (2007)	'Consumer confusion proneness is a multidimensional phenomenon (similarity, ambiguity, and overload confusion proneness) that has a significant impact on purchase postponement and loyalty behaviour.' (p. 713)

The following discussion will explain the different elements of consumer confusion

proneness in light of the theoretical framework relating to consumer confusion.

2.2 Consumer Confusion Proneness (CCP)

As stated earlier, consumer confusion stems from consumer confusion proneness,

namely, 'consumers' general tolerance for processing similarity, overload or

ambiguity information, which negatively affects consumers' information processing

and decision-making abilities' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 699).

The three dimensions will be discussed in detail in the following sections.

2.2.1 Overload confusion proneness

Consumers are currently more likely to experience information overload than in the

past due to being subjected to a greater amount of product information and an

assortment of product lines. Mitchell and Papavassiliou (1999) contend that such

overload, which has been defined as the inability of a consumer to absorb and

process a large amount of information at a specific period of time, is a major cause of

consumer confusion (Jacoby, Speller and Kohn, 1974). Consequently, in this

situation, the consumer may be confused because of his/her limited capacity to fully

understand the information. It is also argued that the consumer's capability to realise

and process information is reduced as soon as these limited capacities are exceeded

(Miller, 1956; Jacoby, Speller and Kohn, 1974). This view is supported by

Schweizer, Kotouc and Wagner (2006), who stated that, to a certain extent, a positive

relationship exists between the limit of the consumer's ability to absorb and process

information and the amount of information being offered to him/her. Once this limit

is exceeded, the consumer's ability to process information and undertake sound decisions will be progressively impaired. Indeed, certain negative consequences accompany information overload, such as more wrong choices, incorrect decisions, dysfunctional purchases and confusion (Keller and Staelin, 1987).

In the literature, scholars have shed light on the three main factors of information overload that result in consumer confusion: a great amount and complexity of product information (Keller and Staelin, 1987; Drummond and Rule, 2005), an abundance of products (Sethi-Iyengar, Huberman and Jiang, 2004; Cremer, 2007), and the complexity of brands (Turnbull, Leek and Ying, 2000; Leek and Chansawatkit, 2006; Leek and Kun, 2006). Jacoby, Speller and Kohn (1974) carried out one of the first studies on the relationship between information overload and consumer purchasing behaviour, in which university students were exposed to a large amount of information concerning different washing detergent products. The results of this investigation show that the more information there was on the products' packaging, the more customers were satisfied with their buying decisions and had less need for extra information. However, collecting more information can lead to poor decision-making, as few participants actually chose their preferred brand. Therefore, this study concludes that consumers are likely to be confused based on the availability of increasing amounts of information.

Scammon's (1977) research, which investigated whether respondents were able to determine the difference between peanut butter brands in terms of more nutritious contents, reveals different outcomes from those previously mentioned. In this study, respondents were given a range of types and amounts of brand information, and the conclusion indicates that customers' ability to recognise which brand is more

nutritious is not affected by the amount of product information and, therefore, information overload may not be considered as a significant factor in consumer confusion. However, Scammon (1977) found that the complexity of the information negatively affects purchasing decisions. As such, Scammon's (1977) findings reveal that a simplified presentation of information makes it easier to identify which brand contains more natural ingredients, while a lack of clarity about nutritional ingredients in products (expressed as percentages) makes it more difficult to make purchasing decisions.

Previous studies suggest that too much or too complex information is likely to cause information overload. To find out which types of information could lead to consumer confusion, Keller and Staelin (1987) examined each type individually. MBA students were used to analyse the effect of information quantity (too much) and information quality (too complex) on decision-making. The research focus centred on the students' appraisal of the various features of potential jobs in terms of their compatibility. The outcomes indicated that decision effectiveness was negatively affected due to the increase of information quantity, while the students' decision-making was positively affected when the quality of information increased to a certain extent. Moreover, the study reported that decision-making ability reduced once both the amount and the quality of information increased. Similarly, a more recent conceptual confusion model developed by Lu et al. (2015) to measure consumers' online tourism confusion suggested that confusion arises if the information presented online is too similar or too ambiguous, or if the information presented serves to overload the consumer. Hence, this study suggests that consumer confusion develops if information given to consumers is too similar or ambiguous or, alternatively

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develops if the consumer becomes overloaded with too much information, making it difficult for them to make a decision.

In addition to the abovementioned impact of the quantity and quality of information on consumer confusion, it is important to note that an abundance of choices in the same line may lead to consumer confusion. Iyengar and Lepper (2000) highlighted that, in the process of purchasing chocolates, consumers willing to purchase chocolate were often presented with an assortment of choices (i.e. 30 varieties of chocolate). As a result, the likelihood of making a purchase decreased, consumer satisfaction decreased and the feeling of regret after purchasing increased when compared to those who were presented with just a few choices (i.e. only six varieties of chocolate) (Iyengar and Lepper, 2000). This study suggests that consumers may become overwhelmed when faced with extensive choices. In fact, the researchers' argument is that consumers who tend to choose from a great array of brands are likely to do so 'from the choice-making process' (Iyengar and Lepper, 2000, p. 1003), which can lead to an inability to select the best possible brand due to the difficulty in optimally processing information.

Similarly, Cremer (2007) provided evidence of the positive relationship between an increase in choice and an increase in consumer confusion. This study investigated the impact of product line extensions on consumer confusion, and it was found that an increase in brand lines (i.e. bars of chocolate) also led to an increase in consumer confusion, in addition to increased negative emotions, such as irritation, stress and indecisiveness.

Product complexity is considered to be another aspect that plays an important role in information overload. This factor is particularly relevant for products that use

sophisticated technology, such as computers and electronics. In their study of consumer confusion on the purchasing of mobile phones in the UK market, Turnbull, Leek and Ying (2000) found that the diversity and complexity of tariffs (e.g. sim cards, contracts and devices) offered by service providers and the technology used by operators served as the main sources of consumer confusion.

People often have difficulty managing complex choices. Wang and Shukla (2013) argued that, as more choices and related information become available, consumers tend to process a smaller fraction of the overall available information. Provision of extensive information, though seeming desirable, actually demotivates people from making decisions (Iyengar and Lepper, 2000). One consequence of overload confusion is that it can diminish the quality of products available on the market. This assertion is supported by Brecard (2014) who studied whether eco-labels were affected by consumer confusion. She found that eco-labelled products with high environmental quality were weakened on the market due to consumer confusion compared to firms selling unlabelled products, which suffer from strict labelling standards. However, firms selling products with low environmental quality gain a high competitive advantage because they are labelled, but not overly so (Brecard, 2014). This is because too much labelling leads to confusion as consumers 'cannot fully assess the environmental quality associated with each label and only see each label as a particular variety of a similar product' (Brecard, 2014, p. 64). Hence, consumer confusion over the profusion of eco-labels can discourage production of eco-labelled products of high environmental quality while favouring production of eco-labelled products of lower environmental quality and even unlabelled products (Brecard, 2014). Also, consumer confusion over excessive labelling leads to the

encouragement of lax product standards (Brecard, 2014). Thus, overload confusion leads to the market favouring lower quality products.

Cognitive dissonance is considered as an outcome of consumer confusion, as this phenomenon has both cognitive and behavioural outcomes (Mitchell, Walsh and Yamin, 2005). Because consumer confusion decreases decision-making ability and performance, individual ability to choose the best product to meet their needs and enjoyment of the shopping experience, it leads to a variety of negative consequences, such as negative word-of-mouth feedback, decision postponement, dissatisfaction and cognitive dissonance (Ardyan and Aryanto, 2017). The idea of cognitive dissonance was developed by Leon Festinger in the 1950s (Cooper, 2007) who argued that it takes place when mental discomfort or psychological stress is experienced because an individual holds two or more contradictory, values, beliefs or ideas at the same time (Festinger, 1957). These contradictory values, beliefs or ideas are either the result of the individual performing actions that contradict their beliefs or take place when a person is given new information that contradicts their existing beliefs, values or ideas (Festinger, 1957). Because cognitive dissonance involves an individual experiencing or being confronted with information contradictory to their existing beliefs, but having to accept it anyway, it can be a consequence of consumer confusion.

Anninou (2013) explained that both confusion and cognitive dissonance influence how consumers experience purchasing situations when these situations lead to personal discomfort. One negative consequence of cognitive dissonance experienced during consumer confusion is that it multiplies or increases dissonance, making it more difficult for consumers to make decisions and, thereby, complicates the

decision-making process as dissonance usually occurs (if it does occur) after the

purchase has taken place (Mitchell and Papavassiliou, 1997). This means that it is

more common for dissonance to take place after a difficult shopping decision has

been made than during the purchasing decision, as is the case if cognitive dissonance

takes place during the process of consumer confusion (Anninou, 2013). Hence,

cognitive dissonance is a particularly negative consequence of consumer confusion.

Leek and Chansawatkit (2006) replicated the above results in a study of consumer

confusion in the Thai mobile phone market, revealing that the advanced technology

used by network providers, price, additional services and the assortment of handsets

were the main causes of confusion amongst consumers. Difficulty in assessing or

differentiating models, brands and the positive and negative features of the mobile

phone products often takes place when complexity leads to confusion (Leek and

Kun, 2006).

From the previous outcomes, it can be seen that the relationship between information

overload and consumer confusion is not straightforward. The current literature

highlights that this connection is influenced by the ability of consumers to process

information (Mitchell, Walsh and Yamin, 2005; Kuester and Buys, 2009).

Consumers have different abilities in assessing and processing information, and these

differences are linked to several demographic factors, including gender and age.

Moreover, determining the impact of such demographic factors on consumer

confusion exposure is considered a difficult proposition. For instance, as people get

older, their experience of dealing with products will increase and, therefore, their

ability to face confusion may correspondingly decrease due to certain already

established preferences. On the other hand, the age factor may increase the

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possibility of consumer confusion as the capacity for information processing decreases (Mitchell, Walsh and Yamin, 2005). Adaptation level theory suggests that the specific adaptation level of consumers is significantly related to the particular maximum information processing ability (Vetich and Arkkelin, 1995). The amount of knowledge consumers have is the basis of adaptation level theory. For instance, the more knowledge a consumer has about a product, the more information is being processed, thus leading to less likelihood of being confused (Kuester and Buys, 2009). Additionally, current research points to other factors that have an impact on the relationship between information overload and consumer confusion: time pressure (Haynes, 2009), product assortment and type of information (Gourville and Soman, 2005).

2.2.2 Similarity confusion proneness

Similarity confusion is the second factor relating to consumer confusion proneness. Brand similarity confusion is defined as 'a lack of understanding and potential alteration of a consumer's choice or an incorrect brand valuation caused by the perceived physical similarity of products or services' (Mitchell, Walsh and Yamin, 2005). The proliferation of products/brands and imitation strategies are two main reasons for similarity confusion (Mitchell and Papavassiliou, 1999; Drummond and Rule, 2005). When consumers face more alternatives in a product category, only a few differences in product features are often realised. As a result, these products are perceived to be very similar to others, and distinguishing between them seems difficult (Cremer, 2007). Fasolo et al. (2009) supported this view by introducing the concept of density (or distance), a concept which measures the difference between products in terms of their attributes. Fasolo et al. (2009) argued that a high density is

often related to a large variety, wherein small differences (i.e. a short distance) are perceived between products' features. Ice cream flavours are a good example of this; chocolate, chocolate chip, and fudge represent a high-density assortment of ice cream flavours, whereas a short-density assortment would be chocolate, strawberry and vanilla (Shugan, 1989 cited in Fasolo et al., 2009). Decision difficulty has been seen to increase as a result of only small differences in dissimilarities that come from high-density varieties, leading consumers to perceive product similarity. In addition, consumers encounter difficulties while selecting products when faced with a large product line (Fasolo et al., 2009). Therefore, choosing a preferred product becomes a complex process when consumers come across a huge variety of alternatives, such as brand names, colours, logos and ingredients. It has been found that increasing the quantity of products in the product line leads to increased consumer confusion (Kuester and Buys, 2009).

Furthermore, perceiving products as similar could also happen in the case of imitator or 'me too' brands, thus compounding consumer confusion. This phenomenon has spread through styles and concepts of well-known brands being replicated by rivals. There are many examples of 'lookalike' brands, one of which is ASDA's Puffin chocolate bar, which was ruled against in court because it looked deceptively similar to the Penguin brand, thus forcing ASDA to redesign its packaging (Rogers, 1997). Similarly, Mitchell and Papavassiliou (1999) outlined the increasing phenomenon of fake products and their impact on consumers. The presence of imitator brands, such as 'White Horse' whiskey in Nigeria and 'Johnnie Hawker' red label whiskey in Indonesia, may have negative side effects on consumers' health because these

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products may contain inferior components in their ingredients compared to the original products.

Similarity confusion is not always accidental. In fact, companies have been known to deliberately design packaging that imitates that of market leaders by using similar colours, style of lettering, shapes and logo design to mislead consumers about their product and encourage them to assume that their product is the same or similar to the market leading brand (Falkowski, Olszewska and Ulatowska, 2015). As such, these products use the same visual features as market leading products to appeal to consumers. Products that strongly resemble the appearance and design of well-known brands are commonly referred to as 'lookalikes' (Falkowski, Olszewska and Ulatowska, 2015). Market leading firms object to the use of lookalike products as they have heavily invested in their own products to create high-quality produce and a distinctive, unique product (Falkowski, Olszewska and Ulatowska, 2015). Furthermore, lookalikes often irritate consumers who are misled by their appearance and may, unwittingly, buy the wrong product (Falkowski, Olszewska and Ulatowska, 2015). In fact, a survey undertaken by the Which? Group in 2013 found that one-fifth of British consumers participating in the survey recalled having bought the wrong product because they had been misled due to similarity in packaging between the product they had bought and the one they wanted to buy (Sudol, Szymczak and Haffer, 2000). To investigate whether consumer confusion was really likely to arise due to similarity in appearance between market leading and competing products, Falkowski, Olszewska and Ulatowska (2015) applied the Deese–Roediger–McDermott (DRM) paradigm to investigate consumer confusion arising from similarities between market leaders and lookalike brands. They found that lookalike

brands were falsely recognised at a higher rate than market leading or original brands, suggesting that similarity confusion is a major problem for consumers and, through deliberate misinformation, companies encourage this phenomenon (Falkowski, Olszewska and Ulatowska, 2015).

Likewise, store environments or products and similar advertisements are considered as stimuli that play a major role in increasing similarity confusion (Walsh, Hennig-Thurau and Mitchell, 2007), in addition to having an impact on both consumers and sellers. The first effect is that consumers exposed to a similarity of products tend to either abandon or postpone their decision to purchase (Mitchell, Walsh and Yamin, 2005). The reason for this is that consumers are cautious about buying the wrong brand or a brand that does not fulfil their needs and, thus, they spend more time trying to differentiate between two or more similar alternatives (Walsh, Hennig-Thurau and Mitchell, 2007). Consumers may refuse to buy (the 'no choice option'), which may help them to avoid difficult transactions (Dhar, 1997).

Consumer dissatisfaction is considered to be the second consequence of similarity confusion (Mitchell, Walsh and Yamin, 2005; Walsh, Hennig-Thurau and Mitchell, 2007; Matzler, Steiger and Füller, 2011). Consumers may be indecisive, irritated, or frustrated as a result of encountering a wide range of similar products, consequently leading them to purchase products that may not meet their needs (Walsh et al., 2007). This is because consumers take more time to process information when products are similar, thus leading to dissatisfaction. They usually feel dissatisfied with 'me too' brands; however, when they realise that they have purchased the 'copycat' brand instead of the original, they may also feel dissatisfied with the original (Mitchell, Walsh and Yamin, 2005).

Further, Walsh et al. (2006) and Matzler, Steiger and Füller (2011) found evidence of the relationship between product similarity and customer satisfaction. Walsh and Mitchell's (2010) study of 355 consumers in Germany revealed that product similarity negatively affected consumer satisfaction, the reason being that evaluating information for similar alternatives takes more time and energy.

Finally, consumer loyalty towards a certain brand may decrease as a result of the perception that products are similar. Mitchell, Walsh and Yamin (2005) supported this view by stating that, as more similar brands and products surround consumers, distinguishing between branded and 'me too' products becomes a more difficult task. In addition, own-label food retailers, such as Sainsbury's, have improved their quality, which has consequently led to consumers becoming more confident in purchasing own-label food (Mitchell and Papavassiliou, 1999). Walsh et al. (2006) found that, with the increase of own-label brands, brand loyalty can no longer be used as a risk reduction strategy.

In similar vein, a study conducted by Wang and Shukla (2013) indicated that choice overload and ambiguity reduce consumer choice confidence. For instance, when consumers are presented brands with similar attributes, they feel less confident about the differences. This makes them less confident about their choices. One of the unexpected results is that, when consumers do not know the differences between the brands that have similar attributes, they may simply transfer their confidence in one brand to another. In the mobile phone industry, according to Apple, Samsung products look similar to Apple products. This, therefore, increases consumer confidence in buying Samsung phones and tablets (Kelion, 2012). The results suggest that attribute similarity is conceptually and perceptually different from

ambiguity and choice overload with regard to cognition and behaviour among consumers.

Additionally, consumers' perception of a few or no differences in quality or attributes between original and imitator products may reduce consumer trust because of the difficulty of distinguishing the original product (Mitchell, Walsh and Yamin, 2005). In this regard, Walsh et al. (2006) found evidence of the effect of similarity confusion and showed that brand loyalty and trust are reduced by the perception of similarity of products in the marketplace. They argued that consumer trust may be lost when the consumer purchases an imitator product instead of the original one or when consumers cannot distinguish the original from the replica. In addition to the differences between similar products in a product category, there is little or no justification for similar products. Therefore, the participants in Walsh et al.'s (2006) study maintained that firms are the main deceivers of customers.

2.2.3 **Ambiguity confusion proneness**

The third factor in the concept of consumer confusion proneness is ambiguity confusion, which is defined as 'a lack of understanding during which consumers are forced to re-evaluate and revise current beliefs or assumptions about products or the purchasing environment' (Mitchell, Walsh and Yamin, 2005). The literature review indicates that ambiguity confusion is caused by several factors, including complex pricing bands, misleading sales promotions and advertising, a lack of clarity about product message claims (Mitchell and Papavassiliou, 1999), complicated instruction manuals (Walsh, Hennig-Thurau and Mitchell, 2007), or the complexity of products and technology (Turnbull, Leek and Ying, 2000; Leek and Chansawatkit, 2006; Leek and Kun, 2006). Consumer confusion is more likely to arise if the consumer

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develops a high ambiguity tolerance as, in such cases, the consumer is more likely to experience confusion because they have developed a lower degree of motivation to understand information and less ability to process external stimuli (Lu and Gursoy, 2015). This evidence suggests that consumer confusion is increased across the board when the consumer is often exposed to ambiguous information as the consumer learns to ignore the information they are being given rather than process it.

It has been argued that the factors above make it difficult for consumers to understand the products, as they are presented with multiple interpretations of product functions and quality (Walsh, Hennig-Thurau and Mitchell, 2007). Furthermore, consumers sometimes receive conflicting information about the same product and such information comes from different sources. For example, a food company claims that it provides 'nutritious' or 'healthy' food, but, in reality, it is considered as 'junk food'. Evaluating the products becomes a difficult task for consumers because of contradictory information, thereby leading to ambiguity confusion (Walsh et al., 2006). Moreover, using terminologies or specific words also creates ambiguity among consumers. An analysis of a study conducted in the wine industry to investigate consumer confusion reveals that complicated jargon such as 'grand cru' and 'premier cru' to describe the differences between wines is perceived by consumers as difficult to understand (Drummond and Rule, 2005).

Leek and Kun (2006) further attributed ambiguity confusion to technological complexity, dubious product claims, ambiguous information and conflicting product information. They maintain that the language used in any product jargon needs to be clarified in a way that is readily understandable to consumers. If not, ambiguity confusion could be caused due to the overwhelming amount of technical jargon. In

addition, a study conducted by Leek et al. (2006) outlines the causes of misunderstanding in the Chinese personal computer market. Technological difficulty happens when a customer is inexperienced with the technological language used in explaining the features of the product. In order to overcome this confusion, it is necessary to ensure that the technical jargon accompanying a product and its launch is minimised, and if technical jargon is unavoidable, then it should be presented in such a way that the information is concise and clear in order for confusion levels to be lessened, thus enabling customers to feel more confident that what they are buying represents the best option for them now and in the future. Presenting technical information in this manner, i.e. in a way that is clear and easy to understand for all concerned, ensures that the product is more accessible to customers.

In regard to FOP labelling, confusion may arise among consumers due to different formats of FOP labelling on retailer and manufacturer products within a particular store or across different stores (Malam et al., 2009 cited in Leek and Szmigin, 2015). To study ambiguity confusion arising from FOP labelling, Leek and Szmigin (2015) undertook 30 interviews using a think aloud technique to identify differences in food constituents according to FOPs. Through these interviews, Leek and Szmigin (2015) found that ambiguity confusion due to technical complexity was commonplace when reading FOP labels because consumers are often unfamiliar with the technical language used to describe products (Leek and Szmigin, 2015). Hence, Leek and Szmigin (2015) recommended that governments and other FOP stakeholders provide consumers with educational material on the interpretation and use of FOP labelling in order to avoid future consumer confusion.

Electronic products are also considered to be goods that cause ambiguity confusion due to the technically complex information often supplied alongside these products and their many highly sophisticated features. For example, in investigating the phenomenon of consumer confusion when purchasing computers in the Chinese market, Leek and Kun (2006) revealed that the majority of participants believed that purchasing a computer is a complex task due to computers being too complicated in terms of their features and having ambiguous information, in addition to the participants' original buying criteria also changing as a result of numerous advanced features and functions. Additionally, it is worth noting that ambiguity confusion has several influences on consumer decision-making. Firstly, choice postponement (Dhar, 1997) often happens when consumers are faced with ambiguous stimuli, such as two or more complex alternatives. To clarify their choices, consumers tend to seek additional information, which could assist buyers in determining which information is the more trustworthy. Mitchell, Walsh and Yamin (2005) postulated that deferral decision making is often involved in consumer behaviour. However, Walsh, Hennig-Thurau and Mitchell (2007) disagreed with this point of view, as they maintained that the relationship between postponed decision-making and ambiguity confusion is insignificant.

Walsh, Hennig-Thurau and Mitchell (2007) attributed this insignificant relationship to three reasons, the first of which is a fear that receiving additional information that may increase conflict and ambiguity. Second, consumers attempt to avoid postponement of decision-making and seek assistance because they are afraid of others' reactions, such as being regarded as unknowledgeable and misunderstanding certain information. Finally, a lack of customer motivation is the third reason, which

leads to decision-making not being deferred and hastily choosing any product from a set of alternatives that are perceived to be similar to others.

Consumers tend to become frustrated due to negative word-of-mouth in a purchasing decision experience, which is considered as the second effect of ambiguity confusion. This may be due to consumers often believing that the responsibility for misusing or not fully understanding a product rests on themselves rather than on the manufacturer. Thus, consumers usually tend not to ask for extra information or do not express their perspective on the product (Mitchell, Walsh and Yamin, 2005). It can be seen that this point, as well as the insignificant relationship between ambiguity confusion and delayed decision-making, are closely linked because, in both situations, consumers do not want to be seen as having no knowledge about the product and, thus, they do not defer their decisions. However, the substantial increase in social networking websites has resulted in consumers being much freer than in the past to express and write about their negative opinions or seek additional information on products. Moreover, the decision to postpone the purchase of a product varies from one product to another based on the degree of product involvement. For example, a consumer does not often decide to delay the purchase of sugar when faced with ambiguity confusion. Consequently, consumers who encounter ambiguity confusion in purchasing high-involvement products more often tend to delay their decision than in the case of low-involvement products.

In contrast to the above assertion, a positive relationship between ambiguity confusion and word-of-mouth was found by Walsh et al. (2006), which may have been because of the existing effect of opinion makers or 'market mavens' in the study sample. The authors discussed mavens in their hypothesis formulation and

argued that mavens are inclined to expose themselves to ambiguous information and clarify this information to others because, not only do they have a thorough understanding of the information, but they also try to present themselves as marketplace information providers with high value to friends and relatives (Walsh et al., 2006).

The final consequence of ambiguity confusion for consumers is that it has an effect on their trust and brand loyalty towards specific firms and/or the whole marketplace. However, there is some disagreement in the literature about its negative or positive effects. Mitchell, Walsh and Yamin(2005) revealed that consumers find ways to face the reality of ambiguous and complex information, which may eventually assist them in making satisfactory decisions. Consumers' brand loyalty and trust in specific brands play a major role in decreasing exposure to ambiguous information. When consumers trust a certain brand, this means that only minimal information processing about a product is needed, and it does not have to be re-evaluated by consumers (Mitchell, Walsh and Yamin, 2005).

Another finding shows that ambiguity confusion has a significantly positive effect on brand loyalty (Walsh, Hennig-Thurau and Mitchell, 2007), in that consumers tend to use brand loyalty as a technique to diminish ambiguity and avoid unclear information. In this regard, Walsh et al. (2006) provided support for the positive relationship between marketplace trust and ambiguity stimuli. Nonetheless, the issue of ambiguity confusion also exhibits different findings from diverse authors. For example, Matzler, Steiger and Füller (2011) conducted a study on 187 students who were asked to build a laptop configuration that would meet their needs by using a configuration toolkit on the Dell company website. The students developed an online

questionnaire, which aimed to measure consumer confusion proneness (i.e. information overload, similarity confusion and ambiguity confusion) as well as the consequences of confusion, including satisfaction, trust and enjoyment. The study revealed that consumers were exposed to ambiguity confusion because of their perception of the complexity of the laptop toolkit and, therefore, the consumers' levels of trust in the supplier decreased. This is because the image of the suppliers or the marketplace as a whole is reduced when consumers perceive the alternatives as similar in terms of complexity or unclear information (Walsh et al., 2006) or when the purchased tools are as complicated as the one mentioned above (Matzler, Steiger and Füller, 2011).

In summary, Walsh and Mitchell (2005a; 2010) and Walsh, Hennig-Thurau and Mitchell (2007) have identified three aspects of consumer confusion proneness: overload confusion, similarity confusion and ambiguity confusion. Overload confusion is defined as 'consumers' difficulty when confronted with more product and market information and alternatives than they can process' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 704), similarity confusion is described as 'the perception that different products in a product category are visually and functionally similar' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 702), and ambiguity confusion is identified as 'consumers' tolerance for processing unclear, misleading or ambiguous products, information and advertisements' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 705). The factors and items of the scale of consumer confusion proneness are described in Table 2.2.

Therefore, the idea proposed that consumer confusion proneness is a multidimensional construct is reinforced by the aforementioned results. These

multidimensional factors have, in turn, a differential influence on customer
behaviour and buying consequence variables, including decision avoidance (Mitchell
and Papavassiliou, 1997), buying postponement and brand loyalty (Malhotra, 1988;
Foxman, Meuhling and Berger, 1990; Walsh, Hennig-Thurau and Mitchell, 2007),
customer satisfaction, trust and word-of-mouth (WOM) behaviour (Walsh and
Mitchell, 2010), cognitive dissonance (Mitchell and Papavassiliou, 1999) and
confusing other consumers (Foxman, Meuhling and Berger, 1990; Foxman. Berger
and Cote, 1992).

Table 2.2: The 'Cognitive Approach' to Consumer Confusion

➢ **Similarity** • Due to the great similarity of many products, it is often difficult to detect new products. • Some brands look so similar that it is uncertain whether they are made by the same manufacturers or not. • Most brands are very similar and are therefore hard to distinguish. • Most brands look so similar that it is difficult to detect differences.	
➢ **Overload**[3] • I do not always know exactly which products meet my needs best. • There are so many brands to choose from that I sometimes feel confused. • Due to the host of stores, it is sometimes difficult to decide where to shop. • The more I learn about grocery products the harder it gets to choose the best.	Five points likert scales (agree-disagree format)
➢ **Ambiguity** • Products such as CD players or VCR often have so many features that a comparison of different brands is barely possible. • The information I get from advertising often is so vague that it is hard to know what a product can actually perform. • When buying a product I rarely feel sufficiently informed. • When purchasing certain products, such as a computer or hifi, I feel uncertain as to product features that are particularly important for me.	

Source: Walsh & Mitchell, 2005a; Walsh et al., 2007; Walsh & Mitchell, 2010.

2.3 Consumer Confusion Consequences

In this regard, it is also important to analyse the consequences of consumer confusion, which is useful for a wide range of stakeholders, including marketers, policy makers and copywriters. Consumer confusion has a range of related marketing consequences, including word-of-mouth behaviour (Turnbull, Leek and Ying, 2000), irrational buying decisions (Mitchell and Papavassiliou, 1999), dissatisfaction (Walsh and Mitchell, 2010), reduction in brand trust (Walsh and Mitchell, 2010), brand disloyalty (Walsh, Hennig-Thurau and Mitchell, 2007) and the postponement of buying decisions (Walsh, Hennig-Thurau and Mitchell, 2007). Naturally, these consequences impact significantly on a firm's sales and longevity, especially in competitive and potentially lucrative markets, such as the electronics market. As well as this, consumer confusion also increases retailers' costs because it requires them to respond to the specific needs of the confused customer (Wobker, Eberhardt and Kenning, 2015). For example, confused customers may require more sales support or additional information about products before they make purchasing decisions. The detrimental outcomes of consumer confusion proneness indicate that businesses are under pressure to fully understand the impact of overloading consumers with too much information, presenting similar products, or providing ambiguous information. But, equally, it can be argued that consumer confusion actually motivates the marketplace. According to Mitchell and Papavassiliou (1999), a low level of consumer satisfaction actually aids the decision-making process as 'its presence may cause dissatisfaction, but its absence will not motivate the purchaser and will not necessarily lead to satisfaction' (Mitchell and Papavassiliou, 1999, p. 320).

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The adoption of WOM, customer satisfaction and brand loyalty as marketing outcomes in this study is justified by a number of reasons. First, based on the previous studies of consumer confusion, customer satisfaction, word-of-mouth behaviour and customer brand loyalty are among the most significant behavioural consequences due to their high relevance to consumer confusion. They were also considered the measurement tools most commonly used by firms (Walsh and Mitchell, 2010). In fact, research suggests that 68% of companies use customer satisfaction measures and 64% use customer brand loyalty measures (Amber, 2003). Hennig-Thurau, Gwinner and Gremler (2002, p. 231) also stated that customer loyalty and positive word-of-mouth communication are referred to in the marketing literature as key relationship marketing outcomes. In addition, these three consequences appear with the highest frequency in the consumer confusion literature, as illustrated in the overview of the literature (Table 2.3).

Table 2.3: An overview of consumer confusion outcomes

Title of the paper	Type of journal	Year	Method used	Outcomes of consumer confusion being considered
Consumer brand confusion: A conceptual framework	Wiley Periodicals Inc.	1992	Qualitative	**Brand loyalty**
Exploring consumer confusion in the watch market	Marketing Intelligence and Planning	1997	Qualitative	Weakened **brand loyalty**, brand image and brand sales
Marketing causes and implications of consumer confusion	Journal of Product & Brand Management	1999	Qualitative	**Consumer dissatisfaction,** lower repeat sales, more returned products. **Reduced customer loyalty**, poorer brand image and **negative WOM**

Customer Confusion: The Mobile Phone Market	Journal of Marketing Management	2000	Qualitative	**WOM** and brand image
Wenn Konsumenten verwirrt sind. Empirische Analyse der Wirkungen eines vernachlässigten Konstrukts.	Marketing ZFP	2002	Qualitative	**Brand loyalty**, **satisfaction** and trust
Consequences of Customer Confusion in Online Hotel Booking	Conference paper	2005	Quantitative	Abandon the purchase, delegate the decision, seek additional information, and rely on familiar **brands**
Towards a conceptual model of consumer confusion	Advances in Consumer Research	2005		**WOM**, **dissatisfaction**, cognitive dissonance, decision postponement, shopping fatigue, reactance, **brand loyalty**, trust and confusing others
Consumer Confusion in the UK Wine Industry	Journal of Wine Research	2005	Qualitative	Decision paralysis, suboptimal decisions, misinform others, incorrect **WOM** and **reduce customer loyalty**
Consumer confusion in the Thai mobile phone market	Journal of Consumer Behaviour	2006	Qualitative	**Word-of-mouth** as a consumer confusion reduction strategy
Consumer confusion in the Chinese personal computer market	Journal of Product & Brand Management	2006	Quantitative	Abandon the purchase. **WOM**, seek additional information and involve family and friends.
Consumer confusion proneness: scale development, validation, and application	Journal of Marketing Management	2007	Qualitative	Decision postponement and **brand loyalty**
Spoiled for Choice: Consumer Confusion in Internet-Based Mass Customization	Innovative Marketing	2007	Quantitative	**Satisfaction**, share/delegate the decision, seek additional information, postpone the purchase, **rely on familiar brands**
Asymmetric effects of brand origin confusion Evidence from the emerging market of China	International Marketing Review	2008	Quantitative	Brand awareness, **brand loyalty** and brand preferences
Measuring consumer vulnerability to perceived product-similarity problems and its consequences	Journal of Marketing Management	2010	Quantitative	**Brand loyalty** and **word-of-mouth**

The effect of consumer confusion proneness on word of mouth, trust, and customer satisfaction	European Journal of Marketing	2010	Qualitative	**WOM**, trust and **customer satisfaction**
Antecedents and Consequences of Consumer Confusion: Analysis of the Financial Services Industry	Advances in Consumer Research	2010	Quantitative	**Satisfaction**
Coping with confusion: the case of the Dutch mobile phone market	Managing Service Quality	2010	Quantitative	**Feeling of dissatisfaction** and **brand loyalty**
How does national culture impact on consumers decision-making styles? A cross cultural study in Brazil, the United States and Japan	Brazilian Administration Review	2010	Quantitative	**Brand loyalty**
Consumer Confusion in Internet-Based Mass Customization: Testing a Network of Antecedents and Consequences	Springer Science+Business Media	2011	Quantitative	**WOM**, **satisfaction**, trust and fun
Diagnosing consumer confusion and sub-optimal shopping effort: Theory and mortgage-market evidence	American Economic Review	2012	Qualitative	**Satisfaction**
Linking Sources of Consumer Confusion to Decision Satisfaction: The Role of Choice Goals	Psychology & Marketing	2013	Quantitative	**Satisfaction**
Modeling the Consequences of Customer Confusion in a Service Marketing Context: An Empirical Study	Journal of Services Research	2013	Quantitative	**Customer satisfaction**, customer retention, **loyalty**
Greenwash and Green Trust: The Mediation Effects of Green Consumer Confusion and Green Perceived Risk	Journal of Business Ethics	2013	Quantitative	Distrust

Consumer Confusion in Mobile Application Buying: The Moderating Role of Need for Cognition	International Journal of e-Business Research	2014	Quantitative	**WOM** and buying decision
Consumer confusion proneness: insights from a developing economy	Marketing Intelligence & Planning	2014	Quantitative	**WOM**, trust, **customer satisfaction**
Profiling Y Generation GSM Users in Turkey According to Consumer Confusion, Perceived Risk and WOM	Mediterranean Journal of Social Sciences	2014	Quantitative	**WOM** and perceived risk
Consumer confusion in German food retailing: the moderating role of trust	International Journal of Retail & Distribution Management	2015	Quantitative	**Brand** used as a way to reduce ambiguity confusion and increase customers' confident. Consumer dissatisfaction and product returns. The role of trust as moderator variable
The Impact of Consumer Confusion on Nutrition Literacy and Subsequent Dietary Behavior	Psychology & Marketing	2015	Qualitative	Healthy eating anxiety and dissonance, incorrect food substitutions, **WOM**
A conceptual model of consumers' online tourism confusion	International Journal of Contemporary Hospitality Management	2015	Qualitative	Share/delegate the decision, seek additional information, narrow down the choice set/choose the standard model, trust, **loyalty**, abandon the purchase and choose low-price offers
Are look-alikes confusing? The application of the DRM paradigm to test consumer confusion in counterfeit cases	Marketing Letters	2015	Quantitative	Associative memory distortion
Investigating consumer confusion in the retailing context: the causes and outcomes	Total Quality Management & Business Excellence	2015	Quantitative	Consumer inertia and decision postponement

The Effects of Information Overload on Consumer Confusion: An Examination on User Generated Content	Boğaziçi Journal Review of Social, Economic and Administrative Studies,	2015	Quantitative	Purchasing avoidance
The Effects of Information Overload on Consumer Confusion: An Examination on User Generated Content	Boğaziçi Journal Review of Social, Economic and Administrative Studies,	2015	Quantitative	Purchasing avoidance
The Effects of Information Overload on Consumer Confusion: An Examination on User Generated Content	Journal Review of Social, Economic and	2015	Quantitative	Purchasing avoidance
The impact of consumer confusion from eco-labels on negative WOM, distrust, and dissatisfaction	International Journal of Advertising	2016	Quantitative	**Negative WOM**, distrust and **dissatisfaction**
A More Comprehensive View of Consumer Confusion: Scale Development	Journal of International Consumer Marketing	2017	Mixed method	Postpone or abandon the purchase decision and **switch the brand**
The Role of Electronic Word-of-Mouth on Customer Confusion in Increasing Purchase Intention	Social Sciences & Humanities	2018	Quantitative	**E-WOM**
How confusion impacts product labeling perceptions	Journal of Consumer Marketing	2018	Quantitative	Scientific certainty, product quality perceptions, and firm credibility perceptions

2.3.1 **Word-of-mouth behaviour**

This section discusses the concept of word-of-mouth and how it is associated with consumer confusion. Word-of-mouth is defined as meaning "informal communication between people discussing products, services and ideas. These people are not connected to the company offering the product or service mentioned and they communicate using a channel unconnected to enterprise itself" (Krishnamurthy, 2006, p. 215). In the consumer confusion studies, it is conceptualised as 'the degree of product related information which a consumer communicates via speaking to other consumers' (Walsh and Mitchell, 2010). Generally, it is about the interpersonal interaction in the marketplace. According to Luo (2009), 'word of mouth is one of the most important post-purchase variables that generates sales, future cash flows, and growth' (Luo, 2009, p. 238). Matzler, Steiger and Füller (2011) noted that word-of-mouth is a behavioural variable and is, thus, a hypothetical reaction, especially when considering low-involved participants. Matzler, Steiger and Füller (2011) found that consumer confusion affects word-of-mouth since the latter is associated with the former, although it must be noted that consumer confusion is expected to impact on certain variables that serve as determinants of word-of-mouth, such as trust and product satisfaction. Matzler, Steiger and Füller (2011) found that satisfaction does not have a significant impact on word-of-mouth. This finding may be considered counter-

intuitive, but it can be explained by the fact that, when consumers are dissatisfied with a product, they attribute it to themselves rather than to the vendor. In this sense, customers' negative experiences with products do not affect their recommendations of vendors to others. Therefore, based on this assertion, it may be posited that, when consumers are confused about buying a product and have come to the point of buying it and being dissatisfied with it, they will point to themselves rather than to the vendor as being responsible for such dissatisfaction and, thus, may still recommend the vendor to others through word-of-mouth.

Similarly, Drummond and Rule (2005) stated that word-of-mouth and personal recommendations are recognised as a means for consumers to make a purchasing decision. However, the likelihood that consumer confusion will result in misinformation and/or over-reliance on non-expert opinions has corresponding consequences for marketing. In this regard, there may be a need to propose a more systematic approach for word-of-mouth marketing. As such, Drummond and Rule (2005) offered insights into how word-of-mouth may be used as a technique to address consumer confusion.

In a similar way, de Matos and Rossi (2008) revealed that trust and satisfaction with the product are the main drivers of word-of-mouth, which means that the more trusting and satisfied a consumer is with the product, the more likely he/she will be to engage in word-of-mouth. This is similar to Nyer's (1997) examination of word-of-mouth as, through the use of cognitive appraisal theory, he found that emotion, which is an effect of cognitive appraisal, has a significant influence on customers' reasoning for taking part in word-of-mouth. This is supported by Hampton-Sosa and Koufaris (2005), who claimed that word-of-mouth operates vis-à-vis

recommendation intentions. Turnbull, Leek and Ying (2000) claimed that negative word-of-mouth is among the several negative consequences associated with consumer confusion, which can be connected to Drummond and Rule's (2005) claim that information overload and product propagation contribute to negative consumer reactions in areas such as incorrect word-of-mouth. It is also important to emphasise that information and choice overload are closely associated (Kasper, Bloemer and Driessen, 2010).

Conversely, the impact of word-of-mouth on purchase decisions was examined, among others, by Ghosh and Rao (2014) in their study into the smartphone and mobile applications market, which is prone to consumer confusion. The authors specifically explored the influence of consumer confusion proneness on word-of-mouth behaviour and the purchase of smartphone applications by consumers in India. For the study, the researchers used the market maven scale to examine word-of-mouth mouth activity. Market mavens include people who have information on products, shopping outlets or markets and initiate discussions with consumers, while responding to requests from consumers for product information. They enjoy shopping behaviour as well as the role of information providers as they believe that information seekers could benefit from the information they have available. The results of the study showed that the aspects of consumer confusion proneness function differently in relation to the association of these aspects to consumer behaviour. Ghosh and Rao (2014) pointed out that prescribing remedial measures of confusion requires looking into how a confused consumer processes information.

In the smartphone and app markets, consumers could be exposed to situations with cognitive overload, which could lead to the inability to process the enormous volume

of information. This could lead to the degradation of information processing performance (Pass et al., 2003 cited in Ghosh and Rao, 2014). This would be conveyed at an intense level due to word-of-mouth communication (Ghosh and Rao, 2014). Also, information-rich consumers perceive themselves as superior in terms of product knowledge and play the role of app-related information providers (Sundaram, Mitra and Webster, 1998; Walsh and Mitchell, 2010).

Ambiguity confusion proneness is like cognitive un-clarity (Cox, 1967), which creates an uncomfortable behaviour among consumers. In this dimension of consumer confusion proneness, a variety of other factors may come into play (Mitchell and Papavassiliou, 1999; Turnbull, Leek and Ying, 2000). These include messages such as product or brand information (Chryssochoidis, 2000). It is also useful to examine multiple stimuli from a variety of media sources that could interfere with each other and the claims in consistency could be lost. Consumers are unclear about the nature of information as to what is right and what is wrong (Walsh, Hennig-Thurau and Mitchell, 2007).

According to Walsh and Mitchell (2010), there is a direct positive relationship between ambiguity confusion proneness and word-of-mouth behaviour. In the smartphone app context, consumers, when faced with misleading and unclear information, often convey the ambiguity to others (Ghosh and Rao, 2014). This is because consumers want to eliminate their uncertainty and complexity associated with app-related information by discussing the situation with others and taking feedback from other consumers. On the other hand, they may seek to become helpful information providers by warning their friends about the information.

In Walsh and Mitchell's (2010) study, word-of-mouth is emphasised as the main focus of the concept of consumer confusion proneness when seeking to investigate consumers' general propensity for confusion with regard to marketplace information. The authors found that product similarity, overload and ambiguity have a corresponding impact on word-of-mouth behaviour. They also found an inverse relationship between a proneness to similarity confusion and word-of-mouth behaviour, meaning that the more prone a consumer is to confusion due to the presence of similar stimuli, the less likely he/she is to express word-of-mouth behaviour. This finding contrasts with that of Leek and Kun (2006), where, by reason of its credibility and reliability, word-of-mouth is the most commonly used source of information for lessening confusion. This is particularly demonstrated in the situation where consumers involve their family and friends to share information about a specific product or to actually buy the product. Here, the individual considers the positive and/or negative feedback and experiences of his/her family and friends as the basis for his/her own decision of whether to buy the product. The individual may decide to eliminate a certain product from a set of products when considering that his/her friend happens to have had a negative experience with it. In this regard, family and friends are perceived as reliable and trustworthy sources of word-of-mouth (Muthukrishnan, 1995). It is worth noting that salespeople are fairly insignificant sources of information when making a purchase decision (Turnbull, Leek and Ying, 2000) because they are generally not considered as independent sources of information, although a good salesperson can draw favourable customer reactions regardless their level of knowledge about the product. Nevertheless, Drummond and Rule (2005) stated that such word-of-mouth sources may introduce

additional elements for consideration that may even lead to further confusion. Ghosh and Rao (2014) also argued that the negative association between similarity confusion and word-of-mouth is only true for customers with a low need for cognition. These claims should be taken into account with regard to how word-of-mouth operates in order to understand its role in consumer confusion. The ideas underlying word-of-mouth and consumer confusion agreed on by scholars are that a confused consumer may present negative word-of-mouth and that word-of-mouth may lead to further consumer confusion (e.g. Drummond, 2004; de Matos and Rossi, 2008; Ghosh and Rao, 2014).

For the current study, the word-of-mouth construct is adopted as a consumer confusion outcome, meaning that it reflects the post-purchase experience that market mavens are willing to share. This is consistent with the conceptualisations of WOM made by Feick and Price (1987), Geissler and Edison (2005) and Walsh and Mitchell (2010).

2.3.2 Customer satisfaction

This section will discuss customer satisfaction and how it relates to consumer confusion. Customer 'general' satisfaction can be defined as 'an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some needs, goals or desire' (Hansemark and Albinson, 2004, p. 45). Thus, it is how satisfied a customer is overall with the provided products or services. According to Geyskens et al. (1996), customer satisfaction and customer trust are closely related. Earlier research suggested that customers with a high level of satisfaction will be highly loyal to the brand (Zins, 2001). Conversely, the customer satisfaction

impact on customer brand loyalty is rather complicated. Although, some studies consider that customer brand loyalty is predominantly determined by customer satisfaction (Anderson and Lehmann 1994), others have revealed that customer satisfaction is only part of why customers sustain with their product or service brands (Fisher, 2001).

Several scholars have distinguished between two kinds of satisfaction, namely macro satisfaction and micro satisfaction. According to Renoux (1974), in macro satisfaction, the marketplace's (a company's) behaviour and marketing activities are evaluated in a broader sense. In contrast, with micro satisfaction, the customer's judgement on the products, services and his/her experience with a company is more important. In this study, macro satisfaction seems more appropriate as consequence variable, taking into consideration that confusion proneness is conceptualised as something which occurs irrespective of certain product.

Recent decades have witnessed customer satisfaction being regarded as a pivotal factor through which a positive relationship is maintained between products and consumers (Chitturi, Raghunathan and Mahajan, 2008). The issue of satisfaction prevails in any transaction into which consumers enter. Several models of satisfaction formation imply that feelings of satisfaction take place when consumers make a comparison of their perceptions and expectations. The consumer satisfaction literature has emphasised expectation disconfirmation as a main determinant of satisfaction (Oliver, 1997).

In focusing on the financial services industry, Shukla, Banerjee and Adidam (2010) empirically assessed the antecedents and consequences of consumer confusion, their study building on previous work in the realm of consumer confusion and satisfaction.

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They found that satisfaction is not affected by expectation and attribute confusion, while information satisfaction is significantly affected by information confusion. Moreover, they revealed that attribute satisfaction and information satisfaction significantly affect purchasing decisions. Related to this, Shukla, Perks and Achakobe (2008) proposed that confusion directly affects satisfaction and the final purchase decision; however, prior research, such as that of Cohen and Basu (1987), has paid limited attention to this phenomenon. Similarly, Mitchell and Papavassiliou (1999) claimed that decreased satisfaction is among the several negative consequences associated with consumer confusion. Although the consequences of confusion have been described as increased dissatisfaction and a reduced propensity to buy (e.g. Mitchell and Papavassiliou, 1999; Walsh, Hennig-Thurau and Mitchell, 2007), the need to empirically test these assumptions must be advanced (Walsh, Hennig-Thurau and Mitchell, 2007).

Conversely, Shukla, Banerjee and Adidam (2010) examined the impact of satisfaction on purchasing decisions in relation to consumer confusion. They viewed confusion as fuelling consumers' overall expectations and attributing similarity to products/services, which affects the information processing and decision-making capabilities of consumers, thereby directly affecting satisfaction and purchase decisions. Leek and Kun (2006) emphasised that there is no substitute for satisfied customers telling others how contented they are. It is not easy to establish customer satisfaction, but, without it, loyalty and referrals, which function as the lifeblood of business, cannot take place.

In addition, Wobker, Eberhardt and Kenning (2015) stated that the misguided purchase of a product is a potential result of consumer confusion, thereby leading to

increased consumer dissatisfaction. This scenario provides an important insight
regarding the value of understanding the causes and consequences of consumer
confusion on the part of retailers. For example, Scheibehenne, Greifeneder and Todd
(2010) examined the increased impacts brought about by a greater number of
available products to choose from, in particular focusing on whether having more
choice enhances or weakens decision-making and customer satisfaction.
Unexpectedly, a total effect size of zero was found. On the other hand, Matzler,
Steiger and Füller (2011) found a negative relationship between consumer confusion
and satisfaction with the product. Understanding how customers' choices and
outcomes (e.g. satisfaction) are influenced by the development of the mass
customisation process is an important aspect for the successful implementation of
such customisation, an area on which Matzler, Steiger and Füller (2011) focused.
Another significant discussion comes from Tjiptono, Arli and Bucic (2014), who
examined the general propensity of young consumers to become confused and how
this affects trust, word-of-mouth and consumer satisfaction in the Indonesian
smartphone market. Combining convenience and purposive sampling methods, this
study's results verify the dimensions of consumer confusion proneness, such as
confusion regarding product similarity, overload and ambiguity (Drummond and
Rule, 2005).

In addition, when consumers consider it difficult to choose between brands or
products, the result is reduced overall (or macro) satisfaction. Thus, there is a need to
spend time, money and effort gathering information and evaluating alternatives
before finally making a specific decision. Walsh and Mitchell (2010) revealed that
the negative consequences of similarity confusion proneness support overall

consumer satisfaction. On the other hand, they found that overall confusion negatively affects consumer satisfaction, as too much information can lead to consumer anxiety, which, in turn, leads to consumer dissatisfaction. To elaborate on this, multifaceted and ambiguous information tends to make consumers anxious and uncertain in terms of what information to believe. To diminish this ambiguity, consumers must be given additional time, effort and even money to acquire the necessary information. This extra processing will lead to reduced consumer satisfaction (Tjiptono, Arli and Bucic, 2014). Therefore, Walsh and Mitchell (2010) assumed that consumer satisfaction is negatively impacted on by ambiguity confusion proneness.

Huffman and Kahn (1998) pointed out that a broad variety in choice commonly results in more information about the product's attributes, which can produce feelings of dissatisfaction when the information is difficult to process. In the same manner, new products with several multifaceted features may engulf consumers, swaying them to purchase a product with many unnecessary features, which also eventually makes them dissatisfied with their selection (Thompson, Hamilton and Rust, 2005). Labelling also impacts on customer satisfaction, as unclear product information is one of the main causes of consumer confusion (Wobker, Eberhardt and Kenning, 2015).

One result of consumer confusion and decreased customer satisfaction is changes in shopping behaviours and requirements (Wobker, Eberhardt and Kenning., 2015). Because of the growing number of services, products and shopping possibilities now available to consumers, the act of shopping is now increasingly complex. As a result of these changes, consumers are more likely to become confused, with the state of

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confusion leading to changes in purchasing behaviour (Wobker, Eberhardt and Kenning, 2015). Examples of changes in behaviour due to confusion include the consumer deciding not to buy a product, changing needs in a shopping environment, such as different quality requirements, certification to signal product quality, more consultation from salespeople to help with purchasing decisions, and the need for governmental regulation (Wobker, Eberhardt and Kenning, 2015). It has been said that:

> With the rising number of food products now available from a vast range of countries, and in a marketing extended by function and genetically modified foods, the product arena of food has become increasingly complicated…. [As a result] many consumers are confused about which products cause them to gain weight or about how to interpret the expiration dates. (Wobker, Eberhardt and Kenning, 2015, p. 753)

One consequence of the increased availability of products is consumer confusion, which then leads to a decrease in trust in companies and products (Wobker, Eberhardt and Kenning, 2015). Thus, trust is important for customer satisfaction as it reduces complexity and, therefore, mitigates consumer confusion and the likelihood of negative purchasing outcomes (Wobker, Eberhardt and Kenning, 2015).

2.3.3 Customer brand loyalty

This section discusses customer brand loyalty and how it relates to consumer confusion. Brand loyalty is referred to as 'a deeply held commitment to rebuy or repatronise a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior' (Oliver 1999

p.34). Walsh et al. (2006) stated that brand loyalty can be conceptualised as 'a customer's repeat purchase behaviour' (Walsh et al., 2007, p. 15). However, they also acknowledged that the definition of brand loyalty goes beyond repeat purchases or a consumer's intention to repurchase a brand consistently because of the perception that a brand provides the right product features, image, quality and price. Rather, as Oliver (1999) claimed, brand loyalty also covers consumers' positive attitudes towards a brand.

Word-of-mouth and customer brand loyalty are referred to as 'key relationship marketing outcomes' and both of them are related to trust (Walsh and Mitchell, 2010, p. 839). Consumers may also abandon loyalty when they feel confused about the firm or its products or services. Since loyalty is one of the critical aspects of relationship marketing and brand management, it is important to not lose customers due to consumer confusion.

In addition, Chryssochoidis (2000) claimed that brand loyalty is also linked to ambiguity confusion. It is possible that advertisements of a product that are perceived as ambiguous may lead consumers to have increased blind faith in the marketplace. This is exemplified by mobile phone companies, which are often accused of including far too many complex features in their products so that consumers will trust the usefulness of such features (Walsh and Mitchell, 2010). According to Walsh et al. (2006), loyalty is a main marketing goal, but it can diminish swiftly if consumers are confused about a company or product that they have ceased to trust. It is important to note that information overload and product propagation add to negative consumer reactions in regard to, for example, reduced loyalty (Drummond and Rule, 2005). According to Loudon and Della Bitta (1993),

brand loyalty is triggered by overload, since brand loyalty and frequent buying necessitate less decision-making, information searching and brand evaluation. The likelihood of comparing and having to perform less information processing tends to be welcomed by consumers, who are prone to stimulus overload. Thus, loyalty can be taken as a strategic response to overload confusion.

Since loyalty is an important end for brand management, avoidance of consumer loss to imitators is also important. A way for brand owners to enhance the protection of their brand trademarks is to make these trademarks more difficult and financially risky for imitators to copy. It is the counterfeit brand's similarity to the real brand that causes confusion among consumers about which brand to buy from. Similarly, the results of Drummond and Rule's (2005) study show that proneness to similarity confusion negatively affects loyalty, thereby leading to the loss of future sales (Clancy and Trout, 2002). Likewise, the results of Walsh et al.'s (2006) study reveal that ambiguity confusion may result in increased brand loyalty, but for the wrong reasons. Undoubtedly, marketers value satisfaction-specific brand loyalty to the perceived high quality of the product, as such consumers tend to engage in word-of-mouth. Additionally, Sproles and Kendall (1986) offered items to measure brand loyalty, in which they drew certain indicators related to decision postponement on the basis of current knowledge in this area.

Loken, Ross and Hinkle (1986) stated that, in the current highly competitive marketplace, it is expected that companies spend a great deal of financial resources in establishing and safeguarding trademarks by which their products and services are recognised and valued by consumers. Trademarks function as identifiers of products or services, assuring the consumers that goods marked with the same name or design

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characteristics truly come from the same source and can, thus, be relied upon to suggest some standard of quality. This assertion points to how brand loyalty is ensured, starting with the brand symbol signifying the quality of the brand. In addition, Walsh et al. (2006) argued that, when consumers, who are prone to recognise brands as alike, see a mirror image of a particular brand, they do not instinctively recognise the higher risk simply because they see that the brands as similar. Dhar (1997) agreed with this and argued that being confused about what alternative to choose from may lead to indecision and a propensity to steer away from commitment. In this sense, when consumers are faced with a difficulty in distinguishing products, there is no reason why they would become loyal to a brand. Similarly, Mitchell and Papavassiliou (1997) claimed that decreased brand loyalty is among the negative consequences associated with consumer confusion. Conversely, Piller, Möslein and Stotko (2004) argued that, among other factors, mass customisation results in increased loyalty and an increased willingness to pay. Moreover, previous research has shown that trust can reduce complexity and indecision in the food market and can strengthen loyalty in food selection, which ensures the long-term success of a firm (Rampl et al., 2012). On the other hand, Zhuang et al. (2008) examined the disproportionate effects of brand origin confusion on consumer decisions of whether to buy local or foreign brands. The findings suggest that local brands tend to be in an advantageous position, given a high level of brand origin confusion. However, it was also found that, as consumers' knowledge of the brand increases, the effects of brand origin confusion decrease. This study thus provides useful managerial insights into formulating effective branding and marketing communication strategies.

Mitchell and Papavassiliou (1999) identified some negative outcomes linked to consumer confusion: decision paralysis due to being overwhelmed by choice; the presence of sub-optimal decisions, which arises when the consumer's purchasing decision fails to satisfy his/her needs; and the likelihood of misinforming others. Since word-of-mouth endorsement is important, these actions are considered highly detrimental. Moreover, confusion is likely to decrease customer loyalty since consumers are more likely to switch brands. Mitchell and Papavassiliou (1999) further argued that confusion is not advantageous from a consumer perspective, and it is believed to have equally negative impacts for the provider. On the other hand, Walsh, Hennig-Thurau and Mitchell (2007) revealed that customer satisfaction is strongly and positively related to loyalty, suggesting that, since the presence of several alternatives has led to less satisfied customers, there is a corresponding risk of reduced loyalty.

2.4 Conclusion

The second chapter has considered the phenomenon of consumer confusion and the various aspects of consumer confusion and factors related to it. The literature on this subject explores the topic of consumer confusion itself and indicates that consumer confusion affects a number of behaviours relating to the purchasing experience, such as word-of-mouth information, customer satisfaction and brand loyalty. As well as this, the literature suggests that consumer confusion can lead to a number of negative outcomes such as negative word-of-mouth information, decision postponement, dissatisfaction and cognitive dissonance. As such, consumer confusion can lead to a number of problems, all of which put customers off making purchases relating to the source of initial confusion. Following on from this part of the research, the third

chapter of the thesis, 'Consumer Confusion from a Cultural Perspective', explores the relationship between confusion and culture. As such, it considers how cultural factors may have a potential role in influencing consumer confusion proneness and its consequences and particularly focuses on the three cultural dimensions of confusion: risk aversion, language barriers and social interaction.

CHAPTER THREE

Consumer Confusion from a Cultural Perspective

This chapter begins with an overview of culture and its various interpretations. This facilitates identification of the relationships between culture and consumer confusion, with a specific focus on the potential moderating role that culture plays in the context of consumer confusion. As a consequence, a proper conceptualisation of consumer confusion from a cultural perspective has been identified, with a clear discrimination between three types of cultural-based consumer dimensions: risk aversion, social interaction and language barriers.

3.1 Culture and its Interpretations

Since its earlier emergence in the marketing literature, culture has been distinctly interpreted according to different 'anthropological and sociological lenses' (Clark, 1990; Inglehart and Baker, 2000). For instance, Leung et al. (2005, p. 216) interpreted culture as 'the values, beliefs, norms, and behavioral patterns of a national group', while Schwartz (2006) linked culture with meanings. Others, such as House et al. (2004, p. 216) took into account the practical aspects of culture, since they viewed culture as 'embedded values and practices in a society'. From a business perspective, culture was defined by Trompenaars and Hampden-Turner (1998) as the mechanism in which individuals generate solutions for specific problems. Hofstede's (1980) definition emphasises the cognitive nature of culture that distinguishes one group of people from another. Jones (2007, p. 3) viewed culture as 'ingredients that are acquired from birth. They are influenced by family, school, religion, workplace,

friends, television, newspapers and books, and many other sources.' Nakata and

Huang (2002, p. 217) defined culture as a mixture of diverse capabilities, i.e.

'knowledge, belief, art, morals, law, custom and others', which impact on the minds

of individuals within a given society. Table 3.1 highlights this summary of culture

definitions.

Table 3.1: Summary of Culture Definitions

Author	Definition	Critical factor/s
Hofstede (1980)	'Collective programming of the mind which distinguishes the members of one human group from another.'	Cognition.
Trompenaars and Hampden-Turner (1998)	'The way a group of individuals solve problems.'	Problem solving.
Nakata and Huang (2002)	'That complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.'	Knowledge, beliefs, art, morals, law, customs and others.
House et al. (2004)	'Embedded values and practices in a society.'	Practice.
Leung et al. (2005)	'The values, beliefs, norms,	Values, beliefs, norms,

	and behavioural patterns of a national group.'	and behaviour.
Schwartz (2006)	'The rich complex of meanings, beliefs, practices, symbols, norms, and values prevalent among people in a society.'	Meanings, beliefs, practices, symbols, norms and values.
Jones (2007)	'Ingredients that are acquired from birth. They are influenced by family, school, religion, workplace, friends, television, newspapers and books, and many other sources.'	Family, school, religion, workplace, friends, television, newspapers, books and others.

The current research adopts the definition of Jones (2007) for three reasons. First, it looks at culture from a holistic perspective, as it considers the potential effect of many variables on the way in which culture is shaped. Second, it reconciles the influence of humans (friends, family, colleagues, clerics, etc.) and non-humans (e.g. the media, workplace and education) on the creation of culture. Third, it asserts the fact that culture is incrementally developed. These considerations are consistent with the purpose of this research and can contribute to the conceptualisation of consumer confusion from a cultural perspective, as will be discussed in the following section.

3.2 Investigating Consumer Confusion from a Cultural Perspective

Theories of consumer culture attempt to identify why individuals from certain social and cultural groups select certain products over others; these models attempt to understand what social and cultural factors drive consumers to select certain products, rather than focusing on the economic or psychological factors that come in to play when consumers select products. Consumer culture theory (CCT) – a unified theory that brings together many of the separate theories in this area – is a set of perspectives derived from theory that allow researchers to explore the relationships between the actions of consumers, the marketplace and the cultural meanings that customers attach to transactions (Arnould and Thompson, 2005, p. 868). According to the theory, the relationship between consumers' culture and their propensity to buy a certain product is complex, with Arnould (2006, p. 605) stating that consumer culture is an arrangement that allows culture and resources to be joined in meaningful ways that are mediated through markets.

As Arnould and Thompson (2005, p. 869) noted, instead of viewing culture as shared meaning, consumer culture theory suggests that the uneven distribution of meanings through cultural groupings exists due to globalisation and the system of capitalism that is in place. Consumer culture is, therefore, under this theory, a social arrangement, under which the relationships between culture, social resources and the product of interest to the customer are mediated by and through markets (Arnould and Thompson, 2005).

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Under this understanding, consumers form part of a system of products manufactured for commercial purposes, which they use in order to form and maintain their identities and, through this, to allow them to orient their relationships with others (Kozinets, 2002). Research conducted by Arnould and Thompson (2005) found that consumers of all cultures construct their identity through marketer-produced materials, with individuals of different cultures placing different values on different products and, therefore, preferring different products to create their identities. The research also found that consumers are actually culture producers, with customers' loyalty to brands producing a brand culture and, conversely, the cultural edge of a product enabling marketers to orient consumers towards certain ideologies or projects (Arnould and Thompson, 2005). This, essentially, means that culture, as understood in relation to products and product marketing, is a complex issue: culture can impose usage patterns on products, for example, due to the particular products valued by different cultures. Culture also influences how products are marketed in different geographic areas, which, in turn, determines the level of customer confusion that will be generated.

As Leng and Botelho (2010) noted in their empirical study of the purchasing of cell phones across different cultures, cell phones appear to be required by individuals regardless of their cultural heritage, with Sproles and Kendall's Consumer Style Inventory Framework (Sproles and Kendall, 1986) being used to identify the main drivers of cell phone consumption in Brazil, the USA and Japan. The main results from this research were that there are links between dimensions of culture – as posited by Hofstede (1984) – and Sproles and Kendall's Consumer Style Inventory Framework, thus enabling the possibility of identifying the distinct cultural

background present in any geographical area and, through this, allowing an identification of the probable different market dimensions in that geographical area. This means that marketers can have a good idea of what products are likely to sell, and how, in any specified geographic area, thus enabling the risk of consumer confusion to be lessened simply because they have made an attempt to fully understand the cultural context in which the product would be launched (Leng and Botelho, 2010).

Furthermore, Scott (2001) has identified a typology of regulative, normative/moral, and cultural-cognitive pillars of national culture. From these three pillars, the cultural-cognitive pillar can be used to identify the differences in cross-cultural consumer behaviour (Walsh et al., 2014). Instead of treating cultural characteristics as drivers of consumer behaviour, by drawing on the institutional theory of Kim and Oh (2002 cited in Walsh et al., 2014), Walsh et al. (2014) showed how the concept of institutions influence behaviour as well as how country-level measures can play a moderating role in influencing consumer behaviour. The authors suggested that laws, social norms and values make up an institution and are responsible for influencing consumer behaviour.

The cultural-cognitive pillar explains the cultural context that shapes consumer behaviour and attitudes. This pillar helps individuals develop certain meanings, which lead to certain thoughts, feelings and actions. Walsh et al. (2014) held that a country's customs, such as punctuality, religious beliefs, message reception, practices and peer influence, can be thought of as cultural-cognitive pillars, which can affect the behaviour of consumers to the extent that they may decide not to buy certain products or services. Individuals take these cultural elements for granted as

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they are routine and deeply rooted in their behaviour. Walsh et al. (2014) also pointed towards cultural time orientation, which is an individual's preference towards past, present, or future thinking. It should be noted that individuals in Western countries, such as the UK, look towards the future (Daft, 2009). Time is important to them, as they think it can be controlled and that their efforts will result in the achievement of desired results in the future. This also implies that Western individuals are short-term oriented. In the case of countries like Saudi Arabia or India, individuals prefer past orientations, as their historical traditions and relationships are important to them (Daft, 2009), implying that they prefer long-term commitments.

Driven by Jones' (2007) conceptualisation of culture in which he explains the roles played by culture in constituting the social norms, beliefs, understandings, ways of reacting to messages, practices, customs and convictions of individuals within societies, this research defines consumer confusion from a cultural perspective as 'an emotional state of mind, which leads to inappropriate buying decisions as a consequence of cultural factors stemmed from risk aversion, language barriers and social interactions.' These three elements can be classified as cultural-based consumer confusion dimensions, since they may significantly moderate the relationships between consumer confusion proneness and its consequences. The selection of these specific dimensions is outlined through means of a meta-analysis which reveals that these are the most prominent cultural dimensions in Western and non-Western consumer confusion studies, as explained in Appendix 1. Figure 3.1 conceptualises consumer confusion from a cultural perspective.
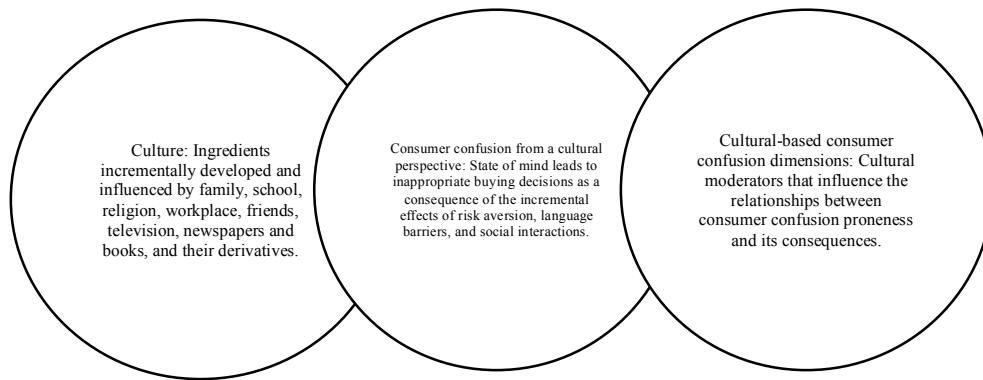
Figure 3.1: Conceptualisation of the Culture–Consumer Confusion Relationship

Consumer confusion has practical implications when it has cultural dimensions. For example, Cornish and Moraes (2015) argued that cultural factors play a role in consumer confusion regarding nutritional knowledge, literacy and dietary behaviour. The researchers found that most study participants responded to health bulletins, commercials and promotional campaigns by striving towards a healthy lifestyle. However, inadequate nutritional information from unreliable sources, flawed baseline clinical knowledge and poor nutritional literacy hindered participants' efforts to eat healthily and lead a healthy lifestyle (Cornish and Moraes, 2015). Hence, cultures that do not educate individuals about healthy lifestyles and nutrition make it more difficult for people brought up in them to lead a healthy lifestyle if they chose to do so.

However, Rippé et al. (2015) suggested that consumers can transcend cultural boundaries. As such, it is possible to appeal to a 'global multichannel consumer' (Rippé et al., 2015, p. 329). The study found that online information directed at consumers purchasing from the same company in Russia, Singapore and the United States converged, but that retail store behaviour in the three countries under study

diverged significantly and had nuanced differences (Rippé et al., 2015). Hence, Rippé et al.'s (2015) findings indicate that global companies can standardise online information, but must accept that retail store behaviour will differ and diverge significantly in different countries due to cultural differences. Furthermore, a study by Walsh et al. (2016) found that existing consumer confusion model did not fit the results generated from a consumer confusion study in Thailand, although they did fit findings from the United States and Germany. This suggests that consumer confusion is understood and experienced differently in different cultures. Therefore, more research needs to be undertaken to better understand these differences.

The following discussion aims to determine how the three cultural-based dimensions may shape perceptions of consumer confusion and how they may affect the relationships between consumer confusion and its consequences.

3.3 Cultural-Based Consumer Confusions Dimensions

3.3.1 Differences in risk aversion between cultures

Culture is an important part of any society. It has a significant influence on how individuals behave in different parts of the world. Similarly, it impacts on the way consumers behave when making a decision to buy products or services (Arnould and Thompson, 2005; Leo, Bennett and Härtel, 2005; Leng and Botelho, 2010). With consumer confusion being given great emphasis in the modern world, it is important to study its implications in relation to cross-cultural differences. The perception of risk also holds significant importance in the case of consumer confusion (Walsh, Hennig-Thurau and Mitchell, 2007). It is, therefore, essential to investigate how risk perceptions differ across cultures and how they impact on consumer confusion. The

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following literature review aims to understand the theoretical framework behind risk

perception by providing a detailed analysis of the different aspects of risk across

various societies and their impact on consumer confusion and decision making.

Risk issues in general are often difficult to understand, especially with regard to

making important decisions (Hoover, Möslein and Stotko, 1978; Grewal, Gotlieb and

Marmorstein, 1994; Mitchell and Papavassiliou, 1999). Therefore, it is considered as

a concept for consumer theory Ingene and Hughes (1985). Several studies have

discussed the concept of risk in relation to consumers' choices. For example,

Mitchell and Papavassiliou (1999) stated that risk is a significant factor for

consumers in making choices. According to classical decision theory, risk is

'generally understood to be the distribution of possible outcomes, their likelihood,

and their subjective values' (March and Shapira, 1987, p. 691). In consumer theory,

risk is conceptualised as a core concept (Ingene and Hughes, 1985). The

development of a perceived risk model is attributed to Cox (1967) and the majority

of later research uses his work as its main reference. The concept of risk has been

extensively mentioned in different disciplines, such as marketing, management,

economics, finance and psychology (Conchar et al., 2004). Risk has also been

studied differently, with each study focusing on different aspects and using different

approaches, which Conchare et al. (2004, p. 419) summarised as 'risk as

characteristics of a situation; risk preferences or propensities of individuals; how risk

is, or should be, evaluated in human decision process; and consequences of risk in

actual choices.' Zinkhan and Kiran (1990) stated that individuals are exposed to a

risk situation if their decisions produce social and economic outcomes and the

decision-makers do not estimate the outcomes.

In the consumer behaviour marketing literature, researchers focus on the concept of perceived risk. However, within the field of consumer behaviour, there is no general agreement on the definition of perceived risk, and each context of study adopts a different definition, conceptualisation and operationalisation of perceived risk (Conchar et al., 2004). Two different approaches are used to measure perceived risk, the first of which measures the degree of risk, without distinguishing probabilities and consequences, through asking participants to evaluate given statements formulated for an item (Cunningham, 1967; Jacoby and Kaplan, 1972; Shimp and Bearden, 1982). The second measurement approach distinguishes between probabilities and consequences. Fischhoff et al. (1990) stated that perceived risk is defined and operationalised differently according to the nature of each study. Conchar et al. (2004) constructed a framework for the framing, assessment and evaluation phases, in addition to their corresponding risk attention outcomes, perceived risk and risk-taking inclinations. This framework highlights points of connection between studies on perceived risk and consumer decision-making, pursuit of information and satisfaction. Conchar et al. (2004) drew attention to the importance of risk in relation to how consumers make choices. Their framework also provides a streamlined conceptualisation of the key constructs of perceived risk. One of the most important constructs is an individual risk profile, which is understood as 'the range of static personal characteristics, dynamic needs and culture that shape the consumer's response to uncertainty and risk' (Conchar et al., 2004, p. 421). According to Bromiley and Curley (1992), in similar situations, individuals perceive risk differently as a result of the effect of personality variables. Individuals may be classified based on a variety of personal characteristics and risk profiles could be

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produced as a result of a combination of these personal characteristics.

Individual risk profiles include several terms used by scholars to identify consumer personality traits, including risk aversion (Kahneman and Tversky, 1979; Raju, 1980), risk tolerance (Sitkin and Pablo, 1992), risk preferences (Brockhaus, 1980), tolerance of ambiguity (Kahn and Sarin, 1988) and uncertainty avoidance (Hofstede, 1980).

Risk aversion is considered to be one of the key themes of the perceived risk construct, which is widely used and has received attention not only in marketing domain, but also in different domains such as economics, finance and decision sciences. Traditional conceptualisations of risk aversion have been criticised as they propose risk aversion as a factor that cannot change based on the characteristics of individuals. However, studies conducted by Bromiley and Curley (1992) and Altaf (1993) rejected such a proposition and argued that risk aversion may be changed depending on the context.

In product and brand management context, different effects of risk aversion on consumers' decision-making have been revealed by a number of researchers (e.g. Shimp and Bearden, 1982; Rao and Bergen, 1992). Matzler, Grabner-Krauter and Bidmon (2008, p. 155) defined risk-averse consumers as those who 'feel threatened by ambiguous and novel situation and are reluctant to try new products.' Hence, they abstain from attempting new brands and prefer to stick to well-known brands in order to reduce any kind of risk. According to Gemunden (1985), consumers with high risk-aversion tend to seek more information about products in order to reduce perceived risk. However, searching for additional information is costly (Zeithaml, 1988) and could increase the likelihood of information overload, which leads to

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overload confusion.

Research conducted by Bao, Zhou and Su (2003, p. 737) investigated the influence of risk aversion as a vital cultural dimension in consumer decision-making. In this study, risk aversion is defined as 'the extent to which people feel threatened by ambiguous situations and have created beliefs and institutions that try to avoid these.' It also signifies that risk aversion means the degree of risk people are willing to take in a given situation (Mandrik and Boa, 2005). Further, individuals who have high levels of risk aversion, such as Chinese people and other collectivistic societies, feel threatened and anxious about risky and ambiguous situations, with risk aversion affecting the decision to purchase in many ways. In this framework, risk averse individuals often feel threatened and cautious when encountering new situations. Perceiving new products is unfavourable for them because of the amount of risk associated in the purchasing decision. Zhou, Su and Bao (2002) stated that purchasing well-known brands is a solution used by consumers in order to reduce this kind of risk, especially in markets characterised by a lack of having sufficient accurate information.

Weber and Hsee (1998) measured individuals' differences in risk aversion from four different countries, i.e. the USA, Germany, China and Poland, and found that Chinese individuals have very low levels of risk aversion regarding product pricing. The explanation for this is that Chinese people have different cultural perceptions of risk, meaning that they have different attitudes towards it. This is largely due to the different cultural interpretations of risk preference in the different countries. For instance, Chinese proverbs are found to provide more risk-seeking advice than American proverbs. However, this is only relevant from a financial perspective. In

the same way that Chinese people are risk-averse from a social perspective, individuals from Arab societies score high on uncertainty avoidance, meaning that countries in the Gulf region maintain rigid codes of belief and avoids unorthodox behaviour. Kahn and Sarin (1988) have suggested that risk aversion and uncertainty avoidance are closely related; in this sense, the psychological factors leading to risk aversion also result in uncertainty avoidance. Moreover, Weber and Hsee (1998) maintained that 'collectivism thus acts as a cushion against possible losses that are social diversification of the risks of risky options' (Weber and Hsee, 1998, p, 1208. Just as buying insurance can mitigate some of the risks of certain actions, the support present in collectivist countries enables individuals in such countries to be more risk-tolerant and better risk takers. However, when analysing dimensions other than financial ones, e.g. medical and academic dimensions, collectivist cultures are more risk-averse (Bao, Zhou and Su, 2003). Research has, therefore, highlighted certain cultural differences in risk aversion and risk perception, which suggests that differences in risk perception across cultures may be the source of differences in the way individuals from different cultures select their choices from a series of risky options by selecting a risk aversion profile based on the information available to them. Similarly, Mandel (2003) showed that, while individuals with interdependent self-construal are likely to choose safe options when buying a T-shirt for a family gathering, the same individuals would make risky choices when it comes to financial decision-making, such as when deciding to buy lottery tickets.

The view that there is a variety in risk aversion between societies (Fan and Xiao, 2006; Wang and Fischbeck, 2008) is supported by Hsee and Weber (1999), whose results, based on a study conducted on students, unexpectedly showed that Chinese

people are less risk-averse than North Americans. The authors offered the cushion hypothesis to explain this, whereby people in relatively collectivist countries, such as China, perceive risk as lower than in relatively individualistic countries, such as the US, because people in relatively collectivistic countries are more likely to be cushioned by family and friends when compared to those in relatively individualistic countries. In addition, Griffin et al. (2010) found evidence consistent with the hypothesis that corporate managers in countries where uncertainty avoidance, risk aversion and harmony levels are relatively high take fewer risks than managers in countries where they are relatively low. Griffin et al. (2010) also found evidence consistent with the hypothesis that managers in relatively individualistic countries take greater risks than managers in relatively collectivistic countries. The latter finding is seemingly at odds with findings about risk tolerance among Chinese people and North Americans given that the United States is relatively individualistic while China is relatively collectivistic.

In contrast, a survey on risk aversion among German residents (Bartke and Schwarze, 2008) concluded that someone's nationality cannot explain his or her risk aversion. In this sense, the different risk preferences between people with different citizenships can be explained by other factors, among which is the level of religiousness, which has a significant effect on risk aversion. In general, religious individuals seem to be more risk-averse than atheists. For instance, firms with a local base in a country with higher levels of religiousness are less willing to take on risk (Hilary and Hui, 2009). Another study was conducted in Egypt to examine the effect of risk aversion on brand trust in the mobile phone market and stated that Egyptian society is considered to be high risk-averse compared to American society (Hawass,

2013). However, the result of the study indicated that young Egyptian consumers tend to purchase new smartphones, especially from well-known brands, regardless of their classification as high risk-averse consumers. This result conflicts with a study conducted by Matzler, Grabner-Krauter and Bidmon (2008) who asserted that consumers from high risk-averse societies such as Australia tend to trust products made by well-known brands.

In the case of the USA, where the self-construal of individuals is 'independent', there is a greater chance that individuals will select a risky option rather than a safe one (Wanke, 2009). Individuals from these cultures feel freer to explore uncertainty and are actually actively encouraged to explore uncertainty (Bao, Zhou and Su, 2003). Highly risk-averse consumers may also increase information acquisition in order to decrease the uncertainty associated with purchases (e.g. Moore and Lehmann, 1980). However, as Gemunden (1985) pointed out, the information acquired may actually lead to greater rather than reduced perceived risk, leaving highly risk-averse consumers confused by the excess of information. Thus, it is likely that risk aversion has a positive effect on consumer confusion through cross-cultural overload (Bao, Zhou and Su, 2003).

Furthermore, it has also been suggested that consumers' decision-making could be differently influenced by risk aversion. Consumers with high levels of risk aversion, for example, will search for more information about a product's features before investing their money in that product in order to reduce the risk of unclear situations and make rational decisions (Shimp and Bearden, 1982). However, taking into consideration the definition of overload confusion as a consumer's limited capacity to absorb excess information about a product, this, therefore, leads to consumer

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confusion (Miller, 1956; Jacoby, Speller and Kohn, 1974; Schweizer, 2004).

Mitchell, Walsh and Yamin (2005) stated that individuals with a low tolerance for ambiguity (i.e. a high level of risk aversion) may prematurely close their information processing and become rigidly impervious to new information, which, thus, decreases the likelihood of being prone to ambiguity confusion. Mitchell, Walsh and Yamin (2005) also argued that each person has a tolerance for ambiguity (either low or high), and, when the uncertainty within the information exceeds the consumer's uncertainty tolerance, then ambiguity confusion occurs. Kogut and Singh (1988) investigated the relationship between culture and market entry mode selection for foreign companies and found that companies from cultures with high risk aversion prefer specific entry modes, such as joint ventures, over acquisitions, suggesting that risk aversion has a significant impact on both organisational and consumer behaviour.

Shimp and Bearden (1982) argued that consumer decision-making is strongly influenced by levels of risk aversion. Individuals with high risk aversion feel more threatened by ambiguous and novel situations. For example, consumers from high risk aversion cultures consider purchasing new and innovative products, such as a new smartphone, to be risky because the performance of these products is probably less clear than for that of well-known products and brands. Such consumers often avoid trying new products until others have tried them and have experience of them. On the other hand, low risk aversion consumers consider trying new and innovative products to be less risky, and they feel excited purchasing these products (Steenkamp, ter Hofstede and Wedel, 1999). Such consumers often prefer to be seen as market mavens and considered by others as sources of information in sharing their

experiences with others. Therefore, cross-culturally, high risk aversion has a negative effect on consumer 'novelty' orientation (Bao, Zhou and Su, 2003). However, low risk-averse consumers have a positive impact on word-of-mouth behaviour, as they like to be seen as sources of information or information providers (i.e. market mavens).

Peter and Ryan (1976) argued that highly risk-averse consumers tend to avoid purchasing new products and brands as they associated this with the expectation of losses. On the other hand, low risk-averse consumers view shopping as an enjoyable activity, which allows them to explore new brands. Consequently, to avoid any kind of financial loss in purchasing new brands, highly risk-averse consumers tend to stick with well-known brands, even though they may spend more money and know that the new brands have sophisticated features. This situation could be more likely to occur when purchasing highly sophisticated electronic products, such as smartphones. Therefore, it is reasonable to assume that risk aversion may have a positive impact on consumer brand loyalty, while, cross-culturally, there is also a negative effect of risk aversion on consumer 'recreational' orientation.

Bao, Zhou and Su (2003) revealed that there is an association between risk aversion and consumer confusion with regard to purchasing new products. The explanation for this is that, with an increasing amount of product-related information on the market, consumers with a high level of risk aversion may ask for more information from other people (e.g. family, friends and salespeople; Derbaix, 1983). However, such information from non-experts (i.e. misleading information) may result in ambiguity confusion. Although Moore and Lehmann (1980) argued that the more information highly risk-averse customers obtain, the less uncertainty there is with

purchases, Gemunden (1985) pointed out that acquiring more information may lead to information overload and, thus, to overload confusion.

Recently, research was conducted in Turkey's mobile phone industry to explore the relationship between consumer confusion, perceived risk and word-of-mouth behaviour (Cobanoglu and Tutuş, 2014). The authors described perceived risk as an individual characteristic, with each person perceiving risk differently even when they purchase the same product. According to this research, consumers with a high level of perceived risk will seek more information, which may cause a decrease in both ambiguity and similarity confusion and an increase in overload confusion.

Bartikowski, Walsh and Beatty (2011) investigated the role of customer-based corporate reputation (CBR; i.e. customers' opinions and overall impressions of a firm) and the impact this has on customer loyalty, as well as the role that culture plays within this. The authors maintained that confused consumers from a culture with a high level of risk aversion are more likely to perceive the confusing company/brand as a high-risk option and, thus, would choose not to purchase from this brand. This positively impacts on brand loyalty, as it leads consumers to stay with their current trusted brand in order to avoid the uncertain outcomes associated with a new brand. Furthermore, Baker and Carson (2011) showed that there is a positive relationship between consumers with high levels of risk aversion and customer brand loyalty.

A mentioned earlier, risk aversion imitates the uncertainty avoidance developed in Hofstede's (1980) cultural dimensions. However, when compared to Hofstede's (1980) measurements for uncertainty avoidance, which are more related to people's behaviour in an organisational context, the measurement scales of risk aversion

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developed by Raju (1980) are more applicable to the context of consumer decision-making. Therefore, this research adopted Raju's measurement of risk aversion to explore the effect of risk aversion as a cultural factor in the context of consumer confusion.

To conclude the risk section, risk aversion as a cultural element might directly or indirectly impact on the way consumers behave when making a decision to buy products or services. Thus, it is likely to contribute to the state of confusion they might encounter while making these decisions. As a consequence, it is interesting to study risk aversion as a cultural dimension of consumer confusion and understand its implications on real circumstances. By doing so, this study might add a new vigour to our understanding of consumer confusion in the light of culture.

3.3.1 Language barriers

According to Bao, Zhou and Su (2003 p. 735) culture can be defined as the 'acquired knowledge that people use to interpret experience and to generate social behaviour.' Leo, Bennett and Härtel (2005) also maintained that the assumptions we hold, as part of our cultural heritage, underlie all of our thoughts and thought processes (Hoppe, 2004) and give direction to our decisions. Language has a significant impact on people and their behaviour. In fact, it is seen as one of the key cultural elements, such as education or religion, influencing society's norms and values (Cateora and Graham, 2007; Samovar et al., 2007; Hill, 2011). As Lillis and Tian (2010, p. 100) stated, 'each of these ingredients plays an equally important role in determining the nature and values of a particular culture.' Culture is recognised as a dynamic process occurring in all groups in society, across all societies, with culture creating cognitive maps of beliefs, values, meanings and attitudes, all of which join to define the

perceptions, thoughts, actions and interactions of individuals within any culture

(Tung, 1995). Language barriers can lead to consumer confusion if the language used

on the label to describe the product is different to the local language or the

language(s) understood by the consumer (Weatherill, 2005). Hence, this kind of

confusion is most commonly experienced if the product on sale is not native to the

host country. It is also important to note that cases have been heard in the courts of

the European Union (EU) where advertising has been accused of being confusing or

misleading because it is in another language (Weatherill, 2005). Language is not just

a functional tool; it is the result of cultural development (Byram, 2008). Thus,

language is a cultural dimension that can lead to consumer confusion.

Language has been studied and interpreted in different areas of research; for

example, in a website context, van Iwaarden et al. (2004, p. 115) proposed that

'language, culture, religion, and other factors may be important to a user's

impression of the website.' Other studies reveal that language is a major reason for

websites being perceived differently by users (Choi and Geistfeld, 2004 cited in

Nantel and Glaser, 2008). As a result, using effective and correct language in verbal

and non-verbal communication results in success in promoting certain products,

especially in the fields of marketing and advertising.

According to Jiang (2000), culture would not be possible without language because it

both reflects culture and is simultaneously influenced and shaped by it. Facts, ideas,

or events that are communicable refer to the shared knowledge between people as

well as the beliefs and attitudes that are shared with others. Sherry and Camargo

(1987) argued that language is a set of symbols, just like different signs, pictures, or

objects. Moreover, language and consumer products are the most frequent symbols

studied by consumer researchers. Language is considered to be one of the key elements of culture and several researchers have explained the significance of influencing the language of people's communication. However, Walker (2002) was of the view that language is one of the cultural barriers that constrains international e-buying. Although English is considered to be the dominant language used by marketers on websites and in advertising and product-related information, given the increasing number of global branding, especially in non-English speaking countries, marketers should consider different language aspects, such as the translation of brand names, product-related information and advertising, in order to promote their products successfully. Failure to promote the products due to non-effective translation or mistranslation may lead to consumer confusion, which, in turn, could lead to destroying the brand image (Walker, 2002).

According to Saunders, Lewis and Thornhill (2009, p. 385), language barriers are defined as' visible obstacles to communication and occur when individuals who do not speak and understand each other's languages have difficulties working together.' In a similar vein, consumers confronted with misunderstanding or unclear information about brand due to mistranslation of products information or brand names may be prone to consumer confusion due to language barriers.

Chaney and Martin (2011) argued that, in order to communicate effectively with people from different cultures, it is important for language to be understandable. There is the likelihood that the purchaser may understand the information of a product incorrectly, even if the information is presented in an obvious way (Jacoby, 1984). Gurman and Messer (2005) were of the view that language difficulties is one of the cultural barriers which contribute to misunderstanding and

miscommunications. According to Leib et al. (2013), in the United States, placing the expiration date on a product and the particular format to use for this is left to the manufacturers' discretion and the resulting confusion leads to food waste in the United States.

Another study, examining the Chinese laptop market (Leek and Kun, 2006), maintains that the language used in any product jargon needs to be clarified in a way that is readily understandable to consumers. If not, ambiguity confusion could be caused due to the overwhelming amount of technical jargon. Thus, the language used may lead to consumers buying a certain product that does not meet with their needs. Subsequently, language barriers could lead to consumer confusion when purchasing products.

Language is more than a communication tool (Imberti, 2007) and can affect English as a Second Language (ESL) customers in different ways. Similarly, Kim and Mattila (2011) stated that 'the language barrier […] prevents ESL (English as a Second Language) customers from taking certain actions such as seeking necessary information or complaining about service failures.' This complaining can possibly include customer dissatisfaction, negative word-of-mouth, or decreased brand loyalty. As Van Dijk et al. (2008) have stated, customers need to see transparency in the language used to market products in order to feel confident that the product/brand is for them and to become loyal to it. Transparent communication reduces confusion, which is a very important consideration when products are marketed across different cultures. Similarly, Wang and Shukla (2013) were of the view that previous empirical research on the relationship between consumer confusion and customer satisfaction has largely neglected the role of choice goals, such as evaluation costs

and negative effect, which are found to increase decision satisfaction. Previous findings have important implications for marketers in terms of marketing communication and customer satisfaction. In this sense, it is apparent that companies have to be clear about what messages (verbal or non-verbal) they want to send out to customers and to be unambiguous in any communication with customers. In international marketing, these messages should be conveyed accurately; otherwise they may contain mistakes that lead to misunderstanding or ambiguity regarding the product's information. Confusion in the manner in which the communication is sent, or in the communication itself, can lead to the beginning of distrust in the product/brand. This is consistent with a recent study conducted by Balaji, Roy and Lassar (2017) examining the effect of language divergence on word-of-mouth which found that customers' evaluation of information quality and their relationships with the manufactures are negatively influenced by language divergence. The authors believed that word-of-mouth behaviour negatively impacts when customers are not served in their mother tongue language.

On the other hand, Walsh and Mitchell (2010) discussed consumer sovereignty, which suggests that customers have all the product information they need and that, on the basis of the information they have, consumers are able to understand this information and are able to make informed choices about the product and whether it is worth buying into the product's image and, ultimately, buying the product. One factor that can cause customer sovereignty to become problematic is language: if consumers, because of a 'simple' language barrier that has been introduced into the information about a product through translation, cannot quickly understand a product and, because of this, cannot make an informed choice about a product, then the

product marketing in that language will have failed and such a failure leads to both conscious and unconscious confusion in customers. In turn, this will affect the word-of-mouth recommendations of the product in that language, trust in the brand and, ultimately, the overall levels of sales of that product as well as the brand's success in that language.

Additionally, consumer confusion can be generated due to the translation of terminology, jargon and packaging in different countries. For example, a study conducted by Drummond and Rule (2005) found that the terminology of the wine trade exhibits issues leading to information overload. Understanding both the terms or labels of European wine brands and their connected information was difficult for inexperienced consumers in the UK. This study also indicates that there are some reactions associated to confusion among consumers due to language barriers, which include decreased brand loyalty and negative word-of-mouth. In spite of the fact that the study was conducted in the UK and the related product information was translated into English, the language caused customer confusion. Casini, Cavicchi and Corsi (2008) supported the results of Drummond and Rule (2005) in arguing that, due to translation mistakes in the terminology of Italian wine in the UK market, consumers exposed to misunderstandings of brand-related information leads to uncertainty confusion. In this regard, in translating to other countries where English is not the first language, for example Saudi Arabia or China, consumer confusion will probably be higher, as the characteristics of their languages are quite different. Another study investigated the effects of brand name translation, either phonetic or direct translation of the meaning of the brand, in a cross-cultural context (Hong, Pecotich and Schultz, 2002). A phonetic translation is mandatory for unknown

brands, while also being considered as the best method for well-known brands to retain their original names (Chan, 1990).

In eastern and south-eastern markets, it has been noted that products often retain their brand names when translated from the original. According to Schmitt et al. (1994) and Schmitt and Shultz (1995), consumers also evaluate products based on two factors: the extent of consumers' bilingualism (i.e. speaking another language) and the physical quality of the product. As a result, markets that are aiming to expand to other countries should consider the translation required for different market segments, which includes brand names and packaging information.

Although a few studies have examined the effects of brand name translation on consumers' product decisions (Alison and Uhl, 1964; Jacoby et al., 1971; Tavassoli, 1999), it is important to investigate different cultures and their different language needs (Pecotich and Shultz, 1998).

Chan (1990) stated that sales of products are influenced by the extent to which consumers have difficulty in pronouncing brand names. In terms of how language may have an impact on consumer confusion, it should be noted that language differences such as those mentioned above can mean that brand names or information about products, including instructions and manuals, are written in different languages and are then translated into the language of the country in which the products are to be sold. This process may lead to mistakes in translations, which can result in customers misunderstanding information about the product or being misled with regard to the brand names, thus leading to ambiguity confusion. Aaronson and Ferres (1986) supported this idea and argued that, due to the cultural influences of language, people may perceive products differently based on the

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methods of translation. The authors also attributed this impact to the education of consumers. In this regard, if they are English-speaking consumers, for example, they will perceive brands imported from the US and translated into the local language easier than non-English-speaking consumers.

The effects of brand name translation on consumers' decisions regarding products were examined by Hong, Pecotich and Schultz (2002), who argued that a higher quality of translation will exhibit and reinforce the quality of the product. This implies that the decision to translate brand names in order to enter different markets is a complicated process. If the translations are not done accurately, with strict checking of the wording used, there is a potential for ambiguity of information or products to be generated, something that can lead to high levels of consumer confusion. Therefore, companies should be very careful with regard to the adoption of a strategy for translating brand names into the language of the given market, as this may be associated with its success.

Nantel and Glaser (2008) showed that online buyers would not complete their purchasing if the company website was not translated into their native language. In addition, Walker (2002) emphasised that the accuracy of the translation is effective in making online shopping easier. The translation of a website or product-related information is costly, time-consuming and needs back translation. This process needs to be repeated many times if the company/product is to be promoted in different countries and in different languages. However, Nantel and Glaser (2008) argued that, even though companies may follow a procedure of checking translations carefully, this is not a guarantee that people will 'decode' the information properly, as they know the original language is different. According to D'Andrade (1992), there is a

cognitive effort required by individuals in decoding and processing information. Taking into consideration the limited capacity of consumers to absorb and process large amounts of information at a given time, overload confusion may occur. Thus, Luna and Peracchio (2001) suggested that, in order to minimise the level of information processing and to make the process of searching the website easier for consumers, it is important to adapt websites culturally.

Singh, Zhao and Hu (2005) conducted a study investigating the effect of localising international companies' websites and found that cultural elements, such as language, are key factors in a website's interface design that lead to increased efficiency. The quality of language has an influence on the usability of companies' sites (Ferreira, 2002), implying that the accurate translation of contents plays an important role in how consumers perceive online shopping (Hillier, 2003). As a result, in order to make websites easily accessible to users from other cultures, their design may be changed through the translation process, which depends on the cultural expectations of the websites' users (Nantel and Glaser, 2008). Usability of websites due to accurate translations increases customer satisfaction, trust and brand loyalty (Flavia'n et al., 2006). However, such changes may have a negative impact on consumers' perceptions due to the changes in the websites' designs and information; further, changes based on translation may increase the information presented on the website, as different languages have unique characteristics, which may lead to overload confusion. Moreover, inaccurately translated information could lead to ambiguity confusion.

Several studies have explained the significance of language in determining consumer choice (Hunt and Agnoli, 1991; Schmitt, Pan and Tavassoli, 1994; Zhang and

Schmitt, 1998; Tavassoli, 1999; 2001; Luna and Peracchio, 2001; Tavassoli and Han, 2001). According to De Mooij (2004), numerous researchers have studied the relationships between culture and consumer behaviour and between culture and advertising, the majority of which have been focused on the effect of culture on marketing strategy and the best marketing strategy designs for certain markets. However, Hawkins, Best and Coney (1986) maintained that marketing strategies are impacted upon by diverse cultural variations and provided examples of the impact of some cultural aspects, such as demographics, language, non-verbal communication and values, on consumer behaviour, which, in turn, influences the marketing strategy process. In addition, Rasouli, Somarin and Jahan (2015) pointed out that there is a lack of analysis regarding the influence of culture on marketing strategies in Asia. Language is used as a vehicle to promote products; in fact, language encourages consumers to accept products via several features of advertising that cannot be successfully implemented without language. Rasouli, Somarin and Jahan (2015) stated that the meaning of advertisements is changed when the language used is also changed. Therefore, understanding the common language of a culture is important for good communication with the people from this culture. In this regard, a study of the effects of brand origin confusion conducted in China (Zhuang et al., 2008) found that local Chinese brands present and promote their products by using foreign characteristics on their packaging and in their advertising so as to be perceived as foreign brands. As a result, significant ambiguity confusion occurs amongst consumers due to uncertain information.

3.3.2 **Social interaction**

Social interaction refers to the process of individual interaction with other people. This then leads to the individual reacting to the actions of others (Barkan et al., 2016). Even if a person leads a relatively lonely existence, they will inevitably have to interact with other people at some point as interpersonal interaction is necessary for human survival (Barkan et al., 2016). Researchers generally agree that the social environment has essential effects on consumers' purchasing decisions (Witt and Bruce, 1972). Rashotte (2007) defined social influence as changing feelings, attitudes, ideas and behaviour, on purpose or not, due to interactions with other people. Thus, social interaction signifies the presence of others and their interactivity with each other. Social interaction plays a part in consumer confusion as consumers may experience shame if they are unable to differentiate between brands or experience some kind of confusion over them (Mitchell, Walsh and Yamin, 2005). Hence, while consumer confusion may effectively dupe the customer, because of their need for social status they may not feel able to express their confusion to others (Mitchell, Walsh and Yamin, 2005).

In addition, a study conducted by Sinha and Swearingen (2001) found that buyers are more likely to consider suggestions from people they trust or know. In fact, the decisions of customers to purchase a certain product are frequently impacted on by their family and friends, rather than by people they do not know or trust. In the field of telecommunication services, Hill, Provost and Volinsky (2006) proposed network-based marketing utilising existing clients to recognise potential customers, based upon the possible impact by previous clients who have bought a particular service. As a result, consumers could be affected by different social factors, such as family,

friends and the media, when buying a particular product, such as a smartphone (Nelson and McLeod, 2005). These days, online social networks, such as Facebook, Instagram, Twitter and Snapchat, can help consumers not only to gain product-related information, but also to read consumers' reviews or comments based on their experience of previously or currently using a smartphone (Rahim et al., 2016). Moreover, consumers in such cultures tend to get advice and opinions from people surrounding them regarding the features of a particular product. A study conducted in Malaysia by Osman et al. (2012) revealed that 35.6% of smartphone buyers prefer to make their purchase based on trends in the community. In providing evidence to support the effect of social networks, especially those close to the purchaser, the study shows that younger generational groups, such as students, highly depend on their surroundings to buy smartphones (Suki and Suki, 2013). As a result, due to advice and opinions, consumers sometimes purchase a smartphone similar to that of their families or friends (Rahim et al., 2016). According to Lu, Yao and Yu (2005), social networks are a strategy used by consumers in order to support their decision, especially in buying innovative products, and it has a positive effect on minimising consumer uncertainty (Lee et al., 2007). However, a study conducted in the Thai mobile phone market reveals that, due to consumers' lack of experience, there is a possibility of conveying inaccurate information, thus leading to consumer confusion (Leek and Chansawatkit, 2006).

The social environment, implying interactivity between two or more people, impacts on consumer confusion (Mitchell, Walsh and Yamin, 2005). This interaction between people in society has been defined as 'the degree to which two or more communication parties can act on each other, on the communication medium, and on

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the messages and the degree to which such influences are synchronized' (Liu and Shrum, 2002).

Group interactions influence an individual's buying patterns. According to Grewal, Gotlieb and Marmorstein (2004), consumers' buying decisions are influenced by social references, a situation that varies across different consumer buying situations. Several studies have examined the effect of consumer satisfaction in relation to buying products based on group opinions (Oliver, 1980; Anderson and Sullivan, 1993; Bohlmann et al., 2006). Such research focuses on consumers' purchasing preferences, in comparison to their prior expectations and their relationship to consumer satisfaction. For example, people sometimes buy a product in order to satisfy others' needs or preferences, such as family members and relatives, rather than satisfying their own needs (Davis, Bagozzi and Warshaw, 1989; Al Somali, Gholami and Clegg, 2009). However, from a cultural perspective, the influence of social groups on consumer confusion in terms of perceiving information as too much, too similar, or too ambiguous has not yet been studied. In this regard, it is important to start discussing the effects of social influence on consumer decisions. Therefore, the concept of social interaction can be applied from a cultural perspective in order to investigate its influence on consumer confusion.

A cultural approach was suggested by Strangor, Sechrist and Jost (2001) to understand how social influence occurs in social interactions. According to Bar-Tal (2000), there are strong shared beliefs and a sense of similarity among people due to strong culture influences and, therefore, individuals feel more confident and less uncertain in their decisions. Based on this, it is clear that social interactions help consumers to clarify ambiguous situations by providing them with sufficient

knowledge from others in addition to reliable and credible sources of information (Cobb and Yackel, 1996). However, this knowledge may also be problematic, as some of the information sources may be misleading to others, which could result in uncertainty confusion (Leek and Chansawatkit, 2006). Cultural difference does not only impact on individual decision-making, but also shapes perceptions about confusion. For instance, a consumer in the UK may not find himself confused when deciding between his own choice and his friend's choice regarding two different brands or products. On the other hand, a consumer in Saudi Arabia may find himself confused when deciding between his social group's choice and his personal choice regarding a number of different brands or products.

Social support and social cohesion are seen as key concepts of social interaction. Social support implies the degree to which people think they receive support socially (Dahlem, Zimet and Walker, 1991). The majority of researchers agree that social support consists of three factors, including family, friends and other significant factors, such as the variety in group ages and the variety in cultural backgrounds (Zimet et al., 1988; 1990; Vaingankar, Abdin and Chong, 2012). However, other researchers believe that such factors should be integrated into two key factors: friends and family (Chou, 2000).

Further, the gender comparisons in Canty-Mitchell and Zimet's (2000) study suggest that female adolescents have more support from friends and families compared to male adolescents, which validates other social support research, such as that of Cauce, Felner and Primavera (1982) and Zimet et al. (1988). Additionally, European and North American youngsters receive more support from friends when compared

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with their African-American counterparts. This emphasises that social support is diverse from culture to culture.

According to Leek and Chansawatkit (2006), consumer confusion appears to be an ever-increasing problem, as consumers exist in an environment that is inundated by an immense amount of information, with rapid technological advancements taking place. Although consumer confusion is examined in individualistic cultures, such as Western countries, limited attention has been paid to the concept in collectivist cultures. In investigating consumer confusion in the Thai mobile phone industry, Leek and Chansawatkit (2006) revealed that Thai consumers found it confusing to decide which mobile phone to buy and which services and tariffs to employ. With regard to reducing confusion, the most credible and reliable sources of information are family and friends, with whom consumers interact socially. Although the social support from family and friends could be used as strategy to simplify decisions and, thus, reduce confusion, Drummond and Rule (2005) suggested that such sources could also introduce too much and too ambiguous information, which may lead to consumer confusion. Furthermore, Leek and Kun (2006) claimed that, although China has a strong concept of face, contrary to what may be expected, social acceptability is, in fact, not an important factor in the choice of information. If consumers lack technological knowledge, it would be difficult for individuals to make an accurate evaluation of the positive and negative qualities of the different brands and models presented to them, much less establish meaningful criteria to narrow down their consideration checklist. In China, trust is very important and Chinese people are likely to trust only those within their social circles, such as relatives, friends and peers with whom they have established social ties (Leek and

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Kun, 2006). Previous studies reveal that, for Chinese people, these relationships are necessary when shopping, as they tend to use personal sources of information when purchasing (Doran, 2002). In a confusing purchase decision, there is a strong likelihood that their social network will help them make the final decision. While some individuals in social networks may have significant product knowledge, it is also likely that some, through transferring inaccurate or misleading information to future consumers, may result in a degree of consumer confusion (Leek and Chansawatkit, 2006). Therefore, it is important to study the moderating role of relatives and friends, especially in collectivistic societies.

Social cohesion is seen as the other concept relating to social interaction. According to Fisher et al. (2004), social cohesion consists of strong social ties, mutual trust and reciprocity, in addition to forming part of the assets of social capital in each community. Research has shown that people are classified into two types relating to the degree they adopt the opinions of others. Firstly, consumers who identify with high group cohesiveness are more likely to adopt others' opinions and have a high susceptibility to social influence (Turner et al., 1989). The second type is consumers who have low group cohesiveness and are more likely to adopt their own opinions, meaning that their susceptibility to social influence is low. Group cohesion can be defined as people linked together through a psychological force (Keyton and Springston, 1990), in addition to signifying members' connection to a group (Hogg, 1992, p. 30) and being considered as the result of the group development process (Tuckman, 1965; Forsyth, 1990). Therefore, established groups, such as people who have been working or living together for a while, can establish different levels of cohesion over time (Tschuschke and MacKenzie, 1989; Spink and Carron, 1994).

This level of social cohesion varies between consumers based on their social and cultural backgrounds. It has been argued that socio-emotional and task-related aspects are both influenced by cohesion in the group process (Yoo and Alavi, 2001). It has also been suggested that people from cohesive groups would preference the needs of the group members they affiliate with (Kerr and Jermier, 1978) and, in order to sustain within group harmony, highly cohesive group members prefer to act as a group via adhering to certain behaviour codes of other group members. However, when it comes to a decision where their preferences are inconsistent with group members' affiliations, especially when buying high-end product like a smartphone, such affiliations may result in conflict with their own beliefs and could cause uncertainty in some situations. Ambiguity confusion occurs when there is conflict between what consumers believe about a product and the information they perceive from others about the product; thus, ambiguity confusion may result from the effects of social cohesion.

Consumer-oriented societies have become increasingly widespread in the modern world. Assad (2007) argued that consumers tend to purchase products/services that assist them in joining a socially distinct group that can be identified by its unique characteristics. Thus, a purchasing decision could be a way of obtaining social acceptance. Leek and Kun (2006) added the element of trust to this discussion. They conducted a study on the Chinese personal computer market and suggested that the degree of trust consumers place on their social networks determines their decision-making habits.

From one perspective, in a study of consumer confusion conducted in Thailand, Leek and Kun (2006) discussed how communication between social networks in the form

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of word-of-mouth is considered to be the main strategy for reducing confusion in groups from high cohesion societies. However, from another perspective, peer pressure can lead to confusion for individuals who have socially held beliefs (John and Christopher, 2013). As a result, consumers are likely to be exposed to the hazard of consumer confusion, as they may take the perceptions of the society in which they live into account, considering the thoughts of their society with respect to the purchasing decision they will make.

People from societies such as Saudi Arabia, China, or India are characterised as part and parcel of one group or of more than one group, which could be families, friends, colleagues, or even society itself (Triandis, 1994). In such societies, people look after the particular groups they belong to or are loyal to; these people may not have clear personal goals and they depend on, and are restricted by, the society that they belong to when making choices (Schwartz, 1994). As a result, people usually make their buying decisions based on the group's goals and they are motivated by the group's needs, preferences and rights. In this sense, what the group believes and not what they themselves believe, is the priority. Furthermore, they also try to follow the group's criteria in decision-making, which is not rational decision-making.

Schutte and Ciarlante (1998) defined shopping in some societies as almost a group activity, with the group being family, friends, colleagues, or reference groups. In this respect, reference groups play an important role in influencing choices during decision-making. People from India, Thailand and Middle Eastern countries are likely to make their buying decisions based on their families' and friends' opinions or preferences, whereas people in countries such as the UK and USA are likely to make their purchasing decisions based on their own opinion (Childers and Rao,

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1992; Lindridge, Hogg and Shah, 2004). In this sense, it appears that consumers are more likely to be exposed to confusion in societies such as Saudi Arabia, as their decisions would be subject to several factors, given that the opinions and suggestions of the groups mentioned above play a major role in the decision-making process (Tremblay, 1990). Therefore, prior to making a purchasing decision, a consumer in Saudi Arabia tends to place more emphasis on social (e.g. family or friends) reactions at the expense of the products' benefits and features. As a consequence, such consideration of social reactions could eventually lead to a product being returned, hated, or not used. This implies that considering the society's reaction is an important criterion that is taken into account in the process of consumer decision-making, specifically at the stage of alternative evaluation. However, it should also be noted that, in some Western societies, social linkage can play an important role in consumers' buying decisions. For instance, young Scottish women's fashion buying behaviour can also be a result of their social relationships, given that they draw on consulting such social relationships prior to making purchasing decisions (Morgen and Birtwistle, 2009).

Confusion over cultural consumer norms can be problem when expanding markets and products abroad. Nuttavuthisit and Thogersen (2017) found that lack of consumer trust is a serious barrier to developing a market for organic food in Thailand. The problem experienced by companies hoping to develop a market for organic food in Thailand has been attributed to cultural factors, such as the importance placed on existing personal associations and connections as an influence on consumer decision in Eastern cultures (Nuttavuthisit and Thogersen, 2017). This

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evidence suggests that new products and markets need to take cultural norms into account when developing and implementing products abroad.

3.4 Conclusion

The above discussion may help us to understand how risk aversion, language barriers and social interactions relating to cultural differences can have an impact on consumer decision-making, as this may lead to purchasers perceiving ambiguity or the information being too complex, which, in turn, is more likely to increase the likelihood of consumers being exposed to confusion. Risk aversion contributes to consumer confusion as different factors are perceived to be more risky dependent on culture. Language can also impact consumer confusion if the language used to describe the product or tone of language used to describe the culture is different to that used in the country/culture where the product is being sold. Finally, social interaction contributes to consumer confusion because people value relationships with others highly, which may lead them to fail to mention that they have experienced confusion over the product out of embarrassment. Hence, cultural factors do contribute to consumer confusion and influence how individuals respond to it. For example, in one culture certain factors may be perceived as riskier than in others. Furthermore, factors connected to language and social interaction can also cause misunderstandings to happen and persist.

CHAPTER FOUR

A Conceptual Framework of Consumer Confusion from a Cultural Perspective

4.1 Introduction

Consumer confusion has recently received increasing interest from the international research community, as reflected in the significant number of studies investigating the presence of consumer confusion as well as its causes and potential implications (Elliott and Speck, 1998; Mitchell and Papavassiliou, 1999; Shukla, Banerjee and Adidam, 2010; Walsh and Mitchell, 2010; Wang and Shukla, 2013; Cornish and Moraes, 2015, Walsh et al., 2016; Liu et al., 2017; Moon, Costello and Koo, 2017) in a variety of contexts. Such studies of consumer confusion focus on different countries across the world and various markets, ranging from mobile phones to computers, wine and fish (Balabanis and Craven, 1997; Mitchell and Papavassiliou, 1999; Schweizer, 2004; Drummond and Rule, 2005; Leek and Chansawatkit, 2006; Leek and Kun, 2006; Casini, Cavicchi and Corsi, 2008; Little et al., 2012; Cobanoglu and Tutuş, 2014; Leek and Szmigin, 2015).

One significant result of current research efforts is the development of theoretical models of consumer confusion that can support deeper investigations into its various aspects and implications (Mitchell, Walsh and Yamin, 2005; Anninou, 2013). More specifically, the development of such theoretical models has exposed the need to investigate the ways in which specific contextual factors (such as cultural dimensions)

influence the relationships between consumer confusion proneness and its consequences (Mitchell, Walsh and Yamin, 2005). In other words, this study investigates the potential role of culture in moderating how culture plays a moderating role and how cultural dimensions may shape perceptions of consumer confusion. This study also investigates the drivers of consumer confusion in a multicultural society, Saudi Arabia in particular.

As a result, this section presents a number of hypotheses that determine the extent to which aspects of confusion proneness (i.e. overload confusion, similarity confusion and ambiguity confusion) are most pertinent to consumers in the Saudi Arabian smartphone market, in addition to highlighting the expected relationships between consumer confusion proneness and its consequences (i.e. dissatisfaction, negative word-of-mouth and decreased brand loyalty). It further provides a set of hypotheses to explore how culture and its dimensions (i.e. social interactions, differences in risk aversion between cultures and language barriers) may moderate such relationships and their consequences.

In addition to outlining Mitchell, Walsh and Yamin's (2005) model of consumer confusion, this section makes a significant contribution to existing knowledge by proposing a new theoretical model aimed at understanding how culture affects consumers' purchasing decisions and, in turn, marketers' decisions as responding to several calls for further research in understanding consumer confusion (Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Shukla, Banerjee and Adidam, 2010; Walsh and Mitchell, 2010; Wang and Shukla, 2013; Tjiptono, Arli and Bucic, 2014; Walsh et al. 2016; Moon, Costello and Koo, 2017) and, in turn, marketers' decisions, which can enrich the existing model of Mitchell, Walsh and Yamin(2005).

The present study attempts to investigate the main causes of consumer confusion and the confusion-outcomes relationship in a technology-based market, i.e. the Saudi Arabian smartphone market (and can be considered as the first such study in the Middle Eastern market), in addition to further exploring such an association in the light of relevant moderating variables.

4.2 Theoretical Model and Concepts

4.2.1 Consumer confusion

In an attempt to summarise the literature review, it can be stated that consumer confusion is still an emerging concept that requires comprehensive and consistent research (Leek and Szmigin 2015; Walsh et al., 2016; Moon, Costello and Koo, 2017). Some authors tend to define consumer confusion by examining its causes. For instance, Zhuang et al.'s (2008) study of Chinese consumers defined consumer confusion as a change in behaviour due to incorrect or incomplete assumptions or knowledge about brands on the market; in addition, the same authors noted that Chinese consumers are basically confused by Western brand names.

In contrast, other authors have defined consumer confusion more generically as 'a state of mind which affects information processing and decision making' (Mitchell and Papavassiliou, 1999, p. 327). Similarly, another broad definition notes that consumer confusion can be defined as consumers' failure to rightly interpret various features of products or services when going through the information processing procedure (Turnbull, Leek and Ying, 2000).

A review of the main studies in the field found at least 13 different definitions and quasi-definitions of consumer confusion (Walsh, Hennig-Thurau and Mitchell,

2007). Similarly, a more recent study found even more definitions of consumer confusion, noting that they each tend to focus only on specific aspects of consumer confusion and, in particular, on either behavioural or cognitive aspects at the expense of affective components (Mitchell, Walsh and Yamin, 2005). However, these wide-ranging definitions can be brought together through the introduction of the concept of confusion proneness and a consideration of affective components alongside behavioural and cognitive ones (Mitchell and Papavassiliou, 1999; Mitchell, Walsh and Yamin, 2005; Walsh, Hennig-Thurau and Mitchell, 2007).

Walsh's et al.'s (2007) definition of consumer confusion proneness provides a well-rounded conceptualisation of the dimensions of consumer confusion: a distinct tri-component confusion model including overload confusion, similarity confusion and ambiguity confusion. More specifically, confusion proneness is defined as 'consumers' general tolerance for processing similarity, overload or ambiguity information, which negatively affects consumers' information processing and decision-making abilities' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 699). This study adopts such a conceptualisation of consumer confusion proneness, as further detailed in the following sections.

Based on the above definition, consumer confusion, therefore, becomes the state of mind of the consumer with regard to specific antecedents (i.e. highly similar information, information overload and information ambiguity) and concrete negative consequences (e.g. consumer dissatisfaction, decreased trust, decreased brand loyalty, or decision paralysis; Walsh, Hennig-Thurau and Mitchell, 2007). This view of consumer confusion is most helpful when aiming to investigate the potential causes, effects and factors that impact on consumer confusion in specific contexts.

Consequently, this study adopts this definition of consumer confusion; therefore, considering that consumers are aware of it and are essentially impaired by it to some extent in their attempt to make a purchase.

4.3 Consumer Confusion and its Proneness

The literature highlights three important dimensions of consumer confusion proneness: overload confusion, similarity confusion and ambiguity confusion (Mitchell, Walsh and Yamin, 2005; Shukla, Banerjee and Adidam, 2010). In order to fully understand how consumer confusion affects smartphone users in non-Western cultures such as Saudi Arabia, it is important to identify the primary factors that relate to these three dimensions.

4.3.1 Overload confusion

The first dimension of overload confusion is reported by other studies to arise because of the fact that consumers are effectively bombarded with too much information that is often technical in nature or difficult to take in. Consumers only have a limited capacity to absorb information related to products and will, therefore, become confused when they encounter more information than they can absorb (Miller, 1956; Jacoby, Speller and Kohn, 1974; Schweizer, 2004).

This theory of an information capacity limit is strongly supported by empirical results regarding observed overload confusion. For instance, one study found that it was both the sheer volume of information and the way in which it was presented that resulted in overload (Casini, Cavicchi and Corsi, 2008). Another study found that the complexity of relevant information, such as air-time tariffs for phone contracts, overloaded consumers (Turnbull, Leek and Ying, 2000). Similarly, it can be argued that the

massive number of brands on the market in China leads to consumers judging them only superficially due to information overload, thus becoming confused with respect to actual brand origins (Zhuang et al., 2008). As can be observed, such findings are similar across different countries and cultures (including both Western and non-Western countries), suggesting that this is likely to be a generic occurrence that does not depend on specific cultural characteristics.

As the smartphone market in Saudi Arabia is relatively young, it may be argued that information overload is less likely to be relevant. However, consumerism in Saudi Arabia has risen at a relatively fast pace in recent years (Assad, 2007). As a result, markets such as those of smartphones have also grown rapidly and, as the competition and variety of products increases, vendors are increasingly using a variety of channels to reach and attract buyers. Adding to the mix the relative lack of experience of most consumers regarding smartphones in Saudi Arabia, it follows that information overload is likely to be present in Saudi Arabia's smartphone market as a combination of a consumers' relatively low capacity for information absorption on the one hand and a relatively high volume of communication by vendors on the other.

4.3.2 Similarity confusion

Similarity confusion is reported to arise mainly from a (perceived or real) lack of significant differences between several products or brands on the market. This has been reported in markets as diverse as wine (Drummond and Rule, 2005; Casini, Cavicchi and Corsi, 2008), fish (Little et al., 2012), mobile phones and contracts (Turnbull, Leek and Ying, 2000; Leek and Chansawatkit, 2006), mobile applications (Ghosh and Rao, 2014) and fashion (Bao, Zhou and Su, 2003). Moreover, such studies

also cover a wide range of cultures since they report on both Western and non-Western countries. Consequently, similar to overload confusion, similarity confusion can be seen as likely to manifest itself in all scenarios.

One way in which similarity confusion can be described is through the concept of product density (Fasolo et al., 2009). For the smartphone market, this means that the smartphones offered have, in fact, very few distinguishing features, making it difficult for consumers to actually perceive any meaningful difference. Nevertheless, it is important to note that, from a consumer perspective, similarity between two products can involve not only actual physical or technical characteristics, but also brand characteristics, at least in the case where consumers are fully aware of the brands involved (Mitchell, Walsh and Yamin, 2005). However, differences due to brands may not be enough to distinguish between similar products of the same brand.

In addition to the above, several studies (e.g. Zhuang et al., 2008) report that similarities between colours, logos, advertising messages and actual brand names can also lead to similarity confusion. Considering that the smartphone market is relatively new in Saudi Arabia, it seems reasonable to consider that consumers are unlikely to be fully aware of different brands and, therefore, they are more likely to be easily confused by similarities between both brand depictions and product appearances.

4.3.3 Ambiguity confusion

Ambiguity confusion is reported to arise mainly from inconsistent or misleading information that consumers receive. Most often, advertising and promotional campaigns can increase ambiguity, making it difficult for consumers to actually compare products and choose according to their actual needs, often resulting in

postponed, aborted, or unsatisfactory purchases (Matzler et al., 2011.; Drummond and Rule, 2005; Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Casini, Cavicchi and Corsi, 2008; Walsh and Mitchell, 2010; Little et al., 2012; Walsh et al., 2016).

As mentioned previously, consumerism in Saudi Arabia is in its early stages (Assad, 2007). Consequently, consumers are likely to have little experience in making purchasing decisions and accurately filtering the information presented to them through advertisements and promotional campaigns. In addition, advertisers themselves may feel compelled to take advantage of this situation in order to gain more customers.

4.4 Study Hypotheses

4.4.1 Hypotheses on consumer confusion and its consequences

A variety of consequences of consumer confusion have been reported in the literature, such as dissatisfaction (Walsh and Mitchell, 2010), a reduction in brand trust (Walsh and Mitchell, 2010), brand disloyalty (Walsh, Hennig-Thurau and Mitchell, 2007), spreading negative word-of-mouth (Turnbull, Leek and Ying, 2000), irrational buying decisions (Mitchell and Papavassiliou, 1999) and the postponement of buying decisions (Walsh, Hennig-Thurau and Mitchell, 2007). Naturally, all of the above impact significantly on a company's sales and longevity, especially in the competitive – and potentially lucrative – smartphone market. The detrimental outcomes of consumer confusion proneness mean that businesses are under pressure to fully understand the impact of overloading consumers with too much information, presenting similar products, or providing ambiguous information. Research has

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suggested that the marketing consequences of consumer confusion are very important and prevalent across all cultures and those most commonly measured by companies are dissatisfaction, word-of-mouth behaviour and disloyalty to the brand (Walsh and Mitchell, 2010). In fact, research suggests that 68% of companies use customer satisfaction measures, while 64% use customer loyalty measures (Amber, 2003). Hennig-Thurau, Gwinner and Gremler (2002, p. 231) also stated that customer loyalty and positive word-of-mouth communication 'are referred to in the marketing literature as key relationship marketing outcomes.' This thesis, therefore, specifically focuses on customer satisfaction, brand loyalty and word-of-mouth behaviour and seeks to understand the moderating role that culture may play therein.

4.4.2 Customer satisfaction

Research indicates that consumer confusion leads to customer dissatisfaction (Walsh and Mitchell, 2010). When customers are overloaded with information and cannot process it all, they can feel overwhelmed and dissatisfied, which, according to Huffman and Kahn (1998), leads many consumers to become inactive. Some may blame the company for this overload confusion and become dissatisfied with the business/brand, while others may feel anxious, frustrated and stressed, which can lead to dissatisfaction (Walsh and Mitchell, 2010). As a result, hypothesis 1a is as follows:

H1a. Overload confusion proneness negatively influences customer satisfaction on product.

Walsh and Mitchell (2010) found that, when consumers are faced with products that they physically or functionally perceive to be similar, they must spend a greater amount of time, effort and even financial resources collecting information, searching

for alternatives, comparing deals and products and, finally, making decisions. This process can lead to anxiety in some customers and can result in customer dissatisfaction. Given that the smartphone industry features a great number of similar models, especially in terms of their features or designs, as well as the contracts being offered by similar mobile phone service providers, which this may reduce consumers' ability to distinguish similar products, hypothesis 1b is as follows:

H1b. Similarity confusion proneness negatively influences customer satisfaction on product.

A plethora of studies suggests that ambiguity confusion results in reduced consumer satisfaction (e.g. Walsh and Mitchell, 2010). Such studies suggest that, in order to minimise ambiguity confusion, consumers must spend extra time, effort and money acquiring the necessary information to enable greater clarification about the product(s) they are researching. Moreover, when information is complex, misleading, or ambiguous, consumers may be anxious about what information to believe. Walsh and Mitchell (2010) found all the above were likely to increase consumers' levels of dissatisfaction. Therefore, it is proposed that:

H1c. Ambiguity confusion proneness negatively influences customer satisfaction on product.

4.4.3 Word-of-mouth behaviour

Some studies have shown that, especially in the mobile phone market, information overload and confusion can cause consumers to spread negative word-of-mouth about certain products or brands (Turnbull, Leek and Ying, 2000). More recent studies, such as that of Walsh and Mitchell (2010), show that there is a direct relationship between confusion proneness and a customer's propensity for word-of-

mouth behaviour. In this sense, the more a customer encounters large amounts of information about varieties from different sources, such as social media, websites, advertisements, salespeople, or relatives, the more likely they are to spread the information at an intensive level via word-of-mouth (Ghosh and Rao, 2014). From any word-of-mouth activity at all, either positive or negative, overload confusion prone consumers tend to share smartphone information with others, as they perceive themselves to be superior in terms of rich knowledge about smartphones. It has been suggested that consumers who have knowledge and information about products often engage themselves in word-of-mouth behaviour and adhere to playing the role of smartphone-related information providers.

This was also found by Ghosh and Rao (2014), who investigated the purchasing habits of 254 postgraduate consumers of mobile phone applications in India in an online store and found that there was a positive relationship between overload confusion proneness and word-of-mouth behaviour. Thus, the following hypothesis has been formulated:

H2a. Overload confusion proneness positively influences word-of-mouth behaviour.

Similarity confusion was also prevalent in Ghosh and Rao's (2014) study, which found that the greater the presence of similarity in products, the less likely consumers were to discuss them with others. They explained this by suggesting that the sheer volume of mobile applications available online, all exhibiting similar properties, may confuse the customer (mavens), resulting in a reduction of their propensity to engage in word-of-mouth with other customers.

This was also found by Walsh and Mitchell (2010), who stated that 'customers […]

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are more reluctant to offer word-of-mouth when they are faced with seeing many products as similar in the marketplace.' These studies suggest that there is an element of embarrassment attached to the inability to differentiate between similar products, or, as an alternative explanation, when products are similar, consumers have less to talk about to others who are seeking guidance about buying specific products. Therefore, the following hypothesis is proposed:

H2b. *Similarity confusion proneness negatively influences word-of-mouth behaviour.*

Walsh and Mitchell (2010) found that there is a positive relationship between ambiguity confusion proneness and word-of-mouth behaviour, claiming that, when consumers are faced with dubious, unclear, or misleading information about a product, they may seek to share this ambiguity with others, either to gain feedback that will help them to minimise their choices or to warn others about possible confusion due to a product and then become rich information providers. However, Ghosh and Rao (2014) found that there is no significant impact of ambiguity confusion on a consumers' word-of-mouth behaviour. Their explanation is based on the fact that 'good mavens' would not tend to disseminate their confusion to others as it may impact on their image as helpful information providers. This inconsistency may be due to the study sample being postgraduate consumers in India, where cultural differences or educational levels may play a role. Thus, the following hypothesis can be proposed:

H2c. *Ambiguity confusion proneness positively influences word-of-mouth behaviour.*

4.4.4 **Brand loyalty**

A reduction in brand loyalty is one of the main consequences of consumer confusion (Walsh, Hennig-Thurau and Mitchell, 2007), given that confused consumers are more likely to make irrational or impromptu purchasing decisions (and not stay with the brand that they have purchased from previously). They may have reduced levels of trust in the brand (Schiffman and Kanuk, 2010). Peter and Olson (2010) stated that attribution theory can be used to understand the impact of consumer confusion proneness on brand loyalty. While individuals generally attribute success to themselves (internal attribution), they blame others (external attribution) for product failure. When a consumer is presented with too much product- or brand-related information, their subsequent overload confusion may be blamed on the company and they may question its motives, thus leading to a reduction in brand loyalty. Although brand loyalty is considered to be an easy solution for consumers who are prone to information overload, as it requires less information seeking and brand evaluation, it may not, however, be the most effective strategy to reduce information overload.

In outlining the negative relationship between overload confusion proneness and brand loyalty, Walsh, Hennig-Thurau and Mitchell (2007) argued that consumers prone to overload confusion tend to seek more information, which may increase their confusion and reduce their loyalty. Therefore, the following hypothesis is proposed:

H3a. Overload confusion proneness negatively influences brand loyalty.

A similar outcome occurs when a consumer is confused by too much similarity in the product choices offered by a company, as found by Peter and Olson (2010). Walsh, Hennig-Thurau and Mitchell (2007) argued that, as the similarity between different

brands increases, the difficulty for consumers in detecting the differences between these brands also increases. It is argued that brand loyalty will not be the only reason in such situations on which consumers base their purchase decisions. Other researchers have outlined the situation in which consumers are confronted with very similar brands, with many equally acceptable alternatives and it is, therefore, difficult to distinguish and choose the best option, with similarity confusion then occurring (Walsh et al., 2006), e.g. when a consumer is presented with similar models of smartphones in terms of their technological features, or when the brand is imitated by other companies in terms of their designs or features. In such cases, brand loyalty is decreased by similarity confusion. In addition, when a consumer is confronted by a similarity of products or the companies' advertisements, they may think that the companies are deliberately attempting to confuse them and are thinking of themselves as the manufacturers more than the consumers, which may lead to damaging brand loyalty. Hence, the following hypothesis is proposed:

H3b. Similarity confusion proneness negatively influences brand loyalty.

Walsh and Mitchell (2010) found that, contrary to expectations, there is a positive relationship between ambiguity and trust because, when consumers repeatedly experience ambiguity confusion, they start to feel more comfortable with ambiguous information. Moreover, Walsh, Hennig-Thurau and Mitchell (2007) proposed that consumers with ambiguity confusion employ brand loyalty as a decision heuristic in order to avoid brand comparisons and more information seeking, which means fewer confrontations with misleading and ambiguous stimuli. Therefore, consumers prefer to stick with their favoured smartphone brand in order to avoid being prone to unclear, misleading and ambiguous information, which will help them to make

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satisfactory decisions. This assumption may be even more valid in the case of purchasing high-involvement products such as smartphones. Other researchers support this, with Chryssochoidis (2000) stating that ambiguity confusion can result in greater brand loyalty, perhaps because consumers develop a sort of 'blind faith' in the information that companies within a particular sector present to them. According to Walsh and Mitchell (2010), in terms of smartphone technology, manufacturers can often put too much ambiguous and confusing information into their product information leaflets and technology, such as including complex features in their phones, yet customers may 'trust' the technology and perceive it to be useful and 'sophisticated', even if they do not know how to use it. However, this will only hold if consumers have a high level of confidence with a certain brand. In other cases, especially with regard to low-involvement products, where consumers do not have a high degree of brand loyalty and the information related to the brand is ambiguous, then ambiguity confusion proneness could lead to a decrease in brand loyalty (Walsh, Hennig-Thurau and Mitchell, 2007). Radder and Huang (2008) argued that the tendency to recall a brand is less in a low-involvement product category, so consumers' likelihood of employing brand loyalty heuristics in an ambiguity confusion situation will be minimised. However, in most cases and in high-involvement product categories, it can be hypothesised that:

H3c. Ambiguity confusion proneness in the Saudi smartphone market positively influences brand loyalty.

4.5 Hypotheses on Cultural Moderators: Social Interaction, Risk Aversion and Language Barriers

Research has shown that there is a variety of cultural dimensions acting as moderators on consumer behaviour, including levels of consumer confusion. The third and last set of hypotheses focuses on how cultural dimensions may moderate direct relationships between consumer confusion proneness and its consequences. Cultural values and norms play a significant role in how consumers interpret and process information and how they subsequently behave (De Mooij, 2004; Bartikowski, Walsh and Beatty, 2011). In particular, factors such as risk aversion, social interaction and language barriers have been found to play a significant role in influencing consumer behaviour and purchasing decisions, as well as consumer confusion proneness, as moderators in the relationships between consumer confusion proneness and its consequences. These factors will form the focus of this section. An initial perusal of the current literature on this topic reveals that these factors are salient moderators on consumer behaviour between Western and non-Western cultures, resulting in ample studies from which to draw current theory and empirical evidence.

Research suggests that consumer confusion is influenced by risk aversion. Shimp and Bearden (1982) indicated that high risk-averse consumers seek more information about product quality in order to minimise levels of confusion. However, based on consumer confusion research, having too much, too similar, or too ambiguous information may cause consumer confusion. It is also suggested that high risk-averse consumers tend to stay with well-established brands that they have come to know

and trust in order to avoid possible financial loss associated with choosing a lesser-known brand (even if this means paying more for their trusted brand; Bao, Zhou and Su, 2003). Bartikowski, Walsh and Beatty (2011) investigated the role of customer-based corporate reputation (CBR; i.e. customer's opinions and overall impressions of a firm) and the influence this had on customer loyalty, in addition to the role that culture played within this. In this sense, CBR positively impacts on brand loyalty, as it results in consumers staying with their current trusted brand so as to avoid the uncertain outcomes associated with a new brand.

Social interaction and language barriers have also received similar attention in the literature. For instance, social interaction can moderate the role of overload and ambiguity confusion can impact on consumer confusion consequences, given that societies and cultures with strong social interactions and social roles tend to trust each other more than those from low social interaction cultures. Moreover, language barriers can prove to be a moderating factor in consumer confusion because, in countries where the information presented is not in the mother tongue (say, for example, if it is in English and the country's national language, as in Saudi Arabia, is Arabic), confusion is enhanced, which may decrease brand loyalty, decrease satisfaction and increase negative word-of-mouth.

Thus, the present study fills the literature gap by providing a new conceptual framework exploring how cultural dimensions may shape perceptions of consumer confusion. However, it is worth noting that testing of cultural moderators' influence on the similarity confusion has been intentionally disregarded in some of its relationships with consumer confusion outcomes due to the speciality of the product being investigated in the current study (smartphone) that might not induce the

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similarity confusion. The environment of smartphones' stores, where products are distingushally offered in comparion to supermarkets' environemenet for example, where products are presented very close together, which can increase the likekhood of similarity confusion. This can be explained by that similairy confusion is usually linked with the cases of look-alike products, brand names, coulor, style and packaging (Foxman et. al., 1992; Matzler et. al., 2011; Cobanoglu and Tutuş, 2014). In contrast such confusion is less likely to occur in smartphones' market due to the singularity of its products (Balabanis & Craven, 1997). Meaning that consumers might be able to differentiate between smartphones' products without being massively stressed by similarity confusion. This however should not prevent future research from considering the impact coulture in moderating the relationships between similarity confusion and consumer confusion outcomes in specific cultural contexts when it comes to technological based products.

4.5.1 Risk aversion as a cultural dimension

The literature review has highlighted the pivotal role of risk aversion in consumer behaviour. To a great extent, risk aversion depends on the cultural characteristics of societies and has a profound impact on the decision-making process of individuals. It has been defined as 'the extent to which people feel threatened by ambiguous situations and have created beliefs and institutions that try to avoid these' (Bao, Zhou and Su, 2003). In the case of this study, the focus is on understanding risk aversion in the Saudi Arabian context and its moderating effect on the relationship between consumer confusion proneness and its consequences. It has been suggested that consumers from high risk aversion cultures are likely to require more information before making a purchasing decision (Bao, Zhou and Su, 2003). If they have a high

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degree of consumer confusion proneness, it may follow that they require even greater levels of information before making a purchase that they are happy with. Moreover, a confused consumer is more likely to become dissatisfied with a brand if they are high risk-averse simply because they wish to avoid all negative outcomes from their purchasing decision. Ambiguity and overload confusion may, therefore, lead to greater dissatisfaction for Saudi Arabian consumers, who are considered to be risk-averse, thus leading to the following hypotheses:

H4a. Risk aversion moderates the relationship between overload confusion proneness and consumer satisfaction.

H4b. Risk aversion moderates the relationship between ambiguity confusion proneness and consumer satisfaction.

Studies suggest that those from more risk-averse cultures are more likely to seek out more information before they make purchasing decisions (Bao, Zhou and Su, 2003). Griffith, Myers and Harvey (2006) found, when comparing American and Japanese consumers, that knowledge resources (such as information sharing to resolve problems) differed and heavily influenced purchasing decisions. Japanese culture is considered to be high risk-averse when compared to American culture, which may be why Griffith. Myers and Harvey (2006) found that Japanese firms and consumers engaged in greater pooling of knowledge resources. In addition, individuals in such societies would share the same information they received in order to become helpful information providers, but this could increase confusion levels as they may not be experts and could share inaccurate information. Thus, while this study has hypothesised that consumer confusion proneness increases word-of-mouth behaviour, except in the case of similarity confusion proneness, it seems reasonable

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to posit that individuals from high risk-averse cultures, such as Saudi Arabia, engage in more word-of-mouth behaviour in order to make 'safer' purchase, even if they are not able to distinguish between brands. This may also increase in a society such as Saudi Arabia, where people are very concerned with others' opinions and consider family and friends as a main source of information in normal situations; this might be more in the case of risk to purchase a high involvement product such as a smartphone. However, gaining additional information will be an issue, especially if the information providers are inexpert or provide incorrect information. Thus, the following hypotheses can be proposed:

H5a. Risk aversion moderates the relationship between overload confusion proneness and word-of-mouth behaviour.

H5b. Risk aversion moderates the relationship between similarity confusion proneness and word-and-mouth behaviour.

H5c. Risk aversion moderates the relationship between ambiguity confusion proneness and word-of-mouth behaviour.

As suggested by Moore and Lehmann (1980), consumers characterised as highly risk-averse attempt to increase information acquisition in order to decrease uncertainty associated with purchasing. However, Gemunden (1985) indicated that the information acquired may actually lead to greater rather than reduced perceived risk, leaving highly risk-averse consumers confused by the overload of ambiguous information.

In Bartikowski, Walsh and Beatty's (2011) study, in comparison to US consumers, consumers from the UK and France are considered to be more risk-averse as they are more likely to distrust brands that they have not purchased from before and this was

exacerbated by consumer confusion proneness. Given that Saudi Arabia is not a relatively well-established market, there is a high level of risk aversion amongst consumers in the smartphone sector (especially amongst older consumers). Signalling theory suggests that consumer confusion proneness is often generated by messages generated by the brand itself, creating its reputation and forming consumer attitudes as a result (Walsh, Hennig-Thurau and Mitchell, 2007). If consumer confusion is present, consumers in a high risk-averse culture such as Saudi Arabia are more likely to stay with their current brand and make the purchase from a loyal brand, based on customer-based corporate reputation (CBR), so as to avoid the uncertainty of purchasing from a new brand. The following hypotheses can, therefore, be posited:

H6a. Risk aversion moderates the relationship between overload confusion proneness and brand loyalty.

H6b. Risk aversion moderates the relationship between ambiguity confusion proneness and brand loyalty.

4.5.2 **Social interaction as a cultural dimension**

It is now widely accepted that one's social environment intrinsically impacts on purchasing decisions (Witt and Bruce, 1972). Thus, social interaction can be seen as the interactivity between two persons or more in a specific society. Products that are high in social involvement and often on display (such as Smartphone) are likely to be purchased by consumers based on social networks and cohesiveness, compared with products low in social involvement. One's 'group' can be varied, including family, peers, work colleagues and society at large (Kagitcibasi, 2013).

In some cultures, social support and social cohesion are key factors of social interaction and they vary from culture to culture. Fisher et al. (2004) described social cohesion as strong social ties, mutual trust and an emphasis on social capital and responsibility. This is often true of collectivist societies compared to individualist societies (Realo and Beilmann, 2012).

Leek and Chansawatkit (2006) found that social support, such as family and friends, is considered to be problematic as a source of information in the telecommunications industry in a high cohesive society such as Thailand due to the overload and uncertainty confusion that comes from delivering too much information (for overload confusion) as well as inaccurate or misleading information (for uncertainty confusion) to future consumers.

Saudi Arabia is traditionally a high cohesive society (Hamdan, 2014). As an Islamic culture, Saudi Arabia traditionally places more value on the group as opposed to the individual. However, with the recent influx of Western brands, trends and ideologies and the subsequent development of a capitalist economy, it is possible that a more individualistic, materialistic mindset is being cultivated in Saudi Arabia (Wilson, 2004). It has been stated that the more collectivistic consumers are, the more likely they are to be dissatisfied when experiencing consumer confusion due to a brand (Liu and McClure, 2001), as they wish to obtain the best, most impressive product – especially in the highly visible, high social-involvement world of smartphones. The desire to 'save face' by possessing 'the right' product within one's social circle (Bao, Zhou and Su, 2003) is likely to impact heavily on the dissatisfaction experienced as a result of consumer confusion. Thus, it can be proposed that:

H7a. Social interaction moderates the relationship between overload confusion proneness and consumer satisfaction.

H7b. Social interaction moderates the relationship between ambiguity confusion proneness and consumer satisfaction.

In societies which are classified with strong family ties and peer groups relationships, such as Thai society, individuals trust the opinions of others within their social world more readily than other cultures and consumers are sometimes compelled to purchase smartphone similar to those preferred by a particular group (Leek and Chansawatkit, 2006). Saudi Arabian society is largely dependent on social networks for information, seeking guidance from reference groups and significant others, such as family members and friends. As individuals in such cultures do not have sufficient experience with smartphone products, they strive to gather all the necessary information within a short period of time before making the purchase, which could lead to information overload. In addition, the decision becomes even more complicated when all members of a family try to provide their suggestions regarding the purchase of a mobile phone (Russo and Carlson, 2002). It means that consumers in a high social interaction society tend to engage more in word-of-mouth behaviour in order to seek additional information as well as to share their experience of purchasing to their reference group. As was stated in describing similarity confusion proneness, similar products or brands, as well as product-related information in terms of colour, size, design, brand, price and quality, are factors leading to similarity confusion. In high social interaction cultures, such as Saudi Arabia, consumers prone to similarity confusion may choose not to share their experience of confusion with others because they do not want to be seen as lesser

than others in regard to the products' differentiation. Similarly, a study of consumer confusion in Turkish society, which has strong levels of social cohesion (Cobanoglu and Tutuş, 2014), emphasised that word-of-mouth behaviour increases in cultures that place a high emphasis on social networks, wherein people tend to share information with others to clarify any ambiguity. However, the results show that consumers sharing information are more prone to overload and ambiguity confusion rather than similarity confusion. With all this in mind, the following hypotheses have been formulated:

H8a. Social interaction moderates the relationship between overload confusion proneness and word-of-mouth behaviour.

H8b. Social interaction moderates the relationship between similarity confusion proneness and word-of-mouth behaviour.

H8c. Social interaction moderates the relationship between ambiguity confusion proneness and word-of-mouth behaviour.

Relationships and trust are considered as important aspects in such cultures and cultural considerations are taken into account in purchasing behaviour. Leek and Chansawatkit (2006) stated that, in Thailand, which, just like Saudi Arabia, is classified as a high cohesion society, family and friends are considered as the main sources of information in the smartphones industry. Consumers, especially those from cultures with strong social ties, may involve their family or friends in making the buying decision, or at least ask their opinion. In the case of buying a smartphone brand, the consumer from a high cohesion society may end up with a brand that does not match with his preferences as consumers in such cultures tend to follow the group preference even if it is in conflict with their own. This conflict between the

consumer's existing beliefs of the brand and the reference group's beliefs may lead to consumer confusion and, in turn, has a negative impact on brand loyalty as the consumer becomes loyal to the reference group more than the brand. Muthukrishnan (1995) contended that close relatives are perceived as being credible, reliable, less biased and honest. However, additional factors such as gaining too much/too ambiguous information may lead to the increased likelihood of consumer confusion (Drummond, 2004). For example, listening to close relatives' experiences, either positive or negative, may result in inaccurate or misleading information, which, in turn, could lead to overload and uncertainty confusion, thus eventually decreasing the brand loyalty of the buyer, given that their experience with a brand may be in conflict with the buyer's existing beliefs.

Given that social cohesion and relationships and ties between friends or family are important in Saudi society, the concept of saving face is very influential. As such, Leek and Chansawatkit (2006) stated that buying a mobile phone represents a person's prestige among his/her family or friends and consumers may buy a particular brand only to be at the same level as their immediate group. However, this can increase consumers' confusion levels and decrease brand loyalty, as they are actually loyal to the group more than to the brand itself. Therefore, the following hypotheses have been formulated:

H9a. Social interaction moderates the relationship between overload confusion proneness and brand loyalty.

H9b. Social interaction moderates the relationship between ambiguity confusion proneness and brand loyalty.

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4.5.3 **Language barriers**

Research suggests that, despite language being one of the most important factors in helping consumers make important decisions, it has not been extensively studied in a cross-cultural context. Language barriers are of particular significance in such a setting because failure to effectively communicate product-related information in terms of mistranslation leads to mistakes and misunderstandings, which, in turn, leads to confused consumers who are less likely to make rational and optimal purchase decisions (Mitchell and Papavassilliou, 1999). This cultural dimension varies between cultures; in a country such as Saudi Arabia, whose primary language is Arabic, it is clear that some foreign companies, in their attempt to tap into the lucrative smartphone market in Saudi Arabia, may resort to stereotyping – language that does not resonate with Saudi consumers (Osland and Bird, 2000), and some meanings may be lost in translation. Since manuals are mostly written in English, it is possible that consumers in Saudi Arabia, whose first language is not English, may fail to understand a vital piece of information, which may, therefore, lead to ambiguity confusion. Moreover, there is also the language barrier particular to smartphones, where technical language ('jargon') may be used to describe product features and processes that a consumer with poor English may not understand (Harrison et al., 2011). For example, a word such as 'cache', which does not form part of a consumer's everyday language, may have no translation in Arabic and consumers in Saudi Arabia may have no point of reference for understanding what it means in English. This may first lead to ambiguity confusion (Leek and Chansawatkit, 2006) and then extreme dissatisfaction for consumers, especially if they feel as though there is information associated with the product that they do not

understand. Consumers may also experience overload confusion when faced with multiple words that they do not understand, either as a result of their technical meaning in manuals or because they are written in a language different from their mother tongue. This may be more applicable to older consumers than younger, more tech-savvy (or English-speaking) consumers. Therefore, the following hypotheses can be advanced:

H10a. Language barriers moderate the relationship between overload confusion proneness and consumer satisfaction.

H10b. Language barriers moderate the relationship between ambiguity confusion proneness and consumer satisfaction.

Very little research exists on language barriers as a moderator of word-of-mouth behaviour for confused customers, although it has been suggested that consumers tend to share information related to products with others, even when they are prone to overload confusion, either to clarify their confusion or to be recognised as information providers (Ghosh and Rao, 2014). However, if a language barrier exists between a confused consumer in Saudi Arabia and a smartphone product or provider, it is likely that they probably will not engage in word-of-mouth behaviour, since they may be embarrassed to be seen as overloaded due to language limitations. In this regard, 'the language barrier […] prevents ESL customers from taking certain actions such as seeking necessary information or complaining about service failures' (Kim and Mattila, 2011, p. 3). Therefore, the following hypothesis can be proposed:

H11a. Language barriers moderate the relationship between overload confusion proneness and word-of-mouth behaviour.

Teng and Laroche (2006) measured North American and Chinese consumer behaviour and found that company advertisements that displayed culturally congruent appeals were received more favourably than culturally incongruent appeals, leading to those companies with culturally congruent advertisements being trusted more by consumers. Naturally, cultural congruence involves linguistic congruence and accuracy, as a consumer must understand the semantics and connotations of each word used within an advertisement if it is to be effective and appear trustworthy. In Saudi Arabia, it would follow that smartphone companies that display advertisements and information that are either not culturally congruent with Saudi Arabian values, are written in a way that forms a barrier (either through being a second language such as English or technical 'jargon'), or use Arabic subtitles in TV advertisements for foreign brands, are perceived to be untrustworthy by confused consumers who may not remain loyal to the brand.

The same can be said of the contracts, packaging, instructions and guarantees that are involved in the purchasing of a smartphone. Most smartphone manufacturers around the world create their manuals and write the product-related information in English, which are then translated into other languages for international customers. Since English is not the first language in Saudi Arabia, global marketers need to translate all relevant information originally written in English into Arabic so as to cater for the needs of consumers in Saudi Arabia. This, however, may lead to either having too much translated information, missing vital information or errors in the translations, leading to ambiguity confusion. In fact, consumer confusion can be caused by unclear presentation of the products related information (Wobker, Eberhardt and Kenning, 2015). If the translations are not performed accurately, with strict checking

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of the wording used, there is also the potential for product similarity to be generated, which can lead to high levels of similarity confusion among consumers (Ashby and Gott, 1988). If this happens, it can generate customer confusion, which can be off-putting for consumers, who may choose to purchase from another brand that provides an element of familiarity or blame the brand/manufacturers for causing this confusion. Nevertheless, as found in Walsh and Mitchell (2010), consumers may have a kind of 'blind faith' about the information presented by companies, even if they are prone to ambiguity confusion. This may be true in the case of smartphone brands, but customers may 'trust' the technology and perceive it to be useful and 'sophisticated', even if they do not understand the language of the information. This may be even more relevant in a culture like Saudi Arabia, where individuals try to be a part of a social group. Thus, they will stay with group-preferred brands and become loyal to them. With this in mind, the following hypotheses have been formulated:

H12a. Language barriers moderate the relationship between overload confusion proneness and the brand loyalty of consumers.

H12b. Language barriers moderate the relationship between similarity confusion proneness and the brand loyalty of consumers.

H12c. Language barriers moderate the relationship between ambiguity confusion and the brand loyalty of consumers.

4.6 Conceptual Framework

Based on the aforementioned hypotheses, Figure 4.1 outlines the conceptual model of this research. A framework has been developed based on: 1) proneness of consumer confusion (i.e. overload confusion, similarity confusion and ambiguity

confusion); 2) moderators of consumer confusion (cultural dimensions; risk aversion,

social interaction and language barriers) and 3) consequences of consumer confusion

(i.e. satisfaction, word-of-mouth and brand loyalty), which can be seen in the model

in Figure 4.1.
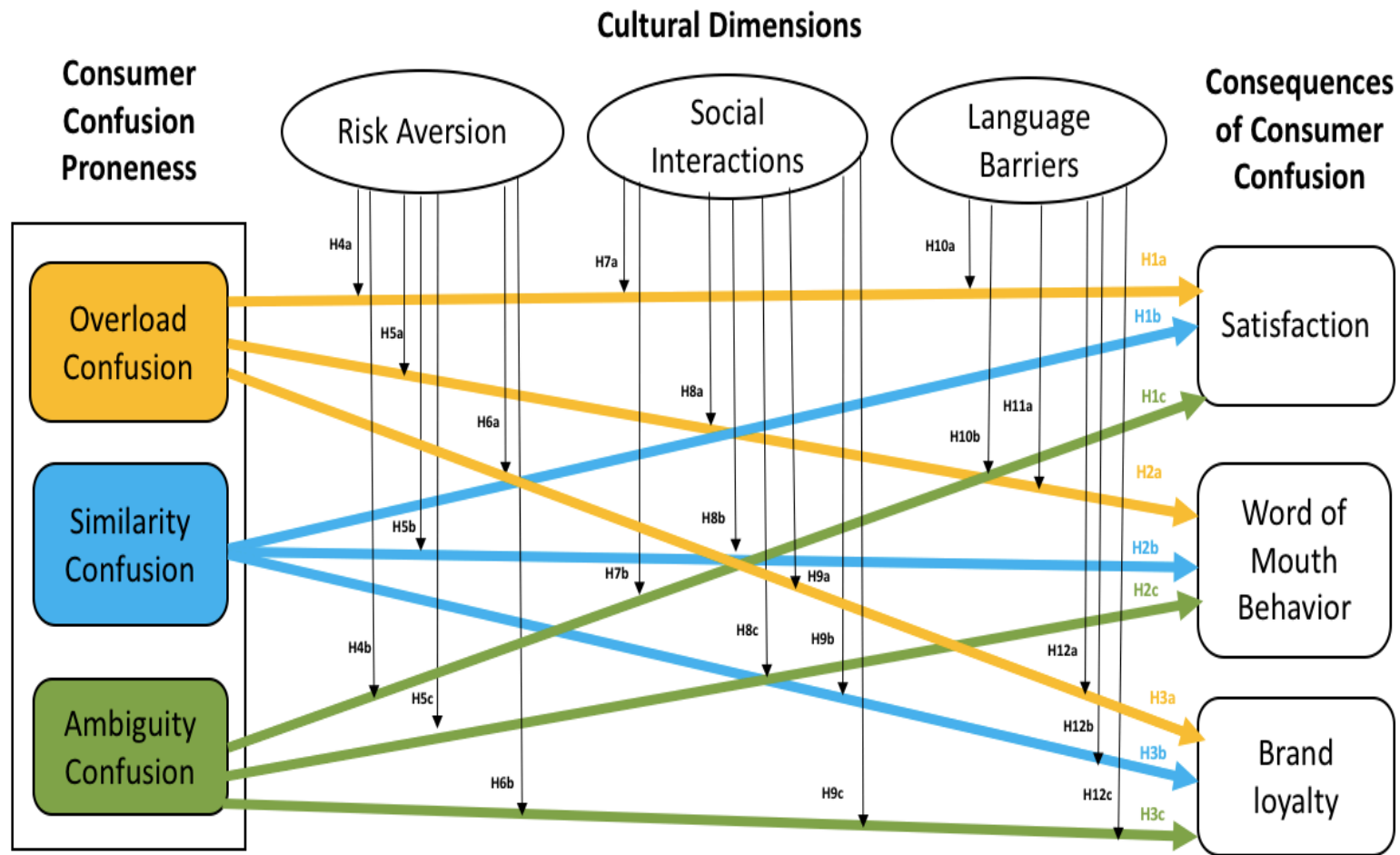
Figure 4.1: Conceptual Framework Model

CHAPTER FIVE

Context of the Research

5.1 Introduction

This chapter provides an outline of the telephone market in Saudi Arabia, in addition to discussing the future trend of the telecom sector in Saudi Arabia and customers' preferences regarding smartphones. The main motive of this chapter is to study the Saudi Arabia smartphone market through the collection of supportive material from secondary research sources, which involved the collection of relevant data from previous research findings. For the present research, this was seen as the best solution for collecting supporting data, rather than using primary or other sources. This chapter demonstrates the importance of learning about the growth of the smartphone market in Saudi Arabia, as this product category is the focus of the current research.

5.2 Saudi Arabia and its Culture

Officially, Saudi Arabia is known as the Kingdom of Saudi Arabia (KSA) and is one of the biggest Arab states, located in Western Asia and making up the main part of the Arabian Peninsula. Saudi Arabia is the second largest country in the Arab world after Algeria; it is bordered by Iraq and Jordan to the north and the upper east, Qatar, Kuwait, the United Arab Emirates, Bahrain to the east and Oman and Yemen to the south.

The Red Sea is to the west and the Persian Gulf to the east. Saudi Arabia has a territory of 870,000 square miles (2,250,000km2) and a population of 27 million, of

which nine million are foreign workers and two million are illegal labourers (Saudi Telecom Sector, 2016). Saudi nationals make up about 16 million individuals. Saudi Arabia is a petroleum-based economy, with about 90% of earnings coming from exports and 75% of budget revenues coming from the oil industry. Apart from its economic distinction, the country's culture constitutes an important part of its comprehensive distinction, as will be illustrated below.

In order to understand a phenomenon, it is imperative to investigate it within its context (Cassell and Symon, 1994; Bryman, 2001). Before applying the concepts of consumer confusion into Saudi Arabia's culture, a clear rationale for selecting this particular culture is needed. One element that distinguishes the Saudi culture is that it is tribal culture, which has shaped the entire culture of the Arab region (Al-Rasheed, 2001). Consequently, Saudi Arabia culture highly influences and greatly aligns with the values of the other Arab countries, notably, the Gulf ones. Another reason is the world's consideration of the Saudi culture as a global representative of its entire regional culture (Yasin, Zimmerer and Green 1989; Hutchings and Weir, 2006). The choice of this specific culture is also attributable to its overemphasis on collectivism and the role of social groups. This can be witnessed in different Saudi values that encourage social solidarity and exchanged support among family members (Abdala and Al-Homoud, 2001). Therefore, an individual within the Saudi society cannot be defined in isolation, instead he is defined in association with his reference group (Kabasakal and Bodur, 2002). This implies that a Saudi person's shopping experience is usually a group experience rather than an individual one. Moreover, religion plays a role in constituting the culture of Saudi Arabia as it is the land where Islam emerged. Meaning that Islamic moral codes and values of unity and synergy

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might guide the behaviours of Saudi individuals in some circumstances, including shopping (Parboteeah, Hoegl and Cullen, 2008).

5.3 Sectorial Background

Alshahrani (2016) stated that the Saudi Arabian telephone market is a combination of different sectors. For example, it includes mobile telecommunication services, fixed telephony services, broadband services and internet services. All these sectors collectively form the wider Saudi Arabian telephone market. These sectors contribute a significant amount of revenue to the overall economy of Saudi Arabia. Alshahrani (2016) also indicated that Saudi Arabian mobile telecommunication services encompass 43.63 million subscriptions (KSA ICT Indicators, 2017). On the other hand, other areas like fixed telephony services, broadband services and internet services are made up of a combination of 3.75, 3.25, 25.25 and 24.1 million subscriptions, respectively. In addition, Rajeyyagari and Alotaibi (2018) maintained that, starting in 2016, the Saudi telecom sector faced a large number of growth challenges, the first of which related to weak oil prices. Other challenges were high subscriber penetration levels in data and voice, limited growth avenues, fingerprint registration of SIM cards and a cut in government spending. The combination of all these challenges enhanced the difficulties faced by the Saudi Arabian telecommunications sector.

In addition, Maniatis (2016) argued that the penetration level in the Saudi Arabia telecommunications sector is higher than in other sectors, such as information technology. In this regard, subscriber growth was expected to be 53.9 million at the end of 2015, but it jumped by an incredible 190% (KSA ICT Indicators, 2017). The growth of Saudi Arabian telecom sector subscribers can be understood with the help

of Figure 1 in the Appendix. Moreover, it can also be noted that the postpaid and prepaid growth of the Saudi Arabia telecom sector is a continuing phenomenon, which represents a positive sign in favour of the Saudi Arabian telecommunications industry. In addition, Alshahrani and Alsadiq (2014) stated that the data growth in the telecommunications sector of Saudi Arabia is occurring slowly, a result of the high penetration levels in the industry. The Saudi Arabian government believed that, in 2016, the growth in mobile data subscribers would become the reason for the high penetration levels, but this did not happen in reality (Telecoms in the Kingdom of Saudi Arabia, 2016) because broadband subscribers did not represent significant growth in the household penetration levels of the telecommunications industry. Therefore, it is fair to say that the Saudi Arabian telecommunications sector is facing a weak economic outlook, limited growth and a high level of penetration.

5.4 The Saudi Smartphone Market from Foreign Brands' Perspective

The unprecedented economic transformations that are currently taking place in Saudi Arabia make it lucrative for foreign brands to identify the country as a potential candidate for their future investments. A series of motives has influenced the internationalisation decision of these brands when it comes to the Saudi market, specifically the smartphone market. They are firstly driven by the recent reforms that have been made to the Saudi regulatory system, in which greater ownership shares are provided to foreign investors (Reuters, 2017). This encouraged some of the smartphone manufacturing giants, notably Apple, to negotiate an agreement with the Saudi government to open their first stores in the country (Reuters, 2018). Secondly,

they are motivated by the fact that a part of the Crown Prince Mohammed bin Salman's vision is to transform Saudi Arabia into a regional technology hub and to give it a high-tech look (9to5mac, 2017). This opens the door for Apple, Amazon and Microsoft to concentrate a substantial part of their Middle East expansion plans on the Saudi market (9to5mac, 2017). They are thirdly encouraged by the young and affluent market with the incredibly high usage of internet that Saudi Arabia has in order to enhance their profile within the country itself and its neighbouring markets (Reuters, 2017). Fourth, the foreign companies detected adequate interests among the smartphone users within Saudi Arabia in novel and fourth industrial revolution services, including multi-screening and connected cars, in a way that is exceeding the interest of counterpart users in countries like the UK and the US (Arab News, 2016).

5.5 Consumer Choice in the Saudi Smartphone Market

Culture makes consumer choices different from market to market and from industry to industry as the rule of behaviours may greatly vary in accordance with the culture from which it is derived (Mann, 1986). When compared to citizens of other nations, consumers in Saudi Arabia and Egypt are extremely price-conscious, which is why they prefer smartphones that meet their budget requirements as well as specifications levels (Alqahtani, 2015). In addition, Scott (2015) argued that Saudi Arabians tend to give more priority to price than to product features. In this sense, they buy smartphones that are less costly and effective in regard to aesthetics and features. Moreover, 25% of Saudi Arabians believe in high technological features of a product or service (Telecoms in the Kingdom of Saudi Arabia, 2016). For this reason, they want to purchase smartphones with a wide range of features and usability and from a well-known brand. Moreover, it has also been said that Saudi Arabians consider the

brand name first and then its features. This is because they believe that a good brand name will always prove effective for their requirements. Moreover, Aldhaban (2016) stated that Saudi Arabian people are very choosy in the case of smartphones, in that they evaluate not only the social influence of a chosen brand, but also the sacrifice required for the product. All of these perceptions support consumers in making effective purchasing decisions.

As previously mentioned, this study uses the smartphone market in Saudi Arabia, considered as the second biggest smartphone market in the Middle East (Pingdom, 2011) as the research context. According to the Saudi Communications Commission (2016), the growth rate of smartphone users in Saudi Arabia has rapidly increased due to increased penetration of the internet. Recently, because of rapid growth in E-commerce, consumers who rely on smartphones to make online purchase accounted for 93% of the total shoppers compared to consumers who use desktops (The Saudi Communications Commission, 2016).

In Saudi Arabia, performance expectancy and perceived playfulness are the strongest behavioural factors among others that drive consumers to acquire smartphones (Alwahaishi and Snasel, 2013). 4G services have started in Saudi and, due to this, Saudi Arabia was expected to lead the 4G market in the Middle East by the end of 2016. It is also worth noting that the number of the smartphone subscribers in Saudi market is increasing rapidly and reached 51 million by the end of 2013, whereby an individual might have more than one subscription (Abdulgahni et al., 2014).

5.6 Future Trends in the Saudi Smartphone Market

In the coming years, the Saudi Arabia smartphone market will see tremendous growth due to an increase in the penetration rate of smartphones as well as networks. In this regard, the mobile penetration rate will be approximately 75%, which will result in a great deal of growth opportunities for telecommunications industry operators (Telecoms in the Kingdom of Saudi Arabia, 2016). Moreover, it is also predicted that the broadband penetration rate, which has been rather low of late, will increase from 12% in 2020 (Telecoms in the Kingdom of Saudi Arabia, 2016) because the Saudi Arabian government is preparing to invest in the maintenance and development of the telecommunications sector. In this sense, under the national transformation plan, the government will provide broadband connectivity to all regions of Saudi Arabia, which will not only increase the number of target customers, but also the number of potential smartphone users (Saudi Arabia – Telecommunication Services, 2017). Future trends in the Saudi Arabian telecommunications market can be easily understand by examining the changes proposed by the Saudi Arabian government, as set out in the following sub-sections.

5.6.1 Increasing broadband connectivity

The government estimated that approximately 68% of the population of Saudi Arabia was utilising the internet and smartphone in 2016. Due to the increase in digital literacy levels, this will become approximately 80% of total population (Alshahrani and Alsadiq 2018), which could be due to the active efforts of the Ministry of Communications and Information Technology of Saudi Arabia.

5.6.2 **Large cash investments for the telecommunications industry**

The Saudi Arabian government has set out the National Transformation Plan to create a strong telecommunications sector. Its sole purpose is to increase the capacity of industry operators so that they can compete on a global level (Saudi Arabia – Telecommunication Services, 2017). Under the National Transformational Plan, the government will provide significant investment for the upgrade of existing infrastructure as well as the working scenario of industry operators.

Therefore, it is fair to say that the future of the Saudi Arabian telecommunications industry looks bright as a result of the contribution of the government as well as the local population.

5.7 **Conclusion**

It can be concluded that the Saudi Arabian telecommunications industry will witness many opportunities for telecom operators and other interested parties, since the Saudi Arabian government is planning for tremendous growth in the industry. In addition, it can also be said that Saudi Arabians are very choosy and sensitive regarding the purchase of smartphones because they care about the value of their money. Moreover, it can be seen that the telecommunications sector significantly contributes towards the overall growth of the country's gross domestic product (GDP).

CHAPTER SIX

Research Methodology

6.1 Introduction

This study aims to explore the drivers of consumer confusion in Saudi Arabian society, as well as the moderating role of cultural dimensions in the relationship between consumer confusion and its consequences. The conceptual framework was discussed in the previous chapter. In order to successfully meet the aim of this study, the current chapter provides a detailed explanation and justification for the methodology employed in this research. According to Collis and Hussey (2009, p. 55), research methodology can be described as 'the overall approach to the research process, from the theoretical underpinning to the collection and analysis of the data.' The research process has been portrayed by Saunders, Lewis and Thornhill (2007, p. 83) as an onion which contains a series of layers (Figure 6.1). Initially, this chapter will present a critical discussion of the underlying research philosophy in regard to the epistemological and ontological positions adopted in the study. It will also shed considerable light on the research design through outlining the research approach, research purpose and data collection timeframe. The research strategy and the methods adopted to collect data related to the research problem at hand are also discussed in detail. The chapter also outlines the research instrument, including an in-depth discussion of how it is designed and the ways in which the study variables are measured. In addition, the chapter also highlights the target population and the sampling design and procedures used to obtain the study sample, in addition to

explaining and justifying the data analysis techniques to test the hypotheses. Finally, this chapter will also provide a critical discussion of issues associated with the research quality along with the ethical issues encountered during the entire research process.
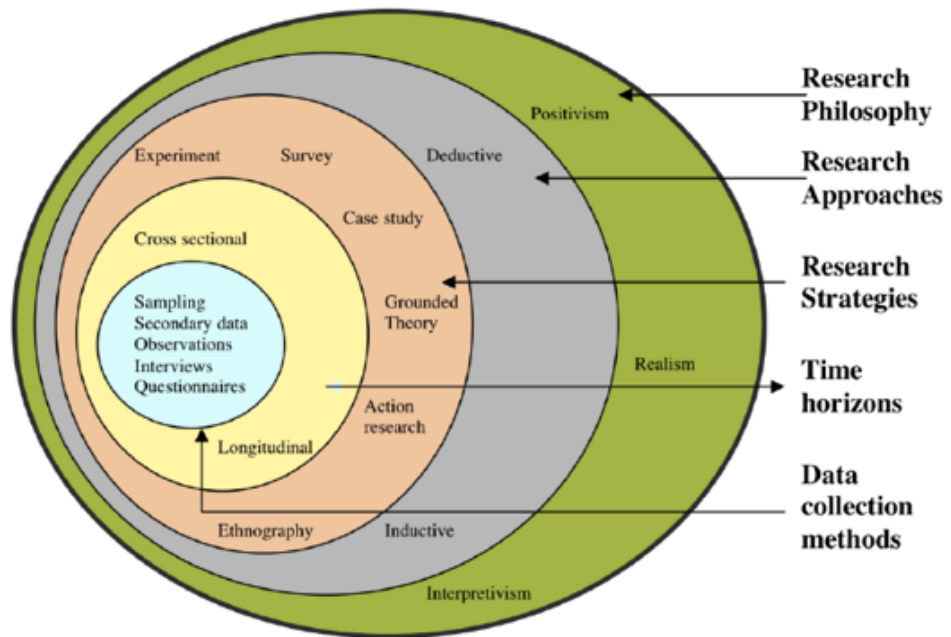
Figure 6.1: The Research Process (Saunders, Lewis and Thornhill, 2007, p. 83)

6.2 Research Philosophy

Behind any study lies a researcher's fundamental assumptions about the world he/she is researching. This is the domain of research philosophy, which is associated with views on developing knowledge and contains important assumptions that impact on the way a researcher goes about or approaches his/her research (Bryman and Bell, 2007; Saunders, Lewis and Thornhill, 2009). Easterby-Smith, Thorpe and Jackson (2012) argued that there are three reasons why it is important for researchers to understand the philosophical issues underpinning their studies. The first reason is

that it helps in clarifying the research design, which involves taking into consideration the type of data required and the ways in which the data are to be collected and analysed. Secondly, insights into research philosophy allow researchers to effectively recognise which design is most suitable for the achievement of a study's aims and objectives. Finally, it enables the identification and adaption of research designs in accordance with the limitations and constraints encountered during the research process. To sum up, an understanding of philosophical issues encountered during the research process allows the researcher to think about his/her role as a researcher, while also developing his/her own position in relation to the current research.

Over the years, several research philosophies have emerged, with Creswell (2014) identifying four key frameworks adopted by researchers: *'post-positivism, constructivism, advocacy/participatory, and pragmatism'* (Creswell, 2014, p. 6). Creswell (2014) suggested that, while post-positivism, or the scientific method, represents a conventional form of research that is more aligned with quantitative research than qualitative research, social constructivism (often combined with interpretivism) operates on the premise that it is important to understand the meanings people attribute to social events and experiences. Easterby-Smith, Thorpe and Jackson (2012) added that constructivists challenge the post-positivists' objective viewpoint, in which causes likely determine effects and outcomes, by arguing that it is important to understand subjective meanings of individuals' experiences and events. The advocacy and participatory perspective, which arose as a result of many inquirers criticising both post-positivism and constructivism for not taking into consideration the marginalised people in society, argues that research

needs to take into account politics and political agendas (Creswell, 2014). With regard to the pragmatic perspective, rather than focusing on methods (as in post-positivism), researchers emphasise the area being investigated and use multiple approaches to understand a problem (Saunders, Lewis and Thornhill, 2009). According to Tashakkori and Teddlie (2003), pragmatism underpins mixed methods studies that employ pluralistic approaches to obtain information and knowledge about the research problem at hand.

While each framework is different in terms of the assumptions it holds, they are fundamentally interconnected concepts for the researcher as, whichever paradigm is chosen, it has to appropriately address the research aim and objectives and produce highly reliable and valid research findings (Saunders, Lewis and Thornhill, 2009). It can, therefore, be suggested that not only is it important for a study to be philosophically informed, but the researcher must also be able to describe his/her philosophical choices and justify them in relation to the alternatives adopted. Discussion of research philosophy often proceeds by first distinguishing between two different philosophical positions, which are the research epistemology and research ontology. With this in mind, the epistemological and ontological positions of the current research are presented in the following section.

Ontology	Epistemology	Methodology	Methods	Sources
What is out there to know?	What and how can we know about it?	How can we go about acquiring that knowledge?	Which procedures can we use to acquire it?	Which data can we collect?
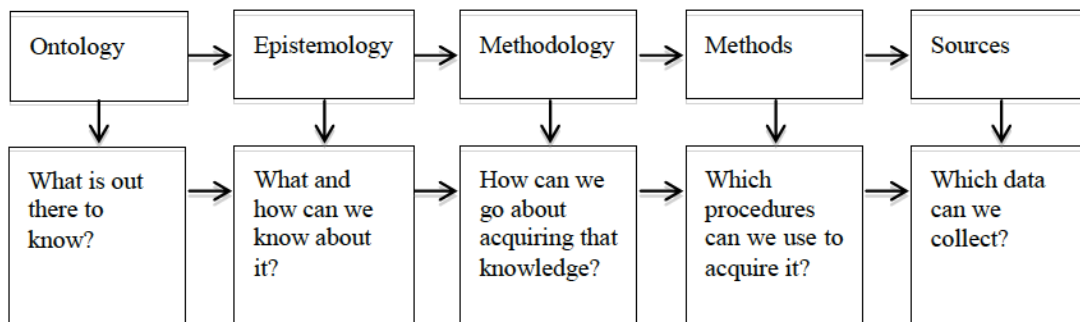
Figure 6.2: Philosophical Process (Hay, 2002)

6.2.1 **Epistemological position**

Explaining the relevant epistemological stance is the first stage in planning the research. Given (2008, p. 245) stated that 'epistemology is the theory or science of the method and ground of knowledge. It is a core area of philosophical study that includes the sources and limits, rationality and justification of knowledge. Its etymological roots are Greek, from episteme (knowledge) and logos (explanation).' It focuses on *'what constitutes acceptable knowledge in a field of study'* (Saunders, Lewis and Thornhill, 2009, p. 112) and emphasises the accuracy and robustness of knowledge, i.e. the ways in which individuals know and are certain about their knowledge being 'true' (Johnson and Clark, 2006). Of the four philosophical frameworks identified above, a post-positivist epistemological position is considered to be the most suitable for the current study due to its empiricist viewpoint in which knowledge stems from human experience. The rationale for adopting such a framework is that it enables scientific measurement of the research variables (i.e. consumer confusion dimensions and its consequences, demographics and cultural dimensions), while also recognising that the researcher's personal beliefs cannot be truly independent of the study (Hesse-Biber and Leavy, 2011), even though efforts are made to ensure that, as much as possible, they are.

One key factor that motivates the selection of a post-positivist perspective over other alternative philosophical frameworks is the need to test the fourteen study hypotheses proposed earlier. Since this study seeks to explain a causal relationship between dimensions of consumer confusion and its consequences in the Saudi market, as well as the moderating impact of cultural dimensions on this relationship, it is important to develop numeric measures of observations in order to study

consumer behaviour, which can only be achieved through the adoption of a post-positivist epistemological position (Creswell, 2014). Moreover, research rooted in such a paradigm aims to explain marketing phenomenon by identifying factors that predict particular outcomes and the relationship between them (Saunders, Lewis and Thornhill, 2009); therefore, a conceptual framework examining how different variables are related is used to guide the research, which then aims to verify or falsify the theory-based framework. In this regard, post-positivism is valuable in building evidence to test the hypotheses and verify the conceptual framework developed using theories related to dimensions of consumer confusion as well as the moderating role of cultural dimensions in this relationship (Hesse-Biber and Leavy, 2011). Hence, the researcher has attempted to generate evidence that confirms or refutes previous studies and the conceptual framework, although not in absolute terms.

6.2.2 Ontological position

While epistemology focuses on *what can be defined as acceptable knowledge* (Saunders, Lewis and Thornhill, 2009, p. 121), ontological positions are more focused on the characteristics of reality, i.e. they question the researcher's assumptions regarding their view of the world and their commitment to specific views (Easterby-Smith, Thorpe and Jackson, 2012). Saunders, Lewis and Thornhill (2009) identified two key dimensions of ontology that are widely accepted as generating valid knowledge by numerous scholars and practitioners: objectivism and subjectivism. The view that social phenomena or realities exist external to individuals embodies objectivism, whereas subjectivism argues that realities or phenomena are created based on the perceptions and resultant actions of individuals.

Given the post-positivist epistemological perspective adopted for the current study, objectivism is the most appropriate ontological stance because, not only is it embedded in this scientific philosophical framework (Creswell, 2014), but it also involves maintaining a detached attitude and neutral posture so as to discover an objective reality that is not distorted by the subjective viewpoint of the researcher (Spencer, Pryce and Walsh, 2014).

Adopting an objectivist position within a post-positivistic perspective provides the researcher with the opportunity to acknowledge and eliminate his own bias and obtain objective and real knowledge through the systematic use of quality strategies (Bryman and Bell, 2007). Objectivism is found to be most suitable for this study because it enables the researcher to accumulate objective knowledge so as to verify the conceptual framework, which can be then generalised onto larger populations of consumers in the Saudi market. In other words, an objective stance facilitates the use of data collection and analysis techniques that can be replicated by others to achieve the same or similar results (Hesse-Biber and Leavy, 2011). Similarly, generalisable knowledge attained through objectivism provides researchers with the power of prediction, i.e. the ability to predict and, therefore, control the patterns of human behaviour and social processes (Spencer, Pryce and Walsh, 2014). This implies that the researcher can successfully predict and apply the conceptual framework surrounding consumer confusion and the moderating impact of various cultural dimensions to larger populations of consumers in the Saudi market and other multicultural countries.

6.3 Research Design

6.3.1 Research approach

6.3.1.1 Deductive and inductive reasoning

In conducting research, there are two main methods of reasoning: inductive and deductive approaches. Researchers attempt to connect theory with empirical data, that is, evidence obtained through scientific study. Researchers often advance this connection by beginning with a theoretical marketing framework and then test its implications with empirical data; this is the process of deductive research (Johnson and Clark, 2006). Alternatively, researchers may adopt an inductive approach, in which a connection between marketing theories is developed by first methodically gathering measurements or data and then formulating a theory that sheds light on the emerging patterns and themes in the data (Gray, 2014).

Even though it is useful to associate these research approaches with different philosophies, with deduction owing more to post-positivism and induction more to constructivism, Saunders, Lewis and Thornhill (2009) argued that such a classification is potentially deceptive and of no real value. It is, therefore, imperative for the researcher to choose the approach that best suits the aims and objectives of the research while also being aligned with the wider philosophical assumptions underpinning the study.

Given the research aim and objectives identified earlier in this thesis, a deductive approach is considered to be the most suitable approach because it involves the development of a conceptual framework of consumer confusion and its results are subject to rigorous testing through various statistical procedures and techniques. In

addition, it has traditionally been the dominant research approach in scientific paradigms, particularly post-positivism, whereby researchers can make predictions regarding variables and generalise findings to larger populations (Collis and Hussey, 2009). This implies that the need to explain and establish causal relationships between the research variables through hypothesis testing provides the researcher with the opportunity to statistically predict particular outcomes related to how various factors within the marketing environment lead to consumer confusion and the ways in which cultural dimensions impact on this relationship with regard to consumer behaviour.

Within the context of this study, deduction is preferred over induction because the former is less time-consuming and more cost-effective than the latter, as theories already exist and, therefore, only need to be statistically tested for acceptance or rejection. Following a similar line of reasoning, deductive research is less prone to risk in comparison to inductive research, as the latter may result in long hours of fruitless data collection (Gray, 2014). Using deduction, the principles of scientific rigour are successfully pursued during the entire research process, whereby the researcher is independent of the research problem at hand (Saunders, Lewis and Thornhill, 2009) – principles commonly associated with post-positivism and objectivism. Hence, the deductive approach adopted in this study provides a scientific and objective understanding of consumer confusion, thereby enhancing the quality of the research findings.
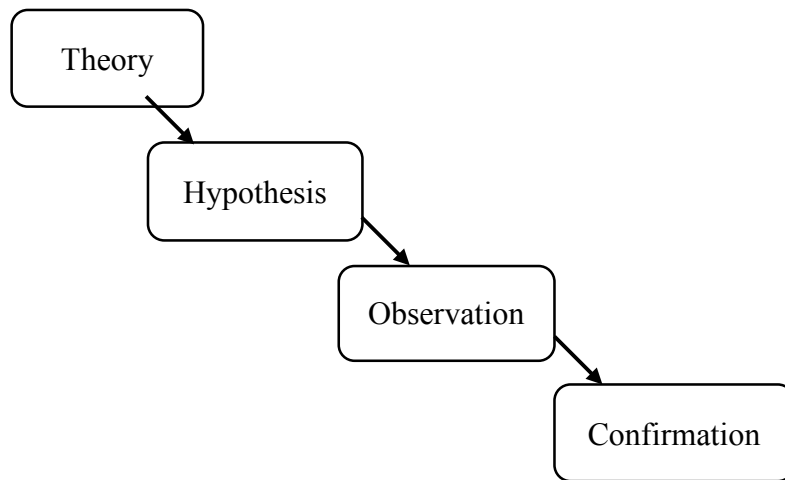
Figure 6.3: Deductive Approach (Trochim, 2001)
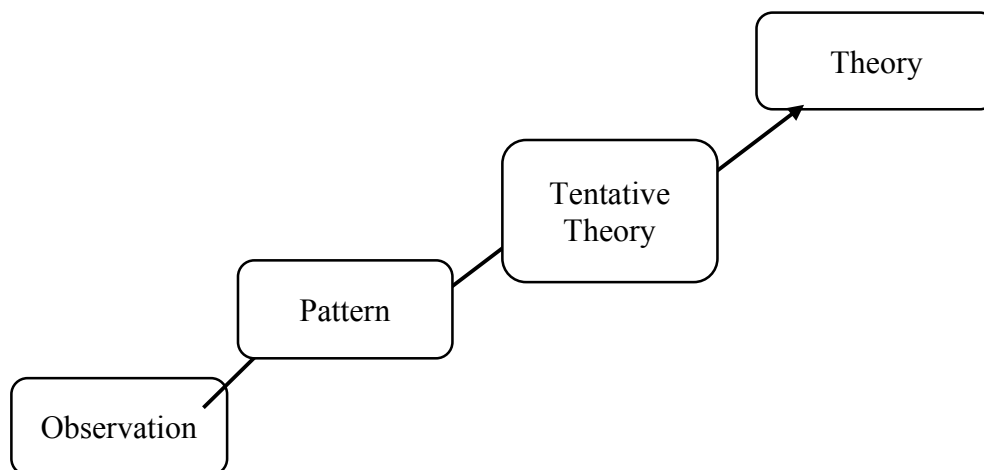
Figure 6.4: Inductive Approach (Trochim, 2001)

6.3.2 **Research purpose**

According to Saunders, Lewis and Thornhill (2009), the research purpose is an important determinant of the methods and procedures deployed to successfully answer the questions posed in a study. In the research methods' literature, there is agreement among researchers that research purpose is often classified into three main

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purposes: exploratory, descriptive and explanatory (Robson, 1993; Yin, 2003; Saunders, Lewis and Thornhill, 2009). However, Robson (2002) pointed out that a research study could have more than one purpose, as it may change and alter during the research process.

While exploratory studies are focused on exploring a social phenomenon and asking questions about it (Johnson and Clark, 2006), the goal of descriptive studies is to present a comprehensive picture of a phenomenon as it transpires (Gray, 2014). Explanatory studies, on the other hand, emphasise investigating a research problem so as to establish causal relationships between concepts and variables (Saunders, Lewis and Thornhill, 2009).

While the research purposes identified above have their relative advantages and disadvantages, descriptive studies are often criticised for not being able to explain why a particular phenomenon or event has occurred (Gray, 2014). For this reason, the current study employs a combination of exploratory, descriptive and explanatory research. The rationale for combining the three purposes is that it allows the researcher to take full advantage of the benefits associated with each research purpose, at the same time as circumventing and eliminating any drawbacks associated with a particular purpose (Bryman and Bell, 2007). In other words, the quality of the research findings is significantly enhanced by employing a combination of exploratory, descriptive and explanatory research (Robson, 2002). In this study, the research agenda progressed from exploratory to descriptive to explanatory. The process began with preliminary exploration into the drivers (antecedents) of consumer confusion as well as the cultural dimensions that could impact on this relationship by analysing previous studies conducted by scholars and

practitioners in the field of marketing. The exploratory study revealed that too much product-related information, too much similar information and too much ambiguous information are key factors in consumer confusion. Moreover, brand loyalty, customer satisfaction and customer word-of-mouth are the most common marketing consequences of consumer confusion, whereas risk aversion, social interaction and language barriers emerged as important cultural dimensions affecting the relationship between consumer confusion and its results.

Having established the main constructs and focus of the study, the researcher began to collect data, which provided opportunities to describe the attitudes and behaviours of consumers in the Saudi market with respect to consumer confusion and the four cultural dimensions. Finally, in explanatory research, which is correlative in nature (Saunders, Lewis and Thornhill, 2009), relevant statistical procedures are applied to the collected data so as to establish causal relationships between the research variables and empirically verify the conceptual framework. In doing so, not only does the study draw meaningful conclusions, but it also enables prediction of consumer behaviour in terms of consumer confusion amongst consumers in the Saudi market and other multicultural and multi-ethnic societies.

6.4 Research Method

6.4.1 Qualitative vs. Quantitative research

Collis and Hussey (2009) suggested that the research method relates to the general plan of methods deployed for collection of data in order to effectively answer the research questions. Any academic research possesses quantitative and/or qualitative

attributes that are aligned with the research aim and objectives and the overall

philosophical approach adopted by the researcher (Denzin and Lincoln, 2000). The

research approach has been classified into three different groups: a) quantitative

designs; b) qualitative designs; and c) mixed methods, which consist of both research

designs (Wilson, 2012). Both designs have advantages and disadvantages. Bulmer

(1988) commented that 'different investigations may have different preferences and

lean in one direction or another, but there are no general principles which can be

adduced in favour of one or another style of research.'

According to Wilson (2012, p. 130), qualitative research is defined as 'research

which is undertaken using an unstructured research approach with a small number of

carefully selected individuals to produce non-quantifiable insights into behaviour,

motivations and attitudes.' It emphasises understanding the meanings individuals

ascribe to social events and experiences as well as the relationship between the

researcher and the research problem (Denscombe, 2007). Quantitative research, on

the other hand, can be defined as 'research which is undertaken using a structured

research approach with a sample of population to produce quantifiable insights into

behaviour, motivations and attitudes' (Wilson, 2012, p. 130). It tests objective

theoretical frameworks by examining relationships between research constructs,

which are then measured so as to analyse numerical data using a variety of statistical

techniques (Creswell, 2014). While quantitative research has long been associated

with a post-positivist perspective, in recent times, researchers have adopted

qualitative research within this framework due to its ability to explore social

phenomenon in detail (Denscombe, 2007). However, several drawbacks of

qualitative research, such as the inability to make automatic generalisations from the

findings as well as being time-consuming, often lead to an increase in the cost of research. As a result, the current study applied a quantitative approach, as it was focused more on gathering objective, numerical data about subjects' attitudes, beliefs and perceptions (Denscombe, 2007). Furthermore, its emphasis on testing hypothetical generalisations and causal relationships between variables made it the most suitable research method for the current study (Hesse-Biber and Leavy, 2011). Even though the quantitative approach adopted in this study lacks subjective understanding of respondents' views on consumer confusion (Saunders, Lewis and Thornhill, 2009), it facilitated the gathering of large amounts of numerical data to be used for the scientific verification of the conceptual framework (Easterby-Smith, Thorpe and Jackson, 2012). Similarly, the quantitative approach enabled division of the research problem into measurable categories that could be generalised (Bryman and Bell, 2007) to wider consumer populations in the Saudi market and other multicultural and multi-ethnic societies.

Table 6.1: The Differences between Quantitative and Qualitative Research (Neuman, 1997)

Qualitative Research Approach	Quantitative Research Approach
- The objective is to detect and summarise meanings when the researcher is wrapped up in the data.	- The objective is to test hypotheses generated from theories.

- The forms of the concepts tend to be themes, generalisations, patterns and taxonomies.	- The form of the concepts is different variables.
- Measures are more specific to the researcher.	- Measures are systematically generated before data collection and are standardised as far as possible.
- The form of the data is documents, words, observations and transcripts. However, quantification is used.	- The form of the data is numbers from accurate measurements.
- Often inductive, as theory can be either fundamental or not.	- Deductive, as theory is mainly fundamental.
- Research procedures are fixed and are difficult to replicate.	- Research procedures are standard and can be replicated.
- Analysis proceeds by extracting themes or generalisations from evidence and organising data in order to present a coherent, consistent picture. The	- Analysing proceedings by using statistics, tables, or charts and explaining their relationships to hypotheses.

hypotheses can be generated from these generalisations.	

Table 6.2: Advantages and Disadvantages of Quantitative and Qualitative Research (Neuman, 1997; Hughes, 2006; Ramona, 2011)

Advantage of Quantitative Research	Advantage of Qualitative Research
- Methods allow more accurate due to reliable measurement of variables - Replicability - Methods are structures or standard - Statistical analysis that allow complicated analysis - Improves the levels of the data integrity and confidentiality - Generalisations are possible	- Simple methods of calculation description/theory development - Describes theories and experience - Allows deep understanding and insight - Easier to understand for both the readers and researcher - Flexible methods - Value placed on participants' views and empowering participants - Narrative style
Disadvantage of Quantitative Research	Disadvantage of Qualitative Research

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- Use of inflexible methods - Deterministic Character - Disregard of some important factors - Misses subjective aspects of human existence - Assumption of an 'objective' truth - Generation of incomplete understanding - Inapplicable to some unmeasurable phenomena	- Not hard data, not clear measuring - Subjective 'non-scientific' - Deep involvement of researcher increases risk of bias - Small samples - Data gathering methods are time-consuming in order to capture and analyse. - Difficult to summarise and compare systematically. - Viewed as less reliable than quantitative methods. - Generalisation is limited to similar contexts and conditions.

6.4.2 **Research strategy**

According to Saunders, Lewis and Thornhill (2009), a research strategy is a generalised plan for, or the overall direction to, a research process. In order to gather information about consumer confusion and its consequences, in addition to the moderating impact of cultural dimensions in this relationship, a variety of research strategies are available. However, Robson (2002) broadly classified these research

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strategies into three main types: experimentation, case studies and surveys. As a research strategy, case studies strive for the detailed examination of a single case, or multiple related cases, in a natural setting using a variety of data collection techniques (Hesse-Biber and Leavy, 2011). Alternatively, experimentation is an empirical method of enquiry, usually conducted in an artificial setting, for studying the impact of manipulating one variable on another variable(s) (Denscombe, 2007). To test the proposed hypotheses in this study and to draw generalised conclusions, a case study and experimentation would appear inappropriate. Taking into consideration the research topic and the given timeframe, a survey was a more suitable research strategy for this study. A survey '*provides quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population*' (Creswell, 2014, p. 14). It was more appropriate than case studies or experimentation because it enabled the collection of data from a large, geographically dispersed sample population of consumers in the Saudi market (Vaus, 2002).

However, Denscombe (2007) criticised the survey strategy for focusing more on data accumulation and data description rather than on theory, as well as for its low response rates and the introduction of potential bias into samples. Despite these limitations, several benefits offered by surveys, such as being timely and cost-effective, made this an undeniably useful tool for the collation of data in the current study (Collis and Hussey, 2009). In addition, surveys provide access to a wider sample population through the internet, thereby enhancing flexibility in terms of the administration and collection of completed questionnaires (Bryman and Bell, 2007). Access to a large sample size through surveying also improves data quality and the

generalisability of research findings (Robson, 2002). Following a similar line of reasoning, the standardised, numerical nature of surveys used in this specific study to understand respondents' attitudes and perceptions towards consumer confusion facilitated the application of relatively straightforward statistical procedures and, therefore, the subsequent analysis and interpretation of results (Saunders, Lewis and Thornhill, 2009). Hence, the survey approach can be seen as appropriate for gaining insights into respondents' opinions and attitudes regarding consumer confusion in Saudi Arabia.

Table 6.3: Different Research Strategies

Strategy	Form of Research Question	Requires Control over behavioural events	Focuses on Contemporary
Experiment	How, Why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis	Who, what, where, how many, how much?	No	Yes/No
History	How, why?	No	No
Case study	How, why?	No	Yes

Source: Yin (2003)

6.4.3 Data collection method for survey research

The determination of the most appropriate research strategy should be followed by the method of empirical data collection (Yin, 2003). In addition, differentiation between primary data and secondary data is important. Primary data relate to the data collected by researchers for a specific purpose, while secondary data are data that already exist and have been collected by others for different purposes, for instance government and public databases, company documents and the internet. According to Sapsford (2006), 'there is no single best way of collecting data; the

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method chosen depends on the nature of the research question posed and the specific questions you want to ask respondents. The aim of all methods is to obtain valid and reliable data.' Therefore, it is necessary to decide on the appropriate type of data within the particular research procedure and theoretical framework.

Within a quantitative survey strategy, researchers can choose between self-administered questionnaires and interviewer-administered questionnaires in order to obtain data for the study. Questionnaires completed by the respondents are referred to as self-administered questionnaires, whereas those recorded by the interviewer based on respondents' answers are known as interviewer-administered questionnaires (Mitchell and Jolley, 2013). Given the time and financial constraints associated with this study, a self-administered questionnaire (see Appendix 2) was chosen as the primary data collection instrument. The key rationale for employing this type of questionnaire was that it enables the collection of large amounts of data from a larger number of people in a timely manner (Saunders, Lewis and Thornhill, 2009). Secondly, self-administered questionnaires allow for anonymity, which provided the researcher with a cheap, easy and quick way to obtain honest answers from a large, geographically dispersed sample population (Vaus, 2002). Utilisation of a large sample also implies that statistical inferences can be made about even those consumer groups that make up only a small proportion of the population (Gosling et al., 2004). The anonymous nature of the survey instrument also makes respondents feel comfortable expressing their views, thereby eliminating social desirability bias in the responses (Gosling et al., 2004).

As the amount of contact between the researcher and respondents was minimal, with the former exerting no control over the latter, there were few ethical problems during

the collection process. However, it is important to note that the lack of interaction between the researcher and the respondents can lead to problems with the questionnaire being unheard and unrevised (Mitchell and Jolley, 2013). In other words, if the data collection instrument contains a vague question, the researcher cannot assist the participant in understanding the question and answering it effectively. In order to overcome this limitation, the questions in the instrument were designed in a manner that was simple and easy to understand. Another major drawback of using self-administered questionnaires is the low return rate, which can result in non-response bias (Mitchell and Jolley, 2013). In this regard, the researcher ensured to keep the survey short so as to minimise the dropout rate (Vaus, 2002). In addition, a single administration strategy was adopted, in which the survey was circulated manually, i.e. the questionnaires were delivered to respondents by hand and collected later (Saunders, Lewis and Thornhill, 2009).

6.4.4 Data collection timeframe (time horizon)

According to Bryman and Bell (2007), the time dimension of research entails the timeframe in which the data collection takes place. Two types of timeframes can be seen in the research methodology literature: cross-sectional and longitudinal. Cross-sectional studies entail the collation of data from a sample population at one point in time, whereas longitudinal studies refer to data gathered over an extended period of time (Gray, 2014). Since the choice of timeframe is dependent on the research questions, while being independent of the research strategy pursued in the study (Saunders, Lewis and Thornhill, 2009), cross-sectional research is the most appropriate approach for the current study because the researcher intends to obtain a 'snapshot' of the concept of consumer confusion by studying it at a particular time

(Robson, 2002). In addition, cross-sectional studies are relatively simple and inexpensive (Johnson and Clark, 2006) and, given the time and monetary constraints involved in most academic research, it is impractical and unfeasible for researchers to choose longitudinal timeframes (Saunders, Lewis and Thornhill, 2009). Even though it may take weeks to collect the data, once analysed and reported by the researcher, they are considered to be cross-sectional.

A cross-sectional approach to data collection is suitable for the present study because data gathered from a large number of people are comparable, given that they are not affected by changes over time (Gray, 2014). It is, however, important to note that this advantage of cross-sectional research may also be considered as a drawback, since it fails to study changes over time, which is the central premise of longitudinal studies (Easterby-Smith, Thorpe and Jackson, 2012). In other words, cross-sectional data do not measure social phenomenon prior to or after the data are collected. Despite this limitation, research based on a cross-sectional timeframe is highly useful for this thesis, as not only does it provide insights into consumers' attitudes in the Saudi market and opinions regarding consumer confusion at a single point in time, but it also serves as a stepping stone for future researchers to re-analyse the consumer population by further exploring the area and helping marketing managers formulate appropriate marketing strategies.

6.5 Product Selection

Using smartphones to investigate consumer confusion can be justified in a number of ways. First, the number of global smartphone subscriptions is massive. It has been reported that the global number of smartphone users is expected to exceed 2.87

billion people by 2020 (Armstrong, 2017). Second, the frequent use of smartphones on an hourly basis is a motive for considering them as an example product for the current research. This can be seen from the well-established term 'smartphone addiction', as, in 2016, people spent an average of five hours per day using their smartphones (Armstrong, 2017). Third, the selection of smartphones was also driven by the fact that they are classified as a 'high-involvement' product. High-involvement products are examined in consumer-based research due to the ability of such research outcomes to be measured (Beatty, Kahle and Homer, 1988). Fourth, the prices associated with smartphones, specifically devices with high-tech features, maximise consumers' concerns over the perceived benefits of value for money, which implies cases of buying postponement (Dittmar, 2007). Fifth, high-tech features of smartphones may lead to complicating the selection process, meaning that confusion is likely to occur (Dittmar, 2007).

6.6 The Research Instrument: Questionnaire

6.6.1 Questionnaire design

For a study to obtain accurate, valid and reliable data, it is imperative to have a well-designed questionnaire. Questionnaires that are well-designed are not only easy to complete, but are also easy for researchers to analyse and interpret (Mitchell and Jolley, 2013). A questionnaire collects data corresponding to the research aims and objectives while also taking into consideration the statistical requirements of data along with the nature and attributes of the sample population (Saunders, Lewis and Thornhill, 2009). Keeping in mind the research aim and objectives, the questionnaire

design for the current study was based on closed-ended questions, which present a range of alternative responses from which participants are instructed to choose. As closed-ended questions require minimal writing, they are quicker and easier to answer, which, in turn, improves the response rate (Denscombe, 2007). They facilitate recognition of a response rather than remembrance (Frazer and Lawley, 2000), while also enabling coding and capture of data, which significantly reduces the amount of editing, thus leading to an overall decline in the cost and time associated with the process of data collection and analysis (Vaus, 2002). The self-administered questionnaire in this study included a variety of closed questions, including list, category and rating questions. List questions offer participants a list of answers to choose from, whereas category questions are formulated so that each participant's responses are exclusive to a single category (Saunders, Lewis and Thornhill, 2009). The questionnaire included only one list question, in which participants were asked to identify the brand of smartphone they had purchased or intended to purchase. All demographic questions, on the other hand, with the exception of one regarding respondents' ethnicity, were category questions. Finally, the remaining questionnaire design was based on rating questions, which are frequently used to obtain data on subjects' attitudes and perceptions. Like many other rating questionnaires, this study also uses the Likert rating scale, wherein participants were asked to rate their level of agreement/disagreement with a series of statements on a five-point rating scale (1 = strongly disagree; 5 = strongly agree). In order to help respondents, responses to the rating questions were laid out in a straight line instead of multiple lines, as, according to Dillman (2007), this is how respondents generally process data. Because a series of statements was used in the

questionnaire, it was important to maintain the same order response categories so as to avoid confusion among respondents (Dillman, 2007).

Table 6.4: Advantages and Disadvantages of Using the Questionnaire as a Data Collection Method (Wright, 2005; McClelland 1994)

Advantages	Disadvantages
- Useful in collecting information about attitudes, intention and motives - Helpful in maintaining the privacy of participants as they usually respond to questionnaire in an anonymous way - Describing the characteristics of a large sample. - Less expensive - The administration could be from a remote location by using mail or any electronic communicating devices such as emails.	- The standardisation of the questions makes them appropriate for most respondents, but might not be suitable for achieving a clear understanding of what respondents really feel or think - Cannot be edited or altered through data collection, thus it is not a flexible tool - It is important to ensure that a large number of sample will respond to the questionnaire - Sometimes it is difficult for participants to recall information in order to answer some controversial questions.

- Allows more chances to ask more questions, - Allows standardisation of wording and a clear arrangement of the questions, which make more precise - Getting access to respondents over a wide geographically area in a relatively short time - Requires less efforts compared to other survey tools - Providing sufficient time for the respondents to think about their answers, which reduces pressure on them. Therefore, their answers of the questions are more objective. - It does not need much time for the respondents to complete the questionnaire compared to other data collection methods.	- Some participants may choose not to answer the questionnaire, which makes the response rate low - The respondents should be able to read in order to answer the questionnaire - It is hard to ensure whether the target respondent is the one who fills the questionnaire - The researcher cannot clarify any confusion that a questionnaire's question may cause - The possibility for respondents to present their own issues is relatively less, unless there are open-ended questions in the questionnaire -

- It can be used with large sample, which will raise the opportunities of getting statistically significant results.	

6.6.2 **Questionnaire measures**

Key constructs were discussed in details in the conceptual framework chapter. In this regard, the survey questionnaire sought to measure the motives driving the phenomenon of consumer confusion in the Saudi Arabian market and its consequences, as well as the role of cultural dimensions as moderators in the relationship between consumer confusion and its consequences. In order to empirically measure these concepts, a 41-item questionnaire based on a five-point Likert scale was designed using a comprehensive review of the literature as well as by modifying various existing scales. The questionnaire was based on three scales and nine sub-scales: proneness of consumer confusion (i.e. overload confusion, similarity confusion and ambiguity confusion) and its consequences (i.e. word-of-mouth behaviour, customer satisfaction and customer brand loyalty) and cultural dimensions (i.e. risk aversion, language barriers and social interaction). Tables 6.5, 6.6 and 6.7 outline the key items for each construct.

Table 6.5: Measurement Items Designed for Proneness of Consumer Confusion

Construct	Measure	Author
Overload Confusion	- I do not always know exactly which products meet my needs best. - There are so many brands to choose from that I sometimes feel confused. - Owing to the host of stores, it is sometimes difficult to decide where to shop. - Most brands are very similar and it is, therefore, hard to distinguish between them.	Walsh, Hennig-Thurau and Mitchell (2007)
Similarity Confusion	- Owing to the great similarity of many products, it is often difficult to detect new products. - Some brands look so similar that it is uncertain whether they are made by the same manufacturer or not. - Sometimes, I want to buy a product seen in an advertisement, but I cannot identify it clearly from scores of similar products.	Walsh, Hennig-Thurau and Mitchell (2007)

Ambiguity Confusion	- Products such as CD players or VCRs often have so many features that a comparison of different brands is barely possible. - The information I get from advertising often is so vague that it is hard to know what a product can actually do. - When buying a product, I rarely feel sufficiently informed. - When purchasing certain products, such as a computer or hi-fi, I feel uncertain as to product features that are particularly important for me. - When purchasing certain products, I need the help of sales personnel to understand differences between products.	Walsh, Hennig-Thurau and Mitchell (2007)

Table 6.6: Measurement Items Designed for the Consequences of Consumer Confusion

Construct	Measure	Author
Word-of-Mouth Behaviour	- I like introducing new brands and products to my friends. - I like helping people by providing them with information about many kinds of products. - People ask me for information about products, places to shop, or sales. - If someone asked me where to get the best buy on several types of products, I could tell him/her where to shop. - My friends think of me as a good source of information when it comes to new products or sales. - Think about a person who has information about a variety of products and likes to share this information with others. This person knows about new products,	Market mavens adapted from Feick and Price (1987)

	sales, stores and so on, but does not necessarily feel he or she is an expert on one particular product. How well would you say this description fits you?	
Customer Satisfaction	- Overall, I am satisfied with the products I buy.	Macro satisfaction adapted from Spreng and Mackroy (1996)
Customer Brand Loyalty	- Once I find a brand I like, I stick with it. - I usually buy the same brands. - I regularly change the brands I buy.	Loudon and Della Bitta (1993)

Table 6.7: Measurement Items Designed for Cultural Dimensions

Construct	Measure	Author
Risk Aversion	- When I buy a smartphone, I feel it is safer to buy a brand I am familiar with - Rather than trying something that	Measurement scales of risk aversion adapted from Raju (1980)

	I am unsure of, I would stick with a smartphone brand I usually purchase. - I never purchase smartphone brands that I do not know about at the risk of making a mistake.	
Language Barriers	- I often misunderstand important information while purchasing smartphones due to mistranslation. - I highly rate smartphones with instruction manuals and other product-related information that are written in my mother tongue. - Technical jargon in translated instruction manuals is difficult to understand. - I often highly rate the quality of a smartphone whose promotions are written in my mother tongue.	Walker (2002)
Social Interaction	- I sometimes buy smartphone because my family and friends	First and Second Multi-dimensional

	say so.	scale Items of perceived social support adapted from Zimet et al. (1988)
	- Before buying a smartphone, I often ask for suggestions from friends and family	
	- I often identify with other people by buying the same smartphone brands they buy.	Third scale item of susceptibility to social influence adapted from Bohlmann et al. (2006)
	- It is important that others like the smartphone I purchase.	
	- I usually follow group preferences when I feel my choice of a smartphone is inconsistent with their expectations.	Fourth and Fifth scale items of group cohesiveness adapted from Bohlmann et al. (2006)

The consumer confusion proneness scale included 12 items, with the sub-scales comprising overload confusion (four items), similarity confusion (three items), and ambiguity confusion (five items). Moreover, the consequences of consumer confusion scales included ten items, divided into word-of-mouth behaviour (six items), customer satisfaction (one item) and customer brand loyalty (three items). These scales were developed using the recurrent patterns that emerged in the

comprehensive, critical review of the literature, as discussed earlier in the literature review chapter and set out in Tables 7 and 8.

In addition to the above scales, a third 12-item scale based on cultural dimensions was also developed to measure the risk aversion, language barriers and social interaction of Saudi smartphone consumers. In this regard, Raju (1980) developed risk aversion sub-scales comprising three items, while the scale items for language barriers (five items) were based on a study conducted by Walker (2002). Social interaction sub-scales were developed and adapted from the multi-dimensional scale of perceived social support by Zimet el al. (1988), scale item of susceptibility to social influence adapted from Bohlmann et al. (2006) and scale items of Group cohesiveness adapted from Bohlmann et al. (2006). As stated above, a demographic section was part of the questionnaire in order to gather information about respondents' gender, age, marital status, highest level of education, occupation and ethnicity. A validity check item was also included at the beginning of Section II in order to ensure that the sample drawn for the study possessed sufficient knowledge of the research problem at hand. Respondents were permitted to continue with the survey only if they answered 'Yes' to having purchased or intending to purchase a smartphone.

6.7 Target Population and Sampling Design, Procedure and Size

When planning a quantitative research study, explicit consideration should be given to precisely articulating the population of participants that the study seeks to investigate and for which the findings of the study are meant to apply. This

population of individuals, referred to as the target population, is the collation of cases in which the researcher is ultimately interested and to which he wishes to make generalisations (Collis and Hussey, 2009). In other words, it is an aggregation of respondents who share certain characteristics or meet the designated set of criteria related to the research aim and objectives as well as the research questions. Unfortunately, researchers who fail to be explicit about their target population endanger the quality of their findings and failure to clearly and explicitly define the target population from the start is the sign of a study that has likely not been planned rigorously (Roller and Lavrakas, 2015). It is, therefore, imperative for researchers to clearly define the population of interest for the area under investigation. In some cases, the target population is so small that the researcher may be able to gather data from all members of the population (Robson, 2002). However, as in the case of the present study, the population of interest was far too large, with the target population from which data will be collected including all customers in Saudi Arabia with diverse ethnic backgrounds who had previously purchased, or had intended to purchase, a smartphone.

Since it was impracticable and unfeasible to gain access to the entire population of consumers in Saudi Arabia who had previously bought, or had intended to buy, smartphones, only a proportion of the source population was selected to serve as a sample population. Sampling entails the process of drawing a proportion of a population that is representative of a wider population in order to gather data regarding the research problem at hand (Hesse-Biber and Leavy, 2011). The research methods literature identifies two types of sampling designs, one of which is probability sampling, where each individual has an equal chance of being chosen for

a study, while the other is non-probability sampling, where the chance or probability of an individual being selected is not equal (Bryman and Bell, 2007).

As it is difficult to acquire information related to consumers' email addresses, phone number, or home addresses to reach smartphone shoppers in Saudi Arabia, in addition to respecting consumers' privacy and confidentiality of customer information. In addition to the large geographical distribution of the country and taking into consideration time and monetary constraints, a non-probability sampling design is considered to suitable for this study as it is a quick and inexpensive source of obtaining large amounts of data (Saunders, Lewis and Thornhill, 2009) from a sample population of Saudi smartphone consumers.

Bryman and Bell (2007) identified four types of techniques that are available within a non-probability sampling design: convenience, purposive, quota and snowball sampling. Although each of the four techniques is exceedingly expedient under certain conditions, especially in an exploratory study, the researcher selected respondents using a combination of convenience and snowball sampling. Convenience sampling, as its name implies, involves the collection of data from individuals within the population who were willing and conveniently available to provide it (Sekaran and Bougie, 2010). This approach uses social networks as well as the internet to select individuals who meet the eligibility criteria. Additional respondents were enlisted using snowball sampling, in which respondents who were already participating in the study suggested other participants (Adler and Clark, 2010). Snowball sampling is particularly useful when population lists are unavailable, as in the case of the present study, where, while sufficient information is available regarding the number of smartphone users in Saudi Arabia (Al Arabiya

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News, 2012), no information regarding consumers who had either purchased or were intending to purchase a smartphone could be found. Alternative sampling strategies could be used, but it is difficult to convince a considerable number of people to take part in the study. In this study, the combination of convenience and snowball sampling provided easy access to the respondents (Sekaran and Bougie, 2010). It was simple, practical, cost-effective, quick and did not entail a sophisticated sampling frame, which was unavailable (Denscombe, 2007). As a result, responses were collected utilising the self-administered questionnaire method, the primary objective of which was to obtain a quality, diverse sample of consumers from the Saudi Arabian smartphones market.

As mentioned earlier, a self-administered questionnaire method was employed to distribute approximately 700 questionnaires. The respondents were selected randomly outside the largest electronic stores in five cities in the eastern region of Saudi Arabia, which, together with the snowball technique, allowed for a great number of potential participants to complete the survey on their own. In order to gather as many responses as possible, four research assistants were assigned, three of them were male and one research assistant was a female. The allocation of the female assistant was imperative due to some social norms that make some female respondents hesitant to provide answers to male investigators. Without a female assistant there would be great difficulty for the researcher to gain access to the female community. It is also worth noting that the researcher encountered difficulties in obtaining responses from some elderly individuals due to their limited appreciation and understanding of the study importance. They also refused to participate in the current study, claiming that their children usually make such

purchases, which is perfectly reasonable. In order to complete the data collection process, approximately 12 weeks were needed to gain the acquired responses.

An initial analysis was completed in order to identify any further quality problems, such as non- completion or missing data. Response bias was checked and 14 respondents had filled in exactly the same answers in the scale items; therefore, these questionnaires were discarded, which resulted in a usable sample of 401 responses. However, an important concern associated with a non-probability sampling design involving convenience and snowball sampling is the risk of bias, since samples tend to be self-selecting and information is derived only from those individuals who volunteer to participate (Gray, 2014). To overcome this inherent bias, it is important for researchers to draw a sample that effectively represents the population under investigation. Of course, as with other non-probability sampling techniques, the question of the extent to which the results are generalisable to larger populations using convenience and snowball sampling arises (Saunders, Lewis and Thornhill, 2009). In order to increase the likelihood that the current study generates credible data by representing the population of interest, the researcher chose a relatively large sample size, consisting of 700 consumers in Saudi Arabia who had previously purchased, or were intending to purchase, a smartphone. Employing a large sample size gives more accurate estimates of population attributes and provides sufficient information to meet research aims and objectives (Bryman and Bell, 2007). Similarly, it is an important tool for improving the generalisability of research findings, while also partially overcoming bias and enabling subsequent statistical analysis and meaningful conclusions to be drawn. Hair et al. (1998) stated that, for each independent variable, the ratio should never be below five measurements;

however, to avoid making the results specific to the sample, at least 15-20 respondents per variable is the appropriate ratio. Since the independent variables include three variables, the sample of 700 will give a ratio of 167 respondents per independent variable, which proves that a more than sufficient sample size is achieved to allow for generalisability. Similarly, the spread of respondents across different regions of Saudi Arabia, ages, genders, qualifications and ethnicity allows for an increased level of the chosen population's general representation. Although the large sample used in the study is exceedingly beneficial, it was important to take into consideration the fact that large sample size signifies more questionnaires and more time and effort spent in data collection and analysis (Sekaran and Bougie, 2010). In this sense, the cost of survey research increases proportionally with sample size. However, administering a manual survey significantly reduces the costs associated with the study (Saunders, Lewis and Thornhill, 2009).

6.7.1 Pilot study

A pilot study was carried out for quality assurance purposes, to make sure that the questionnaire was well-designed and to explore room for improvements based on the identification of questionnaire-based problems (Hair et al., 2010). Such identification allows the researcher to assess the validity and reliability of the survey questions (Saunders, Lewis and Thornhill, 2012). Therefore, the piloting process can act as a mechanism to pre-test the questionnaire.

The piloting process was carried out at the Deanship of Students Affairs (acting as a Student's Union), King Faisal University, Saudi Arabia, with the clear targeting of students who engaged in smartphone shopping experiences. As a result, 20 questionnaires were self-distributed to such students, with a detailed explanation of

the questionnaire's constructs and measurements. This was followed by an informal ten-minute meeting with each participant. Two main common comments were raised during these discussions:

- Some participants found it difficult to understand the meaning of the terms 'confusion' and 'jargon' after translating into Arabic.

- A few participants spent a considerable amount of time filling in the questionnaire. In this sense, it took 40 minutes for some of them to complete the questionnaire.

Consequently, a few changes were conducted to overcome the abovementioned comments. Firstly, the translation of the term confusion from English to Arabic has been illustrated through several synonyms provided by the research assistants during the data collection. The same solution has been applied to illustrate the meaning of the jargon terms. Secondly, the research assistants were trained sufficiently to facilitate the filling in process of the questionnaire, so that no respondent felt bored while responding to the questions, meaning that the quality of the data has been assured.

6.8 Data Analysis Techniques

6.8.1 Hypothesis testing

The extant literature on research methods suggests that data analysis in a study should be conducted in a manner that explicitly reflects respondents' responses and successfully answers the research questions (Saunders, Lewis and Thornhill, 2009). Given the post-positivist, objectivist framework adopted in this study, data obtained from the survey questionnaire were analysed using a quantitative approach, in which

multiple statistical procedures using SPSS version 22 were applied for the preliminary analysis and a Structural Equation Model (SEM) using AMOS 24 was utilised to confirm and clarify the variables and the model (Arbuckle, 2003). Understanding the structure between the identified variables and then testing the hypotheses in the conceptual model is considered to be the main objective of SEM (Hoyle, 1995). Compared to any other statistical model, its flexibility and comprehensiveness in performing the data analysis make it the most commonly used statistical technique (Hoyle, 1995; Hair et al., 2006). It is recommended to examine the hypothesised relationships amongst the model's constructs (Hair et al., 2006; Byrne, 2009). One of the main aspects behind the selection of SEM for data analysis was that it allowed the researcher to explore causal relationships between variables using factor analysis (Sullivan, 2009; Hair et al., 2010). In this regard, Iacobucci (2009) considered SEM to be better than regression in terms of its ability to reduce standard error, as all variables are examined simultaneously in the SEM model. Therefore, the relationships between the variables are more accurate through SEM (Hair et al., 2010). According to Hair et al. (2006), to evaluate the measurement model in CFA, goodness-of-fit criteria indices need to be examined:

> *The Goodness of Fit (GOF) index is defined as the geometric mean of the average communality and average R2 for all endogenous constructs. It can be used to determine the overall prediction power of the large complex model by accounting for the performance of both measurement and structural parameters.* (Akter, D'Ambra and Ray, 2011, p. 4)

Goodness-of-Fit indices measure and evaluate the degree of correspondence between the actual or observed covariance matrix and that generated from the proposed model.

The adoption of a single-model index may lead to limitations within a research study; therefore, the researcher adopted five indices, which is within the suggested number to establish a good model (Kline, 1998). Therefore, this research assessed the GOF values of the Chi Square test (CMIN), CFI, TLI, SRMR and RMSEA. Table 6.8 below describes the goodness of fit indices.

Table 6.8: Goodness of Fit Measurement Model

Fit indices	Description	Recommended Criteria
CMIN (minimum discrepancy) or Chi-Square ($\chi 2$)	Refers to the difference between the covariance matrices in the estimated model and the data, where the difference is the ratio of $\chi 2$ to the degrees of freedom. Reducing the $\chi 2$ inflation in large sample sizes is the main goal of introducing CIMN. Considering the sample size of 401, this fit index was included as a measure instead of $\chi 2$ (Shah and Goldstein, 2006; Byrne, 2009; Hair et al., 2010).	<3 is good <5 is acceptable

Comparative Fit Index (CFI)	CFI is one of the most commonly used fit indices in quantitative SEM research. This statistical index ranges between 0 and 1. Among others, CFI is considered to be an important fit index for this study as it is not relatively affected by sample size (Bentler, 1990; Tabachnick and Fidell, 2007; Hooper, Coughlan and Mullen, 2008; Byrne, 2010).	>0.95 is superior >0.90 is good >0.80 is tolerable
Tucker-Lewis Index (TLI)	TLI is an incremental fit measure, which measures how well the estimated model fits relative to the alternative baseline model (Hair et al., 2006; Byrne, 2010).	>0.95 is superior >0.90 is good fit
Standardised Root Mean Square Residual (SRMR)	SRMR is recommended to measure the goodness of fit of the model. It refers to the square root of the variance between the residuals of the sampled covariance matrix and the posited covariance model. This index varies between 0 and 1. It is mostly used in order to address the issue of having	<0.08

	two different scales in the study (Hu and Bentler, 1999; Hooper, Coughlan and Mullen, 2008).	
Root Mean Square Error Approximation (RMSEA)	RMSEA is the value of the lack of the model fit per a degree of freedom. The indication of the model's quality as well as the ability of detecting the model misspecifications are provided when using this index. Therefore, it is preferable to use this index (Hooper, Coughlan and Mullen, 2008; Byrne, 2010).	<0.05 superior fit <0.08 good fit <0.1 acceptable fit
GFI		0.834
AGFI		0.795

The fourteen research hypotheses proposed in this study represent the relationships between consumer confusion and its antecedents as well as the moderating impact of cultural dimensions on these relationships. Within the context of this study, consumer confusion proneness in terms of overload confusion, similarity confusion and ambiguity confusion are the independent variables and consumer confusion consequences in terms of customer brand loyalty, customer satisfaction and WOM behaviour are the dependent variables, and cultural dimensions, including risk aversion, social interactions and language barriers, as well as demographics, including gender and age, are moderators. By testing the hypotheses, the study

determines whether cultural factors shape the relationship between consumer confusion proneness and its consequences, i.e. whether their interaction affects the strength of /or weakness the relationship between the dependent and the independent variables.

6.8.2 Descriptive and univariate, bivariate and multivariate techniques

For research purposes, the current study employs multiple descriptive, univariate, bivariate and multivariate statistical procedures to not only test the hypotheses, but also to determine whether the research findings confirm or reject previous studies in the field of consumer confusion. Under univariate analysis, the study analyses characteristics of the distributions one at a time, whereas bivariate analysis involves data on two variables. With regard to descriptive and univariate analyses, a range of techniques, such as percentages, frequencies, means and standard deviations, were utilised to summarise and report the data (Saunders, Lewis and Thornhill, 2009). While demographic variables were tabulated using percentages and frequencies, means and standard deviations were employed to measure central tendencies and variations of all the scale items in the study.

In order to statistically test the study hypotheses, linear regression analysis with multivariate analysis was applied to the questionnaire data, which not only allowed the researcher to make predictions regarding consumer confusion (Field, 2013), but also enabled a moderator analysis, which was used to determine whether relationships between these variables depend on, or are moderated by, the cultural dimensions and demographic variables. This study used moderated regression analysis (MRA) to determine whether moderating effects existed. Hence, a

combination of descriptive, univariate, bivariate and multivariate procedures will statistically verify whether there is a relationship between consumer confusion and its drivers, in addition to the moderating impact of cultural dimensions in this relationship.

6.9 Research Quality

6.9.1 Validity

According to Saunders, Lewis and Thornhill (2009), the extent to which a data collection tool measures what it intends to measure is referred to as validity. That is, validity focuses on the soundness and accuracy of the data collection instrument. Robson (2002) explained that validity operates on the premise that the social phenomenon being investigated can be measured, it aims to verify the truth and exactness of results or conclusions drawn from the data, that the conclusions achieved are dependable and the methodology warrants the conclusions. While no test instrument is completely valid (Patten, 2004), researchers need some kind of assurance that the tool being used to collect data will lead to accurate and precise conclusions (Vaus, 2002). Within the context of this study, content validity, which can be defined as a subjective measure of how suitable the items seem to a group of reviewers who possess some knowledge of the area being investigated, was ensured by circulating the questionnaire to three colleagues (Bryman and Bell, 2007). Face validity was achieved by conducting a pilot study, in which the questionnaire was piloted with 25 respondents, who made recommendations regarding the layout, content and instructions (Mitchell and Jolley, 2013). Validity of the research findings was further ensured by employing multiple sources of data, which included a

comprehensive review of the literature and a survey questionnaire. In doing so, the researcher confirmed and ensured completeness of the findings, thus achieving triangulation (Saunders, Lewis and Thornhill, 2009). Employing a large, representative sample of Saudi smartphone consumers was also critical in attaining valid research findings, as not only does this eradicate the bias associated with the sampling design, but it also improves the generalisability of the study to wider populations of Saudi consumers and other multicultural societies (Mitchell and Jolley, 2013).

6.9.2 Reliability

Although validity has been recognised as being more important than reliability (Patten, 2004), it is important to address issues related to a study's reliability, which refers to the consistency of the data collected, i.e. the replicability or repeatability of research findings under similar or different conditions (Adler and Clark, 2010). Denscombe (2007) indicated that reliability focuses on the confidence a researcher has regarding the ability of the data collection tool to produce similar results when it is repeated on similar subjects. Without the corroboration of other researchers and practitioners able to repeat research procedures, or the ability to employ research instruments and procedures that generate similar findings, researchers would not be able to draw reasonable conclusions, formulate theories, or generalise their research to wider populations (Easterby-Smith, Thorpe and Jackson, 2012). In this study, Cronbach's alpha reliability coefficient ($\alpha > 0.7$) was used to measure the internal reliability of the survey questionnaire. According to George and Mallery (2003), a value of more than 0.7 indicates a high reliability, i.e. a similar study may generate similar results under different conditions. In addition to computing the reliability

coefficient, the researcher provided a detailed description and justification of the research methods employed to collect and analyse data so as to ensure replicability and repeatability (Saunders, Lewis and Thornhill, 2009). Development of the research instrument based on a comprehensive review of the literature, along with modification of scales used in previous consumer confusion research, also helped in significantly improving the reliability of the research findings. Reliability of the research findings was further ensured by the accurate and careful phrasing of each question in order to avoid ambiguity and possible misinterpretation on the part of the respondents. Piloting the questionnaire also provided sufficient knowledge regarding the purpose of the study and helped the researcher achieve reliable research findings (Hesse-Biber and Leavy, 2011).

6.9.3 Back translation

Given the linguistic differences between the language of the current research (i.e. English) and the language of the consumers of the country in which the research was conducted (i.e. Arabic), back translation was adopted to maintain the accuracy and quality of the data collection process (Brislin, 1986). The certification process of the back translation was carried out by two experts in the disciplines of English to Arabic translation. This was followed by another check conducted by a linguistics professor to make sure that the meaning was maintained while translating the questionnaire from Arabic to English, and vice versa (Zikmund, 2003). This multiple-step back translation process was agreed on by the three aforementioned experts in addition to the researcher before starting the data collection stage of the research.

6.10 **Ethical Considerations**

Mitchell and Jolley (2013) stated that ethical considerations are an integral component of any research process. Over the years, scholars and practitioners have identified several ethical guidelines that need to be considered while conducting research, which include voluntary participation, not harming respondents, anonymity and confidentiality, identification of study purpose and analysis and reporting (Bryman and Bell, 2007; Saunders, Lewis and Thornhill, 2009; Easterby-Smith, Thorpe and Jackson, 2012). With regard to voluntary participation, respondents were explicitly informed that their participation in the research was entirely voluntary and they could withdraw at any time. Completion of the survey indicated their consent to participate in the study. In order to avoid possible harm to respondents, no sensitive questions that could cause humiliation or uncomfortable feelings were included in the questionnaire (Vaus, 2002). Anonymity and confidentiality in the current study were accomplished by ensuring respondents that all responses would be confidential and stored in a secure locality, with only the researcher having access to the raw data (Bryman and Bell, 2007). The respondents were asked not to include any information on the questionnaire that could personally identify them (Saunders, Lewis and Thornhill, 2009). Respondents were also provided with sufficient knowledge regarding the purpose of the study and they were informed that the results would only be used for academic purposes. Finally, the researcher ensured the accurate reporting of methods and results by identifying the problems and weaknesses, as well as the strengths, of the study (Adler and Clark, 2010).

6.11 **Conclusion**

Chapter 6 began by discussing the philosophical approach used in the research. The main methodological approach for collecting the data is self-administrated questionnaire, which was considered as the most suitable method in order to identify the relationships between variables and customers purchasing smartphones in Saudi Arabia. The pilot testing and distribution process were discussed. The theoretical rationale of selecting the questionnaire's scales was also explained. The sample design of the research, which is a convenient and non-probability sampling technique, and the decision of this selection was discussed, as well as the sample size decision-making process. Hence, this chapter has set up and explored all dimensions of the approach and practical aspects of undertaking the methodology of this research.

The following chapter will provide and discuss in detail the analysis of data.

CHAPTER SEVEN

Data Analysis

7.1 Introduction

Chapter four consisted of hypothesis development, which led to the formulation of a conceptual framework for adoption within the empirical phase of the present research. This chapter begins with a preliminary analysis of the respondents who purchased/intended to purchase smartphones in Saudi Arabian markets. Section 7.3 then discusses the data preparation process in the research. Cronbach's alpha is then applied to test the internal consistency for the multiple-item variable reliability. The chapter then analyses the collected data through structural equation modelling (SEM) (using AMOS software). The SEM model is further developed through additional testing in order to examine how well independent, dependent and moderator variables are measured.. In this study, Statistical Package for Social Sciences (SPSS) 22 was adopted for the preliminary analysis and AMOS 24 for the Structural Equation Modelling phase (SEM). The preliminary analysis is discussed in the following section.

7.2 Preliminary Analysis

Preliminary analysis consisted of focusing on the data collected from the survey questionnaire, which was examined and processed in order to determine a response to the research hypotheses proposed in the conceptual framework. The quantitative data collected were analysed through SPSS, which is widely adopted in different research domains, e.g. social science, business studies and information systems

research (Zikmund, 2003). Additionally, descriptive statistical techniques, such as frequencies, percentages, mean values and standard deviations, were adopted and the results for all variables were analysed using SPSS, which was adopted to screen the collected data and then prepare them for further analysis with regard to outliers, normality and multicollinearity. Section 7.2.1 will discuss the demographic sample profile used in this study.

7.2.1 Demographic sample profile

A demographic sample profile was conducted to provide a general insight into the respondents in the empirical phase of the research. In addition, to describe the nature of the respondents during the empirical phase, frequency analysis was adopted. Eight questions were formulated within each questionnaire in order to identify the demographic profile of the respondents, including information relating to gender, age, marital status, academic qualifications, occupation, whether the respondents used or owned a smartphone and smartphone brands. The results are highlighted in Table 7.1, which also provides individual statistics for gender.

Table 7.1: Respondents' Gender

		Frequency	Percent	Valid Percent
Valid	Male	239	59.6	59.6
	Female	162	40.4	40.4
	Total	401	100.0	100.0

Table 7.1 highlights that male respondents were higher than female respondents, e.g. 60% male respondents and 40% female respondents. However, it is worth noting that

communication is quite restricted between men and women due to cultural values in Saudi Arabia and, therefore, it is difficult for men to access women's communities. For this reason, female responses to the questionnaires were in the minority. Table 7.2 further breaks down the findings in Table 7.1 into the following age groups: 18–24, 25–34, 35–44, 45–54 and 55 or over.

Table 7.2: Respondents' Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 24	33	8.2	8.2	8.2
	25 to 34	295	73.6	73.6	81.8
	35 to 44	56	14.0	14.0	95.8
	45 to 54	10	2.5	2.5	98.3
	55 or over	7	1.7	1.7	100.0
	Total	401	100.0	100.0	

Table 7.2 highlights the age group 25–34 as the most responsive towards smartphones, with a response rate of over 73%. It is worth noting that over 45% of the population in Saudi Arabia is within the age group of 15-39, which highlights that a very large percentage of the population is fairly young (Saudi Statistical Department, 2008). In addition, the researcher encountered difficulties in obtaining more responses from older people, which may have been due to the fact that being investigated or providing information about purchasing experiences is yet to be accepted by older people, particularly when compared to younger people in Saudi Arabia. The researcher also noticed that some older people refused to fill in the

survey as they argued that their children usually make such purchases, which is

perfectly reasonable. Table 7.3 categorises the research respondents in terms of

ethnic background (African, Arab, Asian, European, or other).

Table 7.3: Respondents' Ethnic Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Africa	2	.5	.5	.5
	Arab	377	94.0	94.3	94.8
	Asian	4	1.0	1.0	95.8
	European	11	2.7	2.8	98.5
	Other (please specify)	6	1.5	1.5	100.0
	Total	400	99.8	100.0	
Missing		1	.2		
Total		401	100.0		

According to Table 7.3, 94% of the respondents were of Arab ethnicity, while the

remaining respondents were either Asian, African, European, or American. Despite

the existence of a fairly large foreign population in Saudi Arabia, with over 30% of

the population composed of foreigners (Central Department of Statistics and

Information, 2011), the researcher was unable to obtain a higher response from non-

Arab ethnicities.

In terms of marital status, a majority of the respondents were married, whereas approximately 20% of the respondents were single. Another area of focus in the research was the educational level of respondents, and a majority of the respondents were educated and employed. With regard to smartphone brands purchased, a majority of the respondents owned either Apple or Samsung smartphones. Remaining demographic statistics are outlined in Appendix A.

7.2.2 Descriptive statistics of scale scores

The descriptive statistics for the study's constructs will be outlined in this section and the respondent's scoring of each item in the study's constructs will be highlighted in Table 7.4. As previously explained in the methodology chapter, the researcher used a five-point Likert scale ranging from 'strongly disagree' (item scale point 1) and 'strongly agree' (item scale point 5) to measure all of the constructs' items, which are as follows: Consumer Confusion Proneness is represented by Overload Confusion (OC), Similarity Confusion (SC) and Ambiguity Confusion (AC); Consequences of Consumer Confusion is represented by Word-of-Mouth Behaviour (WOM), Customer Brand Loyalty (BL) and Customer Satisfaction (CS); and Cultural Dimensions is represented by Risk Aversion between (RA), Social Interaction (SI) and Language Barriers (LB).

Table 7.4: Descriptive Statistics of Scale Scores

Items	Mean	Std. Deviation
Consumer Confusion Proneness		
Overload Confusion		

Sometimes, I am unsure of exactly which smartphone best meets my needs **(OC1)**	4.18	1.064
There are so many smartphone's brands/models to choose from that I sometimes feel confused **(OC2)**	4.13	1.096
There are so many smartphone stores/websites to shop from, which sometimes make it difficult to decide where to shop **(OC3)**	4.25	0.973
Most smartphones available in the market are similar, which can make it hard to distinguish between brands **(OC4)**	3.63	0.913
Similarity Confusion		
It is often difficult to notice new models of smartphones due to the growing similarity of smartphone brands **(SC1)**	3.67	0.881
Some smartphones brands look so similar that it is difficult to know whether they have been made by the same manufacturer or not **(SC2)**	3.63	0.911
Smartphones seen in advertisements are often difficult to clearly recognise due to range of similar products **(SC3)**	3.70	0.948
Ambiguity Confusion		
Many smartphones have such a huge range functions that it is hard to compare different brands **(AC1)**	4.23	0.916
The information I obtain from advertisements and promotions is often so vague that it is difficult to understand what smartphones can actually do **(AC2)**	4.29	0.905
When purchasing smartphones, I barely feel sufficiently informed **(AC3)**	4.26	0.963
When buying a certain smartphone, I feel uncertain as to what functions of smartphone are best to meet my needs **(AC4)**	4.19	1.033
When buying a certain smartphone, I often look for the help of others to understand **(AC5)**	4.25	0.981
Consequences of Consumer Confusion		

Word-of-mouth Behaviour		
I like introducing new smartphones to my friends and relatives **(WOM1)**	2.32	1.004
I like helping people by providing them with information about many kinds of smartphones **(WOM2)**	2.21	1.017
I am always asked by people for information about smartphones brands, places to shop from or sales **(WOM3)**	2.14	1.061
If someone asked me where to get the best buy on several kinds of smartphones, I could tell (him/her) where to buy from **(WOM4)**	2.22	1.118
My friends and relatives think of me as good source of information when it comes to smartphone brands **(WOM5)**	2.15	0.997
Think about a person who has information about a diversity of smartphone's brands and likes to share this information with others. This person knows about new brands, sorts, sales and so on, but does not necessarily feel he or she is an expert on one particular brand. How well would you say this description fits you? **(WOM6)**	2.29	1.041
Customer Satisfaction		
Overall, I am satisfied with the smartphone I buy **(CS1)**	2.41	1.159
Customer brand loyalty		
Once I find a smartphone brand I like, I stick with it **(BL1)**	3.97	0.732
I usually buy the same smartphone brands **(BL2)**	4.00	0.755
I change smartphone brands I buy regularly **(BL3)**	1.91	0.807
Cultural Dimensions		
Risk Aversion		
I am cautious in trying new smartphone brands **(RA1)**	4.08	0.797
Rather than trying something that I am unsure of, I would stick with a smartphone brand I usually purchase **(RA2)**	4.15	0.840

I never purchase smartphone brands that I do not know about at the risk of making a mistake **(RA3)**	4.27	0.897
Social Interaction		
Sometimes I buy smartphones because my family and friends say so **(SI1)**	3.97	1.232
Family and friends are my main sources of information before purchasing a smartphone through evidences **(SI2)**	4.06	1.026
Before buying a smartphone, I often ask for suggestions from friends and family **(SI3)**	4.13	0.919
It is important that others like the smartphone I purchase **(SI4)**	3.96	1.251
I usually bias to the group preferences when I feel my choice of a smartphone is discrepant with their expectations **(SI5)**	3.93	1.096
Language Barriers		
I often misunderstand important information while purchasing smartphones due to mistranslation **(LB1)**	3.82	1.065
I highly rate smartphones with instruction manuals and other product-related information that are written in my mother tongue **(LB2)**	3.94	0.906
Technical jargon in translated instruction manuals is difficult to understand **(LB3)**	3.97	0.827

Table 7.4 illustrates the descriptive statistics of the study; it is shown that the items' means ranged within the scale midpoint. The lowest mean was 1.91 ($\pm$ 0.807), relating to BL3 in the customer brand loyalty construct, whereas the highest mean was 4.29 ($\pm$0.905), relating to AC2 in the ambiguity confusion construct.

The data screening procedure applied in the research will be discussed in the next section.

7.2.3 **Data screening**

Data screening is a vital preliminary step in the process of conducting quantitative analysis, as it helps the researcher to prepare data for further analysis, e.g. outliers, normality, SEM analysis and the identification of missing data (Hair et al., 2010). Additionally, data screening aids the researcher in eliminating surplus data (i.e. data that may not have great relevance to the research aim), which leads to enhancement in the quality of the overall research data (Acton et al., 2009). Data screening is defined as a scenario wherein the researcher has to check all retrieved data against the questions in a survey in order to monitor whether respondents have failed to answer any question (Pallant, 2013). The process of data preparation involved the information retrieved from questionnaires being coded and then entered into the SPSS programme. The process was then monitored for entry errors and missing data after retrieved information was entered into SPSS. Missing data are further discussed in the next section.

7.2.4 **Missing data**

Missing data result from a respondent's data entry in either electronic or hard copy questionnaires, e.g. a respondent is unable to answer questions or deliberately does not answer questions due to either privacy issues or time constraints (Tsikriktsis, 2005). Missing data are widely considered as a potential issue during the data analysis phase, especially in the case of quantitative research (Tabachnick and Fidell, 2000). Missing data can be a significant problem during the application of conventional statistical methods, which involves software during the analysis of collected data, where any gaps in data will require a thorough review, thus leading to

a delay in the research (Allison, 2009). Missing data may be data that are crucial in realising the research aim, which further reinforces the requirement of minimising its possible occurrence (Baraldi and Enders, 2010). Handling of missing data is further discussed in the next section.

7.2.4.1 *Handling of missing data*

Missing data can be addressed through different approaches; for example, Hair et al. (2014) suggested that all observations with missing values of more than 15% should be removed by the researcher. Other sources identify 10% as a threshold for missing data, where a breach of 10% will result in the complete removal of related data (Cohen and Cohen, 1983). In the case of this research, which utilised a paper-based questionnaire, there were, fortunately, very few instances of missing data and the majority of any missing data was linked to questions focusing on demographic information. It is worth noting that the instance of missing data in the research was significantly below the 15% and 10% thresholds as recommended by Hair et al. (2014) and Cohen and Cohen (1983), respectively. The fact that the questionnaire was well designed and had been translated may have led to this small amount of missing data. Therefore, in the case of this research, the process of removing missing data was not carried out. The following section will describe the outliers associated with this study.

7.2.5 Outliers (univariate and multivariate)

The existence of outliers in a study's dataset is considered to be an issue during the preliminary analysis, one which can significantly impact on the framework model that the researcher is looking to adopt in the research study. Outlier cases are

important to the preliminary analysis as a result of containing extreme values that exist outside of the normal values found in the data (Howell, 2007). Tabachnick and Fidell (2007, p. 72) defined an outlier as 'a case with such an extreme value on one variable or such a strange combination of scores on two or more variables.' Outliers generally indicate observations that are numerically different from the rest of the data (Rogelberg, 2004).

A number of possibilities exist in regards to outliers, where an outlier can be seen as data entry or measurement errors, extreme values, or representing the intended responses of participants. However, any outlier is still recognised as a correct and legitimate value that is distinct from the rest of the values (Hair et al., 1998; Tabachnick and Fidell, 2007). In this sense, an outlying value should not be neglected and it is, therefore, a difficult decision for the researcher whether to delete or keep outlier cases (Hair et al., 1998; Tabachnick and Fidell, 2007). Univariate outliers are explained in the next section.

7.2.5.1 *Univariate outliers*

According to Pallant (2010, pp. 58–62), univariate outlier cases occur with a single variable, where each individual item in the questionnaire is examined by using box plots and histograms. All items within this research have been examined in line with Pallant's (2013) suggestion. In the current study, trimmed means were selected in order to compare the differences between the 5% of outliers that were removed from the top and bottom of the data set. As a result, a comparison of the data to the results indicated that there were no significant differences between the trimmed and non-trimmed results. Therefore, the univariate outliers did not influence the results in any way. This is highlighted in Table 7.5 below.

Table 7.5: The Univariate Results Test

Item	Mean	5% trimmed mean	St. deviation	Item	Mean	5% trimmed mean	St. deviation
OC1	4.18	4.30	1.064	WOM6	2.29	2.26	1.041
OC2	4.13	4.24	1.096	CS1	2.41	2.35	1.159
OC3	4.25	4.35	0.973	BL1	3.97	4.03	0.732
OC4	3.63	3.68	0.913	BL2	4.00	4.07	0.755
SC1	3.67	3.71	0.881	BL3	1.91	1.83	0.807
SC2	3.63	3.67	0.911	RT1	4.08	4.16	0.797
SC3	3.70	3.75	0.948	RT2	4.15	4.24	0.840
AC1	4.23	4.33	0.916	RT3	4.27	4.38	0.897
AC2	4.29	4.39	0.905	SI1	3.97	4.07	1.232
AC3	4.26	4.37	0.963	SI2	4.06	4.17	1.026
AC4	4.19	4.29	1.033	SI3	4.13	4.23	0.919
AC5	4.25	4.36	0.981	SI4	3.96	4.07	1.251
WOM1	2.32	2.27	1.004	SI5	3.93	4.03	1.096
WOM2	2.21	2.14	1.017	LB1	3.82	3.91	1.065
WOM3	2.14	2.07	1.061	LB2	3.94	4.01	0.906
WOM4	2.22	2.15	1.118	LB3	3.97	4.03	0.827
WOM5	2.15	2.09	0.997				

Multivariate outliers will be explained and discussed in the next section.

7.2.5.2   Multivariate outliers

Multivariate outliers were measured by the Mahalanobis distance (D2). According to Tabachnick and Fidell (2007, p. 99), 'Mahalanobis is evaluated as D2 with degrees of freedom equal to the number of variables.' In this study, observations were assessed based on evaluating the distances between observations of the Mahalanobis distances, which follows the procedure of Byrne (2019). Table 7.6 highlights an example of Mahalanbis distance values extracted from AMOS 24.

Table 7.6: Observations Farthest from the Centroid (Mahalanobis Distance)

Observation number	Mahalanobis d-squared	p1	p2
1	160.721	.000	.000
2	143.661	.000	.000
4	130.642	.000	.000
5	129.019	.000	.000
7	126.286	.000	.000
8	126.187	.000	.000
3	126.177	.000	.000
6	125.549	.000	.000
9	122.765	.000	.000
10	110.437	.000	.000
12	105.095	.000	.000
13	102.987	.000	.000
11	101.930	.000	.000
15	101.024	.000	.000
14	99.938	.000	.000
16	97.296	.000	.000
18	90.878	.000	.000
19	90.182	.000	.000

Observation number	Mahalanobis d-squared	p1	p2
21	87.746	.000	.000
23	84.291	.000	.000
20	83.856	.000	.000
24	83.703	.000	.000
22	81.904	.000	.000
25	81.328	.000	.000
17	80.928	.000	.000
29	78.821	.000	.000
26	78.279	.000	.000
28	77.144	.000	.000
30	77.140	.000	.000
27	76.849	.000	.000
31	76.660	.000	.000
32	76.055	.000	.000
33	72.452	.000	.000
35	70.356	.000	.000
38	70.265	.000	.000
36	69.812	.000	.000
34	68.879	.000	.000
41	68.783	.000	.000
39	67.845	.000	.000
40	66.730	.000	.000
42	66.397	.000	.000
37	66.270	.000	.000
44	63.398	.001	.000
43	62.827	.001	.000
47	61.396	.001	.000
48	60.076	.002	.000

Observation number	Mahalanobis d-squared	p1	p2
50	59.962	.002	.000
45	59.902	.002	.000
51	59.629	.002	.000
46	59.432	.002	.000
49	57.751	.003	.000
52	56.797	.004	.000
54	56.621	.005	.000
53	56.558	.005	.000
55	55.212	.007	.000
56	55.078	.007	.000
57	54.404	.008	.000
58	54.301	.008	.000
61	53.479	.010	.000
62	52.754	.012	.000
63	51.948	.014	.000
64	51.570	.016	.000
65	51.393	.016	.000
66	51.312	.017	.000
67	51.186	.017	.000
70	50.388	.020	.000
68	50.346	.021	.000
69	50.309	.021	.000
72	49.089	.027	.000
59	48.277	.032	.000
75	47.852	.035	.000
71	47.634	.037	.000
77	46.819	.044	.000
78	46.756	.045	.000

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Observation number	Mahalanobis d-squared	p1	p2
79	46.532	.047	.000
74	46.156	.050	.000
73	45.855	.054	.000
76	45.129	.062	.000
80	45.114	.062	.000
81	44.780	.066	.000
83	44.699	.067	.000
84	44.464	.070	.000
87	43.095	.091	.000
60	42.959	.093	.000
89	42.923	.094	.000
90	42.806	.096	.000
88	42.574	.100	.000
92	42.432	.103	.000
82	42.011	.111	.000
96	41.875	.114	.000
95	41.578	.120	.000
98	41.137	.129	.000
100	41.071	.131	.000
93	41.034	.131	.000
85	40.826	.136	.000
86	40.786	.137	.000
91	40.677	.140	.000
102	40.575	.142	.000
104	40.147	.153	.000
94	40.021	.156	.000

As can be seen in Table 7.6, there were no significant differences between the Mahalanobis distance values. Only cases 1 and 2 were different from the others, but, taking into consideration the sample size (>200), as suggested by Hair et al. (2010), these cannot be considered as substantial multivariate outliers. Therefore, it can be concluded that there were no significant multivariate outliers distorting the analysis. It is also worth noting that an evaluation of Cook's distance values, as recommended by Tabachnick and Fidell (2007), was also performed and all the values were below the recommended cut-off point. Therefore, there were no outliers that could influence the results of the analysis.

Detailed checks were performed on all cases for univariate and multivariate outliers. If such cases did indeed exist in this research, then they would have been retained, as they are valid cases and represent the reality of people's opinions (Hair et al., 1998). A discussion on normality will take place in the next section.

7.2.6 **Normality (univariate and multivariate)**

Normality refers to the extent to which the distribution of the sample data is consistent with, or fits in with, the normal distribution (Howell, 2007). According to Hair et al. (2006, p. 79), 'if the variation from the normal distribution is sufficiently large, all resulting statistics are invalid, because normality is required to use the F and T statistics.' Skewness and kurtosis are two of the more common statistical approaches for measuring the normality of each variable or the composite scores (Tabachnick and Fidell, 2007).

Skewness of the data refers to the distribution, where the symmetric distribution of the means is measured in order to observe the cluster in regard to its relationship to the normal distribution curve (Howell, 2007). Kurtosis measures the degree of the

peak or flatness of the sample distribution, as compared to a normal distribution, through depicting the curve shape, which mainly represents the concentration of the values around the centre and the two tails (Howell, 2007). In the case of outliers, normality in the data is also measured using univariate and multivariate analyses. Such analysis enables the data to be evaluated for normal distribution (Pole and Bondy, 2010), which will be further discussed in the following sections.

7.2.6.1   Univariate normality

The first type of normality is univariate normality, which refers to the examination of data distribution (Byrne, 2009; Hair et al., 2010). Assessment of normality can be viewed as a bell-shaped curve in a histogram or a box-and-whisker plot, where the results indicate distribution of the data linked to a normal distribution (Hair et al., 2010; Pallant, 2013). The skewness of the data can be indicated by where the tail is pointing, while the kurtosis refers to the peak or flatness of the distribution (Byrne, 2009; Hair et al., 2010). These values are summarised in Table 7.7.

Values generated from skewness and kurtosis ranging from between -2 and 2 are categorised as a normal distribution (Bachman, 2004). On the other hand, Curran, West and Finch (1996) argued that the threshold values for skewness and kurtosis range from between the absolute values of -2.0 and +7.0.

As can be seen in Table 7.7, the assessment of normality was conducted for all items and scales using skewness and kurtosis and the results were within the normal range, except for BL2, which was 4.5. However, after taking into consideration the fine level of skewness and kurtosis, the data were considered to be within the acceptable range (Curran, West and Finch, 1996) and, thus, transformation of the data was not required (Hair et al., 2006, p. 82). In addition, Hair et al. (2013) and Pallant (2013)

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suggested that 200 cases or more are considered to be sufficient in overcoming issues

relating to non-normal distributions. Therefore, as the sample size consists of 401

cases, univariate normality was supported by the data in this study.

Table 7.7: Skewness and Kurtosis Test of Normality

Item	Skewness	Kurtosis	Item	Skewness	Kurtosis
OC1	-1.526	1.780	WOM6	.524	-.637
OC2	-1.380	1.034	CS1	.807	-.246
OC3	-1.367	1.368	BL1	-1.369	3.802
OC4	-1.034	.799	BL2	-1.533	4.529
SC1	-.849	.460	BL3	1.207	2.352
SC2	-.986	.670	RT1	-1.338	2.852
SC3	-.879	.454	RT2	-1.453	2.968
AC1	-1.265	1.241	RT3	-1.403	1.959
AC2	-1.430	1.858	SI1	-1.190	,383
AC3	-1.450	1.831	SI2	-1.436	1.786
AC4	-1.351	1.180	SI3	-1.449	2,459
AC5	-1.554	2.158	SI4	-1.152	.226
WOM1	.869	.039	SI5	-1.100	.645
WOM2	1.009	.546	LB1	-1.104	.745
WOM3	.855	.075	LB2	-1.048	1.322
WOM4	.768	-.258	LB3	-.797	1.072
WOM5	.771	.023	LB4	-.896	1.092

Multivariate normality in terms of this research study will be explained and

discussed in the following section.

7.2.6.2 Multivariate normality

Multivariate normality is the second type of normality, in which there is a direct connection between univariate normality and multivariate normality, given that they both rely on each other (Vaus, 2002). Multivariate normality is utilised as an indicator for determining whether the single variable or combinations of variables have a normal distribution (Vaus, 2002). An assessment of multivariate normality was conducted using the normal P-P plot of regression, standardised by a residual (Vaus, 2002). The illustration in Figure 7.1 confirms a normal distribution for word-of-mouth behaviour.
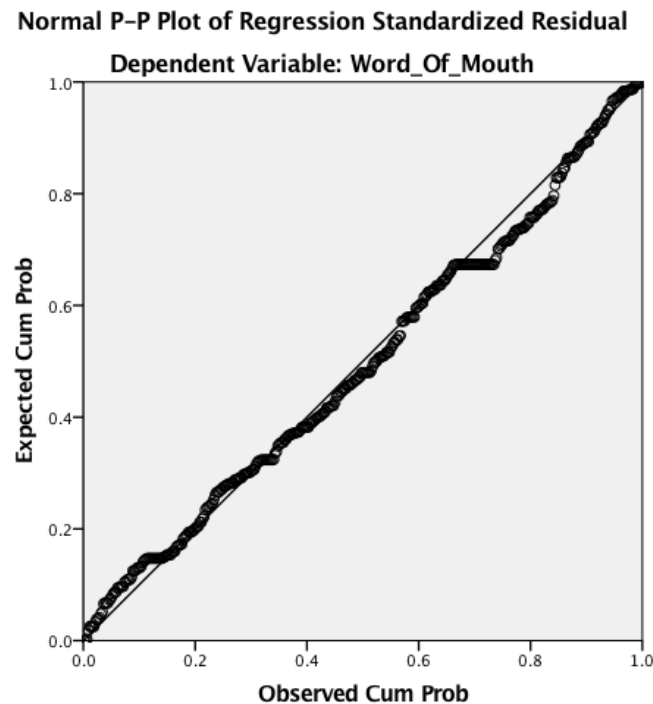
Figure 7.1: Multivariate Normal n-P plot of Regression Standardised Residual

7.2.7 **Construct reliability**

Researchers generally utilise construct reliability to examine the extent to which the adopted measurement indicators are reliable. Construct reliability can be defined as

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the consistency of a measure (Hair et al., 2014) and it assesses to what extent all items in the scale represent one underlying construct. The internal consistency of a construct is considered to be one of the main concerns of reliability (Cortina, 1993; Pallant, 2013).

The inter-item consistency reliability (Cronbach's alpha coefficient) measure was used in this research, as it is considered to be the main reliability test for evaluating the internal consistency of a measurement (Churchill, 1979; Steenkamp and van Trijp, 1991; Cortina, 1993). Cronbach's alpha is preferred over other measures of reliability by academic researchers due to its accessibility and clarity.

The standard threshold for Cronbach's alpha in terms of a valid construct is 0.7 or higher (Hair et al., 1998; Pallant, 2013). In addition, Hair et al. (2014) also suggested that Cronbach's alpha is an acceptable measure to justify the reliability of the scale and ensure it is between 0.6 and 0.7, especially for exploratory research. While agreeing with Hair et al. (2014) regarding Cronbach's alpha, Bacon (2004) also added that a measure lower than 0.7 should be accepted in the case of a large sample size. On the other hand, a Cronbach's alpha value of less than 0.6 is worrying (Malhotra, 2004).

Table 7.8 shows the Cronbach's alpha values for all items. The factor loadings for all items were above 0.7 and Cronbach's values were above 0.8, except for Brand Loyalty, which was -.688. Therefore, this construct was treated by deleting the negative item (BL3), the decision for which was based on the low result of the alpha coefficient and its negative impact on the construct. After removing this item, the alpha coefficient for this construct increased to 0.845. It is worth noting that the construct Customer Satisfaction was being measured by only one general item, i.e.

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macro satisfaction and, therefore, it was not possible to calculate factor loading and reliability.

In summary, the internal consistencies of all the items in this study were in accordance with the proposed threshold of > 0.7 (Tabachnick and Fidell, 2007; Pallant, 2013).

Table 7.8: Reliability (Cronbach's Alpha) for the Measurements of this Study

Constructs and Items	Factor loading	Corrected Item Total Correlation	Cronbach's alpha
Consumer confusion proneness			
Overload Confusion (OC) (N of Items: 4)			**0.880**
OC1	.882	0.780	
OC2	.915	0.833	
OC3	.826	0.695	
OC4	.803	0.665	
Similarity Confusion (SC) (N of Items: 3)			**0.848**
SC1	0.871	0.701	
SC2	0.927	0.811	
SC3	0.830	0.643	
Ambiguity Confusion (AC)			**0.910**

(N of Items: 5)			
AC1	0.850	0.760	
AC2	0.853	0.764	
AC3	0.848	0.759	
AC4	0.900	0.835	
AC5	0.838	0.747	
Consequences of Consumer Confusion			
Word-of-mouth Behaviour (WOM) (N of Items: 6)		**0.926**	
WOM1	0.841	0.766	
WOM2	0.908	0.856	
WOM3	0.873	0.808	
WOM4	0.870	0.806	
WOM5	0.874	0.812	
WOM6	0.763	0.675	
Brand Loyalty (BL) (N of Items: 3)		**-.688**	
BL1	0.890	0.135	
BL2	0.893	0.104	
BL3	-0.811(deleted)	-.610	
Cultural Dimensions			
Risk Aversion (RA) (N of Items: 3)		**0.831**	
RA1	0.864	0.675	
RA2	0.928	0.805	
RA3	0.806	0.604	
Social Interaction (SI)		**0.908**	

(N of Items: 5)			
SI1	0.859	0.777	
SI2	0.852	0.769	
SI3	0.840	0.745	
SI4	0.883	0.812	
SI5	0.857	0.773	
Language Barriers **(N of Items: 4)**			**0.869**
LB1	0.827	0.695	0.695
LB2	0.877	0.770	
LB3	0.845	0.715	
LB4	0.858	0.732	

Section 7.2.8 will discuss the adoption of multicollinearity in a research study.

7.2.8 **Multicollinearity**

Multicollinearity is an issue associated with multivariate techniques of data analysis, which occurs when three or more independent variables are highly correlated with each other and a lack of multicollinearity is considered to be a vital factor during regression (Hair et al., 2006). The statistical approach adopted in this research to detect multicollinearity was the variable inflation matrix (VIF), which refers to the inflation of the variance of regression coefficients and the tolerance effect (Tabachnick and Fidell, 2000; Pallant, 2007). According to Pallant (2007), to be confident that data are unaffected by multicollinearity, the VIF should not exceed 10 and the tolerance effect should not be lower than 0.1.

This research study consisted of analysis of data for multicollinearity, which included the collinearity diagnostics table provided by SPSS, which is shown in the

regressions in Table 7.8. It was concluded that multicollinearity was not an issue during the regression of data, as the largest VIF was 4.543, suggesting that, for all items, the data was not affected by multicollinearity, while the tolerance effect for all items was not below 0.1 (See Appendix B). Further examination of the retrieved data was carried out by using confirmatory factor analysis (CFA), specifically through the application of discriminant validity. Factor analysis will be discussed in the next section.

7.3 Common Method Variance (CMV)

Common method variance (CMV) has been defined as 'the amount of spurious covariance shared among variables because of the common method used in collecting data' (Malhotra, Kim and Patil, 2006, p. 1865). The primary reason for using CMV is to prove that the underlying concepts are really measured by constructs (Podsakoff, 2003).

CMV is considered to be an issue of construct validity (Straub, Boudreau and Gefen 2004). Therefore, procedural remedies are suggested by Podsakoff (2003) to control CMV, e.g. the scale items should be carefully constructed, developed and improved and the questionnaire should then be pre-tested, all of which aim to minimise any kind of uncertainty with questionnaires (Tourangeau, Rips and Rasinski, 2000).

In addition to procedural remedies, Harman's one-factor test was applied to determine whether CMV was a problem (Podsakoff, 2003). According to Gefen et al. (2000), CMV would be assumed to exist if the results of the principle component analysis through using exploratory factor analysis indicated that only one factor accounted for the majority of the covariance among measures.

The results of using Harman's one-factor test (see Table 7.9) show that the total

variance was below the threshold of 50%. Therefore, it can be concluded that CMV

was not an issue in this study.

Table 7.9: Total Variance Explained

Component	Total	Initial Eigen values % of Variance	Cumulative %	Extraction Sums of Squared Loadings Total	% of Variance	Cumulative %
1	14.820	46.314	46.314	14.820	46.314	46.314
2	2.308	7.214	53.528			
3	1.976	6.174	59.702			
4	1.703	5.323	65.025			
5	1.344	4.200	69.225			
6	1.038	3.243	72.468			
7	.780	2.436	74.904			
8	.695	2.173	77.078			
9	.647	2.022	79.099			
10	.510	1.595	80.694			
11	.472	1.474	82.169			
12	.454	1.418	83.587			
13	.422	1.319	84.907			
14	.410	1.282	86.188			
15	.397	1.239	87.428			
16	.367	1.148	88.575			
17	.366	1.143	89.718			
18	.334	1.043	90.761			
19	.320	1.001	91.761			
20	.309	.967	92.728			
21	.289	.903	93.631			
22	.281	.877	94.508			

23	.233	.728	95.237			
24	.223	.697	95.934			
25	.207	.646	96.579			
26	.188	.587	97.166			
27	.183	.572	97.738			
28	.182	.568	98.306			
29	.164	.513	98.819			
30	.146	.457	99.276			
31	.127	.396	99.672			
32	.105	.328	100.000			

Extraction Method: Principal Component Analysis.

7.4 Structural Equation Modelling (SEM)

Structural Equation Modelling (SEM) was adopted in the current study with the use of AMOSS 24, which is a common statistical technique used to analyse and examine the hypothesised relationships amongst the model's constructs (Hair et al., 2006; Byrne, 2010). One of the main factors behind the selection of SEM for data analysis was that it allowed the researcher to explore causal relationships between variables using factor analysis (Sullivan, 2009; Hair et al., 2010). As a result, SEM involves two main benefits: the hypothesised model can be examined simultaneously instead of testing single construct relationships one at a time (Byrne, 2013) and applying SEM also allows researchers to quickly identify how the variables have come together to create patterns as well as indicating relationships or factors, including those that may not have been originally expected. In addition, Hair et al. (2010) suggested that SEM is able to estimate measurement errors and integrate these errors

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into the model. From this, Lacobucci et al. (2007) considered SEM to be better than regression in terms of its ability to reduce the standard error, as all variables are examined simultaneously. Therefore, the relationships between the variables are more accurate using SEM (Hair et al., 2010). Hooper et al. (2008) indicated that the SEM technique is popular in the research areas of economics, sociology, psychology and, more generally, in the area of social science research.

The process of SEM starts with constructing a theoretical model and testing it against the gathered data (Byrne, 2009; Hair et al., 2010; Kline, 2010) because the aim is to identify and confirm the model that best represents the data and reflects the underlying theory, otherwise known as the 'model fit' (Byrne, 2009; Hair et al., 2010; Kline, 2010). When the statistical analysis of the theoretical model is conducted, the parameters can potentially expose requirements for a process of iterative refinements and modifications (Bollen, 1989; Byrne, 2009; Hair et al., 2010; Kline, 2010). Bollen (1989) indicated that the theoretical model reflecting the relationships between observed and latent variables is known as a structural model, wherein the causal relationships between variables are explained by using SEM.

7.4.1 **AMOS Graphics 24**

The Analysis of Moment Structures (AMOS) programme, version 24, is one of the most recent statistical software packages to be used for analysing the mean and covariance structures. It was selected for this research over other programs, such as Smart PLS, LISREL, Mplus and EQS, due to its ease of use within a graphic interface, its distinctive capabilities to analyse and assess models with complex multivariate relationships and its popularity amongst researchers in previous related studies (Tabachnick and Fidell, 2000; Hair et al., 2006; Byrne, 2013). In addition, the

results provided by AMOS can be interpreted and drawn in graphical form as well as in text and tables. A discussion of confirmatory factor analysis will take place in the following section.

7.4.2 Confirmatory factor analysis (CFA)

Confirmatory factor analysis is included in the SEM statistical analysis method and is considered as the measurement model (Byrne, 2009); therefore, it can be concluded that CFA applies the same principles and evaluation requirements as SEM. Additionally, CFA assists researchers in testing the identified theories against the hypotheses, which contributes towards the analysis and understanding of the retrieved data (Adams et al., 2007; Kline, 2010). The proposed model of this study is generally based on the researcher's knowledge of the underlying latent variable structure and theoretical finding from the literature (Kline, 1998) and, in this case, the CFA test is able to examine all factors in terms of psychometric and unidimensional areas. Therefore, CFA was identified as an appropriate statistical technique for this research in order to confirm the effect of cultural dimensions on the relationships between consumer confusion proneness and its consequences. According to Hair et al. (2006), to evaluate the measurement model utilising CFA, goodness-of-fit criteria indices, reliability, convergent validity and discriminant validity need to be examined. The following section will introduce and explain the model estimation procedure.

7.4.2.1 Goodness of Fit (GOF) indices

> *[A] Goodness of Fit (GOF) index is defined as the geometric mean of the*
> *average communality and average R2 for all endogenous constructs. It can*

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be used to determine the overall prediction power of the large complex model

by accounting for the performance of both measurement and structural

parameters (Akter, D'Ambra and Ray, 2011, p. 4).

Determining the GOF between the proposed structural model and the data of the study was one of the goals for assessing the models. The degree of consistency between the actual/observed covariance matrix and that yielded from the proposed model is measured by GOF indices. According to Byrne (2010), the proposed research model is considered to be acceptable when the GOF is sufficient. Kline (2010) added that the scenario where the data perfectly fit the proposed research model is rare. Therefore, the term 'residual' is included within the model-fitting approach in SEM, where, according to various authors (e.g. Byrne, 2002; 2009), this represents the differences between the posited research model, including its parameters and the sampled data.

There are three types of fit measures (i.e. absolute fit indices, incremental fit indices and parsimonious fit indices) that can be applied in SEM (Hair et al., 1998; Byrne, 2010). However, establishing a good model based on multiple indicators was the focus for this research, in addition to the confirmation of construct validity; therefore, the following fit indices were utilised to evaluate the posited model in this study: CMIN, CFI, TLI, SRMR and RMSEA. The assessment of a measurement model's fit is based on a variety of different approaches provided by these fit indices (Byrne, 2009; Hair et al., 2010). It is worth noting that no single fix index is considered to be an accurate criterion for evaluating either the structural or measurement models (Schumacker and Lomax, 2010). However, various authors

recommend that three to six indices are an acceptable number for assessment of the measurement or structural models (Kline, 1998; Garsen, 2008).

However, the adoption of these fit indices can be debatable, as the use of their respective thresholds is affected by two main factors: the size of the sample and number of items utilised in the theoretical model. According to various scholars (e.g. Byrne, 2010; Hair et al., 2010; Kline, 2010), these indices are considered as a guideline rather than a confirmation of the model fit. Hair et al. (2010, p. 671) also confirmed that '[i]t is simply not practical to apply a single set of cut-off rules that apply for all SEM models of any type.' Therefore, the model indices' thresholds should not be strictly applied on large samples and complicated models.

Additionally, sample sizes greater than 250 and models consisting of more than 30 items should not apply the model indices' thresholds (Byrne, 2010; Hair et al., 2010). For example, some researchers indicate that, in the case of complex models with large sample sizes, the GOF threshold is 0.8 (Dawes, Faulkner and Sharp, 1998; Greenspoon and Saklofske, 1998; Byrne, 2009; Harrington, 2009). The next section presents the CFA measurements model followed by the GOF measures to evaluate how the collected data fits the hypothesised measurement model.

As can be seen graphically in Figure 7.2, the causal relationship between the observed variables and the underlying latent variables have been examined using CFA (Byrne, 2013). In addition, the standardised regression weights for each item are also shown.

Blunch (2008) agreed with earlier researchers regarding the thresholds of the comparative fit index (CFI) and the GOF being 0.8 and added that the modification of the model can be applied when the GOF is below this threshold. So, as a rule of

thumb for this research, a better fit for the posited model to the data was identified

when the values for CFI and GOF were closer to 1. However, Hooper et al. (2008)

highlighted that a CMIN, RMR and RMSEA closer to zero would be a better fit for

the model. Additionally, deleting more items to increase the model fit is not

advisable, as Hair et al. (2010) pointed out that this practice may decrease the study's

theoretical integrity. Table 7.10 provides a comprehensive description of the

statistical concepts and summarises their required threshold values, in addition to

comparing them to the research results.
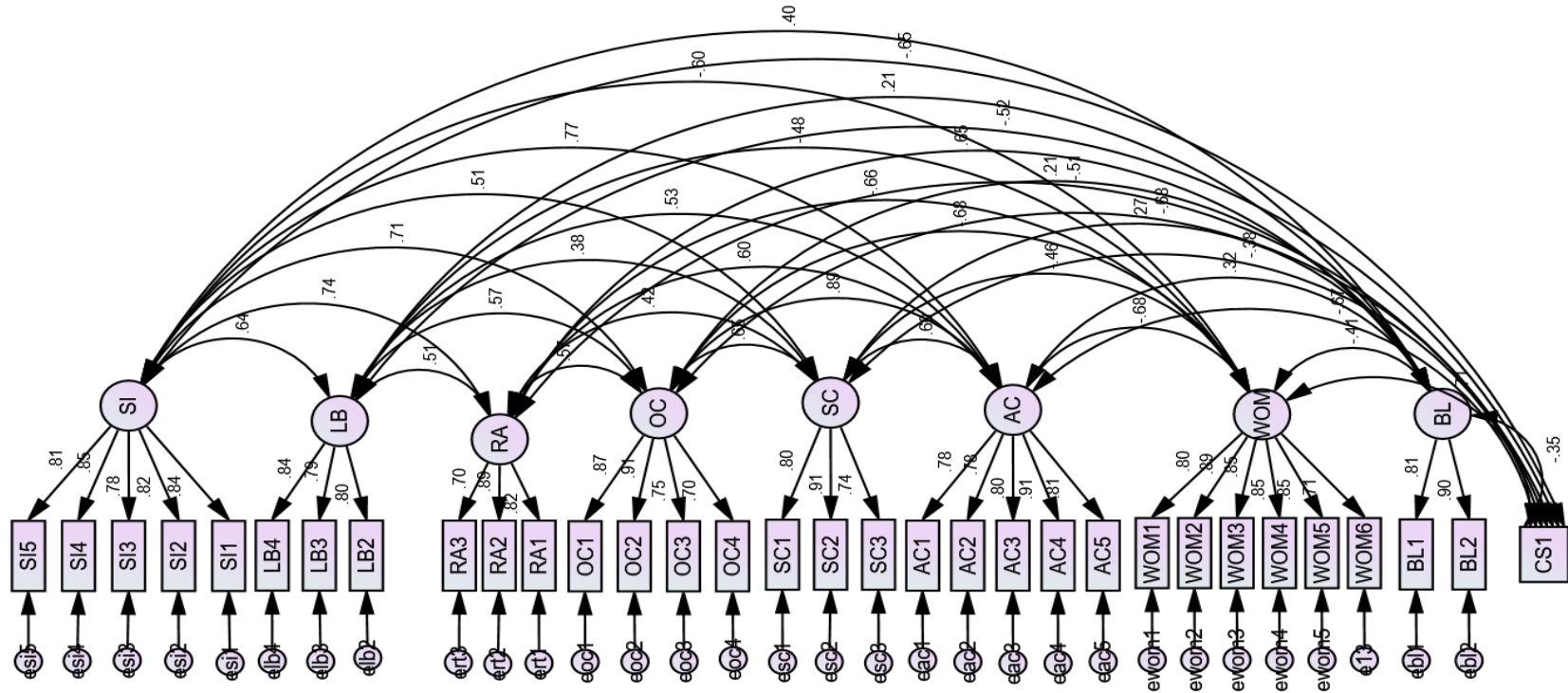
Figure 7.2: Confirmatory factor analysis for scale development (SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty, CS= Customer Satisfaction, LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion).

Table 7.10: Measurement of Fit Indices and Comparison of Data from the Research Study

Fit Indices	Description	Recommended Criteria	Data Results (GOF Value)
CMIN (minimum discrepancy) or Chi-Square ($\chi 2$)	Refers to the difference between the covariance matrices in the estimated model to the data, where the difference is the ratio of $\chi 2$ to the degrees of freedom. Reducing the $\chi 2$ inflation in large sample sizes is the main goal of introducing CIMN. Considering the sample size of 401, this fit index was included as a measure instead of $\chi 2$. (Shah and Goldstein, 2006; Hair et al., 2010; Byrne, 2013).	<3 is good <5 is acceptable	2.990
Comparative Fit Index (CFI)	CFI is one of the most commonly used fit indices in quantitative SEM research. This statistical index ranges between 0 and 1. CFI is considered to be an important fit index among others for this study, as it is not relatively affected by sample size (Bentler, 1990; Tabachnick and Fidell, 2007; Hooper, Coughlan and Mullen, 2008; Byrne, 2010).	>0.95 is superior >0.90 is good >0.80 is tolerable	0.915

Tucker-Lewis Index (TLI)	TLI is an incremental fit measure, which measures how well the estimated model fits relative to the alternative baseline model (Hair et al., 2006; Byrne, 2010).	>0.95 is superior >0.90 is good fit	.902
Standardised Root Mean Square Residual (SRMR)	SRMR is recommended to use in order to measure the goodness of fit of the model. It refers to the square root of the variance between the residuals of the sampled covariance matrix and the posited covariance model. This index varies between 0 and 1. It is mostly used to address the issue of having two different scales in the study (Hu and Bentler, 1999; Hooper, Coughlan and Mullen, 2008).	<0.08	0.051
Root Mean Square Error Approximation (RMSEA)	RMSEA is the value of the lack of the model fit per a degree of freedom. The indication of the model's quality as well as the ability of detecting the model's misspecifications are provided when using this index. Therefore, it is preferable to use	<0.05 superior fit <0.08 good fit <0.1 acceptable fit	.071

	this index (Hooper, Coughlan and Mullen, 2008; Byrne, 2010).		

As can be seen from Table 7.10, the researcher used five model fit indices to evaluate the model in the current study: CMIN/DF to the degrees of freedom, CFI, TLI, SRMR and RMSEA. Together, these indices of fit provide a variety of methods to assess the fit of the theoretical model (Hair et al., 2010). Assessment of the model fit is vital, as it helps researchers to improve the model fit through detecting any item that should be eliminated. After examining the selected indices, the model fit results of CFA revealed acceptable values.

Construct validity is defined and discussed in the next section.

7.4.2.2 Construct validity

Construct validity is defined as the degree to which a test measures what it purports or claims to be measuring (Hair et al., 2006). Calder, Phillips and Tybout (1982) added that 'construct validity considers whether or not the operational variables used to observe co-variation can be interpreted in terms of the theoretical constructs.' According to Hair et al. (2006), construct validity focuses on the degree to which measurement items represent the construct they are designed to measure. Convergent validity and discriminant validity are two branches of construct validity, where both focus on examining the strength of correlations amongst variables.

Convergent validity represents higher correlations between variables that load into the same construct (Vaus, 2002). Hair et al. (2006) stated that construct validity evaluates whether or not a construct's items share a high number of correlations. Two techniques were used in this study to evaluate convergent validity for all

constructs: average variance extracted (AVE) and construct reliability (CR; Hair et al., 2006; Byrne, 2010; Hair et al., 2010). According to Hair et al. (2006), the AVE is accepted when each item has a correlation result of above 0.5, while a threshold of above 0.7 is acceptable for CR.

Discriminant validity can be defined as the extent to which each construct is distinct from other constructs (Hair et al., 2006). Two theoretically different constructs are compared in the case of discriminant validity in order to ensure that there is indeed a difference between the two constructs (Hair et al., 2010). The presence of two correlations above 0.85 is an indication of discriminant validity and that they may represent the same construct (Hair et al., 2010). In such cases, various authors recommend that these constructs should be deleted or merged (Tabachnick and Fidell, 2007; Kline, 2010). Additionally, to measure discriminant validity, every construct's square root of the AVE should be above the inter-construct correlation estimate (Hair et al., 2006).

Table 7.11: Discriminant and Convergent Validity Assessment

	CR	AVE	SC	LB	SI	RA	AC	WOM	BL	OC
SC	0.860	0.673	**0.821**							
LB	0.853	0.659	0.384	**0.812**						
SI	0.911	0.673	0.505	0.641	**0.820**					
RA	0.848	0.652	0.419	0.508	0.736	**0.807**				
AC	0.910	0.669	0.594	0.533	0.767	0.596	**0.818**			
WOM	0.928	0.683	-0.463	-0.481	-0.602	-0.659	-0.682	**0.826**		
BL	0.847	0.735	0.273	0.215	0.402	0.657	0.326	-0.418	**0.857**	
OC	0.886	0.662	0.651	0.566	0.705	0.567	0.891	-0.677	0.213	**0.814**

(SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty, CS= Customer Satisfaction, LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion)

As can be seen from Table 7.11, AVE and CR were calculated using AMOS Graphics and the convergent validity for each construct was within the recommended values. Table 7.11 also illustrates the assessment of discriminant validity for all constructs and the results indicate there are existing discriminant validity issues with regard to ambiguity confusion (AC) and overload confusion (OC). Therefore, it was decided to conduct an Exploratory Factor Analysis (EFA) to evaluate if there are existing cross-loadings between items. It is worth noting that, in Walsh et al.'s (2016) study that was conducted in a cross-cultural context, an exploratory factor analysis was performed due to construct validity issues. Furthermore, discriminant validly issues can be found in some consumer confusion studies. For example, Schweizer, Kotouc and Wagner's (2006) study found discriminant validly issues with overload confusion and similarity confusion construct. However, in this study, based on the construct validity assessment in Table 7.11, it can be noticed that there is an indication of the discriminant validity issue for OC and AC. It is worth noting that such discriminant validity issue is present between the two constructs due to the cultural context of the study. Therefore, the next section will conduct an exploratory factor analysis to further evaluate the discriminant validity issue.

7.5 Exploratory Factor Analysis

The EFA is the second type of factor analysis. It is utilised to explore the probable interrelationships between a set of variables. EFA is reliant upon statistical results and helps the researcher to gather items that fit a specific construct ensuring the determined construct underlying a set of items (Hair et al., 2006).

Since the research's results with regard to the construct validity assessment showed that there is an indication of discriminant validity issue between two constructs of

consumer confusion proneness, namely overload confusion (OC) and ambiguity

confusion (AC), the researcher decided to conduct EFA to examine the

interrelationship among each construct of consumer confusion proneness.

The EFA began with assessing the Kaiser-Meyer-Olkin (KMO). The result of the

KMO has a value of .941 which is above the threshold value of .6 and Bartlett's Test

of Sphericity showed a significant p-value of <.001; based on these results, it is

concluded that the sample data are appropriate to processed to conducting the EFA.

Table 7.12: The Assessment of Item Communalities

	Initial	Extraction
OC1	.751	.663
OC2	.777	.716
OC3	.596	.591
SC1	.633	.696
SC2	.680	.815
SC3	.576	.567
AC1	.645	.618
AC2	.634	.608
AC3	.621	.614
AC4	.777	.800
AC5	.635	.631
OC4	.593	.569

Extraction Method: Maximum

Likelihood.

The second step is to evaluate the communalities, which will help understand the

degree that a measurement item correlates with all other items. Table 7.12 presents

the assessment of item communalities.

According to Tabachnick and Fidell (2000), the measurement item values should not

be below .32. As can be seen in Table 7.10, all measurement items are above this

critical value.

Furthermore, Table 7.13 presents the results of the rotated factor matrix, which is

calculated through utilising the extraction method of maximum likelihood and using

a varimax rotation.

Table 7.13: Rotated Factor Matrix

	Factor	
	1	2
AC4	.857	
OC2	.782	.321
AC5	.758	
OC1	.752	.314
AC3	.752	
AC2	.729	
AC1	.723	.309
OC3	.674	.369
SC2		.871
SC1		.809
SC3	.452	.602
OC4	.494	.570

Extraction Method:

Maximum Likelihood.

Rotation Method: Varimax

with Kaiser Normalisation.[a]

a. Rotation converged in three

iterations.

Table 7.13 shows the results of the rotated factor matrix, which demonstrate that

only two factors are extracted, showing that most of the overload confusion (OC) and

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ambiguity confusion (AC) measurement items are loading on the same factor. In addition, the results show that the measurement item OC4 and SC3 are cross-loading on two different factors with a different value of 0.2; there are cross-loading issues with factor SC3 and OC4. Therefore, the results indicate that SC3 and OC4 are possible candidates for deletion. However, it is decided to delete item OC4 and rerunning the EFA again to verify whether the cross-loading issue for SC3 will still be present.

After deleting the measurement item OC4, which has a cross-loading issue, the Kaiser-Meyer-Olkin (KMO) is .941, which is above the threshold value of .6 and Bartlett's Test of Sphericity showed a significant *p-value* <.001. Furthermore, Table 7.14 shows the results of the rotated factor matrix after the deletion of the measurement item of OC4.

Table 7.14: Rotated Factor Matrix

| | Factor | |
	1	2
AC4	.857	
OC2	.790	
AC5	.766	
OC1	.762	
AC3	.753	
AC2	.735	
AC1	.734	
OC3	.681	.346
SC2		.974
SC1		.716
SC3	.470	.582

Extraction Method:

Maximum Likelihood.

Rotation Method: Varimax

with Kaiser Normalisation.[a]

a. Rotation converged in three

iterations.

The results show SC3 still has a cross-loading issue below the difference value 0.2.

and, therefore, it was decided to delete the measurement item SC3. To ensure that

there are no more cross-loading issues, it was decided to run another the EFA

assessment. The final EFA assessment shows a Kaiser-Meyer-Olkin (KMO) value of

.897 and a Bartlett's Test of Sphericity significant *p-value* <.001. Table 7.15 presents

the EFA rotated factor matrix.

Table 7.15: Rotated Factor Matrix

	Factor	
	1	2
AC4	.868	
OC2	.794	
AC5	.768	
OC1	.764	
AC3	.762	
AC2	.741	
AC1	.737	
OC3	.689	.338
SC2		.885
SC1		.774

Extraction Method: Maximum

Likelihood.

Rotation Method: Varimax

with Kaiser Normalisation.[a]

a. Rotation converged in three

iterations.

Table 7.15 shows there are no cross-loadings present except for OC3, which is loading on two factors. However, the cross-loading difference related to the measurement item OC3 is above 0.2.

In summary, the EFA revealed the measurement items of overload confusion and ambiguity confusion loaded on one factor, reflecting that overload confusion and ambiguity confusion are representing one construct. Based on this, it was decided to combine overload/ambiguity confusion into one construct, which is named incertitude confusion. Therefore, it is concluded that the EFA assessment is completed and the next section will conduct the Confirmatory Factor Analysis (CFA) to confirm the measurement model.

7.6 Confirmatory Factor Analysis

According to Byrne (2010), Confirmatory Factor Analysis (CFA) is utilised to examine the psychometric and unidimentionality of all study measures. Thus, the measurement model is examined in order to assure that each item loads on its expected latent factor in the CFA, as generated from EFA (Thompson, 2004). As described previously in this chapter, goodness-of-fit criteria indices, validity and reliability are used in order to assess the measurement model (Hair et al., 2006). It is worth noting that the goodness-of-fit criteria indices were presented earlier in this chapter in Table 7.10. The modified measurement model CFA is graphically presented in Figure 7.3.

Figure 7.3 shows that the causal relationship between the observed variables and the underlying latent variables have been examined using CFA (Byrne, 2013). In addition, the standardised regression weights for each item are also shown.

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Furthermore, the values used to evaluate the goodness of-fit are presented in Table 7.16.
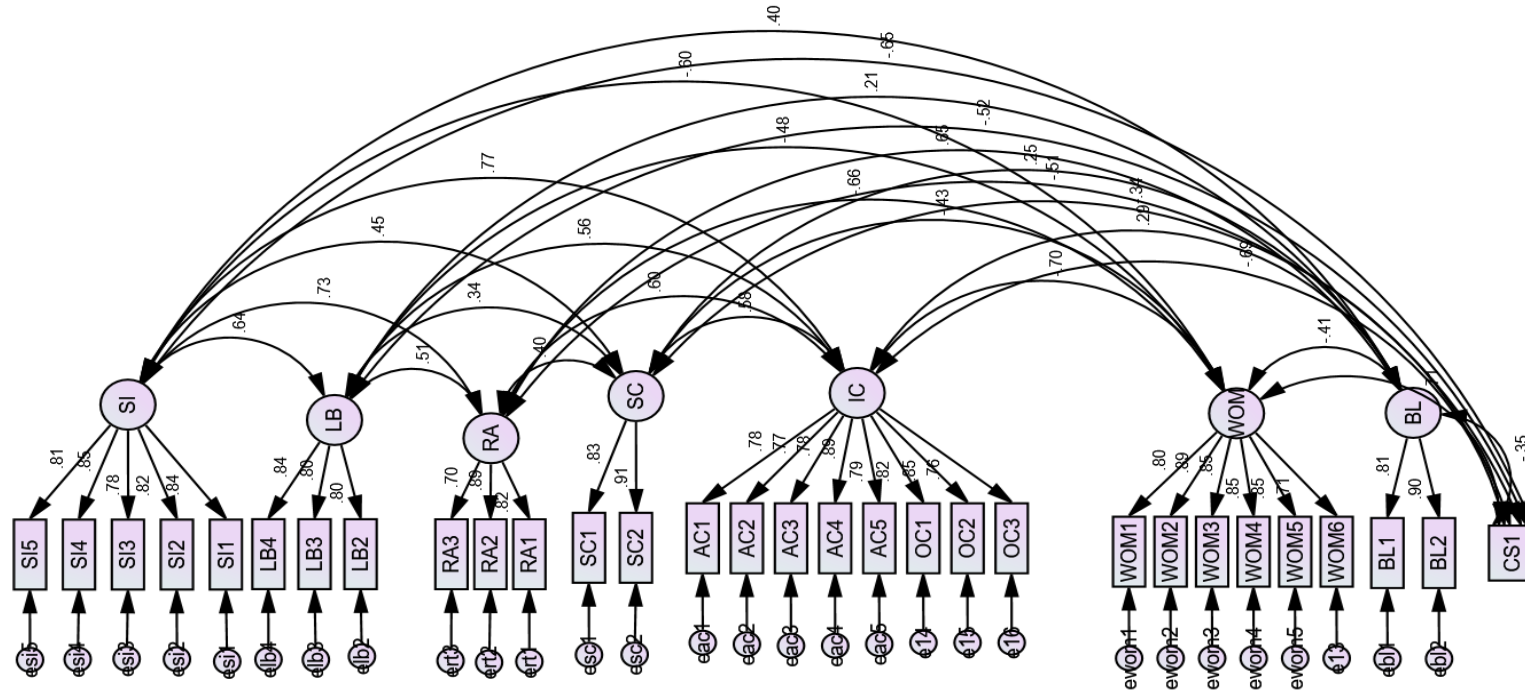
Figure 7.3: The measurement model CFA: (SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty, CS= Customer Satisfaction, LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion)

Table 7.16: Measurement of Fit Indices and Comparison of the Data from the Research Study

Fit Indices	Description	Recommended Criteria	Data Results (GOF Value)
CMIN/DF (minimum discrepancy) or Chi-Square ($\chi2$)	Refers to the difference between the covariance matrices in the estimated model to the data, where the difference is the ratio of $\chi2$ to the degrees of freedom. Reducing the $\chi2$ inflation in large sample sizes is the main goal of introducing CIMN. Considering the sample size of 401, this fit index was included as a measure instead of $\chi2$ (Shah and Goldstein, 2006; Hair et al., 2010; Byrne, 2013).	<3 is good <5 is acceptable	3.034
Comparative Fit Index (CFI)	CFI is one of the most commonly used fit indices in quantitative SEM research. This statistical index ranges between 0 and 1. CFI is considered to be an important fit index among others for this study, as it is not relatively affected by sample size (Bentler, 1990; Tabachnick and Fidell, 2007; Hooper, Coughlan and Mullen, 2008; Byrne, 2010).	>0.95 is superior >0.90 is good >0.80 is tolerable	.918

Tucker-Lewis Index (TLI)	TLI is an incremental fit measure, which measures how well the estimated model fits relative to the alternative baseline model (Hair et al., 2006; Byrne, 2010).	>0.95 is superior >0.90 is good fit	.906
Standardised Root Mean Square Residual (SRMR)	SRMR is recommended to use in order to measure the goodness of fit of the model. It refers to the square root of the variance between the residuals of the sampled covariance matrix and the posited covariance model. This index varies between 0 and 1. It is mostly used to address the issue of having two different scales in the study (Hu and Bentler, 1999; Hooper, Coughlan and Mullen, 2008).	<0.08	.0406
Root Mean Square Error Approximation (RMSEA)	RMSEA is the value of the lack of the model fit per a degree of freedom. The indication of the model's quality as well as the ability of detecting the model's misspecifications are provided when using this index. Therefore, it is preferable to use	<0.05 superior fit <0.08 good fit <0.1 acceptable fit	.071

		this index (Hooper, Coughlan and Mullen, 2008; Byrne, 2010).		

As can be seen from Table 7.16, the five model GOF indices which are used to evaluate the measurement and structural model in the SEM analysis in this study are the CMIN/DF, CFI, TLI, SRMR and RMSEA. The CMIN/DF has a value of 3.034, CFI value is .918, TLI has a value of .906, SRMR value is .0406 and the REMSA value is .071. After examining the selected indices, the model fit results of CFA showed acceptable model fit values.

7.6.1 **Construct validity of the new modified measurement model**

Hair et al. (2006) stated that construct validity refers to the degree to which measurement items denote the construct they are designed to measure. The construct validity assessment includes Construct Reliability (CR) convergent and discriminant validity. Table 7.17 highlights the CR convergent and discernment validity assessment.

Table 7.17: Discriminant and Convergent Validity Assessment

		CR	AVE	MSV	SC	LB	SI	IC	WOM	BL	RA
SC	0.861	0.757	0.331	**0.870**						
LB	0.853	0.660	0.411	0.340	**0.812**					
SI	0.911	0.673	0.585	0.455	0.641	**0.821**				
IC	0.937	0.651	0.585	0.575	0.562	0.765	**0.807**			
WOM	0.928	0.683	0.490	-0.425	-0.481	-0.602	-0.700	**0.826**		
BL	0.847	0.735	0.429	0.253	0.215	0.402	0.293	-0.417	**0.857**	
RA	0.848	0.653	0.540	0.396	0.508	0.735	0.602	-0.658	0.655	**0.808**

(SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty, CS= Customer Satisfaction, LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion)

As shown in Table 7.17, all CR is above 0.7 (Hair et al., 2006). Furthermore, the Average Variance Extracted (AVE) is used to assess convergent validity. The AVE values for all constructs in Table 7.17 are above 0.5. The discriminant validity is assessed by evaluating the square root of AVE where it should be higher than the inter-correlation values between the constructs. The square root of the AVE is represented by the bolded values in Table 7.17 where the values should be higher than the inter-correlation values between constructs.

7.7 Hypotheses of the Modified Structural Model

Following the assessment of the CFA and assessing the validity and reliability for each construct with regard to the modified measurement model, this section of the chapter tests the modified structural model and its hypotheses. Figure 7.4 represents the modified structural model.
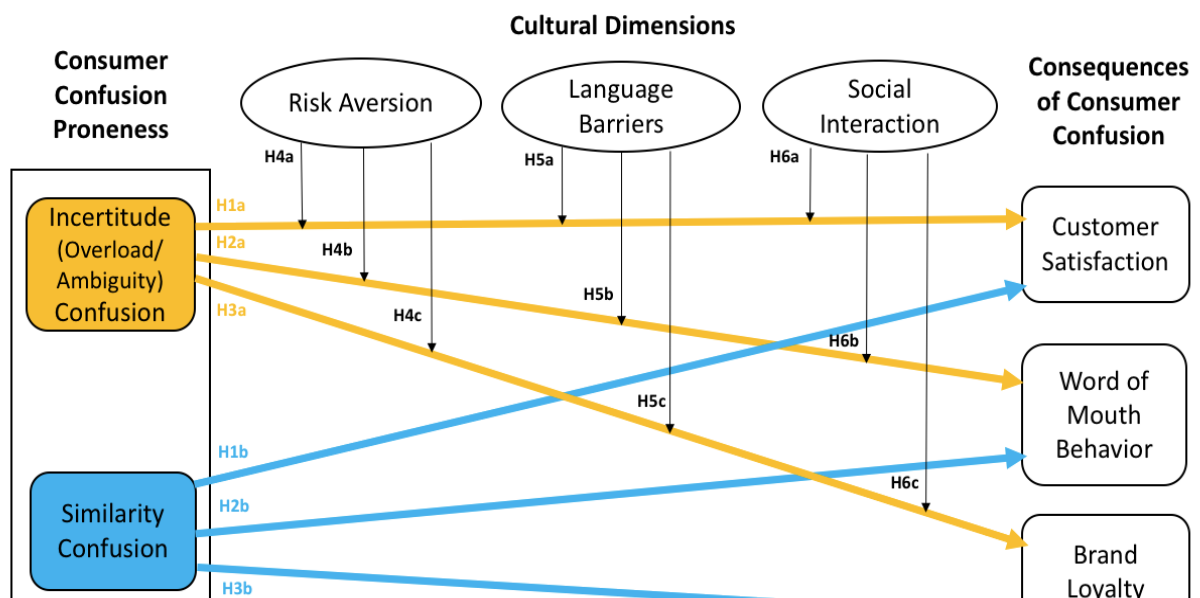
Figure 7.4: The hypothesised modified structural model.

The original hypothesised structural model for this study presented in Chapter 4 was modified due a discriminant validity issue between overload confusion and ambiguity confusion. As mentioned earlier in this chapter, it was decided to combine overload confusion and ambiguity confusion based on the EFA. This has resulted in the creation of a new construct named incertitude confusion. Therefore, some

modification or removal is required to the hypotheses related to overload confusion and ambiguity confusion. The hypotheses that modified are H1a, H2a, H3a, H4a, H5a. H6a, H7a, H8a, H9a, H10a, H11a and H12a. The hypotheses that cannot be tested and are removed are H1c, H2c, H3c, H4b, H5c, H6b, H7b, H8c, H9b, H10b and H12c.

All the hypotheses that are going to be tested in the modifies structural model are presented in Table 7.18 below:

Table 7.18: Research Hypotheses of this Study

H1a. Incertitude confusion proneness negatively influences consumer satisfaction on product.
H1b. Similarity confusion proneness negatively influences consumer satisfaction on product.
H2a. Incertitude confusion proneness positively influences word-of-mouth behaviour.
H2b. Similarity confusion proneness negatively influences word-of-mouth behaviour.
H3a. Incertitude confusion proneness positively influences brand loyalty.
H3b. Similarity confusion proneness negatively influences brand loyalty
H4a. Risk Aversion moderates the relationship between Incertitude confusion proneness and consumer satisfaction.
H4b. Risk Aversion moderates the relationship between Incertitude confusion proneness and word-of-mouth behaviour.
H4c. Risk Aversion moderates the relationship between similarity confusion proneness on the brand loyalty of consumers.
H5a. Language barriers moderate the relationship between Incertitude confusion proneness and consumer satisfaction.
H5b. Language barriers moderate the relationship between Incertitude confusion proneness and word-of-mouth behaviour.
H5c. Language barriers moderate the relationship between Incertitude confusion proneness and the brand loyalty of consumers.

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| H6a. Social interaction moderates the relationship between Incertitude confusion proneness and consumer satisfaction. |
| H6b. Social interaction moderates the relationship between Incertitude confusion proneness and word-of-mouth behaviour. |
| H6c. Social interaction moderates the relationship between Incertitude confusion proneness and the brand loyalty of consumers. |

Source: this study

The next section discusses testing the hypotheses of the modified structural model.

7.7.1 Modified hypothesised structural model results

According to Byrne (2010), Confirmatory Factor Analysis (CFA) is utilised to examine the psychometric and unidimentionality of all study measures. Thus, the measurement model is examined in order to assure that each item loads on its expected latent factor in the CFA as generated from EFA (Thompson, 2004). As described previously in this chapter, goodness-of-fit criteria indices, validity and reliability are used in order to assess the measurement model (Hair et al., 2006). It is worth noting that the goodness-of-fit criteria indices are presented earlier in this chapter in Table 7.10. Furthermore, the values used to evaluate the goodness of-fit are presented in Table 7.16.

As can be seen from Table 7.19, the five model GOF indices used to assess the measurement and structural model in the SEM analysis in this study are CMIN/DF, CFI, TLI, SRMR and RMSEA. The CMIN/DF has a value of 3.907, CFI value is .929, TLI has a value of .915, SRMR value is .037 and the REMSA value is .085. After examining the selected indices, the model fit results of CFA revealed acceptable model fit values.

Table 7.19: Goodness of Fit Measurement Model

Fit indices	The data result (GOF Value)	recommended criteria of GOF	Reference
CMIN/DF	3.907	<3 is good, <5 is acceptable	Shah and Goldstein (2006), Hair et al. (2010), Byrne (2013).
CFI	.929	>0.95 is superior, >0.90 is good >0.80 is tolerable.	Bentler (1990), Tabachnick and Fidell (2007), Hooper, Coughlan and Mullen (2008), Byrne (2010).
TLI	.915	>0.95 is superior, >0.90 is good fit	Hair et al. (2006), Byrne (2010).
SRMR	.037	<0.08 is good	Hu and Bentler (1999).
RMSEA	.085	<0.05 superior fit <0.08 good fit <0.1 acceptable fit	Hu and Bentler (1999), Hooper Coughlan and Mullen (2008), Byrne (2010), Schumacker and Lomax (2010).

7.7.2 Hypotheses investigation: Direct relationships

Section 7.7 indicated that the structural model had a satisfactory fit, so the next step was to examine the research hypotheses. Table 7.17 shows the path coefficients for the research model. The structural equation modelling began with an examination of

the hypothesis results regarding the direct relationships in the research model,

followed by an examination of the moderating effects within the same model.
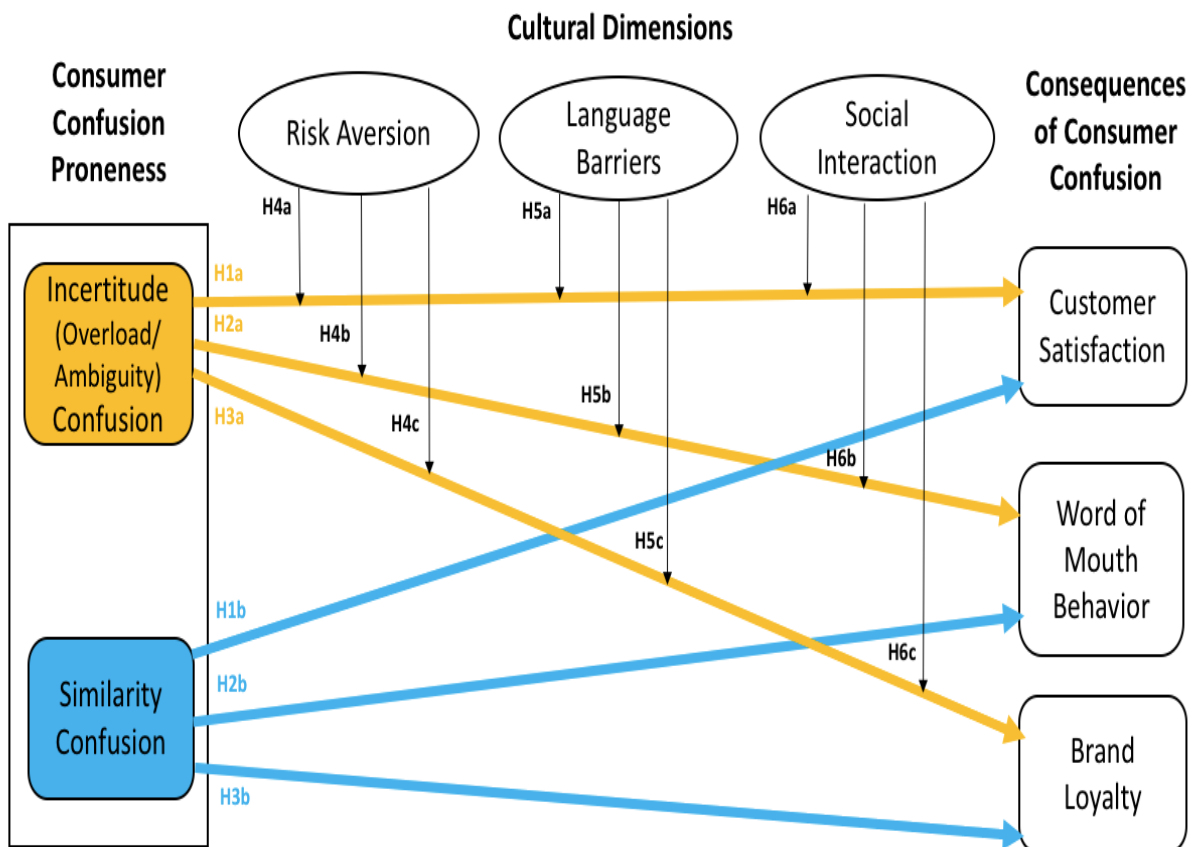
Figure 7.5: Structural model.

Table 7.20: Hypotheses Testing of Direct Path Results

Paths (relationship)	Standardised effects			Result
	Standardised estimate	P-Value	CR	
H1a IC → CS	-.748	***	-13.124	Supported
H1b SC → CS	.093	.070	1.812	Not Significant
H2a IC → WOM	-.679	***	-10.107	Counter evidence
H2b SC → WOM	-.037	.488	-.694	Not Significant
H3a IC → BL	.224	.001	3.175	Supported
H3b SC → BL	.128	.076	1.773	Not Significant
Significant p<0.05 *** significant at .000				

(SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty, CS= Customer Satisfaction)

Table 7.20 presents the results of the hypothesised direct relationships and it can be seen that four hypotheses were not supported. Interestingly, one of the non-supported hypotheses provided counter evidence, which was H2a, while H1a and H3a were supported. The following section will illustrate the results of the direct relationships; these results will be discussed in depth in the subsequent chapter.

I. **Incertitude Confusion**

H1a proposed that incertitude confusion has a negative direct effect on customer satisfaction. The results reveal that the standardised regression

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weight and critical ratio for CI to CS were -.748 and -13.124, respectively, indicating that this path coefficient was statistically significant at p= *** ($p<$ 0.001). Thus, if consumers are prone to incertitude confusion while purchasing a smartphone, they will be dissatisfied with the process of making the purchase. Consumers may blame the manufacturer for their confusion, based on the attribution theory, as a result of too much information related to the product. In addition, consumers need additional time, effort or maybe money to collect the needed information, as they may become uncertain, frustrated, stressed and anxious about the complex information, which conflicts with the information they already believe, which, in turn, leads to dissatisfaction.

H2a proposed that incertitude confusion has a positive effect on word-of-mouth behaviour. However, the proposed hypothesis H2a shows counter evidence. The results reveal that the standardised regression weight and critical ratio for IC to WOM were -.679 and -10.107, respectively, indicating that this path coefficient was statistically significant at p= *** ($p<$ 0.001). When consumers are in such cultures with a high level of interaction and prone to incertitude confusion, they may engage in less communication with others, such as family and friends, as they do not want to admit to mistakes of purchase or be seen as a non-credible source of information.

H3a proposed that incertitude confusion has a positive effect on brand loyalty. The results reveal that the standardised regression weight and critical ratio for IC to BL were .224 and 3.175, respectively, indicating that this path coefficient was statistically significant at p= .001 ($p<$ 0.001). Thus, if

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consumers are prone to incertitude confusion while purchasing a smartphone, they will be more loyal toward their favoured brand. Consumers may prefer to stick with their favoured brand in order to avoid any kind of risks.

II.   Similarity Confusion

H1b proposed that similarity confusion has a negative effect on customer satisfaction. However, the results reveal that the standardised regression weight and critical ratio for SC to CS were .093 and 1.812, respectively, indicating that this path coefficient was statistically insignificant at p= .070 (p< 0.001).

H2b proposed that similarity confusion has a negative effect on word-of-mouth behaviour. However, the results reveal that the standardised regression weight and critical ratio for SC to WOM were -.037 and -.694, respectively, indicating that this path coefficient was statistically insignificant at p= .488 (p< 0.001).

H3b proposed that similarity confusion has a negative effect on brand loyalty. However, the results reveal that the standardised regression weight and critical ratio for SC to WOM were .128 and 1.773, respectively, indicating that this path coefficient was statistically insignificant at p= .076 (p< 0.001).

7.7.3 Hypotheses investigation: Moderation relationships

7.7.3.1 Interaction Moderation Analysis

After examining the direct relationships, the second stage of this study was conducted to assess H4a, H4b, H4c, H5a, H5b, H5c, H6a, H6b and H6c using a moderating effect analysis. Hair et al. (2010, p. 770) described a moderator as 'a

third variable or construct [that] changes the relationship between two related variables/constructs.' In addition, a moderator has also been defined as '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' (Baron and Kenney, 1986, p. 1174). There are two approaches for examining the moderating effect: the interaction term approach and the multi-group analyses approach. In this study, the interaction effect approach will be used. The rationale for using this approach follows Hair et al. (2014, p. 277), who stated that '*the product indicator approach is restricted to setup where the exogenous latent variable and moderator variable are both measured reflectively.*' Accordingly, the moderating variables of this research (risk aversion, language barriers and social interaction) are considered as continuous measured variables, as well as being reflective indicator variables. Further, the interaction term was performed in order to confirm the significant effect of the moderating variable on the relationship between independent variable and dependent variable.

In addition, based on Hair et al. (2014), multi-group analysis may not be an appropriate approach for this research. They state: '*dividing the data into groups based on the mean or median is arbitrary and difficult to achieve when more than one continuous moderator variable is included*' (Hair et al., 2014, p. 259). Consequently, examining the moderating effect using the interaction term approach is much more appropriate for this research.

The interaction term approach was evaluated using AMOS 24 (McLean and Osei-Frimpong, 2017). Following a procedure suggested by Ranaweera and Jayawardhena (2014) and Matear et al. (2002) and, in order to identify moderating variables, the

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researcher tested the interactive effects of each moderating variable by adding new variables created using SPSS. In the beginning, mean centring was used to combine the independent variable and moderating variable, then an interactive term was created by multiplication of the independent variable and the moderating variable. The interactive term resulted from this interactive effect test. Then, the dependent variable was regressed on the independent, the moderator and the interactive term. Table 7.21 outlines the structural relationships of moderating effects.

Table 7.21: Structural Relationships of Moderating Effects

Paths (relationship)	Standardised estimate	S.E	CR	P-Value
BL <--- RA	.364	.042	8.686	***
WOM <--- RA	-.251	.039	-6.374	***
CS1 <--- RA	-.214	.059	-3.640	***
BL <--- IC x RA	-.110	.025	-4.350	***
WOM <--- IC x RA	-.012	.023	-.512	.609
CS1 <--- ICx RA	-.049	.036	-1.374	.169
WOM <--- SC x RA	This hypothesised moderating relationship could not be tested due to insignificant relationship between SC to WOM.			
BL <--- LB	.050	.043	1.172	.241

WOM <--- LB	-.115	.036	-3.163	.002
CS1 <--- LB	-.235	.053	-4.457	***
BL <--- IC x LB	.016	.032	.486	.627
WOM <--- IC x LB	-.083	.028	-3.002	.003
CS1 <--- IC x LB	.025	.040	.614	.539
BL <--- SI	.241	.053	4.523	***
WOM <--- SI	-.152	.044	-3.454	***
CS1 <--- SI	-.341	.064	-5.341	***
BL <--- IC x SI	-.001	.030	-.028	.978
WOM <--- IC x SI	-.106	.026	-4.134	***
CS1 <--- IC x SI	-.099	.037	-2.691	.007
WOM <--- SC x SI	This hypothesised moderating relationship could not be tested due to insignificant relationship between SC to WOM.			
Significant p<0.05 *** significant at .000				

(SC= Similarity Confusion, IC= Incertitude Confusion, WOM= Word-of-mouth, BL= Brand Loyalty,

CS= Customer Satisfaction, LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion)

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7.7.3.2 *Moderating effects*

The analysis of the moderated relationships involving risk aversion shows that there is supporting evidence for its moderating role on incertitude confusion to brand loyalty (β =-.110, p< .05). On the other hand, there is no supporting evidence for its moderating role on incertitude confusion to word-of-mouth (β = -.012, p> .05), and on incertitude confusion to customer satisfaction (β =--.049, p> .05), and on incertitude confusion to customer satisfaction (β =-.061, p> .05). The results show support for **H4c**, while showing **H4a and H4b** are not supported.

With regard to the moderated relationships of language barriers, there is supporting evidence for its moderating role on incertitude confusion to word-of-mouth (β = -.083, p< .05); however, there is no supporting evidence for its moderating role on incertitude confusion to customer satisfaction (β = .025, p> .05), or on incertitude confusion to brand loyalty (β = . .016, p> .05). Therefore, **H5b** is supported by the findings, while **H5a and H5c** are not supported.

Additionally, there is supporting evidence for the moderating role of social interaction on incertitude confusion to customer satisfaction (β =--.099, p< .05), and on incertitude confusion to word-of-mouth (β =-.106, p< .05); however, the results show that there is no supporting evidence for its moderating role on incertitude confusion to brand loyalty (β=--.-.001, p>.05. Thus, the findings show that **H6a** and **H6b** are supported, in contrast, **H6c** is not supported.

Table 7.22: Model Fit Indices for First Structural Model Modification- Risk Aversion-Language Barriers- Social Interaction

Structural Model Fit Indices	CMIN/DF	CFI	TLI	SRMR	RMSEA
Model (RA)	3.462	.934	.919	.035	.078
Model (LB)	3.617	.929	.913	.038	.081
Model (SI)	3.545	.933	.918	.036	.080

(LB= Language Barriers, SI= Social Interaction, RA= Risk Aversion)

Further to this, Figure 7.6 outlines the final structure model, including regression weights, level of significance and fit indices.
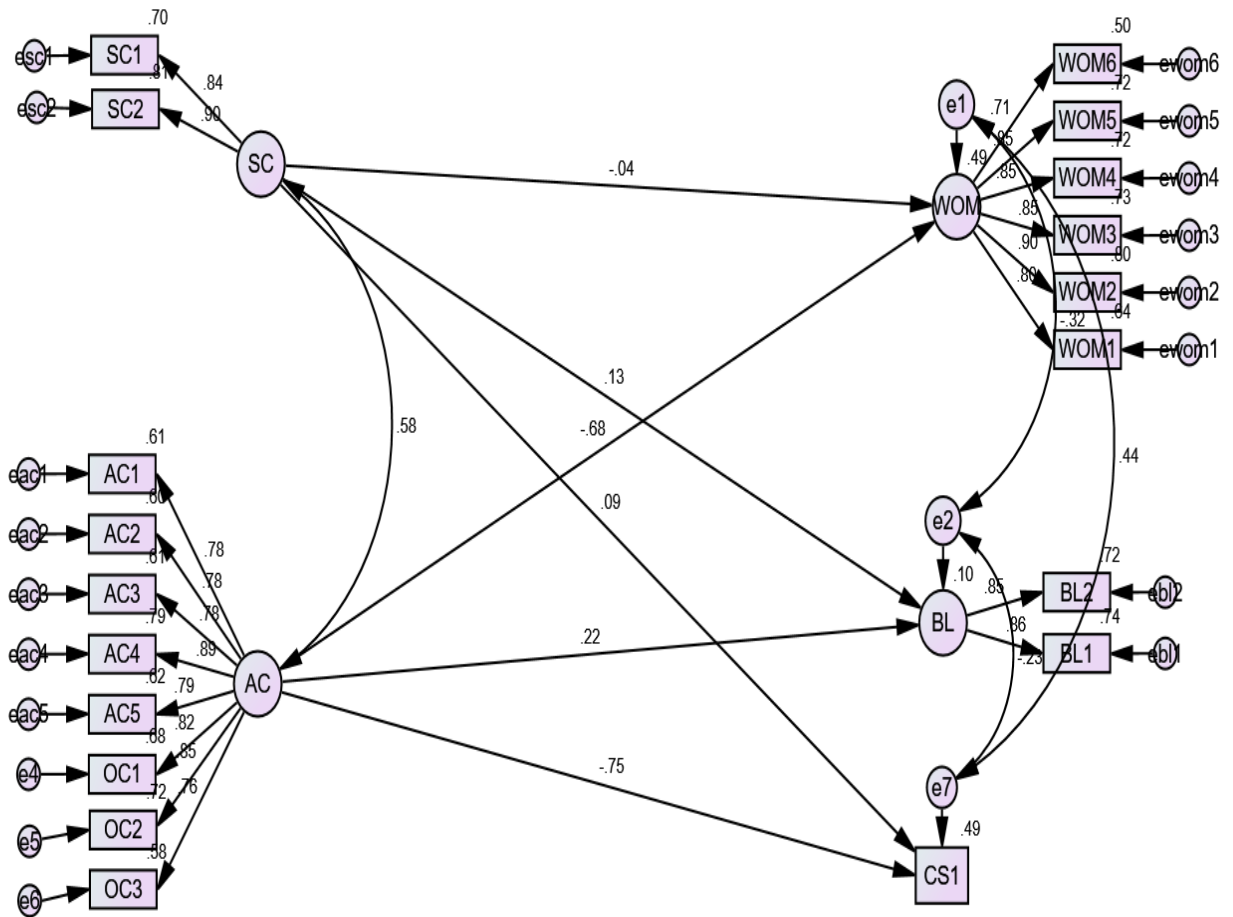
Figure 7.6: Final structural model.

7.8 Conclusion

The chapter began with the results of the preliminary analysis for the scale scores; furthermore, data screening has been conducted in order to detect some issues with regard to missing data, outliers, normality and multicollinearity. The common method variance (CMV) analysis has been conducted and its results showed that it

did not affect the present study. The research constructs have been assessed and validated by using Confirmatory Factor Analysis (CFA). The results indicated that there were discriminant validity issues between two constructs and, therefore, the researcher conducted Exploratory Factor Analysis (EFA) for the research constructs in order to have an acceptable level for further analysis. Given the results, the researcher reran the Confirmatory Factor Analysis (CFA) test and the results revealed that the modified measures were appropriate and discriminant validity, convergent validity and reliability provided acceptable and satisfactory results. In order to test the moderating proposed relationships of the current study, Interaction Analysis was employed by the researcher. The findings will be discussed and interpreted in more detail in the subsequent chapter (the discussion chapter).

CHAPTER EIGHT

Discussion

8.1 Introduction

This chapter aims to discuss the phenomenon of consumer confusion from a cultural perspective and its implications on three behavioural consequences: word-of-mouth behaviour, customer satisfaction and brand loyalty. Based on the findings, the chapter will begin by discussing the key issues of consumer confusion in relation to the Saudi Arabian mobile phone market. Then, it will consider the moderating effect of cultural dimensions on consumer confusion. In addition, as discussed in previous sections, Saudi Arabia has a unique culture, with consumers behaving based on particular cultural perspectives that differentiate them from other consumers in different cultures. Therefore, the proposed conceptual model in this study is significant for smartphone marketers, managers and researchers with regard to identifying and better understanding the issue of consumer confusion and the cultural factors that can cause confusion in different countries, as well as the strategies that consumers are likely to use in order to address their confusion.

Consumer confusion has been studied in many different markets and countries. However, incidences of consumer confusion have been predominantly reported in Western societies, such as the UK, Germany, the US and the Netherlands. In contrast, only a few studies have examined this construct in Eastern collectivist societies such as Thailand (Leek and Chansawatkit, 2006), China (Leek and Kun, 2006) and Turkey (Cobanoglu and Tutuş, 2014). As the literature suggests that

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consumer behaviour differs across cultures, this thesis examined the consumer confusion construct and its measurements in a new context, e.g. the Middle East, which is considered to contain unique societies and cultures, in addition to analysing whether cultural factors influence the constructs of consumer confusion. This lack of research enabled the researcher to contribute to the consumer confusion literature by a thorough understanding of the impact of culture on consumer purchasing decisions. This chapter, therefore, will outline the findings of the data analysis with regard to the research objectives and hypotheses and reasonable explanations will be provided for each of the study's findings, in addition to comparing them with those of previous research. While a multi-dimensional model of consumer confusion proneness was developed and validated by Walsh, Hennig-Thurau and Mitchell (2007), few researchers have tested such scales using diverse product settings. This study not only extends the theory of consumer confusion by applying such scales to a confusion-prone market, such as that of smartphones, but also enriches it by creating a new underlying variable (incertitude confusion) and examining the role of moderating variables (i.e. cultural dimensions) on confusion. This makes the current study an attempt to theoretically advance the concept of consumer confusion by developing a conceptual framework in which risk aversion, language barriers and social interaction were tested to be new cultural-based moderating variables. It is worth noting that the good psychometric property results of the statistical tests, such as scale reliability and validity (discriminant and convergent), ensure that the scale instruments of the current study are applicable for future research.

8.2 **Key Findings**

As an attempt to explore the impact of cultural dimensions on consumer confusion in Saudi Arabia, the current research investigated: 1) the aspects of consumer confusion that influence consumers in the Saudi Arabian smartphone market; 2) the effect of consumer confusion proneness on the customer satisfaction, word-of-mouth behaviour and brand loyalty of consumers in the Saudi Arabian smartphone market; 3) the moderating role of cultural dimensions on the relationship between consumer confusion proneness and its consequences; and 4) the main strategies that could be applied to diminish consumer confusion.

To meet the above research objectives, a 'cultural-based consumer confusion model' was proposed, which synthesised the consumer confusion proneness and consequences outlined in existing models (Matzler et al., n.d.; Balabanis and Craven, 1997; Elliott and Speck, 1998; Mitchell and Papavassiliou, 1999; Mitchell, Walsh and Yamin, 2005; Leek and Chansawatkit, 2006; Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Shukla, Banerjee and Adidam, 2010; Walsh and Mitchell, 2010; Wang and Shukla, 2013; Cornish and Moraes, 2015, Walsh et al., 2016) and integrated them with moderating cultural dimensions. The newly proposed model explains how cultural dimensions, specifically social interaction, language barriers and risk aversion, play a moderating role in either decreasing or increasing consumer confusion. Such a modelling approach was appropriate in order to foster understanding of how culture moderates consumer confusion (Caine and Robson, 1993). As a result, 12 hypotheses were integrated within the proposed model and then tested to explore their effects in real-world contexts. The findings of the

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proposed model and its associated hypotheses are discussed in the following sub-sections.

8.3 The Conceptualisation of Confusion

In order to explore the influence of cultural dimensions on consumer confusion, consumer confusion proneness has been conceptualised according the previous research of Walsh and Mitchell (2005), Walsh, Hennig-Thurau and Mitchell (2007) and Walsh and Mitchell (2010). Based on previous studies, consumer confusion is considered to be a multidimensional construct, which has three main dimensions: overload confusion proneness (due to the variability of products and product-related information), similarity confusion proneness (due to products' perceived similarity) and ambiguity confusion proneness (due to unclear product information). It is worth noting that descriptions of the terms 'overload' and 'ambiguity' are considered to be an issue in the literature. Previous research has outlined mixed results over these two variables. For instance, Leek and Chansawatkit (2006) found similarities between these variables while conducting research on consumer confusion in the Thai mobile phone market. Similarly, Walsh et al. (2006) reached the same findings when they investigated scale development of the three traits of consumer confusion proneness. According to this overlap between the two variables, this study was encouraged by calls made in previous and existing research (Leek and Chansawatkit, 2006) to further examine the degree to which these variables overlap. The source of this overlap can be attributed to the fact that the use of 'overload' is associated with consumers encountering a large variety of products and product-related information; in addition, consumers can be 'overloaded' when they perceive too much 'ambiguous information'. Despite the explicit overlap, the current research has maintained the

existing names of both variables, with the intention of examining the degree of the overlap prior to proposing further contributions to both variables in terms of merging or overlapping them with other variables of consumer confusion. As a consequence of the examination of the overlap between these two variables, the research detected that there was a high inter-correlation between overload and ambiguity confusion proneness.

By relying on the results of previous studies that showed high inter-correlation between the variables of overload and ambiguity (Leek and Chansawatkit; 2006, Walsh et al., 2006) and the examination of the current study that showed the same results, the current study has decided to merge both variables and constituted a new proneness of consumer confusion with the name of "incertitude". The term "incertitude", which means 'absence of assurance or confidence' (Merriam-Webster's Collegiate Dictionary, 2003) has been selected for the fact that it is a proven symptom of overload and ambiguity confusion. Explanations on how information overload and ambiguity lead to incertitude are detailed below.

Jacoby, Speller and Kohn (1974) argued that consumer certainty is one of the measurement scales designed in order to evaluate the effect of information overload on consumers' psychological states. Scammon (1977) and Walsh, Hennig-Thurau and Mitchell (2007) added that, when products-related information increases, consumers are likely to be less confident with their decisions. Keller and Staelin (1989) and Lee and Lee (2004) found that, in studying the effect of decision accuracy, the consumer's choice confidence is negatively influenced in cases of the increase of information quantity. Schick et al. (1990) identified that potential paralysis and delay of decisions are symptoms of information overload on the individual level. Settle and Alreck (1988)

stated that consumers tend to delay their decision-making when they are overloaded by information. In addition, it is argued that consumers who encounter too many alternatives may have low motivation to make purchase decisions (Iyengar and Lepper, 2000). This emphasises that the degree of consumers' confidence in making purchase decision relies on the amount of information they perceive (Mitchel et al., 2005).

Mitchell, Walsh and Yamin (2005) argued that consumer's confidence in the accuracy of company's claims might be influenced due to conflicting information issued from other credible sources of information. This leads consumers to re-evaluate their existing thoughts about purchasing decision on certain products. Walsh, Hennig-Thurau and Mitchell (2007) stated that consumers who are prone to ambiguity are likely to be less assured or unclear about the characteristics of two or more complex products due to the vague and conflicting information from different sources. Dhar (1997) believed that consumers who are prone to conflicting and ambiguous stimuli about comparable products may defer the choice. Hoch and Ha (1986) added that, as a consequence of storming with high levels of ambiguity, consumers become uncertain of making a buying decision. Scholnick and Wing (1988) stated that, owing to the ambiguity they face, consumers might be unable to differentiate products, which ultimately makes them reluctant to make a purchasing decision.

Having in mind the proved high inter-correlation between information overload and ambiguity and, considering how both proneness result in incertitude, the incertitude confusion is conceptualised as a new consumer confusion proneness as 'consumers' intolerance for processing more product information and choices as well as ambiguous or conflicting stimuli'. This conceptualisation could be attributed to cases where

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consumers are faced with an overload of information as a result of absorbing a large variety of product-related information, which subsequently leads them to encounter a state of hesitation and uncertainty regarding the decisions they intend to make. It is also attributed to cases, where consumers' minds are stuffed with unclear and vague insights about different products' characteristics, which eventually decreases the degree to which they make correct or rational purchasing decisions.

8.3.1 The sources of consumer confusion in the Saudi Arabian smartphone market

The results from the previous chapter revealed that confusion is prevalent and is considered to be a substantial problem for consumers purchasing smartphones in Saudi Arabia. With regard to the study's first objective, i.e. to explore the aspects of consumer confusion that influence consumers in the Saudi Arabian smartphone market, the confusion arising from too much information—'incertitude confusion' - is the most influential driver influencing consumers' purchasing decisions when buying smartphones in Saudi Arabia, whereas similarity confusion, while also being seen as a factor in confusion, is less influential than overload confusion and ambiguity confusion. However, after combining the overload and ambiguity confusion proneness and producing the new dimension 'incertitude confusion', it could be argued that consumers in Saudi culture are more prone to incertitude confusion than similarity confusion. Even though these are preliminary findings with regard to the Saudi smartphone market, it is both interesting and useful to speculate how both overload and ambiguous information lead consumers in Saudi Arabia to

incertitude confusion. The results of this study point to several reasons behind this type of confusion.

8.3.2 The influence of incertitude confusion on consumer satisfaction

The first important finding of this study is how information overload/ambiguity can negatively influence customer satisfaction, given that consumers acknowledged being confused when purchasing smartphones due to the abundance of smartphone brands and their related information. This can be derived from the fact that, with the ever-increasing number of smartphone brands, the amount of information overload will only increase in the future. Taking into consideration the limited ability of consumers to evaluate immense amounts of information, this would make the process of evaluating such information at a specific period of time a very difficult task. Furthermore, the more specialised and technical characteristics are associated with smartphones, the more confusion due to ambiguous information will increase. Technical information associated with smartphones may require consumers with a high degree of high-tech knowledge. Therefore, a lack of knowledge may reduce consumers' ability to make rational purchasing decisions. Consumers in high collectivist societies such as Saudi Arabia rely on the opinions of others in order to understand products' functions and make purchasing decisions; however, the inaccurate information and information overload that consumers receive from different sources, such as family, friends, advertising, or staff in stores, may increase incertitude relating to the existing information they believe about a product and the information received from others, thus leading to consumer confusion.

Consequently, consumers who are prone to incertitude confusion due to perceiving information overload or ambiguity will feel frustrated, anxious and overwhelmed, and may not be satisfied with their purchasing decision as their ability to process this kind of information is decreased, a result consistent with previous studies (e.g. Lee and Lee, 2004; Shukla, Banerjee and Adidam, 2010; Walsh and Mitchell, 2010). This incertitude confusion and dissatisfaction could be due to the impact of attribution theory, which indicates that consumers often assign success to internal elements, such as 'themselves', but blame external elements, such as 'friends, salespersons, advertisings and manufacturers' for failure (Peter and Olson, 2010). In this regard, consumers who are prone to incertitude confusion will blame companies who produce too many products with ambiguous information, in addition to also considering it as the major reason for being unable to process all this information. Moreover, in some situations, consumers may suspect that companies intentionally try to provide them with a barrage of conflicting information, such as unclear advertising and product claims, in order to take advantage of their information uncertainty, which, according to Wang and Shukla (2013), is a strategy used by companies to intentionally provide consumers with vague information for two purposes; providing them with explanations on the product and its features and making these explanations as informative as possible to make it hard for them to compare the product with comparable products. As a result, consumers who perceive this kind of information may become frustrated, stressed and anxious, leading to customer dissatisfaction. In developed countries such as Saudi Arabia, this could be a substantial issue, as such countries are considered to be less mature consumer

markets, with little consumer protection, which results in an increase in the number of imitation products (Fan and Xiao, 1998).

8.3.3 The influence of similarity confusion on customer satisfaction

One of the study's objectives was to examine the influence of similarity confusion proneness on customer satisfaction in the Saudi Arabian smartphone market. The research results have clearly revealed that there was a non-significant effect of the abovementioned relationship. It is worth nothing that non-significant findings, in general, imply that the developed relationships between the variables are not supported, either positively or negatively, such as with similarity confusion and customer satisfaction.

Comparing to previous studies, similarity confusion proneness was found to negatively affect customer satisfaction. It is suggested that consumers may become dissatisfied due to perceiving similar products in the marketplace in terms of colour, packaging, features, etc. Thus, customers' overall (macro) satisfaction is reduced when they become confused due to the difficulty of selecting between alternative brands (Walsh and Mitchell, 2010), as they need extra information and costs (e.g. money, effort and time) to make correct decisions. A study conducted by Wang and Shukla (2013) supports this finding, indicating that similarity confusion has a negative effect on customer satisfaction. In this sense, when consumers encounter brands with similar attributes, their perceptions about the differences between the brands will reduce and, thus, their satisfaction about the purchasing process will also decrease. Thus, it is important to note that some authors may have attributed non-significant findings to different practical and/or non-practical issues (theoretical

issues). The size of the study's sample is the first potential practical issue, as it is believed that the probability of having significant findings is increased when you have a larger sample size; however, this study had a sufficient sample size (401), which implies that we cannot blame the sample size for this non-significant finding. Another explanation could be whether the actual choice of Saudi participants and their cultural background affected the results; however, this should not be considered as a major influence, since the underlying relationships are often reflected by patterns in sub-categories, which are different across the population. A final explanation could be whether the translation of the scale items from English to Arabic affected the results. Again, however, this should not be expected to have played a major role since, if it existed, it should have negatively affected the entire study scale. In this sense, since not all the results were non-significant, translation error cannot be considered responsible. After covering these different practical issues, it is important to investigate the expected theoretical explanations for the non-significant relationships between the variables.

The first theoretical explanation for the non-significant influence of similarity confusion proneness on (overall) customer satisfaction is that culture may play a role in influencing young Saudi consumers, with regard to their behaviour towards satisfaction. Consumers from high cohesion cultures are likely to follow the advice and opinions of their reference groups, such as family and friends, in order to make their purchasing decisions (Leek and Chansawatkit, 2006). Based on this, as purchasing smartphones in Saudi Arabia seems to be a group activity and is associated with a high social commitment, consumers may not need to search for additional information in order to differentiate between similar brands, as their

buying decisions are based on their reference group preferences, without feeling any kind of risk. Therefore, it could be argued that customer satisfaction does not affect the existence of similarity confusion proneness in collectivistic cultures, as the priority of customers is to satisfy group needs rather than their own needs.

8.3.4 The influence of incertitude confusion on WOM behaviour

This investigation established unexpected findings in that incertitude confusion has a significant negative influence on word-of-mouth behaviour. As discussed earlier, incertitude confusion refers to consumers who are facing difficulties in processing information overload and ambiguity. In other words, consumers prone to incertitude confusion are less likely to engage in word-of-mouth behaviour. In this sense, consumers who are highly interactive with their reference groups, such as family, friends, or co-workers, and are prone to confusion due to information overload or ambiguity, will attempt to avoid communications with others. This result is inconsistent with prior studies, which found that overload confusion proneness and ambiguity confusion proneness have a positive effect on word-of-mouth behaviour (Walsh and Mitchell, 2010) and that the purchasing decisions of young adults are highly influenced by peer groups (Makgosa and Mohube, 2007; Lingga and Tjiptono, 2010). According to Sundaram, Mitra and Webster (1998), Leek and Kun (2006) and Walsh and Mitchell (2010), several factors can increase overload and ambiguity confusion, especially when purchasing sophisticated products, such as conflicting and unclear information, misleading product claims and incorrect interpretations. As a result, consumers may engage in more word-of-mouth behaviour with family, friends and others in order to seek the support or advice necessary for overcoming confusion. Word-of-mouth behaviour, either positive or

negative, will, in turn, increase; in this sense, by sharing their problems relating to being confused, or even when they obtain information from others to clarify their confusion, they will take the position of market providers ('market mavens') and share their experience with others (Walsh, Hennig-Thurau and Mitchell, 2007). One possible explanation for these unexpected findings is that consumers in societies with a strong connection to social ties may feel a great deal of social pressure rather than social support from peer groups. In this sense, they may feel embarrassed to be seen as confused due to a lack of smartphone knowledge, such as technical information or having conflicting information about smartphone features, which may impact upon their self-esteem. Other people who see themselves as market mavens, i.e., information providers, may not want to acknowledge that they are not a credible source of information by sharing inaccurate information about smartphones or admitting they made a purchasing mistake. In this regard, confused consumers prefer not to engage in discussing or sharing their negative purchasing experience with others. In contributing to the consumer confusion literature, this furthers our understanding of incertitude confusion's influence on WOM.

8.3.5 **The influence of similarity confusion on WOM behaviour**

The relationship between similarity confusion and word-of-mouth behaviour relates to whether consumers perceiving similarity confusion tend to engage more or less in word-of-mouth behaviour. Similarity confusion occurs when consumers perceive very little inter-brand differences between different products in the same product categories, particularly with the increase of imitation strategies such as 'me-too' brands (Walsh, Hennig-Thurau and Mitchell, 2007). The findings of the current study show that there is a non-significant relationship between similarity confusion

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proneness and general word-of-mouth behaviour. This finding corresponds with a previous theory by Walsh and Mitchell (2010), which stated that consumers who are confused by similar brands may be unwilling to talk about the situation with others, as they feel it is embarrassing that they were not able to differentiate between brands. The same explanation can be applied from the perspective of culture. market mavens, especially those with little experience of smartphone brands or knowledge of the differences between models, may be faced with a large number of similarities (visual or functional), which may confuse them and decrease their desire to engage in word-of-mouth behaviour. It is significant that consumers from a culture characterised by high social cohesion, such as Saudi Arabia, are afraid to be seen as confused by perceiving two smartphones to be similar; and, if they share their confusion and admit a purchasing mistake, this may negatively affect their desire to 'save face' within their social circles (Bao, Zhou and Su, 2003). For this reason, they may prefer to avoid talking about the confusion they have encountered. Moreover, Belk (1988) stated that consumers with a high face consciousness pay more attention to social needs in their decision-making, especially when purchasing high-end products like smartphones, since their primary desire is to follow group reference members by purchasing the same brand so as to have a sense of belonging. Therefore, word-of-mouth behaviour is affected by similarity confusion proneness.

However, prior literature has outlined that companies intentionally produce products with similar attributes to competitive brands in the market, in order to make consumers mistakenly purchase them as a result of being confronted by the overload of choice of similar products (Foxman, Berger and Cote, 1992; Sundaram, Mitra and Webster, 1998).

8.3.6 **The influence of incertitude confusion on brand loyalty**

The findings revealed that there is a positive relationship between incertitude confusion and brand loyalty. In other words, when consumers are prone to incertitude confusion, they are likely to buy their favoured smartphone brands, although some authors indicate that consumers prone to incertitude are more likely to lose their faith in the brand, in turn leading to a decrease in brand loyalty (Schiffman and Kanuk, 2010). This means that consumers might tend to blame the producers of the product over their confusion, which might ultimately affect their loyalty to their favoured brands. On the other hand, studies have also considered brand loyalty as an effective strategy used by consumers to reduce confusion based on information overload and ambiguity, as consumers, due to frequently experiencing confusion, are more likely to use brand loyalty as a guide to make decisions, thus reducing information seeking by asking others and making fewer comparisons between products, resulting in less conflicting and misleading information, which eventually decreases incertitude confusion.

The findings of this study were consistent with the second perspective. In this sense, consumers prone to incertitude confusion in Saudi Arabia prefer to remain with the brand they know, in turn developing a kind of 'blind faith' between consumer and brand (Chryssochoidis, 2000). Furthermore, customers who are less knowledgeable about electronic products, which often include ambiguous information and an overload of information in their product packaging and instruction manuals, may perceive this information as useful and sophisticated and may, therefore, trust the manufacturers, even if they do not know exactly what the product is and how to use it (Walsh and Mitchell, 2010).

In the case of Saudi Arabian culture, consumers are concerned more with social recognition and ensuring group harmony. As a result, when purchasing high-end products such as smartphones, a brand-name product is an effective element for ensuring social recognition and enhancing consumers' social positions (Belk, 1988; Tse, 1996). Thus, it is not surprising that the majority of respondents in this study purchased Apple and Samsung products, among other brands, as consumers, especially in an immature market such as Saudi Arabia, may believe that such brands have the most attractive attributes and believe they are making a safe purchase; therefore, brand loyalty is viewed as an important strategy that is employed (consciously or unconsciously) in reaction to incertitude confusion.

8.3.7 The influence of similarity confusion on brand loyalty

The findings of this study indicated that similarity confusion proneness had no effect on brand loyalty. This conflicts with the findings of previous studies on product similarity, which reveal that lookalike or 'copycat' brands make it difficult for consumers to identify differences between these brands (Walsh, Hennig-Thurau and Mitchell, 2007). Other studies also have focused on how store environments may create a confusion problem for consumers by positioning different brands very close to each other, which ultimately increases similarity confusion (Balabanis and Craven, 1997). Further, it is argued that consumers who are prone to confusion due to their failure to distinguish between brands will be less motivated to be loyal to their favourite brands, as a consequence of not being satisfied with their purchase decisions (Homburg and Giering, 2001). This problem might be increased in a high technology market where consumers have lack of experience. Consumers perceive equally acceptable alternative products and differentiation and choosing the best is

difficult in terms of technological features, designs and other attributes, similarity confusion proneness increases, which may lead to indecision or a failure to act (Scholnick and Wing, 1998). Based on this, it is reasonable to assume that there will be few reasons for consumers to become loyal customers of the same brand when they see themselves as unable to differentiate between products because of their similar attributes; in this sense, their brand loyalty will decrease (Walsh, Hennig-Thurau and Mitchell, 2007).

Unlike the underlying relationship that was predicted in H3b and postulated in the literature review, similarity confusion proneness is not associated with customer brand loyalty. A plausible explanation for the non-significant effect of similarity confusion on brand loyalty may lie in the fact that consumers might find it difficult to understand the differences between the versions and models that are constantly developed by the smartphone manufacturing companies. A clear example of this can be found in the differences in Apple's models of its iPhone.

8.4 The Influence of Cultural Factors on Consumer Confusion

The existing literature on consumer confusion has generally focused on examining whether confusion proneness has an influence on several marketing consequences, such as customer satisfaction, WOM behaviour, trust, postponement decisions and brand loyalty (Foxman, Berger and Cote, 1992; Huffman and Kahn, 1998; Lee and Lee, 2004; Leek and Kun, 2006; Shukla, Banerjee and Adidam, 2010; Walsh and Mitchell, 2010; Koo et al., 2017). However, research has largely neglected the potential role of cultural dimensions as moderators in the relationship between

consumer confusion proneness and its consequences. Therefore, the aim of this study has been to provide additional insights into the effects of consumer confusion proneness, i.e. incertitude confusion and similarity confusion, on three marketing consequences (customer satisfaction, WOM behaviour and brand loyalty) by examining the potentially mediating role of different cultural dimensions: risk aversion, language barriers and social interaction.

8.4.1 The effect of language barriers on the relationships between incertitude confusion and both customer satisfaction and brand loyalty

The results of this study indicated that language barriers have a non-significant moderating effect on both a) the negative relationship between incertitude confusion and customer satisfaction and b) the negative relationship between incertitude confusion and brand loyalty with regard to purchasing smartphones in Saudi Arabia. Although foreign companies consider language to be a key factor in translating their brand names and other related information so as to culturally adapt to new market segments and effectively sell their products abroad, this cultural dimension does not have an impact on the aforementioned relationship.

The first reason for this non-significant effect is that customers in Saudi Arabia may rely more on other factors, such as brand names, when making purchasing decisions. This explanation is supported by the argument that consumers in developing countries prefer to purchase well-known brands over others due to brand stereotypes (Steenkamp, ter Hofstede and Wedel, 2002; Hui and Zhou, 2003; Wang, Siu and Hui, 2004; Aldhaban, 2016; Halkias, Davvetas and Diamantopoulos, 2016).

Therefore, the purchasing decisions of consumers in the Saudi smartphone market are not impacted by the translation of brand names or the information in the packaging/instruction manuals. In this regard, consumers may have 'blind faith' in a brand's reputation and such brands may be utilised by consumers to enhance self-esteem. As Mitchell, Walsh and Yamin (2005) argued, brand loyalty represents habitual purchasing, which requires less decision-making, information seeking and brand evaluation. Therefore, loyal consumers are less likely to be affected by incertitude confusion because they need to make fewer comparisons among different brands and products. Since consumers in Saudi Arabia exhibit brand loyalty as a result of their smartphone purchase preferences, it can be argued that they may be less affected by language barriers.

When it comes to customer satisfaction, incertitude confusion among smartphone buyers in Saudi Arabia might be driven by other factors that are not associated with language. A possible source of such confusion is that customers might be unsatisfied due to after-sale considerations. This is supported by the fact that the largest smartphone companies, mainly Apple and Samsung, sell their products indirectly within the Saudi market through their representatives, who do not acquire the same level of after-sale services that these companies have (Reuters, 2017). Additionally, Saudi Arabia's young population, with almost half of that population being less than 35 years old (Saudi Statistical Department, 2008), makes it natural for a large portion of the smartphone customers to not be affected by language barriers while making their purchases, taking into account the fact that they are educated enough and highly exposed to the international trends of the smartphone market. This is also consistent with the fact that the majority of respondents in this study belong to that age group,

which makes their brand knowledge, especially with regard to smartphones, likely sufficient. These explanations are an attempt to justify why Saudi customers do not perceive language barriers as an influencer moderating factor in the relationship between both information overload confusion and/or ambiguity confusion and customer satisfaction.

8.4.2 The effect of language barriers on the relationships between incertitude confusion and WOM behaviour

The findings revealed that language barriers have a significant positive moderating effect on the negative relationship between incertitude confusion and word-of-mouth behaviour with regard to purchasing smartphones in Saudi Arabia. As previous findings have revealed, when consumers perceive a huge amount of information relating to smartphones, whether due to the variety of smartphone brands and related information, this may lead to information overload, or are receiving information from different sources, e.g. family, friends, salespeople, or advertising, this may lead to decrease sharing information between customers, as customers feel frustrated or stressed processing such information. Therefore, when consumers have difficulties absorbing and processing information regarding smartphones due to language issues, incertitude confusion is more likely to increase, while word-of-mouth behaviour is more likely to decrease. The effect of language barriers will encourage those incertitude-based confused customers to not share their purchasing experience with others. Those market mavens might characterise their purchasing experience as complex, vague, unclear and imperfect, which ultimately leads them to reduce their levels of word-of-mouth behaviour to keep their status as an honest and trusted source of information, especially in countries where social relationships are solid and

respected. Moreover, consumers may also not share information on social channels if it is not in their native language.

8.4.3 The effect of social interaction on the relationships between incertitude confusion and both WOM and customer satisfaction

As has been hypothesised, it was found that consumers in cultures with high levels of social interaction are influenced by people around them, which has significant negative effects on both a) the negative relationship between incertitude confusion and word-of-mouth behaviour and b) the negative relationship between incertitude confusion and customer satisfaction.

In this regard, due to a high level of social cohesion in Saudi culture, the importance consumers attribute to their reference groups (e.g. family members and friends) and their involvement and opinions in assisting them make rational decision lead to decreasing the amount of incertitude confusion by which consumers may consider their interaction with others in the society as a significant factor leading to minimise the amount of processing information. This also leads to engage more word of-mouth discussion in order to share their confusion experience with others, especially close relatives and friends. The findings indicated that consumers in collectivistic cultures believe that the advice of relatives is important when searching for information and making purchasing decisions (Leek and Kun, 2006), thus, purchasing personal products such as smartphones may become less confused when others are involved in the decision. Consumers may realise that obtaining additional information from relatives could simplify the purchasing decision, as some of the family members may

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become involved in the buying decision. Some studies referred to the positive influence of relatives' advice on consumers' attitudes towards purchasing technological products and services and consumers buying a certain brand in order to gain social acceptance (Assad, 2007). The results of the current study supported such assumptions and found that the opinions of reference groups may decrease the stress on consumers and lead to reduced confusion. It is reasonable to assume that consumers with higher levels of social interaction engage more in talking with others and sharing their confusion, as they may become less embarrassed due to the high level of interaction with others in the society, so they try to help others to avoid making a purchasing mistake by clarifying the vague or too much the information related to product. However, his finding is inconsistent with Adamowicz et al. (2005), who believed that the involvement of close relatives in purchasing a product may complicate the purchase decision. This might be correct, depending on the product category.

Regarding the moderating influence of social interaction on the relationship between incertitude confusion and customer satisfaction, it was found that social interaction weakens the negative relationship between incertitude confusion and customer dissatisfaction. Consumers from a collectivistic society would rely on peer groups by following their personal recommendations regarding brand selection in order to help minimise incertitude information (Tjiptono, Arli and Bucic, 2014), in addition to being more likely to be satisfied with their purchasing decisions as they are within their social circles. This finding corresponds with previous studies, which indicated that consumers, especially young adults, are more influenced by their peers when making purchasing decisions (Makgosa and Mohube, 2007; Cobanoglu and Tutuş,

2014). The possible explanation for the abovementioned result is the social interaction between people and the importance consumers gave to recommendations, especially from family and friends, who are perceived as one of the most credible, reliable and least biased groups (Murray, 1991; Cobanoglu and Tutuş, 2014). Consumers, then, tend to search less for information in order to process it, which leads to a decrease in the risk of being prone to incertitude confusion and being able to make a satisfactory purchase decision. This finding is in contrast with prior research, which assumed that gathering too much and too ambiguous information from different sources led to a more detailed evaluation of the alternative brands (Balabanis and Craven, 1997).

Consequently, in high social interaction cultures, consumers might face lower likelihood of incertitude confusion as they believe the information they obtain from their reference group is sufficient and credible, which, in turn, can cause feelings of satisfaction.

8.4.4 The effect of social interaction on the relationships between incertitude confusion and brand loyalty

It was found that social interaction had a non-significant impact on the positive relationship between incertitude confusion and brand loyalty.

It is worth noting that this insignificant result could be attributed to the nature of the product category (smartphones). According to Mitchell and Papavassiliou (1999), the analysis of brand loyalty is about much more than repeat purchase: it is an attitude. This could be an issue for investigating high involvement products such as smartphones, which are not a repeat purchase product by nature. However, the selection of this conceptualisation of brand loyalty as a repeat purchase product is for

two reasons: 'for the sake of simplicity' and because 'attitudinal loyalty is more difficult to measure' (Walsh, Hennig-Thurau and Mitchell, 2007, p. 708).

This insignificant hypothesis implies that consumers in Saudi Arabia might not be influenced by the possible role of cultural dimensions, such as social interaction, with respect to their purchasing behaviour towards brand loyalty. In this regard, Mitchell and Papavassiliou (1999) stated that the ability of consumers to make a purchase decision is likely affected by their level of experience and market-specific knowledge. Thus, Coupey, Irwin and Payne (1998) believed that consumers will stick with the most familiar brand when they have a lack of experience and prior knowledge, as they usually rely on existing knowledge to process information in order to make a purchase decision.

Therefore, this result is in consistent with the fact that brand loyalty is a strategy used by consumers are who prone to overload and ambiguous information (Walsh, Hennig-Thurau and Mitchell, 2007), in the presence of social interaction; this strategy might be considered as the most effective marketing strategy.

8.4.5 The effect of risk aversion on the relationships between incertitude confusion and brand loyalty

The analysis of the data in this study revealed that risk aversion has a significant negative influence on the positive relationship between incertitude confusion and brand loyalty. It implies that this relationship between incertitude confusion and brand loyalty will be weak due to the moderating effect of risk aversion. Unlike the classification of Saudi Arabia as a high risk aversion society by Hofstede (1980; 2004), the result of this study revealed that consumers in Saudi Arabia tend to be low risk-averse in their purchasing decisions while balancing between incertitude

confusion and brand loyalty. Such result implies that they likely to try avoiding processing too much too ambiguous information, which ultimately leads them to lose faith in their favourite brands. This is a very interesting finding as it contradicts with previous studies, in which researchers found that consumers in highly risk-averse societies usually feel threatened and uncertain when they are exposed to new or additional product-related information. They attempt to obtain more information in order to make safe purchasing decisions and reduce confusion, which forces them to have loyal attachments to just a few particular brands (Moore and Lehmann, 1980; Bao, Zhou and Su, 2003; Money and Crotts, 2003; Quintal, Lee and Soutar, 2010). This unexpected finding of this study could be attributed to the cultural context. In this context, it is worth noting a study of Weber and Hsee (1998), who measured the risk aversion differences between four cultures. They observed that, from a financial perspective, especially when it comes to purchasing decisions, people from countries characterised as collectivistic cultures become less risk averse (i.e., more risk tolerant) and are high risk takers due to the concept of a 'cushion'. This implies that individuals who perceive financial support from their families and friends are able to make purchasing decisions with fewer degrees of risk, such as in the case of smartphones. At a personal level, the research suggests that risk is more acceptable when there is a cushion for that person to rest against, should the risk not pay off (Statman, 2010). For example, people are more likely to take bigger risks in their careers if they have close family who would not mind helping them if the risk did not pay off, if they have a large amount of personal savings, or if they live in a country that offers generous unemployment benefits when they are out of work. The larger

the cushion a person has, whatever form that cushion takes, the greater risks an individual is willing to take, which could decrease the likelihood of confusion. Agarwal, Malhotra and Bolton (2010) undertook further research into this area and concurred with the 'cushion hypothesis' of Weber and Hsee (1998). In this sense, as Statman (2010) maintained, family and friends provide the 'social capital' that effectively serves as a cushion. People who can expect to rely on family and friends for financial support have greater levels of social capital than those who do not expect to rely on family and friends (Agarwal, Malhotra and Bolton, 2010). The research suggests, therefore, that there is evidence for a cultural component to risk aversion, which affects how individuals relate to products and brands. Although this might need further examination, it can possibly be seen as a reason for individuals in Saudi Arabia, who have higher levels of risk aversion, being less likely to be confused while purchasing smartphones and being less loyal to brands than individuals with lower levels of risk aversion. They are cushioned by family and friends for financial support and have high levels of social capital, which leads them to feel that they can take a risk; if the risk does not pay off, they have a cushion to fall back on and are able to try different things more easily and frequently. This means that they can afford to be more risk tolerant than individuals from individualistic cultures, who do not have such a cushion to fall back on. With regard to the negative influence on brand loyalty, once consumers perceive financial support from their social groups, their loyalty towards a specific brand will not be an important factor in the purchasing process. Because of the 'cushion' effect, they could switch brands and follow new products without being concerned about the brand name. This assumption can be seen in Arab countries, where people, especially

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young consumers, prefer to switch their smartphone brands and buy new and innovative products, even if it is considered a risky purchase (Hawass, 2013).

8.4.6 The effect of risk aversion on the relationships between incertitude confusion and both WOM behaviour and customer satisfaction

In contrast with the previous influence of risk aversion on the relationship between incertitude confusion and brand loyalty, the results of this study indicated that there is a non-significant influence of risk aversion on the relationship between incertitude confusion and both word-of-mouth behaviour and customer satisfaction. The first explanation for this could be related to the nature of the respondents, the majority of whom were young. In this sense, if young consumers perceive themselves more as risk takers and as low risk-averse, then they will be more willing to accept risky situations. Another explanation could be due to the product itself, which means that, due to consumer confusion proneness in purchasing fashion and luxury products, such as smartphones, especially in a society that cares about prestige, consumers may not feel that the level of risk aversion is an important factor influencing their purchasing decision or affecting their WOM behaviour and satisfaction. The context of this research, as well as the concept of a 'cushion', could be another explanation for not perceiving risk aversion as an influential factor when purchasing smartphones. In this regard, the research took place in Saudi Arabia, where people are highly cushioned by their close social groups and are financially protected by their family and friends. This financial cushion could be the reason behind

respondents' feeling of not being impacted upon by risk when purchasing smartphones, even though they are from a high risk-averse culture.

8.5 Theoretical Contributions

Adding contributions to the literature is the main purpose of any research thesis. The findings of the present study are of significant interest and have theoretical implications. In this sense, this thesis makes two major contributions: a theoretical contribution to the conceptualisation of consumer confusion and a theoretical contribution to the influence of culture on consumer confusion proneness, both of which will be discussed in the following sub-sections.

The first contribution is in regard to the existing theoretical model of consumer confusion proneness developed by Mitchell, Walsh and Yamin (2005), Walsh, Hennig-Thurau and Mitchell (2007) and Walsh and Mitchell (2010), which has been adopted and validated by most of the subsequent consumer confusion studies. Initially, this study also adopted the original model, with its three-dimensional conceptualisation of consumer confusion; however, at the theoretical level, the results of this study revealed that there are only two dimensions conceptualising consumer confusion proneness, i.e. incertitude confusion (overload and ambiguity confusion) and similarity confusion. This interesting theoretical contribution can be understood as the integration between consumer confusion and culture. It is also worth noting that a study by Walsh et al. (2016), which investigated consumer confusion proneness across three different cultures, i.e. Germany, the US and Thailand, found that the construct of consumer confusion proneness in Eastern cultures is different and could be treated as one general dimension instead of three separate dimensions. They attributed this cultural difference to two main factors: first, with regard to the nature

of the original model of consumer confusion proneness, it was developed in Germany, which may not be applicable everywhere, given that the scales developed in Germany relate to a 'Western context' that may be difficult to apply to different social contexts, such as the 'East' (Wong, Rindfleisch and Burroughs, 2003); second, consumers are prone to confusion differently in each culture. For example, the likelihood of Thai consumers being prone to confusion is higher than for consumers from the US and Germany due to different regulations in terms of brand imitations and experiences of confusing situations (Walsh et al., 2016). Moreover, the effect of families in collectivistic cultures and individual identity in individualistic cultures may play a significant role in different perceptions of consumer confusion. Therefore, it is important to investigate cultural differences in order to fully understand consumer confusion. It is also important to note that Leek and Chansawatkit (2006), in their study examining consumer confusion in the Thai mobile phone market, indicated a potential relationship between overload confusion and ambiguity confusion and called for further analysis. This study has, thus, met such calls by providing results that may be partly attributed to cultural differences.

It is important to know if the two constructs (i.e. similarity and incertitude confusion) developed from this study are different and what the theoretical justification is for being related to the understanding of consumer confusion. Consumers confused by high levels of product similarity will perceive products in the marketplace as homogenous, which obstructs consumers' behavioural responses through conceiving the products as having no or very few differences between them in terms of features, names, designs and packaging, which, in turn, will guide consumers' purchasing behaviour. Due to perceiving products as similar, an unwillingness to shop will occur

as a consequence. Rather than perceiving products as homogenous (i.e. similarity confusion), incertitude confusion (overload and ambiguity), on the other hand, is different and acts in the opposite direction by making the buying environment more complicated in terms of the information related to products, which may be seen as too much and/or too ambiguous. Though the reasons for behavioural obstruction relating to similarity and incertitude confusion are perceived differently, the high correlation between the two constructs (Section 7.5 of Chapter 7) highlights that both constructs, theoretically, underlie the same concept of confusion.

This study also contributes to the existing consumer behaviour literature by investigating culture and its influence on consumer behaviour. Prior research has indicated that culture is an important part of any society and has a significant effect on how individuals behave in different parts of the world. Similarly, cultural values also influence the way consumers behave when making decisions about purchasing products or services (Shaw and Clarke, 1998; Thompson and Tambyah, 1998). Mokhlis (2006) was of the view that culture is a complex concept and is difficult to examine as one unified factor; thus, in order to have more understanding of the underlying influence of cultural dimensions, culture needs to be 'unpacked' (McCort and Malhotra, 1993, p. 92). Prior studies into consumer confusion have rarely introduced cultural influences, treating culture as an abstract concept and assuming that the same influence of cultural dimensions will be imposed on consumer confusion. As a result, researchers in the consumer confusion field have yet to explore the potential differences in impacts with regard to how each cultural element is important to consumers. Thus, each consumer could be influenced by cultural dimensions differently when compared to another consumer. For example, for some

consumers, social interaction could be considered a more important cultural factor than others, such as language or religion. Therefore, this study has sought to 'unpack' the concept of culture in order to help researchers fully understand consumer behaviour. Despite the significance of cultural factors, such as social interaction, language barriers and risk aversion, in determining consumers' behaviour, there has been a neglect of their impact in the marketing and consumer behaviour literature.

In light of its contribution to the consumer behaviour literature, the present study was conducted to find out whether social interaction, risk aversion and language barriers influence consumer confusion. Thus, the study contributes to the consumer behaviour literature by providing evidence of the influence of consumers' levels of social interaction, risk aversion and language barriers on their consumer behaviour (i.e. purchasing smartphones). In addition, the study outlines several issues concerning the impact of different degrees of social interaction, language constraints and risk aversion on consumers while making purchasing decisions, which also contributes to the consumer behaviour literature and suggests that more attention should be paid in future research to the cultural elements in determining consumer behaviour.

Furthermore, the findings provide international consumer behaviour researchers with evidence that social interaction, risk aversion and language barriers are important aspects influencing consumer behaviour in non-Western cultures.

The impact of consumer confusion can be analysed by studying the moderating effect of culture. In a study conducted by Scott (2001), a typology of regulative, normative/moral and cultural-cognitive pillars of national culture was identified.

From these three pillars, the cultural-cognitive pillar can be used to identify differences in cross-cultural consumer behaviour (Walsh et al., 2014). Instead of treating cultural characteristics as drivers of consumer behaviour, the authors, by drawing on institutional theory (Kim and Oh, 2002 cited in Walsh et al., 2014), show how the concept of institution influences behaviour and how country-level measures can play a moderating role in influencing consumer behaviour.

According to Walsh et al. (2014), a country's customs, such as punctuality, religious beliefs and practices and social influences can be referred to as cultural-cognitive pillars, which can influence customers' behaviour to the extent that they may decide not to purchase certain products. Customers take these cultural dimensions for granted, as they are routine and deeply rooted in their behaviours. Other cultural dimensions, such as language, perceived risk and time orientation, also impact on consumer behaviour.

In the context of consumer confusion, it can be argued that culture shapes perceptions of consumer confusion. In this regard, the current study was conducted to determine how a number of different cultural dimensions, i.e. risk aversion, language barriers and social interaction, may shape perceptions of consumer confusion and how this may affect the relationship between consumer confusion proneness and its consequences. Researchers are of the view that risk aversion, language barriers and social interaction are important cultural dimensions with regard to determining individual behaviour. However, the influence of these three dimensions has been neglected in the marketing and consumer behaviour literature. Thus, a major theoretical contribution of the current study is to enrich and extend the theory of consumer confusion by investigating the influence of three cultural variables,

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i.e. risk aversion, language barriers and social interaction, as moderators on consumer confusion. In contrast, most existing studies on consumer confusion solely concentrate on addressing how consumer confusion proneness influences behavioural consequences, while ignoring the potential influence of cultural variables on the theory of consumer confusion. The present study contributes to an understanding of the behavioural outcomes of the two dimensions of consumer confusion proneness by investigating the influence of three cultural dimensions in the Saudi Arabian smartphone market. In this regard, this study responded to several calls (e.g. Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Walsh and Mitchell, 2010) to apply the consumer confusion model in different cultures. Furthermore, the unique contribution of the current study is in validating the fact that three cultural variables moderate the relationships between confusion proneness and behavioural outcomes. From a cultural perspective, therefore, this study also proposes a new definition of consumer confusion as 'an emotional state of mind that leads to inappropriate buying decisions as a consequence of the incremental cultural effects associated with risk aversion, language barriers, and social interaction.'

In addition, this study also contributes to the literature on the influence of culture on consumer behaviour in that it has revealed that consumers with different levels of cultural dimensions, such as social interaction, language barriers and risk aversion, have different purchasing behaviours. Moreover, an investigation of the interaction between the three cultural dimensions, and the influence of these dimensions on consumer confusion, is considered to be another contribution to the consumer behaviour literature. A further contribution is made by focusing on the issues of social interaction and language barriers as significant aspects of consumer behaviour by

examining the impact of high levels of social interaction and language barriers in terms of how they shape consumer behaviour. Thus, different levels of social interaction and language barriers should receive more attention in future research, especially in countries characterised as having strong social ties and their own language.

The findings of the current study are beneficial for several reasons. First, they provide a link between cultural dimensions and aspects of consumer confusion. Second, they provide evidence that consumer behaviour in Eastern cultures is influenced by peer groups, language obstacles and risk. As a result, this study could assist in the understanding of international consumer behaviour as well as the influence of such cultural dimensions in shaping purchasing behaviour in different cultures.

Finally, the current study contributes to the methodological literature. Unlike most prior studies, which conducted research using laboratory settings, the current study employed a field study, using real consumers from the smartphone industry; in this regard, theoretical insights are provided in this study without neglecting their practical relevance.

8.6 Implications and Recommendations

8.6.1 Marketing implications

This research provides numerous practical implications for marketing managers. The findings of the study could be utilised by marketing managers who are exporting their products to other countries or are intending to promote their products there. In this regard, there are several marketing implications arising from the model that should be addressed by marketers.

Understanding a particular culture's values, norms, religious beliefs, traditions and other cultural elements is a key issue facing international marketing managers when seeking to succeed in multicultural consumer markets. In this sense, marketers should be more cautious about consumers in new market segments. Nowadays, markets are becoming more diverse due to acculturation and, therefore, marketers should recognise that this diversity of markets should be addressed by the use of non-standard marketing methods. In this regard, applying standardised marketing methods would be problematic. Marketers should understand the differences between consumers in different nations by examining the role of cultural elements on consumer behaviour. This means that marketers should have a good idea of what products are likely to sell in any specified geographic area, thus lessening the risk of consumer confusion because they have made an effort at fully understanding the cultural contexts in which the product is being sold (Leng and Botelho, 2010). Since the findings of this study indicated that social interaction, language barriers and risk aversion have a significant influence on consumer confusion and its marketing behavioural outcomes, it may be significant for marketers to help cope with this confusion-based culture.

Customer engagement managers of smartphone brands should be aware of the impact of high levels of social interaction on consumer behaviour. The results of this study indicate that peer groups, such as family and friends, due to the social pressure they impart, are considered to be an important key factor for consumers, which positively affects confusion and consumers' ability to engage in word-of-mouth behaviour. Those managers should be aware of this influence of family and friends on customers' purchasing decisions and be required to develop marketing programs

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in which each consumer's satisfactory experience is turned into a shared story (AlAlwan et al., 2017), consequently other consumers can be influenced too.

In the same vein, and especially in collectivistic cultures like Saudi Arabia, where young individuals are strongly connected to their family and friends (Khattab, 2003), digital marketing managers need to capitalise on the high volume of information consumers share on social media platforms in shedding light on the consumers' experiences that can potentially improve their brand profile and encourage additional consumers to enjoy similar experiences (Harrigan et al., 2017). It implies that those managers should start to find techniques that allow them to digitalise the positive word-of-mouth behaviour of their consumers.

Furthermore, advertising managers in countries with high social interaction need to focus their marketing campaigns on the concept of social cycle. Target consumers should be impacted by the advertisement and feel the honour of belonging to a particular social cycle by buying a particular product, like smartphones. Moreover, they should be incentivised by the fact that those consumers are socially tied to a particular reference group, so that advertising managers will be somehow successful if they manage to develop their advertisements in a collective way, in which the consumer and his potential social reference group are targeted. Therefore, consumers' probable propensity to seek credible information from their social reference group is likely to positively influence their purchasing decision towards the product that was collectively advertised to them and their group.

Language is another important cultural factor that should be considered by marketers, as the findings of this study indicated that consumers from the same

countries have different perceptions of language barriers towards purchasing smartphone. The results showed that the level that consumers are prone to confusion and its impact on their satisfaction and word-of-mouth behaviour is attributed to their levels of language proficiency. In this regard, the translation of smartphone brands' information is a very sensitive factor. Therefore, it would be valuable for marketers to make sure that all product information is translated correctly with the exact meaning, as the primary language in Saudi Arabia is Arabic and many consumers there do not understand English (i.e. the smartphone information should be presented in both Arabic and English). However, a poor or inaccurate translation of product information is likely to increase incertitude confusion, which will further lead to a reduction in customer satisfaction, word-of-mouth behaviour and will affect company profile. Given that consumers commonly make purchasing decisions in response to the messages they see on product labels or on advertisements related to the product (Golodner, 1993), it is important that marketing communication managers make certain that language differences do not lead to situations in which the information about the product is off-putting to potential customers. As language divergence negatively impacts the customer evaluation of the brand's quality as well as the assessment of service provider, this consequently leads to reduce customer satisfaction and minimise customer engagement in positive word-of-mouth behaviour (Balaji, Roy and Lassar, 2017).

The translation of the brand name is another issue facing marketing managers; in this regard, they have two options: translate the exact name into the language where they will sell the product or write the brand name in the way the original words are pronounced, which is the approach most commonly used by marketers. Thus,

managers should make sure that the way the brand name is pronounced does not have an unacceptable meaning or conflicts with some cultural element, such as religion. Doing so can lead to a decrease in the level of consumer confusion and an increase in positive word-of-mouth behaviour, especially in a country with high social cohesion. It is also suggested that marketers could develop online marketing strategies for consumers who struggle with high-tech information that is not easy to translate, as, without it, they need to rely on consumers being experts in technologically complex information; in this regard, short instructional videos may be effective cues to help consumers by simplifying the most important information (Lu et al., 2016), as the elaboration likelihood model (ELM) of persuasion indicates that, when consumers rely on simple cues derived from the messages related to products, they are able to process product-relevant information. As a result, the packaging of smartphones should be designed by taking into consideration the issues relating to consumers' languages and display only the most relevant information in order to attract this type of consumer. However, failure to present the correct information due to poor translation can lead to an increase in confusion among consumers who have language constraints, thus producing negative marketing consequences, such as a decrease in brand trust and loyalty, by switching to other brands and a decrease in consumer satisfaction regarding the overall purchasing process.

Zhou (2005) discussed consumer confusion within the context of localisation strategies in new emerging markets. Foreign brands often have an advantage in that they are, in these new emerging markets, perceived as being of higher quality than local brands (Zhou, 2005). This comes with a caveat, however, in view of the issues

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presented by the cross-cultural differences that language barriers can present for the effective communication of brand image across cultures; in this sense, caution is needed when marketing products and brands across cultures because inappropriate local adaptation of products can lead to customer confusion (Zhou, 2005).

As the results show, language difference constraints can contribute to customer confusion due to the problems that language barriers present with regard to understanding the product, the brand and its potential use to customers. This means that it is important for companies to be clear about their aim when communicating with customers and, as part of this, to ensure that any communications arising as a result of translations are made clearly and unambiguously.

It is a fact that, despite the world being increasingly connected and the homogenisation of cultures resulting from globalisation, all countries remain unique in terms of marketing. As such, marketers can no longer apply a 'one solution fits all' approach to cross-cultural marketing, as, to a great extent, terms such as 'global brand consistency' have little actual meaning in the real world. It is fundamental, in a globalised world with clearly demarcated local cultures, that, in order for products/brands to have any impact on individuals, they need to be tailored to local cultures and to the prevailing attitudes of individuals within these cultures.

The results of this study indicated that risk aversion has a significant negative impact on the relationship between incertitude confusion and brand loyalty. Although consumers from a culture characterised by high risk aversion are considered to be low risk takers and have a low tolerance for unclear purchasing situations, which means more confusion, this study's results provided an interesting outcome, as consumers in Saudi Arabia were less likely to experience confusion and become less

loyal when purchasing smartphones. This unexpected result was attributed to the financial support customers have in Saudi Arabia, which makes them more likely to take risks and be more tolerant of ambiguous situations. As a result, brand loyalty managers should use different communication strategies for each country, as consumers with different levels of risk aversion cannot always make their purchase based on their brand loyalty, especially when they find out that an alternative brand provides more and better attractive benefits. This might lead customers to switch their preference to competitors (Kang et al., 2015; Brashear-Alejandro, et al., 2016). Therefore, brand loyalty managers of smartphones need to periodically update their loyalty programs in order to ensure that the possibility of switching brand becomes less, even with customers whose level of risk aversion is considered high (McMullan, 2005).

Furthermore, Griffin et al. (2010) undertook research that provides evidence in support of the hypothesis that marketing managers in countries where risk aversion and harmony are relatively high take fewer risks than managers in countries where they are relatively low. This suggests, therefore, that there are distinct differences between cultures and that these differences clearly affect the risk profile of individuals, which, in turn, affects their consumer decision-making processes and patterns. It is clear, then, that there are cultural differences with regard to risk aversion, which affects how customers make decisions regarding purchasing products and their opinions of brands, in turn impacting on their loyalty towards a brand. It is, therefore, important for brand loyalty managers to consider these issues when planning how to market a product across different cultures.

Furthermore, the results of this study have identified incertitude confusion as a main dimension in determining consumer confusion and its impact on behavioural outcomes in the Saudi Arabian smartphone market. First, it is important to understand the relationship between information associated with smartphone brands in terms of quantity and quality and consumers' cognitive abilities to process such information. As previously mentioned, incertitude confusion is caused by several factors, including an abundance of smartphone brands, the proliferation of product-related information, an increase in the amount of complex information and unclear stimuli.

Therefore, marketing managers should consider the limited 'bounded-rationality' of consumers to process incertitude information; in order to increase the effective decision-making of consumers, it is important to provide them with clear (quality) and relevant (quantity) information (Keller and Staelin, 1987).

Furthermore, marketing managers should be cautious in designing smartphone packaging, its information and advertising (Lugosi et al., 2012); the content of product information should be understandable, without any vague information, in order to reduce the chance of incertitude confusion among smartphone buyers as well as to differentiate products from those of competitors. In addition, as consumers often face difficulties in understanding the meaning of technical terms with regard to information overload and ambiguity, having to try and evaluate this kind of information will lead to suboptimal decision-making (Turnbull, Leek and Ying, 2000). Therefore, both manufacturers and retailers need to work together to reduce the confusion that may occur in stores. Manufacturers, who are blamed as the main source of confusion, should simplify the information presented on the packaging or

in instruction manuals. They need to provide only the most relevant information in order to clearly define how their products' features are unique, have added value and differ from competitors, instead of providing products with information overload and ambiguity, as the incorrect interpretation of product information causes consumer confusion. Retailers should also train their employees to cope with situations of consumer confusion. Due to a lack of technical information and terminology, consumers may be confused and, therefore, a store's employees should be knowledgeable about all the product-related information and then assist buyers in finding the features that fit their needs so as to be able to make their purchasing decisions. As staff are perceived as information providers, this could either lead to diminishing or increasing confusion related to a smartphone purchase. Therefore, staff need be trained to recognise the reactions of consumers prone to confusion while making purchasing decisions. It is important to realise that an expression of incertitude is likely to be a signal of consumer confusion.

An additional practical implication could be suggesting that brands use limited text on their packaging and manuals and provide an easy to use website to clarify and support the information provided in the manual or on the packaging. Companies could provide an electronic link in order to help consumers, especially for less experienced consumers, with simple explanations and definitions of some high-tech terms, to help them to minimise potential confusion and make a rational decision. Providing additional information, especially for inexperienced consumers, may improve consumer decision-making. Further, in order to assist consumers in their decision making, managers could develop websites in which they are able to see the difference between brands in terms of type, price, features, style and other product-

related information, which would help to clarify consumers' purchasing decisions and diminish any potential confusion. It is not surprising that websites such as www.confused.com or www.comparethemarket.com have appeared in the UK in order to assist consumers compare products. These kinds of comparison websites help consumers reduce consumer confusion, either directly or indirectly, by providing them with many alternatives for insurance service providers.

In conclusion, cultural dimensions, as well as personal characteristics, are important factors for marketers in addressing consumer confusion. Marketers and other parties first need to understand the culture of the country where their products are to be sold. Then, they should find out the most common factor(s) causing consumer confusion. This study proposes that consumer confusion proneness in the Saudi Arabian smartphone market could be due to incertitude confusion. In addition, marketers need to be aware of the negative marketing consequences of consumer confusion, such as decreased brand loyalty, word-of-mouth behaviour and customer satisfaction. Furthermore, the cultural dimensions discussed in this study have an impact on the relationship between consumer confusion proneness and its consequences, which can be used by smartphone companies as criteria to adopt and develop marketing strategies for different cultures.

8.7 Research Model Generalisability

Prior research theoretically and empirically confirms that consumer confusion is a universal issue occurring across cultures. This study illustrated that consumers in Saudi Arabia also are vulnerable to different aspects of consumer confusion proneness (Mitchell, Walsh and Yamin, 2005; Leek and Chansawatkit, 2006; Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Shukla, Banerjee and

Adidam, 2010; Walsh and Mitchell, 2010; Wang and Shukla, 2013). Furthermore, consumer marketing consequences, i.e. WOM behaviour, customer satisfaction and brand loyalty, are also influenced differently by consumer confusion proneness in the present study's target market.

Even though several researchers have made significant strides in advancing our knowledge of consumer confusion, these studies have omitted the potential influence of cultural dimensions on consumer confusion (e.g. Leek and Kun, 2006; Walsh, Hennig-Thurau and Mitchell, 2007; Walsh and Mitchell, 2010). The differences between the findings of this research and the original consumer confusion model could be primarily attributed to different cultures, which suggests that the issues of consumer confusion and how to manage it are not fixed issues and should be modified based on particular cultural contexts.

Saudi Arabia, reflecting Arab culture, is characterised by several cultural factors. First, due to high levels of social interaction, as in any highly collectivist culture, consumers' beliefs and behaviours rely on social reference groups, such as families and friends, and the resulting social pressure on their purchasing decisions (Takada and Jain, 1991). Second, the main language in Saudi Arabia is Arabic, which is used by managers in all marketing activities, such as brand names, information and advertising. Third, in relation to levels of risk aversion, prior studies indicate that the risk aversion of consumers varies depending on their cultures and that consumers in highly collectivistic societies have a high risk aversion. As a result, this study finds that social interaction, language barriers and risk aversion play important moderating roles in consumer confusion and its relationship with marketing consequences.

Therefore, in terms of the generalisability of this study, the model could be used to assess the influence of culture in many different regions.

Cultural Dimensions

Consumer Confusion Proneness — Risk Aversion — Language Barriers — Social Interaction — Consequences of Consumer Confusion

Incertitude Confusion

Similarity Confusion

Customer Satisfaction

Word of Mouth Behavior

Brand Loyalty

Significant paths ⟶

insignificant paths ⇢
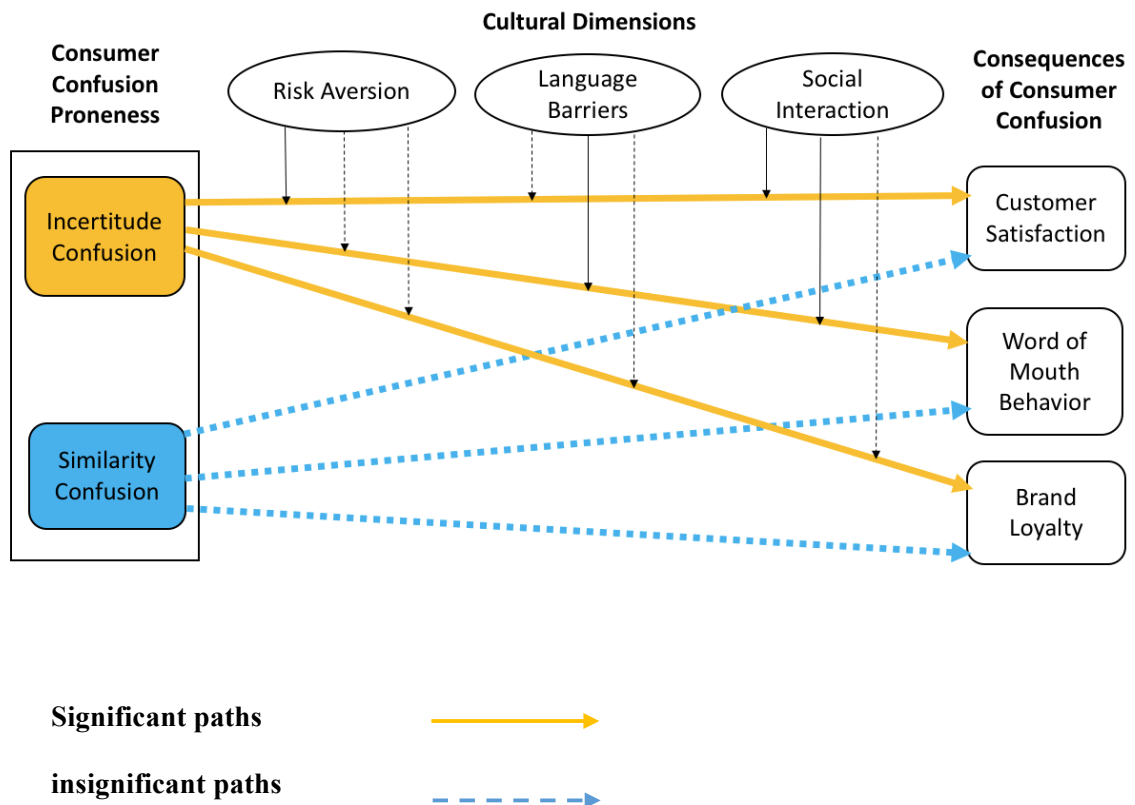
Figure 8.1: Significant and insignificant paths

8.8 Limitations and Future Research

As in any study, the investigation into consumer confusion undertaken in this thesis has several limitations, which provide opportunities for future research.

- In light of this study, it is suggested that conducting more qualitative research is important for future research in order to confirm the scientific integrity of

whether both constructs, i.e. overload and ambiguity confusion, do indeed represent the construct of 'incertitude confusion'. As previously mentioned, this study provided both empirical and theoretical arguments for measuring and conceptualising consumer confusion proneness with two factors (i.e. similarity and incertitude) instead of three.

- This study only examined three cultural dimensions, which may affect the existing relationships between consumer confusion proneness and its marketing outcomes. It is possible that there are other cultural variables that could influence confusion, which should also be investigated.

- Almost all of the consumer confusion studies have focused on the confusion between business and consumer (B2C); in this regard, it may be interesting to explore the potential confusion occurring in business-to-business relationships (B2B).

- The generalisability of this study is limited due to three factors: the use of young adults in the sample, the non-probability sampling methods and the product category (smartphone), which may lead to limitations with regard to the generalisability of the study.

- Considering the effect of social media applications or sites on consumer confusion is an interesting area for future research. Social media marketing communications have become an essential part of everyday life and have an influence on almost every aspect on consumers, especially the younger generation (i.e. teenagers and adolescents; Mueller et al., 2015; Duffett, 2017). Therefore, investigating the role of social media (communication) applications

on consumer confusion should be a focus of future research, particular in regard to the most commonly used social media applications by young people, such as Twitter, WhatsApp, Snapchat, Instagram and Facebook, which assist them in interacting with others in order to exchange and gain information about brands and products (Duffett, 2017). Nowadays, some customers believe that such applications are a credible and reliable source of information and make their purchasing decisions based on bloggers or other people's responses; however, the huge amount of possibly conflicting information may reduce consumers' ability to absorb and then process such information, which may lead to consumer confusion.

- With regard to consumers' anger as a marketing consequence of consumer confusion, it is important to investigate the relationships between consumer confusion and consumers' anger. Consumer anger has been described as 'a common and morally relevant emotional reaction to a service failure' (He and Harris, 2014, p. 140), which occurs in two forms: vengeful anger, implying that consumers' desire to hurt the company, either directly or indirectly, and problem-focused anger, which refers more to consumers being frustrated as a result of anger (Antonetti, 2016). Cultural and social contexts are also significant elements in shaping anger (Tombs, Russell-Bennett and Ashkanasy, 2014). A better understanding of the relationship between confusion and anger is necessary, as consumer anger can be caused by anxiety and frustration (Taylor, 1994) and associated with uncertainty, which is similar to consumer confusion (Patterson et al., 2009; Surachartkumtonkun et al., 2015), with both concepts leading to customer dissatisfaction (Menon and Dubé, 2000).

8.9   Conclusion

This chapter has identified how the research aim and objectives were met. The research aim was to explore the impact of cultural dimensions on consumer confusion in a multicultural society. In this sense, a broader picture was provided by examining consumer confusion from a cultural perspective. The hypothesised relationships were proposed in a conceptual model as a result of the literature review (see Figure 3), with the model's measurement tools being derived from two well-cited consumer confusion models (Mitchell, Walsh and Yamin, 2005; Walsh, Hennig-Thurau and Mitchell, 2007; Walsh and Mitchell 2010). The integrated models were also extended by including three cultural dimensions, i.e. risk aversion, language barriers and social interaction. These hypotheses were tested by conducting a cross-sectional study using structural equation modelling.

The findings revealed the presence of consumer confusion in the Saudi Arabian smartphone market. Statistically, incertitude confusion was, to different degrees, the only variable to have influenced the three behavioural outcomes (i.e. word-of-mouth behaviour, customer satisfaction and brand loyalty).

Although the findings of this study revealed that similarity confusion had a non-significant influence on the three behavioural outcomes, the possible explanation for such non-significant relationships may be that the product category (i.e. smartphone brands) can be considered as similar products for Saudi consumers and they are not facing any difficulties in distinguishing between brands.

The results of the present study indicated that an understanding of risk aversion is important for companies, who should be aware of the effect of risk aversion among consumers when planning to market their products in new countries where

consumers are highly risk-averse. Thus, consumer decision-making in such countries may be influenced by ambiguous purchasing situations, which may have a significant influence on behavioural consequences. In addition, high levels of risk aversion among consumers may increase consumer confusion, as consumers consider buying smartphones to be a complicated task in terms of the variety of brands and ambiguous information associated with them. Although individuals in Saudi Arabia, a collectivistic society, are considered to be high risk-averse, the findings of the current study showed that, taking into consideration the fact that Saudi Arabia is a wealthy country and consumers may receive financial support from family members or friends, their behavioural consequences may not be influenced by being high risk-averse consumers, but, instead, they take more risks (i.e. they are high risk-tolerant) and, in turn, are less loyal to particular brands. However, as this study was the first to investigate the influence of risk aversion on consumer confusion, in addition to being conducted in only one country, i.e. Saudi Arabia, that has specific cultural characteristics, there is need for more studies in different cultural contexts and different product categories in order to gain more of an understanding of the role of risk aversion on consumer confusion.

This study also revealed the important role of language barriers on purchasing behaviour. Consumers with high levels of language constraints may have difficulties in understanding and absorbing product information, especially if the translation is not accurate. Therefore, high language barriers are considered to be a major problem in Saudi Arabia and may negatively influence consumer confusion and decrease customer satisfaction when making purchasing decisions. Consequently, it is important for companies not to neglect the role of language barriers as an exploratory

factor in expected consumer behaviour. The influence of language barriers requires further research in order to provide a clear understanding of their importance in determining consumers' buying behaviour in different contexts.

This research also highlighted that social interaction significantly influences consumer confusion and its behavioural outcomes, such as word-of-mouth behaviour and customer satisfaction. For individuals from countries where social interaction levels are high, such as in Saudi Arabia, their levels of confusion will increase as the ever-increasing amounts of information they obtain from their reference groups increase information overload and ambiguity. In addition, individuals may avoid sharing their negative experiences as they feel embarrassed to be seen buying the wrong brands due to ambiguous information and they will become more dissatisfied with their buying decisions as, based on attribution theory, they may blame their reference groups (external attribution) for confusing them and become dissatisfied with their purchase.

In conclusion, consumer confusion is a complicated but significant phenomenon that requires further study in different contexts and with different product categories. The current study aimed to explore some of the cultural dimensions that contribute to consumer confusion, as well as producing new contributions to the concept of consumer confusion for researchers and marketers. The phenomenon of consumer confusion needs further research in order to explain the other cultural factors that may influence consumer confusion proneness in different countries and contexts.

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Appendices

Appendix A: META Analysis

The paper	Authors	Western/ non Western society	Cultural Factors influence on consumer confusion
Consumer confusion in Thai mobile phone market	(Leek & Chansawatkit, 2006)	non Western (collectivist) society (Thai market) (People with different cultural backgrounds experience consumer confusion, although the issues within a product category and the type of confusion may vary from nation to nation).	Family and friends opinions are used as the main source of information in the purchasing decision making. Group cohesion. Commandment to traditional cultural value. Sex (Women experience more confusion than men in purchasing mobile phone whereas they may experience less confusion in other products, which means that confusion in a product category-specific. Age, (two perspectives): (a): older consumers may be less likely to be confused due to their experience.

			(b): older consumers are more likely to be confused due to their poorer mental capacity to processing the information. New triers are more likely to be confused.
Consumer confusion in Chinese laptops market	(Leek & Kun, 2006)	Eastern society (China)	Involve family and friends to either share or make purchasing decision. It has been stated, however, that family and friends may introduce more factors for consideration which might actually increase the level of consumer confusion (Drummond, 2004). People with social network is highly trusted in the Chinese society. It has stated that in a confusing purchase situation it

			is highly likely the people in the consumer's social network will have a significant input and influence on the final decision.
			Long-term orientation, it means that people in eastern society such as china tends to spend more time searching for information in their purchasing decision than American. Social acceptability.
			The language used of the product jargons need to be explained in a manner that is readily comprehensible to the consumers. The large amount of jargons lead to uncertainty confusion (technical complexity).
Towards a Conceptual Model of Consumer Confusion	(Mitchell, Walsh and Yamin, 2005)		Tolerance for ambiguity (based on cognitive psychology): People with low tolerance for ambiguity may prematurely close their information processing activities, and are rigidly impervious to new information.

			Each person has a tolerance for ambiguity (either low or high), when the uncertainty within the information exceeds the consumer's uncertainty tolerance, then the ambiguity confusion occurred. Age & gender are related to an experience framework. For example, older people may experience confusion more than younger as their ability to process information are less. Novelty-fashion seekers is one of the decision making style factors which may be particularly prone to overload and ambiguity confusion. Social environment as mediator variable: It refers to the interactions of others in the decision making. For example, other's opinions could add too much information and create overload confusion or could be in conflict with existing beliefs and create ambiguity confusion.

			New triers or occasional buyers: are more likely to expose to confusion.
Face Consciousness and Risk Aversion: Do They Affect Consumer Decision-Making?	Bao, Y., Zhou, K.Z., & Su, C. (2003)..	Cultural study (risk aversion)	This study explores the effect of risk aversion as cultural dimension on consumer's decision making styles. The risk aversion defined as the extent to which people feel threatened by ambiguous situations, and have created beliefs and institutions that try to avoid these" (Hofstede & Bond, 1984, p. 419). People with high risk aversion (low risk tolerance) are inclined to be threatened by ambiguous situation. People with low risk tolerance (high risk aversion) tend to search for more information regarding product during their decision making (Shimp & Bearden, 1982. For consumer from high risk aversion culture, new buying

			new products are risky because the performance of of these products is uncertain and unknown than that of established products and brands. They often avoid of trying new products until other's experience shows the advantages of doing so. High risk averse consumers (low risk tolerance) tend to stuck with the well known brands (increased brand loyalty). Highly risk-averse (low risk tolerance) consumers might also increase information acquisition in order to decrease uncertainty associated with purchases (e.g., Moore & Lehmann, 1980). However, as indicated by Gemunden (1985), the information acquired by them may actually lead to greater rather than reduced perceived risk, leaving highly risk-averse consumers confused by the overflowed information.

			The measurement scales of risk aversion developed by Raju, (1980) are more applicable to consumer's decision making context comparing to Hofstede measurements for uncertainty avoidance which are more related to people's behaviour in organizational context.
			Risk taking behaviour is challenging the group interests (harmony) which is often discouraged by collectivistic societies. On the contrary, the uncertainty exploration is encouraged by individualistic societies.
			Risk intolerance defined as a tendency to interpret ambiguous situations as sources of threat (Schaninger and Sciglimpaglia (1981); oBlake and Perloff (1973); Budner (1962); 1962:29). Risk acculturation defined as the adoption by an individual of the risk-taking norms of a reference group (adapted from Celsi et al. 1993:18).

			Reference group as a cultural factor
Asymmetric effects of brand origin confusion Evidence from the emerging market of China	(Zhuang et al,. 2007)	Non-western society (China)	Confusion between the local and foreign brands in term of their origins. Local Chinese brands are perceived to be foreign brands due to the use of foreign characteristics (Letters/names) and models in their ad which produce a significant confusion among consumers.
Consumer Confusion in Mobile Application Buying: The Moderating Role of Need for Cognition	(Ghosh & Rao, 2014)		The vital role of social network in selecting mobile application.
Consumer Confusion in the UK Wine Industry	(Drummond and Rule, 2005)		The terminology of the wine trade presents problems which lead to increase amount of information. The difficulty for the consumers to understand either the labels or terms of the European wine brands and their related information. (language barriers).

			Relying on friends and others when making decision in order to reduce confusion. However, a study in the wine market revealed that such additional input is as likely to engender confusion.
			The role of jargon and terminology in overwhelming the inexperienced consumers with a lot of information.
			It is concluded that using terminology/ jargon and packaging from different country/culture or wine sector may generate confusion.
			It is also concluded that the word of mouth/ personal recommendations may lead to misinformation and/or over-reliant on non expert opinions (friends). (social interactions)
Consumer confusion proneness: insights from a developing economy	(Tjiptono et al., 2013)	Non eastern culture (Indonesia)	Growing trend of social media usage among young consumers in Indonesia. Consumers in developing economics cultures represent a less mature consumer market where is little or no consumer

			protection; therefore, the probability of having imitation products are relatively high.
			Social networks or peer groups may help to reduce the burden imposed by confusion dimensions by way of personal recommendation regarding product or brand selection. (social interaction). Previous research suggested that peer groups are highly influential in young adult products purchase decisions. Based on non supported hypotheses of this study, it is concluded that cultural dimensions may play a role in influencing young adult consumers in Indonesia with respect to their behaviors towards the marketing outcomes.
Profiling Y Generation GSM Users in Turkey According to Consumer Confusion, Perceived Risk and WOM	(Cobanoglu & Tutuş, 2014)	Non western culture (Turkey)	social networks usually accept WOM more willingly. Social network word of mouth is an important source of information. The results revealed that younger participants who get more information form family and friends perceived high overload and ambiguity confusion.

			People who perceived higher risk in their purchasing tend to engage to WOM to seek information.
			Perceived risk is an individual characteristic. For example, the purchased of the same product can be associated with different levels of perceived risk by different consumers.
			People with higher perceived risk will demand more information. Afterwards, which may cause decrease in ambiguity and similarity confusion but cause an increase in overload confusion.
Trends in the British wine market and consumer confusion	(Casini et al., 2008)	British win market	In term of the terminology, it has been noted that in more than one case, Italian wines are presented with some mistakes (translation mistakes).
Social interaction and adolescent's learning in enterprise education An empirical study	(You and Man, 2007)		Social interaction used by people to reduce uncertainty. The cultural approach in how social influence happens in social interaction suggested that a stronger societal outcome can be built by increasing the sharing beliefs among group members and a sense of similarity because people feel more

			confident when they know the beliefs are shared by group members (Bar-Tal, 2000).
Psychometric Properties of the Multidimensional Scale of Perceived Social Support in Urban Adolescents	(Zimet & Mitchell, 2000)		The Multidimensional Scale of Perceived Social Support (MSPSS) which is considered as a key concept of social interaction. It is considered as a way of assessing social network or network characteristics (Duru & Balkis, 2007). It has been used by researchers to measure social network and the degree of satisfaction with support. The Multidimensional Scale of Perceived Social Support (MSPSS) was designed by Zimet et al., (1988) to measure the subjective assessment of the adequacy of perceived social support. However, it can be also used to evaluate perceptions of social support from three main sources: friends, family and a significant other.

Study of Culture and its Role in the Marketing Process (A review)	(Jahan el at., 2015)		The values and norms of society are influenced by different elements of culture such as religion, language and education. There is a need for understanding a common language to communicate well with people from other cultures. The role of cultural aspects such as language in consumer behaviour, which in turn influences marketing strategy making process. To make people purchase a product, language is used to promote the product.
Young Saudi adults and peer group purchase influence: a preliminary investigation	Opoku R, (2012)		The results revealed that peer influence on purchase decision in Saudi Arabia could be dictated by culture.

Exploring consumer confusion in the watch market	Mitchell & Papavassiliou (1997)	Western (UK watch market)	In some countries, the non-availability of instructions in the purchaser's native language or instructions being badly translated or not very clear are considered as a source of confusion.
			More manuals are translated into only a small number of languages. For example, Casio's manuals are translated into four languages, whereas they are sold in all countries.
			Some brands issue their manuals or guarantee only in English which will be very problematic for consumers in countries where English language is not their mother tongue.
			The role of purchasing occasions such as Christmas gifts in increasing consumer confusion.
			The sharing or delegating of the purchase, consumers tend to rely on family and friends' advice to make the decision making.
Consumer confusion in German food retailing: the moderating role of trust	Wobker et al., (2015)		Gender differences in the level of confusion.

			Women more confused with technical products such as mobile phone (Trunbull et al,. 2000) and food industry. Consumer confusion increase with elderly segment of people.
Linking Sources of Consumer Confusion to Decision Satisfaction: The Role of Choice Goals	Wang & Shukla, (2013)	Western society/ smartphone market	It has been suggested that the study should be conducted in non-western context and to find out how the measurement scales apply in different culture, especially for ambiguity tolerance construct which considers as a culturally sensitive construct.
Customer Confusion: The Mobile Phone Market	Turnbull et al., (2000)		Consumers tend to seek out family and friend's advice when making purchasing decision.
Investigating Consumer Confusion Proneness Cross-Culturally: Empirical Evidence from the	Walsh et al., (2016)		Consumer confusion with few exceptions has neglected in Eastern collectivist cultures.

United States, Germany, and Thailand			It is suggested that consumer confusion needs a comprehensive reexamination of its scale and measurement properties in other cultural contexts. Consumer confusion research is considered as highly western-centric. Family and friend's opinions cause overload confusion. Consumer from Eastern societies are more prone to confusion. The role of family and individual identity. Family links and associations with a potential need for family decision making.
COPING WITH CONFUSION: THE CASE OF THE DUTCH MOBILE PHONE MARKET	Kasper et al. (2010)	Western culture/ Dutch mobile phone market	Consulting friends and family is a strategy used to minimize confusion. However, another study revealed that gathering additional information may not always reduce confusion (Drummond, 2004). Dutch mobile phone users do not delegate their decision-making to others, they make the decisions by themselves.

			This is may be because that the Dutch culture is considered as individualistic culture.
Consumer confusion: reduction strategies in higher education	Drummond, (2004)	Western Culture/ UK's higher education sector	The role of the third party in the buying decision such as parents which may engender confusion. Customer experience used as source of consumer confusion reduction strategy. It has been found that product confusion occurred more within elderly, less well educated and socially disadvantaged consumer segments.
Insights into consumer confusion.	Cohen, M. (1999)		The similarity in packaging between store own brand and well known brand.
Rethinking the Value of Choice: A Cultural Perspective on Intrinsic Motivation	Iyengar, S. and Lepper, M., (2000)	Comparison between western and non western cultures	In some situations, the exercise of personal choice may pose a threat to individuals whose personal preferences could prove to be at variance with those of their reference group. Therefore, consumers tend to make their choice to fulfill the superordinate cultural goal of belongingness.

			It's called "interdependent cultures". Shared preferences.
a conceptual model of consumers online tourism confusion	Lu and Gursoy, (2015)		Personal sources such as friends and relatives are considered as a risky source of information for tourists. Tolerance for ambiguity as determinant of confusion (individual characteristic variable), refers to the individual's tendency to perceive ambiguous situations.

Appendix B: English Version of the Questionnaire

A new survey

Informed Consent (University of Strathclyde)

You are invited to complete this survey which is part of a PhD research project at University of Strathclyde Business School. The aim is to investigate your feeling and responses towards consumer shopping situation of Smartphone.

This survey should not take more than 20 minutes of your time. Please be assured the anonymity and confidentiality of this survey is fully guaranteed and all your data will be stored securely.

Section One: Participant's background

Q1 Your gender

Male

Female

Q2 Your age

18-25

26-35

36-45

46-55

55 +

Q3 Your marital status

Single

Married

Divorced

Widowed

Other Write in 'Other' ……………………

Q4 Your highest (completed) education level

Primary school or below

High school

Diploma

Bachelors degree or similar

Master's degree

PhD

Other Write in 'Other' ………………….

Q5 Current Occupation

Student

Employee

Unemployed

Self-employed

Retired

Other Write in 'Other' ………………….

Q6 What is your ethnicity?

Arab

Asian

African

European

American

Others write in 'Other'………………

Q7 Have you ever personally purchased a mobile phone?

Yes

No

Q8 If 'No', have you ever intended to purchase a mobile phone?

Please select

Yes

No

Q9 Which brand of mobile phone did you most recently purchase / come closest to purchasing?

Please select ONE answer only

Apple

Samsung

Nokia

Huawei

Sony

Blackberry

HTC

LG

Other Write in ……...

Section Two: Your feelings and opinions of shopping smartphone.

Q10. The following statements have been made by others in relation to the purchase of smartphones in Saudi Arabia, please read through each and rate your level of agreement /disagreement with them using the scale below...

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5

Sometimes, I am unsure of exactly which smartphone best meets my needs.				
There are so many smartphone brands/models to choose from that I sometimes feel confused.				
There are so many smartphone stores/websites to shop from which sometimes make it difficult to decide where to shop.				
Most smartphones available in the market are similar, which can make it hard to distinguish between brands.				
It is often difficult to notice new models of smartphones due to the growing				

similarity of smartphone brands.					
Some smartphones brands look so similar that it is difficult to know whether they have been made by the same manufacturer or not.					
Smartphones seen in advertisements are often difficult to clearly recognise due to range of similar products.					
Many smartphones have such a huge range functions that it is hard to compare different brands.					
The information I obtain from advertisements and promotions is often so vague, it is difficult to understand what					

smartphone can actually do.					
When purchasing smartphones, I barely feel sufficiently informed.					
When buying a certain smartphone, I feel uncertain as to what functions of smartphone are best to meet my needs.					
When buying a certain smartphone, I often look for the help of others to understand.					

Q11. The following statements have been made by others in relation to the consumer opinions about the consequences of exposing to confusion while purchasing smartphones. Please read through each and rate your level of agreement /disagreement with them using the scale below...

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5

I like introducing new smartphone to my friend & relatives.					
I like helping people by providing them with information about many kinds of smartphones.					
I have been always asked by people for information about smartphones brands, places to shop from or sales.					
If someone asked me where to get the best buy on several kinds of smartphones, I could tell (him/her) where to buy from.					
My friends and relatives think of me as good source of information when it comes to smartphone's brands					
Think about a person who has information					

about a diversity of smartphone's brands and likes to share this information with others. This person knows about new brands, sorts, sales and so on, but does not necessarily feel he or she is an expert on one particular brand. How well would you say this description fits you?					
Overall, I am satisfied with the smartphone I buy.					
Once I find a smartphone brand I like, I stick with it.					
I usually buy the same smartphone brands.					
I change smartphone brands I buy regularly.					

Q12. This final set of statements have been made by others in relation to their smartphones purchasing habits, please read through each and rate your level of agreement / disagreement with them using the scale below...

	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
I am cautious in trying new smartphone brands.					
Rather than trying something that I am unsure of, I would stick with a smartphone brand I usually purchase.					
I never purchase smartphone brands That I do not know about at the risk of making a mistake.					
I sometimes buy smartphone because my family and friends say so.					

Before buying a smartphone, I often ask for suggestions from friends and family				
I often Identify with other people by buying the same mobile phone brands they buy				
It is important that others like the smartphone I purchase				
I usually follow group preferences when I feel my choice of a smartphone is inconsistent with their expectations.				
I often misunderstand important information while purchasing smartphones due to mistranslation.				

I highly rate smartphones with instruction manuals and other product-related information that are written in my mother tongue.					
Technical jargon in translated instruction manuals is difficult to understand.					
I often highly rate the quality of a smartphone that its promotions are written in my mother tongue.					

Appendix C: Arabic Version of the Questionnaire

دراسة جديدة

موافقة مسبقة(University of
Strathclyde)

انت مدعو لاكمال هذي الدراسة التي تعتبر جزء من مشروع ورسالة دكتوراة في كلية ادارة الاعمال بجامعة ستراثكلايد. الهدف من هذي الدراسة هو اختبار وفحص شعورك وردة فعلك اتجاة حالات التسوق الاستهلاكي للاجهزة الذكية. كذلك يفترض ان تعبئة هذة الدراسة لن تاخذ من وقتك أكثر من ٢٠ دقيقة. كما اننا نتعهد بعدم الكشف عن الهوية والسرية التامة للمعلومات المعبئة في هذا النموذج.

القسم الاول: معلومات المشترك

١-الجنس

ذكر

انثى

٢. العمر

18-25

26-35

36-45

46-55

55 +

٣. الحالة الاجتماعية

أعزب

متزوج

منفصل

أرمل

غير ذلك ....

٤. اعلى مستوى دراسي تم الوصل اليه

اقل من ثانوي

ثانوي

ديبلوما

بكالوريس

ماستر

دكتوراة

غير ذلك ....

٥. الوظيفة الحالية

طالب

موظف

عاطل

اعمال حرة

متقاعد

.... غير ذلك

٦. الاصل

عربي

اسيوي

افريقي

اوروبي

امريكي

..................غير ذلك

٧. هل سبق لك وان اشتريت جوال محول

نعم

لا

٨. اذا 'لا' ، هل كانت لك النية ان تشتري جوال محمول

نعم

لا

٩. ماهو اخر جهاز اشتريتية او قريبا بتشترية

اختار اجابة واحدة

Apple

Samsung

Nokia

Huawei

Sony

Blackberry

HTC

LG

غير ذلك ....

القسم الثاني: شعورك ورأيك حول شراء الاجهزة الذكية

١٠. الجمل التالية تمت من خلال اشخاص لهم علاقة في شراء الاجهزة الذكية في السعودية. رجاء اقراها ثم ضع تقيمك بناء على المقياس المحدد في الجدول الموضح في الاسفل:

	لا اوافق بشدة	لا اوافق	محايد	موافق	موافق بشدة
	1	2	3	4	5
بعض الاحيان ، ما اكون متاكد من نوعية الجهاز اللي تناسب احتياجاتي					

					بسبب وجود انواع متعددة من الشركات المنتجة للاجهزة الذكية، فانا اشعر ببعض من الحيرة
					بسبب وجود اماكن ومواقع متعددة لشراء الاجهزة فهذا يصعب المهمة لاختيار المكان المناسب للتسوق منه
					معظم الاجهزة الذكية المطروحة بالسوق متشابهه وهذا يجعل من الصعوبة التميز بين العلامات التجارية\الشركات
					غالبا من الصعوبة ملاحظة الاصدرات الجديدة من الاجهزة الذكية بسبب تشابة النمو في معظم العلامات التجارية

					بعض العلامات التجاري متقاربة جدا لدرجة قد تفكر ان المصنع لهم مشترك
					غالبا من الصعوبة التعرف على الاجهزة الذكية التي تظهر في الاعلانات بسبب لوجود مجموعة من المنتجات المتشابهه
					معظم الاجهزة الذكية تحتوي على مزايا متعددة يصعب التميز بين منتجاتها.
					المعلومات التي حصلت عليها من الاعلانات تعتبر غامضة لذلك من الصعب فهم الهدف الاساسي من الاجهزة الذكية
					عند شراء الاجهزة الذكية ، من النادر اشعر بكتفاء المعلومات عنه

	لا اوافق بشدة	لا اوافق	محايد	موافق	موافق بشدة
عند شراء جهاز معين ، اشعر بعدم التاكد من اي وظيفة لهذا الجهاز تناسب احتياجي					
عند شراء جهاز معين، غالبا ما ابحث عن مساعدة الاخرين					

١١. الجمل التالية تمت من خلال اشخاص لهم علاقة في رأي المستهلك حول عواقب كشف الارتباك عند شراء الاجهزة الذكية. رجاء اقراها ثم ضع تقيمك بناء على المقياس المحدد في الجدول الموضح في الاسفل:

	لا اوافق بشدة	لا اوافق	محايد	موافق	موافق بشدة
	1	2	3	4	5

					أنا أحب ان اعرف واعلم اقاربي و اصدقائي حول الاجهزة الذكية الجديدة
					أنا احب مساعدة الناس من خلال تزويدهم بالمعلومات المطلوبة عن انواع مختلفة من الاجهزة الذكية
					دائما ما اكون محور سؤال من الناس حول العلامات التجارية واماكن شراء الاجهزة الذكية
					لدي القدرة على الإجابة لأي شخص حينما يسألني عن مكان امكانية الحصول على افضل سعر لانواع متعددة من الاجهزة الذكية
					آصدقائي واقاربي يعتقدون ان لدي المعلومات الكافية التي تتعلق بالعلامات التجارية

					المختلفة في عالم الاجهزة الذكية
					فكر في شخص يمتلك المعلومات حول تنوع العلامات التجارية في الاجهزة الذكية ويحب ان يشاركها مع الاخرين. هذا الشخص يعرف كل شي جديد حول العلامات التجارية، الانواع، المبيعات ...الخ لكن مو بالضرورة تشعر ان هذا الشهص خبير في علامة تجارية معينة. إلى أي مدى هذا الوصف مناسب لك؟
					عموما، انا راضي بالجهاز اللي اشتريه
					في اللحظة اللي اشوف علامة تجارية احبها ، اثبت معها واشتري منهم.
					غالبا اشتري من نفس العلامة التجارية

	لا اوافق بشدة 1	لا اوافق 2	محايد 3	موافق 4	موافق بشدة 5
أغير العلامة التجارية اللي اشتري منها باستمرار					

١٢. الجمل التالية تمت من خلال اشخاص لهم علاقة في عادات شراء الاجهزة الذكية. رجاء اقراها ثم ضع تقيمك بناء على المقياس المحدد في الجدول الموضح في الاسفل:

	لا اوافق بشدة 1	لا اوافق 2	محايد 3	موافق 4	موافق بشدة 5
أنا حذر في تجربة علامة تجارية جديدة					
بدلا من تجربة شي انا مو متأكد منه، راح استمر مع العلامة التجارية اللي دائما اشتري منها.					
أنا نهائيا ما شريت من علامة تجارية ما اعرف عنها.					
انا غالبا اشتري الاجهزة الذكية بسبب الحث من عائلتي واصدقائي					

قبل شراء الجهاز، عادة اسأل اصدقائي وعائلتي حول اقتراحاتهم.					
انا غالبا اشتري من نفس العلامة التجارية اللي يشتري منها اشخاص معينه او معظم الناس					
من المهم عندي ان الاخرين ينعجبون بجهازي اللي بشتريه					
انا عادة اتبع تفضيلات بعض المجموعات حينما اشعر ان اختياري للجهاز ما يتوافق مع توقعاتهم.					
انا غالبا اجهل معلومات مهمة عند شراء جهازي بسبب اخطاء في الترجمة					
انا افضل وبقوة ان كتيب التعليمات وبعض					

					المعلومات المهمة عن المنتج انها تكون مكتوبة بلغتي الاصلية
					المصطلحات التقنية في كتيب التعليمات من الصعب فهمها
					انا غالبا اقيم جودة الجهاز اذا كان مكتوب بلغتي الاصلية.

Appendix D: Saudi Telecom Sector
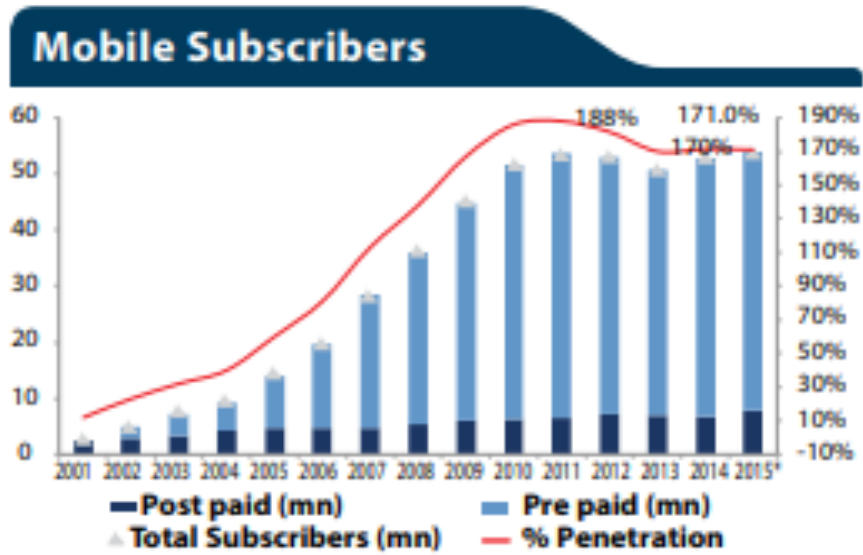
(Saudi Telecom Sector, 2016)

Appendix E: Sample Characteristics

Current Occupation

Statistics

Current Occupation

N	Valid	400
	Missing	1

Current Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employee	304	75.8	76.0	76.0
	Retired	7	1.7	1.8	77.8
	Self-employed	16	4.0	4.0	81.8
	Student	39	9.7	9.8	91.5
	Unemployed	34	8.5	8.5	100.0
	Total	400	99.8	100.0	
Missing		1	.2		
Total		401	100.0		

Education Level

Statistics

level eduction

N	Valid	399
	Missing	2

Education Level

	Frequency	Percent	Valid Percent	Cumulative Percent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree or similar	260	64.8	65.2	65.2
	Diploma	43	10.7	10.8	75.9
	High school	40	10.0	10.0	86.0
	Master's degree	46	11.5	11.5	97.5
	Other (please specify)	1	.2	.3	97.7
	PhD	9	2.2	2.3	100.0
	Total	399	99.5	100.0	
Missing		2	.5		
Total		401	100.0		

Ethnicity

Statistics

ethnicity

N	Valid	400
	Missing	1

Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Africa	2	.5	.5	.5
	Arab	377	94.0	94.3	94.8
	Asian	4	1.0	1.0	95.8
	European	11	2.7	2.8	98.5
	Other (please specify)	6	1.5	1.5	100.0
	Total	400	99.8	100.0	
Missing		1	.2		
Total		401	100.0		

Owned a Smartphone

Statistics

Have you ever purchased a mobile phone?

N	Valid	399
	Missing	2

Have you ever purchased or intended to purchase a smartphone?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	.2	.3	.3
	Yes	398	99.3	99.7	100.0
	Total	399	99.5	100.0	
Missing		2	.5		
Total		401	100.0		

Brand of Smartphone

Statistics

brand

N	Valid	400
	Missing	1

Brand

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Apple	209	52.1	52.3	52.3
	Blackberry	7	1.7	1.8	54.0
	HTC	21	5.2	5.3	59.3
	Huawei	18	4.5	4.5	63.8

	LG	5	1.2	1.3	65.0
	Nokia	15	3.7	3.8	68.8
	Other (please specify)	1	.2	.3	69.0
	Samsung	111	27.7	27.8	96.8
	Sony	13	3.2	3.3	100.0
	Total	400	99.8	100.0	
Missing		1	.2		
Total		401	100.0		

Appendix F: The Tolerance Level and VIF of the Structural Model

Coefficients[a]

		Collinearity Statistics	
Model		Tolerance	VIF
1	OC4	.410	2.439
	SC1	.341	2.934
	SC2	.309	3.231
	SC3	.378	2.645
	AC1	.338	2.955
	AC2	.330	3.030
	AC3	.344	2.905
	AC4	.220	4.543
	AC5	.338	2.963
	WOM1	.344	2.908
	WOM2	.212	4.724
	WOM3	.251	3.987
	WOM4	.253	3.954
	WOM5	.291	3.436
	WOM6	.463	2.160
	CS1	.343	2.920
	BL1	.391	2.560
	BL2	.360	2.779
	BL3	.452	2.214
	RA1	.350	2.858
	RA2	.285	3.510
	RA3	.432	2.313
	SI1	.280	3.573
	SI2	.293	3.408
	SI3	.376	2.663
	SI4	.260	3.851
	SI5	.314	3.182
	LB1	.317	3.157

LB2		.356	2.809
LB3		.419	2.388
LB4		.404	2.476

a. Dependent Variable: Overload_Confusion

Appendix G: Model Fit Summary (with Moderators)

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	90	1232.427	406	.000	3.036
Saturated model	496	.000	0		
Independence model	31	10152.556	465	.000	21.833

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.049	.834	.798	.683
Saturated model	.000	1.000		
Independence model	.433	.140	.083	.131

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.879	.861	.915	.902	.915
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.873	.767	.799
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	826.427	724.647	935.814
Saturated model	.000	.000	.000
Independence model	9687.556	9363.101	10018.390

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	3.081	2.066	1.812	2.340
Saturated model	.000	.000	.000	.000
Independence model	25.381	24.219	23.408	25.046

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.071	.067	.076	.000
Independence model	.228	.224	.232	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	1412.427	1428.079	1771.883	1861.883
Saturated model	992.000	1078.261	2973.005	3469.005
Independence model	10214.556	10219.947	10338.369	10369.369

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	3.531	3.277	3.805	3.570
Saturated model	2.480	2.480	2.480	2.696
Independence model	25.536	24.725	26.363	25.550

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	148	155
Independence model	21	22

SRMR

Default model

Standardized RMR = .0519

Appendix H: Confirmatory Factor Analysis without Moderators
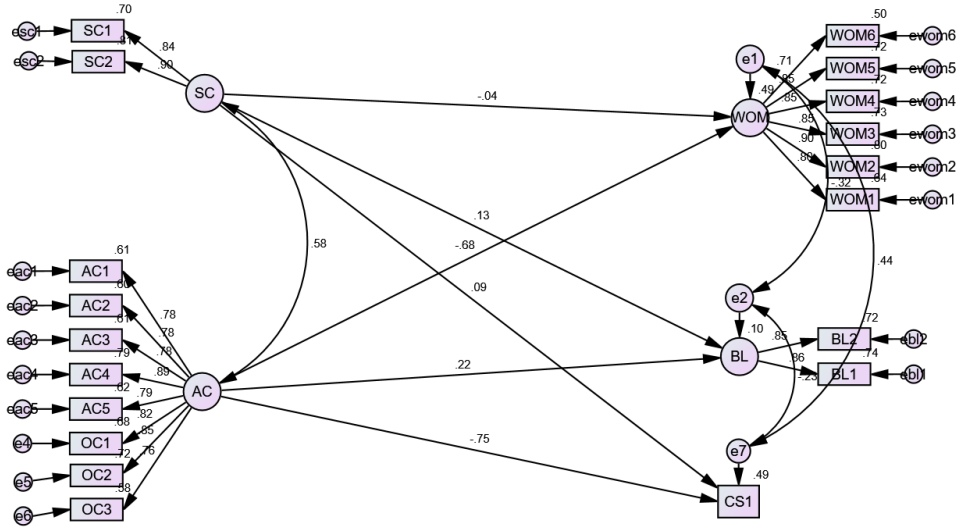
Appendix I: Consumer implications

Consumers in Saudi Arabia should to be aware of the issue of consumer confusion; in this sense, they need to be aware of the dimensions of confusion and how they may negatively impact on their purchasing decisions. This study investigated the cause and effect of consumer confusion in the Saudi Arabian smartphone market, and the results confirmed that consumer confusion is a universal issue that occurs in customers in Saudi Arabia and could occur in other products or services. Therefore, this research aims to outline some recommendations from a cultural perspective in order to help consumers cope with confusion.

It is important to understand that, compared to consumers from Western societies, consumers from non-Western societies such as Saudi Arabia are considered to be less knowledgeable and sophisticated with regard to purchasing decisions; therefore, their likelihood of being exposed to consumer confusion is relatively higher (Walsh et al., 2006).

Consequently, when perceiving confusion situations, customers should consider the following recommendations:

1- Avoid complex information from different sources, unless you are sure that the information provider is an expert and is trustworthy. It is important for customers to select the correct shopping companion in order to decrease mistakes in purchasing decisions. Luo (2005) states that, in collectivistic cultures, in order to decrease impulse buying, having family members as shopping companions to provide advice could be more 'sensible' with regard to purchasing decisions, particularly in comparison with friends,

who are more likely to encourage impulse buying, which may lead to negative outcomes.

2- Consumers in Saudi Arabia should increase their awareness of the term 'consumer confusion' and its negative consequences.

3- As a consumer protection measure, consumers need to increase their brand knowledge and be able to distinguish between local and foreign brands. This situation increasingly occurs in non-English speaking countries, such as China or Saudi Arabia. It is a fact that some local brands intentionally attempt to mislead consumers by making their local brands, in term of their tangible and intangible characteristics, similar to foreign brands with good reputations, a situation referred to as 'brand origin confusion' (BOC; Zhuang et al., 2008). According to Kotler (2000), consumers with more knowledge about a brand will be more likely to differentiate it from other brands, thus constructing purchasing preferences toward a certain brand.

4- Customers, especially in less mature markets, should increase their education in order to understand the meaning of technical terminology or ask for advice from a staff in the stores in order to reduce technical complexity.

5- Customer need to be cautious when making an online purchase of a brand that is not well-known, specifically for products that are not globally recognised. For example, when a consumer intends to buy a new Chinese-brand smartphone and is confused due to uncertain information, the customers' experience with Chinese people is likely to help them reduce

this confusion; in this regard, they could visit the brand's website and check customers' reviews. By so doing, they would be able to evaluate the product and its related information and then make a purchasing decision based on this.

6- With the increasing number of electronic stores selling smartphones, customers should be cautious where they buy products, as some local (unauthorised) stores may sell imitation brands.

7- With the increasing number of social network sites, such as Instagram, Facebook, and Snapchat, and the growth in the number of customers using such sites to understand information about brands, it is important for customers to be careful when using these sites and the comments therein, as they may not provide the correct information and could lead to an increase in confusion.

8- Since customers in Saudi Arabia believe that language barriers are a worry when shopping, it is important that customers should be concerned about the quality of the translated information provided by brands. Even an excellent translation can create cultural distance, which affects customers' evaluations of products (Nantel and Glaser, 2008). Therefore, customers in Saudi Arabia who are not sure about translated information or are afraid of making a wrong purchasing decision due to language barriers should ask for help from the store staff in order to clarify the information provided by the brands and to choose the brand that meets their needs.

9- Although the customers in the present study believed that they are less risk-averse when purchasing smartphones due to the financial support they receive from their families, this does not mean that this is always the case; thus, customers need to be careful not to take risks in their buying decisions, especially when purchasing high-end products. (e.g. the significant increase in price of the iPhone X when compared to the iPhone 7).

In addition, in order to reduce confusion, consumers should create websites in which they are able to see the difference between brands in terms of price, features, style, and other product-related information, which would help to clarify consumers' purchasing decisions and diminish any aspect that may create uncertainty or similarity confusion among consumers. Such websites should be designed in such a way that they are easy to use and understand by different kinds of customers; for example, they should be written in the nation's mother tongue in order to reduce issues relating to language barriers. Moreover, people who manage and provide the information on these websites should be certified and authorised by consumer organisations, such as the Consumer Protection Association in Saudi Arabia, in order to increase consumers' reliability in, and the credibility of, such websites. However, if the websites are not authorised and monitored by consumer bodies, they may not be trusted and may be seen as biased towards particular brands.

It is not surprising that websites such as www.confused.com or www.comparethemarket.com have appeared in the UK in order to assist consumers compare products. These kinds of comparison websites help consumers reduce

consumer confusion either directly or indirectly by providing them with many

alternatives for insurance service providers.