Evaluating the Credibility of Online Consumer Reviews During a Simulation of an Active Purchase Decision

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Declaration and Copyright

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination, which has led to the award of a degree.

Some parts of this thesis have been presented and published in a number of academic events during the process of developing this research (2010 – 2012):

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Signed:

Date:

Dedication

I dedicate this thesis to my Papa who sadly passed away before I could complete my

research. Papa this is for you!

I also make a special dedication to anyone who dares to dream big and believes that

they can achieve what others see as the seemingly impossible…

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Abstract

The primary focus of this study is to explore how consumers determine the credibility of online social content, particularly consumer reviews. In doing so the research answered five key objectives: (1) to identify the types of online media used to gather product related information during an active information search, (2) to explore the factors considered by the consumer during information evaluation, (3) to determine the relative importance of each of the factors considered during decision making, (4) to investigate the interrelationships between the factors considered during decision making, and (5) to understand the factors which influence the credibility of online social content.

A mixed methods methodology was adopted in the research. The 'connected consumer' segment was the sample frame. It was believed that by exploring the behaviours of the 'connected consumer' segment the study would aid in understanding the behaviours of the growing tech savvy consumer (O'Reilly and Marx, 2011), which is likely to become the largest consumer segment (Hardy, 2011). An exploratory qualitative element was conducted to ensure valuable positioning of the research, and determine the usefulness of sampling the connected consumer segment. A total of 12 semi-structured interviews were conducted to lead development of an online self-administered conjoint analysis survey. The survey generated a total of 180 usable responses, this sample was also found to be characteristic of the connected consumer segment.

The findings of the research demonstrate that while the social media landscape offers multiple types of online social content, consumers are heavily reliant on online

consumer reviews. The research makes a significant contribution to knowledge in the development of a new model of information credibility evaluation. It is argued that the structure of previous models of information credibility evaluation (Cheung *et al,* 2009; Hovland, 1948; Wathen and Burkell, 2002) are not structurally representative of the evaluation process. This research finds that content evaluative attributes are best represented by informational and normative determinants. By segmenting content evaluative attributes into informational and normative, the information credibility evaluation process is more accurately represented. To determine the credibility and personal relevance of an online consumer review, consumers use normative based content cues, source platform and content creator characteristics to assess the credibility of the informational content cues [the narrative]. In this study, the consumers' personal characteristics were not found to moderate the information evaluation process.

The key implications for marketers, review site developers and consumers are discussed in relation to extracting more value from the consumer review process. Providing marketers with insight into handling the impact of consumer reviews on purchase; for review site developers with ideas to reduce the cognitive strain for consumers to review and evaluate reviews and increase the credibility of reviews; and finally for consumers themselves to write reviews that are helpful and credible. The directions for future research outlined in light of the findings of this research.

Chapter I Introduction to Research

The importance and influence of online socially constructed information sources has risen in recent years with the advent of Web 2.0 technologies. The resultant impact of such sources on the consumer decision-making process has subsequently emerged as a growing body of literature. However much remains unknown about what constitutes their influence or which sources are of importance during a purchase decision. This chapter seeks to introduce the proposed research, which aims to fill this research gap. The chapter will outline the background to the research, the research problem and rationale, outline the methodology, thesis framework and glossary of key terms.

1.1   Background to Research

In today's ever changing media landscape, new socially constructed information sources are available to almost anyone with internet access. Such sources have been regarded as disruptive to traditional businesses processes (Solis, 2011) and marketing by limiting the influence of marketers during the purchase decision process. The rapid change in Web 2.0 technologies has facilitated a changing digital landscape through new vivid and engaging social media platforms. The widespread acceptance and adoption of social media by society and consumers at large has given rise to new streams of savvy consumers, argued to be the 'connected consumer' (Solis, 2012).

The connected consumer believed to be the first generation to seemingly possess digital prowess as part of their DNA (Solis, 2012). This research defines the

connected consumer as 'a distinct group of people who are digitally connected, creative, community driven and content driven'. Individuals all over the world now frequently connect, share and engage via social media platforms creating online social content in their interactions. Online social content may discuss products, brands and services and may remix the messages marketers originally communicated. To put this new information economy into context, some 500 billion impressions about products, brands and services are made annually via social media platforms Grant, Gino and Hofmann, 2001).

Consumers' are now frequently relying on each other for brand, product and service information during a purchase decision. Subsequently, online social content has facilitated a shift in power in the marketplace from marketers to consumers (Baker and Green, 2005; Goldsmith and Horowitz, 2006). Word of mouth (WOM) communication and opinion leadership (Katz and Lazarsfeld, 1955) are strongly linked to the influence of consumer to consumer recommendations and opinions. Online research has termed this to be eWOM (for example, Chatterjee, 2001; Doh and Hwang, 2009; Park, Lee and Han, 2007), and mostly comprises of online consumer reviews. More consumers are emerging as 'influencers' or opinion leaders because of the voice amplification social media facilitates, creating a new form of online social content, expert generated content (EGC). Brands and marketers are also trying to cash in on the growth in social interactions creating 'branded social spaces' (Ney, 2011) and brand generated content (BGC).

The shift to 'consumer voice' has prompted scholars to research the impact of consumer reviews on purchase decisions (see Cheung *et al,* 2010; Cheung and Thadani, 2011 for review). It is believed that CGC is more influential during service

purchase decisions because of the experiential nature of reviews and recommendations (Chen and Xie, 2004). The emergence of influencer EGC and the development of BGC are rising at an exponential rate but much is unknown about the use and influence of the new BGC and EGC during a purchase decision. The question remains, which online social content sources are of influence during a purchase decision? Moreover, little is known about what constitutes influence of such varied information sources and content narratives.

Research suggested that consumer benevolence is the most common reason why consumers post reviews (for example, Chan and Li, 2010; Yoo *et al,* 2009), however there is no standardised approach to review writing. Reviews vary dramatically in content and quality (Lee *et al,* 2008; Park *et al,* 2007; Sher and Lee, 2009) and the onus is on the consumer to evaluate the credibility of the review (Steffes and Burgee, 2009) which is also indicative of all online social content. Steffes and Burges (2009) warned that online social content places the burden on consumers to determine its worth. The computer mediated nature and limited social cues characteristic of online social content place extra cognitive strain on the consumer where it is difficult to determine the credibility of the information obtained. It is thought that the new generation of consumer, commonly regarded as 'millennials' (Miller, 2012) or 'connected consumers' (Solis, 2012) are more astute and have increased ability to evaluate online information but little is known about this process. As more individuals adopt an online existence the numbers of 'connected consumers' are set to increase. Consequently, increasing the need to understand the behaviours of the growing 'connected' segment (Hardy, 2011; O'Reilly and Marx, 2012). It is argued

that more research is required to find out how consumers evaluate online social content and how this content influences decisions.

1.2 Research Problem and Rationale

Werthner and Klein (1999) assert that the internet and the tourism industry are inexplicably linked. The high intangibility of trip purchasing decisions (Murray 1991; Zeithaml, 1981) characterise the tourism industry as information intensive (for example, Buhalis, 2003; Buhalis and Law, 2008; Gretzel, Fesenmaier and O'Leary, 2006). Resultantly the internet has become one of the most important sources of information for tourism consumers (Law, Qi and Buhalis, 2010; Xiang and Gretzel, 2010; Zins, 2007). Information search for trip purchases increases the need for external search due to the inherently intangibility of purchases. The shifting information and communication economy as a result of Web 2.0 technologies has increasingly seen tourism consumers use online social content, particularly consumer reviews to make an informed trip purchase decision (Buhalis and Law, 2008; Fotis *et al,* 2011).

To date the predominant focus of research has been to explore the impact of consumer reviews or blogs on purchase decisions (see Cheung *et al*, 2010 for general review), with the exception of Fotis *et al* (2011). However, as experts emerge and marketers become more sophisticated in understanding the new online 'social behaviours' and produce their own content in an attempt to counteract the buyer/seller power shift, the nature and characteristics of electronic word of mouth (eWOM) are blurred. The burden to search and process all forms of online social

content is placed on the consumer (Steffes and Burgee, 2009) where the quality, source and opinions of the content vary dramatically.

While research has proven that CGC (in the form of consumer reviews) are influential in a purchase decision (see Cheung *et al,* 2010 for general review) much remains unknown about what makes one review more influential than another or the cues consumers use to evaluate the credibility of a review. If marketing managers could better understand how the credibility and influence of online social content is constructed in the mind of the consumer they could better tailor their social media strategies to effectively leverage online social content, reduce the practice of 'fake' reviews, and act with confidence when negative reviews or recommendations are shared by consumers. From a consumer perspective, deliberation of online recommendations is conducted to a greater extent than in traditional WOM situations and consumers will only take advice when they perceive the information as credible (Wathen and Brukell, 2002).

Therefore the principal aim of this research is to explore how connected consumers evaluate the credibility of the information they obtain from online social content. In particular the objectives of the research are:

1. To identify the types of online media used to gather product related information during an active information search
2. To explore the factors considered by the consumer during information evaluation
3. To determine the relative importance of each of the factors considered during decision making

4. To investigate the interrelationships between the factors considered during decision making

5. To understand the factors which influence the credibility of online social content

1.3   Methodology

This study adopted a pragmatic research philosophy. It is believed that pragmatism is the best-fit methodology given the complexity of the behaviours surrounding the research need, the objectives of the research, and the lack of well-established theories and practices in the research area. The review of the literature finds that eWOM studies in relation to consumer reviews and online purchase intention have become the main focus of research. The theories and concepts surrounding eWOM are beginning to be well established in the literature. However little research has explored which types of online social content or social media platforms are used during a purchase decision. Similarly, the credibility or influence of the newer forms of online social content, expert generated content (EGC) and brand generated content (BGC) have yet to be fully explored in the literature. Moreover the research into online credibility was fragmented with no study exploring the effect of content, author, source and the consumers' personal characteristics on credibility evaluations. As a result, it was decided to undertake a mixed methods approach with an exploratory qualitative element to refine the proposed theoretical model and then a quantitative element to test the model.

The exploratory qualitative study was defined through the literature review with an aim to reduce the number of attributes to be tested in the main research instrument.

A total of twelve semi-structured in-depth consumer interviews were conducted with a convenience sample characteristically representative of the 'connected consumer' segment. The study confirmed the basic structure of the theoretical model and identified the attributes of most value to the proposed study. The main quantitative study was comprised of an online self-administered survey. Sawtooth software was used to develop an adaptive conjoint anlaysis (ACA), conjoint based study. An open call for respondents was made via the researcher's social media profiles and personal blog to attract responses from the connected consumer segment. The survey generated a total of 344 responses with 180 usable responses to test the proposed theoretical model. The next section outlines the structure of the thesis in which the research has been framed and analysed.

1.4   Thesis Outline

To rigorously explore the foundations of the proposed research, develop a strong theoretical framework, identify an appropriate methodological approach to guide the research agenda, and analytical framework to explore the results and implications of the research, the structure of the thesis is as follows:

Chapter I
Introduced the shift into the 'social' information economy and the growing importance of online social content during the purchase decision process. Understanding how consumers evaluate the credibility of online social content was identified as an important gap in the literature. The best fit methodology to explore how consumers evaluate the credibility of online social content was identified as a pragmatic mixed methods approach.

Chapter II
Explores the consumer decision-making process to identify the importance of information during the purchase decision process. The models and theories of information search, the modes of search and determinants of search are examined to understand how consumers search and consume information during a purchase decision.
Chapter III
Examines the information sources available to consumers during the information search process. The internet as a source of information and information retrieval system is explored to highlight additional modes and determinants of information search and stages of the purchase decision process resulting from the online search process.

Chapter IV
Explores the wider technology supporting the creation of online social content, as well as the background, nature, and types of online social content available to consumers during information search. The chapter aims to highlight the consumer motivations to search and use online social content during a purchase decision, and the extra burden placed upon the consumer in terms of search and evaluation to better understand the nature of online social content.

Chapter V
Explores how consumers evaluate online social content with limited social cues in the computer mediated environment. Online information credibility will be explored and the cues used to evaluate information credibility during a purchase decision will be examined to guide development of the theoretical model to be tested in this research.

Chapter VI
Outlines the knowledge gaps of online social content research in a bid to frame the proposed research. The theoretical model to be tested in the research is developed in line with findings of previous research. The chapter also explores which purchase decision context should set the context for the proposed research. The literature in the area is reviewed to highlight any additional considerations to be taken during the

primary research.

Chapter VII

Provides a full discussion and argument for the adopted methodological stance of the research. The chapter explores research philosophies, justifies methodological selection, provides arguments for methods choice, measurement scales, data collection issues, ethical considerations and limitations of the study.

Chapter VIII

Presents the findings of the exploratory consumer research and confirms both the theoretical model structure and the model attributes. The revised theoretical model is outlined in relation to the exploratory results. The conjoint measures are outlined and the assumed hypotheses are provided.

Chapter IX

Outlines the process followed to analyse the data obtained from the conjoint analysis study. The data is analysed in relation to the established conjoint analysis standards and prepared to allow for an effective discussion on the findings of the research.

Chapter X

Presents the findings of the research. The results of the part-worth utilities linear relationships, the relative importance of the ten evaluative cues, and the assumed hypotheses of the impact of the consumers' personal characteristic variables on the importance levels are discussed and prepared to allow for analysis in relation to previous information search, information evaluation, information credibility studies, and the results of the exploratory study.

Chapter XI

Analyses the research findings in relation to the findings of previous information search, evaluation and information credibility studies as well as the results of the exploratory study. Inferences are made and the chapter answers the set research

objectives and provides a final theoretical model in relation to the final study results.

Chapter XII
Discusses the conclusions and implications of the research in relation to the study results. The contribution to knowledge and theory is discussed and the limitations of the study and directions of future research are acknowledged.

Table 1.1: Thesis Outline

1.5   Glossary of Key Terms

This study concerned a relatively new area of research, online social content, where many of the constructs are not widely defined or developed in current research. As such it was important to define the terms:

Term	**Definition**
Branded Social Space	The social media profiles developed by brands in an effort to engage with consumers
Brand Generated Content	The audio, video, text or pictures published on social media sources by brands with the intention of educating or engaging consumers about the brands offering
Connected Consumer	A distinct group of people who are digitally connected, creative, community driven and content driven
Consumer Generated Content	The audio, video, text or pictures published on social media sources by consumers with the intention of educating others about brands, products or services
Expert Generated Content	The audio, video, text or pictures published on social media sources by 'influencers' with the intention of educating others about brands, products or services
Online social content	The audio, video, text or pictures published on social media sources with the intention of educating about brands, products and services
Social Media	Those online sources that facilitate self-publication and in which consumption experiences and brand information can be found
Web 2.0	The technology characterised by interactivity, creativity,

	openness and networking, facilitating user participation, self-publication, collaboration, a sense of community, and mass authenticity online

Table 1.2: List of Key Terms and Definitions

1.6   Chapter Summary

The widespread acceptance and adoption of social media technologies have changed the online behaviours of consumers during a purchase decision. The influence of online social content, in particular, consumer generated content (CGC) has created a power shift between consumers and marketers in the purchase decision process. The consumer's perception of information credibility is believed to determine the influence of online social content. Research has suggested that CGC (consumer reviews) influence intention to purchase (for example, Park *et al*, 2007) however the quality of online social content is variable and the onus is on the consumer to evaluate the credibility of the message. The onus is placed on the consumer to evaluate the credibility and relevance of the content message (Steffes and Burgee, 2009), little is currently known about how consumers evaluate the credibility of online social content. This research proposes to fill this gap by undertaking a full review of relevant studies to develop a theoretical model that explores the attributes used during information evaluation to determine the credibility of the message. Due to the limited research in the area pragmatism was believed to be the most appropriate research philosophy as the researcher can use a combination of methods that best fit the research issue. The next chapter begins to review the literature pertinent to the area of study in order to develop a strongly grounded theoretical model.

Chapter II   Consumer Information Seeking in Purchase Decisions

The following chapter sets out to review the literature relevant to consumer information search. The focus of this study, how consumers evaluate the credibility of online consumer reviews, has antecedents in this body of literature. To set the wider theoretical underpinnings of the research it is first necessary to explore the consumer decision making process to better understand the role of information search and evaluation during a purchase decision. The theories and models pertaining to traditional information search will be explored and critiqued in relation to the changes in consumer behaviour resulting from mass consumer adoption of online information search. The extensive review of information search has led to a wide range of theories on the subject. However the aim of this review is to provide an overview of the research that help explain the variances in information search behaviour and their subsequent impact on the evaluation of online information credibility, and draw generalisations that can be applied to this study.

2.1   Consumer Decision Making Process

Bagozzi (1992) argued that choice is the central phenomenon for study in consumer research. An element of the choice process, consumer information search has become a popular focus of research (See Guo, 2001 and Srinivasan, 1990 for comprehensive review). The large body of literature regarding information search could be explained by its relationship within the wider decision making process. Virtually every text on consumer behaviour includes a verbal or flow chart model of the consumer decision making process. The process is typically represented in five

stages (Figure 2.1) encompassing: need recognition, information search, alternative evaluation, decision making and post purchase evaluation (Engel, Blackwell and Kollat, 1978). This suggests that the decision making process should be viewed in terms of a sequence of behaviours.

| Need Recognition | Information Search | Evaluation of Alternatives | Purchase | Post Purchase Evaluation |
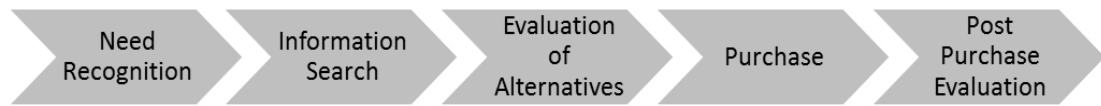
Figure 2.1: Consumer Decision Making Process

The labels adopted in the Engel *et al* (1978) consumer decision making model are not universal in other decision making models, however the meaning behind them is reflective. Markin (1979: 318) for example opted to term the first stage 'problem recognition and identification' and the fourth and fifth steps 'choice or commitment' and 'post choice and commitment activities' respectfully. Moreover, information search is also commonly termed 'information acquisition' (for example, Jacoby, Chestnut and Fisher, 1978: 532). The changes in terminology may be explained by the researcher's background or the varying objectives of research; for instance, conceptual developments have been adopted from the fields of economics, psychology and sociology. However, the model is also not without its criticisms.

Kassarjian (1978) believed that every purchase does require or has a pre-purchase information search, for example, impulse purchases. If the impact of the internet is also considered, the stages of consumer decision making may be blurred due to the internet being used as a means of play or recreation (Hoffman and Novak, 1996; Mathwick, Malhotra and Rigadon, 2001) as well as an information source (discussed further in Chapter III). New consumer decision-making models have emerged, taking into consideration the role social media plays in a purchase decision (Court *et*

al, 2009; Wildfire, 2012). Such models adopted the concept of 'zero moment of truth' (Google, 2012) and modelled a new stage of consumption (Wildfire, 2012) and on-going consumer loyalty considerations (Court *et al*, 2009) (full discussion on social medias impact on purchase decisions will be discussed in Chapter IV). However, the models are can still be prone to criticisms of past decision-making models (for example, Engel *et al,* 1978). In that they are staged and it is believed that consumers will follow the process. Moreover, post-purchase behaviours are represented as positive to the brand and becoming brand advocates which neglects the impact of poor consumption experiences and service failures on the purchase cycle.

While not infallible, the theories pertaining to the traditional consumer decision-making model (and new decision-making models) suggested that, the first stage of consumer decision making is need recognition. During need recognition the consumer sets out to fulfil their desired consumption goal which can be triggered individually or in a combination of three determinants: information stored in memory, individual differences and environmental influences (Engel, Blackwell and Miniard, 1993).

Subsequently the second stage of the process is information search; information seeking can be viewed as searching for information as a consequence of a need to satisfy some goal (Wilson, 2000). Information may come from memory or experience or from external information sources. To evaluate the choice alternatives, the consumer will process and evaluate the information obtained from search and compare the product attributes to their own individual evaluation criteria and

preferred outcome of consumption. In other words, the consumer will assess the product/service attributes and determine if they meet their expectations of that product or experience.

The act to purchase is the fourth stage and when the purchase is made and has been consumed the consumer will move onto post purchase evaluation. During post purchase evaluation the consumer will continuously evaluate the purchase in terms of satisfying the original goal, resulting in satisfaction or dissatisfaction. The experience will then be stored in memory, which in turn may be used during a future purchase decision. In today's digital world the experience is not only stored in memory but is also increasingly likely to be published online in consumer reviews, blogs and within the consumers social media profiles, it is estimated that the number of user-generated content creators will reach 114.5 million in 2013, up from 82.5 million in 2008 (eMarketer, 2009) (discussed further in Chapter IV).

While the consumer decision-making process delineates five distinct stages the duration of decision making can vary between consumers and between different purchases and purchase categories. For example, purchase processes can be on a continuum of long and complex for thought out purchases (for instance, a car purchase) to habitual purchases (for instance, shampoo) involving little effort (Howard and Sheth, 1969). Bettman, Johnson and Payne (1991) offered one explanation for this continuum, in that, the difficulty of a consumers' choice will depend upon four elements (1) the number of alternatives and attributes, (2) the level of difficulty to process certain attributes, (3) the uncertainty regarding the value of the attributes, and (4) the level of shared attributes. The more difficult the purchase,

the longer the decision making process. Implicitly suggesting the consumer will undergo some level of mental cognition during a purchase decision.

Concurring, Schaninger and Sciglimpaglia's (1981) study of housewives traits and demographics on information acquisition suggested that the consumer undergoes some level of mental cognition during a purchase decision. The level albeit, affected by personal characteristics. Nonetheless, Kasarjian (1978) argued that not all consumer purchases follow a mental decision process. In testing this assumption product categories and purchases believed to involve little mental effort have been a focus of study in their own right. Hoyer (1984) studied common repeat purchases and empirically found that consumers use choice rules or tactics for this type of purchase decision thus implying some level of mental cognition. Indeed the empirical work of Mittal (1989) defined and measured purchase decision involvement finding that consumer purchases do involve some level of mental cognition, be it limited or otherwise.

Further to earlier criticisms of the model of consumer decision-making, the internet has blurred the distinction between the established behavioural stages. For example, research has often proven that there is a clear gap between the amount of external online information search and purchase (Grant, Clarke and Kyriazis, 2007; Mathwick, Malhotra and Rigdon, 2001). Indicating that the internet is used as a mode of play or recreation, and if online information search studies are considered recreational 'surfing' will impact upon both subsequent search and credibility evaluation (Bhatnagar and Ghose, 2004; O'Brien and Toms, 2008). Moreover the 'virtual' computer mediated environment in which the internet functions has been demonstrated to limit social cues in which the information can be assessed (Lea and

Spears, 1991, 1992) therefore increasing the complexity of information evaluation. Subsequently, the information search process is said to include a new trust dimension (Lee, 2002; Laing and Lai, 2002; Suh and Han, 2002). (The role of the internet in the purchase decision process is discussed further in Chapter III).

The decision-making process places central importance on the information search stage. It is at this stage where the specifics of the purchase are formed and incidentally where advertising is most influential. Moorthy, Ratchford and Talukdar (1997: 1) explored consumer decision making in car purchases and argued that understanding information search is critical to a 'firms' strategic decision making'. Although a wide range of literature and empirical studies on information search exists, virtually all concern consumer goods categories, neglecting service purchases (see Guo, 2001 for review). The diverse degree of information searching, bivariate relationship and the weighted external information source results may therefore be inappropriate for services due to their intangible and experiential characteristics. Moreover, much of the theory of buyer behaviour placed importance on 'brand' constructs which is particularly important in low/limited information processing situations (Howard and Sheth, 1969). Therefore, the disproportionate volume of large international brands between consumer goods and services may prove problematic in adopting systematic decision-making theories within the service context.

Nevertheless, the model of consumer decision-making suggested that the focus and theoretical framework of the research proposed in this study is within the information search and evaluation of alternatives stages. It is during information search and evaluation where both information and the credibility evaluation of the information

obtained is important and ultimately impacts on the consumers' final purchase decision.

This section highlighted that information search is an important stage of the consumer decision making process. It is argued that to successfully position the theoretical framework of this research it is necessary to review information search literature because information search forms the specifics of a purchase decision. In other words, information search determines the information to be evaluated and from which an informed purchase decision can be made. However the information search process is believed to vary between consumers and purchases. To gain a deeper understanding of the process and variances of consumer information search, and their relationship to information credibility evaluation, the following section will examine the foundations of information seeking behaviour.

2.2   Information Seeking Behaviour

Information seeking is embedded in the larger process of decision making, problem solving and resource allocation which sets the context for establishing information needs. As a result, information seeking has been studied across a wide range of research domains. The general information seeking theories and models are thought to provide the foundations of consumer information search models. Generally it is believed that information seeking behaviour occurs as an individual recognises and decides to act on a need for information. After information acquisition, the final stage of the process is evaluation and the use of the obtained information. For the purpose of this study, the body of literature surrounding information behaviour models will first be reviewed and subsequently the consumer models will be

identified. The review attempts to explore the theoretical foundations of information seeking behaviour by reviewing the traditional information behaviour models and identifying the linkages to the models of consumer information search.

2.2.1 Information Behaviour Models

In order to understand information search within a purchase context it is first necessary to explore the foundations of information behaviour. Information behaviour can be defined as the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use (Wilson, 1999). The origin of information behaviour research is considered to be The Royal Society Scientific Information Conference of 1948. Several papers were presented on the information behaviour of scientists and technologists. Information behaviour can therefore be linked to Information Retrieval (IR) research which not only examined the behaviours and cognitive processes of information users but how they interact with the information objects and the IR system setting (see Ingwersen, 1996). The contexts included individuals within organisations (Ellis, 1989) and individuals searching for information for personal purposes (Kuhlthau, 1991).

Several key authors offered models at the three levels of information behaviour (Table 2.1).

Author	Area	Focus	Result
Dervin (1983)	Information Seeking Behaviour	Individual Urban Residents	Triangular Sense-Making Approach
Ellis (1989) Ellis, Cox and Hall (1993) Ellis and Haugan (1997)	Information Seeking Behaviour	Individuals within an Organisation	Eight Step 'Feature' Based Model
Foster (2004, 2005)	Information Seeking Behaviour	Academics at Sheffield University	Non-Linear Model
Ingwersen (1995)	Information Searching Behaviour	Individuals 'work task' within an Organisation	Information Retrieval (IR) Process Model
Katzer and Fletcher (1992)	Information Behaviour	Managers within an Organisation	Five Step Model
Kuhlthau (1991)	Information Seeking Behaviour	Actual Library Users	Six Step Stage Based Model
Wilson (1981)	Information Behaviour	Individuals within an Organisation	'Macro Level' Model
Wilson (1996)	Information Behaviour	Individuals within an Organisation	Revised 'Macro Level' Model

Table 2.1: Information Behaviour Models

In general, the first level, information behaviour, is regarded as the 'macro level' of human behaviour. The second level, information seeking models, represented the generalisable behaviours surrounding the initiation of information seeking. The final level, information searching, is argued to be a sub-stage in the information seeking process because of the close relationship between information seeking behaviour and information retrieval behaviour.

While the review acknowledges that there are several competing information behaviour models (Table 2.1) only those most reflective of the opportunities and constraints of consumer information search will be fully reviewed. As within the consumer decision making process (Figure 2.1: pg13), the models of information

behaviour further supported the idea that information search and decision making is a sequence of behaviours and cognitive processes. For example, the eight stage model (Table 2.2) identified in the work of Ellis (1989) later refined in the study of information behaviour of researchers in the social sciences, the physical sciences and engineering (Ellis, Cox and Hall, 1993; Ellis and Haugan, 1997) highlighted the behaviours and actions behind information searching.

Behaviour	Meaning
Starting	The means employed by the user to begin seeking information, such as questioning a knowledgeable colleague
Chaining	Following footnotes and citations in known material
Browsing	Semi-directed or semi-structured searching
Differentiating	Using known differences in information sources as a way of filtering the amount of information obtained
Monitoring	Keeping up to date or continual awareness searching
Extracting	Selectively identifying relevant material in an information source
Verifying	Checking the accuracy of the information
Ending	Seen as 'tying up loose ends' through a final search

Table 2.2: Information Searching Behaviour (Ellis, 1989; Ellis et al, 1993; Ellis and Haugan, 1997)

The behaviours do not necessarily take place in a specific sequence and may be initiated in different sequences at different times in the search process. The process not only outlined the search behaviours but also information evaluation behaviours in the extracting and verifying stages. However Ellis and colleagues modelled the behaviours of individuals within a work context. This has certain impacts on the search because of the task related nature: for example, an individual searching for personal purposes may not be as active, methodological or purposeful because of varying barriers to search which could be demonstrated from Wilson's (1981) model of information seeking behaviour (Figure 2.2).
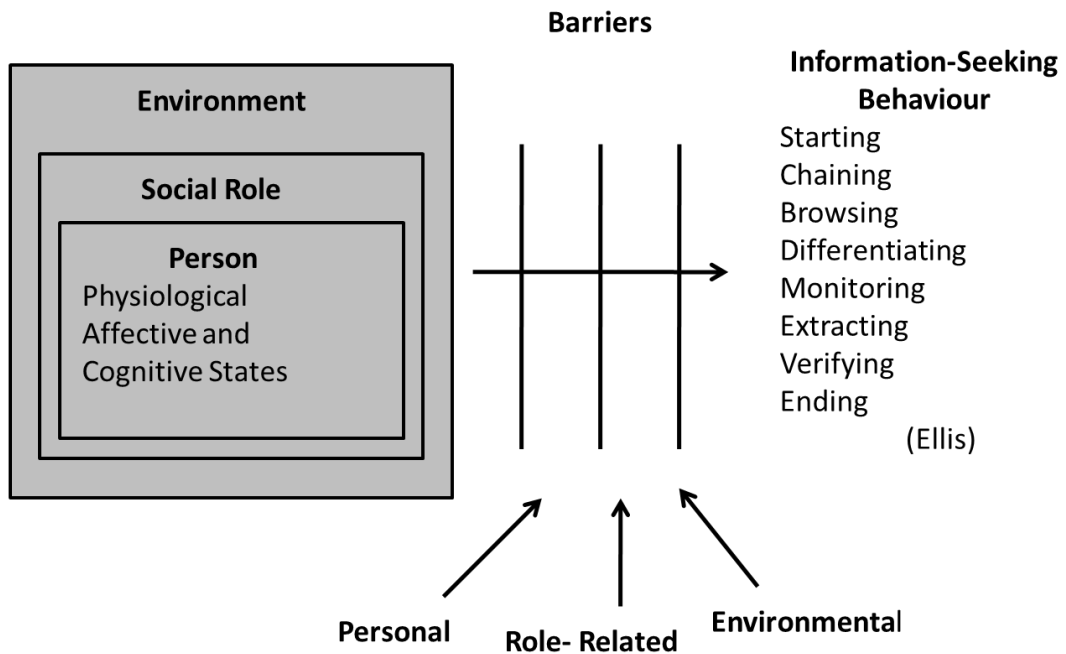
Figure 2.2: Model of Information Seeking Behaviour (adapted from Wilson, 1981)

The model substituted the generic term 'information seeking behaviour' for the search behaviours identified by Ellis (1989) and demonstrated how the models can be integrated to provide a fuller picture of information behaviour. Wilson (1981) proposed that the secondary needs that drive information needs can be physiological, affective and cognitive. The barriers to search may be personal, relating to the role demands of work life or the environment in the place in which work life takes place. For instance, the information seeker may have limited motivation or cognitive ability to search or high work role demands which are believed to reduce the time for search and create external environmental pressures. The model can be a source of testable hypotheses, for instance, the proposition the information needs in different work roles will be dissimilar and the individual's personal characteristics may inhibit or assist information seeking. This model is based on individuals within organisations

however, if modified, could still be useful in understanding individuals searching for information for personal use, particularly regarding the barriers to search.

In addition to the behaviours of information seeking and the barriers to search, Ingwersen (1995, 1996) explored the information user, search and the information retrieval (IR) system (Figure 2.3).
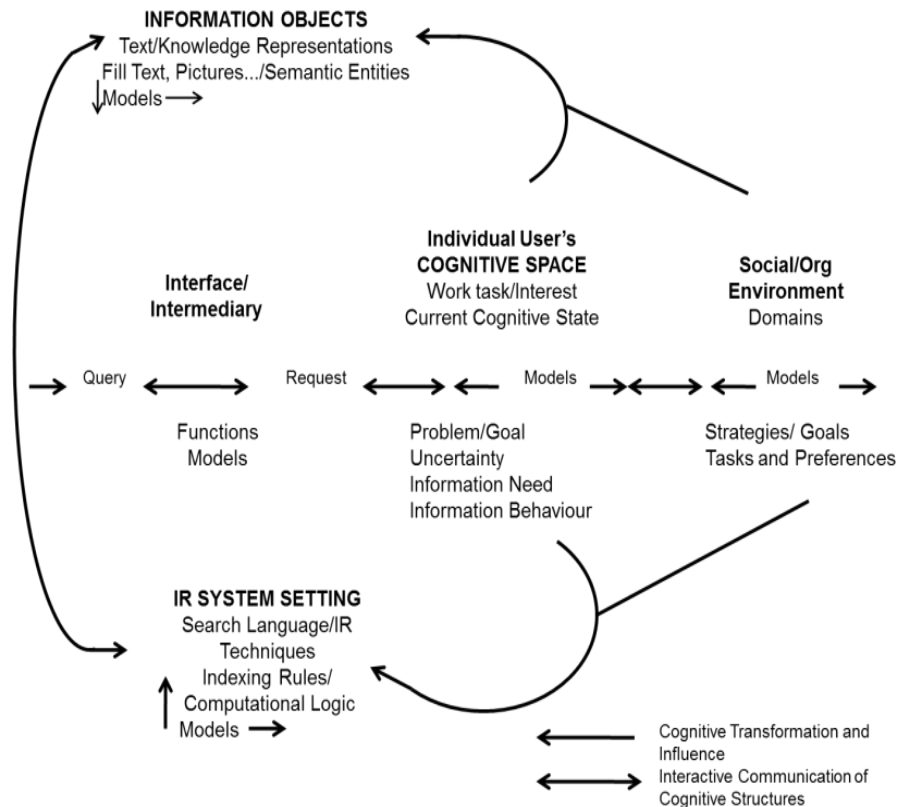
Figure 2.3: Model of the IR Process (Ingwersen, 1996)

Ingwersen's (1996) model is important to the proposed study as no other information seeking model (Table 2.1: pg20) considered the role and impact of the information system used during information retrieval and indeed in evaluating the information. Ingwersen (1996) concentrated on identifying the processes of cognition, which can occur in all the information processing elements involved. The information users' cognitive space as well as their environment, strategies and goals of information

search is presented in the model which is seen to impact on the IR system setting and the information objects obtained. A loop exists within both the IR system setting and information objects stages. If insufficient information is presented, search in the IR system or search within the obtained information objects can reoccur or be modified. The model suggests that the IR system and differences between IR systems and information objects can impact upon the cognitive ability of the information seeker to obtain and evaluate information from within the system. Recent research concerning online information search and evaluation (for example, Cheung, Luo, Sia and Chen, 2009; Hu, Liu and Zhang, 2008; Smith, Menon and Sivakumar, 2005; Zhang and Watts, 2008) confirmed Ingwersen's (1996) assertion that the cognitive ability of the consumer impacts upon the evaluation of information online.

As this thesis concerns the use of the internet as the IR system for information searching purposes as well as the source of information (full discussion in Chapter IV). It may then it useful to regard Ingwersen's (1996) assertion that a comprehensive model of information seeking behaviour must include the system that points to the information objects that could be of interest to the individual. It is also possible that the IR system may be another barrier to search which is not previously identified in other models.

The models of information behaviour view the human behaviours and cognitive processes of information searching. While there are other models offering alternative explanations of the behaviours and processes of information seeking (see Table 2.1 for review) they agree that information seeking is a staged cognitive and behavioural process (for example, Kuhlthau, 1991). The proclamation of barriers to the search information are evident in many of the models. These barriers can be

from personal (cognitive ability), role-related (work pressures) and environmental (social) (for example, Foster 2004). In addition, the IR system is also seen to play an important facilitator and moderator in the search process (Ingwersen, 1995).

Overall, the models of information behaviour highlight how individuals search and use information in a variety of areas (for instance, in the workplace) they do not however examine information behaviour from a consumer decision-making perspective and in terms of a purchase decision the behaviours may differ to that of information search in the workplace. The review will now focus on exploring information search in consumer decision-making. What can be taken from the models of information behaviour is that the consumer will go through some level of mental cognition during search. The behaviours and search terms will be modified depending on the IR system used, information objects obtained and the moderating effect of the barriers to search and information evaluation.

2.3 Consumer Information Search Models

In terms of the consumer decision-making process, information search is regarded as an influential step in changing consumer attitudes and purchase intention (Bettman, 1979). The second stage of the consumer decision-making process, consumer information search, is an enduring focus of research (see DeSabro and Choi, 1999 for review). While information behaviour models examine the totality of behaviours during information acquisition (Wilson, 1999), the models of consumer information search for purchases can be considered to identifying and choosing among alternative information sources (Rouse and Rouse, 1984).

Therefore, to understand the complexities of information evaluation and credibility perceptions it is first necessary to explore how consumers identify and chose among the alternative sources of information available to them. The models of consumer information search have been identified through three major theoretical streams in the consumer information search literature. In reviewing information search DeSabro and Choi (1999) define these as (1) normative, (2) behavioural, and (3) descriptive; however, the earlier work of Srinivasan (1990) regards the theoretical streams as (1) economic, (2) psychological, and (3) consumer information processing.

The normative and economic approaches are illustrative of each other, representing the economic theory of search. In other words the consumer weighs the costs and benefits of search when making search decisions or makes an optimised search. The behavioural and psychological streams are also comparable where the observable behaviours of consumer information search are viewed. This incorporates the individual (for example, Thorelli, 1971), the product class (for instance, Katona and Mueller, 1955 with large electrical goods), the task related variables [attitudes and beliefs] (Kiel and Layton, 1981) and involvement (Laurent and Kapferer, 1985). On the other hand the descriptive and consumer information processing are not observable. For the purpose of this review two streams are identified: the normative and behavioural termed as such because of the increased use of such labels in previous research.

The omitted descriptive approach provides paramorphic representations of the consumer search process (DeSabro and Choi, 1999). Advocates of the descriptive approach moved away from the optimal behaviour viewed in the normative models,

and viewed the actual behaviour of consumers. Supporting the descriptive approach, Meyer's (1982) study developed a model of behaviour based on heuristics. Examining the simplified strategies or rules of thumb used to make choices Meyer's (1982) study was interested in the alternative products that the consumer examines rather than the specific attributes themselves. Meyer (1982) believed that the theoretical model and empirical results within his study highlighted the importance of previous experience and first impressions on consumer evaluation. However, the role played by previous experience or prior knowledge has been given significant attention within the behavioural approach (Brucks, 1985; Punj and Staelin, 1983) and, as such, will be reviewed as an element of the behavioural approach.

Additionally, Smallwood and Conlisk (1979) adopted the descriptive approach in their study of product quality uncertainty. They suggested to model and interpret the adaptive behaviour of consumers as the actual behaviour. Admittedly the authors stated that much additional work should be undertaken to refine their offering and refer to a list of issues requiring investigation. The suggested need for development in the descriptive approach further suggests that the descriptive approach should be omitted from the review of literature. Furthermore, DeSabro and Choi (1999) demonstrated that the descriptive approach is not generally adopted in consumer studies, with a few studies being shown to have adopted the approach in their meta-analysis paper. The approach was also criticised for failing to integrate the optimizing elements of which normative literature is based. Given this information and lack of adoption within consumer studies the descriptive approach will not be considered.

Before reviewing the key approaches of normative and behavioural, several considerations must be made. The first of which concerns the relationship between the information processing approach (Srinivasan, 1990) and the behavioural approach. The consumer information processing approach places greater emphasis on the role of memory (McGuire, 1985; Sternthal and Craig, 1982) but is believed to have evolved from the behavioural approach. Bettman (1979) deals extensively with the consumer information processing approach, separating search into internal and external elements. Although a distinction is made between internal and external search in all information search literature the consumer information processing approach attempts to utilise cognitive information processing theory (Schmidt and Spreng, 1996; Srinivasan, 1990). This aside, several authors have made valid claims that the consumer information processing approach should be viewed as part of the behavioural theoretical stream. For instance, Schmidt and Spreng (1996) argued that the behavioural approach includes the information processing approach and, as such, only the normative and behavioural approach should be considered. Schmidt and Spreng (1996) believed that the economics approach and the behavioural and psychological approach should be considered and integrated as one for consumer purchase information search.

This argument is echoed by Dowling and Staelin (1994) and Moorthy *et al,* (1997). Integrating both approaches is considered to be complimentary and provides a more robust framework. Moorthy *et al* (1997) contended that behavioural theory can be given an economic interpretation and economic theory can be enriched by relating it to empirical findings in the behavioural literature. Furthermore Dowling and Staelin (1994) proposed that in both approaches, consumers use specific search activities

because of their perceived cost and benefits. Considering this evidence and that of DeSabro and Choi (1999) in dismissing the descriptive approach, it is justified to regard the normative and behavioural approaches as the key consumer information searching paradigms. Each will now be reviewed in detail and be considered as complimentary in researching consumer purchase information search.

2.3.1   The Normative Approach

The normative approach to information search explores the economic variables related to search. Supporters of the normative approach argue that the reason consumers search for information can be understood through the cost/benefit paradigm of economics (Hagerty and Aaker, 1984; Ratchford, 1982; Stigler, 1961). The cost/benefit paradigm argues that the perceived costs of search have a negative effect on the motivation to search, whereas the perceived benefits of search have a positive effect on the motivation to search. The consumer with higher search costs will engage in a lesser information search than those whose search costs are lower (Stigler, 1961). The benefits and costs can be monetary, psychological, spiritual or mental. Any variables that increase the benefit of search or decrease the cost of search are positively related to search and vice versa. In terms of understanding the information evaluation process, the economic impacts of information search may also impact the evaluation of the information obtained during search.

Stigler's (1961) paper on *'The Economics of Information'* is considered to be influential in the rise of the normative approach. Stigler's (1961) view on 'optimal' search or the concept of utility, where the optimum amount of search is achieved through equating the expected marginal returns of search to the expected marginal

costs of search has been widely employed in other studies. For example, Ratchford (1980) adopted Stigler's (1961) model and determined the cash value of information for consumers purchasing large appliances. Nelson (1970) enhanced Stigler's (1961) original model through the classification of goods categories into two broad perspectives: search goods versus experience goods. Nelson (1970) defined the qualities that had distinct characteristics in terms of consumer evaluation processes. Search attributes were characterised as those that can be evaluated before purchase, and experience attributes as those that can be more easily evaluated after consumption.

Nelson's (1970) classification scheme was developed to explain the assumption that consumer information about quality has an effect on the market structure of consumer goods. In addition to the search process defined by Stigler (1961), Nelson (1970) argued that the consumer can determine the quality of a good [product/service] by buying and using it [experiencing it]. Darby and Karni (1973) later augmented this debate with a third classification, credence goods, the characteristics of which are expensive to judge even after purchase; which can then be said of certain service purchases. However, it is now believed that the information sources found online, particularly those sources written by consumers about their own purchase and consumption experiences (from search, experience or credence categories) are now blurring the distinction between Stigler (1961), Nelson (1970) and Darby and Karni's (1973) goods classifications. These new online sources of information, while blurring the lines between search and experience goods may increase the 'cost of search' for consumers. Consumer generated information sources vary in quality (Lee *et al,* 2008; Park *et al,* 2007; Sher and Lee, 2009) and as

some evaluative cues may be missing, therefore credibility evaluation may increase cognitive strain to the consumer (Chatterjee 2001; Schindler and Bickart 2005) (this will be fully discussed in Chapter III).

Ratchford (1982) believed that by providing a method for evaluating the costs and benefits of observed behaviour in monetary terms, the normative framework could provide policy makers with a basis for measuring the benefits of programs to improve information and consumer decision-making. Furthermore, by providing a means of studying the incentives, which consumers have for seeking information, the normative framework can provide insight into the rationale for observed behaviour and lead to hypotheses which are testable using standard consumer research methods. A number of product focused studies have adopted the normative perspective to test several hypotheses that were believed to effect the consumer's pursuit of information search in a purchasing situation.

Duncan and Olshavsky (1982) studied information search for television purchases, testing the hypothesis that the previously unidentified variable of consumer beliefs was influential in information search. The beliefs were initially scored from Likert scale questions. The respondents total search was determined by multiplying the quantity of each source used by the defined 'effort weight' of that source, and then summing across all sources. These results provided preliminary evidence to suggest that consumer beliefs are important in determining the extent and type of external pre-purchase information search.

Punj and Staelin (1983) and Srinivasan and Ratchford (1991) centred their studies on the motivational determinants of search in automobile purchases. The two models

are however, considerably different. Punj and Staelin (1983) attempted to discover the correlations between prior product knowledge, cost of search, cost of savings, satisfaction and external search. Alternatively Srinivasan and Ratchford considered the impact of perceived risk and perceived benefits of search, modelling the determinants of evoked-set size and specified the role of experience and knowledge in the search process.

The results of Punj and Staelin's (1983) study confirmed their original hypothesis that there are at least two components of prior product knowledge: specific product knowledge and general product-class knowledge. The former causes less external search and, the latter causes more external search. Cost of information search was found to be negatively related to external search while external search was found to be positively related to cost savings. Satisfaction was found to be related to cost savings but not to external search. The work of Punj and Staelin (1983) is now somewhat out-dated as the ease of access to large volumes of information via the internet has changed consumer behaviour where information search may be conducted for pleasure (Dholakia and Bagozzi, 2001; Laurent and Kapferer, 1985). The increased information search for pleasure or enjoyment was witnessed in the findings of Srinivasan and Ratchford's (1991) study.

Srinivasan and Ratchford (1991) concluded that the results of the study are consistent with what would be expected from past research. The study results indicated that existing product knowledge is positively related to the size of the evoked set and that an increasing interest in automobiles had a positive effect on the amount of search. Again, the cost of information search was found to be negatively related to external search.

The normative approach suggests that economic constraints in terms of time, money or cognitive ability moderate the extent, duration and types of information sources sought during search. It could also be argued that economic constraints will also affect the consumers' ability to evaluate the information obtained. The second school of thought, the behavioural approach, does not view the economic elements but the behavioural and attitudinal elements of consumers. The literature pertinent to the behavioural approach will now be reviewed.

2.3.2   The Behavioural Approach

The behavioural school of thought views the observable behaviours of consumer information search. Therefore, by investigating the observable ways in which consumers' interact with information search a clear picture can be developed with regards to information evaluation. In a review of literature, Newman (1977) proposed that the key variables to view the behaviours of external search are the number of stores visited, the number of information sources used, the types of information used, the number of alternatives considered and the amount of time spent on the purchase decision. Newman's (1977) generalised variables are reflected in other studies. For instance, Urbany, Dickson and Wilkie (1989) identified shopping time, number of brands, number of stores, number of trade sources, number of consumer reports and time spent talking to people as the variables to observe during external pre-purchase search. Newman and Staelin (1972), on the other hand, split observable behaviour down to in-store and out-of-store indices. The adopted Automatic Interaction Detector (AID) approach with demographic and situational

variables allowed Newman and Staelin (1972) to demonstrate different socioeconomic groups and their differences in the amount of search activity.

Srinivasan (1990) argued that in order for external search to occur the consumer must be motivated to search, thus defining motivation as a central construct of external search activity. Dowling and Staelin (1994); Moorthy *et al* (1997) and Schmidt and Spreng (1996) argued that the consumer information processing approach should be regarded as an element of the behavioural approach. Bettman's (1979) is another key proponent of the information processing approach. Bettman (1979) suggested that the motivation and ability to process information are necessary before an individual engages in cognitive processing (Figure 2.4).
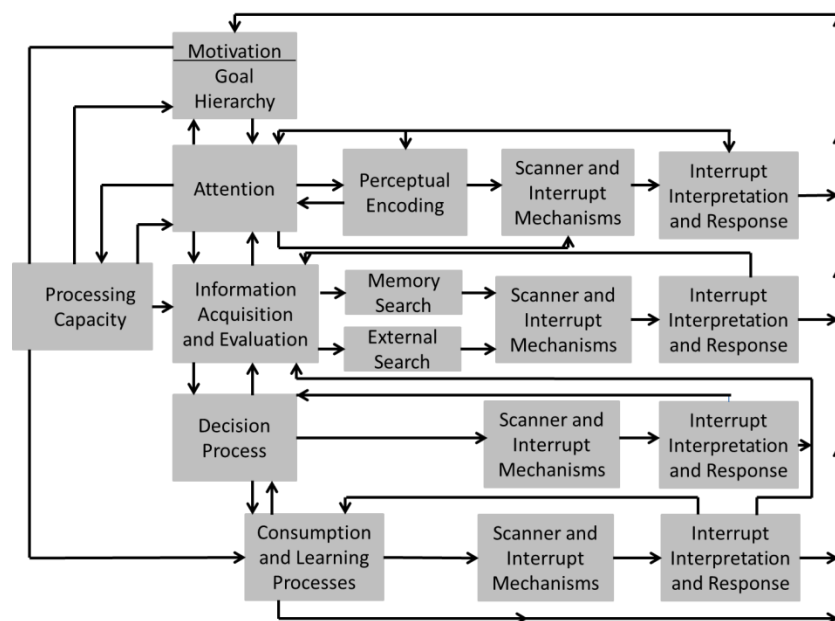
Figure 2.4: Information Processing Model of Consumer Choice (Bettman, 1979: 420)

This model differed from other behavioural models (for example Newman and Staelin, 1972; Urbany *et al,* 1989), however Bettman (1979) added value to knowledge through the attempt to identify the determinants of information search. Bettman (1979) argued that motivation and attention [involvement] consumption and

learning processes [prior product knowledge and learning] and processing capacity [learning] are key determinants of information search. Moreover, the model depicted two modes of search, namely, search from memory (through knowledge and experience) and external search. In his review of the literature, Newman (1977) stated that empirical evidence on search and its determinants is very limited. He believed that while direct measures are lacking there is considerable support for the hypotheses that search will occur when the buyer feels the potential benefits outweigh the costs involved, when the purchase is important, when the buyer feels the need to learn more and when the buyer feels he can obtain and utilise information.

Nonetheless, the behavioural approach has largely been utilised in behavioural marketing studies in an attempt to establish empirical generalisations about consumer search behaviour (Beatty and Smith, 1987; Newman, 1977; Urbany *et al*, 1989). Although Newman (1977) believed that empirical evidence on search and its determinants is limited, a number of studies do exist within a range of product categories (Table 2.3). The proponents of the behavioural approach considered the observable behaviours of information searchers. It was argued that consumers must be motivated to search (and therefore evaluate) information where a number of different sources can be used. The models also began to recognise the differences between the consumers' search mode and personal characteristics (for example, demographics and knowledge) and the information search process (for example, Bettman 1979).

Author(s)	Product Category	Determinant	Relationship to Search
Beatty and Smith (1987)	TV, Video Recorder, Home Computer	1. Ego Involvement 2. Purchase Involvement 3. Shopping Attitude 4. Time Availability 5. Product Class Knowledge	Positive relationship with all determinants with the exception of ego involvement.
Brucks (1985)	Sewing Machines	Prior Product Class Knowledge	Facilitates the acquisition of new information and increases search efficiency.
Dowling and Staelin (1994)	Clothing	Overall Perceived Risk Comprising of: Product Specific Risk Product Class Risk Acceptable Risk	Increased positive relationship with increased overall perceived risk and more pronounced when risk exceeds the individual's acceptable level of risk.
Urbany et al (1989)	Major Electronic Appliances	Buyer Uncertainty Comprising of: Knowledge Uncertainty Choice Uncertainty	Knowledge Uncertainty negatively related to search. Choice Uncertainty positively related to search.
Newman and Staelin (1972)	Major Electronic Appliances and Cars	Learning	Purchase and experience of a product reduces amount of external search in repeat purchase.

Table 2.3: Search Determinants and Relationship to Search

Many of the studies examined here concerned active external search activity. One reason for this may be that external search is observable where internal (memory based) search cannot be directly observed. Before an in-depth examination of the determinants of search, it is first necessary to introduce the modes of search posed by the information behaviour and consumer information search models.

2.4   Modes of Search

The review of literature surrounding consumer information search highlighted many contrasts and similarities. This is particularly evident in considering the various modes of search. From information behaviour research Wilson (1996) argued that four classifications of search existed, categorising them as passive attention, passive

search, active search and on-going search. Consumer behaviour literature, on the other hand, indicated that there are two primary modes of search behaviour: internal or memory based search and external search. Engel, Blackwell and Miniard (1990) regarded search as the motivated activation of knowledge stored in memory or acquisition of information from the environment. As such, internal search occurs when an individual can draw upon their own memory, experience and internal sources of knowledge. External search denotes the active search for information from a range of external sources including other people (WOM), library sources, advertising and more recently the internet.

One noteworthy generalisation identified from both information behaviour and consumer behaviour is the denotation of active and passive search. The behavioural and normative models of consumer information search indicated the consumers' relative level of motivation as the driver between the two search modes (Srinivasan, 1990). This has important implications for marketers because communications have an influential nature during an active search. However, information search activity is typically only discernible by observation or by self-report. This has practical implications because intended and actual behaviour do not always correlate (Jacoby *et al,* 1978). With regards to information evaluation, the mode of search will also influence the information evaluation process, which again will be surrounded by self-report issues of observation. The classifications of search will now be reviewed to complete the contextual background of consumer pre-purchase information search.

2.4.1 Internal Search

Internal search for information is acquired from long term memory. The consumer draws upon their memory or experiences as they seek information about a product, service or pre-purchase attributes and characteristics. Therefore, internal search is fundamentally linked to memory scan (Bettman, 1979; Leigh and Rethans, 1984; Lynch and Srull, 1982). Bettman (1979) explained that the two aspects of internal search are direction and degree. Direction refers to the pieces of information being examined and the degree represents how much information was sought. There are various ranges of internal search from automatic responses in habitual situations to extensive memory searches (Howard and Sheth, 1969).

If internal information is adequate for that specific purchase decision then external information search will be unnecessary (Beatty and Smith, 1987). As internal search is memory based, it is indiscernible to researchers. Hansen (1972) believed that understanding internal search dynamics is speculative as this cannot come from observational research but through self-reporting. Little empirical work has been undertaken to explore the relationship between the amount of valid internal data a consumer holds about a particular product category and external search. Punj and Staelin (1983) presumed that the more information obtained prior to active search, the less the need for external search. This proposition reflects that of decision theorist Raffia (1968) and the search models of economics (Stigler, 1961). However, such theories do not hold constant in considering the role of the internet as an information source where some consumers conduct enduring searches for particular product categories. Although internal search is an important area for marketing

managers, it will not be explored in this study as the research focuses on external search behaviour.

2.4.2 External Search

External search denotes information searching from a range of external sources such as salespersons and dealers, friends and family, manufacturers' brochures and pamphlets, TV advertisements, radio advertisements, newspaper advertisements and magazine reports (Moorthy *et al,* 1997). The role of the internet as an information source will be reviewed in Chapter III. Unlike internal search, external search can be observed and measured because it involves an active, motivated and conscious effort. External search comprises of measurable incidences, reflected in Moorthy *et al's* (1997) external source definition, compared to the unobservable internal cognition from internal search. Beatty and Smith (1987); Punj and Staelin, (1983); Srinivasan and Ratchford, (1991) explored external search as the amount of attention, perception and effort toward obtaining environmental data or information relating to a specific purchase under consideration, which illustrated goal orientated behaviour.

External information search can be further divided on the nature of the search activity. While literature highlights many additional modes of external information search, for the purpose of this review these modes of external search are identified as active, passive, on-going and successive. Literature maintains that within the active search label, the activities are the outcome of what the nature of the search need is as well as the searchers' behaviour during the process. Furthermore the literature defines active search from the other external search modes, passive and on-going search. The three modes of information search are now reviewed.

4.2.2.1 Active Search

The primary mode for external information search is termed active search, also commonly referred to as focused search, active problem solving (Weiss and Heide, 1993) and acquisition (Jacoby *et al,* 1978). Active search involves an individual, group or organisation purposefully seeking information. The information behaviour models of Ellis (1989) and Kuhlthau (1991) proposed two views of active search from an IR perspective whereby the individual systematically moves through modes or stages to fulfil their information need. In traditional consumer behaviour research studies (for example, Newman, 1977; Punj and Staelin, 1983) it is generally assumed that the need for consumers to search for information is related to a purchase decision. It is also commonly assumed that consumers always search for information before making a purchase decision.

The degree and amount of information search is affected by the determinants of search. For example, a consumer who has prior product knowledge can conduct a more effective search (Alba and Hutchinson, 1987) and process new information with ease (Coupey *et al,* 1998); they will be more involved with the search process (Laurent and Kapferer, 1985) and are therefore intentionally searching for information (Nelson, 1984) or conducting an active search. If the product category has high perceived risks, it is then assumed consumers will counteract this with an increased active information search (Jacoby and Kaplan, 1972). The costs of information search can impact on the degree and amount of active information search, the amount of time, financial cost of search and cognitive ability required to process information. Taking this into context, Bloch *et al* (1986) contended that the

outcome of an active information search results in consumers holding increased product knowledge, making better purchase decisions and having increased satisfaction with the purchase outcome.

4.2.2.2 Passive Search

Passive search or incidental learning (Nelson, 1984) can be associated with repeat exposure to advertising communication. Undirected viewing can result in exposure to information with no specific information need in mind. Consumers can attain passive information through television or radio commercials or adverts in magazines or newspapers when information search is not intended action. Alba and Hutchinson (1987) argued that repeat exposure to advertising communication increases familiarity with brand attributes. Repeated exposure increases the probability of the brand being included in a consumers' evoked decision set and considered for purchase (Narayana and Markin, 1979). The studies of Kent and Allen (1993) and Stewart (1992) demonstrated that repeat exposure can aid brand recall, which increases purchase probability. Consequently passive information ultimately increases familiarity with brands and product attributes which may then improve an effective active information search as the consumer is aware of the product category.

4.2.2.3 On-Going Search

On-going search typically occurs when an occasional continual search is performed to update existing knowledge, beliefs or ideas. This can be seen in Ellis (1989) monitoring and Foster (2004) browsing and monitoring modes in IR research. In a pre-purchase context Claxton, Fry and Portis (1974: 35) argued that: 'information gathering is a continuous process, even when the purchase is not foreseen. As a result, when the decision is made to make a purchase, relatively little explicit search

is required'. This suggests that consumers are continuously searching for information within involved product categories in order to maintain knowledge but also for pleasure. Within a retail setting, Bellenger and Korgoankar (1980) found that consumers enjoy the act of shopping itself even without the prospect of making a purchase. Moreover Bloch and Ritchins (1983) found that retail store browsing was positively related to product interest, product knowledge, and word of mouth activity concerning the product.

Bloch *et al* (1986) produced a framework for on-going search asserting that the determinants of on-going search are: involvement with the product, market environment and situational factors. The motives of search are to build a bank of information for future use and for experience, fun and pleasure. The outcomes of on-going search are increased product and market knowledge leading to, future buying efficiencies and personal influence or opinion leadership (discussed further in Chapter IV), increased impulse buying and increased satisfaction from search and other outcomes. On-going search therefore could provide one reason as to why active pre-purchase information search is deemed to be limited in many studies.

The levels of search identified as active, passive and on-going effected the direction of consumer information search and the knowledge obtained from search. Therefore information evaluation will also be affected by the mode of search because motivation is not only required to conduct an information search but to also evaluate the information obtained. Furthermore, the mode of search is believed to be influenced by the determinants of search outlined in the behavioural search literature (Beatty and Smith, 1987; Brucks, 1985; Dowling and Staelin, 1994; Newman and Staelin, 1972; Urbany *et al*, 1989). However the various studies exploring the

moderating effects of search determinants have provided numerous theories and conflicting outcomes. To better understand the relationship between mode of search and information evaluation, the theories relating to the determinants of search will now be reviewed.

2.5 Determinants of Consumer Information Search

Literature surrounding information search within the buying process offered varying definitions of the degree or amount of pre-purchase information search (Bettman, 1979; Engel *et al*, 1986). The empirical work within consumer behaviour literature drew on the determinants of search in order to understand variables that may affect search activity. Guo (2001) identified seven categories that effect search. Guo's (2001) work is largely based on that of Beatty and Smith (1987) who used six categories derived from the work of Moore and Lehman (1980) and similarly, made reference to the work of Bettman (1979) and Newman (1977). DeSarbo and Choi (1999) listed the individual variables that explained differences in information search which replicated many of the studies cited in Beatty and Smith (1987) or Guo (2001).

The broad categories defined by Moore and Lehman (1980) are: (1) market environment, for example the number of alternatives and information availability; (2) situational variables such as time, social, financial pressure and ease of access to information sources; (3) potential payoff and product importance such as price, social visibility and perceived risk; (4) knowledge and experience; (5) individual differences such as ability, involvement and demographics; (6) personality and lifestyle variables such as self-confidence; and (7) conflicts and conflict resolution strategies. While Moore and Lehman (1980) provided a broad view of the

determinants of search, the review of the normative approach and behavioural approach literature suggest alternative determinants based on a range of the consumers personal characteristics. Following the normative and behavioural literature and for the purpose of this review, the determinants of search will comprise of, prior product knowledge, involvement, learning, perceived risk and cost of information search. It is widely accepted that various demographic and personal characteristics affect the level of search and for this reason have been integrated into studies within the outlined determinants; each of which will now be reviewed.

2.5.1 Prior Product Knowledge

From the behavioural paradigm, observational research has attempted to model the effects of prior product knowledge on external search activity. The outcome of such activity has provided conflicting theories. One reason for this is highlighted by Voght and Fesenmaier (1998) and Bloch *et al* (1986). They explained the vast scope of acquiring prior product knowledge; through experience with the product and/or service, by communicating with others and through verbal, visual and sensory stimuli namely in advertising, television, newspaper and magazine articles or through on-going information search. The means in which prior product knowledge was attained could affect information search behaviour because of its objective and subjective constructs. To elaborate, consumer behaviour literature typically assesses prior product knowledge in two constructs (Brucks, 1985; Park and Lessig, 1981), objective knowledge and subjective knowledge (Rao and Sieben, 1992).

Objective knowledge is regarded as accurate information about the product class stored in long term memory (Park, Mothersbaugh and Feick, 1994) which could be gained through prior experience with the product and/or service. Gaining knowledge

through other people, advertisements or on-going information search could provide subjective knowledge (or self-assessed knowledge) which is an individual's perceptions of what or how much they know about a product class (Monroe, 1976; Park *et al,* 1994). Measures of objective knowledge, however, can never be entirely objective because the measures will depend on some form of communication from the individual.

Brucks (1985) asserted that measures of objective knowledge are conceptually and operationally distinct form measures of subjective knowledge. Subjective knowledge is said to provide a better understanding of decision makers' systematic biases and heuristics than objective knowledge and can indicate self-confidence levels as well as knowledge levels (Park and Lessig, 1981). Therefore, conceptually, subjective knowledge can be viewed as an individual's degree of confidence in his/her knowledge, while objective knowledge is what the individual actually knows. It is then possible that the two constructs may affect search in different ways.

Certainly research has highlighted that objective and subjective knowledge affect search (Bettman and Park, 1980; Brucks, 1985; Park and Lessig, 1981) and information processing (Park *et al,* 1988) in varying forms. For instance, Brucks (1985) discovered that subjective knowledge, independent of objective knowledge, influenced the selection of search strategies. Incidentally increases in subjective knowledge (but not objective knowledge) were associated with a decrease in the use of sales advisor recommendations. In the new technology driven world of today consumers increasingly rely on increasing subjective knowledge through reading other consumers' consumption experiences (that consumer's objective knowledge) in the form of consumer reviews (for example, eMarketer, 2009; Park *et al,* 2009; Park

et al, 2011; Zhu and Zhang, 2010). Prior product knowledge can aid in the decision making process and enable a consumer to evaluate the attributes of the product and/or service while also effecting the nature of the information search.

The empirical work establishing the relationship between prior product knowledge and external information search follows two distinct arguments. Firstly, that there is a negative relationship between the amount of prior product knowledge and information search (Anderson, Engledow and Becker, 1979; Etzel and Wahlers, 1985; Moore and Lehman, 1980; Newman and Staelin, 1972; Punj and Staelin, 1983; Snepenger and Snepenger, 1993). Secondly, that there is an inverted-U shaped relationship (Brucks, 1985; Bettman and Park, 1980; Johnson and Russo, 1984).

Proponents of the inverted-U shaped hypotheses believe that the inverted-U is representative of search patterns within product categories. It is contended that highly familiar consumers tend to search less than those who are moderately familiar with the product category, hence representing an inverted-U shape. Bettman and Park (1980) found a search pattern in consumers' search of information about microwaves illustrative of the inverted-U hypotheses. Similarly, within a subcompact car category Johnson and Russo (1984) reported inverted-U shaped results. However, Punj and Staelin (1983) found that there was only a negative relationship between prior product knowledge and information search. The literature proclaiming a negative relationship provides two explanations for this.

The first explanation is that experienced consumers do not need to acquire information from external sources as they already hold prior knowledge about the attributes of various alternatives (Brucks, 1985). As such, they make decisions based

on prior knowledge without any influence from external sources. The second argument is that the experienced consumer will know where to find important and useful information and can process this information more easily. Prior product knowledge then encourages the information search because an individual with prior knowledge will find it easier to process new information (Coupey, Irwin and Payne, 1998; Johnson and Russo, 1984; Ozanne, Brucks and Grewal, 1992).

In their ground-breaking paper *'Dimensions of Consumer Expertise',* Alba and Hutchinson (1987) concur with Coupey *et al* (1998); Johnson and Russo (1984) and Ozanne *et al* (1992), in that prior product knowledge facilitates the ability to find and process new information easily thus increasing the possibility of information search. Alba and Hutchinson (1987) believed that a consumer's knowledge base is represented as familiarity and expertise. This assertion is somewhat reflective of the aforementioned objective and subjective knowledge. Familiarity is defined as: 'the number of product-related experiences that have been accumulated by the consumer', whereas expertise is: 'the ability to perform product-related tasks successfully' (Alba and Hutchinson, 1987). Traditionally knowledge was regarded as a uni-dimensional construct where familiarity or prior knowledge was the component. In their two dimensional construct, Alba and Hutchinson (1987) regarded familiarity as being associated with the early stages of learning and expertise the latter.

Alba and Hutchison (1987) argued that repetition increases familiarity, hence the successive exposure to national advertising campaigns is likely to increase familiarity. Studies have highlighted that products advertised in the national media tend to be highly familiar (Kent and Allen, 1993; Stewart, 1992). As well as exposure to advertisements in print or verbal form, familiarity can also be gained

through talking to friends and relatives about consumption experiences. In the consumer decision making product category familiarity has been recognised as an important factor because it has direct impact on information use (Bettman and Park, 1980; Park and Lessing, 1981).

Internal memory search is widely regarded as the first stage of information searching (Engel *et al,* 1993). Familiarity with a product category is likely to lead consumers' to direct acquisition of information in their memory (Brucks, 1985; Coupey *et al,* 1988). If sufficient information is available in memory, the consumer can make decisions based on this information and neglect external information sources (Brucks, 1985). However in familiar product categories, if insufficient information is stored in memory, the consumer will be able to conduct an easy external search because they will know which attributes are the most important to search (Coupey *et al,* 1988). The unfamiliar consumer will search more external sources as they are not familiar with the important product attributes.

Expertise is believed to be constructed within five dimensions, namely automaticity, memory utilisation, developing cognitive structures, analysis and elaboration (Alba and Hutchison, 1987). Alba and Hutchinson (1987) viewed expertise in a broad sense to include both the cognitive structures (e.g. beliefs about product attributes) and the cognitive processes (e.g. decision rules for acting on those beliefs) required to perform product related tasks successfully (Alba and Hutchison, 1987). Expertise is regarded as having a direct relationship to familiarity [increased familiarity results in increased expertise] (Figure 2.5). Familiarity resulting from repetition impacts upon each of these five dimensions. However, it was also noted that different tasks

require different expertise and the successful performance in any one particular task generally requires more than one type of knowledge.
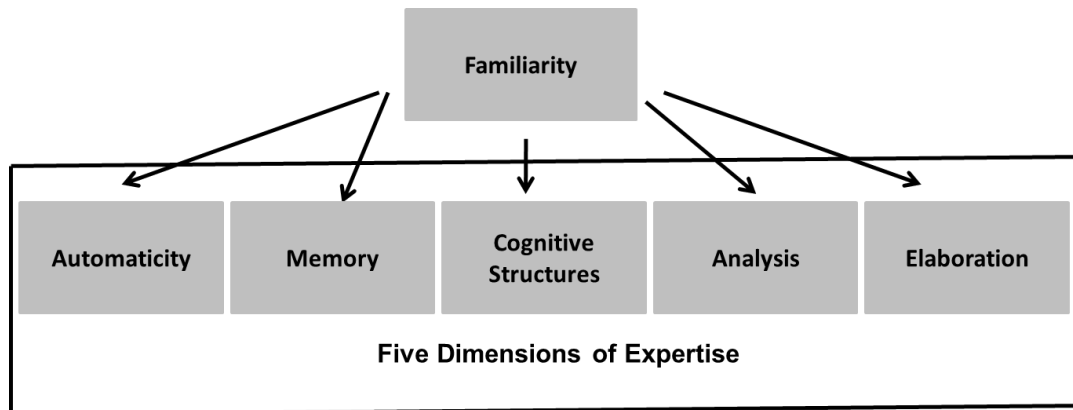
Table 2.5: Model of Prior Knowledge (Adapted from Alba and Hutchison, 1987)

Automaticity has been used to refer to processes that can be performed with minimal effort and without conscious control (for example, Bargh, 1984; Fisk, 1986). Automaticity is believed to develop slowly and is resultant from the over learning of specific skills. For instance, familiar or experienced consumers are likely to use heuristics or rules of thumb, as described by Meyer (1982) and Bettman (1979) in familiar product categories. This can be demonstrated through brand loyalty. If a consumer is brand loyal they will be able to recognise the packaging or brand logo with ease and reduce cognitive effort during purchase decisions.

Memory is also said to have profound influence on consumer choice. Bettman (1979) asserted that memory plays a major role in consumer choice behaviour because the specific inferences drawn by consumers from product stimuli, advertising, word of mouth, and other sources of product-related information which are also heavily dependent upon what information is in memory and how this information is organised. One method of doing this is by categorisation. For

example, when given a purchase decision the consumer will develop sets of alternatives and decisions will be made from this classification.

Narayana and Markin's (1979) trichotomy of consumer perceptions of brand sets explained this classification. Their assertion is that purchase decisions will be made from three sets of alternatives from a *total set.* The total set is comprised of an *awareness set,* which is the products and brands the consumer is aware of and all the others form an *unawareness set.* The final decision will be made from the awareness set which is comprised of the *evoked set*, the brands the consumer evaluates positively and considers in purchase deliberation for a specific task; the *inert set,* the brands which the consumer is aware of but evaluates as neutral (during the information search process brands may move to the evoked set); and the *inept set* is composed of all retailers a consumer is aware of, but rejects from purchase consideration at the initial stages of retail choice because of negative evaluation (Narayana and Markin, 1979). The ways in which consumers categorise brands and the brands that are primed during search change as product familiarity increases (Alba and Hutchinson 1987).

Cognitive structures have been referred to as the factual knowledge that consumers have about products and the ways in which that knowledge is organised (for example, Brucks, 1985; Marks and Olson, 1981). The principle function is to differentiate various products and services in ways that are useful for decision making (Alba and Hutchinson, 1987). Again, one way to differentiate products and/or services is through categorisation. The application of category structures to differentiate objects is well documented in both psychology (Medin and Smith 1984;

Smith and Medin 1981) and consumer behaviour (Alba and Hutchinson 1987; Brucks 1986; Cohen 1983; Sujan 1985). The marketing constructs of product class, benefit segment, usage situation and evoked set all entail some type of category structure for competing brands. Thus, the changes in the category-based differentiation that occur with increased product familiarity have direct implications for consumer choice (Alba and Hutchinson, 1987).

Degree of analysis refers to the extent to which consumers' access the information that is only relevant and/or important for a particular task (Alba and Hutchinson, 1987). Consumers utilise one of two processing approaches to analyse information. These are analytic processing and non-analytic processing. Analytic processing generally requires more effort than non-analytic processing due to the fact that search (external or internal) extends beyond the most accessible information, and irrelevant information must be ignored or discounted (Alba and Hutchinson 1987). Product familiarity should, in general, reduce the level of effort required and free up cognitive resources. In complex tasks, familiarity should also reduce the resources required for some components, making them available for analytic processing (Jacoby and Brooks 1984). Therefore, product familiarity should increase the likelihood of analytic processing or information evaluation.

The final stage is elaboration. Elaboration is required to make inferences during the analysis of information. Elaboration refers to the number of intervening facts that must be computed in order for an inference to be made. The role of expertise in elaboration is to provide a route from the given information to the inference. In some cases, familiarity results in a more direct or indirect route. In other cases the level of familiarity affects the likelihood that an inference will be made at all (Alba and

Hutchinson 1987). Experts are more likely than novices to elaborate on given information and do so accurately. Furthermore expertise leads to easier and more efficient information processing, evaluation and increased levels of involvement with the product category, which subsequently increases the motivation to search for information.

2.5.2 Involvement

Alba and Hutchinson's (1987) theory of familiarity and expertise stated that with increased expertise comes increased involvement with the search category: as such, involvement is regarded as a key antecedent of information search (Bloch, Sherrell and Ridgway, 1986). The concept of involvement could be regarded as an unobservable state of motivation, arousal or interest toward an activity, associate product (Havitz and Dimanche, 1999) or information. However throughout the literature there is a lack of agreement in what involvement actually means (Laurent and Kapferer, 1985). The theoretical models developed from two arguments, that perceived interest and/or importance of the product alone represents involvement (Bloch *et al,* 1986; Mittal, 1989, 1995) or that involvement is a multi-dimensional construct (Jamorzy *et al,* 1996; Laurent and Kapferer, 1985; Reid and Crompton, 1993) (Table 2.4).

Author	Product Category	Involvement Dimension	Relationship to Search
Bloch, *et al* (1986)	Clothing and Personal Computers	Importance	Positive to On-going Search
Broderick and Mueller (1999)	Meta-Analysis	Importance, Situational, Sign, Risk	Positive
Higie and Feick (1988)	Personal Computers, Golf, Needlework, and Lawn	Importance, Risk, Hedonic	Positive

	Mowers		
Laurent and Kapferer (1985)	14 product categories comprising of: Clothing and Underwear Food and Household Goods Large and Small Electrical Items	Importance, Risk Importance, Risk Probability, Pleasure, Sign	Positive
McQuarrie and Munson (1987)	12 product categories comprising of: Cars, Clothing, Food and Household Goods, Electrical Goods, Wine	Sign, Hedonic, Risk Probability, Risk Importance	Positive
Mittal (1989, 1995)	Beer, Cameras and Jeans	Sign, Situation, Risk Probability, Risk Importance	Positive
Zaichkowsky (1985, 1987, 1994)	12 product categories comprising of: Cars, Clothing, Food and Household Goods, Electrical Goods, Wine	Importance	Positive

Table 2.4: Dimensions of Involvement and Relationship to Search

Generally, involvement is considered to be a multi-dimensional construct and although there may be other ways in which a product is relevant to a customer, four prevailing dimensions are clearly identified: the 'importance' dimension, 'sign' dimension, 'hedonic' dimension and the 'risk' dimension (Laurent and Kapferer, 1985; McQuarrie and Munson, 1987, Zaichkowsky, 1985, 1987, 1994). Referring to the importance of a product to the consumers' values, emotions and ego (Broderick and Mueller, 1999; Higie and Feick, 1988) the perceived importance dimension is said to increase with the price of the purchase (Engel *et al,* 1973; Rothschild, 1979). High emotional and high price purchases such as vacations, cars and property will hold increased importance and therefore increased information search. The symbolic or sign value is the degree to which the product and/or service expresses the person's

self (Laurent and Kapferer, 1985). The symbolic value is important when considering products and/or services as extensions of the consumers self, particularly evident in branding.

Personal relevance is considered to be the most important variable to have influence on an individual's motivation [involvement] to think (Petty and Cacioppo, 1979, 1990; Johnson and Eagly, 1989). The hedonic [pleasure] value is regarded as the level of arousal causing personal relevance (Laurent and Kapferer, 1985; McQuarrie and Munson, 1987). In that, the personal relevance of a product and/or service is representative of the perceive linkage between an individual's needs, values, goals and prior product knowledge. Finally, the risk dimension, the idea that every purchase has some element of risk involved (discussed in more detail in 2.5.4). The literature proclaimed that consumers are likely to develop ways of reducing risk through searching for information to act with confidence in situations of uncertainty (Bauer, 1960; Bloch *et al,* 1986; Zaichkowsky, 1985).

In addition to the multi-dimensionality of the involvement construct, three main involvement perspectives can be drawn from the literature: product-centred, subject-centred and response-centred orientations (Finn, 1983). While all three perspectives contribute to knowledge, a subject-centred approach will be taken to understand individual consumer behaviour. Subject-centred proponents contend that when making decisions more highly involved individuals will use more criteria (Mitchell, 1981); search for more information (Beatty and Smith, 1987) and accept fewer alternatives (Petty and Cacioppo, 1981). The level of consumer involvement within a subject-centred context has been examined on a continuum that has high and low at opposite ends (Engel and Blackwell 1982). Generally, there is strong support for the

relationship between involvement and search behaviour (Laurent and Kapferer, 1985). For instance, cognitively oriented persuasion researchers have argued that involvement increases the individuals' motivation to process information about the issue discussed in a communication. Petty and Cacioppo (1979) first provided this interpretation and suggested the term *issue involvement* for this type of involvement. They argued that issue involvement concerned 'the extent to which the attitudinal *issue* under consideration is of personal importance' (Petty and Cacioppo, 1979).

The development of the Elaboration Likelihood Model (ELM) demonstrated how involvement can lead to two routes to persuasion, namely, the central route and the peripheral route (Petty, 1977; Petty and Cacioppo, 1981, 1986) (Figure 2.6).
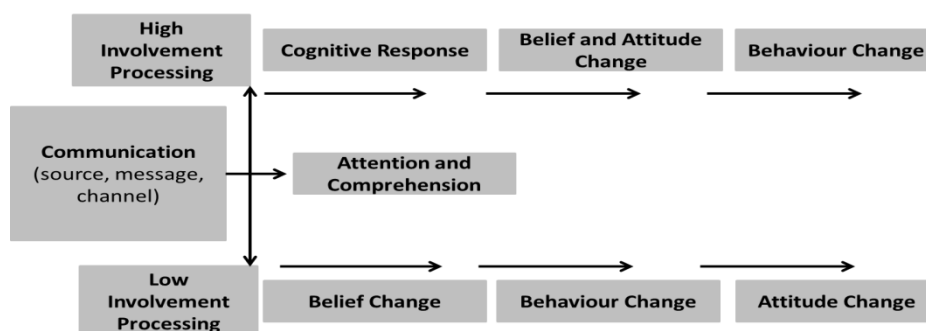
Figure 2.6: Elaboration Likelihood Model of Persuasion

The model assumed that once a consumer receives a message they begin to process it. Depending of the personal relevance of this information, the central route or peripheral route processing will occur. Central route processing is said to occur when involved consumers seek product related information intentionally. An involved consumer is said to pay more attention to incoming information and thoroughly process the incoming information (Petty, Cacioppo and Schumann 1993). This type of cognitive response to incoming information has been shown to mediate subsequent brand attitudes (Petty and Cacioppo 1983; Petty *et al*. 1993).

Peripheral route processing occurs when uninvolved customers lack sufficient motivation to pay close attention to incoming information. Therefore, uninvolved customers learn product information as a result of incidental learning; however, they fail to process incoming product information thoroughly. Consequently, involvement moderates not only the duration of information search but also the extent of information evaluation and learning. Since consumers with little involvement pay less attention and fail to process incoming information thoroughly, the level of knowledge they acquire through incidental learning tends to be lower than those customers who gain knowledge through intentional learning.

2.5.3 Learning

Petty and Cacioppo's (1981, 1986) ELM model assumed that consumers follow two routes to persuasion or involvement, namely central and peripheral, and it is believed that the route consumers follow is reflected in their learning style. Learning is regarded as an on-going process which refers to a relatively permanent change in behaviour that comes with experience (Solomon, Bamossy, Askegaard and Hogg, 2006). Learning can be both an incidental and intentional process and exposure to marketing stimuli can result in incidental learning, as with the repetition of exposure to advertising campaigns (Bettman, 1979). Learning has been studied under two approaches, behavioural and cognitive and is strongly linked to the concept of prior product knowledge. Behavioural learning views the internal memory as a black box, where the observable aspect of behaviour is given importance. Behavioural learning is closely linked with branding and advertising research and will not be reviewed for this study. On the other hand, advocates of the cognitive learning school of thought place emphasis on the internal mental processes and believe that information is

actively searched to make sense of the world and solve problems. Incidental versus intentional learning has been given some attention by proponents of this cognitive learning approach (Biehal and Chakravarti, 1982; Nelson, 1984) and is regarded as influential upon this study.

Theory assumes that if a consumer is highly involved with the purchase they are more likely to seek out information; this is regarded as intentional learning. Consumers may perform this type of learning in anticipation of making new choice decisions or to report information to friends and family (Biehal and Chakravarti, 1982). Incidental learning occurs when learning is not the primary objective; the individual is not actively seeking information but passively receiving it. Bettman (1979) explained that information can be acquired and stored in memory through watching television. However, the way in which the product information was acquired may influence the product knowledge gained. Nelson (1984) contended that if product information is acquired through incidental learning, like advertising communications, consumers are not likely to process incoming information in detail unless they are highly involved with the product. Incidental learning therefore is not likely to have a significant impact on building extensive prior product knowledge. Intentional learning, on the other hand, assumes an active intention to process incoming information and is likely to result in an increase of detailed knowledge of the product (Nelson, 1984).

Intentional learning can be related to the determinant of involvement. Involvement theory stated that if the consumer is highly involved with the product category, it is likely that the consumer will be involved in an on-going information search, which

may lead to a higher prior knowledge (familiarity and expertise) with the product category. Repeat information searches will increase learning and knowledge of the IR system, information objects and product category, allowing the consumer to more accurately evaluate the information. Information search and evaluation can also be moderated by involvements perceived risk.

2.5.4   Perceived Risk

Laurent and Kapferer (1985) defined the concept of risk within their theory of involvement. It is proposed that as the price of a product/service increases the associated perceived risk increases, thus increasing involvement with the purchase and therefore search. In statistical decision theory, psychology and economics, risk is related to choice situations involving both potentially positive and potentially negative outcomes (Knight, 1948). In consumer behaviour, risk is generally associated with the evaluation of negative outcomes and perceived risk in terms of loss (Dowling, 1986). Bauer (1967: 24) suggested that: 'consumer behaviour involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which are likely to be unpleasant'. Perceived risk is therefore concerned with the unpleasant nature resulting from unanticipated and uncertain consequences of a product purchase (Bauer, 1960). It is reasonable to assume that the act of information searching can help reduce the amount of perceived risk through increasing knowledge on the product category.

Jacoby and Kaplan (1972) proposed that although risk is an associated dimension of involvement (Laurent and Kapferer, 1985) it should be considered in terms of five dimensions. These include financial risk, performance risk, psychological risk,

physical risk and social risk. Financial risk is associated with losing money because the product and/or service fails or better service is achievable elsewhere at the equivalent or lower cost. It is well documented that the higher the price of a product or service, the greater the degree of perceived risk by the consumer (Engel *et al,* 1978). For example, automobile purchases have had considerable attention due to the large proportional spend on consumer finances. In fact, Jacoby and Kaplan (1972) found that financial risk was the highest contributing risk factor in automobile purchases.

Moreover, performance risk, the unsatisfactory performance of a product (Jacoby and Kaplan, 1972), is especially an issue with unfamiliar brands. Psychological risk is concerned with the fit between product and/or service and the consumer's self-image or self-concept in the way they think of themselves (Jacoby and Kaplan, 1972). Branding can be an important element in reducing psychological risk because brand attributes and reputation can be matched to the consumer's desired self-image.

Physical risk is the chance that a product and/or service may not be safe (Jacoby and Kaplan, 1972). Finally, social risk can be viewed as the way others may think of another individual (Jacoby and Kaplan, 1972). In today's consumer driven society the consumption of reputable brands is highly desired. Some brands hold varying degrees of brand equity in consumer markets; the use of a brand not perceived as acceptable may chance others perceptions of the consumer.

The dimensions, on a conceptual level, can be considered functionally independent of each other so that as one risk variety increases, the other risk varieties can either increase, decrease or stay the same. Roselius (1971) argued that time should also be

considered within the risk dimension. Time refers to convenience, the time wasted and effort involved in getting the product adjusted, repaired or replaced. If this is to be considered then the aforementioned performance risk would be associated with time due to connotations of risk of repair. Jacoby and Kaplan (1972) found that the five risk dimensions accounted for 61.5% of the total variance in the overall perceived risk (OPR) measure. Risk measures from previous studies were synthesised to develop a survey to measure both the amount of each specific type of perceived risk and the overall perceived risk of twelve products. From the twelve categories it was concluded that car purchases had the highest OPR followed by life insurance while the least OPR categories were aspirins and playing cards.

In contrast, the empirical work of Dowling and Staelin (1994) modelled the perception of risk and its effects on consumer risk handling behaviour for women purchasing a new dress. In determining overall OPR risk was measured in terms of product category risk, product specific risk, acceptable risk and ability to suffer a monetary loss. The results of this study suggested that as levels of perceived risk increase, the intended use of risk handling activity also increases which may include information seeking activity. The results suggested that product specific risk over the other risk measures can greatly affect the intensity of intended risk reduction strategies and that the cost of risk reduction strategies did not affect their intended use. However, Dowling and Staelin (1994) opted to view intended behaviours and not observe actual behaviour. This could have profound effects on the results as consumers intended behaviour and actual behaviour do not always correlate (Jacoby, Chestnut and Fisher, 1978).

Bauer (1960), on the other hand chose to operationalise risk as uncertainty multiplied by adverse consequences. Peter and Tarpey (1975) proposed probability of loss multiplied importance of loss. Measures of risk normally follow this compositional methodology (Dowling, 1986). However, Bettman (1975) provided empirical evidence that the relationship between uncertainty and consequences [or importance] is not multiplication. Bettman's (1975) decompositional methodology measures the consumers' evaluations of the overall perceived risk of buying into the part-worth utilities associated with the attributes of the product. Nonetheless, the former multiplication approach is most dominantly used within the literature. The perception of risk may motivate the consumer to conduct a more extensive information search and increase cognitive processing or evaluation to reduce the uncertainty of the purchase. The duration of information search and the ability to process/evaluate the information obtained is closely linked to the concept of the cost of search.

2.5.5   Cost of Search

While Roselius (1971) regarded time as a dimension of risk, time is also considered as a component of the cost of search. When the cost of information search is considered, it can be divided into three separate elements: time spent, financial cost and effort required. The cost of information search has been extensively reviewed in economic, psychology and marketing literature (for instance, Downs, 1961; Bender, 1964). Time spent in search is considered to be the single most important cost of search (Stigler, 1961). Jacoby, Szybillo and Berning (1976) reviewed the concept of time in relation to consumer behaviour in the literature of economics, sociology,

home economics, psychology and marketing, again recognising time as an important variable in consumer behaviour.

It has been proposed that the concept of time is not equal to all individuals and the amount of time spent on search will be different for every consumer depending on their involvement with the product category (Marmorstein, Grewal and Fishe, 1992) and the pleasure of search (Beatty and Smith, 1987). Avery (1996) suggests that individuals from higher income backgrounds will have a higher level of opportunity cost. Opportunity cost is generally measured in terms of financial income (Bryant, 1988; Stigler, 1961), however arguments to include the subjective value of time have also been noted (Marmorstein, *et al*, 1992).

Income alone may not accurately measure opportunity cost as some consumers may receive satisfaction and/or other benefits from information search for price comparison shopping (Marmorstein, *et al,* 1992). Beatty and Smith (1987) contend that some consumers enjoy collecting information on product categories that they have an interest in and therefore spend more time searching. This reflected the results of Srinivasan and Ratchford's (1991) study which found that an increased interest in cars created a positive relationship to search. Moreover, Bloch *et al,* (1986) and Marmorstein *et al,* (1992) pointed out that consumers may search for information to become opinion leaders and gain information for friends and relatives. Therefore, in certain circumstances extended time spent searching can provide other benefits suggesting that income alone may not be a valid measurement of opportunity cost.

Financial cost is the cost in monetary terms of searching for information (Avery, 1996; Stigler, 1961). Consumers who engage in external information search will consult a range of different sources (Katona and Mueller, 1955), some of which may come at a price (for example, the price of a telephone call or the cost of transportation). Evidently, this financial cost is reduced through the use of the internet as an information source (this is discussed in more detail in Chapter III). It is likely that as the increase in financial cost to retrieve information increases, consumers will search less if they believe the benefits for searching for such information will not exceed the monetary cost.

The final element of cost of search, effort, refers to the cognitive effort required to search and understand information. The cognitive effort and time savings have been extensively researched through the descriptive approach (Meyer, 1982) and behavioural approach (Bettman, 1979). The result is an indication of heuristics or rules of thumb consumers may employ during a purchase decision to save time and cognitive effort. In normative terms, cognitive cost of information search has been used in several studies (for example, Beach and Mitchell, 1978; Payne, 1982). It is argued that the consumer will trade off the benefits and cognitive costs in following an information seeking strategy.

The cost of information search in terms of time, financial and cognitive may also be related to the evaluation of information. The time given to search and the constraints placed on search and evaluation in monetary terms may impact the degree and extent of information evaluation. Moreover, differences in consumers' cognitive ability to adequately evaluate the credibility of information may moderate credibility perceptions. Overall, the determinants of search: prior product knowledge,

involvement, learning, perceived risk and cost of search moderated the need to conduct an external information search. As well as the extent, specifics of search, sources used, and the cognitive ability to evaluate the information obtained.

2.6   Chapter Summary

The review of traditional information search literature positions information search as an important and influential stage of the wider behaviours surrounding consumer purchase decision making. It was important to theoretically ground the research within the traditional information search domain to understand the process by which consumers search for and consume information during a purchase decision. The review suggests that information search and evaluation is a staged process, which will vary between different purchase decisions and different consumers. The mode of search and the determinants of search are believed to be important factors that impact on the proposed research. While the mode of search must encompass an observable external search, three dimensions of external search exist: active, passive and on-going search. The mode of search directly impacts upon the motivation to exert cognitive effort to process and evaluate the information obtained during search. This means that during active information search the consumer will exert more effort to evaluate information and learn from the experience, and information is also likely to have a more persuasive influence during active search.

The consumers search mode is moderated by their prior product knowledge, level of involvement, learning dimensions, perception of risk and the associated costs of search. This suggests that the mode of search and search determinants should be considered as attributes of the theoretical model to be tested in this research.

However as this research concerns the internet, the internet as a source of information and IR system (Ingwersen, 1996) must be explored to highlight any additional attributes relating to search and evaluation of information.

Chapter III   Consumer Information Sources and Online Search

The previous chapter examined the models and theories of traditional information search in an attempt to better understand the importance of information during the purchase decision process, the barriers and motivators to search and their relationship to information evaluation. This chapter begins by exploring the different types of information sources available, and the changing behaviours of consumers through the acceptance of the internet as an information source. Research suggested that the internet is a growing influential information source (Klein and Ford, 2003) and place of purchase. Resultantly the impact of this new IR system, information sources and place of purchase impacted on the decision making process, which is said to include a new trust dimension (Lee, 2002: Liang and Lai, 2002; Suh and Han, 2002). The aim of this chapter is to understand how the nuances between information sources and the impact of this new online IR system affect consumers' ability to search and evaluate information.

3.1   Sources of Information

Newman (1977) proposed that the number and types of information sources should be considered as variables to be observed in external search behaviour. External search is commonly regard as the amount of attention, perception and effort toward obtaining environmental data or information, relating to a specific purchase under consideration (Beatty and Smith, 1987; Punj and Staelin, 1983; Srinivasan and Ratchford, 1991), thus illustrating goal orientated behaviour. Exploring the types of information sources available to consumers during external search is important to the

study as it helps to better understand the differences between the sources, their perceived credibility and their influence.

The literature pertaining to traditional information search proposes several categorisations of external search information sources (Andreasen, 1968; Beatty and Smith, 1987; Moorthy *et al,* 1997; Newman and Staelin, 1972). The sources follow the idea of marketer versus non-marketer sources. While the authors use different terminology in their classifications they generally follow four avenues; (1) marketer dominated, (2) store dominated, (3) neutral and (4) consumer dominated. For example, Moorthy *et al* (1997) viewed marketer dominated sources as TV, radio, newspaper and magazine adverts while Andreasen (1968) argued that they are impersonal advocate. Following the store dominated approach Cox (1987) outlined marketer dominated, such as advertising. The neutral classification was predominantly developed by Newman and Staelin's (1972) and Cox's (1967) classifications of neutral sources such as, consumer reports. Finally consumer dominated followed friends and family (Moorthy *et al* (1997), personal friends from Andresean's (1968) classification and overcame the issue with Beatty and Smith's (1978) classification where individuals covered both friends and salespeople. However, online sources may blur the distinction between traditional information source typologies, where the authenticity of brand related messages or posting intention is not clear (Nekmat and Gower, 2012; Smudde, 2005; Xue and Phelps, 2004).

Again within the traditional search literature, several studies explored the patterns of information gathering during a pre-purchase information search. The studies found that the consumers' personal characteristics impact upon the sources used during

search and the amount of information search (Westbrook and Fornell, 1979). Whereas Claxton, Fry and Portis (1974) identified three basic patterns of information gathering (1) non-thorough, characterised as a few retail visits and uses of few out of store information sources; (2) store intense, which was seen to be many retail visits but little else; (3) thorough and balanced, characterised by many retail visits and use of many out of store information sources. The types of information sources used in store and out of store were omitted from the study. While useful in terms of understanding traditional information search, these studies do not consider the role of the internet during search. It could be argued that all four classifications of sources (1) marketer dominated (for example, online adverts or organisational social media profiles, (2) store dominated (such as, online retailers), (3) neutral (for instance, impartial consumer groups like Which) and (4) consumer dominated sources (for example, online consumer reviews and personal social media profiles).

The introduction of the internet as an IR system and source of information has revolutionised the information search process. While studies by Katona and Mueller (1955) and Newman and Staelin (1972) indicated little external pre-purchase information search by consumers they did not explore the impact of the internet on the search process.

Limited external search in durable goods categories can be explained through previous experience or high perceived levels of subjective knowledge. High levels of subjective knowledge increases consumer confidence and in return decreases the need for external search (Seines and Gronhaug, 1986). However, the heterogeneity of service purchases may decrease levels of subject knowledge and increase the need for search. In fact research findings have supported the premise of consumers'

evaluations differing from search and experience qualities (Jain and Posavac, 2001). Ford, Smith and Swasy (1990) observed that consumers were more sceptical of claims about experience attributes than claims regarding search attributes. This could account for March and Simon's (1958) observation that the selection of a particular information source may be self-reinforcing, leading to repetitive use whether the information provided is optimal or not. In other words, once a consumer is satisfied with a particular information source they are likely to continue to use that source even when the cost of search is high or credibility of information is low.

The technological and societal changes introduced since the publication of the traditional information search literature have changed the way in which consumers search, consume and evaluate information (Peterson and Merino, 2003). With the advent and widespread adoption of the internet, much of what is theorised and understood about consumer information search has changed. In other words, the internet has fundamentally changed consumer behaviour and it is argued that the study of online consumer behaviour is not as straightforward as borrowing components of traditional consumer behaviour theory (Cheung, Zhu, Kwong, Chan and Limayem, 2003). Similarly, Biswas (2004) asserted that the internet as a shopping medium possesses certain unique attributes which require the re-evaluation of the validity of traditional theories of consumer behaviour.

The sources of information outlined by Beatty and Smith (1987), Claxon *et al* (1974), and Moorthy *et al* (1997) have changed to include a new inclusive media (McLuhan, 1970), namely the internet. Evidence suggested that consumers search more online (Ratchford *et al,* 2003) and substitute online information sources for offline ones (Klein and Ford, 2003). These arguments suggest that the internet may

increase a consumer's search process, thus conflicting with the findings of Katona and Mueller (1955) and Newman and Staelin (1972). The online information sources have emerged as merchants, eTailers or brand website, electronic decision aids (for example, Punj and Moore, 2009), blogs and more recently social media (for example, Kaplan and Haenlein, 2010) (discussed further in chapter IV). Due to its power as a search mechanism, and low search costs, the internet is fast becoming the medium of choice for consumers seeking product information (Bickart and Schindler, 2001).

One major issue reported with online information sources is the abundance of choice alternatives and information sources available (Firat, Madnick and Siegel, 2000; Huang, 2000; Kwak, 2001). The sources of information outlined in the traditional search literature also become searchable through the internet. The internet then becomes the IR system where multiple sources of varying quality and authors exist, which may substitute offline sources or be used to support offline search. The large variance of information source types, the quality of the information and sometimes unavailable determinants to evaluate the credibility of information confidently are additional issues for the consumer to navigate during online information search and evaluation.

Moreover, although the internet provides more choices, the advantage can be lost by overwhelming online shoppers who have a limited capacity to process all the retrieved information (Haubl and Murray, 2003). Consequently, the online search mode and search tactics, in addition to the five determinants of information search [prior product knowledge, involvement, learning, perceived risk and cost of search] have a relative effect on the amounts, quality and types of information retrieved. The online information search process will now be reviewed to highlight the new

information search behaviours and the theories resulting from the impact of using an online IR system.

3.2   Consumer Online Information Search

It has been argued that understanding online consumer behaviour is not as simple as borrowing concepts from traditional consumer behaviour theory (Biswas, 2004; Cheung, Zhu, Kwong, Chan and Limayem, 2003).   It is therefore important to explore the foundations of the internet as an IR system to begin to understand the impacts of the internet on consumer information search and evaluation.   Chung and Henderson (2001) asserted that use of the internet was distilled in two distinct perspectives, utilitarian and social.   Similarly, Hoffman and Novak (1996) viewed the internet as providing utilitarian and affective needs.   In the utilitarian perspective, the internet is viewed as an efficient marketplace as well as a convenient and efficient source of information.   Under the social or affective perspective the internet is primarily viewed as a conduit for communication that facilitates social interaction or play.   Consequently, the concept of on-going-search can be related to 'online surfing' for recreation or play (Bloch *et al*, 1986).   The idea of 'perceived play' has been linked to online product information search as a leisure activity as it provides the opportunity for a source of escape and enjoyment (Mathwick, Malhotra and Rigdon, 2001).

Orwell (2001) similarly argued that while traditionally researchers regarded the utilitarian aspects of internet shopping, they are increasingly beginning to understand the value of the internet as a pleasure medium.   In a similar vein, Babin *et al* (1994) asserted that consumers often shop for appreciation of the experience rather than task

completion. The utilitarian to social online search motives illustrated that the process of information search to actual purchase is blurred in the online environment. Moe (2003) proclaimed that the three stages of consumer decision making processes on the internet: searching for information, evaluating alternatives and completing the transaction of the chosen alternative (Meyer and Johnson, 1995) are best seen through search modes that aim to pinpoint the underlying motives of visits to a website.

The seminal work of Hoffman and Novak (1996) suggested that the online process is comprised of goal orientated and experiential modes. In goal directed behaviours, consumers are extrinsically motivated to complete a task, their approach is instrumental and utilitarian in the process. Experiential behaviour is seen to be when there is no specific task to be completed; motivation is intrinsically based on enduring involvement and hedonic benefits. Rooted in the generic concept of flow, which is the holistic experience that people feel when they act with total involvement (Csikszentmihayli, 1975, 1990), Hoffman and Novak (1996) argued that flow is the glue that holds the consumer in the hypermedia computer mediated environment. In other words, the flow of the website may be able to make the transition from search to purchase and may also be an affective determinant of repeat search for new purchase decisions.

Hoffman and Novak (1996) are not the only authors to use the concept of flow to understand consumer search. The mindset formation and influence (MSFI) model (Dholakia and Bagozzi, 2001) furthered Hoffman and Novak's (1996) modes. They argued that goal orientated mindsets are divided into deliberate and implemental

mindsets, and experimental mindsets are divided into exploratory and hedonic (Table 3.1)

Mindset	Behaviour/Activities
Goal Orientated Mindset	
Deliberate	Collect and process information and the activities problem identification, information search and decision making
Implemental	Action focused: follows the deliberative mindset, facilitates smooth action after the decision
Experiential Mindset	
Exploratory	Intention to seek new experiences and satisfy curiosity
Hedonic	Focus on sensory elements of search

Table 3.1: MSFI Model (Dholakia and Bagozzi, 2001)

Moe (2003), on the other hand, modelled the consumers search mode as direct purchase visits, search/deliberation visits, hedonic browsing visits and knowledge building visits. Direct purchase visits have clearly defined purposes and typically end after completing a purchase transaction. Search/deliberation is based on prospective future purchases and the visit is used to gather information specific to that purpose. Both hedonic and knowledge building visits are built around pleasure of the browsing experience, such types of information search had not previously been considered within traditional information search literature (reviewed in Chapter II). The difference between the new search models of online search is that the timing for prospective purchase is immediate for hedonic, and futuristic for knowledge building.

Arguments that flow and experiential outcomes can attract consumers, migrate price sensitivity, and positively influence subsequent attitudes and behaviours have been made (Novak, Hoffman and Yung, 2000). However other arguments that suggest

flow and experiential outcomes are irrelevant in online purchase contexts (Zeithaml, Parasuraman and Malhorta, 2002). It would appear that the concept of 'flow' is only relevant in hedonic browsing visits or knowledge building visits rather than search and deliberation visits (Moe, 2003). This suggested that previous online 'pleasure' experiences will affect final purchase decisions. Moreover, as consumers spend increased amounts of time on the internet for pleasure they will acquire more familiarity and expertise in online search (Alba and Hutchinson, 1978), this will consequently effect future search strategy and the types of information obtained (Bhatnagar and Ghose, 2004).

While search mode was found to have a correlated with the effect of flow pleasure, the theory does not explain consumer online search behaviour within an information search strategy context. As users themselves have to navigate the internet, an additional burden is placed upon them in terms of search technique. Search strategy and behaviour have long been a standing focus of research since the widespread adoption of the internet (for example, Catledge and Piktow, 1995).

Marchionini (1995) defined four levels of description in information seeking: moves, tactics, strategies and patterns. Moves are defined as single behavioural actions. When searching on the internet this might include clicking on a hypertext link, typing a query into a search engine, using the 'return' button. The wider tactics could be regarded as the grouped behaviour of the information searcher. A search tactic on the internet may be typing a search query using general search terms and then using successively more specific query terms to narrow the search domain. Strategies are defined as generalised approaches to particular information seeking problems (Marchionini, 1995). An example of a search strategy for the internet might be a

search engine strategy; using a search engine to begin the search for information. Finally, a pattern is defined as internalised, automatic and unconscious interactions used for all information seeking tasks, not just those on the internet.

Studies have examined the differences in strategy between experts and novices (Holscher and Strube, 2000; Thatcher, 2006), use of search engines (Jansen and Spink, 2006), search terms (Domas White and Iivonen, 2000; Jansen and Spink, 2006), electronic decision aids (Punj and Moore, 2009), user movements through the internet, and search termination patterns and consumer learning online (Bhatnagar and Ghose, 2004; O'Brien and Toms, 2008). The results suggested that successful search performance requires the combination of internet experience and domain specific background knowledge (Holscher and Strube, 2000). In today's progressively internet focused world it could be argued that many consumers hold a certain level of expertise in online search through previous search experience and using the internet for recreational purposes (Mathwick *et al*, 2001).

The online information search literature further suggests that the level of internet experience directly affects cognitive processing ability of the user (Holscher and Strube, 2000). As such, the level of internet experience not only effects search patterns but also the consumers' ability to process information in a virtual setting. In examining search termination patterns from different product categories and consumer demographics, Bhatnagar and Ghose (2004) found that consumers' have the ability to learn from online search experiences. The empirical investigation found that in music and travel sales, if information searches are carried out on one search good category a subsequent search on another category is made easier, thus indicating a learning dimension. This means that in such categories, consumers'

search duration will decline over time. While this may be the case for active/objective information searches, a search for pleasure would result in increased search. Bhatnagar and Ghose (2004) also demonstrated that those consumers with higher levels of education were more likely to conduct extended online information searches, this finding is illustrative of new the new types of consumers who live in an online world, the connected consumer (discussed further in Chapter IV).

In other research, Thatcher (2008) found that although there were no significant performance differences between experience levels on the tasks in the experiment, cognitive strategies differed. Based on the cognitive strategies developed in his 2006 work (Table 3.2) Thatcher (2008) demonstrated that the differences in search strategy depended on internet experience.

Cognitive Strategy	Definition
Broad First	Search using one or more general search terms defined by the task and then use more detailed task-specific terms if the broad strategy failed
Search Engine Narrowing Down	Select a search engine based on the known or perceived attributes of the search engine or chose subject categories on a search engine that would assist in narrowing the search domain
Search Engine Player	Use of different search engines to search different portions of the internet with the same search terms based on known or perceived capabilities of different search engines or use of meta-search engines to achieve same goal
Known Address Search Domain	Direct flow to a known webpage, that was not a search engine, that could be used as another suitable portal for the particular search task or was a familiar starting point for the participant
Parallel Player	Opening multiple browser windows early in the search task session to conduct different searches simultaneously
Link-Dependent	Rely solely on hyperlinks from the home page to move from one webpage to another
To-The-Point	Use of specific search terms with the intention of directly reaching the answer

Known Address	Direct flow to a known site where the information being sought is expected to be
Sequential Player	Combination of a 'Safe Player' and 'To-The-Point' strategies. Used to confirm information already obtained
Deductive Reasoning	Use of search terms that appeared to be unrelated to the search task
Virtual Tourist	Following predefined paths designed by the website developers
Parallel Hub and Spoke	Opening hyperlinks in a new browser in a similar manner to a hub and spoke pattern where the new browser window could be kept open for later reference

Table 3.2: Cognitive Search Strategies (Thatcher, 2006; 2008)

Thatcher (2008) asserted that participants with a higher level of internet experience are more likely to use 'parallel player', 'parallel hub and spoke', 'known address search domain', and 'known address' strategies, which limits the flow of search within the web to specific domains known by the user. Participants with a lower level of internet experience were more likely to use 'virtual tourist', 'link dependent', 'to the point' and 'sequential player', 'search engine' and 'broad first' strategies. The findings on Thatcher's (2008) study confirm that of Bhatnagar and Ghose (2004), in that, they both suggested that as a consumers' experience with online search increases their ability to search for relevant and trusted content also increases. Moreover, the findings of both studies suggest that the use of particular sources is self-reinforcing (March and Simon, 1958; Guido *et al*, 2010), once a consumer trusts an information source they are likely to continue to use that source.

Kim and Allen (2002) explored the cognitive behaviour and task influences on web searching behaviour by studying users' individual differences and effects on information search. Taking the variables of cognitive abilities, cognitive style, problem solving style and search tasks, the results suggested that the search techniques used and the efficiency of the search appeared to depend on how well the

individual searcher fitted with the specific task. If Thatcher's (2006) search strategies were taken into consideration one-way to overcome difficulties would be to conduct a search engine strategy.

Wolfram (2008) examined search characteristics in different types of web based IR environments, including a search engine. Transaction logs of electronic IR systems are said to provide a wealth of data for the unobtrusive study of user behaviours. Wolfram (2008) viewed the transaction logs from four different internet based IR environments. A bibliographical databank, OPAC, search engine, and specialised search system. The results demonstrated a difference in behaviour between the IR environments, this difference may account for experience of the particular system as the work of Bhatanagar and Ghose (2004) and Thatcher (2006, 2008) find. Within search engines, users are said to be parsimonious; this suggested that normative motivations are associated with search engine strategies. Interestingly, the work of Jansen and Spink (2006), a comparative study between nine search engine transaction logs in US and European search engines, highlighted that although users are adopting search engine strategies they are viewing fewer results pages. This suggested that the placement of results becomes an issue for marketers within search engine searches.

Obtaining relevant and credible information during online information search was also found to be effected by not only search strategy but search terms used. Jansen and Spink (2006) contended that the use of single term search queries have remained constant throughout the period of study although information search periods have become longer. One reason for this is that it is very difficult for searchers to carry out phrase searching since they may not be familiar with the right set of terms which

constitute the phrase (Fattahi, Wilson and Cole, 2008). The formation of queries can be difficult for many searchers thus impacting on the effectiveness and success of search (Baeza-Yates, Hurtado and Mendoza, 2004). Fattahi *et al*, (2008) explored the use of using general non-topical terms (NTTs) and domain specific semi-topical terms (STTs) in conjunction with topical terms (TTs) within the health service industry. The results confirmed that the use of both NTTs and STTs in unison with TTs enhanced the query search effectiveness and the authors declare that IR systems should more effectively complete word related analysis of documents before retrieval to enhance search helpfulness. However, searchers' the depth of knowledge and their internet proficiency remain an issue in developing adequate search terms.

While in traditional search the mode of search affects the depth of active information processed, the mode of search online may additionally affect the purchase intention of searchers. For instance, consumers may be following a pleasure search or goal seeking search. It was found that while many consumers use the internet for search purposes, the delineation between the volume of consumers who intend to purchase and those who actually purchase is disproportionate (for instance, Grant, Clarke and Kyriazis, 2007). The search mode may account for some of this variance because not all information searches will be goal directed. The literature also suggested that technology acceptance, website design, website personality (Hausman and Siekpe, 2009; Poddar, Donthu and Wei, 2009; Zahedi and Song, 2009) as well as perceived trust will affect search of online sources, adoption of information within the sources and subsequent purchase intention.

3.3   Online Trust

A new element of 'trust' is believed to have been added to the online decision making process (Lee, 2002; Laing and Lai, 2002; Suh and Han, 2002). In an attempt to understand online intention to purchase, some authors believed that attitudinal and technology acceptance models were useful indicators of intention to purchase (Zhou, Dai and Zhang, 2007) or intention to follow advice. Several technology acceptance models have emerged from the literature; including expectation-confirmation theory (ECT), innovation and diffusion theory (IDT), theory of planned behaviour (TPB), technology acceptance model (TAM), theory of reasoned action (TRA). While many technology acceptance models have traditionally been used to examine the adoption and acceptance of communications technology in the workplace (for example, Davis, 1989), they have also been widely adopted in online consumer behavior studies.

The work of Childers *et al* (2001) adopted the technology acceptance model (TAM) from IS literature (Davis, 1989; Davis, Bagozzi and Warshaw, 1989). Initially developed to understand workplace adoption of new technology, TAM is viewed on three dimensions: the perceived usefulness of the technology, the ease of use and the enjoyment of use. Hedonic and utilitarian aspects of internet use were explored in relation to online intention to purchase. The results of the Childers *et al* (2001) study suggested that enjoyment of use is a strong predictor of purchase intention in hedonic internet use. Whereas in utilitarian contexts usefulness and ease of use were regarded as predictors of intention to purchase.

Research confirmed that online purchase intention, is an important predictor of actual buying behaviour, which refers to an outcome of the consumers criteria assessment

of website quality, information search, and product evaluation (Poddar *et al*, 2009; Hausman and Siekpe, 2009). Several studies have found that perceived trust or trustworthiness is a key evaluative cue leading to purchase or use of information (for example, Chen *et al,* 2010; Ranganathan and Ganapathy, 2002). The issue of online trust is an important and emerging area within the literature, however, to fully review the area is out-with the limits of this research. It is the intention to review the general dimensions and influences of trust evident within the literature.

Definitions of trust have been wide ranging which have been affected by the differing research contexts. In economics, trust was regarded as a rational process, whereas psychologists viewed trust as a personal attribute. Sociologists proposed a structural dominance and psychologists focus on the effect of interpersonal relationships (McKnight *et al*, 1995, 2001). There are many dimensions of trust including competence, expertness, dynamism, credibility, benevolence, responsiveness, honesty, shared understanding and personal attraction (McKnight *et al*, 2001). McKnight *et al* (1995) sought to explore the interdisciplinary views of trust. The emergent four trust classifications (Figure 3.1) have been widely cited in the literature, in whole (for example, Gefen *et al,* 2003) or in part (Compeau *et al,* 2001).
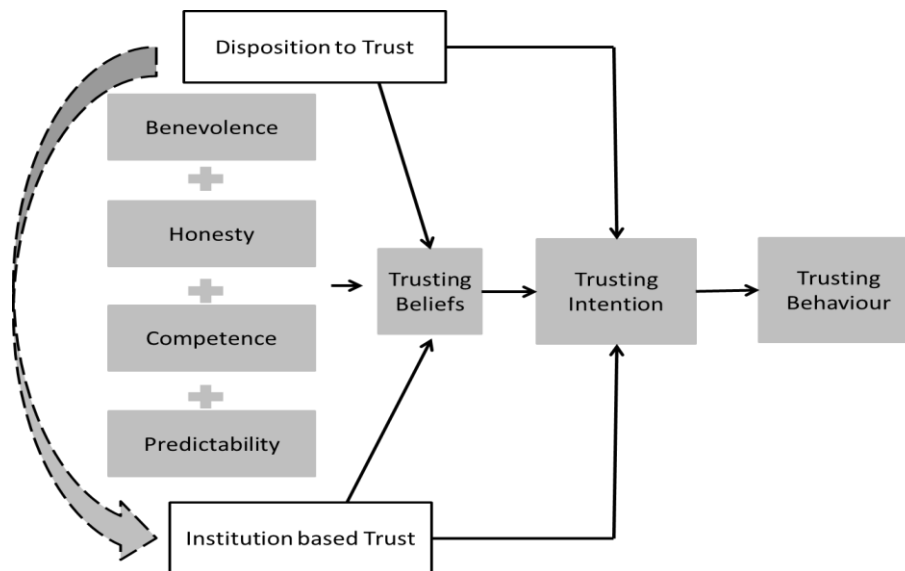
Figure 3.1: Situation Dependent Trust Constructs (Adapted from McKnight et al, 1995)

In the first classification of trust McKnight *et al* (1995) synthesised previous literature and identified four broad categories of trusting beliefs: benevolence, honesty, competence and predictability. A trusting belief is defined as the extent to which someone believes (or has confidence in their belief) that another person is trustworthy, which in turn affects what that person does, or their trusting behaviours.

While the authors agree that not all of three constructs may apply, they suggest that, in particular situations, the relative importance of each may be weighted. The second classification of trust is the belief in the protection and presence of structures and systems. Whereas the third classification is rooted in a person's disposition to trust, which develops over time and experience. The fourth classification suggests that trust can stem from a particular situation and is separate from the other parties involved.

In the commercial world, the various trust considerations fundamentally influence the attitudes and actions taken by buyers towards sellers (Urban et al, 1999). In an e-

business context, Ratnasingam *et al* (2002: 384) stated: 'the traditional notion of trust primarily focuses on trust in a trading partner, trust in e-business also incorporates the notion of trust in the infrastructure and the underlying control mechanism [technology trust] which deals with transaction integrity, authentication, confidentiality, and non-repudiation'.

Lee and Turban (2001: 81) added that:

'…human trust in an automated or computerised system depends on three factors: (1) the perceived technical competence of the system, (2) the perceived performance level of the system, and (3) the human operator's understanding of the underlying characteristics and processes governing the system's behaviour'.

Therefore three levels of trust must be secure before a purchase decision is made (1) trust in the system facilitating the transaction, (2) trust in the particular vendor, and (3) trust in other third parties to safeguard the exchange (Grabner-Krauter and Kaluscha, 2003; Kim *et al,* 2005).

This suggested that attitude towards and acceptance of technology is an antecedent of trust. Similar to the studies on intention to purchase, several studies have examined online trust through the theory of reasoned action and theory of planned behaviour (McCole, Ramsey and Williams, 2010; McKnight and Chervany, 2002; Pavlou, 2003; Vijayasarathy, 2004). McCole *et al* (2010) incorporated security and privacy concerns as moderating variables of trust. The results confirmed that trust in a vendor, trust in the internet and trust in third parties positively influence attitude towards online purchasing. Although all of these relationships have been proven separately in previous literature (for example, Grabner-Krauter and Kaluscha, 2003;

Jarvenpaa *et al*, 2000; McKnight *et al*, 2002), all three have never been tested in the same model before. The study indicated that while 'fears' of purchasing on the internet still hinder ecommerce, the presence of a reputable agent may, in some manner, mitigate this risk (Cole *et al,* 2009).

Sultan, Urban, Shankar and Bart (2002) empirically demonstrated that website characteristics (navigation, brand, advice, no errors, presentation, order fulfilment, and community) and consumer characteristics such as past experience with the internet and experience with a particular website affect trust in a website. This finding is illustrative of Thatcher (2006, 2008) where experience with online search and reinforcement of particular source use impacted on future search behaviours (March and Simon, 1958). Bart *et al* (2005), Corbitt *et al* (2003), and Hoffman *et al* (1999) also viewed web user characteristics in determining trust; the results suggest that online trust is a determinant of online experience which mirrors findings of previously reviewed literature. In the same study Corbitt *et al* (2003) and Bart *et al* (2005) viewed website characteristics as influencing factors in trust; the results confirm that a customer's trust levels are likely to be influenced by the level of perceived market orientation, site quality, and technical trustworthiness.

In the last few years technological development, namely internet technology, has enabled online retailers to increase trust perceptions by relying on a new form on WOM, online consumer reviews. To positively influence online intention to purchase many retailers have developed consumer feedback mechanisms. Some studies have explored the influence of consumer feedback mechanisms (Huang, Laurie and Mitra, 2009) and the correlated effects of feedback volume and valance

on purchase behaviours (for example, Doh and Hwang, 2009; Lee and Lee, 2009; Park and Lee, 2009; Park and Kim, 2008). The addition of consumer feedback mechanisms is illustrative of the new Web 2.0 information dissemination trend (O'Reilly, 2005) (discussed further in Chapter IV), in that consumers can review their consumption experiences online. This may be either positive or negative in nature [the valance]. Huang, Lurie and Mitra (2009) suggested that the presence of product reviews by consumers enhances consumer search and purchase behaviour for experience goods.

The addition of consumer reviews is a growing trend, which serves to increase trust within the buyer seller relationship. Chapter IV provides a detailed discussion about online consumer review research. The implication of consumer review presence within online intention to purchase is regarded as an important determinant in online consumer behaviour and search for reviews is an increasing trend, with 59% of consumers being reported to being influenced by online reviews during the search process (PowerReviews, 2011). Researchers have found that the volume and valance of such information affects online purchase intention (Table 3.3).

Author(s)	Study	Findings
Chatterjee (2001)	Valance (negative)	Negative influence is determined by familiarity with the retailer
Doh and Hwang (2009)	Effects of involvement and prior product knowledge on message volume and valance	Involvement and prior knowledge partially moderated the relationship between the ration of the messages and the effect
Park and Lee (2009)	Valance	The effect is greater for negative comments than for positive comments.
Park and Kim (2008)	Volume, valance and message type	Type of comment is stronger for experts than for novices. The number of reviews is stronger for

		novices than experts
Park and Lee (2008)	Effect of involvement on volume and message type	Low involvement consumers focused on volume while high involvement focused on message type
Park, Lee and Han (2007)	Effect of involvement on quality and volume	The quality of the comments has a positive effect on purchase intention. Low involvement consumers affected by the volume of comments while high involvement affected by both quality and quantity
Sher and Lee (2009)	Effect of consumer scepticism on quality and volume	Highly sceptical not influenced by argument quality and quantity. Low sceptical influenced by argument quality rather than quantity
Xia and Bechwati (2008)	Effect of cognitive personalization on valance and message type	Cognitive personalization is moderated by valance

Table 3.3: Effects of Consumer Feedback on Online Purchase Intention

The literature surrounding the influence of consumer feedback mechanisms on purchase decisions provided conflicting views. Godes and Mayzlin (2004) suggested that the more conversations there are about a product, the more likely someone is to be informed about it, thus leading to greater sales. However Maheswaran and Meyers-Levy (1990) proclaimed that negative consumer reviews are considered to be more diagnostic or informative than positive reviews. Following on from traditional information search literature, the studies of feedback volume and valance include the effects of involvement and prior product knowledge.

Park and Kim (2008) employed cognitive fit theory and the ELM to examine the volume and valance of consumer reviews and the relationship between expertise. The authors proposed that consumers are said to use different message processing strategies depending on their level of expertise. Cognitive fit theory proclaimed that when the information type matches the consumer information-processing strategy,

cognitive fit occurs (Vessey and Galletts, 1991). The number of reviews acted as an indicator of product popularity and an increase in reviews is also an increase in product information. According to ELM, consumers with low expertise are more likely to focus on a peripheral cue such as the number of arguments, while consumers with high expertise are more likely to engage in effortful cognitive activity through the central route and focus on the argument quality (Petty, Cacioppo and Schumann, 1983). The results of the study confirmed that the effect of the number of reviews is stronger for novices than for experts, while the cognitive fit is stronger for experts than for novices.

Chatterjee (2001) insisted that the influence of negative feedback on perceived reliability and purchase intentions is determined largely by familiarity with the retailer. Lee *et al* (2008) adopted the ELM to explain the persuasive effect of the proportion and quality of negative reviews depending on product involvement. It was found that a conformity effect occurs with the volume of reviews, irrespective of the level of product involvement. However, those consumers with high product involvement tend to conform when the quality of the review is high. Whereas, the consumers with low product involvement were shown to conform solely with the volume of reviews (Lee *et al*, 2008). Lee *et al* (2008), however, neglected to determine how consumers establish cues to determine the quality of individual review narratives.

The addition of feedback mechanisms have largely been adopted to instill trust in the product purchase. While the feedback mechanisms, on the surface, suggest that the volume and valance of the comments will affect purchase decisions, such sources are

relatively unknown and display many of the characteristics which consumers find untrustworthy. Moreover, while consumers' are reading the experiences, a more trusted source of information than marketer dominated information (Blackshaw, 2006; Sen and Lerman, 2007) the characteristics of the information and inability to accurately evaluate information credibility can pose cognitive issues for the consumer. To date, research has predominantly focused on the effects of review influence on purchase intention (see Cheung and Thadani, 2010 for review) and have been conducted at a macro review volume level (for example, Doh and Hwang, 2009; Lee and Lee, 2009; Park and Lee, 2009; Park and Kim, 2009), neglecting the micro individual review level. As such, the process of online review credibility evaluation is largely unknown. Therefore the background and nature of consumer recommendation systems within the online social content framework, and the wider technology and behaviours underpinning their use require further exploration to fully position this research.

3.4   Chapter Summary

The review of consumer information sources and online search has moved on from the theories and models that grounded traditional information search. This chapter has begun to provide an additional framework of considerations to be made when researching the internet as a source of information and IR system. The traditional models of information search, the modes of search and the search determinants discussed in Chapter II remain applicable in an online information search and evaluation context. However, new theories in relation to the consumers' internet expertise and search tactics must also be taken into consideration in the proposed

study. The impact of internet experience directly impacts upon the search strategy and, as a result, the types of information retrieved and the consumers' ability to confidently evaluate the credibility of the information obtained.

Moreover, limited social cues place an extra burden on consumers when searching and evaluating information in the computer mediated environment. The consumers' level of internet experience impacts upon their ability to evaluate information and make confident judgement decisions about information quality. Consequently, the consumers' relative level of internet experience should be considered as an attribute of the theoretical model to be tested in this research. In the steps taken to create trust in the online purchase decision process, the addition of consumer feedback mechanisms has created a new type of information source.

While early research suggested that consumer reviews are influential in the purchase decision process, the research does not explore the use of other information sources during search or attempt to explain why the content is influential on decision-making behaviour. The next chapter aims to explore the advancement of technology and the changes in the mindset of society in creating and sharing thoughts, feelings and opinions online, in an attempt to understand why online social content, such as online consumer reviews, is influential.

Chapter IV   The Rise of Online Social Content

The previous chapters have discussed traditional information search, the sources of consumer information, and the new theories of online information search, in an effort to explore how consumers search and consume information. This chapter seeks to explore the wider technology supporting the creation of online social content and the background, nature, and types of online social content available to consumers during information search. While consumer feedback mechanisms have been used to instil trust and increase purchase intention in commercial websites, it is important to understand why this content is of importance and influential during a purchase decision. The aim of this chapter is to introduce the various types of social content sources, examine consumer motivations to search and use online social content during a purchase decision, and the extra burden placed upon the consumer in terms of search and evaluation.

4.1   The Evolving Web

The studies of online intention to purchase introduced the concept of consumer feedback mechanisms to increase trust perceptions during the purchase decision process. Such feedback mechanisms are facilitated by Web 2.0 technology and mark the internet as a distinct medium for search, purchase and play. It is important to this study to understand the advancement of internet technologies and the subsequent impacts and changes on consumer behaviours. Early internet based consumer search and purchase studies (Mathwick *et al,* 2001; Orwell, 2001) viewed the internet as an almost inactive source. Information was created and disseminated by brands on a mass scale, incorporating a one-to-many strategy (Hoffman and Novak, 1996).

This seemingly passive source has been revolutionised into a dynamic information source where individuals are active participants in the creation and exchange of information (Musser and O'Reilly, 2006; O'Reilly, 2005). This new interactive, two-way information source has been dubbed Web 2.0 (O'Reilly, 2005). While the rise of Web 2.0 is now well documented, there is no apparent definition of the technology (Table 4.1), and a scholarly debate as to whether Web 2.0 is the correct terminology to be used is still on-going (for example, Schillewart, De Ruyck and Verhaege, 2008).

Author(s)	Definition
O'Reilly (2005)	A vehicle for software services, especially those that foster self-publishing, participation and collaboration
Musser and O'Reilly (2006)	A more mature, distinctive medium characterised by user participation, openness and network effects
Huang and Behara (2007)	A rich set of social networking and mass authoring tools
Constantinides and Fountain (2008)	A collection of open-sourced, interactive and user controlled online applications expanding the experiences, knowledge and market power of the users as participants in business and social processes
Karakas (2009)	An interactive, hyper-connected, immersive, virtual, digital online ecosystem or mega platform

Table 4.1: Definitions of Web 2.0

In his 2005 seminal paper, O'Reilly attempted to define the components behind Web 2.0. O'Reilly (2005) argued that Web 2.0 is a set of principles and practices that allow the user to control their own data. While some authors choose to view the characteristics of the internet's improved technologies (Huang and Behara, 2007), the most comprehensive definition is provided by Constantinides and Fountain (2008: 232) which stated that: 'Web 2.0 is a collection of open-sourced, interactive and user controlled online applications expanding the experiences, knowledge and market power of the users as participants in business and social processes.'

Although not wholly exclusive to the definitions in Table 10, the common themes throughout the various definitions are participation, contribution, collaboration, networking and community. In development of a working definition for the purpose of this research, Web 2.0 is considered to be: 'the technology characterised by interactivity, creativity, openness and networking, facilitating user participation, self-publication, collaboration and a sense of community, and mass authenticity online'.

The rise and development of Web 2.0 has blurred the distinction between utilitarian and the social dimension of internet use, marking the rise of a social information revolution (Kucuk and Krishamurty, 2007). Essentially, the social perspective is embedded in the utilitarian dimension as the two become interlinked through user participation. Modelling the key aspects of this new world 2.0, Karakas (2009) suggested five founding principles of (1) creativity, (2) connectivity, (3) collaboration, (4) convergence and (5) community (Figure 4.1).
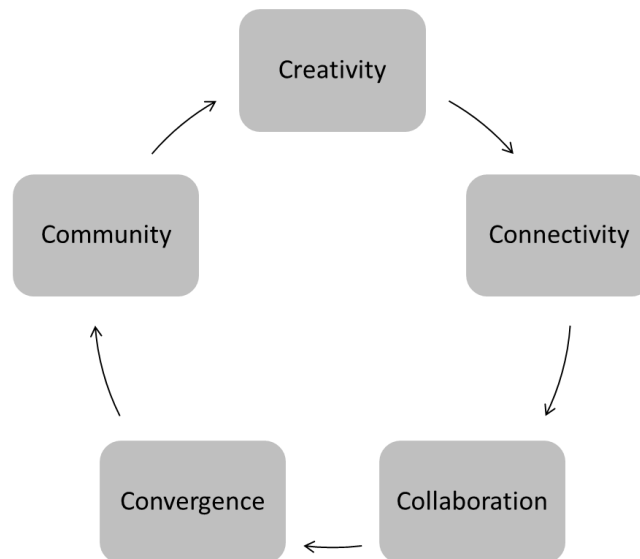
Figure 4.1: The 5 C's of Web 2.0 (Karakas, 2009)

While the model posed by Karakas (2009) is simplistic in nature, it delineates the principles of the evolving internet. The main area of importance is that Web 2.0 has gained considerable human relevance and is embedded in the daily lives of much of the developed world (DiMaggio, Hargittai, Neuman and Robinson, 2001; Howard, Rainie and Jones, 2001; Wellman and Haythornthwaite, 2002). Benkler (2006) argued that conversation, collaboration, participation, sharing and connecting, facilitated by Web 2.0 has led to a networked information economy and society. The more people use and contribute to Web 2.0 technology, the bigger and better it gets (O'Reilly, 2005). In relation to this study, the more people use and contribute to Web 2.0 technology, the greater the number of possible sources of information. Deconstructing user participation, in his online blog, Farrelly (2009), demonstrated the ways in which users can actively participate and contribute online and may form a new socially constructed information source available to consumers during information search (Table 4.2).

User Participation		
Blogging	Microblogging	Status Updates and 'Wall' Posts
Commenting	Discussing via Message Boards	Reviewing or Recommending
Making Lists to Share	Voting	Adding Name to Online Petition
Rating	Social Bookmarking	Tagging
Creating and Uploading Videos	Creating and Uploading Podcasts or Online Audio	Creating and Uploading Photographs, Stories, Artwork etc.
Sharing	Creating or Contributing to a Website	Contributing to a Wiki
Contributing to an Online Open Source Project	Friending	Reporting Abuse (Self Policy Features)

Table 4.2: Typology of User Participation (Farrelly, 2009)

Since the publication of Farrelly's (2009) blog, the types and numbers of user participation have increased exponentially and include more rich forms of social content, particularly video and photo. While O'Reilly (2005) argued that as more people interact the bigger and better Web 2.0 as an information source gets the types of content and seemingly unknown content contributors place another burden on the consumers in terms of online search and evaluation of the information obtained (Steffes and Burgee, 2009). As the onus is placed on the consumer to search and evaluate the credibility and relevance of the information obtained (Metzger, 2007), this may place extra burden on the cognitive ability of the consumer (Habul and Murray, 2003). The result of this cognitive strain is to seek heuristic strategies during search and evaluation (Thatcher 2006, 2008), which may account for the high level of consumer who continually use the same information source (March and Simon, 1958; Thatcher, 2006, 2008).

In considering previous research, the consumer may only use 'trusted' sources of information (Bhatnagar and Ghose, 2004) thus reducing the power of Web 2.0 as the information system will only be powerful if the consumer (or users) use the system in the appropriate manner; a finding previously demonstrated by Ingerswen (1996) in the general information seeking literature. Online information search literature suggested that social media may not be an ideal information source because consumers build trust in preferred information sources (Bhatanager and Ghose, 2004; Mackiewicz, 2010; O'Brien and Toms, 2008). Search is usually conducted by a known search strategy (Thatcher, 2006, 2008) and where search terms play an important role in the search process (Xiang and Gretzel, 2010). Such patterns of search may omit social search results from the prominent social media sties.

Therefore, while Web 2.0 brings new opportunities to participate online the results of this participation may not be searched or utilised as an information source during a purchase decision.

However, widespread societal changes have also paved way for a new type of consumer. This new consumer is technologically savvy, creative, connected and their lives are intertwined with Web 2.0 and the social media sites which operate in the new web space (Solis, 2012). The result of an increasingly networked information flow, where any interested and able individuals have a 'voice' is a new generation of consumer (Table 4.3). While the labels given to this new generation of consumer differ widely in the literature, a general theme of technological expertise and an affinity with media is evident in their definitions.

Consumer Generation	Characteristics
Generation C	A distinct group of young people in the digital-age, that are innately creative, community-oriented and content-driven (Ahonen and Moore, 2005; Trendwatching, 2004)
Digital Natives (Prensky, 2001)And Net Generation (Tapscott, 1998)	The generation born between 1980 and 1994 who are familiar and reliant on ITC. Who are 'surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age' (Prensky, 2001: 1)
Generation Y	The generation born between 1977 and 1994. Media and technologically savvy and worldly enough to see through many advertising tactics (Kennedy, 2001)
Generation X	The generation born between 1965 and 1975 who are well educated and media savvy with computers and the internet (Mitchell, 2003).
Millennials	The generation born between 1980 and 2000 who were raised with the internet and digital technologies and multi-task well. They don't just embrace technology for them it is a way of life (Miller, 2012)

Table 4.3: Emerging Consumer Generation Characteristics

What can be taken from the new generational labels posed to this group of consumers is that they are 'connected'; as such the term 'connected consumer' will be used in this research. The connected consumer is said to be always 'always on' (Baron, 2008) and they are mostly responsible for posting content on social media platforms (Hardy, 2011). However, while there is widespread agreement on the emergence of a new consumer segment there are certain criticisms of the tightly defined definitions. The most prominent of these are the age restriction place on the connected consumers segment; it could be argued that connected consumers are not bound by age but by a mind-set (Anjelic, 2010; Gross, 2012).

The defining characteristics of the connected consumer segment are their affinity for technology and strong desire to share and friend online (Hardy, 2011). There have been anecdotal accounts of older generations displaying highlight characteristic millennial or connected consumer traits. For example, 86% of the silver surfer segment is believed to regularly shop online (Skinner, 2012) and Pew Research (2010) highlighted the increasing use of online and social tools by all defined generations, showing an online affinity between generational groups, not just the millennial generation. O'Reilly and Marx (2011) argued that research has not significantly explored how technology savvy consumers evaluate online information credibility. The findings of these studies suggest that more research should be conducted with the connected consumer segment to understand their behaviours as this 'connected' segment will over time become the most pervasive consumer segment (O'Reilly and Max, 2011)

It can be argued that as more and more individuals turn to an online existence their familiarity and expertise with digital technologies increase (Alba and Hutcheson,1987) their affinity with using social media in purchase decisions will also increase (O'Reilly and Max, 2011; Powers *et al,* 2012). Essentially the consumer generation labels described here will become all-encompassing as 'connected consumers'. The connected consumer segment may spread into all generational cohorts (Obal and Kunz, 2013). Or as Jones *et al* (2010) argued a new segment of 'digital immigrants' will develop. A segment which also displays a technological affinity and ability to search and purchase online but are out with the age demographic markers of 'connected consumers'.

Jenkins (2011) an analyst for eMarkter argued that connected consumers represent a critical target for marketers and that the best place to reach them is online. Therefore understanding the characteristics, behaviours and attitudes of the connected consumer segment is much needed to understand the future of business and marketing (Hardy, 2011). It is also noted that a digital divide will be more prominent between those consumers who use digital technologies and those consumers who do not. Therefore the typologies of expert and novice of past research may still be applicable (for instance, Thatcher, 2006, 2008) as not every individual consumer will be truly 'connected'. Nevertheless, the changing face of the consumer illustrates that consumers are more technologically savvy and able to participate in a host of interactive online activities (Powers *et al,* 2012). These activities are supported by social media platforms which are facilitated by Web 2.0 technology and the attitude and behaviour that Web 2.0 encourages.

Constantinides and Fountain (2008: 234) warned of the dangers of generalising this segment and placing importance on Web 2.0, social media and social content in a purchase decision:

'The value and benefits underpinning this trend are not always clear and the effects have not yet been studied in a systematic way. One of the reasons for this is the newness but most importantly the complexity of the issue: in the Web 2.0 domain various technical and business aspects are heavily interrelated, often making the identification of the underlying value models difficult'.

To overcome the issues in identifying value models and processes, this study, in addition to defining Web 2.0, will now define and conceptualise the other interrelated concepts of social media and online social content to contextually focus the prosed research.

4.2   Social Media

Web 2.0 has been defined as the technology that facilitates the creation of a more open and networked society. Web 2.0 technology allows individuals to publish their own thoughts, feelings and opinions and to network with a global audience. The interrelated concept of social media can be generally viewed as the online platforms in which individuals engage with and participate to self-publish, network and communicate online. Like that of Web 2.0, no true definition of social media exists, with many definitions proposed by practitioner authors and not through academic research (Table 4.4).

Author(s)	Definition
Parr (2008)	The use of electronic and internet tools for the purpose of sharing and discussing information and experiences with other human beings in more efficient ways
Blackshaw and Nazzaro (2006)	A variety of new sources of online information that are created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities and issues
Kietzmann *et al* (2011)	Web-based and mobile technologies to create highly interactive platforms via which individuals and communities can share, co-create, discuss and modify user-generated content
Kaplan and Haenlien (2010)	Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content

Table 4.4: Social Media Definitions

The lack of academic conceptualisation may be one of the main issues surrounding the messy definitions and interchangeable nature of Web 2.0 and social media terms in current studies. If Web 2.0 is viewed as the technology facilitating the creation of social media platforms and social media as the platform [the media] in which the user engages and participates, a clearer definition of social media can exist. To conceptualise social media in terms of consumer behaviour, this study proposes that: 'social media are those online sources that facilitate self-publication and in which consumption experiences and brand information can be found'.

While the rise in interest of social media has been unprecedented in recent years, the philosophy and interactions characterising social media use is not new. Early research originally conceptualised 'online communities' (Rheingold, 1993). Studied under a number of labels, such as, 'online virtual community', 'online community' or 'virtual community of consumption' (Kozinets, 1999; Okleshen and Grossbart, 1998; Rheingold, 1993), the virtual community is regarded as a precursor to today's social

media platforms. First defined by Howard Rheingold (1993: 5) as: 'social aggregations that emerge from the net when enough people carry on... public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace', there is a clear link between early virtual communities and social media.

This link is further demonstrated in the works of Okleshen and Grossbart (1998: 276) who noted online communities to be: 'electronic works of persons…' and observed to be: 'groups of people with common interests and practices that communicate regularly and for some duration in an organised way over the Internet through a common location or mechanism' (Ridings, Gefen and Arinze, 2002: 273).

In a consumption context, virtual communities also have the potential to become brand communities. Kozinets (1999) highlighted the idea of 'virtual communities of consumption' (VCC) where the online communities explicitly share enthusiasm for knowledge of a specific consumption related activity. Muniz and O'Guinn (2001) similarly defined a brand community as a specialised non-geographically bound community based on a structured set of social relationships among admirers of a brand. Porter (2004) later defined online communities as groups of people and business partners who interact around a shared interest via advanced technologies including computer based technologies.

Porter (2004) addressed five attributes characterising online communities: (1) Purpose – the specific focus of communication and interaction among community members. Member participation in online communities start with this shared purpose, leading to a sense of membership; (2) Place – the specific location of

interaction. The interaction is at least partially supported and guided by computer-based information technology; (3) Platform – the ways of implementing interactions among community members. Synchronous [real time] and asynchronous communication can be designed to increase member communication with other members; (4) Population – people who interact with others around their areas of interest. Community interactions among members can be explored by membership size (small groups or networks) and the lever of social tie (strong or weak); (5) Profit model – embodied commercial success of online communities which is supported by vibrant interactions among community members.

To explain, of Porter's (2004) community characteristics, an online community is only as good as its members' participation and interaction because active exchange is the foundation of the community; hence confirming O'Reilly's (2005) idea that as more people interact and participate with Web 2.0 [and thus online communities], the bigger and better it gets. Kozinets (2001) identified the drivers for community membership, social interaction and information exchange. Active discussions arise when a group of people (1) have shared interests; and (2) exchange information about specific topics (Ridings and Gefen, 2004). Information and knowledge are formed as a result of members' active communications with each other (Lee, Vogel and Limayem, 2003).

Early technologies supporting online communities included chat rooms, email lists and bulletin boards (Kozinets, 1999; Lee *et al*, 2003; Porter 2004). Such past technologies, online media sites and the consumer behaviour formed in using the technology could be argued to play a large part in making social media the powerful

tool it is today – that consumers have traditionally and repeatedly sought to connect and be more social. This may account for the 'millennial mindset' (Anjelic, 2010; Skinner, 2012) of consumers seemingly out-with the millennial generation but displaying connected consumer characteristics. While it could also be argued that these behaviours were formed as individuals and not as 'consumers' (the traditional internet user was connecting and sharing with other individuals with shared interests) the familiarity of expressing oneself online has played a founding role in adoption of today's more sophisticated social media platforms.

The new wave of more sophisticated social media platforms (Duruy, 2008) facilitated the creation of consumer feedback and opinion on consumption experiences (through user engagement with the media). It is believed that over 500 billion social media impression are made annually about brands annually (Grant, Gino, Hofmann, 2010), this figure will be dated, as today, in 2013 more individuals will be connected and will share brand related experiences online. However, the figure demonstrates the persuasive nature of consumers discussing brands, thoughts and opinions online.

Therefore, in addition to physical encounters and information from traditional media, online interactions are increasingly becoming an important supplement to social and consumption behaviour (Brown, Broderick and Lee, 2007; Kozinets, 1999; Grimes, 2012). The enduring engagement with social media is creating online citizenship (Wellman, Quan-Hasse, Boase, Chen, Hampton, Isla de Diaz, Miyata, 2003) and a virtual existence.

According to Nielsen (2011) 21.3% of all internet time is spent on social media sites. Another study conducted by Experian (2013) suggested that 13 minutes of every hour spent online is on social media sites, most predominantly Facebook. The product of such online time is increased quantities of information produced by individuals, not organisations. If Alba and Hutchinson's (1987) familiarity and expertise dimensions were to be considered, repeat exposure to social media would affect information search (Bettman and Park, 1980; Park and Lessing, 1981), in that the consumer is more likely to search in familiar spaces. Therefore, increased use of social media increases potential search within consumer dominated spaces, decreasing the influence of brand communication.

Moreover, increased exposure [familiarity] to social media increases expertise (Alba and Hutchinson, 1987). As a result, consumers will become familiar in evaluating online social content, thus marking a more sophisticated and dynamic consumer. The importance of social media in a purchase decision is growing, with Gibs (2009) reporting that a Neilson survey of 1,800 online users revealed that 18% employed social media sites as the foundation of their online search activities. This social search behaviour supports the notion that familiarity with an information source (albeit in this instance with multiple authors) increases the likelihood of information source selection with familiar and trusted sources (Bhatnagar and Ghose, 2004; O'Briens and Toms, 2008). It also demonstrates that consumers' learn to adapt to new information sources and will search for information in platforms where they spend a large amount of their leisure time but not necessarily the most credible or original source. That being said, the Neilson survey failed to acknowledge which types of search were being conducted via social media sties and indeed if they were

purchase decision related and which categories of goods/services were involved. The qualification of the research parameters becomes important because it has also been reported that 9% of all news related search is via social networks (Pew Research, 2012) this may account for the high percentage of individuals that employ social search as the foundations of their search activity.

A new stream of research has sought to understand how social media impacts upon the consumer decision-making process, as a result new models of consumer decision-making have been developed (Court *et al,* 2009; Wildfire, 2012). While the models pose new stages of the decision-making process, for example, loyalty (Court *et al,* 2009) and during consumption (Wildfire, 2012) they still fail to view the influence on impulse purchases and the negative effects of social media posts and engagement (Corsjens and Umbkijs, 2012).

In other research, Powers *et al* (2012) viewed the role social media plays in the purchase decision process, they found that consumers' are increasingly living their lives both online and offline, as such, no one single information source is more important. The authors also indicated that social media is changing consumer purchase cycles and that there is a distinctly different purchase journey for high risk purchases than low risk purchases (Powers *et al,* 2012). Voorveld *et al* (2012) sought to determine which social content sources impacted through all five stages of the consumer decision-making process (Engel *et al,* 1978), again their findings suggested that no one source is important.

The work of Xia, Chunling and Yujie (2012) also demonstrated a level of 'socialisation' with consumers via social networking sites. The research argued that

online consumer socialisation through peer recommendations on social media platforms affected purchasing decisions in two ways: directly, through conformity with peers and indirectly by reinforcing product involvement (Xia *et al,* 2012). Exploring how user generated content might be spread via social media, it was found that 'digital natives' or 'connected consumers' are happy to spectate or lurk (Williams, Crittenden, Keo and McCarty, 2012). This finding has implications for the 'customer engagement' strategies of brands (van Doorn *et al,* 2010) and suggests that information flows through social networks may not always be high within specific communities as some consumer segments are happy to lurk and not share information.

While the growing body of research on the role of social media in the purchase decision process suggested that social media is permeating daily life and socialising consumers (Powers *et al,* 2012; Xia *et al,* 2012), little is known about the macro-level effect on social media use on active purchase decisions and what types of online media are the most highly sought. It is argued that social search activity may take place in a variety of new types of social media platform (Table 4.5).

Platform	Characteristics	Examples
Answers	Relies on user contributed knowledge. Sites contain knowledge shared in response to a specific query.	
Blogging	A personal platform to share textual and multimedia information and opinions with friends and strangers as well as a medium for disseminating subject-specific content.	
Media Sharing	The umbrella term for the sharing of multimedia content. Such content can include videos, pictures	

	and podcasts (video/audio content).	
Microblogging	Limited content counterpart to blogging comprised of short status updates.	
Online Social Networks / Domain Specific Networks/ Virtual Communities of Consumption	Services that allow real world individuals to connect to friends, family and acquaintances online or to groups of individuals with a common interest. Communicate through messaging, share personal information, photos and videos.	
Opinions and Reviews	Dedicated to providing users with shared opinion of previously experienced products and services. Many social media sites allow users to contribute reviews, share pinions and rate various products and services.	
Social Bookmarking	Bookmark web content for storage, organisation and sharing – can be tagged with metadata for easy search and identification.	
Wikis	A collaborative editing environment that allows users to develop web pages using a simplified language.	

Table 4.5: Social Media Platforms

While early online community users were engaged and connected by shared interests, more recent social media platforms not only connect users with shared interests but friends, family, weak tied strangers, individuals with unknown identities, brands, businesses and celebrities, all with varying interests, opinions and stances. To explore the relationship between consumer behaviour, information use, credibility evaluation and intention to purchase, the studies exploring social media platforms will be reviewed. Please note that social bookmarking and wikis have been omitted due to a lack of research within a purchase decision context.

4.2.1 Answers

Various terms have been used to describe answers services, such as knowledge market, question-and-answer service (Roush 2006), and question-answering community (Gazan 2006). Answers communities can be categorised as price-based (for example, Google Answers, BitWine) and community-based services (for example, Yahoo! Answers, Answerbag). Benefits for participation are twofold, economic and social. In comparison to price-based systems such as Google Answers, community-based services, such as Yahoo! Answers, do not use money as a medium of exchange. Rather, answerers are rewarded through an elaborate system of points and levels based on the extent and quality of their participation in the question-answering community (Chen *et al,* 2008).

Research in answers communities indicates a positive and significant correlation between answer length and asker rating in price based communities (Edelman, 2004) and community based sites (Adamic, Zhang, Bakshy and Ackerman, 2008). This would suggest that answer length is used as an evaluative cue. The work of Adamic *et al* (2008) demonstrated answer length emerged as a significant factor for predicting best answers across all categories, achieving about 62% prediction accuracy based on answer length alone. In their analysis of Yahoo! Answers they identified three categories of forums: (1) discussion forums, where questions are asking for opinion and conversation; (2) advice seeking, where the asker is seeking advice or personal experiences of other users, and the question asked may have multiple acceptable answers and (3) factual or technical forums, where questions usually have a factual answer.

Edelman's (2004) study also demonstrated that those who are more active in answering have higher ratings and higher earnings. These findings suggest that information value is partly determined by answer length and frequency of postings. In terms of search, consumers could use answers sites not only to search but to ask a question of their own and use the power of the community to answer their query. The ratings of the individuals who posted responses also marks as an indicator to the credibility or helpfulness of that individual which may be used to assess the overall credibility of their messages (Lee and Lee, 2009) (this will be discussed further in Chapter V). The studies on answers sites suggested that content length and ratings by other consumers would both be used to evaluate the credibility of content found online.

4.2.2 Blogging/Microblogging

Cox, Martinez and Quinlan (2008) proposed that blogs are one of the most important new communication tools to impact businesses. A blog or weblog can be viewed as a web page that serves as a publicly accessible personal journal (Blood, 2002; Schinano, Nardi, Gumbrecht and Swartz, 2004) and can convey personal, public, political and commercial messages. Carmichael and Helwig (2006) stated that active blogs are frequently updated and can contain most media, including pictures, text, links, audio and video. Du and Wagner (2006) modeled the determinants of blog success (Figure 4.2).

- Type of Information
- Posting Volume
- Presentation
- Organisation

- Tool Characteristics
- Usability and Sociability

- Visitor/Commentators
- Blogroll
- Host Affiliation

Content Value

Technology Value

Social Value

Weblog Success (Popularity)
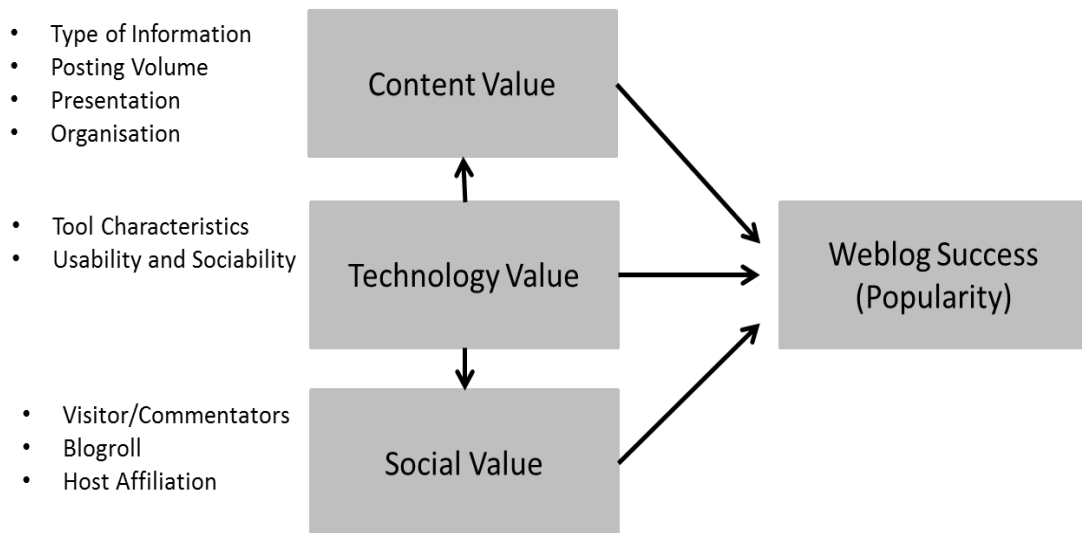
Figure 4.2: Web Success Model (Du and Wagner, 2006)

The success of a blog is said to be determined by the content value, technology value and social value (Du and Wagner, 2006). This suggests that blogs are of varying quality, of which the consumer must evaluate the information and determine quality with their own cognitive ability. It may also be assumed that the influence of content obtained from other social media platforms will be of varying quality and influence depending on the three levels of value present in Du and Wagner's (2006) model. The effect of blogs on purchase intention is an emerging theme in the literature. One study by Bouhlel *et al* (2010) explored the consumers' attitude towards a blog and the effect of a blog on purchase intention. The study adopted concepts from previous studies of credibility, interactivity and from technology acceptance models, including the ease of use, usefulness and attitude towards the blog, the study found that positive attitude towards the blog positively impacted upon purchase intention. The concepts of credibility, usefulness and ease of use of the blog created a positive attitude towards the blog. While technology acceptance and trust were determinants of source usage (for example, Childers *et al,* 2001; Lee, 2002), trusts associated dimension of credibility appears to be a determinant of content of information

influence. The blog studies also suggested that the number or frequency of posts, the aesthetics of the published post, the usability of the site and comments from other consumers/readers would all impact on the credibility of content. Such attributes may be of value to this study.

The power of blogs may be understood by the level of involvement (Laurent and Kapferer, 1985) or opinion leadership (Lazarsfeld, *et al*, 1944) of the blogger. The level of involvement [number of posts] and the type of information contained on a blog suggested an 'expert' or 'influencer' status. This suggested that influencer blogs would be regarded as more influential due to 'expert' status. Incidentally, a new type of influencer has emerged from self-publication and opinion leadership of individuals on social media. The micro-blogging platform, Twitter, has been used as a powerful tool for influencers to emerge. The large user volume on Twitter has also not gone unnoticed by brands with many brands and organisations developing their own Twitter presence and marketing strategy.

Twitter has become the world's leading micro-blogging platform with an estimated 100 million users, where fifty percent of them login in daily (Parr, 2011). Micro-blogging differs from the more traditional blogs in the length of the post. Generally micro-blogs are approximately the length of a typical newspaper headline and sub-headline (Milstein *et al*, 2008) and in some instances links to third party websites are sent to a network of associates. Micro-blogs are said to offer immediate sentiment and provide insights in affective reactions towards products, services and brands at critical junctions of the decision-making process (Jansen, Zhang, Sobel and Chowdury, 2009).

Research exploring the influence of micro-blogging sites like Twitter on the purchase decision process is now becoming a stream of research in its own right. Zhang *et al* (2009) found that 19% of micro-blogs contained messages about brands, where 20% contained some reference to sentiment towards the brand. The effect of such Twitter messages may be found in social search activity (as previously discussed), through interpersonal influence within networked groups of people or may act like a repetitive reminder of a brand (as within traditional advertising and repeat exposure) (Alba and Hutchison, 1987).

Coulter and Roggeveen (2012) explored the relationship between source, network, relationship and message/content factors affected how consumers respond to word-of-mouth (WOM) in traditional and Twitter contexts. The results suggested that the closeness of a source of a persuasive message on Twitter has less of an impact as message acceptance than traditional WOM. This finding suggested that interpersonal networks are extending and the influence of such networks are gaining more relevance and influence during a purchase decision, even when tie strength to the content creator is low. While these studies suggested that Twitter is becoming a powerful source of information in a purchase decision, the studies did not explore the potential influence of users spreading the content or what mode of search the consumers' were undertaken when influence occurred. Nevertheless, the studies of micro-blogging suggested that influence strength of the content creators should be further explored and that consumer-to-consumer communication is changing the foundations of word-of-mouth communication (for example, Coulter and Roggeveen, 2012).

4.2.3 Media Sharing

Media sharing is the umbrella term for sharing multimedia content online. It is not uncommon to search for multimedia content within an information search. Interest in the video sharing site 'YouTube' and the photo and image sharing medium 'Flickr' has risen in current popular culture. Video broadcasts cover a vast spectrum from funny homemade videos to broadcasts purposely developed for online consumption. Similarly, 'Flickr', allows a member to upload original photographs or other images to share with fellow users. Many virtual community and review sites permit the uploading of media sharing tools. In a consumption context an image or video can increase tangibility to those products and/or services with inherently low tangible cues.

The literature on vivid information provides insights into the persuasive effectiveness of messages. Nisbett and Ross (1980) described 'vivid' information as likely to attract and hold attention and to excite the imagination to the extent that it is (1) emotionally interesting; (2) concrete and imagery provoking and (3) proximate in a sensory, temporal or spatial way. Vividly presented information has impact and is persuasive; advertisers operate on this assumption in designing ads to sell their products (Lim, O'Connor and Remus, 2005).

While pictures alone do not convey any logical connections (Salomon, 1979), multimedia presentations can focus on vividness and engage individuals' attentions (Chapman, Selvarajah and Webster, 1999), presumably because vivid information requires less cognitive effort. Within social media, the addition of vivid video or image presentations can engage the user and further explain the product and/or service experience, while reducing cognitive effort of the consumer in the search of

information. Lim *et al* (2005) added that multimedia technology brings together the symbolic and processing capabilities of various media and thus creates a new and rich symbol system of communication. By combining various media, multimedia is capable of making the messages salient and vivid, which can be more influential in a purchase decision context.

4.2.4 Opinion and Review

Opinion and review sites have been the enduring focus of research within social media, consumer behaviour and purchase intention literature (See Cheung and Thadani, 2010 for review). There are various reasons for such a research focus, however the most prominent are that: (1) opinion and review sites have been around for longer than other types of social media and, (2) opinion and review sites are the dedicated product of motivated consumers to relive and review their purchase experiences (part of the post-purchase behaviour cycle). Multiple social media platforms allow for opinion and review communities on various issues in day-to-day life. Such sites can also be linked to the consumer feedback mechanisms used to instil vendor trust during the buyer decision process. Opinion and review sites allow users to contribute their reviews, experiences, thought and feelings on past consumption of products and services. Opinions and reviews can therefore be seen as a part of post purchase evaluation that allows other consumers to evaluate reviews in the information search phase. Dellarocas (2003) asserted that online reviews are one of the most powerful channels to generate CGC. Peer to peer referrals are consumers who are not connected with the product manufacturer and seller, therefore they provide an independent, if not expert, view about a product.

Online reviews have a dual function, in that they act as an informant and a recommender. Park *et al* (2007) asserted that an informant will provide user orientated product information, while recommenders, previous consumers, will provide recommendations on purchases. Social media technology has changed the form of classic interpersonal communication (sender – message – receiver) by introducing a new form of communicator, a forwarder or transmitter (Gumpert and Cathcart, 1986). Several studies have investigated the impact of online reviews, in particular online user reviews, on product sales (Chatterjee, 2001; Chen, Wu and Yoon, 2004; Chen, Fay and Wang, 2003; Dellarocas, Awad and Zhang, 2007; Forman, Ghose and Wiensenfeld, 2008; Godes and Mayzlin, 2004; Liu, 2006). The results of these studies have provided inconclusive results. Chen *et al* (2003) found that online reviews had significant impact on sales whereas, Chen *et al* (2004), Godes and Mayzlin (2004) and Liu (2006) challenged this view.

There are several reasons for the inconsistencies in research findings. Firstly, the researchers differ in their view of the influence of reviews. Some researchers viewed reviews and their persuasive effects that influence a consumer assessment of a product (Chatterjee, 2001; Chen *et al,* 2004; Chen *et al,* 2004a; Forman *et al*, forthcoming; Liu, 2006). Others viewed the reviewers' awareness effects that increase product awareness among consumers through dispersion (Dellarocas *et al,* 2007; Godes and Mayzlin, 2004). Secondly, some researchers treated reviews as exogenous (Chen *et al,* 2004; Chen *et al,* 2004a; Dellarocas *et al,* 2007; Forman *et al*, forthcoming). Online reviews are, however, not only the driving force behind product or service sales but the outcome of such sales. Finally, several studies are conducted in a cross sectional context which does not control the intrinsic product

heterogeneity. For instance Liu's (2006) study involved movie sales, which cannot explain whether the difference in product sales, is due to the unobserved differences in product quality or effect of online reviews.

4.2.5 Virtual Communities and Online Social Networking

Virtual communities can be defined as: 'affective groups whose online interactions are based upon shared enthusiasm for, and knowledge of, a specific consumption activity or related group activities' (Kozinets, 1999: 254). The key seemed to be strong and lasting interactions which bind community members and take place in some form of common space (Wenger, McDermott and Snyder, 2002). This common space could be firm hosted (Wietrz and de Ruyter, 2007) or third party [independently] hosted (Kozinets, 2001). Virtual communities differ from other communities only in the sense that they function in a virtual world or cyberspace; participants may not only exchange information but build friendships based on their common interests. However, it is unlikely that virtual community members have an existing offline relationship, and are therefore predominantly weak tied sources. Virtual communities could be chat rooms, boards, forums concerning a particular brand where the most influential are on the peripheral of the brand, in other words, consumer run.

De Valck, van Bruggen and Wierenga (2009) emphasised that in a purchase decision context, community members may turn to the virtual community to gather information, to ask for advice, or to review the opinion of an expert user. Recent research exploring the use of social networking sites in purchase decisions suggested that consumers may ask for recommendations from friends and may regard such information as credible and reliable due to tie-strength (Chu and Kim, 2011). During

post purchase evaluation, consumers' may communicate their own experiences with the consumption activity to the community.

Amis (2007) estimated that social network sites now have as much influence on consumers as television and more than newspapers. Valkenburg *et al* (2006) identified three different types of social networks: dating sites, where members' primary objective is to find a partner; friend sites, where member objectives are to establish and maintain a network of friends; and common interest sites, which aim to bring people with similar interests together and facilitate information sharing and communication between participants. However it could be argued that with the profiliation of newer social networks developed in association with Web 2.0 technologies Valkenburg *et al's* (2006) typologies require revision. The typologies now appear to be too broad to cover the social networking landscape where consumers (individuals) are members of at least one social network and use them for varying reasons (Dohnert, 2012). This connectivity in multiple virtual locations is indicative of the trend of 'connected consumers' and demonstrates the pervasiveness of social media in daily life.

Most of the early research on social media use has focused on the use of social networking sites (for example, Ellison *et al,* 2007; Raacke and Bonds-Raacke, 2008; Ross *et al,* 2009; Valenzuela *et al,* 2009), neglecting their use in the purchase process. However, a recent stream of research has viewed the impact of networking and micro-blogging sties on buying behaviour. Forbes and Vespoli (2013) found that consumers' purchasing behaviours can be influenced by people who would not traditionally be considered 'opinion leaders'. This finding again suggests that tie-

strength between recommender and consumer is not an important determinant of influence or information credibility, a finding also consistent with the work of Coulter and Roggeveen (2012).

Research on virtual communities of consumption has taken explored the motivation for people to participate (Bagozzi and Dholakia, 2002; Chen *et al*, 2009; Dholakia, Bagozzi and Pearo, 2004; Hennig-Thurau, Gwinner, Walsh and Gremler, 2004; Ridings and Gefen, 2004). Hennig-Thurau *et al* (2004) found that motivation for online virtual community of consumption participation generally followed that of offline WOM: (1) talking about negative feelings, (2) concern for other consumers (3) self-enhancement, (4) advice seeking, (5) social benefits, (6) economic incentives (7) platform assistance and (8) helping the company. In comparison, Ridings and Gefen's (2004) empirical study categorised six motivations for virtual community participation: (1) exchange information, obtain and transfer information about a topic, (2) social support, obtain and give emotional support, (3) friendship, to make friends, (4) recreation, for entertainment, (5) common interest, love the topic of the community and (6) technical reasons, technical features in the community. Friendship was the main motivating factor for participating.

Interestingly Hennig-Thurau *et al* (2004) also found that social motivations are most strongly related to both visiting and participating in the community. The authors were able to develop motivation based typologies: (1) self-interest helpers who are driven by economic incentives, (2) consumer advocates who act out of concern for others, (3) true altruists who are motivated to help both the consumer and the company, and finally (4) multiple motives who have multiple participatory motivations. While research in virtual communities of consumption suggested that

consumers participate for friendship, the wider societal changes since the widespread acceptance of social media have facilitated such 'connected' consumers to self-promote (Leung, 2009; Park *et al*, 2009) and indulge in creating online personas driven by consumption based activities (Hollenbeck and Kaikati, 2012). The act of this self-promotion is shown to influence other consumers' behaviours (Forbes and Vespoli, 2013) but has not been unequivocally proven during and active information search.

Kozinets (1998) and Kozinets (2002) proposed a new ethnographic based view on studying virtual communities. Netnography is said to be: 'a qualitative consumer research methodology that uses the information publicly available in online forums to identify and understand the needs and decision influences of relevant online consumer groups' (Kozinets, 2002: 2). Netnography examines the drivers of consumer behaviour through analysing the discourse within virtual communities. The rich contextual information can then be used by marketers to develop product and/or service offerings.

Chan and Li (2010) adopted a part netnographic study with an online survey to better understand the motivation to help others in an online community and how such motivations drive subsequent attitudes and behavioural intentions. The study examined the routes of interactivity (structural/experiential), reciprocity and the outcomes of reciprocity (virtual community commitment and online shopping) within a popular Chinese woman's website. Chan and Li (2010) affirmed that both structural and experiential routes of interactivity significantly enhance reciprocating behaviours. Consistent with their hypotheses, the extent of structural-based features

of interactivity directly influences reciprocating behaviours. Experiencing social bonds and enjoyment within the community positively affect members' intention to display and receive helping behaviours.

In a purchase decision or information search context, online communities or social networks allow consumers to read other consumers' unedited and unfiltered opinions, but also collect aggregated data from large numbers of similar people at a low cost (Hennig-Thurau *et al*, 2004) which is seemingly free of marketer communication and influence. The review of social media has provided insight into the varying types of platforms and the types of information contained within them. There is a strong sense that not all content published on social media platforms is of equal quality or value. The review began to identify potential information evaluation cues from review length, the exposure of the content creator, and value of the content, technology and social dimensions. Research has also demonstrated that the level of tie to the community may change decision making behaviour (Hennig-Thurau *et al,* 2004; de Valck *et al,* 2009). To better understand this change in behaviour, community typologies and community membership status may be considered.

4.3   Online Social Content

Online social content can be regarded as the product of online participation with social media. The focus then moves from the overriding technology facilitating the phenomenon, to the usable interactive interface in which content is published and shared, to the content itself. Where Web 2.0 was the technology facilitating the creation of social media, and social media was the platform in which the user [consumer] participates and engages, online social content is the outcome of the

participation and engagement. Online social content is therefore the driver to search social media platforms during a purchase decision, it is the content and not the 'media' that influences purchase decisions.

While the term 'online social content' has been adopted within this study, it is not recognised within current literature. Academic literature has adopted several terms including, user generated content (UGC) (for example, Eccleston and Griseri, 2008), word of mouse (Martin and Lomax, 2001), user created content (UCC) (Shim and Lee, 2009), electronic word of mouth (eWOM) (Park, Lee and Han, 2007), user generated media (UGM) (Blackshaw, Nazzaro, 2006), and consumer generated content (CGC) (Gretzel and Yoo, 2008). The problematic issue of interchangeable terminology and definitional issues of the Web 2.0 arena are again visible within online social content studies (Table 4.6).

Author(s)	Definition
Kaplan and Haenlein (2010)	The sum in all ways in which people make use of social media
Organisation for Economic Cooperation and Development (2007)	Content published on a publicly accessible website or on a social networking site, accessible to a selected group of people. The content should show a certain amount of creativity and it should be created outside of professional routines or practices
Christodoulides, Jevons, and Bonhomme (2011)	Content published on the internet, reflects some degree of creative effort and is out with professional routines or practices

Table 4.6: Online Social Content Definitions

In reviewing the literature surrounding social media, it is evident that content is not only published by consumers (consumer generated content, CGC) but also by experts or influencers (expert generated content, EGC) and by brands (brand generated content, BGC). The umbrella term online social content is believed to better encapsulate the totality of the content produced via social media platforms. Online

social content is therefore considered to be 'the audio, video, text or pictures published on social media sources, with the intention of educating about brands, products and services within this study. While academic research has, to date, predominantly centred on the effects of CGC concerning online intention to purchase (see Cheung *et al,* 2010; Cheung and Thadani, 2011 for review), this study acknowledges the rise of EGC and BGC which may also be influential in purchase decisions. Each typology will now be reviewed.

4.3.1 Consumer Generated Content

The conceptual foundations of CGC may begin to explain the high volume of research in the area. CGC is regarded as the online form of word of mouth communication (WOM), which is widely researched in traditional information search literature (Arndt, 1967). In the physical world, consumers are believed to seek WOM communications over other information sources to enhance trust and confidence in a purchase decision (Arndt, 1967; Kotler 1967). Arndt (1967) was one of the first researchers to examine the influence of WOM on consumer behaviour. He defined WOM as oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or research (Arndt, 1967).

In contrast, Stern (1994: 7) defined WOM by drawing distinctions from advertising: 'WOM differs from [advertising] in its lack of boundaries... WOM involves the exchange of ephemeral oral or spoken messages between a contiguous source and a recipient who communicate directly in real life... Consumers are not assumed to create, revise and record pre-written conversational exchanges about products and

services. Nor do they ordinarily use poetry or song to discuss consumption. Finally, WOM communication vanishes as soon as it is uttered, for it occurs in a spontaneous manner and then disappears'.

The distinction between WOM and CGC is derived on several levels. The first of which is in the environment and manner in which the consumption experience is given. Typical WOM communication consisted of spoken words exchanged with friends or relatives in a face to face situation where social cues can be drawn from (Bickart and Schindler, 2001; Knapp and Daly, 2002). CGC, on the other hand, is computer mediated communication (CMC), usually involving personal experiences and opinions transmitted through the written word and in certain social media platforms with the addition of pictures, audio and video broadcasts or a combination of all four. CGC is then more persistent and accessible (Cheung and Thadani, 2010) which is also archived meaning it can be accessible for some time (Hennig-Thurau *et al,* 2008; Park and Lee, 2009; Lee, Park and Hen, 2008).

Secondly, as with WOM communication, CMC can be shared among small groups of individuals in synchronous mode (Li and Hitt, 2008; Dellarocas, 2003; Steffes and Burgee, 2009). However, multi-way exchanges in asynchronous mode can also be made (Li and Hitt, 2007), meaning that CMC has a wider reach. Moreover, CMC can be tracked and is measurable (Dellarocas, Zhang and Awad, 2007; Park and Kim, 2008); the text, audio, video or photo presentation of CMC make them more observable. Lastly, WOM is typically spread through known networks, in other words, the sender is known and the credibility of the sender is known to the consumer. In CMC the sender or content creator is more commonly unknown,

leaving the consumer to evaluate the message with the cues available in the CMC environment or observable within the social media platform. Brown *et al* (2007: 7) also remarked on the evaluation issues: 'in the online environment, such evaluations must be made from the relatively impersonal text-based resource exchange provided by actors in the site network'.

The typologies of social media (see Table 4.5) offer a wide range of ways in which CGC is published and shared online. More and more consumers are using online social content to search and exchange product information (Lee, Park and Han, 2008). For instance, in a tourism context Cox *et al* (2008) found 46% of the respondent surveyed actively sought CGC to assist in their purchase decision, where 51% had been directly influenced by CGC. The emergent literature on the impact of CGC has been fragmented and inconclusive. Lee and Lee (2009) contented that the impact of CGC can be classified on two levels: market level analysis and individual level analysis.

Within market level analysis studies, the goal is to understand the effect of CGC volume and valance on the relationship between reviews and sales or price (Chevalier and Mayzlin, 2006; Dellarocas, Zhang and Awad, 2007). The results of such studies suggested that CGC can assist in accurately predicating future sales. Dellarocas, Zhang and Awad (2007) demonstrated that forecasting the future revenue of movies is better predicted with the addition of movie reviews. Concurring, Godes and Mayzlin (2004) found that the volume of consumer reviews about weekly TV shows is positively correlated with the viewing of such shows. In the gaming industry, Zhu and Zhang (2010) found that consumer reviews are more influential in the decision to purchase less popular games. Moreover the influence of online

consumer reviews was found within those consumers who displayed high levels of internet experience.

Indeed, several other studies have empirically found that positive reviews are associated with higher product sales, while negative reviews can negatively impact upon the sale of experience goods, such as music and travel (Zhang, Dellarocas and Awad 2004, Dellarocas, Awad and Zhang 2005, Chevalier and Mayzlin, 2006). Other studies claim to find no significant relationship between reviews and sales (for example, Duan, Gu and Whinston 2005, Liu 2006).

Researchers of the individual level analysis postulated that CGC is a process of personal influence, where the communication between a sender and receiver can change the receiver's attitude and purchasing decision (Kiecker and Cowles, 2001; Park and Kim, 2008; Park and Lee, 2008; Cheung, Lee and Thadani, 2009). Interpersonal influence has been widely recognised as a major determinant of consumer behaviour. It is argued that consideration must be given to the effects of interpersonal influence on development of attitudes, norms, values, aspirations and purchase behaviour (Stafford and Cocanougher, 1977). In an information seeking context, informational influence (Deutsch and Gerard, 1955) is the effect of interpersonal communication exchange (King and Summers, 1970). However, in an online context it is difficult for consumers to determine the quality and credibility of the reviews, because reviews are generally published by weak-tie communicators on the internet (Chatterjee 2001; Schindler and Bickart 2005).

The importance of interpersonal communication in consumer decision processes is well documented in consumer behaviour research, with numerous studies describing

the frequency of WOM and its influence on recipients (Arndt 1967; Katz and Lazarsfeld 1955; Leonard-Barton 1985; Technical Assistance Research Programs 1981). Interpersonal influence is can be regarded as a change in behaviour resulting from the acceptance of information provided by other individuals. Kiecker and Cowles (2001) suggested that definitions and views of interpersonal influence should be expanded to include online sources and CGC.

In a recent study de Valck, Van Bruggen and Wierenga (2009) attempted to fill in the gaps in virtual community of consumption research by posing a three stage study on how consumers make use of virtual communities as social networks, and the effect this has on the decision making process. The study attempted to address (1) determinants and effects of virtual community influence on the consumer decision process, (2) virtual community participation patterns and (3) discussion and practices of most active community members. Reflective of Hennig-Thurau *et al* (2004), the findings of de Valck *et al* (2009) affirmed that community influence on the decision making process is similar to that of offline interpersonal influence; the important determinant being the level of the social tie to the reference group.

Investigating how CGC can stretch traditional influencing patterns, Eccleston and Griseri (2008) adopted Gladwell's (2000) categorisation of influencer groups, connectors and maverns. Eccleston and Griseri (2008) examined how online and Web 2.0 applications affect CGC's three core influencing behaviours: collecting information, discussing and recommending products and/or services. The results of the study found that in a commercial context the three influencer groups are not

mutually exclusive; maverns are seen to be the biggest online group, however, no influencer group falls into all three categories (Figure 4.3).
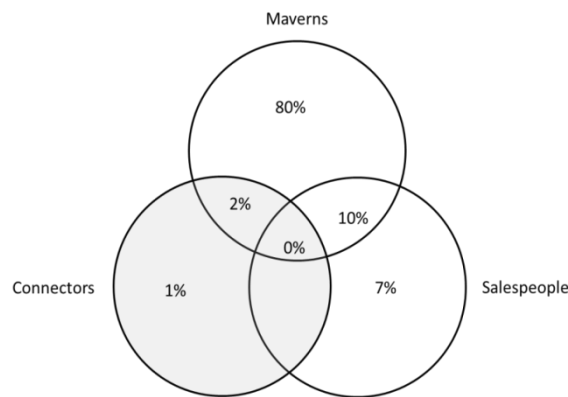
Table 4.3: Online Influencer Groups (Eccleston and Griseri, 2008)

All three groups' activities, discussed products and services [connectors], which provided opinion and reviews on products and services [mavens], and recommended products and services [salespeople] were found to be significantly higher in an online environment. Given that 80% of users are exclusively mavens, the main body of CGC is comprised of reviews of products and/or services. Only 1% of those influencers surveyed fell under the connector category, which suggests that the number of people wishing to discuss products and services is in decline. Instead consumers are reviewing their product and/or service experiences, thus explaining the level of research conducted with a consumer review focus. While interpersonal influence and opinion leadership can begin to explain the influence of online social content, and the variances between the three typologies, community typologies and tie strength can also explain variances in online social content credibility and influence.

In terms of search, Bickart and Schindler (2001) proposed that CGC is sought after because the communication is consumer orientated rather than seller created

information. In a more recent study, the work of Khim-Yong, Cheng-Suang and Zhije (2013) explored the influence between CGC and brand generated content (BGC). The results of the study provided evidence that CGC is indeed more influential on purchases decisions than BGC. Consumer behaviours between the social content sources were examined on the brands own Facebook page, or 'branded social space'. The results suggested that even in branded or marketer managed spaces CGC is more persuasive and influential on purchase decisions. As the literature review suggested, the influence of CGC is derived from its strong WOM tradition. As within traditional WOM, online environments have observable opinion leaders. The second form on online social content is, Expert Generate Content (EGC), which can be created and obtained through social media and consumers can then 'share' or 'forward' the content through their own networks.

4.3.2 Expert Generated Content

Expert generated content (EGC) is similar to that of CGC, in that, it is produced by an individual and not a brand. However unlike most CGC, EGC can be directly linked to that of offline opinion leadership. Opinion leadership was first observed by Lazarsfeld, Berelson and Gaudet (1944) in a study of voting habits. The study discovered that friends, family and co-workers most affected voting decision. The authors observed: 'that in every area and for every public issue there are certain people who are most concerned about the issues as well as most articulate about it. We call them the 'opinion leaders'' (Lazarsfeld et al, 1944: 413). In the study of consumer behaviour, opinion leadership through WOM is said to be more influential than mass media sources (Katz and Lazarsfeld, 1955). The essential behaviour said to define opinion leaders is that they talk about products (Ritchins and Root-Shaffer,

1988). While many individuals now talk about brands, products and services online, opinion leaders or in EGC terms 'experts' and 'influentials' have distinct characteristics marking their opinions as more credible and influential.

Most research within opinion leadership sought to determine the demographic and social characteristics of opinion leaders (for example, Myers and Robertson 1972). The results of these studies suggest that opinion leaders do not significantly differ from non-opinion leaders in major demographic characteristics. Dichter (1966) suggested that product involvement was a determinant of WOM. Subsequently, Feick and Price (1987), Reynolds and Darden (1971), and (Summers 1970) found significant correlations between product involvement and opinion leadership. Ritchins and Root-Shaffer (1988) developed an implicit model of opinion leadership (Figure 4.4) through the review of past opinion leadership and WOM literature.
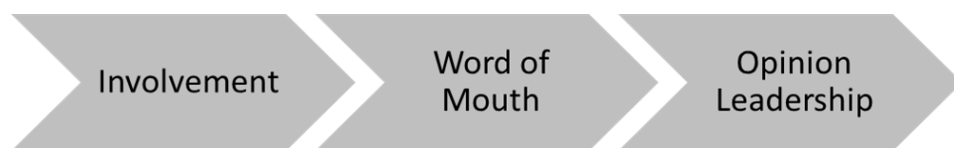
Figure 4.4: Model of Opinion Leadership

In an attempt to address the gap between knowledge on opinion leadership and actual WOM, Ritchins and Root-Shaffer (1988) tested their revised model and explicitly test the links between opinion leadership and WOM (Figure 4.5). The results of the study corroborated that involvement is an antecedent variable of opinion leadership, albeit only enduring involvement results in opinion leadership. The implicit relationship between opinion leadership and word-of-mouth was also confirmed. Not surprisingly the relationship between opinion leadership and WOM was strongest for

advice-giving, the form of word-of-mouth traditionally linked with opinion leadership (Ritchins and Root-Shafer, 1988).
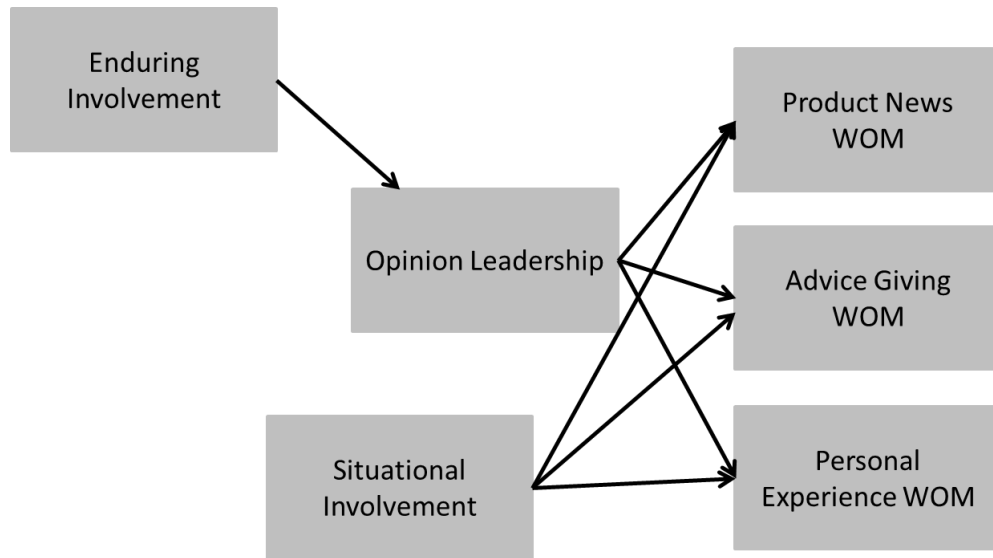
Figure 4.5: WOM Factor Opinion Leadership Model (Ritchins and Root-Shaffer, 1988)

The study suggested that WOM is a result of situational involvement not just from opinion leadership. Ritchins and Root-Shaffer (1988) suggested that situational involvement is especially associated with personal experience WOM. Therefore, in the context of a purchase decision, consumers would be likely to seek EGC as such content creators have vast experience with the brand, product or service under question. In order to capitalise on the potential effects on EGC on purchase decisions, some brands have commissioned bloggers by providing incentives for them to publish stories and accounts of the brands products and services in a bid to create more 'authentic' online social content (Sing *et al,* 2008). However several issues have been identified in relation to potential decision making persuasion of blogs, the most notable is that blogging is viewed as a form of self-expression which makes it difficult for blog readers to ascertain the credibility of the blogger or the authenticity of their brand related messages (Smudde, 2005; Xue and Phelps, 2004).

In a similar vein it is also difficult for consumers to discern the motivations of blogger to review products (Nekmat and Gower, 2012).

Lee and Youn (2009) found that from three potential source platforms, independent review sites, brand websites and personal blogs, that personal blogs were the least influential. More recently Nekmat and Gower (2012) expored perceptions of blogger credibility, message valance and forms of disclosure for publishing the content, they found that different levels of disclosure will significantly affect the bloggers credibility, perceptions of organisational credibility, attitude towards the product and purchase intentions. The results suggested non-disclosure had the most positive impact on purchase intention but message valance was found to have more impact than the levels of disclosure. The results suggested the brands in pursuing new types of integrated marketing communications brands must begin to accommodate the uncontrollable nature of consumer comments and dialogue (Mangold and Faulds, 2009). The final online social content typology of BGC represents marketer generated sources, similar to those in an offline context.

4.3.3 Brand Generated Content

In an attempt to reduce the effects of CGC and take advantage of the 500 billion brand impressions that are created and spread through social media platforms (Grant, Gino and Hofmann, 2010), brands are beginning to develop their own targeted content Brand Generated Content (BGC). BGC offers a new type of online information available to consumers as well as dedicated branded social spaces where consumers are encouraged to engage and 'play' with the brand during hedonic internet surfing, commonly referred to as 'consumer engagement' (Van Doorn *et al*,

2010). Naylor, Lamberton and West (2012) highlighted that by 2011 approximately 83% of Fortune 500 companies were using some form of social media to connect with consumers. Current academic literature has sought to position social media as a hybrid element of the integrated marketing communications mix (Drury, 2008; Mangold and Faulds, 2009), an information eco-system where multiple platforms can harmoniously reinforce brand messages (Hanna, Rohm and Crittenden, 2011) and that integrating social media into the whole business model, hypothesising a new 'social business' (Evans and McKee, 2010). Social businesses engage consumers and use their feedback and opinions to co-create value, products and services using the outcome of consumer engagement to increase brand awareness and generate increased revenues. Evans and McKee (2010: XV) state: 'social business picks up on what customers are talking about and connects this back into business where it can be processed to create the next round of customer conversations'.

The introduction of social media has created a new form of marketing services, social media marketing, which is said to be the fastest growing marketing services in the world. Literature, both academic and practitioner, has predominantly focused on strategy development to exploit and benefit from online social content (Andreaseen and Streukens, 2009; Hagel *et al*, 2008), brand building in the digital world (Barwise and Meehan, 2010; Edelman, 2010), how brands should engage in social media (Kietzmann *et al,* 2011), the willingness of consumers to participate in social media with brands (Parent *et al,* 2011) and the uninvited nature of brands into consumers social networking spaces (Fournier and Avery, 2011). While these studies provide anecdotal evidence and advice on how to construct social media strategies, they do not explore of highlight how BGC may influence consumer-purchasing decisions.

Some studies have begun to explore the impact of BGC in the consumer decision-making process.

Grimes (2012) reported that the Nielsen Company explored consumer attitudes towards thirteen different types of advertising, including newspaper and television ads, and brand websites and CGC. The research found that 92% of respondents trusted 'earned media', for example consumer reviews. Conversely, however, Buhalis and Law (2008) believe that people increasingly trust their peers, rather than marketing messages in tourism purchase decisions. Putting the influence of CGC into practice Duan *et al* (2008) found that the underlying WOM in box office movie would affect movie revenues.

Bronner and de Hoog (2010) explored whether BGC would be substituted for CGC. They found that use of CGC is complimentary to BGC; both information sources are used during simultaneously the buyer decision-making process. Similarly, Frias *et al* (2008) found that cooperation, rather than substitution exists between the two types of online social content. However the research of Bronner and de Hoog (2010) and Frias *et al* (2008) does not account for the new propitiation of 'branded social spaces' (Ney, 2011) but instead focused on more traditional internet sites. The use and influence of branded social spaces requires further investigation in the context of a purchase decision or active problem solving and not the use of CGC in product or service co-creation or brand value enhancement as within previous studies (Andreaseen and Streukens, 2009).

Indeed evidence from a recent study suggested that even in branded social spaces, posts published by consumers CGC would still have a higher impact on purchase

intention than BGC (Khim-Yong *et al,* 2013). Other research again highlighted the importance of the brands consumers, Naylor, Lamberton and West (2012) while not exploring the impact between CGC and BGC, sought to explore how the presence of the brands online supporters characteristics and demographics would impact behaviour. The study reveals that the demographic characteristics of a brands social fan base can influence target consumers' brand evaluations and purchase intentions, again suggesting that other consumers and CGC are hold the most influence during purchase decisions. While these studies begin to explore the effect of other consumers within branded social spaces they neglect to investigate if such branded social spaces would be used during an active purchase decision. Moreover, research fails to explore how consumers determine the trust or credibility of a source.

4.4   Chapter Summary

The review of literature surrounding the rise of online social content suggests that as individuals of a technologically driven economy, consumers are more likely to share their thoughts, feelings and opinions online and rely on other consumers for information about brands, products, and services. The wide ranging social media platforms facilitate information acquisition during active search, passive through play, or opinion leadership through highly involved on-going search and publication. Social media participation facilitates new types of information, online social content. The types of online social content differ and their use in a purchase decision context has not been well established in previous literature. This suggests that the search of online social content should be explored during the study to highlight the key types of online social content used during a purchase decision. Any motivated and able

person could use social media to publish online social content, on their thoughts, feelings and consumption experiences, and, as such, the quality and accuracy of information is variable. The onus is placed on the consumer to search, navigate and evaluate the information that is relevant to them; thus inferring that information evaluation is important to determine the credibility of the content.

Chapter V   Online Social Content Evaluation

The previous chapters sought to review the literature and explore the theoretical foundations of traditional information search, online information search and the new information source, online social content. The impact of online social content on consumer behaviour was explored. While the impact of CGC was demonstrated to be high (see Cheung and Thadani, 2009 for review), current studies viewed the totality of consumer reviews, not the impact of individual narratives. This chapter aims to explore how consumers evaluate online social content with limited social cues in the computer mediated environment. The chapter will explore the internet as a rich information source to begin to view how consumers perceive and evaluate information on the internet. The online information credibility and evaluation studies will also be reviewed to examine what makes information credible, and the cues used to evaluate information credibility during a purchase decision.

5.1   Online Social Content as a Rich Information Source

The literature review provided in Chapter IV introduces online social content as a new and influential information source. However, it was assumed that due to the lack of social and contextual cues within online forms of communication, the evaluative criteria of such online content will be reduced, thus increasing cognitive costs to the consumer (Ghose, 2007). If normative information search literature were to be explored in relation to this claim, it would be suggested that increased cognitive costs would reduce the desire to search online social content (Ghose, 2007; Payne 1982). The large volume of consumers reportedly using consumer reviews during a purchase decision refutes the claims within normative information search literature.

Herring (2001), however, pointed out that over time individuals can learn to evaluate and interpret online social content, providing a rich experience.

Indeed, online social content can be considered as vivid information (Nisbett and Ross, 1980). From the point of narrative processing, the consumer can be transported through the consumption experience by the rich subjective narrative provided in CGC and to a lesser extent BGC (Shank, 1990; Shank and Abelson, 1995). Narrative processing has traditionally been adopted in building consumer connections to brands (for example, Escalas, 2004). Considering the information in terms of a story (with a beginning, middle and end), narrative processing involves the self and an individual's own experiences (Kerby, 1991; Polkinghorne, 1991) which is reflective of CGC. The reader may then be transported, through story, through the consumption experience and relate their own feelings to the story, discovering how it would make them feel.

Narrative processing could also mark the distinction between CGC, EGC and BGC, the latter being more objective and un-story like. The addition of audio, video or pictures increases the vividness of the information and can provide additional cues missing from textual information (Huang, Fu and Chen, 2010). From computer mediated communication (CMC) literature a growing body of knowledge considering the use and evaluation of online information sources and information existed.

Before the rise of online social content, and even the widespread adoption of internet sources as consumer information, research regarding the use and evaluation of CMC was prevalent (Daft and Lengel, 1984, 1986; Lea and Spears, 1991, 1992). This

research focused on the choice of media in communication situations (Daft and Lengel, 1984, 1986) and the changes in group dynamics as a result of limited social cues (Lea and Spears, 1991, 1992). The theories emerging from such studies can be comparatively used to understand the use of particular social media, and may provide answers as to the cues used to determine credibility.

Lo and Lie (2008) assert that there are several theories that have been shown to understand how individuals select communication technologies to use. Jones (1995) suggested that media richness theory (Daft and Lengel, 1984, 1986), the model of self-identity and deindividualisation (Spears and Lea, 1992), and social presence theory (Short, Williams and Christie, 1976) can aid in understanding CMC evaluation. In other words, online social content, based on its ability to convey meaning, express emotions and attitudes, provide timely conservation feedback and reveal social cues such as humour, taste or dissatisfaction. In understanding choice of media to use for communications purposes, the models also demonstrate that CMC, and therefore, online social content, is a rich source of information.

5.1.1 Media Richness Theory

Media richness theory, also referred to as information richness theory (Daft and Lengel, 1984, 1986), suggests that different communication channels correspond to various levels of information richness. Information richness refers to the amount of information that can be conveyed through a communication medium (Poole, Shannon, DeSanctis, 1992; Purdy and Nye, 2000). Information richness is believed to be based on four factors: (1) multiple cues, the use of multiple information channels, such as vocal inflection and body gestures; (2) immediacy of feedback, the promptness of responses, such as questions to be asked; (3) language variety, the use

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of language symbols, such as numbers and natural language, and (4) personalisation, the use of personal feeling and emotions (Daft and Wiginton, 1979; Daft and Lengel, 1984, 1986; Dennis and Kinney, 1998).

Shu (1999) modelled media richness in terms of task characteristics and communication media characteristics which impacted the dyadic communication. The dyadic communication then impacted upon the perception of task performance and task satisfaction (Figure 5.1). The model suggested that the task characteristics and the characteristics of the media selected impact upon the communication and the perceptions of performance and satisfaction.
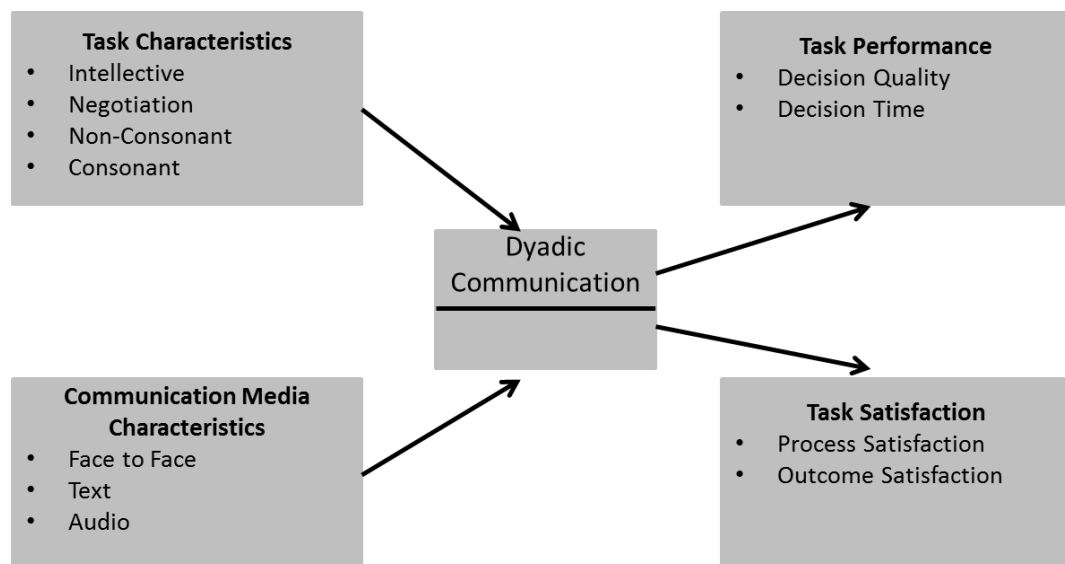
Figure 5.1: Media Richness Model (Suh, 1999)

Daft and Lengel (1984) suggested that information richness is the ability of information to change understanding within a time interval. The level of ambiguity or confusion that occurs during a task is an important element of media richness. Ambiguity or confusion resulting from the communication can reduce task performance and task satisfaction. It is argued that information capacity should be taken into consideration but also the associated evaluative costs with adopting a

specific medium (Daft and Lengel, 1984, 1986). Therefore, tasks with a high equivocal value require channels with higher information richness to ensure the transfer of information and meaning and reduce potential misunderstanding or conflicting interpretations. Tasks associate with low equivocal value are suitable for channels with a lower degree of information richness, which are also conducive to receivers avoiding excessive amounts of message decoding (Lo and Lie, 2008). The theories of media richness begin to put Ingerswen's (1996) arguments of the IR system under use during information search playing a significant role in search and evaluation ability of the user into perspective. That the unique attributes of the system, source and the information capacity can cognitive ability of the consumer are important considerations.

Face to face communication is the richest communication medium in the hierarchy, followed by telephone, electronic mail, letter, note, memo, special report, and finally, flier and bulletin (Daft and Lengel, 1984, 1986). Kaplan and Haenlein (2010) examined media richness and social presence of social media platforms. The research suggested that the virtual social worlds are the richest communication medium followed by virtual game worlds, social networking sites, content communities, blogs and finally collaborative projects (Kaplan and Haenlein, 2010). Media richness theory has been used to help explain the choice of media communication technologies. Similar to the study of Kaplan and Haenlein (2010), this study is in the context of social media. Therefore two way communication, use of multiple cues [audio, video, and pictures] and personalisation of the message is high, constituting higher information richness. The immediacy of feedback and

personalisation of message in some social media channels is restricted, thus decreasing information richness.

Nonetheless, Carlson and Zmud (1999) asserted that media richness for new media has provided inconsistent empirical results. Taking a channel expansion theory perspective Carlson and Zmud (1999) believed that media richness perceptions are shaped by individual experiences. The four key experiences are: experience with the channel, experience with the message topic, experience with the organisational context and experience with the co-participants (Carlson and Zmud, 1999). From a social media perspective, the key experiences identified by Carlson and Zmud (1999) could account for the rise in social search and may assist in understanding the perceived relative importance and credibility of individual online social content narratives. However models of information richness, while useful to determine how psychologically present communication can be in the mind of the consumer, does not explore the wide variances in content quality between sources. Information richness can view why certain sources are used by consumers but the theories do not help to explore how the consumer evaluates information within the sources. While the media richness theory explores the perceptions shaped by the individuals experiences, the second information richness model, the social identity model of deindividuation, effects, explores the effects of social cues on perceptions.

5.1.2   Social Identity Model of Deindividuation Effects

Proponents of the social identity model of deindividuation effects (SIDE) (Lea and Spears, 1991, 1992) examined the contradictory effects of social cues in online groups. Deindividuation theory proposes that in crowds, individuals loose a sense of themselves and can exhibit irrational behaviour (Zimbardo, 1969), and this can be

applied to an online environment. For example, Kiesler, Siegel, and McGuire (1984) argued that the filtering of social information in CMC produces feelings of isolation, which results in reduced impact of group norms and standards upon behaviour, encouraging expressions of uninhibited behaviour. However, following Reicher's (1987) contradictory findings of deindividuation effects, the SIDE model proposes that anonymity and social context in interaction does not produce a loss of self-identity as proposed in deindividuation theory. Instead anonymity can serve to reinforce group identity and the prevailing norms (Hiltz, Turoff and Johnson, 1986; Lea and Spears, 1991; Matheson and Zanna, 1989).

SIDE studies have been extensively used in organisational research and the workings of teams (Lea and Spears, 1991, 1992). In terms of understanding the relative importance of CGC, SIDE appears relative given that studies examining volume and valance of CGC find a conformity effect (Bajan and Hortacsu, 2003; Chatterjee, 2001; Chen and Xie, 2004; Dellarocas, 2003; Lee *et al,* 2008); consumers will conform to the view of the community, given the level of positive versus negative reviews. However research suggests that as involvement and experience increases, the consumer considers the quality of the information (Lee *et al*, 2008). Lea and Spears (1991, 1992) argued that relatively simple cues can contribute in powerful and sophisticated ways to convey social information and expressive meanings, to help regulate the interaction and to influence attitudes and decision making.

Reviewing the quality of information could result in assessment of power and authority communicated through linguistic style (Selfe and Meyer, 1991), politeness strategies (Hiemstra, 1982), and development of online identities through

pseudonymous (Hiltz *et al*, 1989; Lea and Spears, 1991). Fiske and Taylor (1984) also suggested that inferences about peoples' personality, emotional state and behavioural intentions can be assessed with minimal cues.

The assessment of personality may be important in CGC and EGC given that there is low interpersonal influence between anonymous consumers. Lea and Spears (1992) examined paralanguage and social perception in CMC and hypothesised that experienced electronic mail users should make more sophisticated use of paralinguistic cues than novices as idea similar to involvement theory (for example, Beatty and Smith, 1987; Brucks, 1985). The results of Lea and Spears (1992) also suggested that individuals are able to draw cues from limited information. Over time consumers are able to draw more sophisticated cues as a result of familiarity and experience. This further suggests that internet experience, or now, social media experience, moderates the evaluation of online social content. Moreover, prior experience with a particular source may result in a more complex heuristic evaluation set, requiring reduced cognitive effort. The third information richness model, social presence theory, views the medium as being psychologically present therefore requiring less cognitive effort to evaluate.

5.1.3   Social Presence Theory

Related to both media richness theory (Daft and Lengel, 1984, 1986) and SIDE (Lea and Spears, 1991,1992), social presence theory was traditionally used to assess how social context affects media medium choice (Short, Williams and Christie, 1976); for example, face to face conversations versus email. Today, social presence is predominantly applied to internet communications (Kehrwald, 2008). Social presence theory has been credited as one of the founding theories in CMC literature

and has subsequently been adopted in many empirical studies, from exploring trust and loyalty development in e-commerce websites (Cyr, Hassanein, Head, and Ivanov, 2007; Gefen and Straub, 2003), to text based online learning environments (Richardson and Swan, 2003) and to intragroup status in online fan groups (Reysen, Lloyd, Katzarska-Miller, Lemker and Foss, 2010). Notwithstanding the increased adoption of social presence theory in research, there is a lack of universal agreement on a definition.

Gefen and Straub (2004: 11) defined social presence as: 'the extent to which a medium allows users to experience others as being psychologically present'. Taking the perspective of the individual user, Kerhwald (2008: 94) believed social presence to be: 'an individual's ability to demonstrate his/her state of being in a virtual environment and so signal his/her availability for interpersonal transactions'. Intimacy and immediacy were also found to be definitional correlates of social presence (Argyle and Dean, 1965; Mehrabian, 1966; Short *et al*, 1976). Intimacy was regarded to be an emotional or interpersonal connection, and immediacy has been defined as the perceived psychological distance between two people (Tu and McIsaac, 2002).

Initially CMC was regarded as having low social presence (Connell, Mendelsohn, Robins, and Canny, 2001). However Rogers and Lea (2005) demonstrated that over time communication in online forums produced social presence and group identity. In e-commerce, the website features that are said to encourage positive social presence include socially rich content, personalised greetings (Gefen and Straub, 2003), human audio (Lombard and Ditton, 1997) and human video (Kumar and

Benbasat, 2002). Other studies have examined the addition of pictures on website satisfaction and trust (for example, Hassanein and Head, 2006; Steinbruck, Schaumburgh, Duda and Kruger, 2007). The results of these studies indicated that photos can help facilitate social presence and bring virtual interactions close to face to face interactions. Given that online social content can comprise of one or all of these elements, online social content can be regarded as a rich information source.

Increased social presence has been found to be positively related to satisfaction with interaction (Gunawardena and Zittle, 1997; Richardson and Swan, 2003). Riegelberger and Sasse (2001) and Riegelberger, Sasse and McCarthy (2003) asserted that trust can be established online through embedding social cues and content. The review of online trust (Chapter III) found a positive correlation between trust and intention to purchase (for example, Chen, Hsu and Lin, 2010). It may then be assumed that social presence will create positive trust indicators in online social content, thus increasing the evaluation of credibility.

The models of social presence and media richness demonstrate that online social content is a rich information source in which consumers have the cognitive ability to evaluate content (Herring, 2001). However it is also known that the quality of such information varies dramatically (Ghose, 2007). The studies of online social content, which predominantly concern consumer reviews, regard quality in terms of believability of the message (Sheth, 1996). It is the believability of the message and not trust that influences behaviours and outcomes. This was further demonstrated in the study of Park, Want, Yao and Kang (2011) where they found that Chinese consumers would make purchase decisions around credible reviews. In the CMC

environment, credibility is perceived in relation to the models of information richness but also in relation to more traditional information credibility attributes of stimuli, author and source characteristics.

5.2   Online Social Content Credibility

Credibility is commonly regarded as a multidimensional construct (Adoni, Cohen and Mane, 1984; Gaziano and McGrath, 1986; Meyer, 1988). Taken from key credibility studies, over fifteen credibility dimensions are proposed, including perceived expertise, fairness, accuracy, depth or completeness of message and message quality. Sheth (1996) added believability, trust, reliability and objectivity. Credibility has also been defined in terms of persuasive source characteristics, characteristics of the message structure and content and perceptions of media (Metzger et al, 2003).

Credibility may then be viewed as a dynamic and complex concept, which is a subjective determinant in the eyes of the receiver. It is argued that the skills needed to determine the quality or credibility of online information are closely related to those for evaluation of other information sources (Alexander and Tate, 1999; Brandt, 1996; Fritch and Cromwell, 2001). Credibility research suggests that consumers rely on personal sources of information to make an informed choice (Locander and Hermann, 1979; Lutz and Reilly, 1973) because personal sources are regarded as more credible (Katona and Mueller, 1955).   In an online context, it could be assumed that CGC is deemed more credible than EGC or BGC because of the interpersonal influence, possible tie strength and the subjective narrative contained in the communication (Chen and Xie, 2004).

A stream of research has questioned the dynamics of online source and content (Franke, 1996; Slater and Rouner, 1996). Researchers have sought to examine whether individuals use heuristic cues when source credibility is limited or questioned in online chatrooms. The results indicate that the messages in chatrooms are too brief or unusual to be evaluated as useable dialogue, suggesting that websites are more likely to be used to evaluate perceptions of message credibility (Franke, 1996; Slater and Rouner, 1996). This research stream is limited and is dated given the exposure individuals now have to the internet and online social content, and the results of media richness and social presence studies (Daft and Lengel, 1984, 1986; Short *et al*, 1976).

Rieh and Belkin (1998) examined the judgement of online information quality. In-depth interviews were conducted with fourteen academics and the results suggested that in evaluation of online information (1) institutional sites were seen as more credible than individual sites and (2) accuracy of content was used to assess online information. Respondents used knowledge of citations within the content and the functionality of hyperlinks as cues to evaluate the information. However this suggests that credibility evaluation of online information is only effective when the consumer has some prior knowledge of the topic. Rieh and Belkin (1998) also neglected to explore the evaluation of the CGC typology where the underlying subjective and experiential nature may be harder to evaluate.

Metzger (2007) provided a useful review of the models used to evaluate online information. The review neglected the CGC context but provided a useful starting point to understand online information evaluation. Metzger (2007) proposed that the credibility dimensions of accuracy, authority, objectivity, currency and

coverage/scope are used as a checklist in assessing online information. Based on a review of previous studies of a similar nature (Alexander and Tate, 1999; Brandt, 1996; Fritch and Cromwell, 2001; Kapoun, 1998; Meola, 2004; Scholz-Crane, 1998; Smith, 1997) Metzger (2007) proposed definitions for the dimensions (Table 5.1).

Dimension	Definition
Accuracy	The degree to which a website is free from errors, whether the information can be verified offline and the reliability of the information on the site
Authority	Assessment of the website author, whether there is contact information, the authors credentials, qualifications, affiliations and whether the website is recommended by a trusted source
Objectivity	Identifying the purpose of the site and whether the whether the information provided is fact or opinion
Currency	Whether the information is up to date
Coverage	The comprehensiveness or depth of the information provided on the site

Table 5.1: Online Credibility Dimensions (Metzger, 2007)

However, in reviewing the results of previous studies Metzger (2007) demonstrated that internet users are seldom meticulous in checking the accuracy of the obtained information. The theories of social presence may assist in understanding the lack of rigorous assessment criteria of the information content. The perceived credibility rating, and thus persuasive effect of a particular online social content narrative may not only be affected by the variable quality of information but also the vast amount of websites and media which can be managed by anonymous or unrecognised sources. The varying demographics, tastes and opinions of unknown content creators (Brown, Broderick and Lee, 2007; Lu, Zhao and Wang, 2009) can also have impact on credibility perceptions.

While early media credibility studies asserted that to effectively evaluate credibility it must first be determined whether credibility of the source or the stimuli [content] is

being measured (Rubin, Palmgreen and Sypher, 1994), this study argues that to understand online social content credibility, the content, the content creator and the source must be measured. This is further clarified in the results of Gretzel and Yoo's (2008) exploratory study of TripAdvisor users. The study explored the factors which influence evaluations of a review, and sought to understand behavioural differences between frequent online travel review readers and occasional readers and the difference between posters and non-posters. The results highlighted an extensive list of cues used to evaluate the content message, the content creator and the source (Table 5.2).

Cues Related to Reviewer	Cues Related to Review	Others
• Attitude • Objectivity, Honesty • Similarity (interests, situation) • Detailed travel party information (children, age number of people) • Pickiness • Prior trip experience/ frequency • Prior experience at hotel/area • Independence • Sexual orientation • Country of origin (different standard between US v Europe) • Cultural background • Intention to revisit the place • Frequency of posting reviews • Other reviews posted by same reviewer	• Overall tone • Detail, Clarity • Accuracy, Realistic • Balance of negative and positive reviews • Objectivity • Breadth and range of information • Consistency with other reviewers • Relevancy to me • Contains budget/cost/price information • Practical tips (money saving) • Sense of humour • Emotional tone, good word image • Recency • Language of review • Grammar/Fluency • Opinion or fact, justifications • Contains weather	• Takes as a whole (not just one cue) • Evaluation based on all reviews • Website where the review is posted

	information	
• Lifestyle • Social status	• Contain cleanliness, location and rating information	

Table 5.2: Cues for Evaluating a Travel Review (Gretzel and Yoo, 2008)

The results of Gretzel and Yoo's (2008) study are consistent with findings of blog research (Bouhlel *et al,* 2010) in relation to exposure of the reviewer increasing credibility and influence. The results also highlighted that content cues such as recency, objectivity and emotional tone are used to evaluate online reviews. Further to this, website or social media platforms have been used to determine the credibility of online reviews. Similarly, traditional communication theories suggest that those informational factors, the source, the message and the receiver will affect a reader's information evaluation (Wathen and Burkell, 2002).

Following on from previous research, this study regards information credibility as the extent to which one perceives the online social content to be believable, true or factual (Tseng and Fogg, 1999). While McKnight and Kacmar (2006) argued that credibility does not refer to the believability of the website or people behind the website, other research highlighted that the content, content creator and source characteristics are important determinants of information credibility (Cheung and Thadani, 2010). Cheung and Thadani (2010), reviewed previous literature of online review credibility and offered a nomogical network model (Figure 5.2).
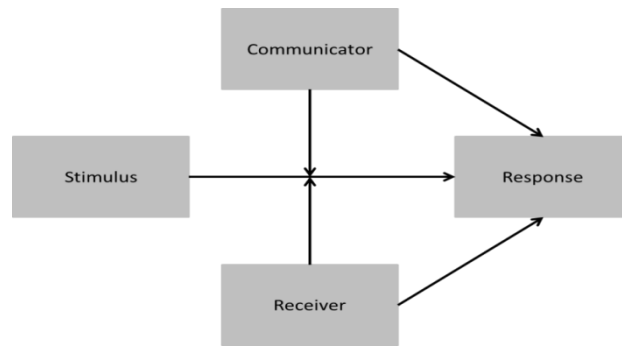
Figure 5.2: Nomogical Network for Impact of online social content (adapted from Cheung and Thadani, 2010)

It can then be argued that the consumer will evaluate online social content based on stimulus which is described as both content and source characteristics, the communicator of the message, or content creator and the consumers own personal characteristics. The combined effects generate a response in the mind of the consumer, resulting in action. Generally the response or action has been studied as intention to purchase (for example, Doh and Hwang, 2009; Huang, Lurie and Mitra, 2009; Park and Kim, 2008; Xia and Bechwati, 2008) but to a lesser extent, the response has been studied in relation to attitude (for example, Doh and Hwang, 2009), information adoption (Cheung, Lee and Rabjohn, 2008; Lee and Youn, 2009), trust (Sen, 2008), awareness (Davis and Khazanch, 2008), loyalty (Litvin, Goldsmith and Pan, 2008), choice (Huang and Chen, 2006), usefulness (Kumar and Benbasat, 2006), social presence (Kumar and Benbasat, 2006), helpfulness (Mudambi and Schuff, 2010) and preference of information source (Steffes and Burgee, 2009).

Given that the proposed context of this study is the evaluation of single online social content posts, it is unlikely that all previously studied outcomes would be a possible outcome of this research. For instance, studies of volume and valance (for example, Chatterjee, 2001; Chen and Xie, 2004; Dellarocas, 2003; Lee *et al,* 2008)

demonstrate that the volume of reviews impacted upon purchase intention. Therefore one online social content post is unlikely to yield a purchase intention outcome. Similarly, the related outcomes of attitude change, information adoption, choice, preference of sources are unlikely to be realistic outcomes of the proposed study. Social presence and loyalty have also been removed due to poor fit. The proposed outcomes are awareness, perceived usefulness, perceived helpfulness and trust in the information.

The literature regarding the three attributes of content, content creator, and source will now be explored. In addition, the consumers' personal characteristics will be explored in order to view the moderating impact of personal characteristics on the credibility perception process.

5.2.1 Content Characteristics

The internet as an information source has been criticised for varying in quality, and thus requires credibility assessment. The advent of Web 2.0 technologies has increased the volume of information that can be accessed and widened the quality gap. Indeed, Hilligoss and Rieh (2008) contended that in many cases certain information appears to be better or more trustworthy. The challenge consumers' face is to judge which information is credible. In the McKnight and Kacmor (2006) study regarding information obtained from answers sites, credibility was the most important antecedent of information adoption. Metzger (2005) argued that the internet has made the need to critically evaluate information more important than ever because the credibility of information must be determined by the consumer. Cheung and Thadani (2010) believed that credibility can be assessed by a number of individual cues and cues related to the totality of reviews found (Table 5.3; pg154).

As with many online social content studies, the predominant focus has been on consumer reviews, neglecting other forms of CGC and BGC and EGC.

While many cues previously studied can be used to evaluate individual pieces of online social content, others, namely, dispersion, the total number of reviews, and recommendation consistency would be used to establish content credibility as a totality of all content obtained. As this proposed research seeks to explore evaluation of individual online social content, and not in comparison to other online social content, dispersion, the total number of reviews, and recommendation constancy will not be covered.

In general, the findings of consumer review studies indicate that consumer reviews impact on consumer purchasing decisions. The impact of consumer reviews are seen to be moderated by the perceived credibility of the review, with some reviews holding more influence than others. The content of the review can be perceived in both normative and informational terms (Cheung, Luo, Sia and Chen, 2009). The normative cues view the peripheral cues outside the content narrative, whereas the informational cues view the story contained within the content narrative. A mixture of studies have explored both normative and informational cues independently or in combination. However few of these studies have systematically segmented content cues into informational and normative cues but viewing them dependently as content characteristics. The work of Cheung *et al* (2009) differentiates the cues into their informational and normative determinants and this is argued to bring greater clarity into the types of cues used to evaluate information credibility or information quality (Cheung and Thadani, 2010).

Information quality or argument quality has a long tradition in the context of information systems. Cheung and Thadani (2010) positioned argument quality as a multidimensional construct. Argument quality refers to the persuasive strength of the arguments embedded in the content narrative (Bhattacherjee and Sandford, 2006). Studies found credibility, objectiveness, timeliness and sufficiency accurate determinants of information quality (Bailey and Pearson, 1983; Negash, Ryan and Igbaria, 2003; Srinivasan, 1985). In a review of CGC literature (stated as eWOM literature) Chan and Ngai (2011) highlight that information quality is the least researched CGC context. Given that information credibility and information quality are seem to be related constructs (for example, Bailey and Pearson, 1983) this research seeks to fill the literature gap highlighted by Chan and Ngai (2011). In a CMC environment context, Doll and Torkzadeh (1998) believed information content, accuracy, format and timeliness to be predictors of information credibility.

Theoretical Construct	Definition	Studies

Argument quality
   Relevance
   Timeliness
   Accuracy
   Comprehensiveness
	Argument quality: the persuasive strength of arguments embedded in an informational message (Bhattacherjee and Sandford, 2006)
	Relevance: the extent to which the message is relevant and useful for decision making
	Accuracy: the reliability of the message/arguments. It also represents user's perception that the information is correct (Wixom and Todd, 2005)
	Comprehensiveness: the completeness of the message
		Cheung, Lee and Rabjohn, 2008; Cheung, Luo, Sia and Chen, 2009; Hu, Liu and Zhang, 2008; Lee, Park and Han, 2008; Sher and Lee, 2009; Zhang and Watts, 2008, Park, Lee and Han, 2007

Disconfirming Information	Information content in messages that is inconsistent with one's previously held understandings and beliefs	Zhang and Watts, 2008
Consumer Review Credibility	The perceived ability or motivation for an eWOM	Cheung et al, 2009; Doh and Hwang, 2009
Argument Strength	The extent to which the receiving consumer views the argument as convincing or valid in supporting its position	Cheung, Luo, Sia, and Chen, 2009
Attitude Value versus Simple Value	Content discusses tangible features or intangible service based features or consumption experience (Sparks and Browning, 2011)	Cheung et al 2009; Lee and Lee, 2009; Park and Lee, 2008; Sparks and Browning, 2011; Xia and Bechwati, 2009
Recommendation framing (Valance)	The valence of the consumer review message and whether it is positive or negative (Liu, 2006)	Cheung et al, 2009; Chevalier and Mayzlin, 2006; Clemons and Gao, 2008; Clemons, Gao and Hitt, 2006; Dellarocas, Zhang and Awad, 2007; Gauri, Bhatnagar and Rao, 2008; Hu, Liu and Zhang, 2008; Huang and

		Chen, 2006; Lee, Park and Han, 2008; Liu, 2006; Park and Lee, 2009; Sen, 2008; Sen and Lerman, 2007; Xia and Bechwati, 2008; Lee and Youn, 2009; Zhang, Craciun and Shin, 2010
Recommendation Sideness	The extent to which message arguments recognize and attempt to refute opposing viewpoints (Stiff and Mongeau, 2003)	Cheung et al 2009; Doh and Hwang, 2009; Sen 2008
Recommendation Consistency	The extent to which the current consumer review recommendation is consistent with other contributors' experiences concerning the same product or service evaluation (Zhang and Watts, 2003)	Cheung et al, 2009; Clemons, Gao and Hitt, 2006
Recommendation Rating	The overall rating given by other readers on a consumer review	Cheung et al, 2009; Chevalier and Mayzlin, 2006; Duan, Gu and Whinston, 2008; Lee and Lee, 2009
Length of Review	The total number of type characters in a piece of review	Chevalier and Mayzlin, 2006; Sen, 2008
Number of Reviews	Total number of posted reviews	Chevalier and Mayzlin, 2006; Davis and Khazanchi, 2008; Dellarocas, Zhang, and Awad, 2007; Duan, Gu and Whinston, 2008; Gauri, Bhatnaga and Rao, 2008; Lee, Park and Han, 2008; Liu, 2006; Park and Kim, 2008; Sher and Lee, 2009; Park, Lee and Han, 2007
Review Type	Different orientation of a review	Park and Kim, 2008; Riegner, 2007; Xia and Bechwati, 2008
Visual Cues	Any image (a form of communication) posted by the content creator and directed at other consumers when evaluating the characteristics of a particular	Davis and Khazanchi, 2008

	good or service	
Dispersion	The degree to which arguments/messages vary from one another	Dellarocas, Zhang and Awad, 2007

Table 5.3: Studies of Consumer Review Evaluation (Adapted from Cheung and Thadani, 2010)

Cheung, Lee and Rabjohn (2008) found that the two concepts of comprehensiveness and relevance are important in determining the quality of a review. The other elements studied, accuracy and timeliness, were not found to affect the quality of a review as significantly as comprehensiveness and relevance. However, some studies have found the effects of timeliness and accuracy impact on the quality of the review (Lee, Park and Han, 2008; Park, Lee and Han, 2007; Wixom and Todd, 2005). More recently, O'Reilly and Marx (2011) found that valid arguments in consumer reviews include the aspects such as proper grammar, good spelling and professional language. It was found that consumers could detect the writing ability of the content creator and determine the education level of the content creator by viewing the spelling and grammar of the review. Moreover, it was found that those reviews which were perceived as being written by more educated content creators were more influential (O'Reilly and Marx, 2011).

Viewing how consumers' personal characteristics may impact the quality process, Sher and Lee (2009) did not find a correlated effect between review quality and purchase intention in consumers with either high or low scepticism. The findings did indicate that the volume of reviews did influence those with low scepticism whereas those consumers exhibiting high scepticism, were not influenced by reviews. The importance of information quality is not well supported in the current studies, this may be due to the proposed multi-dimensionality of the construct. It is proposed that the determinants of information quality should be explored to highlight their value to the study. The proposed exploratory study in this research aims to highlight the importance of the evaluative cues for the main study instrument.

Cheung *et al* (2009) explored review credibility and argument strength, along with recommendation framing, recommendation sidedness, confirmation of prior belief, recommendation consistency and recommendation rating. The findings suggested that both the informational determinants and normative determinants significantly influenced perceived review credibility. The findings were consistent with those of previous research within a similar focus (Park, Lee and Han, 2008; Zhang and Watts, 2003). The structural model posed by Cheung *et al* (2009) highlighted that review credibility and argument strength accounted for more than fifty per cent of the total variance of review credibility, which then accounted for more than thirty per cent of the variance in review adoption. However, the model was developed by more than review credibility and argument strength alone.

Related to the concept of content quality, the objective/subjective nature of the narrative is also considered to be an important determinant of credibility (Metzger, 2005). Several studies have examined the objective/subjective dichotomy in terms of attitude versus simple value recommendations (Cheung et al 2009; Lee and Lee, 2009; Park and Lee, 2008; Xia and Bechwati, 2008). Park and Lee (2009) offered the terms attribute versus simple value, where attribute-value reviews are those reviews with factual attribute information and simple-value recommendation reviews are opinion based reviews. It has been argued that the attribute-value or objective reviews require more cognitive resources than simple recommendations or subjective reviews because simple-value recommendations are based on emotional and subjective opinions, easily understood at a glance. It could then be argued that the consumer's level of internet expertise will affect the preference of objective versus subjective online social content.

Xia and Bechwati (2008) studied the objective/subjective dichotomy of reviews in relation to the valance and effect of cognitive personalisation in search and experience goods. It was believed that affect intensity leads to a higher level of personalisation when the review is subjective, whereas there is no effect when the review is objective. Personalisation can be viewed as the cognitive operation by which the consumer thinks and feels about the review narrative as if it actually happened to them (Diener and Cropanzana, 1987). The results indicated that in search goods there was a higher level of personalisation in subjective reviews rather than objective reviews, experience goods were seen to elicit a higher level of personalisation.

Another informational content attribute is that of valance or sidedness. The valance or sidedness of a review has been a widely researched topic (see Cheung and Thadani, 2010 for review). Valance studies have been widely operationalised in relation to the volume of reviews, and as such, have explored the totality of reviews obtained. It may also be argued that the sidedness of the review represents a measure of credibility. From intention to purchase studies, the sidedness of the review was measured as positive or negative (Liu, 2006). However Crowley and Hoyer (1994) found that two sided arguments are more persuasive than one-sided arguments, when the initial attitude of the consumer is neutral or negative. The studies of online volume and valance have yet to consider the effect of two-sided information on review credibility, it is proposed that the effect of both positive and negative information in an online review requires further investigation.

The results of the valance studies produce varying results, with some finding that negative reviews has a significant impact upon herding (Huang and Chen, 2006) but

positive reviews were found to have most impact upon repeat purchase intention (Gauri, Bhatnaga and Rao, 2008). Again, these studies have taken valance in terms of the totality of reviews; the link to perceived credibility of single online social content posts has yet to be explored. Zhang, Craciun and Shin (2010) explored the relationship between the persuasive effects of review valance on the associated consumption goals that consumers perceived from the reviewed product. A positivity bias was attributed to perceived promotion consumption goals and a negativity bias attributed to consumption goals. More recent research of Kusumasondjaja *et al* (2012) explored the effect of review valance on credibility perceptions and trusting intentions. The findings suggested that negative reviews are perceived to be more credible but positive reviews leads to a greater initial trust than negative reviews when reviewer identity is disclosed.

A normative content cue, social presence has been studied from the perspective of visual cues. From the studies of social presence (Short, Williams and Christie, 1976) and vivid information (Nisbett and Ross, 1980), it is proposed that the addition of photos and/or videos may increase the credibility of content because there is a visual representation and the claims of the review can essentially be backed up. However, research on social presence of reviews has currently neglected, with the exception of Davis and Khazanchi (2008), who examined the addition of images to online social content. They found that the addition of content creator photos alone did not significantly effect product purchase. While the results of Davis and Khazanchi's (2008) study did not support the assumption that the addition of visual cues would increase sales, this finding does account for increased credibility perceptions.

Other normative evaluative cues include the length and the rating of the review. In viewing the impact of review length Mudambi and Schuff (2010) found that review length has a positive effect on the helpfulness of a review. It is often argued that review depth can increase information diagnosticity, increasing benefits to consumers by reducing search costs (Johnson and Payne, 1985). The review length can help in the decision process by increasing the consumers knowledge in terms of comprehensiveness. In their study of online book reviews, Chevalier and Mayzlin (2006) found that consumers read the review narrative rather than rely on additional cues and found that average length reviews were more useful. The relationship between review length and credibility perceptions requires further investigation, while motivations to write reviews has been explored (for example, Wilson *et al*, 2012; Yoo and Gretzel, 2011) to date, no research has given consumers any guidelines to consumers on how to write a useful review. Taking into consideration that comprehensiveness is believed to aid in usefulness (Mudambi and Schuff, 2010) it could be argued that longer reviews will be perceived as more credible, however the findings of Chavalier and Mayzlin (2006) did not confirm this assertion. It is evident that the relationship between review length and credibility perceptions requires further investigation.

The rating given to the review by other consumers has also been explored in relation to credibility perceptions with mixed results. Duan, Gu and Whinston (2008) argued that the review rating does not have a significant impact on purchase choice. This would suggest that review rating alone is not a strong determinant of credibility; that the consumer will use both the narrative and the rating to determine credibility (Chevalier and Mayzlin, 2006). In more recent research Baek, Ahn and Choi

(2012/2013) found that review rating along with content creator credibility and other informational content cues will positively impact on the helpfulness of the review. In contrast, within a tourism focus Browning *et al* (2013) found that review rating moderated the influence of framing, valance and target of reviews (service or core) on service quality. On one hand research has found that review rating alone does not significantly impact on credibility (for example, Baek *et al,* 2012/2013) but on the other that review rating can moderate the influence of framing, valance and target of reviews (Browning *et al,* 2013). As such, the impact and importance of review rating on credibility perceptions still requires further exploration. However in examining the effect of rating in quality and preference goods, Lee and Lee (2009) found that as the rating for quality goods increases, the impact of quality on purchase intention decreases.

It could be argued that the relationship between rating and online social content credibility has not been established. Indeed Hu, Liu and Zhang (2008) found that consumers will view the rating but also the reputation and exposure of the reviewer, a finding consistent with the research of Baek *et al* (2012/2013). This suggested that the reviewer or content creator characteristics are also an important determinant of credibility.

5.2.2   Creator Characteristics

Hu, Liu and Zhang (2008) found that the normative determinant of review ratings did not significantly affect purchase decision until the reviewer's characteristics were also examined. Similarly when viewing the sidedness of the review Kusumasondjaja *et al* (2012) found that until content creator identity descriptive information was

disclosed the review positive or negative would have equal limited credibility. If identity descriptive information was disclosed negative reviews would hold more credibility but positive review leads to a greater initial trust in the review. The importance of the content creator or 'online supporter' characteristics on influencing brand evaluations and purchase intention was also evident in the study of Naylor, Lamberton and West (2012) where they found that demographic characteristics of a brands online supporters would impact purchase intentions of other consumers. The findings of these studies suggested that the content creators identity and lifestyle characteristics are important in assessing the overall credibility or relevance of the content posted. The importance of content creator characteristics in comparison to content (informational and normative) and source characteristics has yet to be determined and therefore requires further research. Although there is evidence to support the assertion, that the content creators characteristics are used to assess the credibility of normative content characteristics (Baek *et al,* 2012; Kusumasondjaja *et al,* 2012).

While these studies have explored the impact of content creator characteristics on credibility perceptions, many evaluation studies had neglected the reviewer or content creator characteristics. In an offline situation, WOM communication would normally take place between strongly tied individuals. However as online social content can be created by any interested party where details of the creator as scarce or unknown, the credibility of the reviewer may be unknown making it harder to determine the credibility of the message (Brown *et al,* 2007). The strength of the relationship between a communicator and a receiver is one of the most distinctive differences between WOM and eWOM (Chatterjee 2001). Indeed, the studies of

social presence in CMC literature propose that outcomes are improved when virtual communicators exchange information about themselves (Spears and Lea, 1992; Walther, 1996), thereby demonstrating the importance of the content creators details.

Gretzel and Yoo (2008) also explored the influence of reviewer characteristics on perceived credibility. Ten dimensions were found to have impact on the perceived credibility of the reviewer, with travel experience being the most influential (75.3%) and similar geographic residential location (23.6%) at the lower end of the scale (Table 5.4), contradicting the findings of Forman *et al* (2008).

Characteristic	Influence on Perceived Credibility of Reviewer (%)
Has a lot of travel experience	75.3
Similar activities during trips	65.9
Travelled for a similar trip purpose	60.0
Writes in a polite manner	58.5
Similar age, gender or marital status	48.7
Like based on writing and/or photos	47.8
Lives at destination	45.3
Received high ratings	44.4
Appears to be a nice person	36.2
Similar in terms of residence	23.6

Table 5.4: Influence of Reviewer Characteristics on Perceived Credibility (Gretzel and Yoo, 2008)

Some of the identified perceived credibility correlates are easily identifiable for example, age, gender, marital status, and received high ratings. Others are subjective perceptions and evaluations of the narrative, for example writes in a polite manner, and liked based on writing and photos. The results of Gretzel and Yoo's (2008) exploratory research suggested that emotions and expressions are pertinent to the evaluation and construction of a particular CGC narrative. Returning to narrative

processing theory (Shank, 1990; Shank and Abelson, 1995), the idea that consumers are creating CGC and reliving their consumption experiences assumes that a story is being told. The subjective dimensions of the review narrative, along with the characteristics of the content creator, allow the consumer to be transported into the consumption experience and relate to their own personal feelings of the experience.

The findings of Gretzel and Yoo's (2008) study suggested that online social content narrative and the creator cannot be separated during credibility evaluation. However, the findings of Smith, Menon and Sivakumar (2005) contradict this assertion. They found that consumers use the availability of CGC as a decision making heuristic, irrespective of the content creators identity disclosure. The results of the study found that shopping motivation, hedonic or utilitarian, moderated the credibility of content creators (Smith, Menon and Sivakumar, 2005). During their meta-analysis paper Cheung and Thadani (2010) synthesised the key constructs in determining creator credibility (Table 5.5).

Theoretical Construct	Definition	Studies
Source Credibility - Expertise - Trustworthiness	Message source's perceived ability (Expertise) or motivation to provide accurate and truthful information (Trustworthiness) (Kelman and Hovland, 1953)	Cheung, Luo, Sia and Chen, 2009; Hu, Liu and Zhang, 2008; Smith, Menon and Sivakumar, 2005; Zhang and Watts, 2008
Attractiveness - Similarity - Familiarity - Likability	Attractiveness: encompasses similarity, familiarity and likability and reflects the extent to which the receiver identifies with the creator. Similarity: Resemblance between the creator and the source	Kiecker and Cowles (2001)

	Familiarity: The knowledge of the source through exposure or past association whereby a level of comfort with the source is established for the receiver	
	Likeability: Affection for the source as a result of physical appearance, behaviour or other personal traits	
Disclosure of Identity	The disclosure of identity to others	Forman et al, 2008; Hu, Liu and Zhang, 2008
Rapport	Bond with an individual arising from shared preferences, tastes and lifestyles	Smith, Menon and Sivakumar (2005)
Shared Geographical Location	Members of the online community who are from the same geographic location	Forman et al, 2008
Social Tie	The level of intensity of a social relationship between two individuals (Steffes and Burgee, 2009)	Steffes and Burgee, 2009; Chu and Kim, 2011
Homophily	The degree to which pairs of individuals are similar in age, gender, education, and social status (Steffes and Burgee, 2009)	Steffes and Burgee, 2009; Chu and Kim, 2011

Table 5.5: Studies Content Creators (Adapted from Cheung and Thadani, 2010)

Credibility is the most frequently investigated factor associated with the content creator (Cheung and Thadani, 2010), where expertise and trustworthiness were seen to be the key credibility dimensions (Hu, Liu and Zhang, 2008; Sussman and Siegal, 2003). Hu, Liu and Zhang (2008) find that reviewer exposure (high and low) affects consumer behaviour differently; in that consumers will act differently when positive or negative news is given from a high exposer reviewer to a low exposure reviewer.

Although they failed to review the reviewer exposure rates, Forman, Ghose and Wiesenfeld (2008) explored the effect of identity-descriptive information about product reviewers on purchasing behaviour from the eTailer Amazon. The results of the study found that identity-descriptive information can predict online product sales, with consumers rating the reviews containing identity-descriptive information more positively. The cue of geographical location was found to be a major determinant of product sales, with shared geographical location increasing the influence of the review. This finding may be explained through the work of Hofstede's (2001) cultural dimensions.

In a similar vein, Steffes and Burgee (2009) explored the effect of social tie and homophily on use of information obtained from the RateMyProfessor.com online forum. The results of the study refute the claim that strong tied information sources are more influential as weak tied sources. Steffes and Burgee (2009) found that in certain situations weak tied information sources are more influential than strong tied sources. Moreover the findings demonstrate that the respondents use homophilic sources more frequently than heterophilic sources to aid in decision processes. This suggested that the lifestyle, age and gender impact upon the credibility of a source, where those sources with higher homophily are viewed as more credible. Homophily may also explain the high proportion of online consumers using CGC during a purchase decision, as other consumers would be viewed as homophilic and BGC or EGC as heterophilic sources.

5.2.3 Online Social Content Source

It has been argued that the attributes of an information source have a powerful effect on the way consumers respond to messages (Hass, 1981; Mackie *et al*, 1990). In the

study of Steffes and Burgee (2009), homophilic and heterophilic sources were identified where those sources deemed as expert were regarded as heterophilic over friends and online forums as homophilic. Thus, both BGC and EGC could be regarded as heterophilic information sources, which will not be as widely utilised or perceived as credible as homophilic CGC sources during a purchase decision.

The impact of source on credibility perception and purchase intention is not currently widely researched. In the studies conducted, the impact of source choice on purchase or recommendation intention is unproven (for example, Bickart and Schindler, 2001; Lee and Youn, 2009). Bickart and Schindler (2001) found that purchase interest from consumers who gathered information from CGC sources was higher than those who used marketer [BGC] sources. However, Lee and Youn (2009) found that consumers would be less likely to recommend a product when the review was posted on a personal blog compared to a review posted on an independent review site or brand website. This would disconfirm the assertion that homophilic sources are widely sought and credible. However the lack of influence of personal blogs may be explained by site reputation.

Park and Lee (2009) found that the effect of CGC is greater for those websites with a strong reputation than those without. In the case of Lee and Youn (2009), personal blogs would not be as reputable as a large independent review site or brand website. The nature of source credibility, then is not solely perceived from the level of homophily but also from reputation or previous experience of the site. Karakaya and Barnes (2010) included a variation of social media types in their study which explored the credibility of social media. The study found that socially based

customer opinions impact consumer engagement and consumer choice during a purchase decision. Sites found through search engines, such as, company based sites and government information sites were not seen to be influential, thus, refuting the claim that website reputation is an indicator of credibility.

In another study, Guido *et al* (2010) found that credibility is attributed to the cognitive and motivational processes of the consumer. The findings of the study suggested that consumers only use the source of information they are familiar with. Other research looking at consumer search strategies (for example, Thatcher, 2006, 2008), online search learning strategies (for example, Bhanagar and Ghose, 2004) and cognitive processing ability with large volumes of content (Habul and Murray, 2003) had also argued that source use is self-reinforcing (March and Simon, 1968). These findings suggest that consumers will only use familiar sources of information in a particular information search. Subsequently, this may reduce the impact of newer types of social content sources, such as, social networking and media sharing sites during active search as they may not be regarded as a source of product information. As such, consumer review sites, which knowingly contain product and service evaluations may be repeatedly utilised during search as they contain large numbers of consumption experiences (Hennig-Thurau *et al,* 2004).

5.3   Chapter Summary

The review of online social content evaluation has provided evidence that online social content is a rich information source where consumers can obtain a mixture of evaluative cues. Moreover, issues with information quality place an extra burden on the consumer to not only search for online social content but evaluate its credibility

with variable cues and credibility concerns. The literature proposes that the content, content creator, and source characteristics are used to evaluate the credibility of online social content (Wathen and Brukell, 2002). Content characteristics were said to be attributed to normative content and informational content characteristics (Cheung *et al, 2009*). Previously studied normative content characteristics were found to be timeliness, accuracy, length, social presence, and rating. Where the informational content characteristics previously studied included relevance, comprehensiveness, attribute value versus simple value messages, sidedness, valance, framing and argument strength. The content creator characteristics included identity disclosure, geographic location, reason for travel, lifestyle and expertise. Finally, the source characteristics previously studies included source type, source reputation, and source platform.

Additionally, Hovland (1948) proposed that the consumer's personal characteristics would moderate the evaluative process and credibility perceptions. This was supported in the other studies where the consumer's shopping goals, persuasion to interpersonal influence, the tie strength of the recommendation, the consumer's relative level of trust in others, involvement, prior experience, expertise, scepticism, prior beliefs, cognitive personalisation, risk and demographic traits were all found to moderate online social content evaluation and credibility perceptions. The outcome of credibility evaluation was believed to be awareness, perceived usefulness, perceived helpfulness, and trust in the information. The findings were illustrative of previous studies on traditional information search, online information search and within social media research. As such, they are believed to form the basis of the theoretical model to be tested in this study. The next chapter explores the gaps in the

research, outlines the development of the theoretical model and any considerations to be made in testing the model.

Chapter VI   Theoretical Framework and Context Selection

The review of literature regarding consumer information search, online evaluation and credibility assessment has provided a strong theoretical background from which this study can be developed. Exploring traditional information search and information sources and moving on to online search. As well as the new sources of online information - online social content and the evaluation and credibility of online social content - the review highlighted why the consumer is motivated to search for information during a purchase decision, and how they consume and evaluate information. In a bid to frame the proposed research, this chapter seeks to introduce the emergent knowledge gaps in online social content research to add value to existing knowledge in the area. The chapter will then begin to develop the theoretical model to be tested within this study. Considerations will be given to selecting an appropriate purchase decision context for the proposed research and the literature in that area will be reviewed.

6.1   Research Focus

The review of literature has introduced theories and concepts from many literature streams including marketing practice, consumer behaviour, psychology, information science and services. The extensive review has highlighted definitional and interlinking conceptual issues, a lack of integration with the founding concepts of traditional information search theory, inconsistent results and several knowledge gaps in social media research. The increasing attention attributed to social media in

practitioner and industry areas suggest that further focused and methodologically driven research is required in the area. A summary of the importance of the reviewed literature on the study, the findings of the literature review, and the emergent knowledge gaps will now be discussed to ensure the research contributes to the online social content field:

Chapter II introduced the key models of traditional information search (for example, Bettman, 1979; Ellis, 1989; Engel, Blackwell and Kollat, 1978; Kuhlthau, 1991; Ratchford, 1982), the modes of search and the determinants of search (for example, Alba and Hutchinson, 1987; Laurent and Kapferer, 1985; Nelson 1984; Stigler, 1961). While the focus of this research is within an online context, it was important to theoretically ground the research within theories of traditional information search to explore why consumers search for information and how they consume information during a purchase decision. The literature within this area was dated, however, was well developed and demonstrated that there is a need to understand how consumers search and evaluate information during a purchase decision. However, several criticism of such studies have emerged, in that it has not been unequivocally proven that consumers undertake a significant level of information search during a purchase decision (for example, Kassarjian, 1978). The review suggested that every consumer and each purchase decision (even within the same product category) might differ in terms of information search and information evaluation. While the theories and models in this literature are dated there are generalisations that can be applied to this research - that the consumers' personal characteristics will impact on the role of search and information evaluation. The review suggested that the mode of search, consumers prior product knowledge, level

of involvement in the purchase decision, the perceived risk inherent in the purchase and the cost of search will impact on the breadth, depth of search and the consumers information processing capacity. Such variables should be considered for exploration in this study. One major criticism of the research is that it does not explore the role and effect of the information system during search. While traditional search was predominantly offline the internet has changed the consumer search process, the impact of this IR system requires further exploration.

Chapter III introduced the sources of consumer information, namely consumer dominated, marketer dominated and neutral sources (Cox, 1967). March and Simon (1958) believed that the use of information sources are self-reinforcing. However, the most influential of those sources was believed to be consumer sources (for example, Goldsmith and Horowitz, 2006; Katz and Lazarsfeld, 1955). This reflection suggested that exploring the nuances between the different types of information source producers is necessary to understand the influence of online social content during a purchase decision. The review then changed focus to explore online information search and those new sources of information and their impact on consumer decision making behaviour. While many of the traditional information search theories and concepts were applied to online information search, it was argued that borrowing elements from traditional marketing theory are not adequate to study online consumer behaviour (Biswas, 2004). A new characteristics of internet experience was found to moderate online search (Holscher and Strube, 2000) and perceptions of trust were believed to be a new stage in the decision making process (Lee, 2002; Suh and Han, 2002). Studies within online information search predominantly focused on online intention to purchase and how consumer feedback

mechanisms can influence consumer purchase intention. The influence of consumer feedback was believed to be attributed to the volume and valance of consumer reviews (for example, Chatterjee, 2001; Chen and Xie, 2004; Dellarocas, 2003; Lee *et al,* 2008). However, much of this research failed to significantly explore the moderating effect of the consumer's personal characteristics on purchase intention. Moreover, a knowledge gap emerged in understanding how the consumer processes/evaluates the information contained within feedback mechanisms or the significance of newer forms of online social content on purchase intentions.

Chapter IV explored the technological advances supporting the creation of online social content, the changes in mindsets in sharing opinions, thoughts and feelings online, and the new technologically savvy consumer. It was believed that the new connected consumer differs in their attitude and ability to interact and learn with online sources of information. The 'expertise' dimension of older online purchase intention studies reviewed in Chapter III (for example, Holscher and Strube, 2000; Thatcher, 2006, 2008) were scrutinised, as many consumers are now proficient in using online sources and evaluating such sources even with limited social cues to do so. The different types of social media platforms were introduced to understand the different types of online social content available during a purchase decision and the different types of information producers. The literature mostly concerned CGC within an online review and blog focus. However, practitioner based research suggested 'social search' within other types of social media platforms was increasing. A knowledge gap in understanding which types of social media platforms are used during a purchase decision emerged. Furthermore, the moderation of the consumer's personal characteristics on online social content search

emerged as another important research area. The studies also suggested that online social content is of variable quality, from which the consumer must make judgement decisions on quality and credibility. While it was acknowledged that online social content is influential during a purchase decision, understanding how consumers evaluate online social content and what cues are used to assess online social content credibility emerged as an important gap in current knowledge.

Chapter V explored the rich evaluative cues present in a computer mediated environment to assist consumers in evaluating online social content. It was suggested that social presence and media richness influence the use of particular information sources and that they can aid in evaluating online information. The determinants of online information credibility were explored and what cues are used to evaluate credibility of online social content were also examined. It was suggested that content, content creator and source characteristics are used in combination to evaluate the credibility of online social content. The consumer's personal characteristics were believed to moderate the cues used and the perceptions of credibility. The research in this area was fragmented and provided inconclusive results and the research paid little attention to understanding if the connected consumer segment impacted on search and information evaluation. Moreover, no study had research the effects of all four variables on online social content evaluation in the one study. While it is understood that online social content, particularly consumer reviews, influence and can accurately predict sales (for example, Forman, Ghose and Wiesenfeld, 2008), there is no universal understanding of the online social content attributes that affect the credibility or level of influence of the message within the content. The key gap in current knowledge is a clear understanding of the

cues used to evaluate online social content credibility, and the relative importance of such cues on credibility perceptions.

The review of literature suggests that online social content studies are a growing body of literature. However, many studies are exploratory in nature and do not significantly highlight how the influence of online social content is determined. This study argues that the influence of online social content can be determined by the consumer's perception of information credibility. This assertion is supported by Wathen and Brukell (2002), whereby they advise consumers will only act on information they perceive to be credible. The gaps in the literature suggest the research focus should explore how the newer connected consumer segment evaluates online social content credibility. By doing so the research should examine what social media platforms are used during a purchase decision, while previous studies have predominantly focused on online consumer reviews this study recognises that there are more varied sources of online social content, the study will explore which types of content are used during a purchase decision. The study will further explore what content, content creator and source characteristics are used to evaluate the credibility of online social content. The relative importance of the cues used to evaluate online social content credibility should be explored to gain a deeper insight into the relative influence of individual online social content posts. Moreover, the effect of the consumer's personal characteristics on credibility perceptions. The resultant knowledge gained from such a study will not only be beneficial to academic thinking but also to the wider industry in terms of social media strategy development. The proposed research agenda is as follows:

6.1.1　Research Objectives

The principal aim of this research is to explore how consumers evaluate the credibility of the information obtained from online social content. In particular the objectives of the research are:

1. To identify the types of online media used to gather product related information during an active information search

2. To explore the factors considered by the consumer during information evaluation

3. To determine the relative importance of each of the factors considered during decision making

4. To investigate the interrelationships between the factors considered during decision making

5. To understand the factors which influence the credibility of online social content

The principal aims and objectives of the research attempt to fill the gaps within the literature through exploring how consumers evaluate online social content credibility and the relative importance of the cues used. The key social media sources used during a purchase decision will also be explored and the effect of the consumers' personal characteristics on search and evaluation will be analysed.

6.2　Theory Development

According to theory development experts (for example, Dubin, 1978), a complete theory must contain several essential elements. A theory can be defined as: 'a set of interrelated constructs (variables), definitions, and propositions that presents a

systematic view of phenomena by specifying relations among variables, with the purpose of explaining natural phenomena' (Kerlinger, 1979: 11). The first essential element includes the 'what'. What factors, variables, constructs and concepts should be considered as part of the explanation of the social or individual phenomenon of interest (Whetten, 1989)? It is believed that two criteria exist for judging the extent to which factors are the right factors to include. The first, comprehensiveness, is the idea that all relevant factors are included; and the second, parsimony, suggested that some factors be deleted because they add little additional value to understanding.

The next stage proposed by Whetten (1989), is the 'how'. How are the factors related? (Creswell, 2003). The third consideration is the 'why'? In particular, to identify the underlying psychological, economic or social dynamics that justify the selection. Labovitz and Hagedorn (1971: 17) believed this to be the theoretical rationale, defined as: 'specifying how and why the variables and rationale statements are interrelated'. The authors further argued that a theory will explain why independent variables influence or affect the dependent variable(s). The final three elements proposed by Whetten (1989) are the, 'who', 'where', and 'when'. Whetten (1989) argued that such elements place limitations on the propositions generated by the theoretical model. Who, where and when elements constituted the range of the theory setting the boundaries of generalisability.

Cresswell (2003) included one extra consideration - whether the model is developed qualitatively or quantitatively. Quantitative models differed considerably in terms of the language and focus of relating or comparing variables or constructs. This study will follow a quantitative approach. The first consideration must be the

distinguishing characteristics of the variables under study: their temporal order and their measurement. Temporal order means that one variable precedes another in time (Creswell, 2003); due to this time ordering, it is believed that one variable affects or causes another variable (Creswell, 2003). In this vein, Creswell (2003) defined independent variables as variables that probably cause, influence or affect outcomes. Those dependent variables are the outcomes or results of the influence of the independent variables (Cresswell, 2003). Standing between the independent and dependent variables are intervening or mediating variables (Creswell, 2003), which mediate the effects of the independent variable on the dependent variable.

In order to develop the theoretical model to be tested in this study it is first necessary to clarify the variables that affect the evaluation of online social content. While re-exploring the variables that affect online social content evaluation, the study will consider the quantitative considerations previously discussed, in order to develop the model in a systematic and measurable way. The remainder of this chapter will explore theory development in relation to the proposed research, clarify the variables to be tested in the research and propose the theoretical model to be tested.

6.3 Clarification of the Variables Affecting Online Social Content Evaluation

Traditional communications theories argue that the message, source and receiver are major elements that affect a reader's information evaluation (Wathen and Burkell, 2002). Hovland (1948) also added a fourth element, the response, as an important consideration when investigating social communication. Online social content is a new form of communication between a sender and a receiver, and as such, will be bound by the elements of traditional communication theories. Given the computer

mediated and anonymous nature of online social content, it is believed that source should be considered on two levels: the macro level, the social media source and the micro level, the content creator. Furthermore, the aggregative nature of online social content sources suggested that the normative elements provided by the sources should also be considered when clarifying the variables (Cheung and Thadani, 2010; Cheung *et al*, 2009) to be used in this study.

Subsequently, this research will comprise of three independent variables and one mediating variable, with the inclusion of both informative and normative elements within the characteristics of the variables. Following on from the theory development section, the proposed temporal order of variables effecting online social content evaluation will now be given (Table 6.1; pg176).

Temporal Order	Variables
Independent	Content Characteristics
	Content Creator Characteristics
	Source Characteristics
Mediating	Personal Characteristics (Consumer)
Outcome	Attitude Change
	Perceived Usefulness
	Perceived Helpfulness
	Trust in the Information

Table 6.1: Proposed Temporal Order of Variables Affecting Evaluation of Online Social Content

The review of literature has highlighted that the independent variables, content, content creator and source are characterised by a range of criteria or evaluative cues. The mediating variable of the consumer's personal characteristics is comprised by many determinants. In keeping with the outcomes of previous research, the assumed outcomes of credibility perception of an individual online social content post is believed to be attitude change, perceived usefulness, perceived helpfulness and trust

in the information. Appendix 1 clarifies the concepts that have been used in studies of a similar nature and characterises each of the independent variables, the mediating variable of consumers' personal characteristics, providing definitions for each attribute in order to develop the theoretical model for this study.

6.4   Theoretical Model Development

Whetten (1989) argued that all relevant factors should be included aside from those that add little value. It is therefore suggested that an exploratory study is necessary to investigate which evaluative cues, investigated in previous research, are most commonly used by consumers to evaluate the credibility of online social content. It is the intention to develop the theoretical model, inclusive of the emergent evaluative cues, and then conduct an exploratory consumer study to highlight those evaluative cues that add little value. As such, all assumptions, hypotheses and any revisions to the theoretical model will be discussed and argued after the exploratory results.

Following the temporal order of variables and inclusive of the previously tested variables, the resulting model is suggested (Figure 6.1). The independent variables of content, content creator and source should remain static in the next phase of the model; the variables under testing are the cues used to determine credibility of the three independent variables. The impact of the consumer characteristics on the information search and evaluation process is also under review during the exploratory study. It is also necessary to view the outcome of the credibility assessment.

Content Characteristics Normative
Timeliness
Accuracy
Length
Social Presence
Rating

Content Characteristics Informational
Relevance
Comprehensiveness
Attitude Value vs
Simple Value
Sidedness
Valance
Framing
Argument Strength

Content Creator Characteristics
Identity Disclosure
Geographic Location
Reason for Travel
Lifestyle
Expertise

Source Characteristics
Source Type
Source Reputation
Source Platform

Perceived Credibility

Outcome
Awareness
Perceived Usefulness
Perceived Helpfulness
Trust in the Information

Personal Characteristics
Shopping goals
Interpersonal Influence
Tie Strength   Trust
Involvement   Prior Experience
Expertise   Scepticism
Prior Belief
Cognitive Personalisation
Risk   Demographics

Figure 6.1: Initial Theoretical Model of Online Social Content Credibility Evaluation

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6.5   Industry Selection

Bronner and de Hoog (2010) proposed three criteria for product category or industry selection in academic research. In order to find the best purchase decision context for this research, this chapter will follow the selection criteria proposed by Bronner and de Hoog (2010). The first criteria regards the quantity of information available about the purchase decision from social media sources; the second, obtaining information should be important for making the right choice; and finally, the third selection criteria suggests, the best fit purchase decision will have some product features that can only be assessed after buying or consuming the product. Based on these criteria, it is proposed that a tourism purchase is the best industry to investigate. The reasons for selection will now be given.

6.5.1   Quantity of Information Available via Social Media

Bronner and de Hoog (2010) believed that the industry selected should have a substantial amount of information available from the media or sources being investigated. Generally, it is believed that the tourism industry and the internet are inexplicably linked (Werthner and Klein, 1999). Indeed, many argued that the distribution of tourism related information, and the way in which people search and consume travel has been fundamentally changed by the internet (Beldona, 2005; Buhalis, 2003; Buhalis and Law, 2008; Gretzel, Fesenmaier and O'Leary, 2006; Kah, Vogt and McKay, 2006; Mills and Law, 2004; Weber and Roehl, 1999; Xiang, Wober and Fesenmaier, 2008). Essentially, the internet has become one of the most important sources of consumer information search (Law, Qi and Buhalis, 2010; Zins, 2007).

Given the rising importance of the internet on the trip planning process, and the consequential changes in travel consumption, it is already demonstrated that the tourism industry is a good fit for this research. Xiang and Gretzel (2010) further argued that two key trends have significantly impacted upon the tourism system: the rise of social media sites gaining travellers' use of the internet (Gretzel, 2006; Pan *et al,* 2007), and that searching on the internet has become the dominant mode of travellers' use of the internet (Jang, 2004; Xiang and Gretzel, 2010). Exploring social media and tourism further, it is believed that the increasing plethora of tourism related virtual communities, blogs, geo-tagging of videos and photos has increased the link between the internet and the tourism experience (Gretzel, 2006; Gretzel *et al,* 2006; Pan, MacLaurin and Crotts, 2007; Xiang and Gretzel, 2010).

It may be assumed that given the popularity and variety of tourism 'social interactions' available on social media, the tourism industry has a substantial volume of information available via social media. Certainly Xiang and Gretzel (2010) believed that the structure of the tourism domain has changed drastically owing to the appearance of social media as new players in travel and tourism exchange. It could then be argued that the tourism industry is a good fit for the proposed research. Moreover, when the online review culture is explored, the increasing use of tourism reviews and the influential effect of such reviews further indicated tourism, as the ideal industry for selection in this research.

With the number of monthly visits to TripAdvisor alone reaching 200 million ('TripAdvisor Factsheet', 2013), that a 84% of leisure travellelers use the internet as a planning resource (Torres, 2010) and the proposition that online reviews influence over $10 billion a year in online travel purchases (Sacks, 2007), it could be suggested

that more research into the influence of travel reviews is required. The growing body of literature exploring the influence of online travel reviews further suggests that the volume of tourism information available from social media is adequate for the purpose of this research. It is also believed that in addition to the quantity of information criteria proposed by Bronner and de Hogg (2010) that the effects of the information obtained from social media must also have a substantial effect on consumer behaviour.

It has been demonstrated that social media, with particular focus on online reviews, has a significant impact on consumer behaviour, from search to purchase. The studies exploring the influence of online reviews on purchase behaviour demonstrate the growing influence of online social content, particularly CGC, on consumer behaviour. For example, Cox *et al* (2009) found that 46% of those surveyed had visited some form of CGC site during trip planning, where 51% would make a final purchase decision due to the influence of CGC. However in 2010 WTM, found that 58% of those who had consulted reviews change at least one trip component. Although the legitimacy and credibility of reviews differs 75% of consumers' believe that the majority of reviews are 'mostly genuine' (Travelmole, 2012). These findings suggested that the effects of social media on purchase intention are becoming more significant over time and exposure to such sources which further indicated that tourism is a good industry for selection in this research.

It may be argued that the need for CGC sources during trip planning explains the large volume of social interactions, and the subjectively based content found within online reviews explains the influence on purchase intention. Incidentally, the selection criteria proposed by Bronner and de Hogg (2010) suggested that

information should also be important for making the right choice. The importance of information on trip selection will now be explored.

6.5.2   Information is Important for Making the Right Choice

The second selection criteria proposed by Bronner and de Hoog (2010) regarded the proposition that obtaining information should be important for making the right choice. It is suggested that there should be substantial consumer involvement and that making the wrong decision will result in some type of negative experience (Bronner and de Hogg, 2010).

In traditional information search literature it is widely accepted that the more important, uncertain or risky a consumer perceives a purchase decision, the corresponding information search will expand and deepen to reduce such uncertainties in order to make a decision with some level of confidence (Bettman, 1979; Chaudhuri, 2000; Murray, 1991; Roselius, 1971). Tourism products are one such purchase where information search is regarded as extensive. Inversini, Marchiori, Dedekind and Cantoni (2010) and Poon (1993) argued that in few other the industries generating, gathering, processing, application and communication of information are as important for the travel and tourism industry. Accordingly the tourism industry is characterised as information intensive (Buhalis, 2003; Gretzel *et al*, 2000; Sheldon, 1997; Werthner and Klein, 1999) and highly fragmented (Gunn, 1994).

As tourism is an amalgamation of products and services (Gunn, 1972; Zeithaml, 1981) and can only be viewed as information at the point of purchase (WTO Business Council, 1999), the need for search is high. Beldona (2003) additionally

demonstrated four phases of trip planning, the first, early, middle and the late. Each phase is said to be characterised by a particular mindset where specific types of information are obtained. While Beldona (2003) argued that consumers usually follow functional (core), affective, innovative and functional (en-route) mindsets, the model does not cope with the nuances of consumer decision making. Nevertheless, it is clear that information search plays an important role in trip planning.

Online social content is seen to play a special role in reducing purchase uncertainty through vivid information based on subjective experiences, and in the case of CGC, by unbiased parties. Indeed the results of Gretzel and Yoo's (2008) study highlighted the consumer reviews are one of the most important sources during the tourism decision-making process. In a later study Yoo and Gretzel (2011) suggested that consumer reviews could provide information with access beyond the boundaries of the consumers' usual social circle, making CGC more attractive. More recent research also demonstrates the importance of consumer reviews in the pre-purchase decision-making phase. In a literature review of social media in tourism and hospitality Leung *et al* (2013) discuss the growing body of literature on social media and pre-purchase information search and highlight the importance of consumer reviews in this stage of the decision-making process. Similarly, Fotis *et al* (2011) demonstrate that consumer reviews are an important information source in trip planning.

Moreover, the information intensive tag attributed to tourism suggests that involvement with this product category will be high. Decrop and Snelders (2005) also added when purchased as a vacation, tourism can be regarded as a high

emotional purchase, thus increasing involvement and information search. As nearly half of consumers (Cox *et al*, 2008) are said to have used online social content during trip planning, trip planning precedence is increasingly following a social media route. For this reason, tourism can be regarded as a good purchase decision context for this research. If the idea of searching for pleasure (Laurent and Kapferer, 1985) is taken into consideration, it is believed that many consumers are actively planning more than one trip at a time (Decrop and Snelders, 2005).

It could be argued that the experiential nature of the tourism product has a significant effect on purchase involvement. While purchase involvement is important in the context of choosing an industry for this research, a variation in the level of involvement is also necessary in order to better understand the complexities of consumer purchase behaviour. In creating tourist typologies, Decrop and Snelders (2005) demonstrated that a consumer's level of involvement and, furthermore, risk adversity varies widely between the emergent consumer segments. (The results of this study suggest that while tourism is information intensive, some consumer segments are not risk adverse (Delcrop and Snelders, 2005). It could then be argued that tourism is a good purchase decision context as, theoretically, involvement should be high. However, the evident variation in involvement level of tourism decision could provide more interesting results. Although the level of involvement may be partly explained by prior product knowledge (Alba and Hutchinson, 1987), the nature of the tourism product also explains why extended information search is required; and, moreover, why there is an increasing trend in using online social content to reduce purchase uncertainty. The intangibility of the tourism offering is said to be a

driver for increased search and peer to peer recommendations, and follows the third selection criteria posed by Bronner and de Hoog (2010).

6.5.3 Some Product Features can only be Assessed Post Consumption

The final consideration in choosing the most appropriate research industry proposed by Bronner and de Hoog (2010) concerns the intangibility of the product category. It is suggested that in a purchase decision context, online social content will matter more when information about a product and its features cannot be obtained before the purchase decision. As tourism can generally be understood as an experience (Inversini *et al,* 2010), or an amalgamation of services and experiences, which by their nature are difficult to assess prior to purchase (Zeithaml, 1981), a tourism purchase context again meets the required criteria for selection in this study.

Nelson's (1970) classification of goods theory explained that tourism purchases can be more easily evaluated after consumption. Senecal and Nantel (2004) further argued that consumers' information source choices will relate to the type of product or service under consideration. Experience goods, of which tourism services directly fall (Bei, Chen and Widdows, 2004), will require increased search. Burgess *et al* (2009) attributed tourism to hedonic purchases, which by their definition are experiential in nature. It is argued that in experience goods categories a consumer will often rely heavily on product recommendations from others (Litvin *et al,* 2008). Nevertheless Bronner and Hoog (2010) suggested that trips are a mixture of service like features and product like features about which sub-decisions must be taken.

The idea is that some trip elements will require more information search than others. Moving from criteria two to criteria three, high involvement processing (Petty and

Cacioppo, 1981) and extended information search (Murray, 1991) are required when the intangibility of the trip elements are high. In the same vein, Litvin, Goldsmith and Pan (2008) suggested that those products with high intangibility characteristics are difficult to evaluate before consumption and rely heavily on eWOM, in which online social content is based.

Furthermore, Harrison-Walker (2001) believed that when it is difficult to assess a product or service, consumers depend more on WOM. This may account for variation in search for particular trip elements, as noted by the WTM report (2010). Similarly, Huang *et al* (2007: 302) stated: 'the intangible and heterogeneous nature of services increased perceived risks and makes consumer more likely to seek WOM information'. Bronner and Hoog (2010) proposed that consumers will use CGC more frequently for experience centred sub decisions and BGC more frequently for search centred sub decisions. Their results suggest that the roles of CGC and BGC are complementary.

However, Jeong and Jang (2011) explored the importance of reviews in restaurants and argued that reviews are important in experience goods categories because they provide a measurement of quality as perceived by other customers. Papathanassis and Knolle (2011) added that consumers perceive CGC as evaluating the strengths and weaknesses of the product, overriding the seller's communication, which tends to disguise negative aspects. The nature of the tourism product suggests that it is hard to evaluate the product before purchase and more importantly, that online social content is widely used to reduce purchase uncertainty resultant from a highly intangible industry.

Following Bronner and de Hoog's (2010) selection criteria, with the edition of the effects of online social content on consumer behaviour within the industry, this review demonstrates that a tourism purchase context is a good focus of research for this study. Not only are there significant changes in consumer behaviour but the industry is characterised as information intensive, highly intangible and fragmented, and has a high available volume of online social content. The intention of this chapter is now to review the tourism literature pertinent to online social content evaluation and to build a picture of the idiosyncrasies in tourism research that are relevant to this study.

6.6   Online Social Content Research in Tourism

In building a picture of the best industry to select for this research, it was illustrated that tourism purchase decisions are increasingly influenced by online social content (WTM, 2010). While the focus of research has predominantly been on the effects of CGC, BGC and EGC may also play an important role through the concepts of vivid information and opinion leadership (Dellarocas, 2003) or e-fluentials (Sun *et al,* 2006). It is noted that the lack of previous research on BGC and EGC are limitations on this study, and the use of such sources must first be explored before committing such concepts to this research. It is the intention to complete an exploratory study to better understand the use of social media in a tourism purchase decision but first this section will explore the current streams of tourism research within a online social content focus.

Literature pertaining Web 2.0, social media and online social content in tourism has followed several streams. The first of which concerns the socio-psychological

aspects of social media use; the use of travel related virtual communities (Kim, Lee and Hiemstra, 2004; Wang and Fesenmaier, 2003; Wang, Yu and Fesenmaier, 2002), the motivation to post online reviews (Gretzel and Yoo, 2008; Kang; and Schuett, 2013), the motivations to participate in branded travel communities (Casalo, Flavian and Guinaliu, 2010). The second is the role of social media in travel information search; the impact of social media on various elements of trip purchasing decisions (for example, Cox *et al,* 2008; Browning *et al,* 2013; Hudson and Thal, 2013; Jeong and Jang, 2011; Leung *et al,* 2013; Papathanassis and Knolle, 2011; Tham *et al,* 2013; Vermeulen and Seegers, 2009, consumer versus marketer generated sources (Bronner and de Hoog, 2010) and the likelihood to be exposed to online social content during tourism information search (Xiang and Gretzel, 2010). The new functions facilitated by Web 2.0 have also been researched (Schmallegger and Carson, 2008) as well as social media as a tourism marketing tool (Chan *et al,* 2011; Huang, 2011; Inversini *et al,* 2011; Leung *et al,* 2013; Munar,2010).

One of the most prominent themes of social media research in tourism has been consumer blogs (Pan, *et al*, 2007; Pudliner, 2007; Puhringer and Taylor, 2008). The research aimed to better understand the functions of blogs in creating and sharing new experiences (Pudliner, 2007), the perceived trustworthiness (Akehurst, 2009) and use for market intelligence or expert blogs exchanging industry trends, market research and data (Lew, 2007). In a similar vein, consumer reviews have emerged as another important research stream in the tourism literature, focusing on the use and impact on travel decision making (for example, Browning *et al,* 2013; Gretzel and Yoo, 2008; Vermeulen and Seegers, 2009).

While much of the work has been descriptive or exploratory, mainly focusing on the impact of sales (for instance, Cox *et al,* 2008), more recently some research has begun to explore which social media platforms are used during a tourism purchase decision (Fotis *et al*, 2011; Leung *et al,* 2013), the characteristics of online consumer reviews (for instance, Papathanassis and Knolle, 2011) and what consumers' look for in the content of consumer reviews (for example, Browning *et al,* 2013).

Viewing the wider decision-making stages, the work of Leung *et al* (2013) provided a comprehensive literature review of the use of social media on the pre-purchase, during and post-purchase stages of the trip planning process and tourism marketers strategies to influence consumers at all stages. The review highlighted the relationship between CGC and the trip decision-making stage. The findings of the studies reviewed appeared to be consistent and suggest that consumer reviews play a strong role in the pre-purchase stage (Browning *et al,* 2013; Murphy *et al,* 2007) but other forms of new pervasive social media are used during and after the trip (for example, Cox *et al,* 2009; Fotis *et al,* 2011; Yoo and Gretzel, 2010, 2011). However the studies find conflicting results on how social media can influence various trip elements (for example, Fotis *et al,* 2011). For instance, inconclusive results have been found in relation to the role of social media in destination choice at the macro destination level (Fotis *et al,* 2011; Jacobsen and Munar, 2012; Park and Oh, 2012). Further investigation is required to explore which social media sources and trip elements require a social content search to make an informed trip purchase decision.

The growing importance of social media in trip purchasing is also represented in the work of Wilson *et al* (2012) who found that consumers of different nationalities relived their trips on various types of social media platforms. Consumers' from the

UK and Switzerland were more likely to post on Facebook or other social media platforms to share with friends, whereas Spanish consumers' were found to post to review sites like TripAdvisor for general traveller consumption. This research suggested that depending upon the consumers' motivation to relive their trip experiences online (for example, Kang and Schuett, 2013; Yoo and Gretzel, 2011) and their demographic characteristics (Wilson *et al,* 2012) will impact upon which social media platform the content is published. While research has explored social media in the pre-purchase stage of the trip planning process (for example, Fotis *et al,* 2011) more work should be undertaken to better understand the role of different social media platforms in an active purchase decision, not the role of passive surfing on acting as a catalyst for need recognition (Engel *et al,* 1978).

The research demonstrates the growing importance of social media in the trip planning process. As this research explores the role of social media in the pre-purchase stage, past research suggests that consumer reviews will form the main focus of a consumers' information search (Browning *et al,* 2013; Murphy *et al,* 2007). However there is also a growing emphasis on the influence of other forms of social media to generate awareness and impact purchase behaviours (for example, Wilson *et al,* 2012) due to consumer motivations to share their trip experiences (Kang and Schuett, 2013; Pan *et al,* 2007; Para-Lopez *et al,* 2011; Yoo and Gretzel, 2011) and resulting in a degree of 'connected' behaviours. In recent literature it has been argued that the behaviours of the connected consumer segment are still largely unknown (Hardy, 2011; O'Brien and Reilly; 2012; Taylor, 2012). The theories of connected consumers and their affinity to technology suggest that it is such consumers who will be using more varied examples of social media during a

purchase decision (Powers *et al,* 2012). The behaviours of the connected consumer segment in relation to trip planning require further investigation as they are likely to be the prevalent consumer segment in future generations (Hardy, 2011; O'Brien and Reilly, 2012; Taylor, 2012).

The studies on use of social media during a trip purchase decision suggested that consumer reviews remain to have a strong association with pre-purchase search (for example, Leung *et al,* 2013) although other forms of social content exist. The literature exploring consumer reviews have suggested that the majority of online reviews are positive (Bronner and de Hoog, 2010; Pan, MacLaurin and Crotts, 2007). In an attempt to better understand the motivations to post positive online reviews, Jeong and Jang (2011) explored the triggers of positive CGC in restaurant consumption experiences. The findings of the study suggest that the restaurant's food quality, satisfactory restaurant experiences with service employees, a superior atmosphere and price fairness motivated consumers to post online reviews. These findings highlight the objective and balanced nature of motivations to post positive reviews; this is an important consideration of this research because it highlights that online social content may be objective in nature, although the service experience in experiential.

Similarly, within an accommodation focus, Stringham and Gerdes (2010) found that consumers seek information regarding the hotel service, hotel condition, room cleanliness and room comfort in online hotel reviews. The finding provided insight into the nature of extremely negative reviews, the study found that negative information that is provided with the specific goal to vent frustration or anger has a low influence perception because it is not perceived as constructive by the consumer

(Wetzer *et al,* 2007). Exploring rebuttals to negative reviews, Litvin and Hoffman (2012) found that both management responses and fellow consumer responses to the review could positively influence consumer attitudes toward the hotel. However the findings suggested that consumer rebuttals would have a higher favourable impact than responses by the hotel management, again suggesting that CGC is more influential than BGC (for example, Blackshaw, 2006; Fotis *et al*, 2011; Lee and Youn; 2009; Khim-Yong *et al,* 2013; Sen and Lerman, 2007; Xue and Phelps, 2004). In other research exploring the content of online reviews, Browning *et al* (2013) studied the influence of online reviews on quality and control for service standards in hotels. The results suggested that if reviews discuss core services they are more likely to induce positive service quality attributions. This research started to build a picture of the characteristics of tourism based online social content, and what consumers are attempting to obtain from online social content. It is widely accepted that there may be an issue of credibility or trustworthiness in the information obtained from online social content. Certainly, Allen (2012) and Bray and Schetzina (2006) reported about fake content posted by tour operators and Litvin *et al* (2008), have reported concerns that only people who post very positive or very negative views, tend to post comments. However it is believed that consumers can evaluate online content and those well-reasoned, logical and persuasive reviews positively influence purchase behaviour (Park *et al*, 2007). Recently researchers at Cornell University have developed software algorithms that can accurately predict fake reviews (Ott *et al,* 2011), this further suggested that there are unique evaluative characteristics of reviews and that research should explore and highlight these factors.

The exploratory work of Gretzel and Yoo (2008) noted the cues used to determine the credibility of online hotel reviews. Given the exploratory nature of the study, it is not as theoretically sound as those reviewed in Chapter V. However, the study draws interesting cues not widely studied in other online social content credibility research, such as spelling and grammar, overall emotional tone, and relevancy to me. It could be suggested that from previous experiences consumers use a set of evaluation heuristics when using online social content as an information source. In exploring the adoption and processing of online holiday reviews, Papathanassis and Knolle (2011) suggested that consumers use a set of four evaluation heuristics. Perceived realism, perceived neutrality, negative bias and perceived factuality were argued to be part of the content heuristic evaluation. Such evaluative cues explore the volume of positive versus negative reviews, to those balanced, and the groupings of such reviews affect the influence of online reviews.

The work of Sparks and Browning (2011) not only explored the valance of the review but the target of the review, if it was core or interpersonal. As well as the framing of the review, if positive or negative information is provided first; and the addition of a consumer generated numerical rating, in exploring online purchase intention and trust perceptions. The study found that consumers are more reliant on easy to process information when evaluating hotels based on online reviews. This may suggest that complex reviews or longer reviews will not be as influential as those stating the basics.

Moreover, the study finds that early negative information is more influential when there is a grouping of negative reviews (Sparks and Browning, 2011). Positive reviews are more influential with the addition of a consumer generated numerical

rating. The results suggest that consumers will use extra cues provided by individual sites to determine the credibility of the review and this, marked with review content, will determine influence (Sparks and Browning, 2011). However this study neglects to view the effect of reviewer characteristics on the influence of the message.

The conceptual underpinnings of Vermeulen and Seegers's (2009) study included that of reviewer expertise. The results found that reviewer expertise only has a minor positive impact on review influence. The findings demonstrated that the valance and hotel familiarity were better determinants of influence. The study found that for lesser known hotels, positive reviews enhanced a consumer's attitude towards a hotel. In both cases, positive and negative reviews, enhanced consideration in consumers, mainly from an awareness perspective.

6.7   Summary

This chapter has introduced the wider theoretical model to be tested within this research. While the variables are too many to be effectively operationalised in this study, and the relative value of the variables are essentially unknown because of conflicting results of previous studies, it is proposed that an exploratory research element be undertaken to highlight the variables of value. Indeed, Whetten's (1989) comprehensiveness and parsimony argument suggests that this is a valuable step in the research process when vast variables of unknown value appear to be pertinent to the study. To further insure validity of the results, it was proposed that the research focus on one purchase decision context. The chapter has demonstrated that a tourism purchase decision poses the most significant context for this research, based on: (1) the volume of information available about tourism products via social media, (2) the

significant effects of online social content on consumer behaviour within a tourism purchase decision, (3) that online social content is important for making an informed tourism purchase choice, and (4) that some tourism sub-decisions have very high intangible characteristics, and resultantly require online social content search.

From the review of literature, it is clear that online social content, with particular emphasis on reviews, has a significant impact upon consumer behaviour in tourism. While the current literature is fragmented, and some studies are descriptive in nature, it is the intention of this study to interlink the key theoretical concepts to better understand which online social content characteristics impact consumer behaviour. The body of literature regarding online social content evaluative cues in tourism is growing; however, as with research with a consumer goods focus, no study has explored the effects of the content, reviewer and the source in one study. The next chapter will outline the research methodology adopted within the study.

Chapter VII   Research Methodology

Following on from the previous chapter, which began to establish the theoretical framework of this study, this chapter will set out the methodological considerations of the research. The chapter will explore research philosophies in order to set the philosophical grounding of the research. The chapter also aims to provide context to the development and execution of this study by providing a full discussion and argument for methodological selection, sample size, data and collection methods. Ethical considerations and the limitations of the research will also be discussed.

7.1   Methodology and Study Structure

The following three chapters outline the methodology and the study structure. This chapter explores the methodological considerations in relation to paradigm selection, methods selection, ethics and study limitations.   Chapter VIII introduces the exploratory research findings and then introduces the revised theoretical model to be tested in the main study, which is based on the exploratory findings.   The measurement for the main conjoint study is also outlined in Chapter VII. The final methodological chapter, Chapter IX outlines how the main conjoint study data was prepared and analysed. The complex nature of conjoint based studies and the relationship between the findings of the exploratory study and attributes of the conjoint study increased the complexity of the research methodology and study structure. In order to clearly outline the structure of the research methodology and the stages of the study the following flow chart is given (Figure 7.1).

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┌─────────────────────────────┐
│  Literature Review Guides    │
│  Design of Initial           │
│  Theoretical Model and       │
│  Exploratory Study           │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Methodological              │
│  Considerations –            │
│  Paradigm and Methods        │
│  Selection                   │
│  (CH VII)                    │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Exploratory Research        │
│  Interviews                  │
│  (CH VII)                    │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Exploratory Research        │
│  Findings                    │
│  (CH VIII)                   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Revised Theoretical         │
│  Model                       │
│  (CH VIII)                   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Conjoint Analysis as        │
│  Main Study Instrument       │
│  (CH VII)                    │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Development of              │
│  Conjoint Analysis           │
│  Measurement                 │
│  (CH VIII)                   │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Conjoint Analysis Pilot     │
│  and Conjoint Analysis       │
│  (CH VII)                    │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Conjoint Analysis Data      │
│  Preparation                 │
│  (CH IX)                     │
└─────────────────────────────┘
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Figure 7.1: Study Methodological Process

7.2 Developing Effective Research Designs

It is widely argued that philosophical ideals often influence the practice of research and as such must be identified (for example, Creswell, 2009; Easterby-Smith *et al*, 2004). However, Slife and Williams (1995) argued that philosophical ideas often remain hidden in research. Put simply, a research philosophy can be viewed as the way one thinks about the development of knowledge (Saunders *et al*, 2003). The relationship between data and theory has been debated by philosophers for many centuries (Easterby-Smith *et al*, 2004). Ritchie and Lewis (2003) stressed the importance of researchers, clearly outlining the philosophical basis for: 'claiming to know what we know; the substantive basis for our knowledge claims' (Easton, 1998; 73).

Easterby-Smith *et al* (2004: 27) advised several major points that help to justify the importance of philosophical assumptions in scientific research:

'It can help to clarify research design, this not only involves considering what kind of evidence is required and how it is to be gathered and interpreted, but also how this will provide good answers to the basic questions being investigated in the research to recognize which designs will work and which will not. It should enable the researcher to avoid going up too many blind alleys and should indicate the limitations of particular approaches. Third, knowledge of philosophy can help the research identify, and eve create, designs that may be outside his or her past experience. And it may also suggest how to adapt research designs according to the constraints of different subjective or knowledge structures'.

A comprehensive philosophical framework has been developed by Burrell and Morgan (1979). Examining the nature of science, the researcher must choose a subjective or objective approach to research. These two philosophical approaches are defined by several core assumptions concerning ontology (reality), epistemology (knowledge), human nature (pre-determined or not) and methodology (Bryman, 2004; Burrell and Morgan, 1979; Creswell, 2009; Crotty, 1998; Easterby-Smith *et al*, 2004) (Figure 7.2).
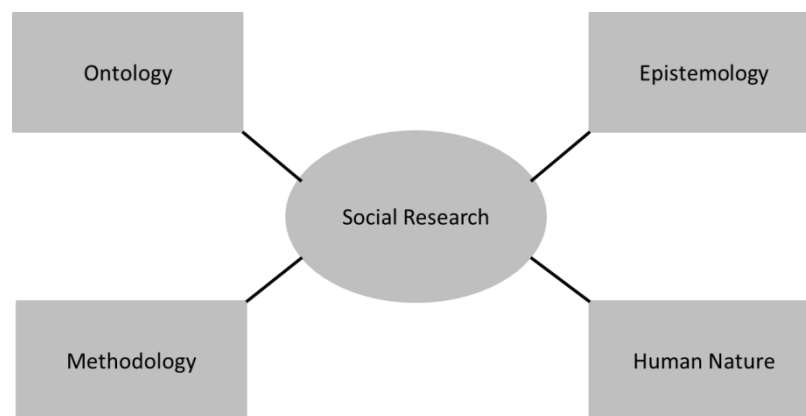
Figure 7.2: Research Design

The design processes in social sciences are positioned within the broader debates on the philosophy of science. While it is not central to the design of management research, considering the wider philosophical debates will assist the researcher to better understand knowledge and how knowledge is reported and developed in the context of their own research. Burrell and Morgan (1979) began the process with ontology and epistemology, which set the foundations of methodology, methods and sources (Figure 7.3).
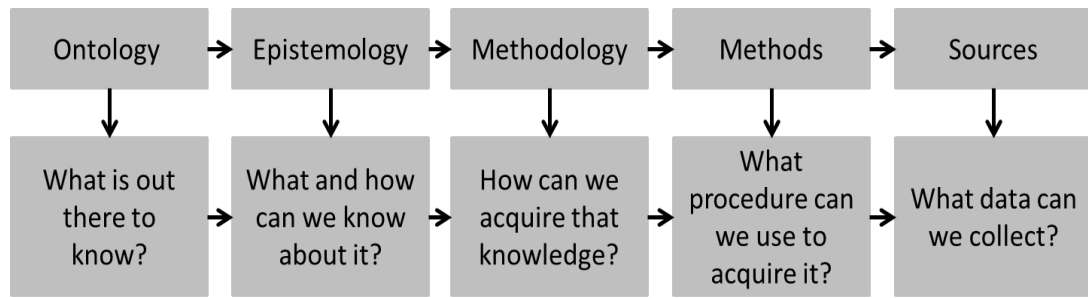
Figure 7.3: Philosophical and Research Process (Adapted from Easterby-Smith et al, 2004; Hay, 2002)

Williams and May (1996) advised that ontological and epistemological outcomes of social investigations will have direct impact on what we can say of social properties, thus philosophy can construct a frame of reference for the researcher. Creswell (2009) similarly advised that by stating a knowledge claim you automatically make assumptions about how you learn and what you might learn during the study. Unfortunately, some philosophical terms are used interchangeably and consequently confusion arises over their meaning (Easterby-Smith *et al*, 2004). Ontology is often mixed with epistemology. Creswell (2009) caused further confusion with his worldview proposition which he compares with previous theories on paradigms (Lincoln and Guba, 2000; Meterns, 1998), epistemologies and ontologies (Crotty, 1998) or broadly conceived research methodologies (Neuman, 2000), all of which have separate meanings.

Ontology is the starting point of all research and guides future philosophical assumptions in terms of epistemology and then methodology and methods. An ontology can be viewed as the: 'assumptions that we make about the nature of reality' (Easterby-Smith *et al*, 2004: 31), essentially the nature of existence and reality (Crotty, 1998; Hooper and Powell, 1985). Crotty (1998) argued that the ontological debate questions reality in terms of a continuum from reality existing in

hard and tangible structures, outside the mind (realism) or whether reality is a product of individual consciousness (nominalism).

Epistemology on the other hand, can be seen as a general set of assumptions about the best ways of inquiring about the nature of the world (Easterby-Smith *et al*, 2004). In other words, epistemology is concerned with the assumptions about the nature and grounds of knowledge (Burrell and Morgan, 1979), and is related to the meanings attached to reality (Crotty, 1998). Crotty (1998) and Guba and Lincoln (1994) proposed that the link between epistemology being related to the meanings attached to reality, and ontology regarding the assumptions of the nature of reality, creates confusion between the two.

Various epistemological stances have been identified through social science literature, for example, positivism, and interpretivism. Epistemological stances are based on an objective – subjective continuum (Crotty, 1998). An objective epistemology is based on the idea that knowledge exists independently of any consciousness. In contrast, subjectivism is based on the idea that knowledge is imposed on the object by the subject (Crotty, 1998).

The ontological and epistemological stance of a researcher can lead to the different views of the same social phenomenon. It is important for researchers to understand the philosophical assumptions and how they guide the research questions, research design and methods. While Creswell (2009) regarded his worldview stance as interconnected to ontology and epistemology (Crotty, 1998), it is in fact more similar to a paradigm (Lincoln and Guba, 2000; Meterns, 1998). The research philosophical

assumptions are closely related to the research paradigms (Lincoln and Guba, 2000; Meterns, 1998) which they help to guide.

7.3   Comparison of Research Philosophies

It is often argued that ontological and epistemological assumptions are frequently presented through a comparison of two philosophical traditions, or paradigms: positivism and interpretivism (Easterby-Smith *et al*, 2004; Creswell, 2009).   While the choice of research paradigm is not a dichotomous one, the two traditional but opposing research paradigms are positivism and interpretivism. At continuum polar opposites positivism is naturally associated with objectivism, and interpretivism with subjectivism (Figure 7.4).
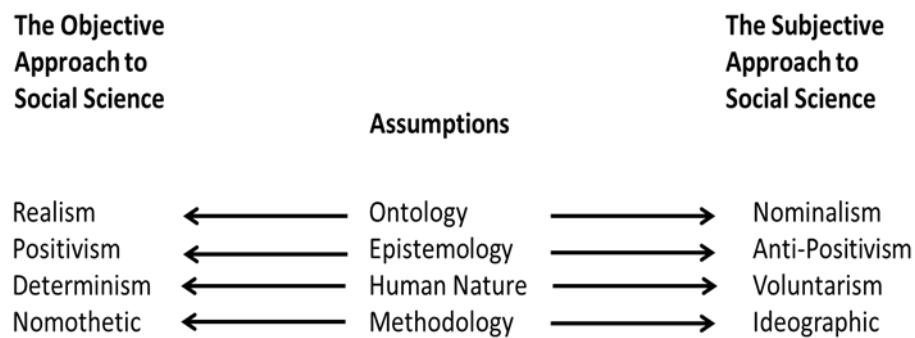
Figure 7.4: The Objective - Subjective Dimension (Burrell and Morgan, 1979)

Positivism is frequently referred to in research literature, however the term interpretivism is not ubiquitous.   Easterby-Smith *et al* (2004) adopted the label phenomenology and Hughes and Sharrock (1997) used the interpretive alternative. There are, however, various paradigm positions between positivism and interpretivism (Holden and Lynch, 2004).   Paradigm can be regarded as social constructions that hold historical and cultural embedded discourse practices. Senge (1990: 8) defined paradigms as 'mental models', whereas Byrne and Humble (2006)

viewed paradigms as belief systems of researchers that consider the ideas around how knowledge is established and how change can be accomplished or facilitated. Harre (1987: 3) considered a paradigm to be: 'a combination of metaphysical theory about the nature of the objects in a certain field of interest and a consequential method which is tailor-made to acquire knowledge of these objects'.

As a result of the various ways in which knowledge can be obtained, different schools of thought have emerged. Bryman (2004) discussed the ensuing paradigm war which is evident in all research philosophy literature. Hussey and Hussey (1997) emphasised the importance of the researcher in understanding their philosophical orientations for the paradigm adopted within their project. Some authors, for example, Gioia and Pitre (1990) and Lewis and Grimes (1999), have argued for a mixed paradigm perspective under the terms mulitparadigm and metatriangulation. A mixed paradigm perspective is distinct from the methodological level where mixing methodologies are possible for the purpose of data collection (see Creswell, 2009; Hussey and Hussey, 1997). Table 7.1; pg210, outlines the key paradigms from the literature. However, it could be argued that three key philosophical traditions emerge from the table.

The first is the purist stance, in which it is argued against mixing paradigms. The research paradigms literature normally represents the purist stance in terms of positivism and interpretivism, which would account for the high volume of literature surrounding the positivist and interpretivist paradigms. Post-positivism represents a third philosophy, proponents of post-positivism believe in a lesser degree to the reconciliation between positivism and interpretivism. Pragmatism is the fourth philosophical stance, pragmatists believe that paradigms are compatible and can co-

exist to form complimentary conceptual constructions. It is argued that positivist, interpretivist and pragmatic paradigms may all be appropriate research paradigms to guide the study; each will now be explored to guide the research with the most effective login and assumptions.

Paradigm	Positivism	Post-Positivism	Pragmatism	Interpretivism
Methods	Quantitative	Primarily Quantitative	Quantitative and Qualitative	Qualitative
Logic	Deductive	Primarily Deductive	Deductive and Inductive	Inductive
Epistemology	Objective point of view. Knower and known are dualism	Modified dualism. Findings probably objective in nature	Both objective and subjective points of view	Subjective point of view. Knower and known are inseparable
Axiology	Inquiry is value-free	Inquiry involves values, but they may be controlled	Values play a large role in interpreting results	Inquiry is value bound
Ontology	Naïve realism	Critical or transcendental realism	Accept external reality. Choose explanations that best produce desired outcomes	Relativism
Casual Links	The real causes temporarily precedent to or simultaneous with effects	There are some lawful, reasonably stable relationships among social phenomenon. These many be known imperfectly. Causes are identifiable in probabilistic sense that changes over time	There may be causal relationships, but we will never be able to pin them down	All these entities simultaneously shape each other. It is impossible to distinguish causes from effects

Table 7.1: Comparison of Research Paradigms (Source: Tashakkori and Teddlie, 1998: 23)

7.3.1 The Positivist Paradigm

The positivist perspective gained popularity in the seventeenth century. Crotty (1998) believed that the perspective encapsulates the spirit of the self-proclaimed Age of Reason which began in England and then flourished in France in the eighteenth century. It was Auguste Comte who brought the term positivism to be, replacing the earlier uses of labels of 'positive science' and 'positive philosophy'. Positivist proponents such as Comte and Mach, propelled the influence of positivism in philosophy in the twentieth century.

Positivism is linked as closely as possible to empirical science (Crotty, 1998). The issue is that the scientific world is not the everyday world that people experience; Crotty (1998) elaborated: 'Science imposes a very tight grid on the world it observes. The world is perceived through the world of regularities, constancies uniformities, iron-clad laws, absolute principles' (Crotty, 1998: 28). The world we live in is dynamic, ambiguous and uncertain. The positivist paradigm provides research is a platform to test theories and to provide material for development of laws (Bryman, 2004). Bryman (2004) continued that the positivist stance carries with it the implication that it is possible to collect observations in a manner that is not influenced by pre-existing theories. Both Bryman (2004: 11) and Easterby-Smith *et al* (2004: 28-29) provided clear descriptions of positivism, detailed from a review of positivistic literature (Table 7.2).

While the research seeks reduction and generalisation, it is believed that the as the area of online social content is emerging with a lack of predefined and definite theories that the philosophical assumptions associated with positivism will constrain

the proposed research. The interpretivist paradigm is at the opposite end of the continuum and may represent an appropriate philosophy for this research. Interpretivism will now be explored.

Variable	Meaning
Independence	The observer must be independent from what is being observed
Value-Freedom	Science must (and presumably can) be conducted in a way that is value free
Causality	The aim of social sciences should be to identify casual explanations and fundamental laws that explain regularities in human social behaviour
Hypothesis and deduction	The purpose of theory is to generate hypotheses that can be tested and that will thereby allow explanations of laws to be assessed. Knowledge is arrived at through the gathering of facts that provide the basis for laws
Operationalisation	Concepts need to be operationalised in a way which enables facts to be measured quantitatively
Reductionism	Problems as a whole are better understood if they are reduced into the simplest possible elements
Generalisation	In order to be able to generalise about regularities in human and social behaviour it is necessary to select samples of sufficient size, from which inferences may be drawn about the wider population
Cross-Sectional Analysis	Such regularities can most easily be identified by making comparisons of variations across samples

Table 7.2: Variables of Positivism (adapted from Bryman, 2004; Easterby-Smith et al, 2004)

7.3.2 The Interpretivist Paradigm

The interpretivist paradigm is also known in the literature as the constructivist, constructivism, naturalist, and phenomenological paradigms. Giddens (1979) believed that interpretivism is the generic paradigm of the social sciences, and amongst other variants, comprises of phenomenological sociology, philosophical hermeneutics and social constructionism. The interpretivist paradigm is said to be developed in reaction to the dominance of positivism in the 19th and 20th centuries.

Schwandt (2000) linked the difference of the aims of the natural and human sciences as the basis of distinction between positivism and interpretivism, explanation versus understanding. The key basis of the interpretivist paradigm is to understand the meaning of an individual's behaviour. Schutz (1954) contended that Weber (1924), a key proponent of the interpretivist paradigm, argued that the casual-functional approach of the natural sciences is not valid in social research because the social sciences seek to understand social phenomena in terms of meaningful categories of human experience.

Gill and Johnson (1991) added that interpretivism seeks to understand how people make sense of their worlds, human action is regarded as purposeful and meaningful. Research conducted from an interpretivist stance is concerned with observation and description and, at best, generating hypotheses (Silverman, 1993). However Hussey and Hussey (1997) argued that unlike the physical sciences, which deal with object external to the researcher, the social sciences deal with action and behaviour from within the human mind. In the interpretivist paradigm there is a clear relationship between the researcher and the researched. The researchers' beliefs regarding the metaphysical realm could influence their interpretation of the physical realm. Lincoln and Guba (1985) and Tashakkori and Teddlie (1998) featured associated with interpretivism (Table 7.3).

Features	Beliefs
Ontology	Multiple constructed realities
Epistemology	The knower and the known are inseparable
Axiology	Enquiry is value bound
Generalisations	Time and context free generalisations are not possible
Casual Linkages	It is impossible to distinguish causes from effects
Inductive Logic	Emphasis on arguing from the particular to the general, or an emphasis on grounded theory

Table 7.3: Features of the interpretivist paradigm (Adapted from Lincoln and Guba, 1985; Tashakkori and Teddlie, 1998)

The interpretivist paradigm is concerned with observation and description as this research seeks to both generate and test hypotheses, the philosophical assumptions associated with interpretivism also constrain the proposed research. The third philosophical paradigm is that of pragmatism which will now be reviewed.

7.3.3 The Pragmatic Paradigm

The ensuing positivist and interpretivist paradigm war has led to the emergence of the pragmatic paradigm (Easterby-Smith *et al*, 2004; Reichardt and Rallis, 1994). Pragmatism has been credited to Charles Sanders Peirce (1878: 293), who is quoted as saying: 'consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is whole of our conception of the object'. Essentially, proponents of the pragmatic paradigm believe that existing philosophical assumptions are logically independent and can be mixed and matched, in conjunction with methods choices, to achieve the most effective combination that suits that one particular enquiry.

Pragmatism was largely developed by James (1989: 259) who contended: 'the ultimate test for us of what a truth means is indeed the conduct it dictates or

explores'. The central contention between all three proponents is the explicit link between knowledge [or meaning] and actions. Where ideas are more than mere accreditations of past experience; that importance lies in their projected influence on future experience (Elkjaer and Simpson, 2010). However pragmatism has not been without its criticisms; with a lack of clear definitions and contentions pragmatism should not be viewed as a school of thought.

Nevertheless, advocates of qualitative methods have argued that pragmatism should be viewed as the new dominant methodology (for example, Guba and Lincoln, 1989). Not surprisingly this view has been opposed by quantitative researchers (for example, Sechrest, 1992). Regardless, many authors advocated the use of mixed qualitative and quantitative methods in social sciences research (Tashakkori and Teddlie, 1998; Creswell and Clark, 2007); with some advocates arguing that pragmatism be the dominant methodology for the future (Creswell and Clark, 2007).

The benefits of a pragmatic approach as outlined by Creswell (2003) and Tashakkori and Teddlie (1998) include: (1) link the choice of approach directly to the purpose and nature of the research questions posed, (2) regarded as an intuitive appeal where methods can be embraced that are appropriate, (3) undertaking a 'what works' tactic will allow the researcher to address questions that do not sit well with pure quantitative and qualitative approaches to methodology design and (4) use findings in a positive manner and in harmony with the value systems held by the researcher. The pragmatic paradigm fits both the context and the philosophical assumptions of the proposed research. Adoption of the pragmatic paradigm will now be further discussed.

7.3.4   Paradigm Selection

In consideration of the study context and the review of research philosophies it is argued that pragmatism should be the adopted research philosophy. Following advice of Creswell (2003) and Tashakkori and Teddlie (1998) pragmatism was selected for several reasons: (1) the lack of previous research within the online social content evaluation literature area suggested that the researcher required flexible research approach choice; (2) the methods selected in previous research were predominantly out-with the remit of this study, pragmatism allows for an intuitive appeal where methods that are appropriate can be embraced; (3) the large number of credibility evaluative attributes and the various variables of the consumers personal characteristics in previous research required the research to undertake an exploratory element, a pragmatic philosophy allows the researcher to undertake a 'what works' tactic to address questions that do not sit well with pure quantitative and qualitative approaches to methodology design; and (4) conjoint analysis studies generally follow a positivistic route of enquiry, however, this research follows a more interpretivist route where the researcher posed a series of hypotheses to be tested during the conjoint study. Pragmatism allows the researcher to use findings in a positive manner and in harmony with the value systems held by the researcher.

Patton (1988; pg17) states that: 'inquirers should be able to choose what will work best for a given inquiry problem in a particular context without being limited or inhibited by philosophical assumptions'. It is argued that as online social content credibility evaluation, and indeed, online social content studies in general, are a reasonably new research agenda. With unestablished theoretical underpinnings there

is a need to allow the researcher to work within a philosophy that does not inhibit the research with set philosophical assumptions.

7.4 Methodological Considerations

Bulmer (1969) asserted that finding the best means to develop researchable problems involves not only researching the empirical world, but choices about methods and the data to be sought. However Alasuutari, Brannen and Bickman (2008) stressed that there are differences in the development and popularity of particular methods. The researcher must adopt the methods that best explain the phenomena under study, as well as the research paradigm and its ontological, epistemological and methodological assumptions.

Bryman (2004) explained that most research either comprises a deductive or inductive approach. Deduction is associated with quantitative or exploratory research where the researcher develops a theory and hypotheses and designs a methodology to test the hypotheses. Induction, on the other hand, involves defining the problem, collecting the data and developing a theory as a result of the data analysis, and is associated with qualitative or exploratory research (Saunders *et al*, 2003). While qualitative and quantitative methods have traditionally been regarded as the methodological options, a third route, mixed methods has emerged.

7.4.1 Qualitative, Quantitative and Mixed Methods

Explaining the nature of qualitative and quantitative data has been a considerable focus of research. Bryman (2004) provided a useful comparison between qualitative and quantitative data (Table 7.4). The table demonstrates the difference in position

of the researcher to the subject, theory and research and scope of findings between

qualitative and quantitative methods.

Dimension	Qualitative	Quantitative
Researcher and subject relationship	Close	Distant
Stance of the researcher in relation to the subject	Insider	Outsider
Relationship between theory and research	Emergent	Confirmation
Research strategy	Unstructured	Structured
Scope of findings	Ideographic	Nomothetic
Image of social reality	Processual and socially constructed by actor	Static and external to actor

Table 7.4: Qualitative and Quantitative Approaches (Bryman, 2004)

Traditionally, quantitative methods have been associated with a positivistic (or post-

positivistic) viewpoint (Creswell, 2003) but this is no longer the case. Positivist

methods are not fully synonymous with positivism, and the same can be said of

qualitative methods and interpretivism. Bryman (2004), however, argued that

research methods adopted in quantitative research tend to be more structured than

those adopted in qualitative research. The structure created through the sampling

determination and the data collection methods, for example, they are designed prior

to the data collection process (Bryman, 2004).

The third methodological route is the mixed methods approach. Tashakkori and

Teddlie (1998) believed mixed methods approaches are a new and growing trend in

social research and behavioural sciences. The founding principle behind mixed

methods is that: 'no single method ever adequately solves the problem' (Denzin,

1978: 28). Proponents of the mixed methods approach believed that the use of one

single research method will increase the error rate linked to that particular method

(Patton, 2002; Sekaran, 2003).

Creswell and Clark (2007: 9-10) pointed out that: 'mixed methods research is practical in the sense that the researcher is free to use all methods possible to address a research problem. It is also practical because individuals tend to solve problems using both numbers and words; they combine inductive and deductive thinking'. A number of mixed methods designs have been developed. Tashakkori and Teddlie (1998) provided a detailed description of the mixed methods approaches (Table 7.5).

PERIOD I: THE MONO-METHOD OR 'PURIST' ERA (CIRCA NINETEENTH CENTURY TO 1950'S)

    A. The purely quantitative orientation
        1. Single data source (Quant)
        2. Within one paradigm/model, multiple data sources
            a. Sequential (Quant/Quant)
            b. Parallel/Simultaneous (Quant + Quant)
    B. The purely qualitative orientation
        1. Single data source (Qual)
        2. Within one paradigm/model, multiple data sources
            a. Sequential (Qual/Qual)
            b. Parallel/Simultaneous (Qual + Qual)

PERIOD II: THE EMERGENCE OF MIXED METHODS (CIRCA 1960'S TO 1980'S)

    A. Equivalent status designs (across both paradigms and methods)
    1. Sequential (two phase sequential studies)
    a. Qual/Quant
    b. Quan/Qual
    2. Parallel/Simultaneous
        a. Qual + Quant
        b. Quan + Qual
    B. Dominant – less dominant designs (across both paradigms and methods)
        1. Sequential
    a. Qual/Quant

b. Quant/Qual
2. Parallel/Simultaneous
a. Qual + Quant
b. Quant + Qual
Design with multiple use of approaches

PERIOD III: THE EMERGENCE OF MIXED MODEL STUDIES (CIRCA THE 1990'S)
 	
 A. Simple application within stage of study
    1. Type of enquiry – Qual or Quant
    2. Data collection/Operations – Qual or Quant
    3. Analysis/Inferences – Qual or Quant
 B. Multiple application within stage of study
    1. Type of enquiry – Qual and/or Quant
    2. Data collection/Operations – Qual and/or Quant
    3. Analysis/Inferences – Qual and/or Quant

Table 7.5: Methodological Approaches in Social Sciences (Tashakkori and Teddlie, 1998)

In the sequential mixed methods design, or two-phase design (Creswell, 2003; Creswell and Clark, 2007), the research conducts a phase of qualitative study and then a phase of quantitative study, or vice versa. Adopting a Qual/Quant simultaneous sequence would allow the researcher to collect and analyse qualitative data on a relatively unknown topic area, using the results to design a subsequent quantitative phase of study. Given the lack of research within social media and consumer purchase behaviour, coupled with the research gaps discussed in Chapter VI, it is suggested that a sequential mixed methods Qual/Quant design is the most appropriate. To further define the most appropriate methodology an examination of previous related studies will be undertaken.

7.4.2 Methodologies Used in Similar Research

In his managerial methods research, Mintzberg (1973) analysed similar and related studies to aid in selecting the appropriate methodology. The methodologies of research within the online social content and online credibility literature were analysed to ensure a selection of a complementary and appropriate methodology for this study. The key articles impacting on this research and, as such, requiring methodological fit, are reviewed in Appendix 1.

The review suggested a precedent for single method quantitative research where experiments were the predominant method undertaken. The high volume of experimental methods may be explained by the volume of studies from American journals where experiments are highly sought. Panel data and surveys were also popular methodologies of previous research. Qualitative research was predominantly used for exploratory interviews and focus groups. This would suggest that, to be comparative, this research must follow a similar quantitative vein.

Exploring previous research has indicated that quantitative research is predominantly associated with studies of online social content credibility and intention to purchase. With respect to this research, data set selection and the constraints of (1) time and (2) resources and (3) paradigm selection have affected the methodological selection.

7.4.3 Methodology Selection

While the review of previous studies in the area of social media, credibility and purchase intention demonstrated a tendency for a single method methodology, particularly experiments, it was believed that a mixed-methods methodology is most appropriate for the purposes of this study. This assertion is confirmed in the

methodological approaches outlined by Tashakkori and Teddlie (1998) and the argument to use sequential QUAL/QUANT methodology to collect and analyse qualitative data on a relatively unknown topic area, and use the results to design a subsequent quantitative phase of study.

Sieber (1973) believed that in research design, qualitative data can assist the quantitative element by assisting with conceptual and instrumental development. During the data collection stage qualitative data can help facilitate the data collection process and during data analysis, qualitative data can assist in interpretation, clarification, describing and validating quantitative results. Further to this Greene, Caracelli and Graham (1989) identified five purposes or rationales of mixed methods studies, (1) triangulation, (2) complementarity, (3) development, (4) initiation and (5) expansion. Undertaking a mixed methods methodology in this research will (1) allow for development on the understanding of the most valuable evaluative attributes to study in the main research instrument, (2) explore the online media used in a purchase decision to ensure validity and robustness of the main study and (3) to ensure that the connected consumer segment is an appropriate sample. Moving from the decision to undertake a mixed-methods methodology, the methods for selection will now be explored.

7.5   Methods Selection and Agenda Development

In reviewing the methodologies of previous research it was evident that the principal line of enquiry for online social content studies is quantitative methods. However, the research design of this study followed a mixed-methods approach where an exploratory qualitative element informed a larger quantitative element.

Incorporating a mixed methods approach enabled the researcher to reduce the number of variables discussed in Chapter VI and provide richer results. The selection of appropriate methods to consider both the context and methodological fit was important to the study.

In development of their research roadmap, Burian, Rogerson and Maffei (2010) contended that mixed-methods research generally follows interview, text/records, observation, focus groups, questionnaire, survey, measurements, inferential and descriptive methods. Given the remit and limitations of this study, it is proposed that the qualitative exploratory element include depth interviews with consumers to explore the types of social content sources used during trip planning and the information evaluation process in light of the varied quality of the information, cues to assess information credibility and determine the appropriateness of using the connected consumer segment in the research. The nature of exploratory depth interviews allowed room for interpretation allowing the results to lead the development of the main research instrument. The quantitative element, the main research instrument, was a self-administered online conjoint analysis (CA) based survey. The rationale behind method selection subsequent sample size, construct measurement and data collection considerations will now be given. The non-selection of other sources of evidence was made on the grounds that (1) irrelevant to the study, (2) time/resource constraints, (3) inexperience of the researcher and (4) possible ethical issues with observing/analysing online community based behaviours and content posts.

7.5.1   Exploratory Interviews

The discussion on the decision to adopt exploratory depth interviews as the first stage of the research methodology will follow the process outlined in Table 7.6.

Methods Consideration	Decision	Rationale
Methods Selection Rationale	Exploratory semi-structured depth interviews to explore underlying reasons and uses of social media in a purchase decision	Interviews are regarded as the most appropriate tool when exploratory work is being undertaken (King *et al*, 1994)
Construct Measurement	Followed Gillam's (2005) framework to develop a framework to question and anlayse the data. Adopted Creswell's (2003) interview protocol	Developed framework using research objectives and key themes emergent from the literature review. Used Creswell's (2003) protocol to guide the interview process.
Sampling	Followed Wilson's (2006) sampling protocol. Sample obtained through online and offline networks resulting in a convenience sample. A total of 12 interviews were conducted	Ensure the need to obtain the connected consumer segment. Time and resource were also consideration in adopting this sapling protocol.
Data Analysis	Analysed in accordance with the framework produced by following Gillam's (2005) protocol	To provide a framework from which to analyse the qualitative content and provide insight into the objectives of the study.

Table 7.6: Exploratory Research Methodological Process

Due to the lack of previous research within the context of this study it was believed necessary to incorporate a mixed methods simultaneous Qual/Quant study. The objective of the exploratory research was to ensure validity and robustness of the proposed theoretical model through an exploration of the characteristics most significant to credibility evaluation. Malhotra (2010) suggested that exploratory qualitative research should be undertaken, with the objective of gaining a qualitative understanding of the underlying reasons and motivations. The sample would generally be small with non-representative cases, data collection is unstructured

where data analysis is non-statistical and the outcome is to develop an initial understanding (Malhotra, 2010).

Interviews are said to be one of the key methods used in qualitative research and the tool most appropriate when exploratory work is being undertaken (King *et al*, 1994). There are several types of interviews to consider. Some authors suggest that interviews can be seen as a continuum, with structured interviews characteristic of survey research methods at one end and completely unstructured interviews at the other end (Gillham, 2000; Gubrium and Holstein, 2002; Rapley, 2004). Semi-structured interviews are one of the most widely used interview techniques and provide the researcher with the ability to change the order of questions depending on the direction of the interview.

Interviewer discretion with respect to question wording and the sequence of topics is a key feature of semi-structured interviews (Corbetta, 2003). Generally, a theme list or inventory of important topics is used (Liamputtong and Ezzy, 2005). Within each topic the interviewer is able to conduct the conversation ad-hoc: to ask the questions deemed most important to that particular interview, ask for clarification if the answer is not clear and to prompt to gain further insight, and establish an independent style of conversation. Grey (2004) added that probing can allow the research to explore new paths which were not initially considered. This benefit was deemed significant and appropriate for the nature of this research because of the limited research within the area; if a line of enquiry that has not been explored is discussed by the respondent the reflexivity of semi-structured interviews allowed the researcher to probe at a deeper level.

Bryne (2004: 182) contended that:

'Qualitative interviews are particularly useful as a research method for accessing individuals' attitudes and values, things that cannot necessarily be observed or accommodated in a formal questionnaire. Open-ended and flexible questions are likely to get a more considered response than closed questions and therefore provide better access to interviewees' views, interpretation of events, understandings, experiences and opinions…'

From all the qualitative methods it is argued that semi-structured interviews are the most appropriate and effective research method for the proposed study. To prepare the researcher for the interviews, Gillham's (2005) framework was employed, however the scope of semi-structured interviews will allow the researcher to narrow down and probe for unexpected outcomes and adapt the structure of the interview.

7.5.1.1 Exploratory Interviews Measurement

Gillham (2005) proclaimed that to generate actionable and valid interview agenda research, themes should be generated using research objectives to frame the topic areas and then analysed to form a logical sequence of questioning. Following Gillham's (2005) line of thought, research themes for the exploratory consumer interviews were developed using key themes emergent from previous research (Table 7.7).

Sub-Questions	Relevant Theme/Problem from the Literature	Interview Topics
What types of online media are used to gather product related information? (SMTP)	Community Membership	Communities joined, hours spent on communities, post to sites, activities being carried out
	Internet as Source of Information	Information sources for trip planning, internet as an information source
	Prior Experience	Frequency of use, purpose post to sites, hours spent on site, activities being carried out
	Trust	Attitude to online social content, decisions on content importance, activities being carried out
	Credibility	Attitude to online social content, decisions on content importance, activities being carried out
What cues are used to evaluate the credibility of online social content? (EC)	Content Characteristics	What looking for in online social content, conflicting information, evaluation of content, stimulus material element
	Content Creator Characteristics	What looking for in online social content, conflicting information, evaluation of content, importance of online social content types, stimulus material element
	Source Characteristics	What looking for in online social content, conflicting information, evaluation of content, importance of online social content types, stimulus material element
What personal characteristics affect the evaluation of online social content credibility? (PC)	Shopping Goals	Trip planner involvement, decisions on importance of information sought, evaluation of content, conflicting information, importance of types of online social content, stimulus material element
	Interpersonal Influence	Communities joined, sources used, evaluation of content, conflicting information,

		decisions on importance of information sought, importance of types of online social content, stimulus material element
	Tie Strength	Evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Trust	Evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Involvement	Attitude, duration and extent of trip planning, involvement, evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Prior Experience	Frequency of use, trip planning activities, number of trips taken, evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Expertise	Trip planning activities, evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Scepticism	Evaluation of content, conflicting information, decisions on importance of information

		sought, importance of types of online social content, stimulus material element
	Confirmation of Prior Belief	Evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Cognitive Personalisation	Evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element
	Demographics	Demographics, evaluation of content, conflicting information, decisions on importance of information sought, importance of types of online social content, stimulus material element

Table 7.7: Framing of Consumer Research Objectives into Interview Themes

The objective of the exploratory research was to confirm the theoretical model to be tested during the main CA research instrument. Framing the exploratory consumer research objectives into interview themes allowed for a systematic approach, ensuring that the process by which consumers search for tourism related online social content, why and where they search for content and how they make judgement decisions on the content retrieved. Moreover the framework allowed for exploration of all attributes identified during the literature review.

7.5.1.2 Exploratory Interviews Data Collection Issues Considerations

As well as developing the research framework proposed by Gillham (2005), Creswell (2003) also advocated the use of interview protocols during the qualitative interview

data collection process. Following the advice provided by Creswell (2003), headings, instructions to the interviewer (for example opening statements), interview topics, follow up topics and space for recording comments were included in the interview schedule. A full copy of the interview schedule for the consumer interviews can be found in Appendix 2. The interview schedules were also developed in accordance to the five stages of semi-structured interview protocol proposed by Gillham (2005, p76) (Table 7.8).

Phase	Description
Preparation	the researcher clarifies the time and place of the interview, ensures that equipment is in place and working correctly, and that the location of the interview is appropriate
Initial Contact	if necessary introductions should be made, and checking that the interviewee is happy with the setting of the interview
Orientation	the researcher explains the purpose of the interview and guides the interviewee on to how they should engage, and explains how the questions will be asked
Substantive	the main focus of the interview where the key questions will be asked
Closure	the interview is summarised and any closing questions can be asked

Table 7.8: Semi-Structured Interview Protocol (adapted from Gillham, 2005: 76)

Following from advertising research protocol (for example, Hirschman and Stern, 1999; Holbrook and Batra, 1987), stimulus material was incorporated into the exploratory consumer interview. To overcome some of the issues in self-recall it was important to gauge attitudes towards 'real life' stimulus reviews and for respondents to talk through their evaluation processes in reading the reviews. A total of twelve reviews, covering two trip elements [flights and accommodation] were chosen from a total of four review sites.

During the stimulus section the respondents were directed to the actual review sites and reviews to be evaluated; a screen dump copy of each review can be found in Appendices 5 to 16, including a written copy of the review narrative. It was important that the stimulus material obtained a mixture of positive, negative and mixed reviews as well as long and short reviews, and reviews from commercial and independent sites, along with a mixture of other cues. However, due to the reviews being evaluated on the review platform itself, the reviews from each platform had to follow each other to simulate evaluation in a real world situation. Three reviews from each platform were evaluated and there were sufficient differences in the twelve reviews.

All interviews were recorded using a digital recorder with a memory size that allowed for over two hours recording time. Digital copies of the interviews were then uploaded to Nvivo for coding and analysis with signed consent from the interviewees. A research diary was also kept to keep a record of the interviews and any interesting issues/themes arising which could then be reworked into forthcoming interviews. To ensure validity of the theoretical model, the exploratory research was not only developed using Gillham's (2005) framework and extra considerations given to potential data collection issues, but the research also followed Wilson's (2006) sampling protocol.

7.5.1.3 Exploratory Interviews Sampling Considerations

Viewing the data sets used in previous research, the use of undergraduate students was the principal approach (Appendix 1). The use of undergraduate students can be explained by the high volume of experiment studies, where students are used for

convenience because many of the universities completing experiment studies have resident experiment research labs. In many cases students can earn money or course credit for participation (for example in Cheung, Lee and Thadani, 2009). While this approach has benefits, such as, volume of participants, there are several negatives. There are concerns about the motivation of the participants, and the differences in behaviours between students and other consumers. To overcome these issues, and investigate the behaviours of actual consumers, other studies have used consumers and actual reviews posted on the internet as data sets, for example Cheung, Lee and Rabjohn (2008); Clemons, Guo and Hitt (2006); Forman, Ghose and Wiesenfeld (2008).

To develop an effective sampling procedure the sampling process outlined by Wilson (2006) was followed (Figure 7.5).

Step 1: define the population of interest

Step 2: determine whether to sample of census

Step 3: select the sampling frame

Step 4: choose a sampling method

Step 5: determine sampling size

Step 6: implement the sampling procedure
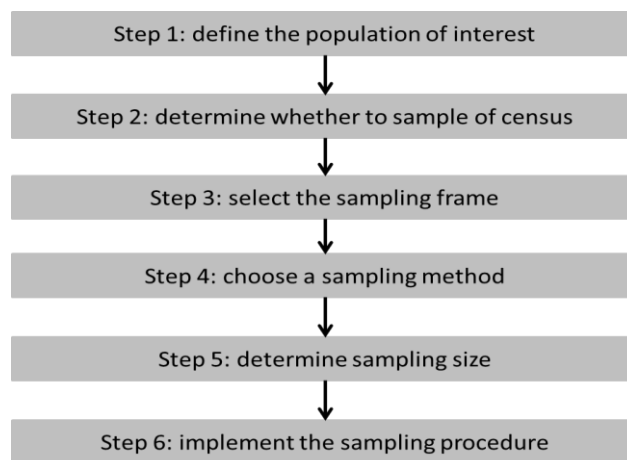
Figure 7.5: The Sampling Process (Wilson, 2006: pg196)

The population of interest to the proposed study, are consumers who use online hotel reviews to assist in making accommodation purchases. As within most studies a sample of the population of interest will be sought. In the case of this research, the sampling frame included the researcher's own online networks from Twitter,

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Facebook, those who read the researchers blog and community members from the TravBuddy travel community. Wilson (2006) advises that to reduce sample frame error, a number of lists may be added together. The nature of social media allows for 'forwarding' of calls for respondents to reach new lists of networks out-with that of the researcher, this effect can then be replicated to new lists, and so on. Using social networks as the sample frame also ensures that the connected consumer segment is targeted as those 'connected' individuals will be present on such online networks (Hardy, 2011).

The consumer depth interviews were framed from a non-probable convenience sample (Wilson, 2006). As stated before, a call for respondents was made through offline and online networks. To overcome the limitations of self-recall methods (Jacoby *et al*, 1978) it was necessary to interview respondents within a suitable timeframe to allow easy recall of their trip planning activities, their information needs and the role online social content played in the final purchasing decision. As such, there was a stipulation for respondents that trip planning activity was currently being undertaken or a trip purchase had been completed in the past three months.

The consumer exploratory interviews were constrained by time and budget. Time had to be considered in terms of the researcher and respondent as interviews were conducted within the university. A total of twelve interviews were conducted and, acknowledged previous online research (for example, Holscher and Strube, 2000), it was important to obtain a sample that was adequate for the purpose of this research. A spread of gender, age, education and level of internet usage was sought (Table 7.9). While the research did not conform to rigorous quota sampling it was

necessary to ensure a spread of respondents in order to effectively highlight the key

evaluative cues of value to the main study.

Respondent	Gender	Age	Education	Internet Usage
Respondent 1	F	34	Degree	High
Respondent 2	F	27	Degree	Moderate
Respondent 3	M	30	Post Grad	Moderate
Respondent 4	F	27	Degree	High
Respondent 5	F	45	Masters	High
Respondent 6	F	30	MPhil	High
Respondent 7	M	32	Degree	Moderate
Respondent 8	F	26	Masters	Moderate
Respondent 9	F	23	Masters	Moderate
Respondent 10	M	28	Post Grad	Moderate
Respondent 11	M	39	Degree	Moderate
Respondent 12	F	27	High School	Low

Table 7.9: Characteristics of Consumer Sample for Exploratory Research

While the respondent number may appear to be limited, it was believed that the point

of theoretical saturation (Strauss and Corbin, 1990) was achieved within the sample

because no new information was provided. This was further clarified during data

coding in Nvivo where a pattern in coding responses was evident, and no new topics

were emerging within the research diary. The convenience sample also included a

range of consumers with varying degrees of age, education and internet usage (or

connectedness). As such, the sample was predominantly within the characteristics of

the connected consumer segment, the segment under study in this research.

7.5.1.4 *Exploratory Interviews Data Analysis*

Before each interview the respondent signed a consent form for the interview to be

recorded and stored on computer. After the interviews each respondent was given an

alphanumeric code for both analysis and to ensure the respondents were given

anonymity throughout (Table 7.10).

Respondent	Gender	Age	Education	Internet Usage	Interview Length
Respondent 1 (R1)	F	34	Degree	High	80 mins
Respondent 2 (R2)	F	27	Degree	Moderate	76 mins
Respondent 3 (R3)	M	30	Post Grad	Moderate	50 mins
Respondent 4 (R4)	F	27	Degree	High	65 mins
Respondent 5 (R5)	F	45	Masters	High	70 mins
Respondent 6 (R6)	F	30	MPhil	High	50 mins
Respondent 7 (R7)	M	32	Degree	Moderate	65 mins
Respondent 8 (R8)	F	26	Masters	Moderate	50 mins
Respondent 9 (R9)	F	23	Masters	Moderate	50 mins
Respondent 10 (R10)	M	28	Post Grad	Moderate	60 mins
Respondent 11 (R11)	M	39	Degree	Moderate	75 mins
Respondent 12 (R12)	F	27	High School	Low	65 mins

Table 7.10: Spread of Respondent Characteristics

The interviews were then uploaded to Nvivo and coded in accordance to the framework developed using Gillham's (2005) logical sequence of questioning (Table 7.11).

Concept	Theme	Dimensions
SMTP	Community Membership (CM)	Current Membership
		Length of Membership
		Participation
		Lurking
	Internet as a Source of Information (ISI)	Sources Used
		Trusted Sources
		Importance of Sources
	Prior Experience (PE)	Sources Used
		Frequency of Use
		Participation
	Trust (T)	Interpersonal Influence
		Scepticism
		Level
	Credibility (C)	Content Characteristics
		Content Creator Characteristics
		Source Characteristics

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EC	Content Characteristics (CC)	Information Quality
		Attitude Value versus Simple Value
		Length
		Sidedness
		Valance
		Framing
		Strength
		Social Presence
		Ratings
	Content Creator Characteristics (CCC)	Identity Disclosure
		Geographic Location
		Homophily
		Reason for Travel
		Lifestyle
		Expertise
		Reputation
		Exposure
	Source Characteristics (SC)	Source Type
		Reputation
		Source Platform
PC	Shopping Goals (SG)	Active
		Passive
	Interpersonal Influence (II)	Strength
		Characteristics
	Tie Strength (TS)	Strength
		Influence
	Trust (PT)	Strength
		Dimensions
	Involvement (I)	Strength
	Prior Experience (PE)	Length
		Frequency
	Expertise (E)	Level of Expertise
	Scepticism (S)	Strength
	Confirmation of Prior Belief (CPB)	Strength
	Cognitive Personalisation (CP)	Strength
	Demographics (D)	Age
		Sex
		Education

		Employment
		Income
		Area of Residence

Table 7.11: Coding and Dimensions of Exploratory Research

The interviews were analysed in accordance with the framework which allowed a clear structure and representation of the important topics. As such, the number of attributes under review was reduced to those of value to the study, which were then modelled in the CA study. Taking this into consideration, it can be concluded that the exploratory consumer element of this research has successfully reached the set objective of reducing the number of evaluative cues to be tested in the main CA research instrument.

7.5.2 Conjoint Analysis Survey

The discussion on the decision to adopt exploratory depth interviews as the first stage of the research methodology will follow the process outlined in Table 7.12.

Methods Consideration	Decision	Rationale
Methods Selection Rationale	Conjoint analysis (CA) self-explicated online survey	CA allows to explore the complex trade-offs consumers make when evaluating content credibility (Sawtooth, 2007). Time and resource considerations allowed for development and implementation of an online survey.
Conjoint Analysis Selection Rationale	Followed the CA process developed by Hair *et al* (2010). Adopted adaptive conjoint analysis (ACA)	ACA adopted due to the large number of attributes under study.
Conjoint Measurement	Full discussion in Chapter VIII	The conjoint measurements were developed through both literature review and findings of the exploratory study and have been discussed after the exploratory findings.

Sampling	Followed Wilson's (2006) sampling protocol. Sample obtained through online a networks resulting in a convenience sample of the connected consumer segment. A total of 180 usable responses	Ensure the connected consumer segment was under study online networks were used to recruit the sample.
Data Analysis	Analysed in relation to the process developed by Hair *et al* (2010)	To provide a framework from which to analyse the conjoint data and to ensure validity of the results

Table 7.12: Conjoint Analysis Methodological Process

The aim of this study was to explore the relationships and interrelationships between the cues used to evaluate the credibility of online social content. Evaluation of online social content is a complex process where many trade-offs will be made. One method of analysing trade-offs in consumer decision-making is conjoint analysis (CA) (Sawtooth, 2007). CA has been predominantly used in new product or concept evaluation studies, competitive analysis, pricing and market segmentation (Green and Srinivasan, 1990). However, in recent years, there has been a growing body of literature adopting a conjoint analysis approach within ecommerce and purchase intention research (for example, Ying-Hueih *et al,* 2010) and online decision aids and their role in improving decision quality research (for example, Asle and Ghinea, 2011 and De Bruyn *et al,* 2008). As this research follows in a similar focus, albeit within a consumer review context, it is argued that conjoint analysis is a good method fit for the study.

In previous conjoint studies with an online or ecommerce focus it was found that the large number of attributes and features of websites and their importance to purchase intention was best studied under conjoint analysis (Ying-Hueih *et al,* 2010). The large and complex credibility evaluation attributes under exploration in this study are

illustrative of attributes from such online and ecommerce studies and as such are suited to a conjoint analysis approach.

While other studies within the consumer review credibility evaluation context have premoninantly adopted an experiment or a more traditional online survey approach (Appendix 1) this research argues that such studies have failed to systematically explore the relationship, importances and inter-relationships of the attributes of credibility evaluation; limitations also discussed by Cheung *et al,* (2009). This is demonstrated through no single study exploring the nature and relationships of content characteristics, source characteristics and content creator characteristics in evaluation of online information (Cheung *et al,* 2009). Previous research has focused on a sub-set of such attributes (see Appendix 1 for review) and therefore the overarching process of online review credibility evaluation is still largely unknown. Such studies may have focused on a sub-set of attributes due to the large size of possible attributes (see Chapter V and Initial Theoretical Model, Figure 6.1; pg183 for list), adopting a conjoint analysis approach would allow for the systematic evaluation of attributes without increased cognitive strain of respondents. The intention of this study is to provide a deeper insight into what attributes are important during credibility evaluation and to highlight the overarching process of online review credibility evaluation, which is largely missing from previous studies.

It is argued that a conjoint analysis approach is the best-fit approach to the research problem. This fit is also demonstrated in conjoint based online and ecommerce studies (for example, Ying_Hueih *et al,* 2010) and that the purpose of a conjoint analysis is to explore the nature of consumer decision making trade-offs – indicative

of this research. Although conjoint based studies traditionally have a clear product or service focus (for example, van Zyl, 2008) it can be argued that product in this instance is the review. It has been demonstrated that consumer reviews are a highly influential and preferred source of information (for example, Khim-Yong *et al,* 2013) and therefore they become a commodity in their own right.

Previous research on consumer reviews and their influence and credibility in purchase decisions has found conflicting results between the attribute levels (see Appendix1 for review). It is often argued that the possibility of interaction effects among attributes is overlooked (Long and Crown, 1993), CA would explore such interaction effects and provide a more detailed picture of the possible effects of consumer reviews which are highly varied. It is also argued that conjoint analysis explores the complex trade-offs consumers use to evaluate the credibility (and therefore influence) of the consumer review which provides a richer and deeper understanding of the process of online information evaluation. There are several types of CA that can be adopted each with different considerations, these will now be explored:

Hair *et al* (2010) explained that CA is a multivariate technique used to estimate or determine how respondents develop preferences. CA is concerned with measuring the joint effects of two or more independent variables on the ordering of a dependent variable (Green and Wind, 1973). There are many considerations to be made when developing a conjoint study (Table 7.13).

Step	Alternative Methods
Stimulus Collection	Two Factor at a Time; Full Factorial Design; Fractional Factorial Design; Self Explicated; Choice Based; Hierarchical Bayes
Data Collection	Two Factor at a Time Tradeoff Analysis; Full Profile Concept Evaluation; Self Explicated; Choice Based; Hierarchical Bayes
Model Estimation Method	Compensatory and Non-Compensatory Models; Part Worth Function; Vector Model; Mixed Model; Ideal Point Model
Measurement and Scaling Tasks	Paired Comparison; Constant Sun Scales; Rank Order; Rating Scales
Estimation Procedures	Metric and Non-Metric Methods Including; MANANOVA; PREFMAP; LINMAP; Nonmetric Tradeoff; Multiple Regression; LOGIT; PROBIT: Hierarchical Bayes; TOBIT
Simulation Analysis Models	Maximum Utility; Average Utility; LOGIT; PROBIT

Table 7.13: Conjoint Analysis Methodologies (Adapted from Green and Srinivasan, 1990)

There are four types of conjoint analysis (1) full profile, (2) compositional techniques (Srinivasan, 1988), (3) hybrid techniques (Green, Goldberg and Montemayor, 1981), (4) adaptive conjoint anlaysis, as developed by Sawtooth (Johnson, 1987). Each method has positive and negative aspects where many arguments exist for which methodology and data collection method should be used (see Green and Srinivasan, 1990 for review). For example the use of hybrid models in task simplification (Green, Goldberg and Montemayor, 1981) and the constraints in executing full-profile methods with remote data collection methods (Green and Srinivasan, 1990). Nevertheless, choice of conjoint methodology can depend on (1) the nature of the study, (2) the number of attributes being profiled and (3) the data collection method.

The selection of conjoint methodology will begin to be outline in the next section, however, a more detailed discussion on conjoint measurement can be found in Chapter VIII after the results of the exploratory study. The attributes and levels under study are defined through previous literature and the findings of the exploratory study. As such, the attributes and the consumers' personal characteristic measures will be discussed in relation to the exploratory results in Chapter VIII. Data collection considerations, sampling frames and the pilot phase will now be discussed.

7.5.2.1 Conjoint Analysis Data Collection Issue Considerations

CA studies are said to require a sound research design which involves several stages, each with numerous considerations to be made. The complexities of the conjoint task increase the cognitive discomfort of respondents as they are making complex trade off decisions. It is therefore necessary to take adequate precautions in the research design and follow the prescribed steps for that particular conjoint methodology. Studies adopting a conjoint analysis approach generally report using a six stage process (for example, van Zyl, 2008), which is also mirrored in research methods textbooks (for example, Malhotra, 2010). This study follows the stage process as outlined by Hair *et al* (2010) (Appendix 16). Developing a conjoint study is a complex process where many considerations must be made in designing an effective conjoint study. The initial design stages, namely stages one to three (Appendix 16), and considerations made will now be discussed.

Stage One: Define the Research Problem

The attributes used are said to primarily stem from the objectives of the study (Churchill and Lacobucci, 2002; Hair *et al*, 2010). The attributes of this study were evaluative cues used to assess the credibility of online hotel reviews. The cues selected were widely discussed throughout previous chapters and have been reduced to ten cues that were found to be of most value through results of the exploratory study. Furthermore, the cues follow that of traditional information processing, they relate to message, author and source (Janis and Hovlan, 1959).

While CA also frequently includes the attributes of price and brand, they will not be operationalised in the present study; because price and brand are not attributes of online hotel reviews. Online hotel reviews are evaluated against price and brand to make informed judgement decisions on accommodation choice; such attributes are not present in the narrative or normative cues of the review. Schreuder (1999) also warned that in developing a conjoint study researchers must be careful not to produce a conjoint within a conjoint. As this study aims to explore source, content and content creator, there is a risk of creating a conjoint within a conjoint. However the attributes being measured appear to be independent, and this has been confirmed in the exploratory research and pilot study. The ten attributes to be explored in the conjoint analysis are confirmed as (1) timeliness, (2) accuracy, (3) message value, (4) length, (5) sidedness, (6) social presence (addition of photos and/or video), (7) rating, (8) disclosure of identity, (9) disclosure of lifestyle/travel reason and (10) source platform. It is believed that all attributes have been accurately defined for the purpose of this research (see Chapter VIII, Section 8.2 for definitions). The next stage and set of considerations to be made in conjoint analysis is the design of the conjoint analysis.

Stage Two: Designing a Conjoint Analysis

The number of attributes is said to affect the conjoint methodology employed. This study has a high number of attributes under examination. As such, the size of the proposed study limits the selection of the conjoint methodology to be adopted. Hair *et al* (2010) provided guidance to methodological choice (Table 7.14) and argue that adaptive conjoint analysis (ACA) is the best-fit methodology for this study.

Characteristic	Traditional Conjoint	Adaptive/Hybrid Conjoint	Choice-Based Conjoint
Upper Limit on Number of Attributes	9	30	6
Level of Analysis	Individual	Individual	Aggregate or Individual
Model Form	Additive	Additive	Additive and Interaction
Choice Tasks	Evaluating Full-Profiles One at a Time	Rating Profile Containing Subsets of Attributes	Choice Between Sets of Profiles
Data Collection Format	Any Format	Generally Computer Based	Any Format

Table 7.14: Comparison of Alternative Conjoint Methodologies (Source, Hair et al, 2010)

ACA provides a structured way of studying large numbers of attributes and levels which use the efficiency of computer administered interviews (ACA, 2007). This study has adopted an ACA approach, mirroring the work of Green and Srinivasan (1990), who argued that to tackle issues with large numbers of attributes, the researcher should consider (1) self-explication, (2) self-explication plus segment level estimates and (3) decompositional estimation for only the more important attributes of the respondent (as in ACA). Following from the characteristics of ACA, the level of analysis for the conjoint study is made at the individual level and assumes that respondents add the values for each attribute (the attribute levels or

part-worths) to get the total value for a profile (Hair *et al,* 2010). In other words, the model is based on the additive composition rule.

The use of ACA also fits the online data collection method to be employed. In designing the online survey, precautions were taken to prevent 'bad data'. As such a functional, (1) simple web-design was created; (2) the need for fully complete surveys was emphasized; (3) the respondents were explicitly advised that the survey would take approximately 20 minutes; (4) an attractive incentive, in the form of a prize draw was offered to completed entries (Appendix 17), and (5) it was ensured that IP addresses were stored (Melles, Laumann and Holling, 2000). With respect to the constraints of this study, the IP addresses were not only taken to ensure that there were no duplicate entries but also to match the data from the attitudinal and demographic questions present in the Qualtrics section of the study to the conjoint data given in the ACA Sawtooth section.

Other considerations in designing the conjoint study included the attribute measures, namely the levels or part-worths of the attributes, which are discussed in Chapter 8, Section 8.3 (as attribute selection is informed by both the literature review and exploratory research). However, it is again noted that the attributes and levels have been designed to include a wide enough range to allow current and future markets to be stimulated (van Zyl, 2008) and are communicable and actionable (Hair *et al*, 2010). There were no prohibited pairs within the attributes and levels, as such, any combination of the attributes and respective levels may be found in an online hotel review. The next stage of conjoint design considerations are based on the assumptions of conjoint analysis.

Stage Three: Assumptions of Conjoint Analysis

Hair *et al* (2010) advised that while conjoint analysis has few statistical assumptions the method is theory-driven in its design, estimation and interpretation. As previously discussed, the designed model for this study follows the additive composition rule. The part-worth relationships have been designed as a linear model because a monotonic relationship has been assumed to exist among the attribute levels. While many considerations must be made to ensure valid conjoint data results, it is believed that the research will follow all necessary steps and sufficiently addressed any concerns, issues and idiosyncrasies in the research design when fully discussed in Chapter VII.

The CA was developed and administered with Sawthooth software, the industry standard for ACA studies. The university's limited licence for Sawtooth, allowed ten conjoint attributes with up to fifteen levels to be inputted. However the number of additional questions before or after the conjoint section is restricted. The proposed study cannot be completed with sole use of Sawtooth. To overcome this issue Qualtrics was also used to facilitate the initial introduction, attitudinal, personality and demographic questions. An automatic link to the Sawtooth CA element was entered at the end of the initial Qualtrics questions. To ensure the transfer is as seamless as possible and that respondents get the same 'sense' of the task, the layout and colour schemes of both software options were matched as closely as possible.

Conjoint Design

ACA studies are designed with four stages: to find (1) the preferences for specific attribute levels, (2) the importance difference between the least preferred and most

preferred attribute level, (3) the paired comparisons and (4) the calibration purchase intention questions (King, Hill and Orme, 2005).

While the ACA questions asked will change in relation to respondent preferences, the CA study will follow four distinct stages. Firstly, respondents are forced to answer ratings questions to measure the levels in terms of relative preference (ACA, 2007; King, Hill and Orme, 2005). Figure 7.6 illustrates a sample ratings question:

Please rate the following types of content found in online hotel reviews in terms of how influential they are.

	Not Influential				Very Influential
the review includes lots of factual information (the number of rooms, restaurants, the size of swimming pool)	○	○	○	○	○
the review includes lots of opinions (the friendliness of staff, the level of service)	○	○	○	○	○
the review includes both fact and opinion (the pool was large and the service was good)	○	○	○	○	○

Figure 7.6: Sample Ratings Question

The next stage respondents answer importance questions (Figure 7.7 Illustrates a sample importance question) based on the most preferred and least preferred answers from the ratings question (ACA, 2007; King, Hill and Orme, 2005). In this study the respondent rated how influential (on a five point likert scale) the difference between the most and least preferred choices they had previously answered in question 1 (the ratings questions)

If two Hotel Reviews were identical in <u>all other ways</u>, how influencial would <u>this difference</u> be to you?

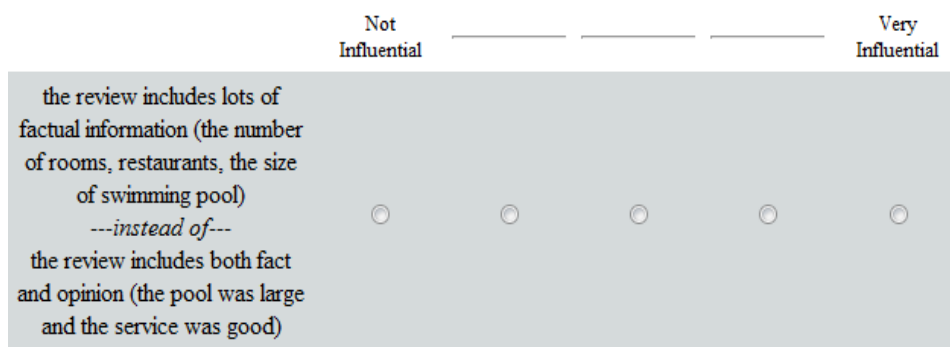|	Not Influential				Very Influential
the review includes lots of factual information (the number of rooms, restaurants, the size of swimming pool) ---*instead of*--- the review includes both fact and opinion (the pool was large and the service was good)	○	○	○	○	○

Figure 7.7: Sample Importance Question

The paired comparisons questions (conjoint analysis) follow. Figure 7.8 and Figure 7.9 illustrate sample paired comparison questions. This section covers the consumer's trade-offs will be made, questions are customised on the bases of previous responses during the ratings and importance sections (ACA, 2007; King, Hill and Orme, 2005). Essentially the paired comparisons force the respondent chose their preferred review made up of groupings of the possible credibility evaluative cues identified in the answers from first and second sections. As such, the questions for each respondent may differ depending upon their previous answers.
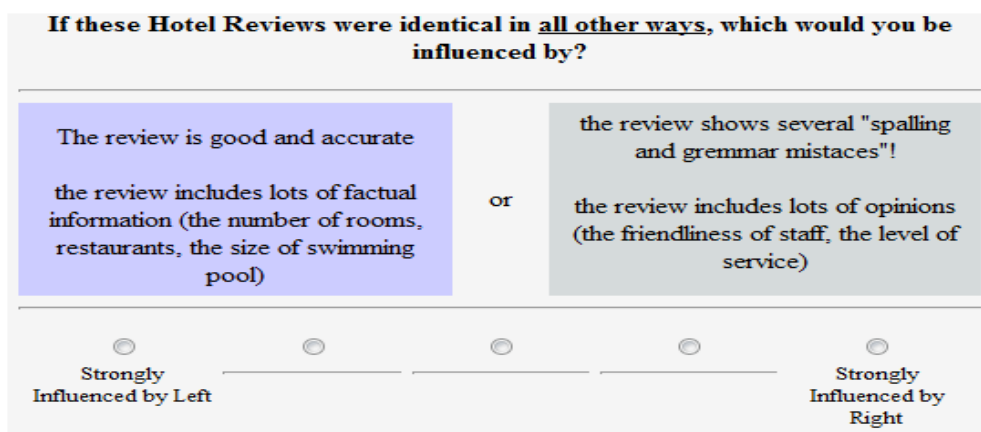
If these Hotel Reviews were identical in <u>all other ways</u>, which would you be influenced by?

The review is good and accurate the review includes lots of factual information (the number of rooms, restaurants, the size of swimming pool)	or	the review shows several "spalling and gremmar mistaces"! the review includes lots of opinions (the friendliness of staff, the level of service)
○　　○　　○　　○　　○		
Strongly Influenced by Left		Strongly Influenced by Right

Figure 7.8: Sample Two Paired Comparison Question

If these Hotel Reviews were identical in <u>all other ways</u>, which would you be influenced by?

The review is on a personal blog The review is good and accurate the review is both negative and positive (the room was unclean when we arrived but we were swiftly moved to another room)	or	The review is on an independent review site (TripAdvisor) the review shows several "spalling and gremmar mistaces"! the review is positive (the hotel was clean and the service was great)

◎   ◎   ◎   ◎   ◎

Strongly Influenced by Left   Strongly Influenced by Right

Figure 7.9: Sample Three Paired Comparison Question

The final stage of ACA is comprised of calibration questions using the attributes determined to be most important. ACA (2007) advise that the concepts are chosen to occupy the entire range from very desirable to very undesirable from the respondents previous answers. The respondent is then asked the likelihood that the online hotel review would influence choice (Figure 7.10). At this point there are multiple groupings of the credibility evaluative attributes and the respondent is asked to rate how likely that review would be in influencing their hotel choice. All answers from the first section through to this final calibration section are combined for each individual respondent and the relative importances and part-worth utilities are provided as the output. It is this output that is used in the data analysis.

Figure 7.10: Sample Calibration Question

Due to the design and length of the CA study and modification on a respondent by respondent basis, a full sample survey is not included. Figure 7.6 to Figure 7.10 provided an accurate representation of the questions asked during the CA study. The design and wording of the CA study is believed to be as simplistic as possible to ensure that any interested respondent from the sampling frame could be confident in answering the questions.

7.5.2.2 Conjoint Analysis Sampling Considerations

Following the same sampling protocol (Wilson, 2006) as the exploratory consumer interviews, the CA survey was administered as a self-administered online survey. As previously mentioned, calls for respondents were made through the researchers own online networks (Facebook, Twitter, Google Plus, KILTR, personal blog, and the TravBuddy travel community; samples of calls can be found in Appendix 3). Using social networks ensured that the sample frame would be representative of the connected consumer segment. Moreover, in targeting those connected consumers who display the cognitive ability to evaluate information online may increase the

response rate and reliability of the online CA study. As a result, a non-probable convenience sample (Wilson, 2006) was initially adopted. The nature of social media allowed for a snowball sample (Wilson, 2006) to be collected. Over a four week period the researcher made thirty-seven separate calls for respondents. Such calls were then 'shared' and 'forwarded' over fifty times to new network lists. As such, a true representative sample size could not be adequately determined. To overcome this issue, previous research employing conjoint analysis was examined to highlight precedent in sample sizes of CA research.

It was noted that CA represents a unique situation with regards to determining sample size (Hair *et* al, 2010). It is believed that because of the nature of CA, theoretically, CA can be estimated with one respondent if that respondent provided enough choice tasks. Nevertheless, while some previous research believed a true random sample size could be determined within their sample frame (van Zyl, 2008), there was a general consensus that a sample size of 200 was adequate for the purpose of data analysis. Hair *et al* (2010) argued that for typical applications of conjoint analysis, sample sizes of 200 have been found to provide an acceptable margin of error.

In measuring online consumer satisfaction Schaupp and Belanger (2005) reported acceptable use and margin of error in a sample of 188 respondents. Similarly, in previous conjoint studies in tourism, Suh and McAvoy (2005) had reported sample sizes of 140 respondents in three geographical locations, totalling 420 respondents of which the segments were to be compared. Taking the sample sizes employed by previous conjoint analysis studies into consideration, it is proposed that a sample size of around 200 respondents would be adequate for the purpose of this research. To

encourage participation and motivation to prevent 'bad data'; an incentive was given to respondents (Melles, Laumann and Holling, 2000). In this case, respondents could enter a free prize draw for £100 Amazon vouchers.

As previously discussed, the population of interest to the proposed study is consumers who use online hotel reviews to assist in making accommodation purchases. To align the population of interest and the desired sample to the research objectives, an explicit call for respondents who use online hotel reviews was made; this was further reinforced in the opening statement of the survey (Figure 7.11).
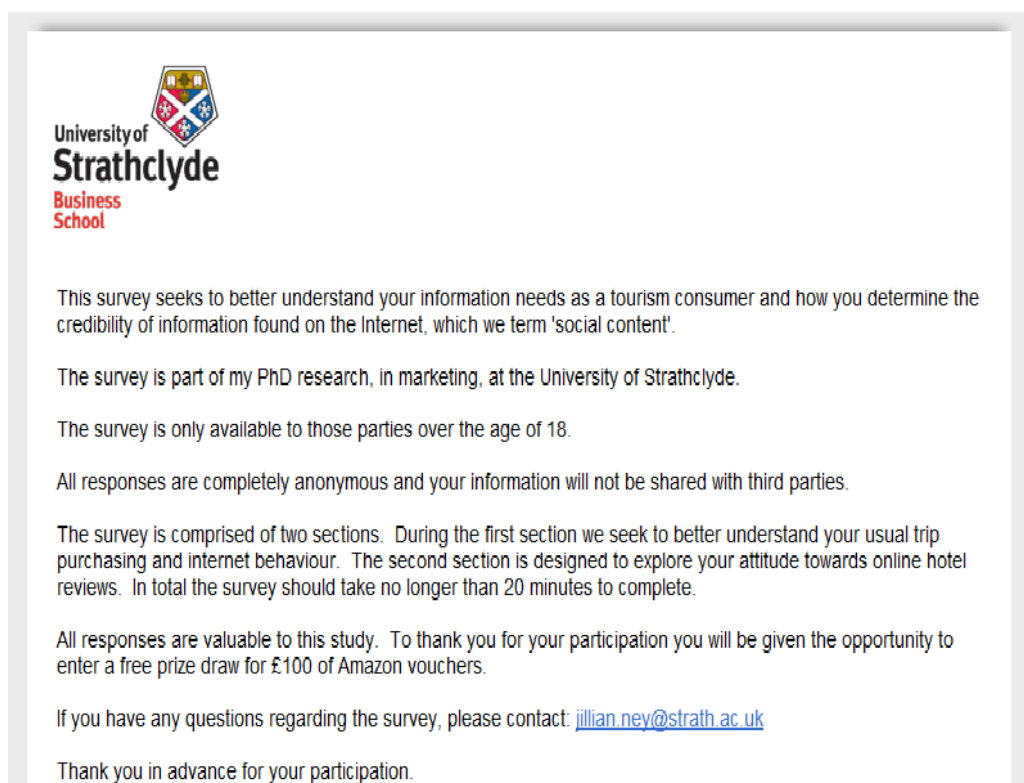

Figure 7.11: Opening Statement and Purpose of Research

Moreover the first survey question asked respondents for a dichotomous yes/no response to the question '***During trip purchasing decisions do you usually use online hotel reviews to assist in making accommodation purchases?***' (Figure 7.12).
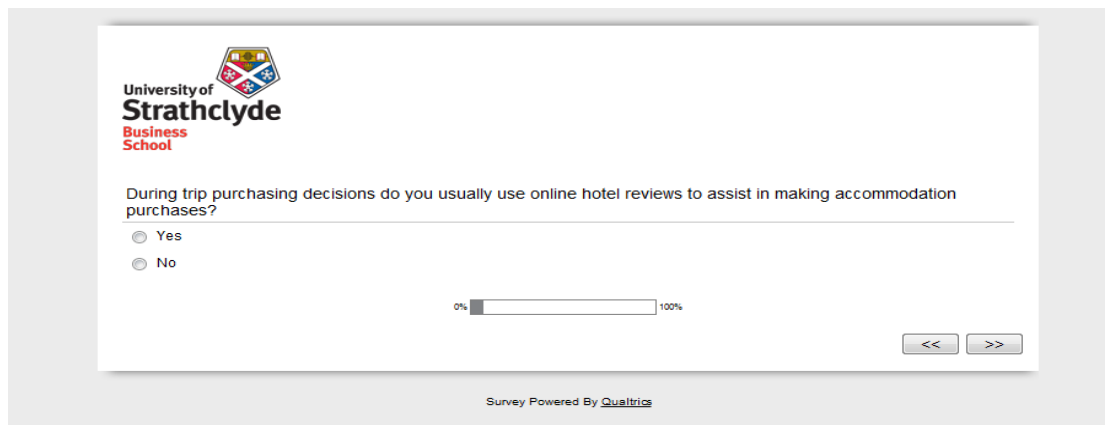
Figure 7.12: Aligning Sample Survey Question

'Yes' responses allowed the respondent to continue with the survey whereas 'no' responses explained that only those who used online hotel reviews were of interest to the study. In administering this question, nine possible respondents who did not use online hotel reviews were removed from the sample. To ensure the validity, reliability, wording and design of the CA study a pilot study was completed before the main study commenced.

7.5.2.3 The Pilot Study – Results/Lessons Learned

The attributes of study were developed in relation to previous literature of a similar nature and the results of the exploratory interviews. Prior to the main conjoint study, both a pre-test and pilot test were conducted to determine the validity of the instrument. For the pre-test, five tourism and media related practitioners were asked to rate the appropriateness of the survey in relation to their information needs. Further to this five academics were asked to rate the appropriateness of the scales, the length of the survey, and the format of scales. From the pre-test the scale for the conjoint analysis was reduced from nine to five, in keeping with the five point Likert scale previously used in the study. The scale format in the conjoint study was

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changed to regard influence and not credibility. The items used to explore the variables of the consumers personal characteristics were reduced to two or three items per attribute; this was necessary to reduce the number of questions and the duration of the study. Following the pre-test a pilot test was completed with twenty-four recent trip planners (consumers currently planning a trip or have planned a trip within the last three months). The small sample size for the pilot test, at twenty-four respondents was adequate in gaining feedback on the question wording and complexity of the CA study.

An online call for respondents who are currently planning or have planned a trip within the last three months was made for pilot test respondents, and a total of twenty four responses were made. The conjoint attributes were then tested to ensure that they were independent of each other. Attribute independence was confirmed and no changes were made based on the results of the pilot test.

7.6   Ethical Considerations

Punch (1986) suggested that ethical issues arise from a clash between personal and professional interests. To obtain the data required a researcher can act badly or overstep the confidentiality boundaries of research. Within this research every effort was taken to uphold ethics. Before all primary research was conducted, the studies had to passed by the ethics committee of the university. In addition, during the interview phases each respondent was informed of the reasons for research and the form of the interview. All respondents also gave signed consent for the interview to be recoded and stored digitally on the researcher's secure computer. All respondents were advised that their responses were confidential and are presented anonymously

in the research findings. During the interview the researcher remained unbiased and did not push for specific answers but allowed for the respondents to talk freely.

In preparing and administering the CA study it was ensured that the questions were not leading; this was confirmed during the pre-test and pilot-test stages. Moreover, the survey introduction advised that confidentiality and anonymity would be adhered to and that only persons over the age of eighteen should undertake the study (Appendix 3).

7.7 Study Limitations

There are several key limitations to the study, which cover areas such as the systems used, duration of survey, sampling and the stimulus of the conjoint analysis, each of which will now be discussed. To undertake the conjoint study two systems (Qualtrics and Sawtooth) had to be utilised in order to get full responses from respondents. The licensing restrictions on the conjoint [Sawtooth] software did not allow for sufficient questions to be included with the conjoint element. To solve this issue Qualtrics software was used to introduce the survey and accommodate the questions regarding the consumer's personal characteristics variables. The transfer between the two systems was made automatically in an attempt to act as a simultaneous transfer. The design of the conjoint element was also modified to mimic the colours used in the Qualtrics element. While every effort was made to ensure ease of transfer, the drop-out rate was seen to be affected by the use of two systems.

Similarly, the duration of the survey acted as a limitation. The results highlighted that the drop-out rate for the survey increased during the conjoint element. It could

be assumed that cognitive cost was high in result of studying multiple attributes. During the pilot study respondents took the survey both with the researcher present and alone, and the results suggested that although the study was large, respondents understood the tasks asked of them. However, during the main study the drop-out rate was significant during this stage, thus suggesting that the duration of the study was a limitation.

It is believed that targeting the connected consumer segment will not only provide richer into how this segment evaluates the credibility of online reviews but as more and more individuals converge online, becoming digital immigrants (Jones *et al,* 2010), the findings will highlight their future behaviours. However, it must be noted that the sample may be skewed as not all consumers can be regarded as 'connected consumers'. Utilising online networks and the 'sharing' effect of social media to reach respondents was an effective strategy it also posed as a limitation to the study; in the sense that there is no control over the type of people taking the survey. In other words, there was no control of the sample composition and owing to the fact that there was no real review, the study could be viewed as contrived. The artificial nature of the conjoint study may have made it more difficult to understand; it would have also been clearer to respondents if they could view a real review. Moreover, the behaviours of respondents may change if they were booking a real situation. An experiment may have decreased this limitation. However time and resource constraints, as well as issues with sample frame and sample size, could not allow for an experiment to be conducted. Nevertheless, the validity tests of the adopted study highlighted that respondents understood the task and that the data was valuable to the research purpose.

7.8   Chapter Summary

The chapter outlined the methodological consideration and the methodology adopted for the study. From the review of literature and original theoretical chapter, it was evident that an exploratory element should be conducted before testing the theoretical model. This chapter proposed that the best fit exploratory method is in-depth consumer semi-structured interviews to overcome the lack of clarity and wide range of attributes studied in previous research. It was also proposed that CA is a good fit for the main research instrument; the desire to view the attribute importances and the relationships between them are characteristics of the CA method. Given the large numbers of attributes and attribute levels, adaptive conjoint analysis was employed in the research. The sampling frame for both the exploratory and main research followed that of today's social media users and respondents were recruited through such media. To overcome limitations with the Sawtooth software, the online CA study was merged with an introductory Qualtrics section where the measures for the consumer's personal characteristics variables were taken.

The design and implementation of the study had not been without problem or limitation, however every step necessary was taken to ensure the validity and reliability of the results. IP addresses were taken and confirmed by hand to ensure all respondents were matched between the Qualtrics and Sawtooth elements. Decisions were made not to follow Bayesian analysis because of the increased complexity of the conjoint task for respondents. The CA was tested for reliability during a pilot study and every effort was made to ensure that the respondents had sufficient motivation to complete the survey. The next chapter discusses the results

of the exploratory consumer interviews and introduces the revised theoretical model,

CA attribute measures and associated hypotheses.

Chapter VIII   Exploratory Research Findings   and Revised Theoretical Model

The previous chapters have reviewed the literature pertinent to the study, introduced the industry context, the proposed theoretical model and outlined the adopted methodology.   This chapter presents the findings of the exploratory consumer research and aims to determine which types of online media are used during a trip purchase decision to effectively focus the main research instrument, confirm the structure of the theoretical model and the model attributes, and ensure that the connected consumer segment is an appropriate sample for this research. In doing so, the findings suggest that only online consumer reviews for hotel purchases should be explored in the main research instrument. The findings augment the basic structure of the theoretical model, highlight the attributes of most significance to the main study, and confirm that the connected consumer segment is appropriate. In light of the exploratory findings the chapter concludes by providing the revised theoretical model, the associated conjoint analysis attributes measures, consumers' personal characteristic variable attribute measures, and hypotheses to be tested during the main study.

8.1   Exploratory Consumer Findings

The exploratory consumer research was undertaken from a perspective of comprehensiveness and parsimony (Whetten, 1989). In other words, the attributes to be tested in the main study must be of value. To reduce the large number of relevant attributes from previous research, consumer depth interviews with a stimulus material element was believed to be the best approach.   The findings of the

exploratory consumer depth interviews not only highlighted that the original theoretical model (Chapter VI, Section 6.4) required modification, but that the wider context of all social media platforms as information sources was not the best fit for this study. The results will now be discussed:

8.1.1   Trip Planning with Social Media

While the results of the study found that trip planning is an essential part of the trip decision-making process, no matter the type of trip being taken, the results also highlighted concerns regarding the trip element under study in this research. Making an informed trip purchase was the main driver to undertake extensive trip planning. The trip type was not found to impact upon the need to information search, although the price of the trip influenced the duration of trip planning with R3:

'*I would say that we [wife] spend about six months planning our trips… It depends on how much we are spending and where we are going… For our honeymoon we planned for over a year but we went to Barcelona last month and planned for about two months'.*

While R3 discussed the importance and duration of trip planning for a honeymoon vacation and city trip R6, discussed the importance of planning family vacations, R6 added: *'Planning trips is important to us [family], we need to make sure that where we go [accommodation] is reasonably priced and is clean and safe for the children'*

Similarly R9, who predominantly planned city breaks, found trip planning necessary to make the most of shorter trips: '*We like to go on city breaks but because time is*

short we need to plan the trip. The accommodation needs to be central, clean and friendly and we want good flight times… we plan a lot'.

These findings suggest that trip purchasing decisions may be attributed to extended problem solving and information search. Moving further into the use of social media in trip purchasing decisions, all twelve respondents used online social content in final purchase choices:

'I would not book a hotel without looking at reviews first'

'I always look at hotel reviews before I buy'

'...It's just what you do now… You look at the hotel reviews to see what the hotel is really like…'

The findings highlighted that while all twelve respondents used social media in their daily lives, therefore displaying a level of 'connectedness'. This connectedness or community tie strength to that particular social media platform did not impact on the decision to use that source during an active trip purchasing decision.

'I use Facebook daily but I would not look for hotel information there… I'd possibly friend the hotel once I had stayed but not before…' (R7).

The type of social content used by consumers was predominantly from consumer review sites. This suggests that while consumers are connected on social networking sites this affinity to be connected does not equate to that source being perceived as a valuable information source during a trip purchasing decision. The composition of the exploratory sample (see Table 8.2; pg311) highlighted that the age, education and

internet usage were generally characteristic of the 'connected consumer' segment. However the ages, education level and internet usage of some respondents (R1, R5, R7, R11 and R12) were not significantly representative of the characteristics of the connected consumer segment. What was interesting in the results is that although these respondents were not traditionally regarded as 'connected consumers' they displayed connected characteristics in their membership of multiple social networking sites and shopping online activities:

'I use Facebook all the time and I'm starting to use Twitter… I shop online for books, cd's and clothes too…' (R12).

Similarly R11 added:

'I use Facebook daily, I also used LinkedIn for professional purposes and I a few smaller more creative networks… I shop online a lot including my food shopping!' (R11).

Irrespective of the respondents displaying significantly representative connected consumer characteristics, the findings highlighted that all respondents used social media to some extent during their pre-purchase trip purchase decision. The findings highlighted that there was variation in search patterns between the respondents, the connected consumer segment. Respondents R8 and R9, although displaying significant characteristics of the connected consumer segment were not shown to conduct a wide or deep social content search but only searching for reviews within holiday aggregator sites. This finding suggested that the demographic theories of connected consumers may not be representative of actual behaviours, that there is also variation in 'connectedness' between the connected consumer segment and this

connectedness may be a mind-set. These findings further suggest that consumer reviews should be the focus of the main survey instrument of this research.

Further to finding that only consumer reviews should be the focus of the main survey instrument, the findings of the exploratory study also indicate that only accommodation purchases should be under study. It was evident that some trip elements require more planning than others. A general emphasis is placed on the need to further search and deliberate accommodation purchases. Indeed accommodation purchases hold the most significance in trip planning and trip planning with social media. R9 suggested that accommodation purchases require more planning with the use of social media because:

'You need to see what the hotel is really like… you are going to be sleeping there… I think that it is the most important choice when going on a holiday' (R9)

R2 added: *'I only use reviews for hotels, I know the place I want to go and a flight is a flight… I need to know more about the hotel than anything else'* (R2).

During the stimulus element of the depth interview, in particular during the evaluation of the airline reviews (E1 to E6) R1, R2, R3, R5, R6, R7, R8, R9, R10, and R12 were all quoted as saying:

'I would not search reviews for flights...'

R3 added: *'I honestly would not read that… who checks reviews for flights?'*

There may be several reasons for this. The first is of which concerns price, the respondents were all price sensitive with transport but less so on accommodation:

'I would normally get the best deal I could on flights and then spend the money on better

accommodation. I would always check accommodation but price is the key indicator in flights' (R7).

The second was the limited supplier choice and previous experience with brands:

'I have flown loads of times, I know the brands and what they stand for… sometimes you can

only get one airline to take you anyway, choice is limited…' (R8).

The third was the homogenous nature of supplier offerings:

'I already know most things to do with airlines or trains… I know what I'm going to get when

I buy a flight… They are all the same anyway, I don't need to check reviews to tell me what

I'm getting' (R11).

The study also found that many consumers already have a destination in mind, during the trip planning stage they are mainly looking for accommodation purchases to fit their needs:

'We have normally already decided where we want to go…' (R3; R8; R11).

Information search for destination specific activities and ancillary services were found to be offline rather than online:

'I find it difficult to find the information I want about the destination, restaurants, bars… I want a local perspective not a tourist, I can't find that easily on social media…'

Where R8 stated:

'I would use destination guides for activity information…'.

The findings suggest that the context for the main research instrument should be narrowed down to accommodation purchases only. The lack of social media information search for other trip elements [destination, transportation and destination activities] could potentially decrease the validity of the results as many respondents may not have experience of using social media for such trip planning decisions. In other words, they may not be able to recall the processes or cues used to determine credibility of information for those trip elements due to insufficient experience. While the research found that all twelve respondents actively used social media, in particular online social networking in their everyday lives, the use of such sources did not form part of the trip planning search strategy:

'I wouldn't use Facebook to look for information on a hotel…' (R3)

'I wouldn't use social networking sites to search for hotel information…' (R1)

The newness of such a search strategy emerged as the key reason for lack of search through social networking platforms. The lack of awareness of social networking sites as providing 'quality' information was also evident:

'I don't think I would get the same information from a hotel Facebook page… its run by the hotel anyway…' (R11).

Within a credibility focus, commercial sources of content were not regarded as credible. The credibility and reliability of information obtained from social media sources were key concerns for all respondents. R2 raised concerns over the relevance and credibility of online social content:

'You get so much more information [with social media] but it is mostly people's opinions… if you read reviews a lot of them are negative because something happened in the hotel… if a waiter was rude or the bathroom light was out… they are not all totally relevant and some are probably made up… who should I believe?... but I still use them..' (R2).

The findings highlight a general level of scepticism towards online social content because:

'You don't know who has written it… it could be another hotel…' (R4).

The varying opinions and unknown content creators were a general concern:

'Some of the reviews are good, some are bad, some are just ridiculous, I mean in that one [E10] they were moaning about a bed… You need to be realistic in what they are trying to tell you… It matters when you can see who has written what or get a sense of who they are…' (R11).

Similarly, the source characteristics had importance in determining the credibility of the content:

'The reviews from sites like Expedia are very short but on TripAdvisor they can be pretty long… there are also hints and tips in some of them… you worry about the

very positive short ones, they seem to be on the sites where something [accommodation] is being sold… maybe they are that way to show the hotel in a positive light but that doesn't help me…' (R7).

The findings confirm the structure of the proposed theoretical model (Figure 6.1; pg183). The content characteristics, content creator characteristics and source characteristics are used to determine the credibility of online social content. The findings also suggest that the credibility of online social content is impacted by the consumers' personal characteristics. The basic structure of the model is represented in Figure 8.1 .
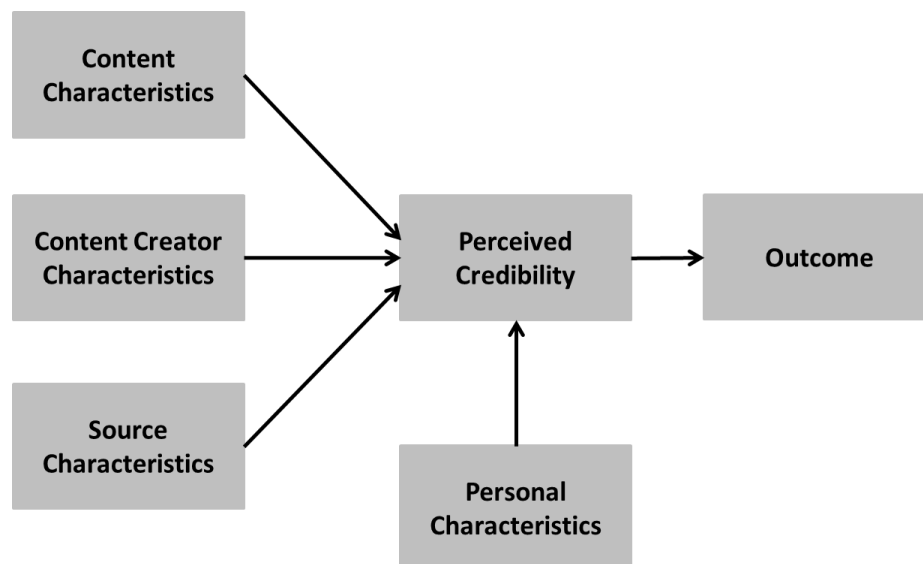

Figure 8.1: Confirmation of Model Structure

The next objective of the exploratory research was to explore the significance of the evaluative cues and consumers' personal characteristic variables from previous research. The aim was to ensure that the new theoretical model is representative of the most valuable evaluative cues and consumers' personal characteristic variables, to be tested in the next phase of the research.

8.1.2   Content Characteristics

In total, twelve content characteristics were believed to be used in credibility assessment. This research found seven characteristics to be of significance to this study. The key content characteristics are of both a normative and informational nature. The concept of argument quality (shown in the model as individual attributes of timeliness, relevance, accuracy and comprehensiveness) holds significance in two of the constructs determinants, timeliness and accuracy. The timeliness or date of the review is significant in terms of its relevance on the current date:

'I would check the date of the review… we went to xxxx and it did have a couple of bad reviews but they were nearly a year old and the place had been renovated in that time… other people had given the reviews high ratings that were no longer valid…' (R6).

The findings suggest that online social content, for accommodation purchases, has a date of expiry. In other words, the content is more useful when it is current, there was a general consensus between all respondents that:

The date of the review is important

While many respondents did not freely discuss the date of the review during the stimulus element of the interview, when probed, it emerged that because the stimulus was not in a *real life* purchase decision, the date of the review was not checked:

'I would check the dates if I was doing this for real… I just didn't there because I wasn't going to buy something…' (R2).

When asked about the timeliness of the review respondents R1, R2, R3, R8 and R11 noted that they would stop reading reviews when the date was over three months old. It was believed that:

'Changes could be made to the hotel in that time… staff, management, interior... I'm just more comfortable with reviews closer to the date that I read them…' (R8).

R11 noted that seasonal changes may affect the review:

'I like the review to be recent… I once read some reviews that were from the summer but I was travelling in winter… the air conditioning wasn't going to affect me at that time of the year… I need something that tells me about the now not the before' (R11).

The findings illustrate that the most current content is the most influential because it is recent and more relevant to the consumer. Moreover R6 was not influenced by the content in the dated reviews; a purchase was made after reading negative reviews that were almost a year old. In addition R6 added:

'Getting up-to-date information is important to me as I am travelling with my family… I need to know what is happening now… it is a bit risky otherwise with the children' (R6)

The second determinant of argument quality, accuracy, was also found to impact the perception of content credibility. In the context of this research accuracy, was found to be the accuracy of spelling and grammar. During the stimulus section E2

(Appendix 5) had many spelling mistakes and grammatical errors which had a significant impact upon the influence of the review on a purchase decision:

'Look at that spelling! How bad? It affects the whole review and I think she has written this when she was still angry with the airline… It [the review] would not affect my decision' (R8).

R10 added:

'The exclamation marks, too much… I hate it when people do that… the spelling is poor too… I would not count what I have seen here in my decision'

Poor spelling and grammar was found to decrease the affect intensity of the review. The respondents did not relate to the narrative when spelling and grammar was poor, there the relevance was reduced. However, the use of accurate spelling and grammar increased the influence, affect intensity and emotion of the review. While R8 and R5 felt that is was *bad* to discredit a review based on poor spelling or grammar it was what they would usually do when reading content online. The significance of good spelling and grammar on perceived credibility was encapsulated by R2:

'When it [the spelling and grammar] is good it looks like they have taken more time to write the review which means more to me… If the spelling is bad then sometimes you think they are annoyed with the hotel, in their annoyance they have written quickly and don't care… they just want to rant and I don't really pay attention to those types of reviews'

The accuracy of spelling and grammar was also found to impact upon the objectivity of the content. In the cases of poor spelling and grammar, the inaccuracy was

believed to be associated with extreme negative opinions. In other words, the credibility of the attitude value versus simple value of the message content may be affected by the accuracy of the spelling and grammar. The cue of attitude value versus simple value holds importance in determining the credibility of online social content. It was noted by R3, R9 and R12 that:

Reading other peoples' experiences helps to make decisions because they give you real opinions on the hotel and the service given

Simple value messages were perceived as more credible than attitude value messages because of the story like nature of experiences and opinions:

'I like to see what other customers have written, what their advice is about the hotel... hearing what happened to them and information about the hotel helps to make a decision... it's almost like reading a story' (R5).

Respondents were effected by the emotion within simple value narratives where they could relate to or place themselves in the position of the content creator:

'When you read something like that [E3] you can relate to the person... there is a story behind it and you can imagine it happening to you...' (R6 discussing E3)

On the other hand, online social content that was based on fact or attitude value messages was treated with a level of scepticism:

'If you see a review with simple facts about the hotel, like details about the pool or the pool bar you sometimes think it has been the hotel writing the review... I don't

think a person would write something like that because it is not really that helpful…' (R4).

However, online social content which comprised of both attitude value and simple value messages was the most credible during the stimulus element. It was found that E4 was the:

'Kind of review I would like to see… simple, says what happened and what the flight was like… if you could get hotel review like that it would be great…' (R3 discussing E4)

Similarly R2 and R7 noted that E6 was:

A good review, I would be influenced by

As an informational cue, attitude value versus simple value effects the credibility of content because simple value messages were deemed *helpful* and *story like,* while attitude value messages were attributed to marketers' efforts to influence decisions:

'If you see lots of facts you sometimes just think that the hotel has written the review, it is always positive but you don't see any real opinions… reviews like that won't affect my hotel choice…' (R6).

Credibility perceptions are impacted by the narrative characteristics, with the most influence at both attitude and simple value. This suggests that two sided arguments [attitude value and simple value] should be included in the study as well as the effects of the message value, to explore review comprehensiveness. For the purpose of this study, the attribute definition then moves from attitude value versus simple

value to message value. Taking comprehensiveness into consideration, the length of the review was also found to impact upon credibility perceptions. Online social content containing both attitude value and simple value messages were found to be the most credible, therefore suggesting that the length of such reviews will be longer than average. The results mirrored this assumption, as the length of the review effected credibility perceptions. During the stimulus material element, the shorter reviews (E7 to E9) were not found to be credible:

'That is just one line long saying it was good, that is not any help… I wouldn't take that into consideration… I want to know why it was good…' (R8)

R1 additionally added:

'You would wonder why it was that good but they could not be bothered to write about why it was good… this is not a good review…'

The average review length E11 was found to be credible, however this has already been partly explained by the attitude value and simple value messages in the review. When review length was discussed the respondents agreed that:

'A review that is fairly long can be useful… It seems like they have thought about what they were going to say… taken care when writing and that signals credibility to me…' (R2).

Comparing average to long reviews R10 stated:

'You get more of a feel for the person writing the review when they are longer… generally they talk more about their experiences and give advice on where to go in

resort not just about the hotel… Ones that are average length will probably just be about the hotel but they can be good too…'

However the findings did not confirm the difference in credibility perceptions of long, average and short reviews. R1 noted that in longer reviews you need to check the star rating given to the review before reading it, which suggests a level of scepticism towards the review usefulness:

'You tend to find the reviews with more detail, their whole experience and with tips and things to do when you are there have a high rating… sometimes it can be good to look at the rating before reading a long review to make sure it is useful… not all of them are useful or credible it depends on if something bad happened while they were there…'

During the stimulus element, the long reviews of E10 and E11 were not found to be credible:

'I would not finish reading those reviews… Too long and a lot of rubbish… it depends on how motivated you are to read them and the relevance of what they are saying… but the bed is a bit small, so what? No, I would not take that into account when I was making my decision…' (R3 discussing E10 and E11).

The credibility of review length was found to be impacted by the sideness of the review. In the case of E10 and E11, the reviews displayed a negative sidedness. While many of the previous studies explored the valance or framing of the review, this study finds that sidedness was the most appropriate and relevant attribute to measure credibility:

'The review [E10] is all about a bed… there are no positives here… surely you could add in a bit about what the room was like… it would be better if they balanced the review… all I see just now is a rant about the bed…' (R11 discussing E10)

The results suggest that balanced reviews, both positive and negative points would increase the credibility of the content. The attributes of framing and valance concern a one sided argument, either positive or negative, as the results found that two sided arguments are more credible than one. Sidedness was believed to hold the most significance to the study. This is further confirmed in responses to positive content:

'You don't for a second believe that everything was great unless you are looking at a five star hotel… things happen, you expect things to happen… how they sort the problem is the interesting part… I work in the hospitality industry and service recovery matters to me… I don't find the really positive reviews credible, it would make more sense to me if there had been an incident and how the incident was resolved was discussed… it happens all the time, no service is perfect…' (R2)

The desire for information on service recovery information strongly indicates that sidedness, rather than valance or framing, affects credibility perceptions more significantly. This is further corroborated when exploring the significance of argument strength on credibility perceptions:

'This review is really negative, it's too negative… it just looks like they are ranting…' (R1 when discussing E2)

'Really when you see an overly positive or negative review you are a bit sceptical… not one good thing or one bad thing happened the whole holiday?... I don't believe it!' (R5)

R11 added that review sidedness is important as:

'You look at the reviews to check to make sure you are going to a good hotel… you already have an image of that hotel in mind and you check to make sure it is as good as what you think…'

Similarly R9 and R10 added:

You mainly just check to make sure you are making the right choice with what you already think

Perceived credibility is significantly determined when the strength of the argument contains both sides of information, positive and negative. Extreme positive or negative content is not believed to be credible when evaluated as a cue alone, because such sidedness will be used in the main research instrument. While sidedness assists in determining the credibility of intangible service based elements, credibility of the content discussing the tangible aspects of a hotel, including *rooms, bathrooms, restaurant, fixtures and fittings, the location of the hotel, swimming pool and views from the hotel room* were evaluated against the addition of photos and/or video:

'When you hear that the room is dirty or the pool area is unkempt you want to see evidence of this… a picture would be great!' (R12)

'I like to see some holiday snaps… you get a better picture of what the hotel is like… pictures on hotel websites have been taken to make it look nice, holiday snaps can show the real picture…' (R10)

The addition of photos and/or videos is seen to increase both the social presence of the content, reducing the perceived gap between the content creator and the consumer reading the content, and corroborates and confirms that the stated arguments are true. Increased social presence in the form of photos and/or video increases the credibility of the review because the reader was not only relying on a narrative but also pictorial evidence, as prior beliefs were disproved in with negative comments:

'If the review is really negative and says that the room is dirty or the carpets are worn… you want to see the evidence of this… on one hand it may be the case but it could just be another hotel putting in a bad review…' (R9)

During the stimulus element, the negative review in E12 was found to require evidence of the claims made:

'The review is a bit extreme, I would like to have seen a picture… especially as he is a hotelier…' (R8 in discussing E12)

The findings suggest that social presence is important and increases the credibility of the content more than additional content being written, especially in high involved respondents and those with a high disposition to perceived risk. R7 added that:

'... I think it is a nice touch [the addition of photos] and I would spend time looking at the photos because I like looking at the hotel and other peoples experiences...' (R7)

Social presence, as a normative evaluative cue, significantly increases the credibility of the content. Viewing review rating, as another normative based cue, also impacts upon credibility perceptions:

'I always look to see if the review has been given a star rating... you feel a little bit more confident that the review is going to be helpful...' (R2).

Similarly, R5 displayed a similar strategy in exploring additional cues to evaluate the credibility of content:

'I like to see if other people have rated the review... it must mean it [the review] is good... I'll read that review and take it into account' (R5).

The findings highlight that the rating was used to assess the perceived quality of the information before reading the content. The strength of this rating both positively and negatively affect the perception of the review:

'If the rating is low I just skim the review... it's funny because when you see those reviews they really are bad... they are not helpful or really credible, I suppose...' (R7)

R5 added:

'The rating can be good when you are skimming reviews... go to the ones with the highest ratings...' (R5)

Whereas R11 noted:

'I don't usually look at the ratings… I like to read the whole review and make my own decision… I think it depends on how well you can understand what they are saying, can you make inferences with limited information… sometimes they are a jumble… then I suppose if you are willing to take a risk that you understand…' (R11)

The findings of the content characteristics highlight that not only are informational cues used during online social content evaluation, but normative cues also play an important role. The results also indicate that many of the cues are used in relation to each other, for example the length of the review as an indication to comprehensiveness, in the form of attitude, simple value messages and the sidedness. Star rating also displayed an interrelationship with review length. Furthermore the review rating is used as an indication of the helpfulness [or credibility of the review]. Sidedness is important when prior belief was high and low with evidence, as such, increased social presence through pictures and/or videos. The next stage of the model confirmation was to explore the content creator characteristics.

8.1.3   Content Creator Characteristics

In addition to evaluating the content characteristics, the content creator characteristics also affected the perception of credibility. A total of eight content creator characteristics were believed to affect credibility of online social content. The findings of this research suggest that the characteristics should be reduced. The characteristics of identity disclosure and geographic location are correlated and significant to the study:

'I read the review and check to see where the person is from…' (R1)

'You want to find out about the person writing the review… a bit of who they are and where they are from but you don't always get that information' (R6)

During the stimulus material, element R5 stopped evaluating E10 because the review would not be included in the final decision:

'They are from the USA… that explains a lot, they want better service… not really something that would bother me'

The need for identity descriptive information was attributed to credibility because of the high anonymity social media offers:

'You don't know who is writing this stuff… there has been a lot written about TripAdvisor and fake reviews… you want to know more about the reviewer to try and make sure the review is real…' (R1)

'Checking details about the reviewer… who they are, where they are from is just part of the process… If you don't see that type of information then you're a bit sceptical of what the review says… how are you supposed to know it is not another hotel?' (R4).

The disclosure of identity descriptive information is attributed to reassurance that the content was written by a real person and not another hotel, and to better understand the opinions in the review:

'If someone was from Asia I don't think I would use that review as much as I would someone from the UK or even Europe… They look for different things…' (R10)

While identity disclosure is an important cue in determining credibility, concept of perceived homophily is also attributed to credibility perceptions. As with R10's statement, a general theme of perceived homophily was found to affect the credibility of content:

'I want to see that the person is like me… from a similar area, are travelling for similar reasons… their likes and tastes matter too' (R12)

Also related to homophily, the characteristics of reason for travel and lifestyle are also correlated:

'Why they are travelling and if there were children can affect the credibility of the review… business people and families are looking for different things than me…' (R9)

R11 added:

'The reasons for travel and lifestyle are really similar… seeing that a person is travelling for business suggests they are looking for business facilities, they don't matter to my lifestyle'

The usefulness and credibility of the content is impacted by the reason for travel and lifestyle attributes of the content creator; however it was noted that such information was not always available:

'The reviews where you can't see why they are travelling or get a sense of who the person is, I don't pay that much attention to… those ones are generally shorter and don't tell you what you are looking for…' (R1).

The results suggest that while the disclosure of both identity and travel reason/lifestyle information is important, the credibility is increased and there is a perceived sense of homophily between the content creator and the consumer. Homophily should therefore be included in the measurement of identity disclosure and travel reason/lifestyle and not used as an independent attribute because confirmation of prior belief also affects identity disclosure and travel reason lifestyle credibility:

'If what you already think is confirmed then you check the details of the person to see if they relate to you… you then relate to that review…' (R5)

The remaining three characteristics of expertise, reputation and exposure were all found to be correlated:

'I like to see if they have written other reviews to make sure they are a real person and to see if they generally write reviews… you can see if they mostly write positive ones or negative ones… that helps to understand the review you are reading…' (R4)

Previous exposure and the reputation gained from such exposure was important to R4 during credibility evaluation. However, no other respondent used expertise, reputation and exposure cues during credibility evaluation. During the stimulus element R3 noted:

'I would not take that review into account… He is a general manager of a hotel talking about unionised workforces… conflicting much?…' (R3 discussing E12).

The expertise of the reviewer was not beneficial to the perception of credibility. The inherent bias of the statement: *'I guess this is what you get when you have a*

*unionized work force cleaning rooms' w*as found to be unhelpful and lacked credibility due to possible bias of the content creator. Although this statement negatively affects the perception of credibility, the content creator was explicit and open in showing 'expertise', which was not common throughout the other stimulus material reviews. The evaluation of identity and travel reason/lifestyle is an automatic process in reading and processing the review, whereas the expertise, reputation and exposure depends on the information being openly provided. Therefore information is not always provided, as such the characteristics of expertise, reputation and exposure were removed from the theoretical model. Consequently travel reason/lifestyle is believed to be a better indicator in credibility evaluation. Due to the interlinked nature of the two attributes, lifestyle is also argued to include the reason for travel. The next stage of the model explored the significance of source characteristics on credibility evaluation.

8.1.4   Source Characteristics

The proposed theoretical model attributed three source characteristics of source type, source platform and source reputation. The findings of the exploratory study indicate that the context of the review should only centre on consumer reviews. There are several reasons for this, the first of which was that all respondents freely discussed the use of online hotel reviews to assist in their purchase decision. Many of the respondents believe that is important to check reviews as a source of information:

'I always check reviews before making a [hotel] purchase… I want to see what other people have to say, I don't trust the marketing blurb… websites are designed to sell' (R4)

'I wouldn't book until I compared a few reviews… there are things that wouldn't normally be shared' (R3)

The use of other source types [blogs, Facebook, Twitter, wikis…] are not of significant interest or use during trip planning. Given the lack of use and experience in evaluating other source types, it is argued that consumer reviews should be the focus of the main research instrument. Indeed, only R4 indicated that other social media types may be used:

'I sometimes read blogs or ask my Twitter followers where is good to stay…' (R4)

The second reason stemmed from the story-like nature or simple value opinions of consumer reviews. Consumer voice, opinion and experience are attributed to the motivation to use online social content during trip planning, and consumer reviews are the best source type to obtain such content:

'I like to see what other customers have written, what their advice is about the hotel… sometimes you can get the wrong impression of a hotel from websites, I think that the reviews have much more valuable information to help me make a decision on what hotel to choose…' (R5).

R11 noted that:

'You have to really search for that information [non consumer review]… I had to do it once when I was booking flights and accommodation in South America… it was hard to find and I didn't know the site… (R1).

Therefore, the complexity of search, increased cognitive effort required and lack of reputation or trust cues in other online social content source types, particularly blogs, deters users. This was again illustrated in the responses given:

'It's too hard to find blogs, not really worth the effort when you can get what you need from reviews…' (R2)

'You don't know who has written the blogs or how popular they are… you can get better information from reviews and they are all there… you also know where you are getting the information from…' (R12)

The source type affects the use of online social content, in that, most respondents only used consumer reviews during trip planning. The characteristic of source type therefore dictates that the context of the research be altered to model consumer behaviour. Source type does not significantly impact upon credibility perceptions but the actual use of the source. Source type is therefore removed from the theoretical model and integrated into the context of the research.

The findings also indicate that that reputation of the source platform [blog or review site] was important during search but not in relation to credibility evaluation:

'You go to the sites you have used before and the ones you know…' (R6)

'Because you don't know who has written the review you try to use the sites you know… it just seems a little safer…' (R10)

While reputation affects the use of online social content sources, the source platform is a more significant cue in evaluating the credibility of the content. The results

indicate that context of the research should be consumer reviews; from this the source platform, not the perceived reputation of the source effected credibility evaluation. The characteristics of independent versus commercial review sites were found to considerably effect credibility of reviews, the general consensus was:

I think that reviews are edited on those sites, they are so much shorter than the ones on TripAdvisor… They all seem to be positive, that can be worrying…. (R1; R2; R5; R8; R10)

The sites with a commercial nature are less trustworthy and credible than those perceived to be independent. The respondents are sceptical of commercially based platforms. However both commercial and independent sources are used during trip planning:

'I look at the reviews on the site [commercial] and then the reviews on the other sites [TripAdvisor] before I make my choice' (R11)

'…Start by using Expedia or Last Minute and get options within my budget… I would look at the reviews there first and then go to TripAdvisor… I may even look at the hotel website before I decide on my purchase…' (R7)

The response by R7 suggests that branded spaces were, to a lesser extent, also important during trip planning. This suggests that source platform characteristics should also include branded social spaces. While branded social spaces, such as Facebook pages, are not seen to be frequently used during trip planning, the findings indicate that their credibility requires further exploration. It is also believed that the credibility of blogs, as a source platform, should also be explored during the main

research instrument. With this in mind, source type [consumer reviews] has been attributed to the context of the study and source platform was included in the final theoretical model to be tested during the main research. The final stage of the model was to explore the impact of consumer's personal characteristics on credibility evaluation, this will now be discussed.

8.1.5   Personal Characteristics

The exploratory findings confirmed that consumers are not homogenous in their approach to online social content search and evaluation. In other words, the consumer's personal characteristics impact upon the search for information, the depth of search and also the cues used during credibility evaluation. From the eleven characteristics in the proposed theoretical model, six were found to significantly impact upon credibility evaluation, with the addition of a new characteristic of risk taking propensity. Shopping goals were removed from the theoretical model because respondents automatically assumed the position of an active, objective search; essentially, respondents became involved in the process. The depth of answers during the stimulus element suggests that during the main survey instrument, shopping goals should be assumed to be an active search, not a passive 'surfing' or pleasure information search. This was further confirmed with a general consensus that:

Trip planning is something that has to be done… I don't do it for pleasure

The results suggest that as trip planning is not a pleasurable way to spend time online. When trip planning is being conducted it has a purpose and is therefore goal directed. The characteristics of interpersonal influence, tie strength and trust were

also removed from the theoretical model. All respondents were influenced by online hotel reviews:

'I have changed my mind about a hotel based on stories I have read in reviews…' (R7)

'I read a really bad review and it did affect what I thought about the hotel, I started to look at another hotel after reading it… I wouldn't visit the hotel' (R8)

Given that interpersonal influence was high in all cases, the characteristic did not impact upon credibility perceptions and was removed from the theoretical model. The predominant use of online hotel reviews during trip planning and the influence of such content on purchase decisions similarly suggested that tie strength should be removed from the theoretical model. Online reviews are produced from weak tied sources where the consumer is unlikely to know the author. Tie strength would suggest that such recommendations would not be influential, however the findings illustrate the reverse. Weak tied sources were the most commonly used sources and they were also found to be are very influential on hotel purchase decisions. Tie strength was therefore removed from the theoretical model due to inconsistencies between the attribute and actual consumer behaviour.

Similarly, trust was removed from the theoretical model because of the relationship between the influences of weak tied sources. The respondents were found to trust and be influenced by weak tied sources. The level of involvement with the product category impacted upon the depth of content evaluation:

'I tend to get very involved with trip planning… I can spend hours getting all the information and checking reviews… it helps to know you have made the right decision… it can be hard to know what it is going to be like when you get there, that's why review help…' (R1)

Whereas R12 generally looked at reviews on the travel comparison site, the site where the choice alternatives were obtained:

'I only use the reviews from Expedia… that's where I normally book my trips… you get all the information you need there including reviews… I just want to check a couple of things… I look to see if it was good or not… I wouldn't say I searched for a lot for information…' (R12)

In either using independent or commercial sites, respondents' relative level of involvement influences the importance of social presence:

'If you are really into trip planning you have a look at the pictures… sometimes you just can't be bothered and just read the review…' (R1)

Furthermore, the use of the rating cue was found to be moderated by the relative level of involvement:

'If you are in a hurry or just checking a couple of reviews it can be good to see which ones have been rated the highest and then look at those… they must be good because other people have taken the time to say they were…' (R11)

Generally, prior experience or 'expertise' with the internet had been attributed to information search studies, however, the findings of this study suggest that expertise

is not the most accurate measure in regard to establishing credibility perceptions. The concept of technology sophistication found to be a more accurate representation of the complexities of online information evaluation. Technology sophistication is defined as *'the ability to search, process and confidently make judgement decisions on product attributes from online social content'.* The nature of ability suggests that expertise and prior knowledge is correlated to technology sophistication. Although the characteristics and behaviours of the respondent sample were shown to be illustrative of the connected consumer segment, that they are connected and use social a certain level of social content in their trip planning decisions, these behaviours varied between respondents. Respondents were seen to conduct three different search strategies among the connected consumer segment sampled. The first is search only in commercial reviews sites, the second is search within commercial reviews sites and independent review sites, such as TripAdvisor. The third is an extended search within other social networks, this type of search usually resulted in asking questions of the respondents friends/followers:

'I have asked my Twitter followers where the best place to stay or hotel is in a specific area… maybe they have been there (R4).

The results suggested that the respondents' respective level of technology sophistication effects the search strategy conducted. It was evident in the results that the respondents would only search for and within information sources that they were comfortable in evaluating. Technology sophistication impacts on the importance of timeliness: the results found respondents with high technology sophistication use a cut-off date for credible information:

'Anything after three or four months is not really that useful…' (R2)

Whereas R12 who held low technology sophistication would:

'…just look at the reviews that are there… see what people are saying… date is important but within a year…' (R12).

Moreover, technology sophistication influences the ability to evaluate content on specific platforms, where the rating of the review increases the ability to evaluate reviews:

During the stimulus element R12 noted:

'I would not use this site… How are you supposed to read anything?… too long and it's a mess…how do you know what's useful?' (R12)

R9 added:

'It would be good to see the ratings on those because there is so much, it's difficult to read the pages…' (R9)

On the other hand R4, who displayed high technology sophistication used a wider variety of sources and depth of search:

'I work with social media… I find it easy to find the information I need… I have used blogs and asked Twitter followers for advice… I'm a bit sceptical of reviews you need to search a bit deeper to make sure it's not another hotel doing the review…' (R4)

Technology sophistication is an important attribute in determining the credibility of reviews based on timeliness, the need for review ratings and ability to confidently evaluate content from specific platforms. Technology sophistication also influences the relative level of scepticism. Generally those with high levels of technology sophistication hold high levels of scepticism. Such segments were found to evaluate content on all available cues:

'I would look for everything, when it [review] was written, who wrote it, if it was relevant to me….' (R6)

R2 added:

'I would not use the reviews on those commercial sites… they have been edited… they are so short… it just doesn't feel right…' (R2)

The higher the level of scepticism, the more sceptical respondents were of commercially based platforms. This is also representative of the review sidedness, where extremely positive or negative reviews are treated with scepticism:

'If it is too good or too bad you think it's just another hotel reviewing… I would discount it…' (R4)

The level of scepticism is influenced by the characteristic of confirmation of prior belief:

'I usually already have an opinion about the hotel… you just need to make sure the hotel is clean and in a good location… if I get that from the reviews then I'll go with it…' (R10)

R1, R2, R3, R5 and R11 all believed that identity disclosure and lifestyle disclosure is important when beliefs are confirmed. The general belief is that:

'If you see a review that matches what you though that's fine but you need to check to make sure the person is from a similar place to you and travelling for a similar reason...' (R2)

Similarly, when a review is unexpected R1 noted:

'If the review is a bit... hmmm... unexpected then I will look into it a bit further... who has written it... but if the review is ok and just shows you that you are right then you don't need to search as much...' (R1)

As scepticism and prior belief moderate the use and depth of credibility evaluation both characteristics are included in the revised theoretical model. The characteristic of cognitive personalisation also moderates the use of evaluative cues:

'If you read their story and relate to it then you are more likely to believe it... you don't really look for other things if you relate to what they are saying... (R2)

The story-like nature of consumer reviews creates an influential effect on behaviours which suggests that the informational cues of attitude value and simple value would be more important to consumers with high cognitive personalisation. Cognitive personalisation also influences the importance of accuracy and length of reviews:

'When you see a nicely written story you can relate to it... you feel for the person if something bad has happened and think what if that happened to me?...' (R10)

While R5 noted that review length affected affect intensity of the review:

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'That review [E7] is short… it doesn't tell you anything… you get more of a picture with [E10]… although it's not a great review… you can relate to that person and think how would I feel if that happened to me…' (R5 discussing E7 and E10)

The findings also suggest that the additional characteristic of risk taking propensity should be included in the theoretical model:

'If I were going on a holiday myself I wouldn't check as many things as when I was going with my family… it matters more when you have children to look after…' (R6)

R8 added:

'It depends on how much risk you want to take… sometimes we just go with no accommodation booked and find something… other times we research the hotels before…' (R8)

The respondents' level of perceived risk also impacts upon the types of cues used to evaluate the credibility of the content. Those with high perceived risk placed importance on the timeliness of information, the social presence through photos and videos and the rating of the review. The respondents with lower levels of perceived risk did not always finish reading reviews:

'You don't always need to read the whole review… you just get a few bits from it…' (R5).

The characteristic of risk was included in the theoretical model to further investigate the relationship between risk and the depth and importance of review credibility. The final characteristics, demographic characteristics did not display any significant

effects on credibility perception. However they are included in the model as a basis to segment respondents and further explore any differences between gender, age, country of residence, education and occupation traits on credibility evaluation.

8.2   Revised Theoretical Model Development

Following on from the comprehensiveness and parsimony arguments posed by Whetten (1989), this research sought to undertake an exploratory study to determine inclusivity of valuable cues in online social content search. The evaluative cues posed by previous studies were too large to be operationalised in this study. Moreover, the evaluative cues have not been unequivocally proven to be of value to this research by results of previous studies. The exploratory study examined three streams: social media used during trip planning, the generalisable cues used to evaluate online social content and the relative personal characteristics impacting on search and evaluation.

The previously discussed results revealed the process in which tourism consumers search and evaluate online social content. The results highlighted three considerations in the proposed study. The first, the exploratory study suggested that accommodation purchases are the predominant focus of online social content search. Destination, transportation and destination activity purchases/choices were: (1) already decided; R3, R8, R11: '*We have normally already decided where we want to go…*'; (2) did not require online social content search; R1, R2, R3, R5, R6, R7, R8, R9, R10, and R12 were all quoted as saying: '*I would not search reviews for flights...;* and (3) information generally was obtained through offline sources, R7: '*I find it difficult to find the information I want about the destinations, restaurants,*

bars… I want a local perspective not a tourist, I can't find that easily on social media…' and R8: *'I would use destination guides for activity information…'.* As a direct consequence it is argued that accommodation purchases should be the sole focus of the research.

The second consideration is that the research should focus on an objective goal orientated search. During the stimulus element the respondents were all witnessed to be in a goal orientated mindset during trip planning. Moreover, the trip planning activity was regarded as a necessity and not a pleasurable task, as within pleasure or on-going search. A goal orientated search also assumes that consumers are making some level of cognition during the evaluation. To evaluate consumer reviews the consumer would have to be motivated to search, read and evaluate the review.

The final consideration is that the online social content has been produced by consumers [or experts]. The use of BGC was not found to be substantial during the exploratory study, the need to view the 'consumer voice' and not brand communications was witnessed throughout the study. Given these findings, consumer and expert 'voices' will be the focus of the research. However it is noted that such 'voices' may be attained from branded social spaces and as such will be included in the remit of the study.
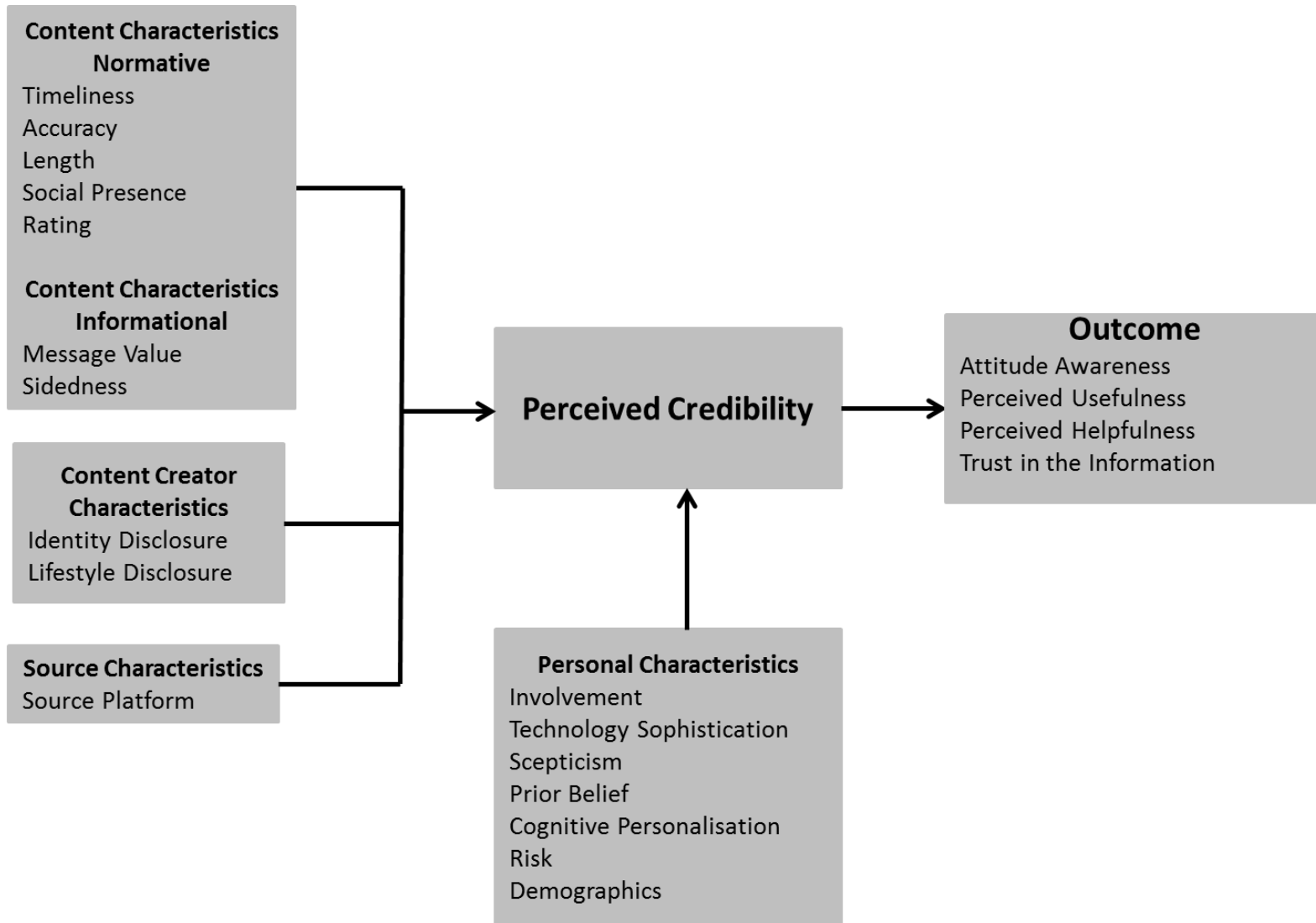
Subsequently, the foundations of the first theoretical model were supported (Figure 22; pg178). Independent variables of content characteristics, creator characteristics, and source characteristics will be operationalised in this study. The exploratory study highlighted which of the thirty-three evaluative cues were of most value to the proposed study. Identification of the ten key evaluative factors and their definitions

can be found in Table 8.1; pg298 and the revised theoretical model in Figure 8.2; pg300. The sections following from the definitions and the revised theoretical model discuss the conjoint measures, consumers' personal characteristic variable measures, as well as the hypotheses which were developed in relation to past literature and the findings of this exploratory study.

Content		Content Creator		Source		Personal Characteristics	
Concept	*Definition*	*Concept*	*Definition*	*Concept*	*Definition*	*Concept*	*Definition*
Timeliness	The amount of time between date of review and date the review was obtained	Identity Disclosure	The disclosure of any identity descriptive information, such as, country of residence	Source Platform	The social media platform in which the content is obtained	Involvement	The degree of psychological identification and prior experience of a stimulus or stimuli
Accuracy	The perceived level of spelling and grammar accuracy	Lifestyle Disclosure	The disclosure of any reason for travel or lifestyle characteristics			Technology Sophistication	The ability to search, process and make judgement decisions on product attributes from online social content
Message Value	Content discusses tangible features, intangible service based features/consumption experience or a combination of the two					Scepticism	The tendency towards disbelief
Length	The total number of lines/sentences					Prior Belief	The level of confirmation/

	in the content						disconfirmation between the received information and the consumers' prior beliefs
Sidedness	The extent to which message arguments attempt to refute opposing viewpoints					Cognitive Personalisation	The affect intensity of the review upon the consumer
Social Presence	The addition of video or photos within message content					Risk	The level of risk taking propensity displayed
Rating	The numerical rating given to content by other readers to reflect their opinion of the content					Demographic Information	The age, gender, lifestyle status, education level, geographic location of the consumer

Table 8.1: List of Attributes and Definitions Studied During the Research

Content Characteristics Normative
Timeliness
Accuracy
Length
Social Presence
Rating

Content Characteristics Informational
Message Value
Sidedness

Content Creator Characteristics
Identity Disclosure
Lifestyle Disclosure

Source Characteristics
Source Platform

Perceived Credibility

Outcome
Attitude Awareness
Perceived Usefulness
Perceived Helpfulness
Trust in the Information

Personal Characteristics
Involvement
Technology Sophistication
Scepticism
Prior Belief
Cognitive Personalisation
Risk
Demographics

Revised Theoretical Model of Review Credibility Evaluation

8.3 Conjoint Study Measurement

The measurement of the conjoint study could not be fully ascertained until after the results of the exploratory study were analysed as the structure of the model and attributes required confirmation. This section will explore, outline, and defend the measurement and scales adopted for the conjoint analysis survey.

8.3.1 Conjoint Attribute Measurement

It is widely believed that the most important component of a conjoint study is selecting the conjoint attributes and levels. The attributes to be measured in the conjoint study were confirmed through the review of literature and exploratory consumer research in order to select the attributes of most value to the study. In a conjoint based study attribute measurement requires each attribute to be represented by two or more levels. Researchers are also advised to include nearly an equal number of levels for each attribute and that each level should create or detract from the overall utility of the attribute (Hair *et al*, 2010). Moreover each level should have either a positive or negative effect on overall utility. Each of the measures for the ten evaluative cues will now be discussed:

8.3.1.1 Timeliness

For the purpose of this study, the attribute of timeliness was defined as: *'the amount of time between date of review and date the review was obtained'*. Normally modelled as a determinant of argument quality (see Cheung and Thadani, 2010), timeliness will be an independent attribute within this study. It is believed that when websites are not updated continuously, the site will not deliver expected performance and provide no value to the user (Madu and Madu, 2002). It could also be argued

that a similar situation exists with reviews, especially in an experience based product. The changing nature of services and the servicescape requires constant updates in order to keep consumers informed of changes in the service; therefore dated reviews will not be as credible as newer more recent reviews. It is assumed that a linear relationship will exist between old and new reviews in terms of credibility and influence perception. While no previous study has set effective defined measurable cut-off dates for reviews (Hu, Liu and Zhang (2008) had time periods of years). For the purpose of this study timeliness levels of (1) less than three months old, (2) between four and six months old, (3) over seven months old are believed to be significant measures.

8.3.1.2 Accuracy

The attribute of accuracy was defined as: *'the perceived level of spelling and grammar accuracy'* for the purpose of this study. While accuracy is generally regarded as an element of argument quality and defined as: 'the reliability of the messages/arguments and represents the user's perception that the information is correct' (Wixom and Todd, 2005), the accuracy of spelling and grammar was found to moderate the credibility perception during the exploratory consumer interviews. Accuracy will be modelled as the accuracy of spelling and grammar within this study. While no study has empirically explored the relationship between accuracy and perceived credibility, Gretzel and Yoo's (2008) exploratory study found that accurate spelling and grammar is the most desired. It is proposed that a linear relationship will exist between the two attribute levels of (1) the review has lots of spalling and grammer mistakes, and (2) the review is good and accurate.

8.2.1.3 Message Value

The message value was taken from the attribute of attitude versus simple value messages and was defined as: *'the content discusses tangible features, intangible service based features/consumption experience or a combination of the two'* for the purpose of this study. Attitude versus simple value messages has generally been operationalised as a dichotomous response, objective, fact based messages or subjective, experience based messages. However, there is an argument that a message containing both sides of an argument will be more credible (Kaims and Assael, 1987; Smith and Hunt, 1978; Swinyard, 1981). In the findings of dichotomous responses those messages which are rational and objective were more influential than ones which are emotional and highly subjective (Petty and Cacioppo, 1984; Petty, Cacioppo and Schumann, 1983). Similarly Park, Lee and Han (2007) argue that high-quality and therefore credible reviews would be logical and persuasive and they support evaluation with reasons based on the facts about a product. In keeping with this line of thought, it could be argued that a linear relationship should exist between simple value messages, attitude value messages and mixed messages. However, it was found that the effects of simple value messages were more persuasive for experience based products than attitude value messages. Therefore, a linear relationship should exist between (1) attitude value messages, (2) simple value messages (3) attitude and simple value messages.

8.3.2.4 Length

The attribute of review length was defined as: *'the total number of lines/sentences in the content'* for the purpose of this study. Based on the fact the review length has been found to positively influence online reviews (for example, Mudambi and

Schuff, 2010), it would be expected that a linear relationship would exist between review length and credibility. This may be explained by the depth of review argument, in that longer reviews would represent a mixed argument and hence be longer (Chevalier and Mayzlin 2006; Mudambi and Schuff, 2010). Previous research has operationalised review length in several ways. Chevalier and Mayzlin (2006) used the number of characters and Park, Lee and Han (2007) set all reviews to three lines. Whereas, Mudambi and Schuff (2010) regarded review length as the total number of words written. As this proposed study is conjoint in nature, the respondent must be able to easily identify and process the measure; as such, the number of characters will be omitted. It is proposed that the most effective approach is to define the levels in terms of number of written lines. Viewing the stimulus material (Appendix 4 to Appendix 15) from the exploratory consumer reviews and considering the levels explored and set by Chevalier and Mayzlin (2006), Mudambi and Schuff (2010), and Park, Lee and Han (2006), three attribute levels were developed by this study those being, (1) three lines or less, (2) between four and six lines, and (3) seven lines or more.

8.3.2.5 Sidedness

For the purpose of this study, the attribute of sidedness was defined as: *'the extent to which message arguments attempt to refute opposing viewpoints'*. As the study concerns experience based products, sidedness is most likely to concern positive and negative experiences. While the positive and negative dichotomy is predominantly attributed to review valance or framing, this study viewed sidedness as more than a dichotomous response. Sullivan (1999) suggests that the more detailed the information, the greater the influence, and that two sided information is perceived as

more complete and therefore more credible (Kaims and Assael, 1987; Smith and Hunt, 1978; Swinyard, 1981). Furthermore, several advertising studies demonstrated evidence that two-sided advertising messages enhance message credibility (Eisend, 2006; Smith and Hunt, 1978). Although mixed sidedness reviews should display higher credibility than positive or negative reviews, negative reviews are said to be more credible and influential than positive reviews (for example, Ahluwalia and Gurhan-Canli, 2000; Arndt, 1967; Papathanassis and Knolle, 2011; Park, Lee and Han 2007; Sparks and Browning, 2011). Negative information is seen to be more diagnostic than positive. However, some studies find the opposite, where positive information is more influential (Gershoff *et al,* 2003; Skowronski and Carlston, 1987, 1989). Nevertheless, Park and Lee (2009) find that for experience goods, negative effects are more significant. Subsequently, the attribute of sidedness is operationalised in three levels within this study: (1) positive review, (2) negative review, and (3) both a positive and negative review, where a linear relationship should exist between the three levels.

8.3.2.6 Social Presence

For the purpose of this study, the attribute of social presence was defined as: *'the addition of video or photos within message content'*. While social presence has been largely neglected from previous online social content credibility studies, the concepts of media richness theory (Daft and Lengel, 1984, 1986) and social presence theory (Short, Williams and Christie, 1976) from CMC literature suggest that the addition of pictures and video should increase the perceived credibility of the review (Hassanein and Head, 2006; Steinbruck, Schamburgh, Duda and Kruger, 2007). In examining corporate blogs, Cho and Huh (2010) found that many blogs offered pictures as a

way of increasing the social presence, trust and reputation of the blog. It is assumed that video will have more powerful effects than photos because it can include audio and the picture is in motion. In other words, the social presence for video is higher than for photos. In this study the attribute of social presence will be modelled as: (1) neither photo nor video, (2) photo but not video, (3) video but not photo and (4) both photo and video, where a linear relationship is expected to exist between the levels.

8.3.2.7 Rating

The attribute of review rating was defined as *'the numerical rating given to content by other readers to reflect their opinion of the content'* for the purpose of this study. Review rating has generally been measured on a basis from no star rating and the variance of one star through to five star rating on consumer weightings, influence, and sales (for example, Chevalier and Mayzlin, 2006). Generally, previous studies have demonstrated a positive correlation between the rating and product sales (Chevalier and Mayzlin, 2006; Godes and Mayzlin, 2004; Mayzlin, Goolsbee, 2003), and provide a heuristic for consumers to evaluate the product (Tsang and Prendergast, 2009). Ye *et al* (2009) demonstrate that hotels with higher review ratings receive more bookings. It can then be assumed that a linear progression will exist in this study. However not all ratings are based on a 0 to 5 rank, the star rating may often be up to 10. To operationalise the rating attribute the study proposes four levels: (1) no star rating, (2) low star rating, (3) average star rating and (4) high star rating. By not including rating numbers the study can account for the variances in star rating systems between the review sources.

8.3.2.8 Identity Disclosure

For the purpose of this study, the attribute of identity was defined as: *'the disclosure of any identity descriptive information, such as, country of residence'*. From the theory of homophily (Gilly *et al*, 1998), a consumer will attribute higher credibility to those reviews from content creators with a similar country of residence as themselves. This relationship can also be explained by the concept of cultural distance (Hofstede, 2001). In the study of Naylor *et al* (2012) the presence of the consumers' demographic characteristics in branded social spaces was seen to influence brand evaluations and purchase intention. In a review focus Kusumasondjaja *et al* (2012) found that identity information of a content creator was required to increase perceived credibility in trust in both positive and negative reviews. As such, it is believed that identity disclosure characteristics will impact on the perceived credibility of the review. To test this assertion and within the context of this study, the attribute of identity disclosure can be modelled on three levels: (1) no country of residence information available, (2) the reviewer is from a dissimilar country, and (3) the reviewer is from a similar country. It was believed that a linear relationship will exist between the three levels.

8.3.2.9 Lifestyle Disclosure

For the purpose of this study, the attribute of lifestyle disclosure was defined as: *'the disclosure of any lifestyle or travel reason descriptive information'*. In a similar vein to identity disclosure, lifestyle and travel reason disclosure will be affected by the perceived homophily between the consumer and the content creator. While Smith, Menon and Sivakumar (2005) find that perceived rapport in terms of lifestyle and hobbies do not significantly effect the credibility of reviews, it is believed that the

contrived experiment of the study influenced the outcome. This study argues that homophily between content creator and consumer will affect the perceived credibility of the review. It is believed that a linear relationship will exist between three attribute levels of (1) no lifestyle/travel reason information available, (2) the reviewer has dissimilar lifestyle/travel reasons, and (3) the reviewer has similar lifestyle/travel reasons.

8.3.2.10 Source Platform

For the purpose of this study, the attribute of source platform was defined as: *'the social media platform in which the content is obtained'.* Online social content platforms can vary along a continuum of brand (or marketer generated) to consumer or expert generated platforms. Such platforms can have a commercial or independent nature, where the distinction is sometimes blurred in the eyes of the consumer. Previous studies have found inconclusive results on the effect of brand generated and consumer generated source platforms on purchase influence. Moreover, the effect of expert generated sources has remained under researched to date. On the one hand, independent review sites are generally known to be free from marketers' communication (Xue and Phelps, 2004): that true feelings of a product/service performance can be found and therefore are regarded as more influential and trustworthy than brand generated sources (Blackshaw, 2006; Khim-Yong, 2013; Lee and Youn, 2009; Sen and Lerman, 2007). However current studies do not fully support this claim. Xue and Phelps (2004) only found that low involvement with the product category effected perceptions from an online versus brand generated source. Bronner and de Hoog (2008) found consumer generated and marketer generated sources to be complimentary in vacation decision making.

Similarly Lee and Youn (2009) found that reviews on blogs are less likely to be recommended than those on brand generated sources or independent review platforms. This study picks up on the concerns from previous research, in that there may not have been enough of a range of reviews to adequately determine the effect of source platform on information adoption or recommendation. The nuance between commercial and independent review platforms have also not been studied to date. Moreover, there is a perception that consumer generated recommendations on marketer generated sites have selling intents (Senecal and Nantel, 2004; Schindler and Bickart, 2005). Therefore this study supports the traditional view of source platform credibility, in that a linear relationship will exist between brand generated and independent consumer generated sources. The levels of the source platform attribute will be modelled as (1) branded social space (for example, Facebook page), (2) blog, (3) commercial review site and (4) independent review site.

All developed attributes and attribute levels can be found in Table 8.2; pg310. It was important to ensure the wording of questions and levels were easy to understand by respondents during the conjoint study. While it may seem that some labels are misleading in terms of identification, in Table 8.2 they are understandable in the conjoint study which was confirmed during both the pre-test and pilot test element. As such they may differ slightly in wording from the original measure developed from previous studies.

Theoretical Attribute Label	Attribute Label for Study	Attribute Level One	Attribute Level Two	Attribute Level Three	Attribute Level Four
Timeliness	The date of the review	The review was posted over 7 months ago	The review was posted between 4 and 7 months ago	The review was posted within the last three months	
Accuracy	The accuracy of the review	The review shows several 'spalling & gremmer mistaces'!	The review is good and accurate		
Message Value	Types of content found	The review includes lots of factual information (the number of rooms, restaurants, size of pool)	The review provides lots of opinions (the friendliness of staff, the level of service given)	The review includes both fact and opinion (the pool was large, the service was good)	
Length	Length	The review has three lines or less	The review has four to eight lines	The review has nine lines or more	
Sidedness	Types of opinions found	The review is positive (the hotel was clean and the service was great)	The review is negative (the rooms were small and cramped, the service was poor	The review is both negative and positive (the room was unclean when we arrived but were swiftly moved to another room)	

Social Presence	Types of additional content	The review uses neither photo nor video	The review uses photos but not video	The review uses video but not photo	The review uses both photo and video
Review Rating	The rating of the review	There is no rating	The review is given a low rating	The review is given an average rating	The review is given a high rating
Source Platform	Types of sites	The review is on a branded area (hotel website or Facebook page)	The review is on a personal blog	The review is on a commercial site (Last Minute, Expedia)	The review is on an independent review site (TripAdvisor)
Identity Disclosure	Reviewer country of residences	The reviewers country of residence is unknown	The reviewer is from a dissimilar country	The reviewer is from a similar country	
Lifestyle Disclosure	Levels of similarities	Reviewer interests not provided	I have dissimilar interests to the review author	I have similar interests to the review author	

Table 8.2: Conjoint Attributes and Levels to be Tested during the CA Study

8.3.2 Consumers Personal Characteristics Measurement

The measurement of the consumers personal characteristics followed a more traditional established method of measurement. Based on the relevant literature, multi-scale items were developed for each of the following personal characteristics constructs: (1) involvement, (2) level of technology sophistication (3) scepticism (4) confirmation of prior beliefs (5) cognitive personalisation and (6) risk taking propensity. It was believed that multi-scale items based on those tested in previously literature would increase the validity of the scale items and research results.

The Likert scale is one of the most widely used scaling methods in social science research for assessing beliefs, attitudes, and opinions of respondents (for example, Narver and Slater, 1990). Simplicity, ease of usage, effectiveness and reliability has been accredited to Likert scales (for example, Fink and Kosecoff, 1998; Maurer and Andrews, 2000). However there remains an on-going scholarly debate on the scale to be used; odd numbers or even numbers; and the scale rating to be used. In support of even numbers, Kress (1988) believed that introducing a neutral position within the scale attracts many respondents who do not have strong feelings to answer neutrally. Moreover, the issue persists when respondents prefer to avoid giving an opinion about an answer.

Nevertheless, there has been support for the 5-point Likert scale (Alwin and Krosnick, 1991; Kress, 1988; Sclove, 2001), in that it is crucial to have a neutral point because some respondents may not be able to answer the question. Some proponents also argue for 7-point scales which are said to increase the reliability of the scale (Alwin and Krosnick, 1991; Churchill and Peter, 1984). However, Sekaran

(2003) argued that increasing the rate of the scale to sever or nine will not increase the scale reliability. Dawes (2008) also supported this claim in finding that the 5 and 7 point scales produced the same mean score.

To reduce respondent cognitive discomfort, all of the measurement items were measured using 5-point Likert scales, on a continuum of 1 for strongly disagree to 5 for strongly agree. The use of a 5-point scale is also supported in terms of reliability, and its commonality throughout marketing literature.

Involvement was measured through adaptation of two of the three items employed by Park and Han (2009). Respondents were asked to rate their level of agreement to becoming very involved in the trip planning process and their tendency to use online hotel reviews to assist in accommodation purchases.

Technology sophistication was operationalised as a multi-dimensional construct, as the respondent's ability to search, evaluate and make judgement decisions with online online social content. The levels of internet, social media and context specific social media expertise were obtained. Likert scales to measure the ability to search for product specific social media and confidence in making purchase decisions were adapted from Lee, Hong and Lee (2004). The ability item was developed from Alba and Hutchinson (1987), which was subsequently developed and adapted from Kleiser and Mantel (1994) and adapted to fit the Lee, Hong and Lee (2004) study. The confidence item was also adapted from Lee, Hong and Lee (2004) which had subsequently adapted in the study by Cheung, Lee and Thadani (2009), where the validity of the measure was confirmed in both studies.

In measuring scepticism three items were adapted from items operationalised in the research of Lee and Youn (2009) and Sher and Lee (2009) which had been adapted from the work of Obermiller and Spangenberg (1998). Scepticism was viewed as the tendency towards disbelief and as such measures the level persuasive effect of online hotel reviews. Cognitive personalisation measures were adapted from two of Xia and Bechwati's (2008) three items. Respondents were asked to rate how they feel if the experience in the review happened to them, and the level in which their own emotions impact upon evaluating experiences in the review narrative. Risk taking propensity was measured in terms of experience risk. Two items were taken from the sensation seeking scale (Zuckerman, Eysenck and Eysenck, 1978), which were context specific to the purpose of this research. While the sensation seeking scale is usually operationalised in thirteen measures, this number was too complex and time consuming for this research. As such, the measures were reduced to decrease task complexity and cognitive discomfort for respondents.

As within previous research prior beliefs were viewed in terms of confirming prior beliefs. Three items were adapted from Cheung *et al* (2008) which had subsequently been adapted from Zhang and Watts (2003). The items measured the level of confirmation between the information received in the review and their prior belief of the reviewed hotel through various direct and indirect experiences. Now that the CA attributes and consumers' personal characteristic variables have been outlined and their measures defined the results of the exploratory study and those results of past studies will be used to develop hypotheses to be tested during the main CA survey instrument.

8.4   Hypotheses

The revised theoretical model assumes that the consumers' personal characteristics will moderate the use and importance of the evaluative cues. Several hypotheses emerge from the review of literature and exploratory findings based on the effect of the consumers' personal characteristics and the importance of the credibility evaluative cues:

8.3.1   Involvement

Generally, involvement is said to significantly affect the extent of external information search (Laurent and Kapferer, 1985). The ELM (Petty and Cacioppo, 1984) and dual processing theory (Deutsch and Gerrard, 1955) suggest that consumers with low levels of involvement will use heuristic cues whereas those with high levels of involvement will pay attention and be influenced by more informational cues. The studies of online social content found that involvement also affected the credibility of online reviews (Cheung *et al*, 2009; Doh and Hwang, 2009; Lee, Park and Han, 2008; Park and Lee, 2008; Park, Lee and Han, 2007). Park, Lee and Han (2007) found that high involvement consumers were affected by review quality rather than quantity, whereas low involvement consumers were affected by the quantity of reviews. Low involvement consumers were found to be more influenced by recommendation consistency than high involvement consumers (Cheung *et al,* 2009). Doh and Hwang (2009), on the other hand, found that consumers with high involvement were more sceptical of positive messages which suggested they are motivated to read and evaluate the full review narrative.

Previous literature has also regarded review rating as an important determinant of credibility, trust or helpfulness (Cheung and Thadani, 2009; Hu, Liu and Zhang, 2008; Mudambi and Schuff, 2010). The addition of a rating made by other consumers was found to instil trust in the review (Hu, Liu and Zhang, 2008). The popularity of a review by way of review rating was more influential for low involvement consumers than high involvement consumers (Park, Lee and Han, 2007; Park and Lee, 2008). Park and Lee (2008) found that the effect of perceived review popularity was greater for low involvement than high involvement consumers.

The exploratory results of this research indicated that consumers with high involvement will spend more time searching and evaluating reviews, therefore it is assumed that review value message and review sidedness will increase in importance because the consumers' relative level of involvement increases when they are more motivated to evaluate the narrative. It could also be argued that high involvement consumers will not find the review rating as influential as low involvement consumers. Therefore hypotheses one assumes that:

(H1a) The consumers' relative level of involvement with the trip planning task will effect the importance of message value when assessing the credibility of an online review

(H1b) The consumers' relative level of involvement with the trip planning task will effect the importance of review sidedness when assessing the credibility of an online review

(H1c) The consumers' relative level of involvement with the trip planning task will effect the importance of review rating when assessing the credibility of an online review

8.3.2 Technology Sophistication

The exploratory results suggested that technology sophistication, defined as: *'the ability to search, process and confidently make judgement decisions on product attributes from online social content'* is a better indicator of the consumers' ability to search, evaluate and make judgement decisions from the content obtained from consumer reviews. Rooted in Alba and Hutchinson's (1987) familiarity and expertise dimensions, technology sophistication, was found to moderate the importance of review timeliness and source platform during the exploratory interviews. The ability to search and use timeliness as an indicator of information quality, and therefore credibility, increased with the respective level of technology sophistication. The exploratory results also suggested that source platform increased in importance with rises in the level of technology sophistication. Looking at prior product knowledge, Doh and Hwang (2009) found that prior knowledge effected the attitude towards the website. Putting Doh and Hwang's (2009) finding into context for this research, the prior knowledge or ability to process information and understand the nuances between the various source platforms alters the attitude towards reviews on each platform. Hypothesis two therefore assumes that:

(H2a) The consumers' relative level of technology sophistication will effect the importance of source platform when assessing the credibility of an online hotel review

8.3.3 Scepticism

Sher and Lee (2009) found that highly sceptical consumers were affected by review quality as well as quantity, where those consumers with low scepticism were affected by quantity. As a construct of information quality, accuracy increases in importance during credibility evaluation with segments displaying high scepticism.

Review sidedness was found to be of importance, during the exploratory study, because the level of scepticism increased the desire for opinion based reviews also increased. While it is believed that negative reviews are more powerful than positive reviews (Kanouse, 1984; Weinberger, Allen and Dillon, 1981), it is argued that two-sided arguments are more persuasive from a completeness perspective (Allen, 1993; Hastak and Park, 1990). The theories of inoculation theory (Etgar and Goodwin, 1982), attribution theory (Crowley and Hoyer, 1994), correspondence theory (Smith and Hunt, 1978) and assimilation contrast theory (Kamis and Assael, 1987) suggest that two sided information reduces scepticism and therefore increases information credibility. Content creator identity disclosure and content creator lifestyle disclosure increased in importance relative to an increase in scepticism during the exploratory study. Credibility was higher when the review was written by a content creator displaying similar characteristics or in terms of homophily (Rogers 1983-2003; Steffes and Burgee, 2009). The exploratory findings also indicated that scepticism moderated the importance of the source platform on credibility perceptions; in high scepticism situations the desire for independent platforms increased because of the inherent scepticism towards marketer generated content (Goldsmith and Horowitz, 2006). Therefore, hypotheses three assumes:

(H3a) The consumers' relative level of scepticism will effect the importance of review sidedness when assessing the credibility of an online hotel review

(H3b) The consumers' relative level of scepticism will effect the importance of content creator identity disclosure when assessing the credibility of an online review

(H3c) The consumers' relative level of scepticism will effect the importance of content creator lifestyle disclosure when assessing the credibility of an online review

(H3d) The consumers' relative level of scepticism will effect the importance of source platform when assessing the credibility of an online review

8.3.4 Prior Belief

There is a general consensus that confirmation or disconfirmation of prior beliefs can influence the credibility of the information received (Fogg *et al,* 2002). The results of the exploratory study suggested that review sidedness, content creator identity disclosure and content creator identity disclosure were of increased importance during credibility evaluation. The disclosure of the content creator identity and lifestyle, were found to be important when prior belief was high in relation to perceived homophily between content creator and consumer (Rogers 1983-2003; Steffes and Burgee, 2009). When prior belief was confirmed the consumer is believed to act with more confidence in the message (Alloy and Tabachnik, 1984; Crocker, 1982; Zhang and Watts, 2003; Zhang, 1996). When the belief is disconfirmed, the perceived homophily between content creator and consumer

moderate the influence of the review. Therefore, the importance of the sidedness, content creator identity disclosure and content creator lifestyle disclosure increases during credibility evaluation. Hypotheses four assumes:

(H4a) The consumers' relative level of prior belief will effect the importance of review sidedness when the prior belief is confirmed or disconfirmed in the review narrative

(H4b) The consumers' relative level of prior belief will effect the importance of content creator lifestyle disclosure when the prior belief is confirmed or disconfirmed in the review narrative

(H4c) The consumers' relative level of prior belief will effect the importance of content creator identity disclosure when the prior belief is confirmed or disconfirmed in the review narrative

8.3.5 Cognitive Personalisation

Larsen, Diener and Cropanzana (1987) argued that personalisation is a cognitive process by which readers of a review think about and feel the review narrative as if it happened to them. The results of the exploratory study suggested that review accuracy, message value, and review length increase in importance during credibility evaluation. Xia and Bechwati (2008) found that cognitive personalisation has a direct impact on purchase intentions for service purchases. , Park and Lee (2008) found that attitude value reviews are more influential during a purchase decision. The exploratory study generally found that simple value messages [recommendations and opinions] were predominantly based on extreme negative opinions regarding

service failures. However, two sided arguments were better than either attitude value or simple value alone. Therefore hypotheses five assumes:

(H5a) The consumers' relative level of cognitive personalisation affect intensity will effect the importance of message value when assessing the credibility of an online hotel review

8.3.6   Risk Taking Propensity

Traditional information search literature argued that risk is a motivator of search; consumers undertake an information search to reduce the risk inherent in purchase decisions (Laurent and Kapferer, 1985). Murray (1991) believed risk is higher in service purchases due to the intangibility of the offering. The exploratory results suggested that those with a high propensity to risk will use more attributes to evaluate the review and be more cautious in choice selection. Conversely, low risk taking propensity consumers were found to use fewer evaluative attributes and view the more general opinion (Murray, 1991). Social presence was also found to hold increased importance to high risk taking propensity segments. The addition of photos and/or videos increased credibility in the information from a vividness perspective (Nisbett and Ross, 1980). The review rating was also found to be of increased importance when risk taking propensity was high during the exploratory study. The literature argues that the addition of a rating, made by other consumers, instils trust in the review (Hu, Liu and Zhang, 2008) and that the review is trustworthy or helpful (Cheung and Thadani, 2009; Hu, Liu and Zhang, 2008; Mudambi and Schuff, 2010). The review rating is therefore a heuristic cue to

enhance confidence in the information and can act as a credibility determinant as other people have found the review helpful. Therefore hypotheses six assumes:

(H6a) The consumers' relative disposition to travel risk will effect the importance of social presence when assessing the credibility of an online hotel review

(H6b) The consumers' relative disposition to travel risk will effect the importance of review rating when assessing the credibility of an online hotel review

The consumers' personal characteristic variables of involvement, technology sophistication, scepticism, prior belief, cognitive personalisation and risk taking propensity have all been assumed to moderate the importances of the evaluative attributes. The next chapter explores how the conjoint data was prepared and analysed to test the theoretical model and hypotheses outline in this chapter.

8.4   Chapter Summary

The objective of the chapter was to explore the reliability and value of the proposed theoretical model. The exploratory study confirmed the value of the models basic structure, evaluation of content, content creator and source characteristics that are moderated by the consumer's personal characteristics. However, the findings also confirmed that the original theoretical model required some revision; that some characteristics did not hold value to the study. The theoretical model was subsequently amended to include content characteristics of timeliness, accuracy, message value, length, sidedness, social presence and rating. The content creator characteristics of identity disclosure and disclosure of lifestyle were also included and are to be measured in terms of perceived homophily. The source characteristic

of source platform was found to be the most significant credibility cue and was included in the amended theoretical model.

The most significant consumers' personal characteristic variables were found to be involvement, technology sophistication, scepticism, prior belief, cognitive personalisation, risk and demographics. The assumed effects of the consumers' personal characteristics were outlined through hypotheses which will be tested in the CA study. The research was subsequently repositioned in line with the exploratory results. The context of the research was found to be further narrowed down by focusing on online hotel reviews. It was also believed that shopping goals should be assumed to be active during the main research, CA survey instrument. Given the complexity of the conjoint task and subsequent data anlaysis, the next chapter will focus on the steps taken to analyse the main CA study.

Chapter IX   Conjoint Data Analysis

The previous chapters have reviewed the literature pertinent to the study, highlighted the emergent knowledge gaps, set the context of the research, outlined and revised the theoretical model based firstly on previous research and then on results of an exploratory study, and provided a detailed outline of the adopted research methodology. This chapter outlines the process followed in order to analyse the data obtained from the CA study. By doing so the chapter will seek to validate and prepare the data for analysis. From the details of this chapter the objectives of the research and comparisons to previous online information credibility and evaluation studies can be based.

9.1   Preparing the Conjoint Analysis Data

To overcome the software restrictions placed on this study both Qualtrics and Sawtooth were utilised. Before analysis could take place it was necessary to ensure that the responses for one respondent matched in each system. In both Qualtrics and Sawtooth the IP address of each respondent is captured, to ensure respondent match the IP addresses were matched and the data output files from Qualtrics and Sawthooth were merged together in SPSS based on the IP address output. Drop-out cases were removed from the sample before analysis.

The responses generated from the call for respondents were good; a total of 344 responses were made. Nine respondents were removed from the sample because they did not use online hotel reviews and a total of 202 responses were usable. The drop-out rate for the survey was high at 38.7%. The high drop-out rate may be

explained by the complexity of the conjoint task and the large number of profiles within the study. The results confirmed this assertion, with 67.7% of those respondents who dropped out doing so during the conjoint analysis stage. The remaining 32.3% of drop-out respondents generally dropped-out between the crossover from Qualtrics and Sawtooth. The use of two survey software packages was a concern and limitation of the study but was unavoidable given the licensing restrictions and a lack of budget to purchase a full licence. Nevertheless, an adequate sample for the purpose of conjoint analysis was achieved, 202 responses.

The conjoint design process was outlined in Appendix 16. Stages one to three were discussed during the methodology chapter (Chapter VII). The remaining stages of the conjoint design process will now be discussed as they relate to data analysis.

Stage Four: Estimating the Conjoint Model and Assessing Overall Fit

There are numerous options available in selecting the estimation of attribute part-worths, the selection of an estimation technique is dictated by the choice of preference measure (Hair *et al,* 2010; Malhorta, 2010). The preference measure operationalised in this study was the metric measure of ratings and the conjoint methodology ACA. As such, the part-worths were estimated using ACA (Sawtooth Software, 2002) and then scaled [0-100] to allow for common comparison within and across attributes and levels. The part-worths were originally scaled at the individual (disaggregate) level and then at the aggregate level, as outlined in Table 9.1.

Attribute	Level	Estimated Part-Worth	Rescaled Estimated Part-Worth
Timeliness	>8+ Months	-.26520	37.3
	4-7 Months	.00589	51.3
	<3 Months	.27044	64.9
Accuracy	Poor Spelling and Grammar	-.27412	41.6
	Good Spelling and Grammar	.28153	71.0
Message Value	Lots of Facts	-.11698	44.5
	Lots of Opinion	.02977	54.0
	Both Fact and Opinion	.09828	58.5
Length	Short	-.14086	52.7
	Average	.07545	63.5
	Long	.07648	63.6
Sidedness	Positive	-.04842	45.8
	Negative	-.02943	46.9
	Both Negative and Positive	.08893	53.9
Social Presence	Neither Photo nor Video	-.18187	45.6
	Video	-.02694	52.6
	Photo	.10192	58.5
	Both Photo or Video	.12163	59.4
Rating	No Rating	-.19456	36.6
	Low Rating	-.07645	44.6
	Average Rating	.07476	54.7
	High Rating	.21103	63.9
Identity Disclosure	Unknown	-.06155	43.9
	Dissimilar	-.05653	44.3
	Similar	.12919	57.7
Lifestyle Disclosure	Unknown	-.11732	33.9
	Dissimilar	-.04216	33.8
	Similar	.17059	52.7
Source Platform	Branded Social Space	-.22846	40.7
	Blog	-.03582	49.7
	Commercial Review	.02233	52.4
	Independent Review	.25671	63.3

Table 9.1: Estimated and Rescaled Part-Worths

It was also possible to estimate the part-worth utilities using Bayesian analysis (Gelmen, Carlin, Stern and Rubin, 1995). Bayesian analysis is different in its method in the estimation of the conjoint model and is beleived to represent significant improvements over other methods in terms of both predictive and

explanatory ability (Andrews, Ansari and Currin, 2002; Hair *et al,* 2010). While this may be the case Bayesian analysis could not be employed within this study due to the limitations of the available Sawtooth software licence; as such, the estimated and rescaled part-worths to be used in the study were conducted only using ACA, ordinary least squares (OLS).

To assess the results for accuracy at both the individual and aggregate levels a goodness-of-fit measure was employed. The role of any goodness-of-fit measure is to assess the quality of the estimated model by comparing actual values of the dependent variable(s) with values predicted by the estimated model (Hair *et al*, 2010). In other words, how well the data fit the model (Malhotra, 2010) or, the quality of responses and conjoint data is measured for reliability and validity. To calculate goodness-of-fit for this study, the coefficient of determination (R^2) or R-squared between actual and predicted preferences was completed. This was achieved by comparing the correlation factor produced in the initial ACA estimated part-worth output with the estimated part-worths. However in viewing the correlation, 22 respondents were found to hold a 0 correlation and were removed from the sample due to poor goodness-of-fit. The final sample size was subsequently reduced to 180. Although the sample size has been reduced, the sample continues to represent an adequate sample size for the purpose of this research.

After removing the 22 respondents with a 0 correlation the estimated part-worth were recalculated, following the same ACA procedure (Table 9.2). With the removal of the 0 correlation respondents the remaining 180 respondents were believed to be a good fit for the purpose of the research and were included in the R-square analysis.

Attribute	Level	Estimated Part-Worth	Rescaled Estimated Part-Worth
Timeliness	>8+ Months	-.2967	35.7
	4-7 Months	.00737	51.4
	<3 Months	.30418	66.7
Accuracy	Poor Spelling and Grammar	-.30679	39.8
	Good Spelling and Grammar	.31661	72.9
Message Value	Lots of Facts	-.13051	43.6
	Lots of Opinion	.03418	54.3
	Both Fact and Opinion	.11003	59.3
Length	Short	-.15733	51.8
	Average	.08542	64.0
	Long	.08658	64.1
Sidedness	Positive	-.05360	45.5
	Negative	-.03228	46.8
	Both Negative and Positive	.10056	54.5
Social Presence	Neither Photo nor Video	-.20331	44.6
	Video	-.02945	52.5
	Photo	.11511	59.1
	Both Photo or Video	.13722	60.1
Rating	No Rating	-.21752	35.0
	Low Rating	-.08500	44.0
	Average Rating	.08463	55.4
	High Rating	.23751	65.7
Identity Disclosure	Unknown	-.06831	43.4
	Dissimilar	-.06269	43.8
	Similar	.14569	58.8
Lifestyle Disclosure	Unknown	-.04656	38.5
	Dissimilar	-.13087	33.0
	Similar	.19217	54.1
Source Platform	Branded Social Space	-.25559	39.4
	Blog	-.03943	49.5
	Commercial Review	.02582	52.6
	Independent Review	.28879	64.8

Table 9.2: Recalculated Estimated Part-Worths

R-square is a squared correlation index, in the case of conjoint analysis the estimated part-worths are used to generate predicted preference values for each profile (Hair *et al*, 2010). Values are said to range between 0 and 1 where a high R-square value indicates that the data fit the model. The R-square for this study was 0.7, indicating a

good fit between the data and the model. Furthermore, the high R-squared correlation indicates that error in the data collection was low and respondents were consistent in performing their rating tasks (Xu and Yuan, 2001).

While researchers are strongly encouraged to measure model accuracy with not only original profiles but with a set of validation or holdout profiles (Melles, Laumann and Holling, 2000 Hair *et al*, 2010; Malhotra, 2010), this could not be employed within this study. The decision to not include validation profiles was predominantly considered because of the high number of attributes (ten with levels between two and four) already present in the conjoint task; a total of 32 profiles. Researchers believe that too many attributes can cause information overload and affect the stability and validity of the conjoint data (Melles, Laumann and Holling, 2000). Information overload occurs when the amount of input into a system exceeds its processing capacity (Milford and Perry, 1977). In two studies by Scott and Wright (1976) and Huber, Wittink, Fiedler and Miller, 1993), the predictive validity significantly dropped as the number of attributes to be considered increased. In the case of this study, ACA was completed online and included a significant number of preceding questions which could cause information overload. Melles, Laumann and Holling (2000) suggest that a total of 30 profiles is approximately the full capacity for good valid response. As the total number of profiles was already 32 it was believed that validation profiles may decrease the validity of the results and were subsequently omitted from the study.

It was believed that the R-squared test for goodness-of-fit was sufficient to test the data for the purpose of this research. Indeed, the high 0.7 R-squared measure indicated a good data fit and that the respondents understood the task. This similar

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measure was found to be adequate in the study of van Zyl (2008) where no holdout or validation profiles were present in the study. In the next stage the data was prepared to interpret the results.

Stage Five: Interpreting the Results

Conjoint analysis is unique in that it is decompositional in nature and results can be estimated for each respondent separately (Hair *et al*, 2010; Malhotra, 2010). The common approach to interpreting the results is at the disaggregate level, the individual level. However interpretation can also take place at the aggregate level. Hair *et al* (2010) warned that aggregate analysis should not be the only method of analysis, however many times aggregate analysis more accurately predicts aggregate behaviour. In scaling the aggregate part-worth estimates (Table 9.2) the individual disaggregate levels were also scaled. The first stage to interpreting the results is to view disaggregate scaled part-worths and ensure practical relevance in the data.

Researchers are advised to consider practical relevance as well as the correspondence to any theory-based relationships when evaluating any set of part-worths among levels (Hair *et al,* 2010). The degree of differentiation among part-worths within each attribute are of predominant focus. The most common relationship in conjoint part-worth estimates is monotonic, where the part-worth of level C should be greater than B which should be greater than A. The researcher should have a theoretically based relationship to which the part-worths should correspond; if the part-worths do not follow this relationship the concept of 'reversal' must be considered (Hair *et al*, 2010: 300). For the purpose of this research the scaled estimated part-worths were

examined on the aggregate level. Seven of the ten attributes followed the theorised monotonic relationship and therefore reversals must be considered.

Three remedies for reversals are proposed (1) do nothing, (2) apply constraints and (3) delete respondents (Hair *et al*, 2010). For the purpose of this research the 'do nothing' approach will be followed. Not only does the result highlight inconsistencies in real-world behaviours but may also be parlty to the context in which the research is set. In the case of lifestyle/travel reason disclosure, unknown reason has a higher estimated-part worth than dissimilar lifestyle/travel reason but this could logically be right. Consumers are more likely to believe and use information from people similar to them (Gilly *et al,* 1998; Steffes and Burgee, 2009), with the omission of lifestyle/travel details consumers may assume a fit of homophily as no details have explicitly detailed otherwise. Taking this into consideration a reversal will not be completed, and therefore the relative importance of attributes can now be calculated. Importance is defined as the difference between the highest and lowest part-worths for each attribute (Steenkamp and Wittink, 1994)

Importances were calculated by dividing the range (maximum value minus minimum value of the estimated part-worths) of each individual attribute by the total range of all attributes. This total is then converted into a percentage, where the total utility of all attributes importances should total 100%. The total range for this study was 3.741, a full breakdown of calculations and importances are in Table 9.3.

Attribute	Min	Max	Range	Importance (%)
Timeliness	-.29678	.30418	0.601	16.1
Accuracy	-.30679	.31661	0.623	16.7
Message Value	-.13051	.11103	0.242	6.5
Length	-.15733	.08658	0.244	6.4
Sidedness	-.05360	.10056	0.154	4.1
Social Presence	-.02945	.13722	0.341	9.1
Rating	-.21752	.23751	0.455	12.2
Identity Disclosure	-.06831	.14569	0.214	5.7
Lifestyle Disclosure	-.13087	.19217	0.323	8.6
Source	-.03943	.28879	0.544	14.6
TOTAL			3.741	100%

Table 9.3: Relative Importance of Attributes

The sixth stage to be completed before simulation and managerial implications can be made is to validate the conjoint results.

Validation of the Consumers Personal Characteristics Variables

While the validation of the conjoint model has been determined, the consumers' personal characteristic variables must also be validated before any simulations can be conducted. From the review of literature and initial exploratory study six, key variables were found to impact online social content evaluation. The variables of involvement, technology sophistication, scepticism, prior belief, cognitive personalisation, and risk were measured in the study. The measurement of the consumers' personal characteristic variables followed that of previous research. To validate the measures a factor analysis was conducted. Factor analysis is a collection of methods used to examine how underlying constructs influence the responses on a number of measured variables (DeCoster, 1998). There are two approaches to factor analysis, Exploratory Factor Analysis (EFA) and Conformity Factor Analysis (CFA).

EFA is predominantly used to discover the nature of the constructs influencing a set of responses while CFA is used to test whether a specific set of constructs is influencing responses in a predicted way (DeCoster, 1998). Hair *et al* (2010) add that CFA is used to provide a confirmatory test measurement theory. As such, CFA will be used to determine the goodness-of-fit of the consumers' personal characteristic variable measures. CFA was measured using the AMOS plugin for SPSS. The number of factors that existed for each variable was specified before CFA was conducted, the factors each variable will load on were also specified (Hair *et al,* 2010). Running CFA determined if the theorised factor loadings represented the actual data.

The initial results of the CFA suggested that the measures have a strong goodness-of-fit. The Chi-squared results of 58.9 indicate goodness-of-fit. Moreover the Comparative Fit Index (CFI) was found to be 1.00 where acceptable model fits are said to be indicated by a CFI value of 0.90 of greater (Hu and Bentler, 1999). Similarly, the Root Mean Square Error of Approximation (RMSEA) was found to be acceptable with an incidence of 0, an acceptable model fit is said to be indicated by an RMSEA value of 0.06 or less (Hu and Bentler, 1999). The Goodness-of-Fit (GFI) value was also found to be acceptable with a value of 0.961, while there is no cut-off value for GIF, an acceptable model fit is said to be indicated by a GFI of 0.9 (Joreskog and Sorbom, 1984). All reported values suggest goodness-of-fit however when viewing data output there is high negative error variance which is not acceptable to CFA and as such does not demonstrate a good fit.

There may be several reasons for the poor fit of the consumers' personal characteristic variable measures (see Schumacker and Lomax, 1996 for full

discussion). Six variables may be too many to effectively operationalise within the one study. While the items and scales were developed from previous literature, in reducing the duration of the study by reducing variable questions to two or three the reliability of the measures may have been reduced. In other words, not enough questions were asked to confirm the consumers' personal characteristic variables. The similarity between measures may have also caused a poor model fit. It is possible that the variables may have not been independent, however this was not tested during the pilot test element. It is also possible that the respondents are not appreciative of the measure variances, the consumers' personal characteristics which emerged from the literature review and exploratory study may not be accurate. The data suggests that another model is required to validate the measures; to overcome the issues with CFA it is believed that EFA will provide valid conformity measures.

DeCoster (1998) and Shur (2006) both confirm that when CFA does not provide an acceptable fit EFA can be performed. As it is possible that six factors were too many and that the factors may not be independent, EFA can be used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome (Child, 1990). An EFA was performed using SPSS. The results of the EFA confirm that the numbers of variables were too many and that there was a high similarity between the measures, it is possible that not enough questions were asked to adequately address measure validity. To justify the application of factor analysis the overall measures of intercorrelation were used to ensure the data matrix has sufficient correlations. Using the Bartlett test of sphericity and the KMO Measure of Sampling Adequacy (MSA) the correlations were found to be significant (Table 9.4).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.696
Bartlett's Test of Sphericity	Approx. Chi-Square	660.707
	Df	91
	Sig.	.000

Table 9.4: KMO and Bartlett's Test

While the Bartlett's test of sphericity demonstrates that the correlation matrix has significant correlations among at least some of the variables, with a significance of less than .5 (Hair *et al*, 2010), the MSA has a .60 value. The MSA index ranges from 0 to 1 where 1 suggests each variable is perfectly predicted without error by the other variables (Hair *et al*, 2010). The .696 value suggests that variable predictions are between a .70 middling and .60 mediocre level (Hair *et al*, 2010). However, this may be explained by the poor CFA fit. Nevertheless the MSA value is regarded as meaningful at .696. The rule of thumb is .40 cut-off for a factor loading to be large enough to be meaningful (Baffio and Klobas, 2011), whereas Hair *et al* (2010) suggest a cut-off of .50. In either case MSA can be regarded as meaningful. The initial and extraction communalities for each variable are highlighted in Table 9.5.

All variables have a communality above .40 which suggests that no variables are candidates for omission (Baggio and Klobas, 2011). However, 'before I read online hotel reviews I usually already have an opinion formed about the hotel' and 'I think, in most cases, online hotel reviews do not give people enough information' have a borderline communality of .452 and .444 respectively.

	Extraction
I become very involved in the trip planning process	.785
I consult online hotel reviews to assist in selecting accommodation for my trip	.653
When reading online hotel reviews I find it easy to get the information I need to make the best purchase	.641
When purchasing accommodation I am confident that I have made the best decision because I have read online hotel reviews	.575
Before I read online hotel reviews I usually already have an opinion formed about the hotel	.452
Once I have formed an opinion about a provider it is hard to change my mind even when I read online hotel reviews	.606
If online hotel reviews do not confirm my beliefs of a hotel I would still make a booking	.639
I think, in most cases, online hotel reviews present a true picture of a hotel	.643
I think, in most cases, online hotel reviews are a reliable source of information	.676
I think, in most cases, online hotel reviews do not give people enough information	.444
When I read online hotel reviews, I often think how I would feel if it happened to me	.819
While reading online hotel reviews, I often think about my own emotional reactions to the reviewers experience	.810
I often like to explore a strange town or city or section of town myself, even if it means getting lost	.757
I would often like to take off on a trip with no preplanned or definite routes or timetables	.752

Table 9.5: Communalities of Statements

To consider the number of factors to be extracted, the relevant outputs for initial inspection and the reports of variance explained by the initial, extracted and rotated solutions were viewed (Appendix 18). The initial solution contains potentially fourteen factors as the initial solution contains as many factors as variables. However, only five variables emerge with an eigenvalue greater than 1 (Kaiser, 1960), as such represent the extracted factors. The total amount of variance of the five extracted factors is respectable at 66.1%. The rotated solutions are sums of squared factor loadings when the solution is rotated (Baggio and Klobas, 2011) and are now spread more evenly, although Factor 1 remains to have a significantly higher loading.

To confirm the number of extracted variables, Cattell's (1966) approach of inspecting a plot of eigenvalues was examined. Baggio and Klobas (2011) suggest the optimum number of factors to be selected would be the number above the elbow point of inflexion in the scree plot (Figure 9.1).
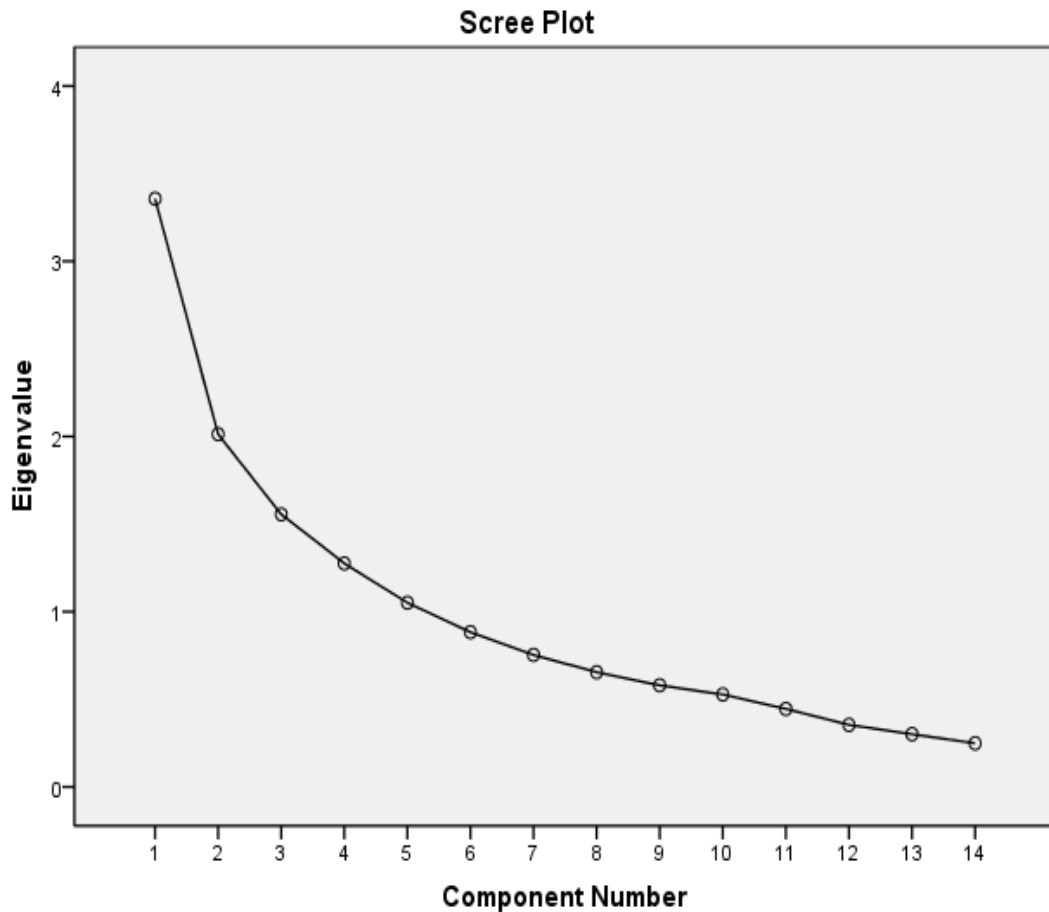
Figure 9.1: Scree Plot

The scree plot does exhibit a slight inflexion at 6, but a more significant inflexion at 2 suggests that one factor is extracted. It is often argued that the scree plot mirrors the same number of factors as Kaiser's rule (Baggio and Klobas, 2011), in this case five factors; therefore the inflexion at component 6 will be extracted and thus five factors are extracted. Following the process outlined by Baggio and Klobas (2011), the unrotated factor matrix panel was examined, all factor loadings below .4 were

suppressed to assist with identification of those variables that load most strongly on each factor (Appendix 19). The factor matrix panel was then examined in relation to the rotated Pattern Matrix panel (Appendix 20) following the /FORMAT SORT command as described by Baggio and Klobas (2011). The pattern matrix highlights that five factors are emergent, not six as originally modelled in the CFA. The EFA supports that involvement as an independent factor (Factor 5), as well as cognitive personalisation (Factor 2), risk (Factor 3) and prior beliefs (Factor 4), consumer scepticism and technology sophistication were found to be dependent (Factor 1).

The dependency could be explained by poor item measurement in terms of item numbers and similarity between the items being measured. Indeed, the definition and measure of technology sophistication, as within this study, has not been previously operationalised. The lack of experience of the researcher could also account for poor validity measures of this construct. All emergent factors have statistically significant variables at the desired .4 level (Baggio and Klobas, 2011) and therefore represent valid variables. Technology sophistication will be revised to the precedent 'expertise' attributed by levels of novice and expert from previous literature which is measured in terms of time online and time spent on social media.

Comparisons with Consumers' Personal Characteristic Variables

The multivariate procedure MANOVA was used to assess the statistical significance between the different groups within the consumers' personal characteristic variables in order to test the hypotheses. Hair *et al* (2010) suggested that MANOVA is termed a multivariate procedure because it is used to assess group differences across multiple metric dependent variables simultaneously. As such, MANOVA was an

appropriate analytical method for this study. Before analysis, the descriptive measures of the demographic groups were examined to ensure that sample size was sufficient for analysis (Hair *et al,* 2010).

Several considerations were made at this point (1) differences in country of residence groups could not be measured because of insufficient sample size, from the sample size of 180, a total of 109 respondents were from the UK, (2) the age groups were reduced from seven to four (Table 9.6), (3) the education groups were reduced from six to four (Table 9.7), (4) six occupation groups were removed from the sample due to insufficient sample size and uncorrelated group characteristics. For example, unemployed could not be attributed to the retired. The remaining four groups (Table 9.8) were analysed for differences (please note that the sample number was reduced to 150 during the occupation MANOVA).

Grouped Age

		Frequency	Percent
Valid	19 to 29 years	61	33.9
	30 to 39 years	58	32.2
	40 to 49 years	36	20.0
	50 plus years	25	13.9
	Total	180	100.0

Table 9.7: Grouped Age Measures

Grouped Highest Level of Education

		Frequency	Percent
Valid	Some College	17	9.4
	University Degree	54	30.0
	Masters Degree	67	37.2
	Doctoral Degree	42	23.3
	Total	180	100.0

Table 9.8: Grouped Highest Level of Education Measures

Grouped Occupation

		Frequency	Percent
Valid	Higher managerial, administrative of professional	43	23.9
	Intermediate managerial, administrative or professional	52	28.9
	Supervisory or clerical and junior managerial, administrative of professional	21	11.7
	Full time student	34	18.9
	Total	150	83.4

Table 9.9: Grouped Occupation Measures

Furthermore MANOVA analysis was also completed on the level of social media expertise of the respondents. Four categories of expertise were measured (1) hours spent online, (2) hours spent on social media, (3) hours spent on blogs, and (4) hours spend engaging with brands over social media. As within the demographic characteristics, social media expertise measured required regrouping due to insufficient sample sizes within in some measures. (1) The number of hours spent online was regrouped from six measures to four (Table 9.9), (2) the number of hours spent on social media remained the same with an adequate spread of respondents among the six measures (Table 9.10), (3) the number of hours spend on blogs was reduced from six to four (Table 9.11), and (4) the number of hours spent engaging with brands on social media was reduced from six to three (Table 9.12)

Grouped Online Hours

		Frequency	Percent
Valid	6 or less hours	15	8.3
	7 to 10 hours	28	15.6
	11 to 19 hours	25	13.9
	20 plus hours	112	62.2
	Total	180	100.0

Table 9.10: Grouped Online Hours Measures

Grouped Social Media Hours

		Frequency	Percent
Valid	0 to 1 hours	34	18.9
	2 to 3 hours	33	18.3
	4 to 6 hours	32	17.8
	7 to 10 hours	37	20.6
	11 to 19 hours	18	10.0
	20 plus hours	26	14.4
	Total	180	100.0

Table 9.11: Grouped Social Media Hours Measures

Grouped Blog Hours

		Frequency	Percent
Valid	0 to 1 hours	110	61.1
	2 to 3 hours	38	21.1
	4 to 6 hours	15	8.3
	7 plus hours	17	9.4
	Total	180	100.0

Table 9.12: Grouped Blog Hours Measures

Grouped Engagement Hours

		Frequency	Percent
Valid	0 to 1 hours	121	67.2
	2 to 3 hours	31	17.2
	4 plus hours	28	15.6
	Total	180	100.0

Table 9.13: Grouped Engagement Hours Measures

The data obtained from the conjoint study has been prepared for analysis in accordance to previously tested measures and the data validity has been confirmed by doing so. The next chapter further explores and discusses the findings of the research. By doing so the estimated part-worth utilities and relative importances will

be discussed, hypotheses will be tested and the results of the correlations also detailed.

9.2 Chapter Summary

This chapter has outlined how the CA data and consumers' personal characteristic variables data has been prepared for analysis. It was necessary to prepare the data in accordance with established processes given the complex nature of CA. With a total of 180 usable responses the results of the CA have highlighted the estimated part-worth utilities and relative importances of the attribute levels and attributes. This data is now ready to be analysed in relation to the monotonic relationships hypotheses which were set during the CA measurement discussion. The consumers' personal characteristic variables have been prepared in accordance to EFA and CFA. While technology sophistication was not measured during the study the research also measured the established internet experience construct from previous studies. This data will be used to analyse the assumed consumers personal characteristic variables hypotheses. The next chapter will explore the research findings in relation to the estimated part-worth utilities and assumed monotonic relationships, the relative importances, and the consumers' personal characteristic variables hypotheses.

Chapter X   Research Findings

The previous chapter outlined the process by which the CA and consumers' personal characteristics variable data was prepared. In doing so, several considerations had to be made, this chapter will now introduce the findings of the conjoint analysis survey in relation to the considerations and assumed hypotheses. The presentation of the findings will follow the last stages of the conjoint analysis stage model proposed by Hair *et al* (2006) (Appendix 16). The chapter will discuss the findings of the assumed linear relationships of the part-worths utilities, the relative importance of the ten evaluative cues, and the impact of the consumers' personal characteristic variables on the importance levels.

10.1   Sample Descriptives

The study generated a total of 344 responses of which 180 responses were usable. The sample used to test the hypotheses were characterised as follows:

The sample was comprised of 41.7% males and 58.3% females. The age ranged between 18 and 70+ years (Table 10.1). However age groups between 20-29 and 30-39 accounted for 65% of all responses which, according to Hawkins (2010) and eMarketer (2010), is representative of social media users and indeed the 'connected consumer' segment under study in this research. The decision to use the researchers social networks as the sample frame for the research was appropriate and obtained a usable, viable sample for the study.

Demographic Variables	Frequency (n)	Percentage (%)
GENDER		
Male	75	41.7
Female	105	58.3
AGE		
Under 19	2	1.1
20-29	59	32.8
30-39	58	32.2
40-49	36	20.0
50-59	20	11.1
60-69	4	2.2
70+	1	0.6

Table 10.1: Gender and Age Spread of Sample Obtained

The education and occupation demographics of social media users vary among the different platforms (for example Online MBA, 2012), however the sample demographics of this study are believed to be representative of general social media users and the connected consumer segment who are argued to be highly educated and in middle to high level careers (Skelton, 2012) (Table 10.2).

Demographic Variables	Frequency (n)	Percentage (%)
EDUCATION		
High School	6	3.3
Some College	11	6.1
University Degree	54	30.0
Masters Degree	67	37.2
Doctoral Degree	39	21.7
Professional Degree (JD,MD)	3	1.7
OCCUPATION		
Higher managerial, administrative of professional	43	23.9
Intermediate managerial, administrative or professional	52	28.9
Supervisory or clerical and junior managerial, administrative of professional	21	11.7
Skilled/Semi-skilled manual worker	3	1.7
Unskilled manual worker	1	0.6
Unemployed and seeking work	2	1.1
Not in paid work for other reason	3	1.7
Full time student	34	18.9

Retired	3	1.7
Other	18	10.0

Table 10.2: Education and Occupation Spread of Sample Obtained

While it is agreed that the connected consumer segment is not currently representative of the population at large, understanding this 'connected' segment is important as they are reshaping the world and world of business at all levels (Pew Research Centre, 2010). The strong convergence to an online existence also means that over time more and more individuals will display characteristics and behaviours illustrative of 'connected consumers'. Moreover, as Hardy (2011) argues the connected consumer segment constitutes a significant portion of membership of consumer review sites. It is then argued that the sample of this research is adequate and valid for the research under study. However, the possible sample composition was indicated as one of the limitations of the study and has affected the range of respondents based on country of residence. The study could have potentially been answered by a global audience but the demographics show that the predominant responses were from the UK (57.8%). Responses from Europe accounted for 11.7% and the rest of the world at 30.5% (Table 10.3); these findings suggest that country of residence demographics would not be useful for further analysis.

Demographic Variables	Frequency (n)	Percentage (%)
COUNTRY OF RESIDENCE		
Europe	21	11.7
UK	104	30.5
Rest of the World	55	57.8

Table 10.3: Geographical Location Spread of Sample Obtained

As the sample is believed to be adequate for the proposed research the 180 usable responses were prepared and analysed using the output from Sawtooth and Qualtrics, which were merged and analysed in SPSS to calculate the outputs of conjoint analysis. The estimated part-worth utilities of the ten evaluative cues and the relative

importance ratings were analysed. Further to this, MANOVA analysis and correlations were conducted to test the hypotheses and conduct simulations.

10.2 Estimated Part-Worth Utilities

The first output of the CA is the estimated part-worth utility of each attribute and the attribute levels. Hair *et al* (2010) describes the part-worth utility as the estimate from CA of the overall preference or utility associated with each level of each factor used to define the credibility of online reviews (see Table 8.2 for a full list of the attributes and levels pg311) The part-worth utilities describe the desirability of the various levels of the attribute, with higher scores suggesting a higher preference for that level. Using ACA, the part-worth utilities of the individual attributes of online hotel reviews were estimated under the modified ordinary least squares (OLS) (Orme, 1998). OLS is used by ACA software and is calculated from the calibrated scores of the respondents answers to (1) the preferences for specific attribute levels, (2) the importance difference between the least preferred and most preferred attribute level, (3) the paired comparisons, and (4) the calibration purchase intention questions (King, Hill and Orme, 2005). The estimated part-worth utilities were then rescaled [0-100] to allow for easy comparison (Table 10.4).

The findings of the estimated part-worth utilities are important to understanding how the structure of an online hotel review influences credibility perceptions (and therefore influence of the review). Essentially, the findings highlight, which attribute level holds the most credibility. Each level is given a utility level so direct comparisons can be made between attributes and their respective attribute levels. From these findings the research can begin to determine which attribute level holds

the highest perception of credibility and these results can then be used to determine which attribute is perceived the most important credibility evaluation attribute.

Attribute	Level	Estimated Part-Worth	Rescaled Estimated Part-Worth
Timeliness	>8 Months	-.2967	35.7
	4-7 Months	.00737	51.4
	<3 Months	.30418	66.7
Accuracy	Poor Spelling and Grammar	-.30679	39.8
	Good Spelling and Grammar	.31661	72.9
Message Value	Lots of Facts	-.13051	43.6
	Lots of Opinion	.03418	54.3
	Both Fact and Opinion	.11003	59.3
Length	Short	-.15733	51.8
	Average	.08542	64.0
	Long	.08658	64.1
Sidedness	Positive	-.05360	45.5
	Negative	-.03228	46.8
	Both Negative and Positive	.10056	54.5
Social Presence	Neither Photo nor Video	-.20331	44.6
	Video	-.02945	52.5
	Photo	.11511	59.1
	Both Photo or Video	.13722	60.1
Rating	No Rating	-.21752	35.0
	Low Rating	-.08500	44.0
	Average Rating	.08463	55.4
	High Rating	.23751	65.7
Identity Disclosure	Unknown	-.06831	43.4
	Dissimilar	-.06269	43.8
	Similar	.14569	58.8
Lifestyle Disclosure	Unknown	-.04656	38.5
	Dissimilar	-.13087	33.0
	Similar	.19217	54.1
Source Platform	Branded Social Space	-.25559	39.4
	Blog	-.03943	49.5
	Commercial Review	.02582	52.6
	Independent Review	.28879	64.8

Table 10.4: Estimated Part-Worth Utilities

During the development of the conjoint study a theoretically based structure was assumed between the levels for each attribute (see Chapter VIII for this discussion).

This theoretical structure assumed that a monotonic relationship would be proven between the levels. In other words, the research hypothesised that each level of preference should increase with each attribute level, creating a linear structure. Generally the relationships were supported, as an increase was evident between each level of each factor.

However, the relationship was not supported for social presence where a -6.6 value was found between video and photo. Respondents attributed increased credibility to photos and not video, as originally assumed. Similarly, lifestyle disclosure was not supported as a -5.5 value was found between unknown lifestyle to dissimilar lifestyle. Moreover, upon further inspection only a true linear relationship existed with the accuracy attribute. This relationship may be explained by the attribute being represented with two levels (poor spelling and grammar versus good spelling and grammar) where other attributes had three or more levels. The assumed relationships and results will now be discussed.

The timeliness attribute was found to be most desirable at the written within the last three months level, at a utility value of 66.7. The assumed monotonic relationship was supported with eight months or more at a utility level of 35.7, and between four and seven months at a utility level of 51.4. Therefore when evaluating credibility those reviews written within the last three months are weighted more credibly at a 15.3 value from those written between four and seven months ago, and a 31.0 value of those written over eight months ago. In other words, most consumers' would perceive a review written within the last three months to be more credible than ones which were written between four and seven months ago or over eight months ago.

The high utility range further suggested that timeliness would be an important credibility evaluation attribute.

The attribute of accuracy was also found to hold a high utility range between poor spelling and grammar and good spelling and grammar of 33.1. The monotonic linear relationship was supported with the most desirable level of good spelling and grammar at a utility level of 72.9. At the other side, poor spelling and grammar was found to reach a utility value of 39.8. Therefore, the credibility of an online hotel review will be weighted higher when spelling and grammar is of a good and accurate standard. The results suggest that consumers' perceive a review that has good spelling and grammar as more credible than one with spelling mistakes and poor grammar.

The attitude value versus simple value attribute was found to be most desirable at both factual information and opinions level, with at utility value of 59.3. The monotonic relationship between attribute levels was supported with factual based reviews at a utility level of 43.6, and opinion based reviews at a utility level of 54.3. Therefore, reviews containing both factual and opinion based information will hold a higher credibility weighting than those with only fact based or opinion based content. However, the range between fact based reviews and opinion based reviews was more significant. It could therefore be argued that consumers' would perceive a review that has both factual and opinion based content more credible that reviews with only facts or opinions. However, opinion based reviews are perceived as more credible than fact based reviews.

The monotonic relationship was supported at the review length attribute with the largest utility value of 64.1 at the long review level. However upon examination, the average length review utility of 64.0 displayed a larger increased utility of 12.2 between short reviews. As the increased utility between average length and long reviews is only found at the 0.1 value, it is suggested that average length reviews should be regarded as most desirable. The overall variance between the length attribute levels was found to be low at a 12.3 value; this finding suggested that length is not an important attribute in determining the overall credibility of an online hotel review. The findings suggest that consumers perceive average length reviews as the most credible review with long reviews and then short reviews. Therefore the length attribute is most credible at the average length.

The sidedness attribute was also found to hold a low level variance at 9.0. However the monotonic relationship between the attribute levels was supported, with positive reviews at the 45.5 utility value, negative reviews at the 46.8 utility value and both positive and negative at the 54.5 utility value. While negative reviews were found to be more credible than positive reviews, the increase in utility is not as significant at an increase of 1.3 as that between negative review and reviews with both positive and negative information, at an increase of 7.7 utility. Therefore, credibility weightings will increase when the sidedness of the review is two-sided and not only positive or negative. In other words, two-sided reviews are perceived to be more credible than negative or positive reviews. However, negative reviews are perceived to be more credible than positive reviews.

The social presence attribute was found to be most desirable at both the photo and video level, at a 60.1 utility value. However, the monotonic relationship was not

supported and upon further exploration there was only a 1.0 utility increase between the addition of photos and the addition of photos and videos. This suggested that the addition of photos is the most desirable level. Furthermore, the monotonic relationship was not supported as an increase in utility level existed between videos at a 52.5 utility value, and photos at 58.1. Nevertheless, the findings suggested that the addition of photos is the social presence level with the highest credibility utility. Therefore, consumers perceive reviews with photographs as more credible then those with video or no photos or video.

The monotonic relationship of the ratings attribute was supported, with no rating at a 35.0 utility value, low rating at a 44.0 utility value, average rating at 55.4 utility value and high rating at the 65.7 utility value. The overall utility variance was significant at a 30.7 utility value. When evaluating the rating given to a review by another consumer, the credibility weighting would be most significant at the high rating value. However, reviews with an average rating would be perceived to be more credible than those with a low rating or no rating and so on. The rating given by other consumers to the review therefore acts as a recommender to that reviews credibility.

The identity disclosure attribute was found to hold most credibility at the similar identity level with a 58.8 utility value. The monotonic relationship was supported with unknown identity at a 43.4 utility value, dissimilar identity at 43.8 utility value and similar identity at 58.8 utility value. With only an increase variance of 0.4 utility between unknown identity and dissimilar identity, the most significant increase was at the dissimilar to similar identify at the 15.0 utility value. Therefore the identity disclosure credibility weighting would be most significant at the similar identity

level, confirming the measure of homophily. The overall utility variance was small at a 15.4 utility value which suggests that identity disclosure is not a highly important attribute in determining credibility of a review.

The assumed monotonic relationship between the lifestyle attribute levels was not supported. While also measured in a terms of homophily, the lifestyle was found to be less desirable at the dissimilar level of a 33.0 utility. The unknown lifestyle was found to hold a utility level of 38.5, an increase of 5.5 utility. The results indicate that online hotel review credibility will be higher for reviews with no lifestyle descriptive information than those with dissimilar lifestyle attributes. However the most significant increase in utility was found at the unknown to similar level, with a 21.1 utility. Therefore credibility weightings will be higher when the lifestyle is disclosed and similar to the consumer. The overall variance in utility was found to be 26.6.

The source platform was found to be most significant at the independent review site level, with a utility value of 64.8. The monotonic relationship was also supported with branded social spaces at a utility value of 39.4, blogs at a utility value of 49.5, commercial review sites at a utility value of 53.6, and independent review sites at 64.8 utility value. The most significant increases in utility were source platforms moving in-between commercial to independent, with a 10.1 utility increase between branded social spaces and blogs, then a 12.2 utility increase between commercial review sites and independent review sites. A smaller utility increase was found between blogs and commercial review sites at a 3.1 utility. This finding suggests that while independent review sites are the most desired to increase credibility, generally those sites that have relative independence (including blogs) are more

credible than commercial sites. In other words, consumers perceive independent review sites as the most credible review source with commercial reviews being the second most credible. Blogs and branded social spaces, a different type of online social content were perceived to be the least credible, suggesting again that review sites are most influential on trip planning consumer behaviour. The overall utility variation was found to be significant at 25.4 utility.

The estimated part-worth utilities highlighted a significant variation in utility values of not only each attribute but in most cases each level of each attribute. The attributes with the highest utility values were found to be accuracy (good and accurate, 72.9 utility), timeliness (written within 3 months, 66.7 utility) and source (independent review site, 64.8 utility). The second stage of the conjoint output is the calculation of the relative importances. The relative importances are calculated from the standardise the part-worth utilities, the relative importance of each attribute will now be discussed.

10.3   Relative Importances

The relative importances provide an indication of the level of importance placed on each attribute relative to the other attributes. The distance between the highest and lowest part-worth utilities is calculated to obtain the relative importance scores (Orme, 2006; Pathak and Dikshit, 2006). Under the 'logit share model' or 'share preference' the total utility is an indication of the proportion of the time that the respondent will select that option. When preferences across multiple attributes are modelled, the importance ratio of one particular attribute's part-worth utility to the sum of all the attributes' utility is used. In other words, the relative importances

highlight which of the ten credibility evaluation attributes are most important to least important. Importances were calculated for all attributes at an aggregated level (Table 10.5).

Attribute	Relative Importance (%)
Accuracy	16.7
Timeliness	16.1
Source Platform	14.6
Rating	12.2
Social Presence	9.1
Lifestyle Disclosure	8.6
Length	6.5
Message Value	6.4
Identity Disclosure	5.7
Sidedness	4.1

Table 10.5: Relative Importance of Attributes

Overall, perceived online hotel review credibility was found to be most significantly impacted by accuracy (16.7%) and timeliness (16.1%). As determinants of the information quality construct, the attributes of accuracy and timeliness explained 32.8% of the range in perceived credibility of online hotel reviews. Positive credibility weightings would be most significant at the 'written within the last three months' level and where the review was good and accurate in terms of spelling and grammar. The results suggested that the narrative or story of the review is not as important as the normative characteristics, which lie around the story.

The source platform explained 14.6% of the range in perceived credibility, where reviews on independent review sites would have the highest weighted credibility. The fourth and fifth attributes are again normative characteristics of rating and social presence, explaining 12.2% and 9.1% of the range in perceived credibility. Lifestyle was found to be the most significant content creator attribute to affect the perceived

credibility of an online hotel review, explaining 8.6% of the range in perceived credibility. Therefore the closer the level of perceived homophily between the content creator and the respondent, the higher the perceived level of credibility.

The final normative determinant of length explained 6.5% of the range in perceived credibility. It was argued that average length reviews are the preferred level of the length attribute. The informational elements of message value and sidedness ranked eighth and tenth in their effect of credibility perceptions of online hotel reviews, each accounting for 6.4% and 4.1% of the range in perceived credibility respectively. The low importance of the informational characteristics of message value and sidedness suggested that that the credibility of the review narrative is evaluated upon the normative characteristics, the source platform and the perceived homophily to the lifestyle disclosure. The second content creator attribute of identity disclosure accounted for 5.7% of the range in credibility perception. Therefore, the homophily between lifestyle is more important than homophily between identity details, such as, country of residence by 4.9%.

The relative importance results assumed that the respondents were homogenous in their credibility evaluation process. However the theoretical model assumed that involvement, technology sophistication, scepticism, prior belief, cognitive personalisation and risk would affect the relative importance of the cues used during credibility assessment. The hypotheses will now be tested.

10.4 Consumers' Personal Characteristics

Six consumers' personal characteristic variables of involvement, technology sophistication, scepticism, prior beliefs, cognitive personalisation and risk were to be

tested in the theoretical model, however the results of the CFA suggested a poor goodness-of-fit. While the Chi-squared level of 58.9, CFI of 1.00, room mean square error of 0, and GFI of 0.961 were all found to be within an acceptable level, the strong negative error variance of the output indicated that goodness-of-fit was unacceptable. The EFA supported that five, not six variables were measured during the study, as scepticism and technology sophistication were shown to be dependent measures (See Appendix 19 and Appendix 20).

To test the proposed hypotheses the remaining five consumers' personal characteristic variables were then correlated with the ten independent content, content creator and source characteristics (Table 10.6).

Consumers' Personal Characteristic Correlations

Attributes	Involvement	Scepticism	Prior Belief	Cognitive Personalisation	Risk
Timeliness	-.052	.016	.134	-.084	-.005
Accuracy	.080	-.030	-.017	.080	-.024
Message Value	-.053	.107	-.043	.040	-.031
Length	-.038	.081	.097	.064	.050
Sidedness	-.112	-.019	.158[*]	.020	-.056
Social Presence	.018	-.016	.021	-.092	.045
Rating	.084	-.013	.081	.025	-.017
Identity Disclosure	.087	.064	.305[**]	.109	-.064
Lifestyle Disclosure	.000	-.049	.166[*]	.006	.035
Source Platform	.013	.197[**]	.012	-.056	.053

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10.6: Consumers Personal Characteristic Variables Correlations

The research assumed that rises in the consumers' relative level of involvement, technology sophistication, scepticism, cognitive personalisation and risk would

positively increase the importance of a number of evaluative cues. However the findings do not significantly support any of the assumed hypotheses.

Overall, no hypothesis was supported in the research findings. The results suggest that respondents display relatively homogeneous credibility assessment processes. At this stage the significance of technology sophistication could not be established because of the dependent measurement relationship with scepticism. However, the independent measure of internet and social media expertise was also measured during the study. A MANOVA analysis was conducted however the results displayed no significant moderation between internet and social media expertise on the importances of the evaluative cues. Wilks' Lamaba was represented at the .784 level for online experience, 1.091 level for social media experience, .890 level for blog experience, and .633 level for experience engaging with brands via social media. Following the rule of thumb for MANOVA significance the results were not significant. Therefore, internet and social media experience does not affect the importance of credibility evaluative cues.

Following from the 'expertise' MANOVA, the demographics were regrouped and analysed using SPSS. As explained in Chapter IX, Section 9.1 the demographics were regrouped because of fragmentation in the respondents' demographics. Variations in credibility evaluative cues could not be modelled for the country of residence variable due to insufficient sample sizes. The results of the MANOVA did not demonstrate any significant changes to evaluative cue importances based on the demographics variables. Wilks' Lamba was found at the .620 level for gender, 1.206 level for age, 1.029 level for level of degree and the .898 level for occupation. As a rule of thumb the results of Wilks' Lamaba was not found to be of significance. The

results suggested that gender, age, education level and occupation do not affect the importance of the cues used to evaluate credibility of online hotel reviews. In other words, the sample displayed homogenous characteristics in the route to credibility persuasion.

The relative homogeneity between respondents indicated that, in general, credibility of online hotel reviews is established through universal process, irrespective of demographic information, expertise, involvement, cognitive personalisation or risk taking propensity. However, the effects of scepticism and prior belief suggested that the homogenous nature of the results may be misleading. The evaluative cues were correlated to explore segmentation among the respondents. The disaggregate individual level responses were correlated to highlight possible segmentation missed during the consumers' personal characteristic variable analysis (Table 10.7; pg359).

The findings highlighted no significant correlations between attributes. Correlations were found at the .05 and .01 level which is deemed to be at the moderate and weak level (Hair *et al,* 2010). The most significant relationship was found between identity disclosure and lifestyle disclosure at the .371 level which is within the moderate significance range (Hair *et al,* 2010). While the findings supported weak and moderate level correlations, the importance of attributes would not be significantly moderated. This finding further illustrated that respondents are relatively homogenous during online hotel review credibility evaluation. Furthermore, the evaluative cues of timeliness, accuracy, message value, length, sidedness, social presence, rating, identity disclosure, lifestyle disclosure and source platform were found to be independent attributes.

Attribute	Timeliness	Accuracy	Message Value	Length	Sidedness	Social Presence	Rating	Identity Disclosure	Lifestyle Disclosure	Platform
Timeliness		-.182[*]	.014	.028	-.018	-.038	.092	-.016	-.107	-.161[*]
Accuracy	-.182[*]		-.136	-.038	-.102	-.007	-.174[*]	-.095	.026	-.248[**]
Message Value	.014	-.136		-.083	.041	-.071	.081	.047	.011	.038
Length	.028	-.038	-.083		.204[**]	.150[*]	.100	.110	.221[**]	-.076
Sidedness	-.018	-.102	.041	.204[**]		-.011	.119	.235[**]	.193[**]	.038
Social Presence	-.038	-.007	-.071	.150[*]	-.011		.056	.076	.062	-.020
Rating	.092	-.174[*]	.081	.100	.119	.056		.208[**]	-.003	-.096
Identity Disclosure	-.016	-.095	.047	.110	.235[**]	.076	.208[**]		.371[**]	-.018
Lifestyle Disclosure	-.107	.026	.011	.221[**]	.193[**]	.062	-.003	.371[**]		-.005
Platform	-.161[*]	-.248[**]	.038	-.076	.038	-.020	-.096	-.018	-.005	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10.7: Correlations Between Evaluative Cues

The review of literature in the area of credibility evaluation and effect of consumer reviews on purchase decisions indicated that the consumers' personal characteristics would moderate information credibility evaluation (see Appendix 1 for review). Given that the findings of this CA study did not support any of the assumed hypotheses and no significant consumer segments emerged from the findings, the conjoint data was again prepared for analysis to ensure behaviours were indeed homogeneous between the previously theorised segments. A chow test (Chow, 1960) was conducted on the consumers' demographic characteristics (gender, age, occupation, education and country of residence), the consumers' purchase behaviours and their online experience. Essentially, a chow test is a test whether coefficients in two linear regressions on different data sets are equal (Chow, 1960). Chow tests have traditionally been used in econometric research (Toyoda, 1974), and are used in this study as a means to test the null hypotheses obtained from the conjoint findings.

The sample descriptives (section 10.1) highlighted that comparison between demographic segments was difficult because of the sample composition. In order to conduct the chow test conjoint data had to be prepared to be analysed between two groups to ensure the groups could be effectively compared and test the null hypotheses from the conjoint data. This meant that some of the consumers' personal characteristics had to again be regrouped into two clear groups where regressions could be conducted. The demographic variables and their regroupings are illustrated in Table 10.8.

Demographic Variable	Group 1	Group 1 (n)	Group 2	Group 2 (n)
Gender	Male		Female	
Age	18-39	119	40+	61
Education	Up to Degree	71	Post Grad	109
Occupation	Managerial	116	Other	64
Country	UK	104	Non-UK	76
Number of Trips	2 or less	84	3 or more	96
Purchase Behaviour	Company Website	81	Other Purchase	99
Online Experience	20 hours+	112	0-19 hours	68
Social Media Experience	6 hours+	81	0-6 hours	99
Blog Experience	0-1 hours	110	1 hour+	70
Engagement Experience	1 hour+	59	0-1 hour	121

Table 10.8: Chow Test Groupings and Respondent Numbers

The chow test was calculated with ten dependent variables (the evaluative attributes) of timeliness, accuracy, message value, length, sidedness, social presence, rating identity disclosure, lifestyle disclosure and source platform in relation to the new demographic groupings (Table 10.7). SPSS was used to obtain the relevant measures. Firstly, regressions were calculated for the total group (each on the dependent variables and full demographic group for each demographic variable) to calculate the SSE. This procedure was then repeated for each subgroup (Table 10.7) and the SSE's used in the Chow test equation:

$$F = \frac{(RSS - URSS)/(\kappa + 1)}{URSS / (\eta 1 + \eta 2 - 2\kappa - 2)}$$

Equation 1: Chow Test

From the 110 Chow tests calculated only 3 were found to be significant, at total of 3.3%, this could be dismissed as random. However, all three significant findings were found in the trip number dependent dichotomy, at the platform, lifestyle and message value levels. It is suggested that a direction for future research is to further explore these relationships. Overall, it could be argued that the Chow test supports the null hypotheses and suggest a homogeneous approach to credibility evaluation. Again, it is proposed that a direction for future research be conducted in relation to the effect of the consumers' personal characteristics on credibility perceptions of online consumer reviews.

10.5 Chapter Summary

The findings have suggested that respondents display homogeneous behaviours during online hotel review credibility evaluation. Firstly, the CA results supported the assumed monotonic relationship between eight of the ten attributes. While only accuracy displayed a true linear relationship, a significant increase between levels was evident in timeliness, attitude, sidedness, rating, identity, lifestyle, and source platform. The relationship between social presence and lifestyle attribute levels was not supported. The second stage of CA highlighted the varying degrees of importance between the evaluative cues, where normative attributes and source platform were found to hold more importance than informational attributes and content creator attributes in credibility perceptions. The importance of the evaluative cues were found to be moderated at a weak and moderate level by the respondents' relative level of scepticism and prior belief. The respondents' relative level of involvement, cognitive personalisation and risk were not found to affect the relative importance of the evaluative cues. Furthermore, demographics and social media expertise were not found to affect the relative importance of the attributes. Similarly, no segments were emergent during attribute correlation. The next chapter discusses these responses and findings of this study and presents tem as consumers and in relation to the literature previously reviewed.

Chapter XI   Discussion

The previous chapters have reviewed the literature relevant to the study, introduced the tourism context of the research and the initial theoretical model. The theoretical model was refined through exploratory research, the adopted research methodology was introduced and the findings of the main research instrument were presented. This chapter discusses the findings in relation to both the preliminary exploratory findings of this research and the findings of previous studies of a similar nature. In doing so, the chapter will answer the objectives of the research to (1) identify the types of online media used to gather product related information during an active information search; (2) explore the factors considered by the consumer during information evaluation; (3) determine the relative importance of each of the factors considered during decision making; (4) investigate the interrelationships between the factors considered during decision making and (5) understand the factors that influence the credibility of online social content.

11.1   Online Media Used to Gather Tourism Related Information

The rise in consumer generated content has changed the face of the online digital media landscape and is believed to have had a profound impact on purchase influence (for example, Forbes and Vespoli, 2013). As a consequence, the use and impact of social media on the purchase decision process is fast becoming an enduring focus of research generally and many industry contexts, including tourism (for example, Leung *et al,* 2013; Powers *et al,* 2012). Such research has developed with new models of consumer decision making (Court *et al,* 2009; Wildfire, 2012). However, little attention had been specifically paid to the types of online media used to make an

informed purchase. The impact of online reviews on a purchase decision (in various categories of goods and services) had been a central focus in research (see Appendix 1 for studies pertinent to this research). However, this research stream had neglected to explore the role and influence of newer types of social media (for example, social networks and media sharing sites) during an active purchase decision.

The sophistication and number of social media platforms has been growing at an unprecedented rate, as well as the individual's intention to use social media to connect and share information (Grant, Gino, Hofmann, 2010). A consumers social media interactions have been shown to influence other consumers' intention to purchase and consume such products, services and brands (for example, Cheung *et al,* 2009; Blackshaw, 2006; Khim-Yong *et al,* 2013; Sen and Lerman, 2007; Xue and Phelps, 2004). While interpersonal influence can be attributed to the influential effect of reading each other's thoughts, feeling and consumption experiences online (de Valk, 2009; Hennig-Thurau *et al,* 2004), little was known about the role and impact of social media during the active information search stage of the purchase decision process. In exploring what types of online media consumers use during a trip purchase decision, this research makes two key findings:

The first is that from all types of social content available, consumer reviews were the most searched and influential information source. As a result the main study instrument explored how the credibility of consumer reviews is determined. The findings of this study demonstrated that while other forms of social content are available they are not widely used during pre-purchase trip planning. As such, the results support the notion that reviews allow the consumer to collect a lot of data at a low cost, as such act as a heuristic search strategy. As one platform will provide

multiple sources of information (Hennig-Thurau *et al,* 2004), which reduces the cognitive strain to search (Ghose, 2007) and is within the consumers' limited capacity to process information online (Habul and Murray, 2003).

Additionally, the exploratory research found two reasons why consumers are reliant on review sites over other forms of online social content. The first finding is consistent with previous research (for example, Browning *et al, 2013*) that consumer reviews contain the type of information that consumers are looking for to make an informed choice. In this study it was found that:

Confirm the quality of the accommodation in terms of service, cleanliness and location…

It could be argued that consumer reviews are the active and intentional output of a consumer reliving their consumption experiences or as, Park *et al* (2004) describes the publishing of objective knowledge of a consumption experience. Therefore, consumer reviews should contain the types of information required to make an informed purchase decision over other forms of social content. The second, as within theories of traditional information search (March and Simon, 1958) and online search (Holscher and Strube, 2000; Thatcher, 2006) this research finds that consumers do not always conduct optimal searches. While review sites are an example of weak-tied platforms (Kozinets, 1998), the findings of this study are illustrative of Coulter and Roggeveen (2012) where purchase influence was still found to happen when tie strength is low. Thus suggesting that tie strength of a social content source is not an accurate predictor of message influence. However, a review site, while one source of information, provides multiple accounts (reviews) of hotels. Therefore review sites

provide a wealth of information in one online source, reducing the need to search multiple sources.

A single review may vary in quality and consistency but reviews are designed to assist other consumers to make informed purchase decisions (for example, Lee and Lee, 2009), it could be argued that other forms of social content may not hold the same publication or informational intention. The intention of the content creator to publish a review was found to be important in the studies of Nekmat and Gower (2012) and Zhang, Craciun and Shin (2010), the findings if this study also suggests that posting intention is significant in the search for different types of social content. For example, Wilson *et al* (2012) found that consumers may post holiday photos on social networking and media sharing sites to construct their personal identities, which may account for their limited use in this research.

Similarly, status seeking (Park *et al,* 2009; Leung, 2009) and internal self-concept development (Yang and Lai, 2010) have been attributed to posting on social networking sites. Such motivations to use social media may not necessarily assist other consumers to make informed purchase decisions but may act as a catalyst for need recognition (Engel *et al,* 1978). It could therefore be argued that consumer reviews are sought during pre-purchase information search because of the message structure and content as well as the perceptions of that media (Metzger *et al,* 2003). In terms of online sources of content, consumer reviews are argued to be free from marketer influence (Xue and Phelps, 2004) and allow for easy reach of multiple sources of unbiased information (Hennig-Thurau *et al,* 2004), which increase positive perception of the source.

The findings suggest that social media may play a more active role in other stages of the consumer purchase decision process (Fotis *et al,* 2011; Powers *et al,* 2012; Wildfire, 2012; Wilson *et al,* 2012) and also further questions the foundations of the consumer purchase decision theory itself. The consumer segment under study in this research was shown to be characteristic of the 'connected consumer' segment (Miller, 2012). Following theories of past research regarding millennial search behaviour (for example, Taylor, 2012), it would be expected that such connected consumers would use multiple social content sources. However, the findings of this research do not support the use of multiple types of social media during a trip purchase decision was not significant. The exploratory research suggested that 'connectedness' may not be attributed to demographic characteristics or generational cohorts as Miller (2012) argued. The findings of this study suggest that a consumers respected level of 'connectedness' is akin to a mind-set or level of 'technology sophistication'. The respected level of technology sophistication may account for the growing segment of 'digital immigrants' who are also believed to be technologically savvy and connected (Jones *et al,* 2010).

In this study, the consumer's respective level of technology sophistication was shown to impact on the types of social content sources used during the search. Following the theory of expertise (Alba and Hutchison, 1987; Mathwick *et al,* 2001), the study finds that consumers with increased levels of technology sophistication will conduct a wider and deeper social search and may ask questions of their social network contacts (Chu and Kim, 2011). Three distinct social searchers emerged from the findings:

Typology	Definition
Commercial Searchers	The search of reviews via commercially based review sites/review mechanisms moderated by a low level ability to search and confidently make judgement decisions on content obtained
Independent Searchers	The search of reviews via perceived independently based review sites moderated by an average ability to search and confidently make judgement decision on the content obtained
Novel Searchers	The search of recommendations via a variety of different social media platforms moderated by a high level ability to search and confidently make judgement decisions on the content obtained

Table 11.1: Cognitive Online Social Content Search Strategies

The consumers' respective level of technology sophistication defined their cognitive online social content typology. This finding is similar to that of Thatcher (2006,2008) who argued that search experience predicted the type of online search conducted by consumers and Guido *et al* (2012) who found source use self-reinforcing based on source familiarity and cognitive ability of the consumer. While Xiang and Gretzel (2010) suggested that online trip planning may expose the consumer to varying types of online social content, this research as with that of Thatcher (2006, 2008), Guido *et al* (2012) and in the consumer learning studies of Bhatnanger and Ghose (2004) argue that the consumer will only use sources familiar to them and within their cognitive ability to process.

In the same respect, the results of the qualitative CA study suggest that other forms of social content are not perceived to be as credible as reviews. On viewing the results of the 'source platform' relative attribute levels both branded social spaces (a hotels social networking profile) and blogs (a form of EGC) held the least credibility. Marking independent review sites and commercial review sites as the two most credible social content sources respectfully. This finding is consistent with previous research, where website reputation was also found to influence the perception of CGC

found within the website (Park and Lee, 2009). This research concurs that as commercial review sites are within marketer dominated sources they are not perceived to be as credible as seemingly independent review sites (Blackshaw 2006; Sen and Lerman, 2007). Moreover, low familiarity with blogs as a source of information reduced the perceived credibility (as further explained by Guido *et al,* 2012). The least credible source, branded social spaces, can be explained by the link between them and marketer generated sources (Xue and Phelps, 2004).

The second key finding is that not all trip elements (destination, transport, accommodation and destination activities) require a 'social search'. Previous research on the use of social media during the pre-purchase stage of trip planning has found conflicting results on the use of social media for differing trip elements (for example, Fotis *et al,* 2011; Jacobsen and Munar, 2012; Park and Oh, 2012). In this study CGC was not required to make an informed decision within destination and transportation choices. Further to this, CGC was not believed to be easily obtainable for information on destination activities and as such search is not conducted within social content, illustrative of the theories of cognitive processing (Habul and Murray, 2003; Ghose, 2007), however inconsistent which is with the findings of Fotis *et al* (2011).

While the study does not confirm the findings of Fotis *et al* (2011) it does support the notion that credibility is a cognitive and motivational process where consumers' will use sources familiar to them (Guido *et al,* 2012). This assertion is illustrative in the exploratory findings where consumers' would conduct offline searches for destination activities, as there is no market leader or familiar information source in which to search for this product category. Although inconsistent with previous research (for example, Fotis *et al,* 2011), this study argues that not all products or services require

'social search' during active pre-purchase information search. Furthermore, this suggests that even purchases out-with a trip purchase context may not include or be impacted by a search of social content or 'social search'. This assertion is supported in the theories of traditional information search, in that, not every purchase requires a period of external information search (Kassarjian, 1978).

While this research finds that online information search to obtain choice alternatives is necessary for all trip elements (with some exception online search for destination activities), additional social search was not found to be necessary. The role of social content, in this case consumer reviews spans across both information search and evaluation of alternatives when social search is required at all. The exploratory study, of this research, found that consumers only displayed a tendency to conduct a social search for accommodation purchases. The exploratory study suggested various reasons why each trip element did not require a social search:

The first, consumers' were found to already have a destination in mind, little had been known about the influence of CGC on macro-destination choice (Tham *et al*, 2013) and this research posits that the consumer, when conducting an active trip planning search will already have a destination in mind. While social content was not found to influence destination choices during an active purchase decision there is evidence that social content through surfing and play may impact upon subsequent purchase decisions (Powers *et al*, 2012). In other words, the sharing of content to create identities (Yang and Lai, 2010) may impact upon other consumers' behaviour.

The exploratory study suggested that consumers did not require a social search for transportation, with the focus on flights, as they were price sensitive (compared to accommodation purchases) and that consumers could make clear distinctions between

aircraft brand names and levels of service. This suggests that risk perceptions of flights are low where accommodation purchases are high (Murray, 1991). It could also be argued that as consumers have increasing levels of both objective and subjective knowledge (Park *et al,* 1994) in flight decisions, reducing the need for external search and indeed, social search. The increased risk perception for accommodation purchases may be attributed to the high levels of intangible heterogeneity between providers and their service levels (Ziethmal, 1981). Finally, following the arguments posed by Guido *et al* (2012) no prevailing social content source can be found for destination activities, as such sites are not familiar they will not be highly searched for.

Therefore even in the connected consumer segment who poses the cognitive ability to search content of varying quality across different information sources only certain products/services require a social search, which suggests that (1) social media is not perceived to be a useful information source across all product and service categories and/or (2) that the cognitive complexity of searching multiple sources with varying degrees of quality is too high even when experience with the medium itself is high, a finding consistent with Guido *et al* (2012). The role of social media during an active purchase decision and brands pro-active social media strategies to acquire new customers then begins to be questioned, as the role of social search is limited to certain product/service categories when the consumer is on an objective 'fact finding' mission.

However, in viewing observable variances in the connected consumer segment during the qualitative study, over time with increased familiarity and expertise (Alba and Hutchison, 1987; Guido *et al,* 2012) of social media, consumers may being to use more novel search strategies – this is an area for future research. Although this study

finds that the types of online media we would consider today as, social media has little use and impact during an active purchase decision, it does not suggest that social media do not impact purchase choice.

For example, the effect of reading other 'friends' posts in a social network, looking through a 'friends' holiday photos or discovering their holiday destination on a social network may act as a catalyst to begin the need recognition stage in the purchase decision process (Engel *et al,* 1978). Indeed other studies viewing the full purchase decision process have found different social media platforms to impact on the decision making process (for example, Powers *et al,* 2012). The influential effect of this type of information may also prompt impulse buying as similarly argued within the traditional information search literature (Kassarjian, 1978) or the information may be stored to memory and used the next time the consumer is undergoing a trip purchasing decision (Engel *et al,* 1993). This research did not explore such effects of social media on a purchase decision but studied the use of social media during an active purchase decision.

11.2   Credibility Evaluative Cues

The findings of this research support previous studies in that, evaluative cues from the content, the content creator and the source are used in combination to evaluate the credibility of online content (online hotel reviews in this study) (Cheung *et al,* 2009; Hovland, 1948; Wahten and Burkell, 2002). Following the study of Cheung *et al* (2009), this research finds that content characteristics should be viewed as informational and normative. This research also answered the conflicting findings of past research.

For example, it was largely argued that negative information was more credible than positive information, however other studies found the reverse to be true (Guari *et al*, 2008; Huang and Chen, 2006; Kusumasondjaja *et al*, 2012). Where other studies argued that two-sided arguments to be the most credible (Kaims and Assael, 1987; Sullivan, 1999). In conducting a CA study, the findings of this research begin to better understand the relationship between the evaluate cues, their various levels (for example, positive/negative/both) and credibility perceptions. The evaluative cues under study were - informational content attributes: sidedness and message value; the normative content attributes: accuracy, timeliness, rating, length and social presence; the content creator attributes, identity disclosure and lifestyle disclosure; and finally the source: source platform. The findings of the part-worth estimates for each attribute under study developed a clear schema to highlight which types of review would be perceived as the most and least credible by consumes (Table 11.2)

Most Credible Review		Least Credible Review	
Attribute	**Level**	**Attribute**	**Level**
Sidedness	Two-Sided	*Sidedness*	Positive
Message Value	Two-Sided	*Message Value*	Facts
Accuracy	Good Spelling and Grammar	*Accuracy*	Branded Social Space
Timeliness	Within Last 3 Months	*Timeliness*	Over 8 Months Ago
Rating	High	*Rating*	No Rating
Length	Average	*Length*	Short
Social Presence	With Photo	*Social Presence*	No additional Media
Identity Disclosure	Similar	*Identity Disclosure*	Unknown
Lifestyle Disclosure	Similar	*Lifestyle Disclosure*	Dissimilar
Source Platform	Independent Review Site	*Source Platform*	Branded Social Space

Table 11.2: Most and Least Credible Review Types

The research finds that the informational content attributes of sidedness and message value were both the most credible and influential when representing a two-sided argument. In other words, consumers found reviews that contained both positive and negative information and both opinions and facts as more credible. This finding is consistent with previous research on information credibility evaluation (Kaims and Assael, 1987; Sullivan, 1999). Although two-sided information was not explored in studies of online review valance (see Table 3.3; pg86 for sample of valance studies), the findings of the CA study support the argument that negative reviews are perceived to be more credible than positive reviews (for example, Kusumasondjaja *et al,* 2012). The findings of exploratory study suggested that reviews with both positive and negative accounts were more credible because consumers understood that no service experience is one hundred per cent positive, that service failures happen.

Consequently, it was found that when service failures occur review influence is determined by availability of the service recovery strategy employed by the accommodation provider. In line with the finding of Litvin and Hoffman (2012), this study finds that negative review rebuttal can have significant positive impact on credibility and influence. That in responding to negative reviews an accommodation provider can turn a negative review into a positive review. The findings of the exploratory study indicated that accommodation providers responding to reviews were akin to the concept of 'service recovery'. It could therefore be argued that a re-active review response is required by accommodation providers as part of their on-going social media consumer acquisition strategies.

Similar to the finding of sidedness, the message value was found to be most credible at both facts and opinions level. Theories of review influence suggested that consumers searched reviews during a purchase decision because they wished to read

other consumers experiences (Hennig-Thurau *et al*, 2004). The findings of the research suggest that both facts and opinions are required for a review to be truly credible. Specifically, the exploratory study indicated that credible reviews contained details of the location and cleanliness of the hotel as well as reports on experiences of the more intangible service experiences, consistent with previous research (for example, Browning *et al,* 2013). The informational content cue results suggest that more education is required to help consumers write credible and helpful reviews.

The findings of the part-worth estimates of the normative content cues begin to build a better picture of what cues outside the narrative of the content are useful in determining credibility of the whole review. There had been anecdotal evidence that review accuracy, in terms of spelling and grammar, was an important antecedent of credibility (Gretzel and Yoo, 2008; Metzger, 2007). However there was no major empirical evidence that highlighted the negative effect review spelling and grammar accuracy had on credibility perceptions.

Although O'Reilly and Marx (2012) found that accuracy and linguistic style of the review impacted upon the consumers perception of the educational level of the content creator. The findings of this research highlighted a variance in credibility perception of a value of 33.7. It can be argued that poor spelling and grammar has a significant negative weighting on credibility perceptions over if the review had accurate spelling and grammar. The results of the exploratory study suggested that poor spelling and grammar was associated with extreme negative experiences and consumers found these extreme negative experiences unhelpful. The results of the part-worth estimates of the accuracy attribute suggest that review sites could make the process better by providing additional functionality to support spelling and grammar checks to increase credibility perceptions.

The timeliness attribute investigated whether information published three months or less, four to seven months and over eight months ago was the most desirable. The studies of information credibility regarded timeliness as a construct of relevance (Metzger, 2007), this study also finds that recent information is most relevant. This study finds that reviews published within a three month period are perceived to be the most credible, However this finding may be attributed to service type purchases, during the exploratory study R6 suggested that the timeliness of hotel reviews matter because of seasonality and the ever changing servicescape. A consumer good at the other end of this spectrum is unlikely to have continual changes to design, feel or an altered consumption experience. Therefore the nature of good suggests that information may be of value for longer periods of time. The effect of timeliness on review credibility of other products and services requires further exploration.

The four levels of the review rating attribute: no rating, low, medium and high analysis suggested that high ratings are perceived to be the most credible level. Review value had been previously correlated with sales purchase (for example, Chevalier and Mayzlin, 2006) and in this study it can be argued that high review ratings impact upon the influence of the review. The exploratory research confirms that review rating is a heuristic to help assess the review quality (Tsang and Pendergast, 2009). This may suggest that only those reviews with high ratings from other consumers are read during the information search stage – further research should be carried out to confirm this initial assertion. If this assertion is proven then marketers can further refine their re-active response strategies and prioritise those reviews with high consumer ratings.

This research, similar to that of Chevaler and Mazylin (2006) finds that average length reviews are the most credible therefore influential. The assumed monotonic

relationship between the length attribute levels was supported in part, however, the small .1 rise in importance between average length and long length suggested that average length reviews are more influential than long reviews because of the high increased variance between short and average length reviews [with a 12.2 total variance]. It was believed that review length may be attributed to the concept of comprehensiveness (Cheung, Lee and Rabjohn, 2009), with longer views being perceived as more comprehensive (Adamic *et al,* 2008; Edelman, 2004). However, this research does not support the comprehensive argument. The findings of this research suggest that a point of information saturation occurs within one review (Habul and Murray, 2003; Ghose, 2007; Payne, 1982). The idea the there can be too much information further suggests that review writing guidelines or best practices should be made available on review sites.

The final normative content characteristic of social presence was not found to be consistent with the original hypotheses in the research. It was believed that the addition of both photos and video would hold the most credibility as suggested by the theories of social presence (Short, Williams and Christie, 1979) and information vididness (Huang, Fu and Chen, 2010). However the results demonstrated that the addition of photos only was perceived to be the most credible. The concept of familiarity (Alba and Hutcheson, 1987) may help explain this finding, that consumers wish to view the types of information they are most familiar with. This assertion is also consistent with the findings of the exploratory study were photos were shown to be more useful than video. This research agrees that pictures increase the social presence of the review (Hassanein and Head, 2006; Steinbruck *et al,* 2007), which will in turn increase the satisfaction with interaction (Richardson and swan, 2003).

The two content creator attributes under study in this research, identity disclosure and lifestyle disclosure, posed interesting findings. It was widely agreed that the concept of homophily (Steffes and Burgee, 2009) will increase the credibility of content. As such, the research concurs with Coulter and Roggeveen (2012) that a consumer will more closely identify with content creators who are similar to them. Not just strongly tied known sources as previously suggested. Many of the online review sites provide heuristic cues so consumers can more closely evaluate review content in relation to personal relevance (Petty and Cacioppo, 1979, 1990; Johnson and Eagly, 1989). The exploratory research suggested that identifiable identification and lifestyle markers were desired during the information credibility evaluation process. However, such information is not always present in a review as lifestyle disclosure indicators are mostly represented within informational content characteristics.

The results of this study suggest that review sites should be augmented to include more easily identifiable identity and lifestyle cues to increase the ability to evaluate personal relevance. For example, when the content creator is from a similar country to the consumer, review credibility is increased (Gilly et al, 1998) compared to when the content creator country is unavailable or dissimilar. Similarly, when the demographic characteristics are available behavioural influence is more significant (Naylor *et al,* 2012). If a more standardised approach to review identify and lifestyle disclosure was developed, cognitive strain would be reduced, personal relevance would be more identifiable and therefore credibility and influence would increase.

The concept of personal relevance was show to be important concerning lifestyle evaluation, where unknown lifestyle was perceived to be more credible than dissimilar. This finding may be explained by the lack of structured evaluative cues in the content creator lifestyle disclosure. Generally, the only compulsory normative

evaluative cue associated with lifestyle is that of reason for travel. Reviewers are asked to disclose their reason for travel as part of the review process. The lack of structure surrounding the lifestyle evaluative attribute indicates that consumers are regularly evaluating incomplete content because the details are not always provided. The consumer then makes inferences based on the narrative and other normative cues; they are free to decide the content creator's level of homophily (Steffes and Burgee, 2009). For example, during the stimulus element R5 and R8 both evaluated the content creator based on their writing style.

The final attribute under study was that of source, particularly source platform. Previous literature has been inconsistent with arguments over credibility of consumer generated and marketer generated content. Bronner and de Hoog (2008) suggested that marketer generated sources and consumer generated sources are used as complimentary information sources. However the findings of this study illustrate that consumer generated sources are perceived to be more credible, which is reflective of past studies (for example, Blackshaw, 2006; Fotis *et al* 2011; Khim-Yong *et al,* 2013; Lee and Youn; 2009; Sen and Lerman, 2007; Xue and Phelps, 2004). This finding subsequently suggests that tie strength alone is not an accurate predictor of credibility. It could be argued that homophily is a stronger determinant of credibility a finding consistent with other research (Coulter and Roggeveen, 2012; Forbes and Vespoli, 2012).

The results of the exploratory study reinforced the findings that consumer generated content was more credible than marketer generated sources but also suggested that consumer generated sources alone did not provide enough information. Many consumers evaluate the information contained in reviews to what is found in marketer generated sources, thus suggesting that Bronner and de Hoog's (2008) original

suggestion is correct during the evaluation of alternatives stage. This suggests while consumers are more influenced by other consumers reviews, marketers have an opportunity to capitalise on this by providing confirming information to that found in their own marketing communications, website and by responding to reviews (Evans and McKee. 2010). The results of the exploratory study suggested that branded social spaces in third party review sites (such as Facebook) were not used by consumers until after the consumption experience, this is also supported in one new model of consumer decision-making (Court et al, 2009). Thus suggesting that social media should be used in customer retention and awareness generation, not customer acquisition as proposed in the brand social media strategy literature (for example, Hanna *et al,* 2011; Kietzmann *et al,* 2011).

Indeed the findings of the CA part-worth study further reinforce this idea with branded social spaces being the lease credible information source. While Lee and Youn (2009) found that blogs were less credible than marketer sources (brand websites), branded social spaces were found to be the least credible information source in this study. This findings suggests that branded social spaces and BGC published here is the least credible information source, behind the brands own website. This has clear implications for social media marketing, however Khim-Yong *et al* (2013) found that CGC on branded social spaces to be highly influential on purchase behaviour, which suggests that social media engagement strategies are of value to brands.

In answering the second objective of this study, to explore the factors considered by the consumer during information evaluation; the research finds that there is an optimum formula to create a review. While many consumers have been demonstrated to write reviews out of benevolence (Chan and Li, 2010; Wilson *et al,* 2012; Yoo *et*

al, 2009) their approach to review writing varies considerably. The findings of this research can be used to create a best practice review writing document which can be utilised by review sites to increase the credibility of their reviews. In the world where reviews are currency the platform with the most credible reviews should become the most popular. Additional cues can also be added to allow for more effective identity and lifestyle disclosure which again should increase the popularity of a particular review site. Now that the most credible level of each attribute has been analysed, the second part of the CA analysis highlighted the relative importances of each attribute.

11.3   Relative Importances of Credibility Evaluative Cues

The first output of the ACA analysis highlighted which levels of the ten evaluative cues under study were the most desirable, the next stage of ACA analysis highlighted the relative importance placed on these attributes during information evaluation. The research answered criticisms of past research by exploring the all three independent cue types: content, content creator and source, in one study. In following protocol from Cheung *et al* (2009) by separating content attributes into informational and normative determinants, the findings of the relative importances began to suggest that the structure of information credibility evaluation models (for example, those posed by Cheung *et al,* 2010; Hovland, 1948; Wathen and Burkell, 2002) are not completely representative of the evaluation process.

Cheung *et al* (2009) found that the informational evaluative attributes were not as important during information evaluation as the normative attributes, this research also finds that informational attributes are not as highly important as the normative attributes. However because all three independent levels were explored in the one study, it was also found that source and content creator attributes are generally more

important than the informational attributes. The relationship between informational content attributes and relative importance may not be as simple as previous studies argue (for example, Cheung *et al,* 2009). This study brings a unique finding of research in the information credibility evaluation process, that normative content attributes, content creator attributes and source attributes are used to evaluate the credibility of the informational attributes. Due to the relative importances of the normative content, source and content creator attributes being perceived as more important than the informational it can be argued that they are used to assess the credibility of the informational attributes. In other words, external evaluative cues are used to assess the informational credibility of the review narrative itself (discussed further in section 11.5)

The most important credibility evaluative cue was found to be that of accuracy. Accuracy had been previously regarded as an attribute of information quality (Cheung *et al*, 2008; Cheung *et al*, 2009) along with the attribute of timeliness. However, the findings of the CA study highlight that accuracy and timeliness are independent attributes. While being viewed as independent attributes, accuracy and timeliness were also found to be the two most important credibility evaluation attributes in the CA study. The importance of review accuracy and timeliness had conflicting findings in previous studies, Cheung *et al* (2008) argued that review accuracy and timeliness were not important on credibility perceptions. However, other research found that accuracy and timeliness do impact on information quality (Lee et al, 2008; Park et al, 2007; Wixom and Todd, 2005). In more recent research O'Reilly and Marx (2011) found that the consumer judges the writing style of a content creator. It was found that consumers could indicate which content creators are well educated through evaluating linguistic style. O'Reilly and Marx found that the reviews written by well-

educated content creators were more influential, a finding consistent with this research and that of Selfe and Meyer (1991).

The findings of this study further suggest that consumers can learn to evaluate information credibility using complex cues (Herring, 2001). It is argued that as consumer experience with a source platform increases the consumers' ability to use more complex cues to evaluate the information quality also increases (Lee et al, 2008). While the first two most important credibility evaluative attributes were normative content characteristics, the third was source platform. This suggests that the consumer is interchangeably using multiple evaluative attributes to assess credibility. In other words they are shown to be using complex cues (Herring, 2001).

In exploring which sources were of use during information search, the exploratory research found that consumer review sites were the most widely sought, however the consumers' relative level of technology sophistication dictated which type of review site was used, commercial, independent or a combination of both. It could be argued that the choice of source platform is reflective of the consumers' familiarity of the source and their cognitive ability to process the information confidently (Guido *et al,* 2012). As such, the consumer will use familiar sources and because of increased familiarity consumers' are able to use complex evaluative cues present within the source. This may suggest that a consumer becomes an expert in credibility evaluation within the review site platforms they chose to use.

The normative content attribute of review rating was found to be the fourth most important evaluative cue on review credibility. This research agrees that review rating was not important until other evaluative cues were present (Browining *et al,* 2013; Baek *et al,* 2012/2013; Chevalier and Mayzlin, 2006). Disconfirming the

assertion that review rating would instill trust in the review before evaluation (for example, Cheung and Thadani, 2009; Hu, Liu and Zhang, 2008; Mudambi and Schuff, 2010). As this research explored how important review rating was in relation to other evaluative cues the finding appears consistent with the former research, that a combination of cues are used to evaluate credibility. However, the high importance placed on review rating may also support the latter research with the notion that review rating can instill a level of trust. This was further supported in the exploratory study where consumers believed that review rating was an indication of helpfulness of the review.

While social presence of a review had not been widely researched, the findings of this research suggested that review credibility could increase significantly with the addition of photos. The exploratory findings highlighted that in extreme negative reviews the presence of photos could increase the credibility of the review. Similarly, pictures increase social presence to face-to-face interactions (Hassanein and Head, 2006; Steinbruck *et al*, 2007), which is believed to create satisfaction with interaction (Richardson and swan, 2003). Social Presence was found to be the fifth most important evaluative attribute but in total the fourth most important normative attribute which suggests that other normative evaluative attributes will create greater satisfaction with the interaction than the addition of photos. The findings of the exploratory study suggested that when information in the review was not conformity or negative, the addition of photos would acknowledge these inconsistencies, especially when the cleanliness of the hotel was under issue.

From the two content creator attributes under study, lifestyle and identity disclosure it was found that lifestyle disclosure is more important than identity. This is an interesting finding given that many of the lifestyle indicators would be viewed within

the narrative of the review. However reason for travel (couple, family, business) is usually given as an external cue. This research supports the assertion that linguistic style is important in the review (O'Reilly and Marx, 2011) in order to disclose personal details about likes and behaviours or build rapport with the consumer (Smith *et al*, 2005). However, the study finds that in terms of identity disclosure the perceived homophily between content creator and consumer is not significant. While this finding is inconsistent with Foreman *et al* (2008) and Chu and Kim (2011) it may be explained by the changes in consumer behaviour. Consumers are now shown to gravitate around shared interests rather than link because of geographical location (Solis, 2012).

In terms of importance, review length was not found to be an accurate predictor of information credibility compared to other normative content characteristics. The findings of the part-worth utilities disagreed with research within answers communities, that message length is a predictor of information helpfulness (Adamic *et al*, 2008; Edelman, 2004). This study finds that a point of information saturation occurs within individual reviews and that review length is not a determinant of review comprehensiveness.

Finally, the informational content attributes of message value and sidedness were found to be the eight and tenth in importance. While consistent with the findings of Cheung *et al* (2008), the analysis of the CA findings suggested that this is due to the normative content, content creator and source attributes being used to assess the credibility of the informational attributes as the review will not be present without a narrative. It is this finding that ultimately changes the model structure of the theoretical model tested in this study (Figure …; pg …). It is believed that more

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research should be conducted in this area to confirm the new model of information credibility evaluation in this study (discussed further in section 11.5)

11.4 Interrelationships Between Attributes

The results of the CA study did not support any of the original hypotheses, which were developed from the literature review. To further test the data a Chow test was conducted on the consumers' demographic markers and purchase behaviours. The results highlighted significant differences between the number of trips taken, high and low trip takers in the platform, lifestyle and message value on the regression with the conjoint variables. However it could be argued that these significances may have been expected by chance. The sample frame of this study was shown to be that of the 'connected consumer' segment, which may suggest that their behaviours would be relatively homogeneous. As they represent the technologically savvy consumer segment. The findings of the exploratory study suggested there was a small change in behaviour reflective of the consumers' respective level of technology sophistication and supported in other studies of internet and technology expertise (Holscher and Strube, 2000; Thatcher, 2006, 2008) but this was not supported in the CA study.

As part of the CA analysis interrelationships between CA attributes was also conducted, the findings highlighted that the attributes were independent and that no significant relationship existed between them. The literature on information search (Alba and Hutchinson, 1987; Laurent and Kapferer, 1985) and the influential effect of GCG (for example, Blackshaw, 2006; Lee and Youn; 2009; Khim-Yong *et al,* 2013; Sen and Lerman, 2007; Xue and Phelps, 2004) suggested that the consumers' personal characteristics will impact upon the search and evaluation process. However, this research finds no significant relationship between the consumers'

personal characteristics and the review credibility evaluation process or the attributes used to evaluate the review. This is an interesting finding given that it is widely accepted that consumers are not homogeneous and often display a wide range of behaviours (Kassarjian, 1978). However the researcher suggests two reasons for the unsupported hypotheses:

The first, is the sample composition, the connected consumer segment. The demographics of the sample in this research are generally illustrative of the many theories on Gen C, Gen Y and millennials (for instance, Miller, 2012). It is argued that this segments affinity to technology increases their competence in obtaining and evaluating information online (Hardy, 2011), this would extend into the social media landscape. As the sample was obtained by social media engagement it is understandable that the sample was comprised of social media literate consumers. Such consumers would have the ability to evaluate the credibility of reviews with the complexity of the cues used to evaluate increasing over time (Herring, 2001) with more familiarity to the medium (Lee *et al*, 2008). This research does not support the notion that the connected consumer segment can be simply defined by age and educational status alone. The CA study suggests that social media users are of a relatively similar socio-economic status which is consistent with other research (Hawkins, 2010; eMarketer, 2010). However, this may also be explained by the composition of the researchers networks, which may encompass similar people to the researcher herself. Therefore the sample is relatively homogeneous in terms of their demographic characteristics, which may impact the behaviours displayed during review credibility evaluation.

While the composition of the sample, the connected consumer segment, was prevalent this does not account for the slight variation in behaviours during the exploratory

research. It was found that the level of technology sophistication impacted upon the types of online media used during a trip purchase decision, consistent with previous research (for example, Thatcher, 2006, 2008). However, the impact of increased technology sophistication was not found to be significant during review credibility evaluation. This may be explained by consumers' only using sources that are familiar to them (Guido *et al,* 2010). The exploratory research confirmed this assertion and as the consumer is using a familiar platform they will use increasing complex cues to evaluate the credibility of the content (Herring, 2001; Lee *et al,* 2008). In a consumer review site, whether independently or commercially based the general functionality and evaluative cues will be almost ubiquitous across platforms. Therefore the general cues used to evaluate the credibility of the review will be almost identical across all platforms. This generalisation of features across multiple platforms may account for some of the homogeneous behaviours in this research.

Consumers irrespective of their level of technology sophistication will use a review site that is familiar to them and does not strain cognitive ability (Ghose, 2007), this was demonstrated in the exploratory study when during the stimulus element. The consumers with low levels of technology sophistication found Trip Advisor reviews difficult to process stating that search was difficult and the length of reviews too much to process, increasing cognitive strain (Habul and Murray, 2001; Ghose, 2007). Given that the features and evaluative attributes in review sites are nearly identical this could account for the unsupported hypotheses in this study. Therefore it is argued that the consumer's personal characteristics may moderate information search but because of the identical structure of review it is found that the evaluation process is similar between individuals with varying characteristics. It is suggested that further research be conducted in this area.

Overall it is believed that while no hypotheses were supported in the study, the new theoretical model of information credibility evaluation is a unique outcome of this research. It is possible that both the sample composition and the behaviours of consumers during information search and the similarities in functionality between review sites provided a homogeneous approach to review credibility evaluation. However, as other research within information credibility and social media highlighted changes in persuasiveness between consumers it is recommended that more research is conducted in this area to prove the structure of the model and any further impacts due to heterogeneous consumer characteristics.

11.5   Online Social Content Credibility Evaluation

The discussion so far has suggested and supported a new model of review credibility evaluation. It is believed that adopting the new typography of content characteristics provided by Cheung *et al* (2008), that the content attributes comprise of informational and normative determinants, the new model was developed. As no previous research has conducted in-depth research to explore the relationships between all four levels (informational content, normative content, content creator and source characteristics), a new model of review credibility evaluation was developed.

The findings supported the idea that content, content creator and source characteristics are important attributes during information credibility evaluation (see Appendix 1 for review of literature pertinent to this study). However, while viewing the informational and normative attributes of the content characteristics, the research is able to propose a new model structure (Figure 11.1)
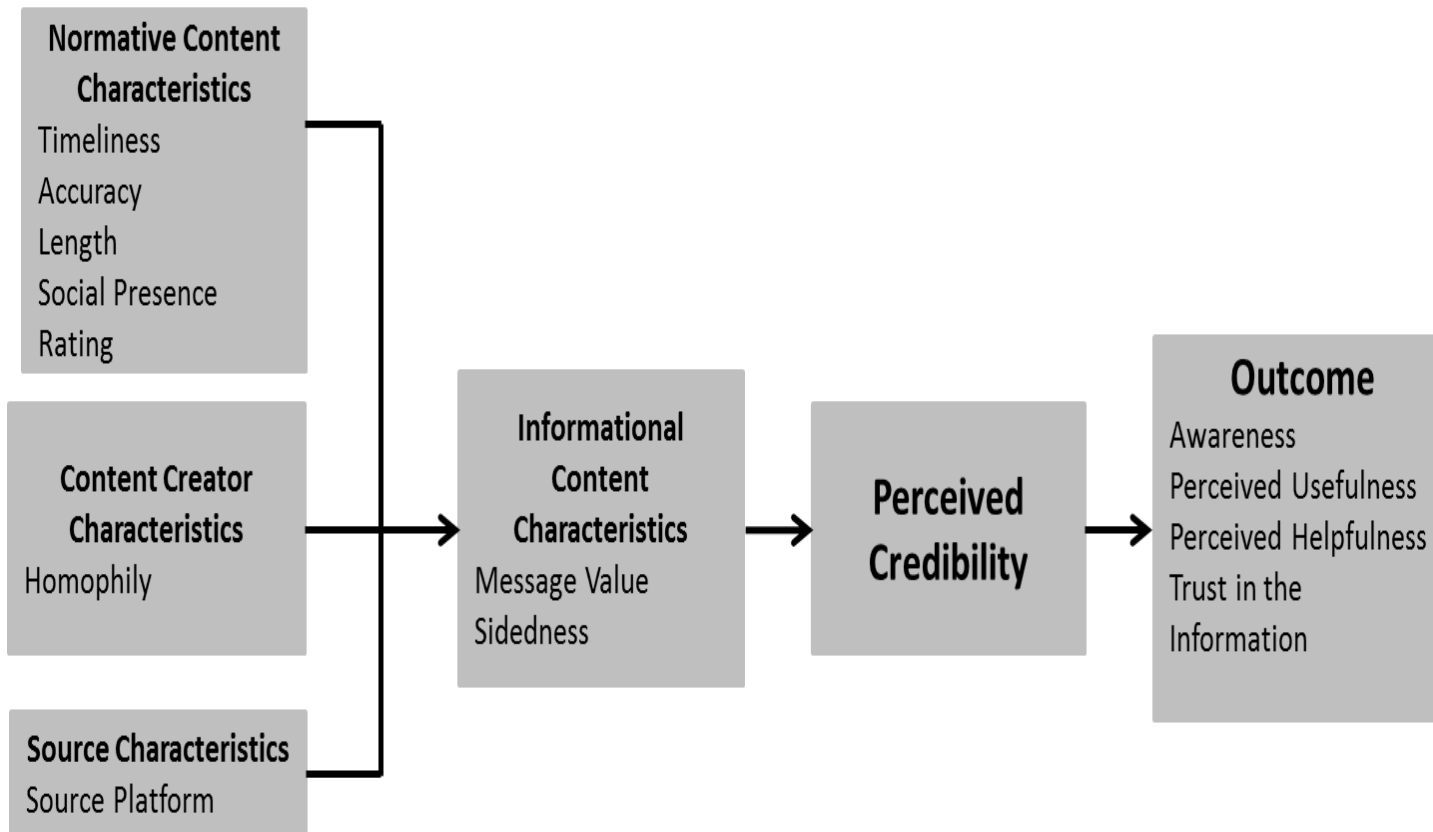
Figure 11.1: Model of Review Credibility Evaluation

The findings of the study suggested that consumers are homogeneous in their approach to credibility evaluation, this is inconsistent with previous models (for example, Wathen and Burkell, 2002) and the growing body of research in the review credibility evaluation area (see Appendix 1). It is believed that this best be explained by the relatively homogenous designs of review sites and that consumers will repeatedly use the same review site (Guido *et al,* 2010) to reduce cognitive strain (Ghose, 2007). By conducting this strategy, consumers' become experts at evaluation within the platform (Herring, 2001, Lee *et al,* 2008) thus producing a homogeneous approach. The model, which is unique to this study, indicates the structural process. It is however argued that more research be conducted to confirm the model structure and the impact of the consumers' personal characteristics on this structure.

The function and similarities between review sites may be responsible for the homogeneous behavioural finding, as well as the study sample composition. However, it could be argued that over time everyone pursuing a virtual existence will have a high level of 'connectedness' and therefore the sample is representative of emerging consumer segments. To extend this research into other forms of social media (for example, social networking sites), with varying functionality and information evaluation attributes, research may find variations in the evaluation process. It is argued that more research should be conducted in this area.

11.6 Chapter Summary

The research findings have suggested that social search, the search for social content is a new dimension of online information search. The research further indicates that not all product purchases will require a social search, as displayed in the exploratory search results within the trip purchasing context. It was found that accommodation purchases

were the purchase type most associated with social search. The exploratory study further indicated that product intangibility, price sensitivity and the low depth of branded names are motivators to conduct a social search. The exploratory results demonstrated that consumer reviews are the most sought after social content source, even within the connected consumer segment.

In conducting a CA study, the research was able to develop a new model of review credibility evaluation and outlined the factors on the most and least credible review types. The research findings contributed to the field of knowledge in developing a new model of review credibility evaluation. While the model is augmented from previous models of information evaluation (Hovland, 1958; Wathen and Burkell, 2002), it highlights a new stage in the process of information evaluation. That informational content characteristics are evaluated against normative content, content creator and source characteristics. This new stage offered explanations as to why previous studies have found informational content characteristics to be of low importance during the evaluation process (for example, Cheung *et al,* 2009). The next chapter will discuss the study conclusions and outline the key methodological and theoretical contributions. As well as introduce managerial implications resulting from the results of the study and will discuss the study limitation and directions for future research.

Chapter XII   Conclusions and Implications

The aim of this chapter is to conclude the thesis. In order to clearly explain how the research objectives were met, the following structure has been adopted. First, the research objectives with regards to the findings are outlined. The methodological and theoretical contributions are then discussed, which is followed by an outline of the managerial implications. This is followed by an explanation of the limitations of the research. Finally, a number of potential areas for future research are identified.

12.1   Conclusion of Research Objective 1: To Identify the Types of Online Media Used to Gather Product Related Information During an Active Information Search

The research concludes that in relation to objective one, to identify the types of online media used to gather product related information during an active information search, that two key findings are contributed. The first is that not all types of online media or indeed social content are used during the active pre-purchase stage of consumer decision-making – this research posits that consumer reviews are the number one online media source used to gather product related information. This finding is consistent with previous research (for example, Fotis *et al,* 2011; Powers *et al,* 2012) where social media platforms and media sharing sites were not as significantly used as consumer review sites. The finding is also indicative of the large number of research studies on consumer review influence (see Appendix 1 for review). The research also indicates that even those consumers most proficient in social media (Miller, 2012) will continually turn to consumer reviews to make purchase decisions. Thus reinforcing the idea that consumer reviews are the most trusted and influential information source (for example, Blackshaw, 2006; Fotis *et al*, 2011; Lee and Youn;

2009; Khim-Yong *et al,* 2013; Sen and Lerman, 2007; Xue and Phelps, 2004). Thus suggesting that tie-strength to the content creator or the platform is not an accurate predictor of influence (Coulter and Roggeveen, 2012).

This notwithstanding, the findings of this research suggested that other online media sources, such as social networks and media sharing sites may impact upon consumer behaviour during leisure surfing and online networking. The content of such sites, in a tourism context are believed to published to construct personal identities (Wilson *et al,* 2012), status seeking (Park *et al,* 2009; Leung 2009) and internal self-concept motivation (Yang and Li 2010). This research argues that consumers' may be influenced by such content and begin the need recognition stage of the consumer decision-making process (for example, Engel *et al,* 1978; Wildfire, 2012) or indeed buy on impulse due to interpersonal influence (Chu and Kim, 2011). However, during an active, pre-purchase information search the use of such online media is largely neglected for consumer reviews. This research agrees that consumers look for heuristic ways to search for large volumes of information (Hennig-Thurau *et al,* 2004) and that consumer reviews represent a large information source thus reducing cognitive strain (Ghose, 2007). The research also finds that source usage is self-reinforcing, consistent with past studies (Guido *et al,* 2012; March and Simon, 1958).

The second conclusion that can be made is that not all product or services require a social search. While Fotis *et al* (2011) and the literature review of Leung *et al* (2013) found that other trip elements are researched via social media, this study argues that only accommodation purchases are rigorously researched through social media platforms. The qualitative exploratory study further adds to knowledge by suggesting that consumers' use reviews for hotels because of the wide variation between hotels

and service experiences. In other words accommodation purchases are seen to hold the most purchase risk (Murray, 1991) from all trip elements.

12.2   Conclusions of Research Objective 2: To Explore the Factors Considered by the Consumer During Information Evaluation

In answering objective 2, to explore the factors considered by the consumer during information evaluation, the research concludes that the fragmented nature of past studies and inconclusive agreement on the impact of attribute levels of credibility and purchase intention (see Appendix 1 for review) made comparison and synthesis problematic. By answering the criticisms of past research, that not all independent variables of information credibility evaluation models (for example, Hovland, 1958; Wathen and Burkell, 2002) had ever been studied within the one study (Cheung *et al*, 2009), this research makes a significant contribution to knowledge.

This study not only develops a new model of review credibility evaluation but also provides answers into which level of the evaluative attributes are optimal and least optimal to impact on credibility perceptions (see Table 11.2; pg374), which was achieved through the use of conjoint analysis. The impact of attribute level has largely been neglected in previous studies. Although the studies of volume and valance represent a large share of the literature in this area (see Table 3.3; pg86 for sample), this research argues that two-sided information is most credible. Thus argues that previous valance studies (for example, Doh and Hwang, 2009; Lee and Lee, 2009; Park and Lee, 2009; Park and Kim, 2008) had not explored all possible attribute levels. In answering objective two the research also provides advice to tourism marketing managers and review site developers by highlighting which reviews will be most credible and providing guidelines on how consumers can write a

credible, helpful review which have been developed from exploring the attributes and attribute levels in the CA study.

12.3   Conclusions of Research Objective 3: To Determine the Relative Importance of Each of the Factors Considered During Decision Making

Research objective three aimed to determine the relative importance of each of the factors considered during decision-making, in answering objective three the research began to make a significant contribution to knowledge. The use of conjoint analysis not only highlighted the relationships between attribute levels but also found which attributes were of most importance during credibility evaluation. No study had previously explored the three independent variables of content, content creator and source in one study (Cheung *et al,* 2009). While Cheung, Lee and Rabjohn (2008) argued that informational content attributes were not of importance during credibility evaluation compared to the normative determinants and this research confirms this finding. It is argued that informational content characteristic credibility is evaluated against normative content, source and content creator characteristics.

It can therefore be concluded that no one evaluative attribute can be used to assess overall review credibility, that the consumer uses multiple cues in a complex trade off process (Lee *et al,* 2008). This is consistent with the findings of other studies exploring review rating and content creator attributes where multiple cues would impact the helpfulness of the review (Baek *et al,* 2012/2013), and in sidedness and identity disclosure, where credibility and trust would not be improved in either positive or negative reviews without identity and lifestyle details of the content creator (Kusumasondjaja *et al*, 2012). The credibility perceptions of a review are traded-off between attributes and attribute levels. It is this complex trade-off process

that allows consumers to evaluate the credibility of reviews and indeed, all social content, is of varying quality (Du and Wagner, 2006). Moreover, as the consumer was found to be loyal to particular review sites their ability to evaluate reviews of a complex nature on that site also increases (Guido *et al,* 2012; O'Reily and Marx, 2012).

12.4   Conclusions of Research Objective 4: To Investigate the Interrelationships Between the Factors Considered During Decision Making

In final conclusion of research objective 4, to investigate the interrelationships between the factors considered during decision-making, this research finds that in the connected consumer segment, credibility evaluation process are relatively homogeneous. To confirm the null hypotheses and further test the data Chow tests were conducted on consumer demographics and purchase behaviours, which was also shows to hold a null hypotheses. This finding is largely inconsistent with previous research where the consumers respective level of involvement (Doh and Hwang, 2009; Lee, Park and Han, 2008; Park and Lee, 2008), internet experience (McKinght and Kacmar, 2006; Park and Kim, 2008), confirmation of prior belief (Cheung, Lee and Thadani, 2009; Cheung, Luo, Sia and Chen, 2009), scepticism (Sher and Lee, 2009) cognitive personalisation (Xia and Bechwati, 2008), and risk taking propensity (Murray, 1991) were found to moderate credibility perceptions. It is suggested that further research be conducted in this area to confirm the findings of this research.

This research argues that the similarities in terms of functionality and evaluative cues of independent and commercial review sites may have impacted upon the findings. It is also suggested that the model of review credibility evaluation developed in this research be tested in other forms of social media. Moreover, the connected consumer

segment under study in this research may have also impacted upon the overall findings. Their affinity to technology (Miller, 2012; Pensky, 2001) and indeed familiarity with the review platforms under use (Guido *et al,* 2012) may increase their ability to process complex information (Lee *et al,* 2008).

12.5   Conclusions of Research Objective 5: To Understand the Factors which Influence the Credibility of Online Social Content

In answering research objective 5, to understand the factors which influence the credibility of online social content, the research makes a significant contribution to knowledge. The use of exploratory qualitative research and the novel use of conjoint analysis provided evidence that the structure of past models of information credibility evaluation (Cheung *et al,* 2009; Hovland, 1948; Wathen and Burkell, 2002) do not fully demonstrate the process of credibility evaluation.

This research concludes, in agreement with past research, that content, content creator and source attributes are used to determine information credibility. However, this research concludes that content characteristics have both informational and normative determinants, and when exploring credibility evaluation they should be operationalsied as such. It is concluded that normative content, source and content creator characteristics are used to assess the credibility of the informational determinants and that is why past research (Cheung *et al,* 2008) found that informational determinants are not as important.

This research argues that it is not that such evaluative attributes are not important but that they have to be evaluated against other evaluative cues external to the review narrative itself. This research also finds that the credibility evaluation process is homogenous across the connected consumer segment. This is also a new finding of

this research but it is suggested that more research be conducted in this area to confirm the model integrity.

12.6   Key Methodological Conclusions

The choice of pragmatism and a mixed methods approach has contributed to knowledge as there was limited empirical evidence on what media consumers use during a purchase decision and the process of evaluating the credibility of online reviews. The research has drawn from an extensive range of literature and employed both exploratory qualitative research and a main conjoint analysis based survey to define and measure information credibility evaluation in an online hotel review context with the connected consumer segment.

The employment of a CA based online survey methodologically answered criticisms of past research, that the review credibility evaluation process was still largely unknown as no study before had investigated the importance of content (informational and normative), content creator and source characteristics (Cheung *et al*, 2009). In operationalising these measures through a conjoint study, both a new model of information credibility evaluation was developed (Figure 8.2; pg300) and the analysis of the part-worth relationships highlighted the optimum review characteristics to influence consumer attitudes. Such findings may not have been discovered in using methodologies employed by previous research (see Appendix 1 for review) and thus proves to be a novel methodological approach.

12.7   Key Theoretical Contributions

The aim of this research was to explore how consumers evaluate the credibility of the information they obtain from online media sources. The research was in response to

the growing use of social media (Nielsen, 2011) and the theorised impact of online social content during a purchase decision (Powers *et al,* 2012). In answering the objectives of the research the study narrowed down the types of social content, the review sites, as such types of online social content and source type were the predominant type of online media used during a trip purchase decision. In addition it was also decided to focus solely on accommodation purchases as other trip elements (destination, transportation and destination activities), were not found to require a social search. In fulfilling the aim, the research contributes to the existing body of knowledge in the areas of consumer behaviour and information evaluation.

The study contributes to the field of consumer behaviour through the indication that the internet and indeed, social media, may place the consumer in a perpetual state of information search. This finding is consistent with the 'connected consumer' segment theorised by Solis (2012), Jones *et al's* (2010) 'digital immigrant' consumer segment and the idea that the internet can fulfil both utilitarian and affective needs (Hoffman and Novak, 1996). This research argues that the search mode may be passive or deliberate and, as such, may be unconsciously conducted by the consumer. In displaying experiential online behaviours the consumer is placed in enduring involvement and seeks hedonic benefits (Hoffman and Novak, 1996) but may not be highly involved or actively processing this information (Biehal and Cakravarti, 1982). This was demonstrated in the exploratory study where consumers were seen to spend a significant part of their day on social networking sites with no deliberate task in mind.

As a product of this 'connectedness', it is argued that consumers introduce and process new stimuli, albeit this may comprise of incidental learning (Bettman, 1979). This research argues that the level of perceived involvement (Laurent and Kapferer,

1985) or emotional response (Havitz and Dimanche, 1999) to the stimuli may begin the 'need recognition' stage of the consumer decision making process (for example, Engel *et al,* 1978; McCourt *et al,* 2009). For example, the exploratory research suggested that viewing holiday photos on Facebook, which Wilson *et al* (2010) demonstrate to be an increasing pastime, might trigger the desire to go on vacation.

While the research findings suggested that the information search process is more complex than depicted in current consumer decision-making models (for example, Engel *et al,* 1978; McCourt *et al,* 2009), it was outwith the remit of this study to develop a new model. However, the findings of the exploratory research contribute to theory as they indicated that social media may not be as widely utilised in the information search and evaluation of alternatives stages (Engel *et al,* 1978) as believed in other studies (for example, Cox *et al,* 2009; Fotis *et al,* 2011; Leung *et al,* 2013; Yoo and Gretzel, 2010, 2011). The exploratory research demonstrated that newer types of social media were not widely used during an active purchase decision during deliberate information search and evaluation. The preferred information source was show to be consumer reviews. However, this research believes that newer types of social media are pervasive in catalysing 'need recognition' during hedonic 'perceived play' (Mathwick *et al,* 2001).

This research adds contribution to the information economics and normative information search literature (for example, Hagerty and Aaker, 1984; Ratchford, 1982; Stigler, 1961) by demonstrating that cost of search is a central determinant of information search. It is believed that consumers use online consumer review sites to use a source with high search utility (Stigler, 1961). As online consumer review sites have multiple information sources, the utility of that source increases, decreasing the cognitive strain of the consumer to conduct multiple internet searches. It could also

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be argued that the research findings are consistent with the idea that consumers do not conduct optimal searches (Stigler, 1961). This is demonstrated in the exploratory study where some consumers believed that commercial review sites were edited and therefore did not meet their information needs, while other consumers used such sites as their primary information source.

The exploratory study also indicated that the internet (including social media) has impacted on the theory of cost of search. It was suggested in the exploratory study that time and financial cost are not significant moderators of information search, which conflict with past research (Rathcford, 1982). However, the exploratory study finding agreed that cognitive ability (Duncan and Olshavsky, 1982) was a significant predictor of information search and evaluation. Moreover, the exploratory study highlighted anecdotal evidence to suggest that highly involved consumers do not search further, a conflict with past research (Beatty and Smith, 1987; Mitchell, 1981). The research findings suggested that information search and evaluation is central to the cognitive ability and/or perceived confidence of the consumer to process the unstructured consumer reviews. As such, consumers were only found to use review sites that were familiar to them and where cognitive strain was not significantly increased.

Further contributing to consumer behaviour theory, the research findings suggested that a new type of information search is conducted, which this study terms 'social search'. The exploratory study demonstrated that not all product or service categories required an addition social search. This finding further indicates that Nelson (1970) and Sigler's (1961) search good categories are being blurred with the internet and social media. While transportation [flights] are categorised as a service (Nelson, 1970) or high-risk purchase (Murray, 1991) the need for an additional social search to

reduce risk for this purchase was not significant. The exploratory research indicated that knowledge of the brand [utility] and familiarity with appropriate online social content platforms impacted upon the need for social search. This was demonstrated through the neglect to search reviews for flights because of high brand awareness and destination activities because of low familiarity with reputable online social content platforms. As such, the research is illustrative of Kassarjian (1978) theory that not all purchases are preceded by active information search and that consumers' will make decisions with missing or incomplete information. Further indicating that purchase information search is not optimal (Stigler, 1961).

This research adds contribution to the field of consumer behaviour by suggesting that Wilson's (1981) model of information seeking behaviour be adapted to today's social media enriched world. The exploratory study indicated that personal barriers would encompass cognitive ability (Duncan and Olshavsky, 1982), familiarity with information source (Alba and Hitchinson, 1987; Bhatnanger and Ghose, 2004; Guido *et al,* 2012) and brand knowledge (Brucks, 1985), all previously studies determinants of search. While environmental and role-related factors were not explored in the remit of this study it can be argued that the consumers cognitive ability, familiarity and experience are barriers to extensive information search and limit the sources utilised during search. The behaviours displayed during information search (Ellis *et al,* 1989, 1993, 1997) may be adapted to show the new social search dimension (Table 11.3).

Behaviour	Meaning
Starting	The means by which a consumer takes active and deliberate search for purchase information.
Extracting	Extracting select information from the information source
Differentiation	Using multiple social information sources to assess the alternative choices
Verifying	Evaluating the online social content by informational and normative content, content creator and platform attributes and against the original information during the extraction stage
Ending	The deliberate decision to purchase or abandonment of search

Table 11.3: Social Information Seeking Behaviours

The research argues that while there are distinct information seeking behaviours displayed, the differentiation and verifying behaviours may not be present in all purchase decisions. Again suggesting that Kassarjain (1987) is correct in the theory that not all purchase decisions are preceded by a state of information search. In today's internet led world there will always be a search for products (and product alternatives) but this may not be extended to include other information sources or indeed a social search dimension. Included within the verifying stage, the study further contributes to knowledge by proposing a new model of review credibility evaluation (Figure 11.1; pg391).

This model takes into account the unique aspects of consumer review sites and acknowledges that content characteristics are both informational and normative (Cheung *et al,* 2009). As such, the study makes a significant contribution to knowledge in development of a review credibility evaluation model (Figure 11.1; pg391), one which is structurally different to predeceasing models of information credibility evaluation (Cheung *et al,* 2009; Hovland, 1948; Wathen and Burkell, 2002). It is argued that this new model of review credibility evaluation is more representative of how consumers evaluate information credibility online. It is also believed that the model could also be used in other social media settings. However it

is noted that external, normative cues may need to be modified to cues available within each type of social media platform.

In addition to the new model of review credibility evaluation, the study of the evaluative attributes and their respective levels found the most and least credible review structure. This finding is of value theoretically as it begins to answer the arguments and inconclusive findings of past research which explored the effects of attribute level of credibility and purchase intention (see Appendix 1 for review). In finding the optimum review structure the research is also of value to both tourism marketing managers and review site developers, as they are able to analyse which reviews will be of most influence to other consumers and develop strategies to assist consumers to write credible reviews – thus refuting claims of 'fake' reviews prevalent in mainstream press (Allen, 2012; Bray and Schetzina, 2006)

Moreover, by sampling the connected consumer segment, the findings of the research more accurately reflective of the behaviours of consumers in the future (Hardy, 2011; Obal and Kunz, 2013; O'Reilly and Marx, 2011). As it is widely believed that 'connected consumers' will become the largest consumer segment as consumers become more technologically savvy and become 'digital immigrants' (Jones *et al,* 2010). As such, this research provides a starting point as to how consumers' with varying and evolving levels of technology sophistication will evaluate the credibility of reviews they find online.

12.8   Managerial Implications

The implications for marketers are two-fold, comprising of hospitality marketing managers and review site developers.

Hospitality Marketing Managers

This research provides advice for hospitality marketing managers in three respects. The first is to review their social media strategies for new customer acquisition. The results of the qualitative exploratory study suggested that consumers will predominantly use consumer reviews during an active purchase decision and that consumer reviews are the most influential and credible marketing communication (for example, Blackshaw, 2006; Fotis *et al* 2011; Lee and Youn; 2009; Khim-Yong, 2013; Sen and Lerman, 2007; Xue and Phelps, 2004). While studies have suggested that social media is part of the new integrated communications mix (Mangold and Faulds, 2009), this study argues that the value for social media in the hospitality sector is in customer retention. The results of the exploratory study indicated that consumers would only friend brands after a consumption experience, marking branded social spaces obsolete during active pre-purchase search. However, it is also acknowledged that when consumers friend and interact with brands in social media those interactions can be viewed by the consumers 'connected' networks which may subsequently impact behaviours. This notwithstanding, it is suggested that hospitality marketing managers pursue re-active strategies to respond to consumer reviews and entice consumer loyalty and retention and generate awareness through other social media platforms when consumers are displaying other forms of search and online engagement.

The second implication for managers is that the part-worth utility analysis highlighted which attributes and attribute levels are most and least credible. Thus developing a framework in which managers can assess the overall credibility of a review. This may assist and encourage marketing managers to more objectively respond to consumer reviews. In relation to responding to reviews, the third implication found

within this research is that even when reviews are extremely negative, the marketing manager has the ability to turn this into a positive review. The exploratory study indicated that consumers are aware of service failures and that they know no visit will be perfect. In times of negative experiences the consumer desired to know what attempts were made by the hotel to resolve the issue, as within service recovery. If this information was provided in the review and was acceptable level of service recovery, the review was positive and more credible. The results of this study suggested that if the hotel responded to the criticisms then this would also generate positive perceptions of service recovery, a similar finding to Litvin and Hoffman (2012). It is therefore advised that hospitality marketing managers take a more active approach to monitoring and responding to consumer reviews, as this type of online social content is the most influential and credible. The findings of this study also highlight how this credibility is determined.

Review Site Developers

The study also suggests three implications for review site developers. The first is that flow and aesthetics of the review site are important, a converse finding to Zeithaml, Parasuraman and Malhorta (2002). During the exploratory study some consumers were found to have difficulty in cognitively processing information from TripAdvisor because of the poor aesthetic interface. This study suggests that in developing review sites, to increase search and processing aesthetics should be similar to that of other ecommerce sites when consumers have low level technology sophistication. While this was not proven in the CA study, it is believed that consumer review platform use is self-reinforcing with the cognitive ability to search and evaluate credibility (Guido *et al,* 2012). Therefore if seemingly independent sites like TripAdvisor were to redevelop their user interface they may attract a segment of consumers who do not

already use the site because of cognitive strain (Ghose, 2007). This would open up new market potential for TripAdvisor.

The second implication for review site developers, is that this research has highlighted which review structures would be most and least credible. These findings could be used to develop 'how to' or give advice on writing helpful reviews. The Wilson *et al* (2012) study found that Spanish consumers wrote reviews to assist other consumers make informed decisions, and it has been suggested that consumers review out of benevolence (Chan and Li, 2010; Yoo *et al,* 2009). Therefore a review site that assisted consumers to write the most helpful reviews may be regarded as the most credible review site. The third implication is in relation to the functionality and additional normative cue development. The research has discussed the similarities in terms of functionality and review site evaluative cues between consumer review providers and the research suggests that content creator lifestyle disclosure is important to evaluate the credibility of the review. Such content is usually contained within the review narrative, if review site developers could include more normative cues to disclose lifestyle descriptive information they would assist consumers in evaluating review credibility (Metzger, Flanagin and Medders, 2010). A review site that better assisted consumers to evaluate the credibility of reviews, may become a market leader, as they would be perceived to be more credible also.

12.9   Limitations

The study was not without its limitations, however, the researcher believed that the necessary steps were taken to overcome the limitations. The unclear and interrelated concepts of Web 2.0, social media, and what this study terms as online social content, made true comparison to previous studies difficult. To overcome this issue the

definitions were synthesised and a working definition for the purpose of this study was proposed. The size and complexity of the conjoint survey, which required use of two software technologies, yielded a high respondent dropout rate. The incentive of £100 of Amazon voucher was made to encourage survey completion. After goodness-of-fit analysis was completed the sample size reduced and although fit for the purpose of this study, may have impacted upon validity of the attributes interrelationships. Additionally, only five of the six moderating variables were measured during the study. The concept of technology sophistication was found to be a dependent measure of scepticism. However a separate measure of internet and social media expertise was present in the study to overcome such issues. The measure of 'expertise' was subsequently used during hypotheses testing.

The research also produced a number of null hypotheses and suggested that credibility evaluation was homogeneous among the connected consumer segment under study. Chow tests were further used on the samples demographic characteristics and purchase behaviours, which also found no significant consumer groups. The use of the connected consumer segment may be viewed as a limitation of this study. However, the researcher argues that there is a great need to understand the behaviours of the connected consumer segment because this segment will be the predominant consumer segment, ideas shared by Hardy (2011), Obal and Kunz (2013) and O'Reilly and Marx (2011). Another possible limitation of the study is the lack of contextual measurement of the CA study. For instance, during the exploratory study respondents did not find extreme negative reviews credible. The CA study found negative reviews more credible than positive reviews, however review extremity was not measured. It may have served better to include a stimulus element to the CA study, this was however unachievable with the software used in the study.

12.10 Directions for Future Research

Four new directions for research emerged from the research findings:

1. It is believed that more research should be undertaken to confirm the structure of the new review credibility evaluation model of this research. The finding that normative content, content creator and source attributes are used to evaluate the credibility of the informational content attributes (the review narrative) is new and thus requires further research to confirm the structure and integrity of the model.

2. The investigation into the relationships with the consumers' personal characteristics and the credibility evaluation process produced null hypotheses, which were again tested using Chow tests. The relationship between the consumers' personal characteristics and credibility evaluation should be further explored, as this finding is inconsistent with previous research.

3. The model of review credibility evaluation should also be extended into other forms of online social content and social media. While the model attributes may require modification to support the unique aspects of each online media type the results could assist marketing managers in developing effective communications. Moreover, the results may contribute to existing consumer behaviour knowledge by highlight what characteristics make an influential post.

4. Objective one of this study was to explore which types of online media are used during and active purchase decision. While it was found that consumer reviews are the most influential source the role of BGC and EGC requires

further investigation. Some studies have begun to explore the role of social media across all aspects of the decision-making process (for example, Fotis *et al,* 2011; Leung *et al,* 2013; Powers *et al,* 2012) but this should be extended and should be conducted across multiple product categories.

12.11 Conclusion

The aim of this study was to explore how consumers evaluate the credibility of the information they obtain from online social content. The research addressed five main issues with regards to literature and methodology gaps. The first, the research investigated which types of online media were used during an active purchase decision. Second, the research found which evaluative attributes and attribute levels were considered by the consumer during information evaluation. The third, the research determined the relative importances of the evaluative attributes. Fourth, the research investigated the interrelationships between attributes and the consumers' personal characteristics and found no significant relationships. Finally, the research developed a new model of review credibility evaluation, bringing together the findings of all research objectives. The new model posed makes a significant contribution to research and the findings of most and least credible assists hospitality marketing managers and review site developers to create more meaningful consumer review sites. The study identified several directions for future research and implications for hospitality marketing managers and review site developers.

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Appendix 1: Previous Research of Importance to this Study

Author(s)	Content	Creator	Source	Consumer	Methodology	Data Set	Theoretical Background	Findings
Chatterjee (2001)	Valance (Negative)				Experiment	419 Students		Purchase intention driven by familiarity with the retailer
Cheung, Lee and Rabjohn (2008)	Quality of Argument		Credibility of Source		Survey	154 OpenRice.com Customers	Dual Process Theory Information Adoption Model	Comprehensiveness and relevance key influencers of information adoption
Cheung, Lee and Thadani (2009)	Valance (Positive)			Belief Attitude Intention	Experiment	100 University Students		Positive eWOM strengthens relationship between consumers' emotional trust and intention to purchase
Cheung, Luo, Sia and Chen (2009)	Argument Strength Recommendation Framing			Involvement Prior Product Knowledge Confirmation of Prior	Survey	159 users of myetone.com	Dual Process Theory	All factors apart from recommendation sideness and recommendation

Author								
	Recommendation Sideness Source Credibility Recommendation Consistency Rating			Belief				framing were found to be significant. Involvement and Prior Product Knowledge were found to moderate some variables
Chevalier and Mayzlin (2006)	Rating Length				Panel Data	Book Reviews from Amazon and BarnesandNobel		1 star review has greater impact than 5. Consumers read text rather than relying on summary cues
Cho and Huh (2010)			Credibility and Interactivity Cues used in Blogs		Panel Data	Blogs from Fortune 500 Brands and Interbrand 100 Global Brands		Used social presence to increase credibility. Interactivity possible but blog users not motivated to interact
Chu and Kim (2011)				Tie Strength Homophily Trust Normative and	Survey	400 Undergraduate Students		Tie strength, trust, normative and informational influence are positively

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				Informational Interpersonal Influence				associated with users' overall eWOM behaviour, whereas a negative relationship was found with regard to homophily
Clemons, Guo and Hitt (2006)	Volume and Valance				Panel Data	Reviews from RateBeer.com	Hyper-differentiation and resonance marketing	Variance of rating and strength of positive comments has a significant impact on product sales
Davis and Khazanchi (2008)	Volume Valance Visual Cues		Reviewer Type		Panel Data	Reviews from a multi-product e-commerce company		The higher number of visual cues does not increase sales
Dellarocas, Zhang and Awad (2007)	Rating				Survey	MarketTools Inc Database	Bass Model of Product Diffusion	Online ratings can predict future box office revenue
Doh and Hwang (2009)	Volume Valance			Involvement Prior Knowledge	Experiment	143 university students		Involvement and Prior Knowledge partially moderated the

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								relationship between messages and eWOM effect
Duan, Gu and Whinston (2008)	Rating Volume				Panel Data	Reviews from Yahoo! Movies Variety BoxOfficeMojo		Rating has no significant impact but volume was seen to effect box office sales
Forman, Ghose and Wiesenfeld (2008)		Identity Disclosure			Panel Data	Reviews from Amazon	Information Processing	Reviews containing identity-descriptive information more positively
Gauri, Bhatnaga and Rao (2008)	Volume Valance				Panel Data Survey	Reviews from Bizrate and Alexa and surveys from Bizrate		Positive consumer reviews have most impact on repeat purchase intention
Gretzel and Yoo (2008)					General Exploratory Research via Online Survey	1480 Trip Advisor Community Members		Detailed descriptions, review date and source of the review are the most important credibility cues.
Hu, Liu and Zhang	Rating Valance	Reputation Exposure			Panel Data	Reviews from Amazon	Transaction cost	Consumers view the rating but also

(2008)							economics and uncertainty reduction theories	the reputation and exposure of the reviewer
Huang and Chen (2006)	Valance				3 Experiments	180 Students 180 Students 195 Students	Herding Behaviour	Herding affects most significant with negative reviews
Karakaya and Barnes (2010)	Opinion		Source Type		Survey	320 Consumers from USA		Consumer opinions in socially based sites impact consumer opinions and engagement. Other websites including those found through search engines did not
Lee and Lee (2009)	Quality Preference				Survey	121 Internet Shopping Mall Users	Objective / Subjective Dichotomy	Type of product classification affects the relationship between message variance, quality and preference
Lee and	Valance		Source		Experiment	247	Attribution	eWOM platform

Youn (2009)			Platform			Undergraduate Students	Theory	affects consumer willingness to recommend when review is positive. No effect when review is negative
Lee, Park and Han (2008)	Valance			Involvement	Experiment	248 College Students	Information Processing ELM	As proportion of negative reviews increases high involvement consumers conform depending on the quality of the reviews but low involvement conform regardless
Liu (2006)	Volume Valance				Panel Data	Messages from Yahoo! Movies		Sales impacted by review volume and not valance
McKnight and Kacmar (2006)				General and Technical Dispositions Initial Impressions	Survey	571 University Students		Individual difference and initial impressions affect the credibility perceptions of new websites

Metzger, Flanagin and Medders (2010)	Credibility		Usual Sources of Inforamtion Trust		Focus Group	109 US Consumers found through newspaper ads		Consumer use cognitive heuristics to evaluate the credibility of information and sources Online
Mudambi and Schuff (2010)	Valance Length Rating				Panel Data	1,587 Amazon Reviews		The goods classification affects the helpfulness of the review when valance is concerned. The length of the review is useful for both goods classifications
Papathanassis and Knolle (2011)	Perceived realism, neutrality and Factuality Negative Bias		Source micro and macro reputation		Explorative Sessions Interviews	22 sessions		Consumers use a set of heuristics to determine trust in reviews. Including the grouping of reviews and the balance of positive versus negative information

Park and Kim (2008)	Volume Valance Message Type			Expertise	Experiment	222 Undergraduate Students	Cognitive Fit Theory ELM	The type of review has a stronger affect on purchase intention for experts than novices. The number of reviews affects novices more than experts
Park and Lee (2008)	Volume Valance Attribute vs Simple Value Reviews			Involvement	Experiment	334 Undergraduate Students		The number of reviews increases the perceived popularity of a product (the recommender role). The type of reviews and the number of reviews increase the perceived informativeness of the review information set (the informant role), and the interaction effect also exists.
Park and	Valance		Source		Experiment	440		Experience goods

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Lee (2009)				Reputation			Undergraduate Students		were significantly more affected by positive and negative reviews and website reputation
Park, Lee and Han (2007)	Volume Quality				Involvement	Experiment	352 Undergraduate Students	ELM	Low involvement consumers are affected by quantity but high involvement consumers are affected by quantity when the quality is high
Riegner (2007)	Review Type					Panel Data	4,000 Broadband Users in USA		Review influence dependent on product category
Sher and Lee (2009)	Quality Volume				Scepticism	Experiment	278 Undergraduate Students Reviews from Amazon	ELM	High scepticism consumers are not affected by review volume or quality. Low scepticism consumers are affected by volume and not quality.
Smith, Menon			Trust Expertise	Shopping Goals		Experiment	252 Undergraduat		Consumers use the availability of

				Rapport	(Hedonic or Utilitarian)		e Students		reviews as a decision making heuristic irrespective of peer recommenders personal characteristics
Sparks and Browning (2011)	Review target Valance Framing Rating					Experiment	554 online community members		Consumers are affected by early negative information when overall set of reviews are negative. Positive reviews are influential with the addition of consumer ratings
Steffes and Burgee (2009)				Homophily Tie Strength		Survey	482 Undergraduate Students Information from RateMyProfessor.com		Weak tied networks can have a higher influential effect than strong tied networks in certain situations
Vermeulen and	Valance Hotel Familiarity	Expertise				Experiment	Recruited by email – from		Effects of reviews increase for lesser

Seegers (2009)	(Well-known vs lesser-known)					the Netherlands		known hotels. Review instance increases awareness – positive or negative. Positive reviews increase a positive attitude towards the hotel.
Xia and Bechwati (2008)	Valence Experience Vs Factual			Cognitive Personalisation	Experiment	85 Undergraduate Students		The effect of cognitive personalization on purchase intention is moderated by valence
Zhang, Craciun and Shin (2010)	Valance Perceived Consumption Goal				Experiment Panel Data from Retailers	150 Undergraduate Students	Regulatory Focus Theory	With promotion consumption goals positive reviews are more persuasive than negative ones (positivity bias). Prevention consumption goals negative reviews are more persuasive than positive ones

								(negativity bias)
Zhao, Yang, Narayan and Zhao (2011)				Usage experience with similar products	Panel Data			Additional reviews may negatively impact sales of books

Appendix 2: Sample Consumer Interview Schedule

Exploratory Depth Consumer Interviews

Introduction Phase: 5 minutes

- Introduce myself and PhD research
- Explain the aims and objectives of the PhD research
- Explain the purpose of the interview today and how long it is going to take
- Address terms of confidentiality – sign form and ask consent about recording the interview
- Allow interviewee to clarify any doubts about the interview

General Internet Behaviour: 2 – 5 minutes

Frequency of use
- Daily, weekly…
Duration of use
- Number of hours per week
Purpose
- Social networking, information searching, online gaming…
Communities joined
- Social networking sites, specialist virtual communities…
Number of hours spent on community pages
- Number of hours daily/weekly
Post content to sites
- Which ones
- How often
- Type of content

Trip Characteristics   2 – 5 minutes

Number of trips taken in the last twelve months
- How many
Duration of trip
- Length of stay
Number of people in party
Number of people travelling

Trip Planning Behaviour 15 minutes

The trip planner
- Who in the group plans the trips

Involvement in trip planning
- How involved in the process – very involved, leave it to others…

Attitude towards trip planning
- Important, enjoyable, critical, essential, not important…

Duration of advance trip planning
- How far before trip planning activity commences – 1 year, 6 months…

Extent of trip planning
- Level of planning completed before trip – plan in great detail, major aspects, make decisions while on trip…

Trip planning decision making styles
- How purchases are made – gut instinct, extensive search and evaluation

Information sources for trip planning
- What sources are used – family/friends, books, travel agents, internet…
- Which sources are the most important

The internet as a source of information
- When used
- What stage of the decision making process – inspiration search, destination choice, hotel choice…

What activities are being carried out
- What types of information are being sought – videos, pictures reviews
- Why search for this type of information
- Changes in activities during the trip planning process
- What types of information are the most important to assist with purchase decisions – changes in the trip planning process

Decisions on importance of information being sought
- Information perceptions
- How perceptions of trustworthiness, credibility and reliability of information are determined

Evaluating Consumer Generated Content: 15 minutes

Attitude towards CGC
- Usefulness
- Difference between BGC
- Cannot be relied on etc

Importance of types of GCG
- What channels have most importance – blogs, reviews, DMOs, travel specific search engines, expedia, hotels.com etc

What are you looking for in this CGC

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- Unbiased reviews
- Expert advice
- Pictures
- Videos
  Evaluation of CGC
- Positive vs negative reviews
- Examine in detail – content and creator
- Evaluate in terms of social media site

Who is credible, who can be trusted
- Creator – people like me, experts etc
- Content – objective, tells like a story, no grammar mistakes etc
- Site – site I use often, commercial site, non-commercial site etc
  Conflicting information
- Who is most believable – how is this determined... look at creator, site, match to what original perceptions

Show three/four different types of UGC from different social media sources – get them to evaluate the information

Participant Information:

Demographic information
- Age, sex, education, employment, income, place of residence...

Appendix 3: Sample Call for Respondents
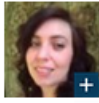
Jillian Ney posted a status update 6 months ago

I am conducting a study into online hotel reviews for my PhD research. If you use online hotel reviews I need your help... Please complete the survey (link attached below) and tell me how you evaluate online hotel reviews.

Thanks in advance for your help!

Comments (0)   Likes (0)   Dislikes (0)

Reply

Evaluating Consumer Reviews
This survey seeks to better understand your information needs as a tourism consumer and how you determine the credibility of information found on the Internet, which we term 'social content'.

Url: http://rki.lt/nGFeqa

Appendix 4: Stimulus Material Example One (E1)

Written Content:

I sent my 22 year old developmentally delayed daughter on this flight, the first time she has ever flown by herself. Naturally I was really nervous. Everything went BEAUTIFULLY!!! We got nonstop flights to avoid issues and, at least in LAX, I was allowed to accompany her to the gate and meet her at the gate when she arrived. It was not quite as easy in Nashville, my daughter does not look like there is anything wrong with her and the woman working the desk felt she could "go it alone" but when reasoned with relented and allowed someone to meet my daughter at the gate and escort her back. All in all, absolutely wonderful to know I can send my daughter on trips without fear. Thank you very much, American Airlines!!!

Appendix 5: Stimulus Material Example Two (E2)

Written content:

tavoid american airlines ike the plague! ! this was my first flight with a.a & wil certainly b my last! it was cramped & extremely uncomfortable seating with no leg room!! one isle down the middle unbelievable! the cabin crew were unatentive & ignored any request or forgot any requirment! the meals were very poor! breakfast consisted of a banana a banana cake & a yogurt! we dont eat bananas so were left hungry! we couldnt get any sleep as the seats were so uncomfortable!!we had to ask severeral times for another movie to b shown & 1 screen between 5 seats!! i have never been so happy to get off a plane in my life! i only wish i had read these reviews before i booked with this awful airline!!

Appendix 6: Stimulus Material Example Three (E3)

Written Content:

This was my first flight on AA and will definitely be my last with them, even if the flights are free with spending money thrown in. I travelled with my 13 year old and my 8 year old. The seats were cramped as it was a 767 plane, the crew were very rude and would get A* for unfriendliness. A big F for customer service. When asked what the meal was, the crew member ignored us. The crew were very rude to other passengers around us and everyone complained profusely and were told to lodge complaints via customer service. On arrival at Chicago, we had a connecting flight to Kalamazoo with 45 minutes connection time. We were delayed getting off the flight as a passenger had taken ill. There was no one to assist us in getting through connections as we had to go to a different terminal after clearing immigration and customs. We missed the connection even though our luggage made it. We had to stay in a hotel and make our way back to the Airport the next morning to get the first flight out to Kalamazoo. I suppose I should have been grateful that we were not charged.

Our return flight to the UK was terrible. The crew were incredibly rude also even worse than the lot going to the USA. Please do not fly with AA if you have a choice, even if it costs a few more pounds. It must be worth not having to experience such shoddy treatment.

Appendix 7: Stimulus Material Example Four (E4)
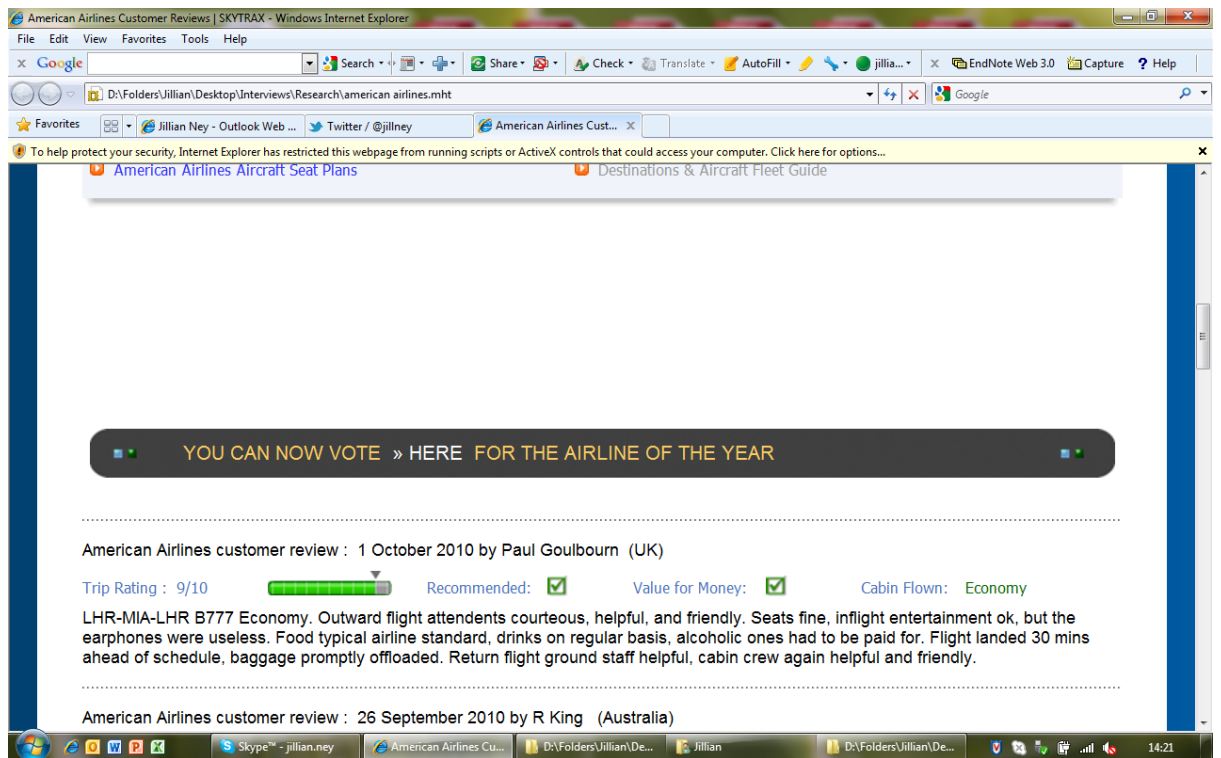
Written content:

LHR-MIA-LHR B777 Economy. Outward flight attendents courteous, helpful, and friendly. Seats fine, inflight entertainment ok, but the earphones were useless. Food typical airline standard, drinks on regular basis, alcoholic ones had to be paid for. Flight landed 30 mins ahead of schedule, baggage promptly offloaded. Return flight ground staff helpful, cabin crew again helpful and friendly.

Appendix 8: Stimulus Material Example Five (E5)
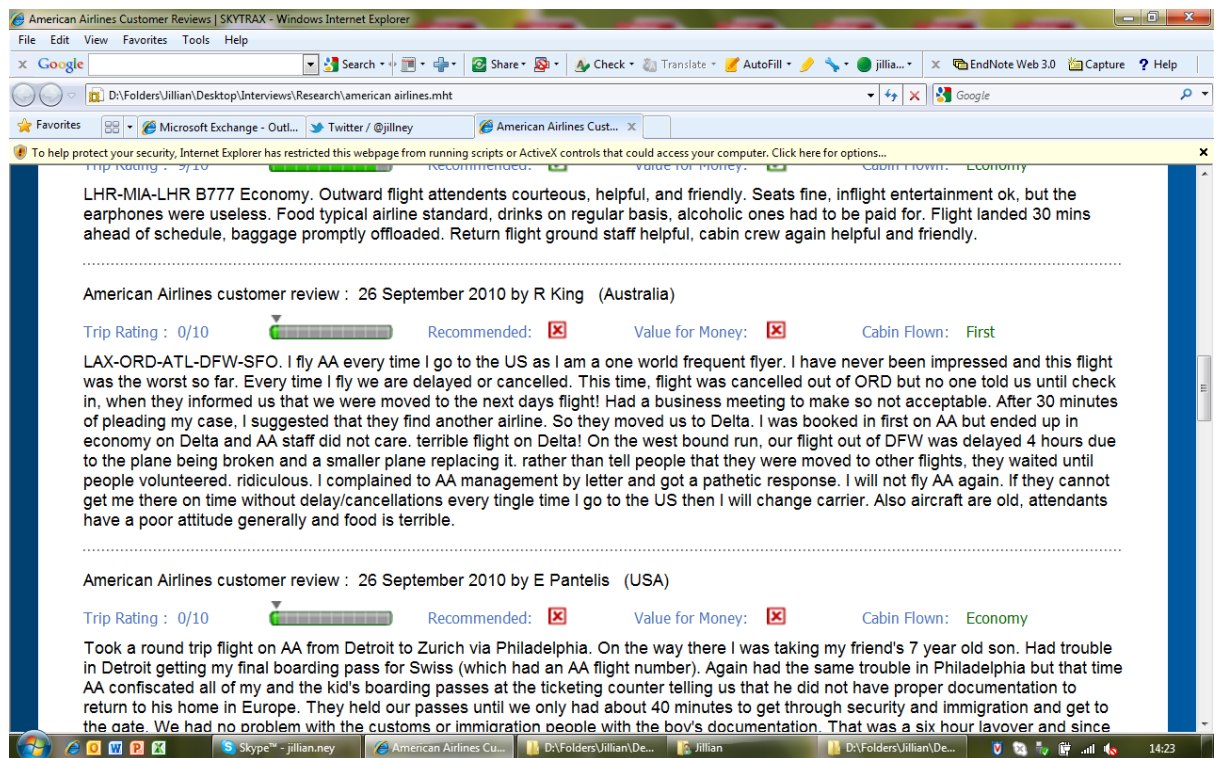
Written content:

LAX-ORD-ATL-DFW-SFO. I fly AA every time I go to the US as I am a one world frequent flyer. I have never been impressed and this flight was the worst so far. Every time I fly we are delayed or cancelled. This time, flight was cancelled out of ORD but no one told us until check in, when they informed us that we were moved to the next days flight! Had a business meeting to make so not acceptable. After 30 minutes of pleading my case, I suggested that they find another airline. So they moved us to Delta. I was booked in first on AA but ended up in economy on Delta and AA staff did not care. terrible flight on Delta! On the west bound run, our flight out of DFW was delayed 4 hours due to the plane being broken and a smaller plane replacing it. rather than tell people that they were moved to other flights, they waited until people volunteered. ridiculous. I complained to AA management by letter and got a pathetic response. I will not fly AA again. If they cannot get me there on time without delay/cancellations every tingle time I go to the US then I will change carrier. Also aircraft are old, attendants have a poor attitude generally and food is terrible.

Appendix 9: Stimulus Material Example Six (E6)

Written Content:

Took a round trip flight on AA from Detroit to Zurich via Philadelphia. On the way there I was taking my friend's 7 year old son. Had trouble in Detroit getting my final boarding pass for Swiss (which had an AA flight number). Again had the same trouble in Philadelphia but that time AA confiscated all of my and the kid's boarding passes at the ticketing counter telling us that he did not have proper documentation to return to his home in Europe. They held our passes until we only had about 40 minutes to get through security and immigration and get to the gate. We had no problem with the customs or immigration people with the boy's documentation. That was a six hour layover and since we were unable to get through security we were unable to get to any food for lunch. All the flights were full and there was barely any legroom. On the flights to and from Zurich we were literally forced to watch 3 movies on the large screen and told that we had to shut the shades on the windows. 2 movies were inappropriate for a 7 year old. Of course we could choose not to listen to the movies. The crew on the planes were ok. The food was subpar. Tasted all right but partly cold and a piece of cake I was given was frozen.

Appendix 10: Stimulus Material Example Seven (E7)

Written Content:

Enjoyed our stay, great pools enjoyed the waves in wave pool and enjoyed floating along the lazy river. Good tram link with Luxor and Excalabur, and bus stop just outside the hotel. For a great buffet breakfast and dinners we recommend the bayside diner yum what a choice. Rooms so comfortable we had great views over the airport and the strip. Will stay here again!! soon I hope.

Appendix 11: Stimulus Material Example Eight (E8)

Written Content:

We have stayed at quite a few hotels in Vegas and this has some of the best features. 30 restaurants! The massive pool area is a bit like a public pool, with turnstiles etc. but I guess they need this level of security.

Appendix 12: Stimulus Material Example Nine (E9)

Written Content:

Best in town

Appendix 13: Stimulus Material Example Ten (E10)

Written Content:

To start we booked reservations in May - King, non- smoking when we arrived to check-in we received double beds and was told it was first come first served! Too bad, so depending when your flight arrives you become at the end of the line. It does not matter what you reserved when making your reservations . My husband (6'5" 250#) and I spent 4 nights in separate beds (what a romantic get away) and we were told too bad for us. Some days we had no room cleaning service. If you want coffee in the morning you can get room service for $12 a small pot that may take 30-60min to get to you, or you can walk to Star Bucks in the hotel which is a 10 min.walk. Everything in the hotel costs extra. You want to spend time at the pool, shade costs extra $50 and up, tubes to enjoy the relaxing flowing river! extra $25, the shark reef $17-$20. Don't even try the slots - They don't pay out. Which is why other casinos are much more crowded. The location of the hotel is located next to the airport (noisy). Be Very Careful for the elevators they close quickly whether you're in the doorway or not, very dangerous! Buffet and restaurants are very pricey for what is offered. Beligio is much nicer and less$$$. Excaliber(more kids here) and Luxor have one price buffet all day come and go as you please and a better quality and selection of food. Do not try walking outside of the hotel very dangerous - take the

tram or moving walkway to Luxor and Excaliber and then walk from there, but be prepared for a lot of walking. If you have a car use to go to the other hotel which have free Valet parking (just tip) for everyone!! We been to Vegas before and enjoyed it - after this visit I don't care if we ever go back and I can assure it will not be at the Mandalay Bay. We stayed there because we were going to the Barrett-Jackson car auction but, what a waste of time and money.

Appendix 14: Stimulus Material Example Eleven (E11)

Written Content:

Although the resort fee is a bit over the top (15.00) per day, the staff was personal and although a very busy hotel all areas were clean, especially the guest rooms.

Staff was friendly and well trained to provide great service, worth the cost!

Appendix 15: Stimulus Material Example Twelve (E12)
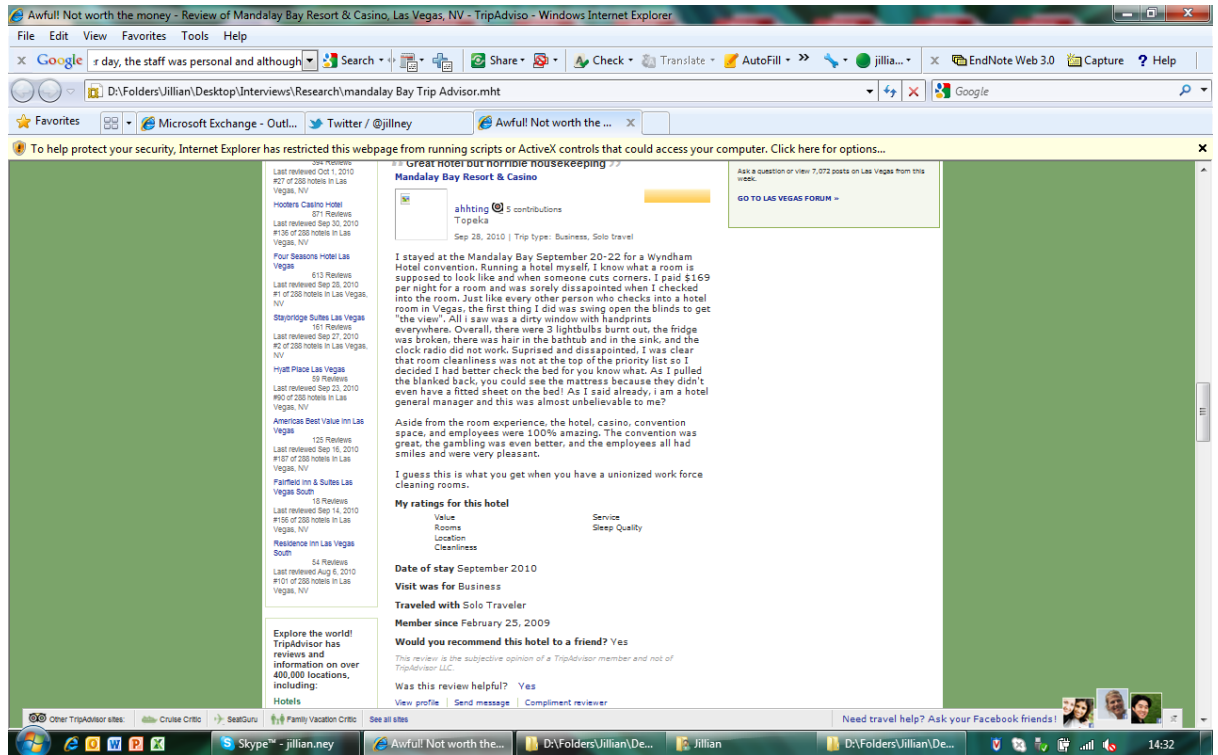
Written Content:

I stayed at the Mandalay Bay September 20-22 for a Wyndham Hotel convention. Running a hotel myself, I know what a room is supposed to look like and when someone cuts corners. I paid $169 per night for a room and was sorely dissapointed when I checked into the room. Just like every other person who checks into a hotel room in Vegas, the first thing I did was swing open the blinds to get "the view". All i saw was a dirty window with handprints everywhere. Overall, there were 3 lightbulbs burnt out, the fridge was broken, there was hair in the bathtub and in the sink, and the clock radio did not work. Suprised and dissapointed, I was clear that room cleanliness was not at the top of the priority list so I decided I had better check the bed for you know what. As I pulled the blanked back, you could see the mattress because they didn't even have a fitted sheet on the bed! As I said already, i am a hotel general manager and this was almost unbelievable to me?

Aside from the room experience, the hotel, casino, convention space, and employees were 100% amazing. The convention was great, the gambling was even better, and the employees all had smiles and were very pleasant.I guess this is what you get when you have a unionized work force cleaning rooms.

Appendix 16: The Conjoint Analysis Process

Research Problem
Select Objective(s):
Determine contribution of independent variables
Establish model of consumer judgements
Define the total elements of total utility
Identify the key decision criteria

Choosing a Conjoint Methodology
How many attributes are to be used?

Six or Less | Fewer than 10 | 10 or More

Choice Based Conjoint | Traditional Conjoint | Adaptive Conjoint

Designing Stimuli
Selecting and Defining Factors and Levels

General characteristics levels | Specification issues of factors | Specification issues of
Communicable | Number of factors | Balanced number
Actionable | Factors multicollinearity | Range

Designing Stimuli
Specifying the Basic Model Form
The composition rule: additive vs. interactive
The part-worth relationship: linear, quadratic, or separate part-

Data Collection
Choosing a Presentation Method
What type of stimuli will be used?

Trade-Off

Full-Profile | Pairwise-Comparison

Data Collection:
Creating Stimuli
Develop trade-off matrices

```
                                      ↓
        ┌──────────────────────────────────────────────────┐
        │                Data Collection                    │
   ┌────┤                Creating Stimuli                   ├────┐
   │    │          Will the respondent evaluate all stimuli │    │
┌──┼──┐ │             or only a subset of stimuli?          │ ┌──┼────────────┐
│All Stimuli│                                               │ │Subset of Stimuli│
│Factorial │ └──────────────────────────────────────────────┘ │Fractional factorial│
└──────┘                                                       │design            │
                                                               │Orthogonality     │
                                                               └──────────────────┘
```

Data Collection
Creating Stimuli
Will the respondent evaluate all stimuli
or only a subset of stimuli?

All Stimuli
Factorial

Subset of Stimuli
**Fractional factorial
design
Orthogonality**

Data Collection
Selecting a Preference Measure
Metric (ratings vs. nonmetric (rank order)

Data Collection
Form of Survey Administration
Personal Interviews   Mail Surveys   Phone Surveys

Assumptions
Appropriateness of model form
Representatives of sample

Selecting an Estimation Technique
Metric method for ratings
Nonmetric method for rank orders

Evaluating Model Goodness of Fit
Aggregate vs. individual assessment
Assessing reliability
Assessing predictive accuracy

Interpreting the Results
Aggregate vs. disaggregate results
Relative importance of attributes

Validating the Results
Internal validity
External validity

Applying the Conjoint Results
Segmentation   Profitability analysis   Choice simulator

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Appendix 17: Copy of Survey Introduction

University of Strathclyde
Business School

This survey seeks to better understand your information needs as a tourism consumer and how you determine the credibility of information found on the Internet, which we term 'social content'.

The survey is part of my PhD research, in marketing, at the University of Strathclyde.

The survey is only available to those parties over the age of 18.

All responses are completely anonymous and your information will not be shared with third parties.

The survey is comprised of two sections. During the first section we seek to better understand your usual trip purchasing and internet behaviour. The second section is designed to explore your attitude towards online hotel reviews. In total the survey should take no longer than 20 minutes to complete.

All responses are valuable to this study. To thank you for your participation you will be given the opportunity to enter a free prize draw for £100 of Amazon vouchers.

If you have any questions regarding the survey, please contact: jillian.ney@strath.ac.uk

Thank you in advance for your participation.

Jillian Ney

0% 100%

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Appendix 18: EFA: Total Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.357	23.977	23.977	3.357	23.977	23.977	3.235
2	2.013	14.378	38.356	2.013	14.378	38.356	1.933
3	1.556	11.111	49.467	1.556	11.111	49.467	1.566
4	1.276	9.111	58.578	1.276	9.111	58.578	1.681
5	1.051	7.508	66.086	1.051	7.508	66.086	1.641
6	.883	6.307	72.394				
7	.753	5.381	77.774				
8	.655	4.677	82.451				
9	.580	4.143	86.593				
10	.527	3.767	90.361				
11	.445	3.181	93.542				
12	.354	2.531	96.073				
13	.301	2.149	98.222				
14	.249	1.778	100.000				

Extraction Method: Principal Component Analysis.

Appendix 19: EFA Component Matrix

Component Matrix[a]

	Component				
	1	2	3	4	5
I think, in most cases, online hotel reviews are a reliable source of information	.780				
I think, in most cases, online hotel reviews present a true picture of a hotel	.776				
When reading online hotel reviews I find it easy to get the information I need to make the best purchase	.748				
When purchasing accommodation I am confident that I have made the best decision because I have read online hotel reviews	.715				
I consult online hotel reviews to assist in selecting accommodation for my trip	.663				
I think, in most cases, online hotel reviews do not give people enough information	-.522				
While reading online hotel reviews, I often think about my own emotional reactions to the reviewers experience	.199	.779			
When I read online hotel reviews, I often think how I would feel if it happened to me	.175	.767			
Before I read online hotel reviews I usually already have an opinion formed about the hotel		.430			
Before I read online hotel reviews I usually already have an opinion formed about the hotel			-.750		
Once I have formed an opinion about a provider it is hard to change my mind even when I read online hotel reviews			-.723		
Once I have formed an opinion about a provider it is hard to change my mind even when I read online hotel reviews	-.163			.689	
If online hotel reviews do not confirm my beliefs of a hotel I would still make a booking	-.416			.529	
I become very involved in the trip planning process	.284				.734

Extraction Method: Principal Component Analysis.

Appendix 20   EFA Rotated Pattern Matrix

Pattern Matrix

	Component				
	1	2	3	4	5
I think, in most cases, online hotel reviews are a reliable source of information	.813				
I think, in most cases, online hotel reviews present a true picture of a hotel	.802				
When reading online hotel reviews I find it easy to get the information I need to make the best purchase	.793				
When purchasing accommodation I am confident that I have made the best decision because I have read online hotel reviews	.691				
I think, in most cases, online hotel reviews do not give people enough information	-.640				
When I read online hotel reviews, I often think how I would feel if it happened to me		.915			
While reading online hotel reviews, I often think about my own emotional reactions to the reviewers experience		.898			
I often like to explore a strange town or city or section of town myself, even if it means getting lost			.863		
I would often like to take off on a trip with no preplanned or definite routes or timetables			.850		
Once I have formed an opinion about a provider it is hard to change my mind even when I read online hotel reviews				.747	

Once I have formed an opinion about a provider it is hard to change my mind even when I read online hotel reviews			.742	
Before I read online hotel reviews I usually already have an opinion formed about the hotel			.593	
I become very involved in the trip planning process				.919
I consult online hotel reviews to assist in selecting accommodation for my trip				.580

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