DETERMINANTS OF INFLUENCE IN ELECTRONIC WORD OF MOUTH COMMUNICATION WITHIN FACEBOOK

by

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Abstract

Word of mouth (WOM) communication is being magnified and amplified on an unprecedented scale by new technology. Where once thoughts and experiences regarding products were shared orally, WOM has been transformed by social media into electronic word of mouth communication (eWOM) with hundreds of friends and acquaintances on social networking sites such as Facebook.

Using the Elaboration Likelihood Model (ELM), this study identifies factors that affect the influence of eWOM in the Facebook News Feed. Argument strength, source expertise, tie strength and purchase decision involvement are identified as important variables, and their effect on attitude towards a product and intention to purchase a product is investigated.

The study found that contrary to the expectations of the ELM, Facebook users were not using the strength of the argument contained in the eWOM to make judgements about their intention to purchase a product. Users were instead using the heuristic cue of source expertise to inform their purchase behaviour. Tie strength was also used as a heuristic cue to determine whether an eWOM message was worthy of their attention. This study adds to the literature regarding the influence mechanism of eWOM in Facebook and provides further insight for social media marketers.

Dedication

I would like to dedicate this thesis to Petra, Lily and Sadie. You are my inspiration and my strength.

Acknowledgements

I would like to offer my heartfelt thanks to my supervisors, Professor Isabelle Szmigin and Doctor Sheena Leek. Throughout my studies they have shown me great patience, wisdom and encouragement. They have enriched my learning experience and I am sincerely grateful.

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ELM: the Elaboration Likelihood Model

eWOM: electronic word of mouth

SNS: social networking site

WOM: word of mouth

1. Introduction

1.1. Context for the study

Communication is central to the marketing process (Kimmel, 2010). Marketers communicate in order to inform and persuade potential customers regarding their products and services. Consumers' decision making is also influenced by information provided by fellow consumers (Arndt, 1967; Price and Feick, 1984; Duhan et al., 1997; Gilly et al., 1998). This person to person communication about products and brands often occurs between people familiar to one another and in a face to face setting (Dahl, 2015). This word of mouth communication (hereafter referred to as WOM), is still widespread and shapes consumers' attitudes and behaviours (Brown and Reingen, 1987; Herr, Kardes and Kim, 1991; Rogers, 1995). The ways consumers communicate information about products with each other has changed dramatically (Hennig-Thurau et al., 2010). The Internet has greatly increased consumer options for gathering product information from other consumers (Hennig-Thurau et al., 2004). People can now link together in the absence of a prior relationship, physical proximity, group membership and demographic similarity (Constant, Sproull and Kiesler, 1996), and share brand and product related content in the form of electronic word of mouth (hereafter referred to as eWOM) (Cheung and Lee, 2010). The Internet has become an important source of influence on purchasing behaviour (Senecal and Nantel, 2004; Guadagno and Cialdini, 2005; Wang and Chang, 2013) which has further emphasised the influence of interpersonal communication (van Noort and Willemsen, 2012; Kimmel and Kitchen, 2014b).

UK adults spend an average of 24 hours online each week with 82% of adults visiting a social media site once a day (Ofcom, 2018). In social networking sites (hereafter referred to as SNSs), users interact with one another, share information, gather ideas and opinions, and influence one another's opinions (Centola, 2010; Wang and Chang, 2013). 91% of UK adult social media users reported that they use Facebook, with 26% saying they only use Facebook (Ofcom, 2018). Facebook enables customers to reach (and be reached by) almost everyone anywhere and anytime (Hennig-Thurau et al., 2010). Many brands are now active on SNSs to try to influence their customers and guide their behaviour (Kingsnorth, 2016). Facebook is free to all users and makes money predominantly from advertising (Cusumano and Goeldi, 2013). Many brands are using paid advertising to reach fans. Brands can post messages and push them to consumers on Facebook using boosted or promoted posts to gain paid reach (Fu, Wu and Cho, 2017). Often brand sponsored posts are different to the type of dialogue most often found in SNSs which is built on individual relationships (Peters et al., 2013). These boosted or promoted posts often interfere with users' frequently intimate conversations with messages about frequently unrelated issues (Peters et al., 2013). SNSs users avoid advertising because they expect adverts to be uninteresting and of poor quality (Kelly, Gerr and Drennan, 2010). These ad formats have average click through rates of 2.98% suggesting that Facebook users are largely ignoring them (Chaffey, 2018). As a result, brands have less ability to expose commercial messages (Peters et al., 2013). In SNSs such as Facebook, people are relying more on members of their own social network to guide their decision making and less on advertising (Brymer, 2009).

Social media allows marketers to reach customers in more interactive ways as opposed to interrupting customers and force feeding them marketing messages (Kotler and Armstrong, 2012; Tuten and Solomon, 2015). To reach anyone who lives in a digital lifestyle (social, mobile and real time), the emphasis for marketers is on two way engagement rather than one-way broadcasting (Hamill, 2016). On Facebook, brands can create fan pages to host dialogues with stakeholders and post brand related content (Solis, 2011). Users can also follow brands on Facebook and receive content directly from brands into their News Feed (subject to the Facebook Algorithm). Many marketers are now creating and providing prospects and customers with high quality content that they can share with their own networks (Kozinets et al., 2010; Groeger and Buttle, 2014; Smith and Zook, 2016). Information about a company is not considered "junk" if it comes from a person the recipient knows as they assume that the information is of value and that the sender passed on the information for a good reason (Phelps et al., 2004). In this way brands hope to create content that engages their fans and gains organic reach through fans' own networks. The sharing of product related content to another consumer is a form of eWOM (WOMMA, 2006; Berger, 2014). Many marketers are embracing word-of-mouth marketing as the antidote to traditional advertising's waning effectiveness (Nail, 2005). Marketers seek to leverage this type of eWOM to change customer perceptions about their products and to impact on purchase behaviour (Libai et al, 2010). This type of interaction with brands and products on Facebook is often unintentional or incidental (Humphrey, Laverie and Rinaldo, 2017). This kind of eWOM is not sought out by the message recipient and may have less impact since WOM that is actively sought has greater influence on the recipient than WOM that is

passively obtained (Bansal and Voyer, 2000; Lopez and Sicilia, 2014). Facebook is still is globally popular social media platform with users and marketers alike. Marketing professionals need to understand how ordinary consumers influence each other in SNSs to guide their eWOM marketing strategies (Kozinets et al., 2010; Toder-Alon et al., 2014).

1.2. Outline of the theoretical framework

The mechanism of influence of WOM has been the focus of much academic research. WOM may influence a person on the basis of the components of the message itself but also via the perceptions of the recipient regarding the sender's credibility (Gilly et al., 1998; Bansal and Voyer, 2000; Van Der Heide and Schumaker, 2013). The components of a WOM message can be characterised as argument strength, which refers to a message recipient's perception that the argument contained in the message is strong and coherent as opposed to weak and baseless (Petty and Cacioppo, 1984a; Petty, 1986; Areni and Lutz, 1988; Eagly and Chaiken, 1993). A strong argument influences a consumer's attitude towards a product (Petty, Cacioppo and Schumann, 1983; Huang, Shi and Wang, 2012). There are two dimensions to the perceived credibility of a WOM source, source expertise and source trustworthiness (Roobina, 1990; Yoon, Kim and Kim, 1998; Belch and Belch, 2001; O'Keefe, 2002). Source expertise has been found to be a strong indicator of the influence of WOM on the receiver's attitude towards a product and their purchase behaviour (Bansal and Voyer, 2000). A message received from a trustworthy source is likely to produce a more positive attitude toward the position advocated in the message (Sternthal, Phillips and Dholakia, 1978). All WOM

communication tales place within a social relationship (Brown, Brodericks and Lee, 2007) and the relationship between the sender of a WOM message and its recipient can be categorised according to their closeness or the strength of the tie between them (Brown and Reingen, 1987). WOM information received from a strong tie is more influential on purchase behaviour that that received from a less closely related weak tie (Bansal and Voyer, 2000; Sun et al., 2006).

The Elaboration Likelihood Model (hereafter referred to as the ELM) has been used to understand the mechanism of influence in many studies featuring WOM and eWOM (Cheung and Thadani, 2012). Many of these studies have supported the application of the ELM to WOM and eWOM by confirming that involvement is associated with information processing and the central route to persuasion (Cheung and Thadani, 2012). When an individual has high involvement, they are motivated to cognitively elaborate on a message (Petty and Cacioppo, 1979), so argument strength (the central route) is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). More recently, the ELM has been applied to eWOM within SNSs such as Facebook, but the results from these studies have not supported the notion of involvement being the determinant of the route to persuasion (Atwood and Morosan, 2015; Koroleva and Kane, 2017; Aghakhani, Karimi and Salehan; 2018). Source credibility has been found to influence eWOM message recipients in Facebook (Atwood and Morosan, 2015; Aghakhani, Karimi and Salehan; 2018) but considering the global popularity of Facebook by users and marketers alike there is a relative lack of research into the mechanism of influence of eWOM in the News Feed. Much of what is known about eWOM stems from research offline (Kimmel and Kitchen, 2013). This traditional

perspective on WOM remains largely relevant in social media contexts so the research on WOM can inform research into eWOM (Toder Alon, Brunel and Fournier, 2014). However, as more WOM takes place on line it is important to develop a deeper understanding of eWOM in the context of social media environments (Kozinets et al., 2010).

1.3. Aims of the research

This research aims to consider the influence mechanism of eWOM in the Facebook News Feed through the theoretical lens of the ELM. When a message seems personally relevant, people invest the cognitive effort to examine it (Petty, Cacioppo and Goldman, 1981). Consequently, the message recipients will carefully weigh the arguments presented in the WOM message (Petty, Cacioppo and Schumann, 1983; Rosen, 2000). Facebook has over one billion mobile-only monthly active users (Facebook, 2019a). Small screen size and text mode encourages systematic processing (Kim and Sundar, 2016) which involves careful thinking about the merits or strength of the message argument (Fiske and Taylor, 2013). Therefore, the concept of argument strength as the central route of persuasion needs more investigation in the context of eWOM in Facebook.

According to the ELM, eWOM message recipients that view the message as having little personal relevance will not be motivated to spend the time and cognitive effort in analysing the message, but will instead rely on cue-based heuristics such as source expertise to evaluate the advocacy (Petty and Cacioppo, 1979). Facebook users are more likely to disclose their personal details than non-members (Chu, 2013), which may provide cues as to the sender's expertise. eWOM message senders are likely to

be known to the recipient since the majority of Facebook 'friends' reflect offline social relationships (Ellison, Steinfield and Lampe, 2011). Therefore, the perceived expertise of the eWOM sender may be salient in Facebook and requires further investigation.

Connecting and interacting with others is the primary objective of SNSs (Cheung, Chiu and Lee, 2011). The ease of instigating and maintaining connections with others in Facebook can lead to personal networks where best friends and acquaintances are mixed together (Haythornthwaite, 2002; Xiang, Neville and Rogati, 2010). Many of these acquaintances may be considered to reflect the properties of weak ties Walther, 2013). Many people have hundreds of Facebook 'friend' connections and as their personal network size grows, the proportion of weak links shows the greatest increase (Smith et al., 2007). Therefore, the concept of tie strength is likely to be an important component of the influence of eWOM messages in Facebook and requires further investigation.

The impact of eWOM is believed to vary depending on the setting (Cheung and Thadani, 2012; Zhang et al., 2014). Previous studies have confirmed the application of the ELM to a variety of eWOM settings including blogs, review sites and discussion groups. Previous studies have also confirmed the role of argument strength, source expertise and tie strength in the influence mechanism in these same eWOM contexts. However, there has been less research into the influence mechanism within the context of an eWOM message sent to all of one's friends via the Facebook News Feed which is not sought out or requested. Therefore, the influence mechanism may differ due to the context. This research aims to investigate this.

1.4. The research methodology

The research employed a mixed method explanatory sequential design involving three phases. The first phase, Study 1, used a quantitative research strategy and employed a 2 (tie strength: strong and weak) x 2 (source expertise: expert and non-expert) x 2 (argument strength: strong and weak) factor experimental design. Participants were randomly allocated to a mock Facebook News Feed post containing a product photograph, product information and an accompanying positive word of mouth comment regarding the product that featured one of eight experimental conditions containing manipulations of tie strength, source expertise and argument strength. Each participant was only able to access one experimental condition. Participants were then instructed to complete a questionnaire designed to measure their attitude towards the product and their intention to purchase the product. Manipulation checks were carried out to assess whether the treatments were perceived or interpreted as intended. Two $2 \times 2 \times 2$ factorial ANOVAs were conducted to test Study 1's hypotheses.

The second phase, Study 2, employed a cross-sectional design and used ten semi-structured interviews to explore participant's attitudes and behaviour regarding word of mouth communication in Facebook. The responses were analysed using thematic analysis.

The third phase, Study 3, used a quantitative research strategy and employed a 2 (purchase decision involvement: high and low) x 2 (source expertise: expert and non-expert) x 2 (argument strength: strong and weak) factor experimental design. Participants were randomly allocated to a mock Facebook News Feed post

containing the same product photograph and product information used in Study 1. The product photograph and information were accompanied by a positive word of mouth comment regarding the product that featured one of eight experimental conditions containing manipulations of purchase decision involvement, source expertise and argument strength. Each participant was only able to access one experimental condition. Participants were then instructed to complete a questionnaire designed to measure their attitude towards the product and their intention to purchase the product. Manipulation checks were carried out to assess whether the treatments were perceived or interpreted as intended. Two 2 × 2 × 2 factorial ANOVAs were conducted to test Study 3's hypotheses.

1.5. Outline of the thesis

The thesis contains the following chapters:

1.5.1. Chapter 2: the literature review

This chapter contains a review of the current literature relating to the study. The chapter begins by examining the nature of interpersonal influence along with existing knowledge of word of mouth communication, including both positive and negative forms. The chapter then considers electronic word of mouth communication and its advantages and disadvantages to the consumer. Following from this the literature regarding the processing of messages including consideration of source characteristics, message characteristics and the relationship of the message sender to the recipient is examined. The review of the literature is completed by considering

the nature of attitudes, how attitudes affect behaviour and multi-attribute models of attitudes. The final section of chapter two addresses the development of the hypothesis used in Study 1.

1.5.2. Chapter 3: the research methodology

Chapter three details the methodology employed in all three studies and begins by considering the research philosophy that underpins the research. This is followed by discussion of the research design used in Study 1. This includes how the product featured in the experiment was chosen and how the product features highlighted in the product information were selected. What follows is a discussion of how the three independent variables were manipulated including how they were pre-tested and incorporated into the eWOM messages featured in the experiment. The measures used for the three independent and two dependent variables are reviewed along with reported measures of internal consistency from previous studies. The chapter then proceeds to discuss the piloting of the experiment and the changes made to the stimulus conditions as a result of the piloting. The data collection method used for Study 1 is then discussed. The discussion of the methodology used for Study 1 concludes by examining how the experiment was administered, the sample size used and a consideration of the ethical issues encountered. Following this, chapter three addresses the research design, data collection method, sampling regime and data analysis techniques used for Study 2. The chapter continues with a discussion of the ethical issues addressed in Study 2. Chapter three then addresses the research design employed in Study 3. This is followed by details of the product and accompanying product information that featured in the experiment. Chapter three

proceeds with a discussion of how the experimental conditions were developed and the questionnaire was designed. This is followed by a discussion of the measures used for the three independent and two dependent variables along with reported measures of internal consistency from previous studies. Chapter three then proceeds to discuss the piloting of the experiment and the changes made to the stimulus conditions as a result of the piloting. The data collection method used for Study 3 is then addressed along with how the experiment was administered, the sample size used and a consideration of the ethical issues encountered.

1.5.3. Chapter 4: the results

In chapter four, the findings are presented. Part one includes the results of the manipulation checks for Study 1 and the results of the ANOVAs. Part two contains a visual thematic map of the themes and codes arising from the analysis of the qualitative data from Study 2. Part three includes the results of the manipulation checks for Study 3 and the results of the ANOVAs.

1.5.4. Chapter 5: the discussion

This chapter discusses the interpretation of the results from all three studies together to provide a more complete understanding of the research topic. Discussion is provided as to why one of the hypotheses from Study 1 and Study 3 was supported and the rest of the hypotheses were not. Consideration is then given as to how the results of the three studies may be combined to provide a fuller picture of eWOM in Facebook.

1.5.5. Chapter 6: the conclusion

This chapter begins with a discussion of the academic contributions made by this research, including the theoretical and methodological contributions. The managerial implications of the results are then addressed followed by a discussion of the limitations of the research and opportunities for future research. The chapter concludes with some concluding remarks which summarise the principle contributions of the research.

2. Literature review

2.1. Introduction

It has been established that both interpersonal and impersonal information sources influence consumers' decision making (Arndt, 1967; Price and Feick, 1984; Duhan et al., 1997; Gilly et al., 1998). Interpersonal communication, also referred to as word of mouth communication (WOM), often takes place via face-to-face discussions regarding products (Berger, 2014), and is independent of an organisation's marketing activities (Bone, 1992). This WOM can inform and influence (Assael, 1995). American consumers participate in 3.5 billion WOM conversations every single day making brands a major currency of conversation in America (Keller, 2007).

Interpersonal communication of product related content in a SNS has been labelled electronic WOM or eWOM (Hennig-Thurau et al., 2004). SNSs can be seen as both social systems and communication channels through which eWOM is transmitted (Chatterjee, 2011; Cheung, Chiu and Lee, 2011). As internet access and free, easy to use social media tools become ubiquitous, the influence of eWOM on consumer behaviour is likely to increase (Kozinets, 1999). This underlines the need for marketers to gain an increased understanding of eWOM in the hope of harnessing some of its influence. Offline, the persuasiveness of WOM communication has been shown to be associated with interpersonal, message and source factors (Kiecker and Cowles, 2002; Sweeney, Soutar and Mazzarol, 2008). Within SNSs, eWOM provides product related information but the impact of the information may differ between recipients (Cheung, Lee and Rabjohn, 2008).

This research aims to determine which factors contribute to the influence of eWOM communication within SNSs. Interpersonal factors such as the strength of the tie between the message sender and message recipient will be investigated. Message factors such as the perceived quality of the argument presented within a message and message source characteristics such as their perceived expertise will also be investigated. eWOM can affect a recipient's attitude about a product but it has also been shown to affect the recipient's purchasing behaviour (Doh and Hwang, 2009; Park, Lee and Han, 2007; Park and Kim, 2009). Therefore, this research will also examine attitudes towards a product and intention to purchase a product as a result of receiving an eWOM message. Therefore the literature regarding word of mouth, electronic word of mouth and interpersonal influence will be reviewed. In addition, the literature regarding attitudes, how attitudes affect behaviour, and multi-attribute models of attitudes such as the action of behaviour and the theory of reasoned action will be reviewed. Finally, the ways in which recipients process eWOM will be examined by reviewing the literature regarding the Elaboration Likelihood Model of attitude change.

It is acknowledged that there is a use of pre social media theory in this study. At its heart social media is about communication within interactive networks (Tuten and Solomon, 2015). Within a social network such as Facebook, much of this communication is between friends (Ellison et al., 2013). Any social interaction involves social influence, within which attitude change is a particular type (Sassenberg and Jonas, 2007). Therefore existing theories of attitude and attitude change are reviewed along with theories of interpersonal influence. Van Der Heide and Schumaker (2013) argue that using theory such as the Elaboration Likelihood

Model of attitude change provides a theoretical lens to guide an understanding of attitude change in a computer mediated environment. Joinson et al., (2007) emphasise the importance of existing theory and approaches within psychology to understanding the internet. However, it is also acknowledged that researchers into SNSs need to be aware of how these sites are evolving and the effects this may have on the interpersonal, psychological and sociological processes being studied (Ellison and Boyd, 2013).

The internet has given individuals an unprecedented ability to make their thoughts and opinions regarding products accessible on a global scale giving WOM communication a new significance (Dellarocas, 2003; Doh and Hwang, 2009). 90% of UK adults have home access to fixed broadband whilst 78% of adults have access to smartphones (OFCOM, 2018). UK adults now spend an average of over 3 hours per day online (OFCOM, 2018), which is driven by the uptake of portable internet devices that allow consumers to get online more often and in more places than ever before. Technological developments such as Web 2.0 have enabled internet users to connect, collaborate and share content with each other (O'Reilly, 2005; Cheung and Lee, 2010; van Noort and Willemsen, 2012) bringing to the fore the influence of interpersonal communication (Kimmel and Kitchen, 2014b).

Social media are internet based applications that facilitate the production and consumption of user-generated content on a vast scale (Kaplan and Haenlein, 2010). The reach and penetration of social media has risen to the extent that it has now been adopted into the everyday lives of a mainstream global audience (Ryan and Jones, 2012). WOM has been greatly amplified in the marketplace by the emergence of social media (Mangold and Faulds, 2009). This amplification has created a new

layer of influencers across many industries marketers (Lee et al., 2006; Solis, 2011). Consumer generated content is seen as a more trustworthy source of information regarding products and services than company generated content (Foux, 2006). Social media empowers consumers to discuss, collaborate and share, leaving many to believe that they, not brands, are now in control (Tuten and Solomon, 2015). Comments and reviews regarding products are often available for long periods of time so potential customers may be influenced by these past experiences (Hennig-Thurau et al., 2010). It is an environment where organisations have less control over the message (Brown, 2009), whilst the consumer controls their interaction with the brands (Wallace, Buil and de Chernatony, 2012). Consumer-to-consumer influence now often impacts purchasing decisions previously influenced by company driven marketing (Kimmel and Kitchen, 2014b).

More than three-quarters of UK internet users (77%) had a profile or account on a social media or messaging site or app in 2018 (OFCOM, 2018). Social media includes a variety of platforms including blogs, forums, wikis and SNSs (Mangold and Faulds, 2009). However, SNSs are increasingly occupying much of the time consumers spend online. One of the driving forces behind SNSs are social connections (Cheung and Lee, 2010), and SNSs have made it much easier for consumers to connect with friends (Moran and Muzellec, 2014). SNSs start from a base of already acquired friendships or acquaintances, often coinciding with those offline, whilst also facilitating the building of new relations (Padua, 2012). SNSs enable users to create a public or semi-public personal profile, which their friends can view along with their posts (Kaplan and Haenlein, 2010; Chatterjee, 2011).

SNSs can be viewed as both social systems and communication channels (Chatterjee, 2011). Participants consume, produce and share product knowledge via a stream of user-generated (Ellison et al., 2013). People can fulfil their product information needs by asking questions of their social network (Morris, Teevan and Panovich, 2010b).This process of social search, whereby people find information online by asking friends is easy and efficient to do on a large scale via SNSs (Morris, Teevan and Panovich, 2010b). Seeking and accepting recommendations online is used to effectively manage the amount of information available during product search processes (Smith, Menon and Sivakuma, 2005). This information about products has the potential to alter users' adoption behaviour (Chatterjee, 2011). SNSs are well-suited for information seeking because users tend to have met the vast majority of their friends in some offline context (Lampe, Ellison and Steinfield, 2006; Walther, 2013) so the information provided is highly tailored to the individual and comes from a highly trusted source (Morris, Teevan and Panovich, 2010b).

As of March 2019, Facebook has 1.56 billion daily active users (Facebook, 2019a). Facebook friends generally know one another offline (Tong and Walther, 2011; Hampton et al., 2012; Madden, 2012). Facebook makes the process of communicating with a large network of people easy (Ryan and Jones, 2012) and has greatly increased the ability of consumers to generate, share and offer eWOM (Moran and Muzellec, 2014). On Facebook, status updates enable users to share content with all their friends (Ellison et al., 2013). Facebook users can also share brand advertisements or content from brand websites to their friends. Many brand websites have social sharing buttons installed and by clicking on the Facebook icon a Facebook member is able to add their own comments to the brand's content and

then share it to their friends within Facebook. Shared content from friends will appear in a user's News Feed which is a constantly updated section containing content from people and brands a user is friends with or follows on Facebook. 40% of a Facebook user's time is spent in the Facebook News Feed (Facebook, 2012). This stream of product related content exerts a great influence on a user's knowledge and opinions regarding products (Bagozzi and Dholakia, 2002).

2.2. Interpersonal influence

2.2.1. Introduction

An individual's behaviour is often influenced by others (Bearden, Netemeyer and Teel, 1989; Bakshy et al., 2012). Individuals learn from an early age to rely on others' perceptions and judgements (Deutsch and Gerard, 1955). SNSs play a central role as the means for the spread of eWOM among its users (Kempe, Kleinberg and Tardos, 2003). eWOM is regarded as a form of interpersonal communication that impacts on consumers (Grewal, Cline and Davies 2003; Cheung and Thadani, 2010; Seng and Keat, 2014). A change in a consumer's attitudes, beliefs or behaviours as a result of interpersonal communication is known as interpersonal influence (Kiecker and Cowles, 2002).

2.2.2. Types of interpersonal influence

Deutsch and Gerard (1955) identified two types of interpersonal influence, normative and informational. Informational influence is the need to seek information from another (Hogg and Vaughan 2011; Blyth, 2013). Informational influence is based on

the need to make cognisant decisions (Bearden and Etzel, 1982; Evans, Jamal and Foxall, 2009) often due to the difficulty of product evaluation and the problems of resolving informational uncertainties (Price and Feick, 1984). The information is often actively sought from an appropriate reference group by those needing expert advice about product choices (Blythe, 2013). So for example, informational influence can arise when people are uncertain regarding a product choice so may seek the advice of an appropriate trade body to inform their decision. Informational influence is often sought when a consumer is under time pressure or lacks sufficient knowledge regarding a product (Lee et al., 2011). Informational influence comes from the content of eWOM such as argument strength and source credibility (Cheung et al., 2009).

Normative influence involves an individual conforming to the expectations of another person or group because of their desire to be accepted or liked by that person or group (Deutsch and Gerard, 1955; Burnkrant and Cousineau, 1975; Price and Feick, 1984; Werner, Sansone and Brown, 2008). Facebook provides additional information regarding the eWOM message from other Facebook members in the form of comments and likes. Through these the message recipient can be subject to normative social influence (Chatterjee, 2011). Message recipients are also subject to normative social influence via eWOM sent from strong ties. This is due to the recipient's desire to make their beliefs and self-concept congruent to those close to them (Chang, Chen and Tan, 2012).

Park and Lessig (1977) argued that normative influence can be characterised as utilitarian and value expressive. Utilitarian reference group influence occurs when an individual complies with the wishes of others to achieve rewards or avoid

punishments (Bearden and Etzel, 1982; Racherla and Friske, 2012). Value-expressive influence is characterised by the individual's desire to enhance their self-image by association with a person or group by the acceptance of positions expressed by others (Huang, Shi and Wang, 2012; Kastanakis and Balabanis, 2012). According to Bearden and Etzel (1982) the occurrence of all of these forms of influence requires some form of communication and the observation of opinions or behaviour.

Susceptibility to interpersonal influence is assumed to be a common characteristic that varies between individuals (Bearden, Netemeyer and Teel, 1990). Susceptibility to interpersonal influence significantly affects engagement with eWOM in SNSs (Chu and Kim, 2011). Individuals with a higher level of susceptibility to interpersonal influence are likely to perceive eWOM as a valuable source of information compared to those with lower levels of susceptibility (Park and Lee, 2009; Lee and Ma, 2012). Individuals with a higher susceptibility to normative influence are more engaged in seeking eWOM in SNSs than less susceptible individuals, whilst those individuals who are subject to informational influence are more likely to disseminate eWOM to others (Hsu and Tran, 2013).

2.3. Word of mouth (WOM)

2.3.1. Introduction

According to Rosen (2002), purchasing involves a one to one interaction between a company and a customer and also many exchanges of information between other people and the customer. Impersonal sources of information such as mass media

channels are effective at creating awareness of products, whereas interpersonal sources of information (WOM) are perceived as more credible than impersonal sources and are more effective in persuading an individual to accept new ideas, form opinions and make product decisions (Arndt, 1967; Richins, 1983; Rogers, 1995; Gruen, Osmonbekov and Czaplewski, 2006). WOM may be defined as informal, person-to-person communication regarding a brand, product or service (Harrison-Walker, 2001). WOM provides the most important source of information for consumer buying decisions (Rogers, 1995; Chevalier and Mayzlin 2006; East, Hammond and Wright, 2007; Moran and Muzellec, 2014). WOM is the most influential source of information about products as it often comes from friends, family and colleagues who are perceived as highly credible sources of information due to their lack of perceived vested interest (Assael, 1995; Bickart and Schindler, 2001; Godes and Mayzlin, 2004; Mazzarol, Sweeney and Soutar, 2007). Furthermore, East, Wright and Vanhuele, (2013) reported that WOM is also involved in the switching from one brand to another in established markets with approximately 50% of service provider replacements found through WOM (Keaveney, 1995).

WOM provided by individuals that have some personal knowledge about the recipient are more influential than sources that have no personal knowledge about the recipient (Brown and Reingen, 1987). Additionally, the information provided can be expected to reflect typical product performance as opposed to claims expressed about expected performance in marketer generated sources since consumers are not expected to manipulate or deceive their peers (Bickart and Schindler, 2001; Mazzarol, Sweeney and Soutar, 2007; Moran, Muzellec and Nolan, 2014).

This has led Lowenstein (2011, p.140) to describe WOM as

"The most reliable and behaviourally leveraging information source"

WOM is comprised of two behaviours, opinion-seeking behaviour and opinion-giving behaviour (Lopez and Sicilia, 2014). Opinion-seeking behaviour is motivated by the desire to reduce risk or to find information (Goldsmith and Horowitz, 2006). In order to cope with the hazards of perceived risk in a pre-purchase context, consumers tend to develop risk handling tactics in which they seek additional information from many sources including WOM (Arndt, 1967; Bansal and Voyer, 2000). So for example, consumers who are considering purchasing an expensive item are likely to seek an evaluation from those who have previously adopted the product (Rogers, 1995). The need for WOM varies between product and service categories with WOM likely to be sought for services which cannot be tested before a decision is made whereas goods that can be inspected and tested prior to purchase will likely require less WOM (East, Wright and Vanhuele, 2013). As well as providing information to reduce financial and performance risk, WOM serves as a means of peer approval to reduce social risk (Murray, 1991; Assael, 1995). WOM that is actively sought has greater influence on the recipient than WOM that is passively obtained (Bansal and Voyer, 2000; Lopez and Sicilia, 2014).

2.3.2. Positive word of mouth (PWOM)

Opinion giving behaviour in the form of WOM can be positive (PWOM) or negative (NWOM), with some messages containing both (East, Wright and Vanhuele, 2013). Motives to engage in PWOM and NWOM are related to consumption experiences

(Sundaram, Mitra and Webster, 1998). PWOM involves consumers telling others about particularly pleasing consumption experiences (Sundaram, Mitra and Webster, 1998). Consumers engage in PWOM for self-enhancement reasons such as to gain attention, demonstrate expertise or assert superiority (Hennig-Thurau et al., 2004). Consumers also engage in PWOM for altruistic reasons by sharing something to help other consumers make product decisions (Sundaram, Mitra and Webster, 1998). Saying what is good may be more constructive than saying what is bad about a product leading to a higher incidence of PWOM (East, Wright and Vanhuele, 2013). PWOM was found to exceed the incidence of NWOM by an average ratio of 3.1 to 1 in a study of fifteen different products and services (East, Hammond and Wright, 2007). Exposure to favourable WOM has been found to be more memorable than exposure to NWOM (Oetting et al., 2010), to influence brand perceptions (Richins, 1983) and influence WOM recipients to buy (Arndt, 1967; Assael, 1995; Solomon, 2011).

2.3.3. Negative word of mouth (NWOM)

Consumers can produce negative eWOM to punish companies for bad service (Alexander and Jaakkola, 2016). Consumers also engage in NWOM to warn others of potential negative experiences, to reduce their anxiety caused by poor value perceptions and to gain advice regarding poor product performance (Sundaram et al., 1998). Similarly, consumers will engage in NWOM in order to seek vengeance against a company with whom they have had a negative consumption experience or to punish them for poor customer service (Richins, 1983; Alexander and Jaakkola, 2016). NWOM from dissatisfied customers inhibits sales (Arndt, 1967; Assael, 1995;

Solomon, 2011) and has a negative effect on brand loyalty (Holmes and Lett, 1977; van Noort and Willemsen, 2012).

2.3.4. Electronic word of mouth (eWOM)

eWOM refers to any positive or negative comment made by a customer about a product or service which is made available to others via the internet (Hennig-Thurau et al., 2004). eWOM occurs in many online channels including, emails, microblogs and SNSs (Phelps et al., 2004; Jansen et al., 2009; Hung and Li, 2007). eWOM includes product related discussion and the sharing of product related content (Berger, 2014). eWOM communication has some elements in common with WOM communication, but it also differs in several ways (Cheung and Thadani, 2012). Firstly, unlike traditional WOM, eWOM communications can magnify and spread very quickly (Cheung and Thadani, 2012). eWOM allows consumers to not only obtain product and service related information from close friends and family but also from a large group of others with relevant product or service experience from outside of their own interpersonal networks (Godes and Mayzlin, 2009; Jalivand, Esfahani and Samiei, 2011; Kimmel and Kitchen, 2014a). eWOM communications involve the exchange of information in an asynchronous manner (Hung and Li, 2007) that can easily be ''forwarded'' to others who were not present at the original exchange (Hennig-Thurau et al., 2010). eWOM allows the consumer to acquire information at their own pace and to absorb detailed information in their own time (Bickart and Schindler, 2001).

2.3.4.1. The benefits of eWOM to the consumer

Customers derive both social and economic value by participating in eWOM (Balasubramanian and Mahajan, 2001). It provides economic value in the form of information about products or service experiences that has higher credibility, reliability, empathy and relevance to customers that is rarely available from manufacturer sponsored sources, which makes this source of information especially helpful and influential (Bickart and Schindler, 2001; Phelps et al., 2004; Gruen, Osmonbekov and Czaplewski, 2006; Reichelt, Sievert and Jacob, 2014). Participation in eWOM can also provide social value from being a contributing member of a virtual community and from the enjoyment of meeting and communicating with others (Hennig-Thurau et al., 2004). eWOM is an important element of the consumer decision-making journey (Moran, Muzellec and Nolan, 2014) and product-related eWOM influences attitudes, intentions, and behaviour (Senecal and Nantel 2004; Li and Hitt, 2008; Moe and Trusov, 2011).

2.3.4.2. The drawbacks of eWOM to the consumer

eWOM is found throughout social media including SNSs and on third party review sites. On all these platforms, consumers have to decide whether to believe or disbelieve the information provided by others (Ku, Wei and Hsiao, 2012). Gu, Park and Konana (2012) suggested that retailers may anonymously post positive reviews of their own products to raise awareness and positively influence attitudes towards their products. Even where reviewers are identified, reviewers can change their online identity or use a false identity to post dishonest product reviews (Dellarocas,

2003). Therefore, for many consumers the trustworthiness, objectivity and true identity of the reviewer are of prime importance.

2.3.4.3. The benefits and drawbacks of eWOM to companies

Satisfied adopters of a brand can engage in advocacy in the form of positive eWOM (Kirby and Marsden, 2006; Fugetta, 2012). Positive eWOM has been found to influence recipients to purchase products (East, Hammond and Lomax, 2008; Park and Kim, 2008) and positively impacts on customer loyalty (Gruen, Osmonbekov and Czaplewski, 2006). Negative eWOM can hinder a company's efforts to bring in new customers (Blazevic et al., 2013). Negative eWOM can also lead to unfavourable consumer attitudes towards brands (Hollebeek and Chen, 2014). Negative eWOM represents an instrument of power that can be used by an individual or group of consumers over companies (Hennig-Thurau et al., 2004).

eWOM can influence recipients to form or modify their attitudes about a product to which the message pertains (Kiecker and Cowles, 2002; Park and Lee, 2008; Lee and Youn, 2009). Consumer attitudes towards products are important since they represent a deeply held set of beliefs and evaluations regarding the product that influence product consumption (Hogg and Vaughan, 2011; Szmigin and Piacentini, 2015).

2.4. Attitudes

2.4.1. Introduction

Hogg & Vaughan (2011, p. 148) defined an attitude as

> "a relatively enduring organisation of beliefs, feelings, and behavioural
> tendencies towards socially significant objects, groups, events or symbols".

Eagly and Chaiken (1993) explained how attitudes are evaluated on a continuum from positive (favourable) to negative (unfavourable). Ajzen (2001) supported this view by arguing that an attitude represents an evaluation of an object summarised using characteristics such as good-bad, harmful-beneficial, pleasant-unpleasant, and likable-dislikeable.

A prominent model of attitudes is the tri-component model that proposes that attitudes are summary evaluations of an object that have cognitive, affective and behavioural components (Eagly and Chaiken, 1993; Ng and Bradac, 1993; Taylor, 2007; Maio and Haddock, 2009). Fill (2002) elaborated on this construct by describing how cognitive refers to the knowledge and beliefs held by an individual about an object. Similarly, Maio and Haddock (2009) described cognitive responses as ones awareness, beliefs and thoughts towards an object. Thus an attitude towards a product such as a smartphone can be formed through careful evaluation of the positive and negative attributes of the product. Similarly an attitude towards a service provider can be based on the belief that the service will provide strong utility. Affective responses relate to the feelings about a product such as sentiments, moods and emotions (Fill, 2002; Maio and Haddock, 2009). These feelings can be positive

or negative (Evans, Jamal and Foxall, 2009). So for example, a consumer's negative attitude towards air travel could be based on their fear of flying. The behavioural (or conative) component refers to an individual's intention to respond in a certain way towards an attitude object (Blythe, 2013; Szmigin and Piacentini, 2015).

Attitudes are influenced by a message recipient's cognitive response to information about an attitude object (Maio and Haddock, 2012). People process a large number of messages on a daily basis (Dou et al., 2012). It is not possible to give much thought to all of them due to time pressure (Petty, Wegener and Fabrigar, 1997). People will only engage in thoughtful processing of a message when they are sufficiently motivated and able to do so (Chaiken, 1980). Dual process theories of persuasion suggest that there are two primary ways people process information, either centrally (systematic processing) or peripherally (heuristic processing) (Petty and Cacioppo, 1984; Guadagno and Cialdini, 2005). According to dual process theories, when people are both motivated and able to process the information contained in a message, attitudes are based on a thoughtful and systematic assessment of the information (Loken, 2006). However, dual-process theories suggest that sometimes attitudes are not always based on careful processing of information, but can be based on less demanding cues (Chaiken, 1980; Petty, Wegener and Fabrigar, 1997). These two alternative processes of attitude formation form the core of all dual-process theories (Bhattacherjee and Sanford, 2006).

2.5. The Elaboration Likelihood Model (ELM) of attitude change

2.5.1. Introduction

One of the main dual mode processing theories is the ELM (Petty, Cacioppo and Goldman, 1981). This model provides a framework for understanding the basic processes underlying the effectiveness of persuasive communications (Petty, 1986). It integrates source, message, recipient and contextual effects (Petty and Cacioppo, 1986). The model proposes that people are neither entirely attentive when assessing persuasive messages nor entirely inattentive (Petty and Cacioppo, 1984). Thus the model explains that in different situations, message recipients will vary in the extent to which they cognitively elaborate on a particular message. Elaboration involves carefully attending to the content of a message and the scrutiny of the relative merits and relevance of the arguments contained in the message (Petty, 1986; O'Keefe, 2002; Bhattacherjee and Sanford, 2006). When a recipient is willing and able to cognitively elaborate on a message, argument strength (the central route) is the critical determinant of informational influence. When a recipient is unable or unwilling to elaborate on a message, peripheral cues such as source attractiveness, likeability and source credibility exert influence (Petty, 1986; Eagly and Chaiken, 1993; Sussman and Siegal, 2003; Li and Zhan, 2011). In the ELM, the central route and peripheral route lie opposite ends of an elaboration likelihood continuum with attitude change often governed by both routes (Petty, Wegener and Fabrigar, 1997). A diagram of the ELM is shown in Figure 1.

Figure 1. The Elaboration Likelihood Model (Petty and Cacioppo, 1986).

```
                  ┌──────────────┐        ┌──────────────┐        ┌──────────────┐
                  │ HIGH motivation│  ──►  │ Focus on the  │  ──►  │ Attitude change│
                  │ and ability to │       │ strength of the│       │               │
                  │   process      │       │   argument    │       │               │
                  └──────────────┘        └──────────────┘        └──────────────┘
                          ▲
Central route
                          
                  ┌──────────────┐
                  │   Message     │
                  └──────────────┘
                          
Peripheral route
                          
                  ┌──────────────┐        ┌──────────────┐        ┌──────────────┐
                  │ LOW motivation │  ──►  │ Focus on      │  ──►  │ Attitude change│
                  │ and ability to │       │ peripheral cues│       │               │
                  │   process      │       │               │       │               │
                  └──────────────┘        └──────────────┘        └──────────────┘
```
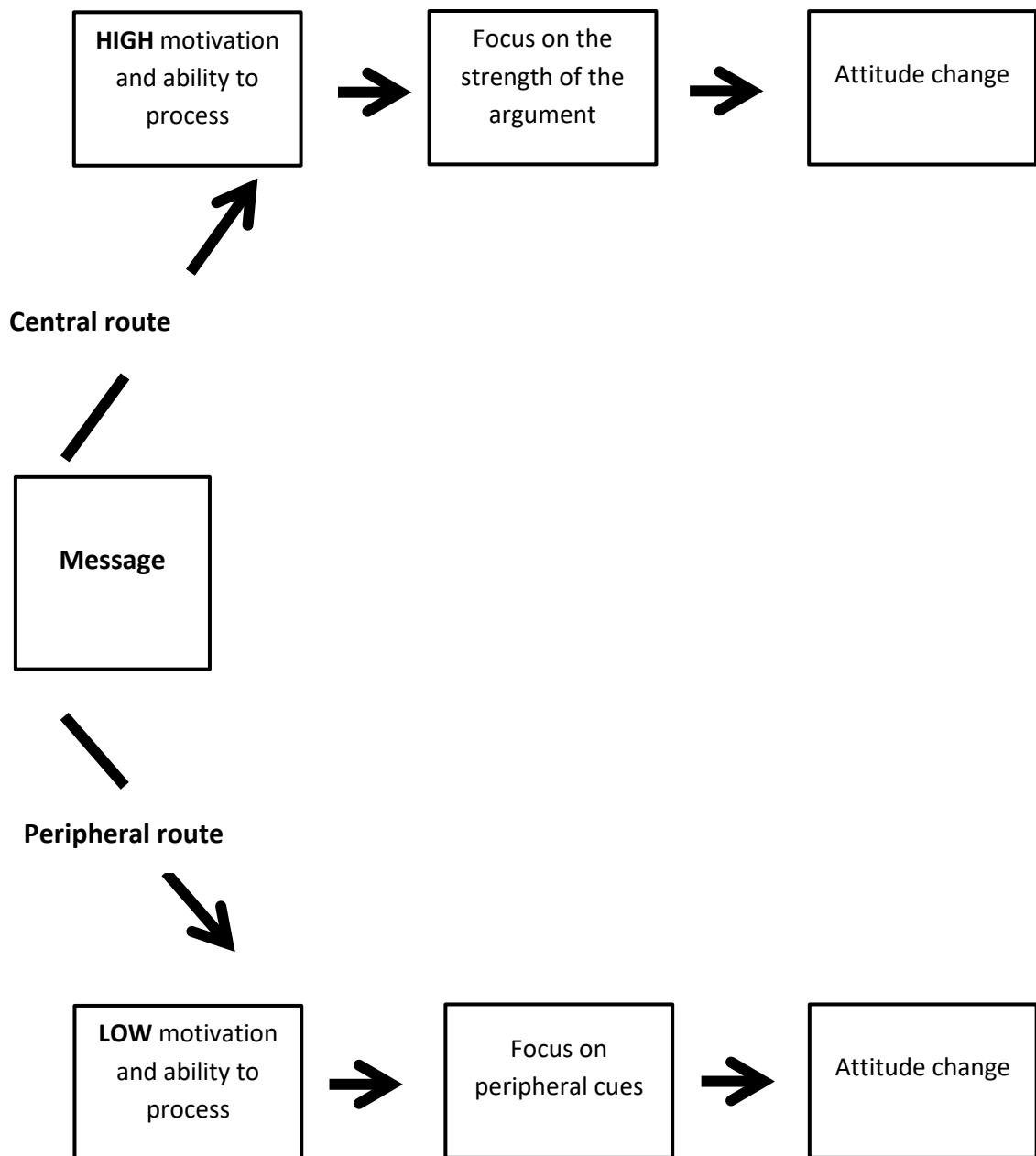
Stimuli that serve as central route cues may be conveyed visually or in message attributes (Petty, Cacioppo and Schumann, 1983). Therefore a picture accompanying a text based WOM message conveying product relevant attributes may lead the receiver to elaborate on the arguments presented leading to a central route to

persuasion. It is now easy for consumers to post pictures or video content on SNSs regarding their product related experiences (Lin, Lu and Wu, 2012). Attitude change generated via the central route is generally more enduring, resistant to counterinfluence and more predictive of behaviour (Petty and Cacioppo 1986; Petty, Wegener and Fabrigar, 1997; Rosen, 2000; Lin, Lee and Horng, 2011). In contrast, attitude change generated via the peripheral route tend to be less enduring, susceptible to counterinfluence, and less predictive of behaviour (Bhattacherjee and Sanford, 2006; Perloff, 2014).

2.5.2. Elaborative message processing

Content-focused processing (or elaboration) requires both motivation and capacity on the part of the message recipient (Mackie, Worth and Asuncion, 1990; Coulter and Punj, 2004). Thus motivation to process and increased capacity is thought necessary to distinguish the persuasive implications of strong and weak arguments (Eagly and Chaiken, 1983; Petty and Wegener, 1998). Eagly and Chaiken (1993) reported that the quality of a persuasive argument has more influence on attitudes when recipients are highly motivated and/or able to engage in elaborative processing.

2.5.3. Factors affecting elaboration motivation

2.5.3.1. Involvement

When an individual has high involvement, they are motivated to process information and reflect on the message (Petty and Cacioppo, 1979). Involvement with a message is determined by the degree to which an individual perceives it to be personally

relevant (Petty, Cacioppo and Schumann, 1983; Zaichkowsky, 1985; Celsi and Olson, 1988). Relevance of a message refers to the relevance of the message content to the individual's needs, interests and values (Solomon, 2011). Therefore a product related message in a virtual social network will be perceived as relevant by the receiver if the product's characteristics as detailed in the message are associated with the receiver's personal needs, interests and values (Celsi and Olson, 1988; Petty and Cacioppo, 1990). So for example, if the recipient of a message regarding a children's bicycle is thinking of buying one for their daughter's birthday, then the relevance of the message will be high leading to the recipient being motivated to attend to and reflect on the message.

When an issue seems personally relevant, people invest the cognitive effort to examine it because they wish to evaluate the true merits of the argument relevant to an issue that has personal consequences (Petty, Cacioppo and Goldman, 1981; Petty and Cacioppo, 1984b, 1990; O'Keefe, 2002). Furthermore, if an argument has high personal relevance, it is likely that the recipient has thought about the issue previously and has developed a framework of information that can be used to evaluate the new information. Thus the person may find it easier to evaluate the clarity of an argument on a topic of high rather than low involvement (Petty, Cacioppo and Goldman, 1981). Consequently, the recipients can carefully weigh the arguments presented and generate a reasoned opinion (Petty, Cacioppo and Schumann, 1983; Rosen, 2000).

Recipients that view a message as having little personal relevance may not be motivated to invest the necessary time and cognitive effort to analyse the message, preferring to rely on peripheral cues such as source attractiveness, likeability and

credibility to evaluate the information (Petty and Cacioppo, 1979; Petty, Cacioppo and Schumann, 1983; Petty and Cacioppo, 1984b; Rosen, 2000). When the personal importance of an issue is low, people may be motivated less by a desire to be correct than by a desire to minimise cognitive effort (Petty, Cacioppo and Goldman, 1981).

2.5.4. Factors affecting elaboration ability

2.5.4.1. Distraction

Ability to elaborate on a message can be affected by a number of variables (Petty and Cacioppo, 1981). If an individual is distracted from paying attention to a persuasive message then they are less able to engage in issue-relevant thinking (Petty, Wells and Brock, 1976; Petty, Wegener and Fabrigar, 1997; O'Keefe, 2002). Technological innovation has provided numerous opportunities for media exposure leading many viewers to fundamentally change their media consumption habits by simultaneously attending to multiple offerings on different devices (Yeykelis et al., 2014; Kazakova et al., 2015). This electronic world of multi-tasking has become the "new normal", pervading the way many work and play (Courage et al., 2015). Therefore, for many people receiving a message through Facebook they may be distracted from issue relevant thinking due to media multi-tasking which will impact on their ability and consequently their motivation to engage in elaboration. Therefore according to the Elaboration Likelihood Model, this will lead to peripheral cues such as source attractiveness, likeability and credibility being the critical determinants of informational influence (Petty, 1986; Eagly and Chaiken, 1993; Sussman and Siegal, 2003; Li and Zhan, 2011).

2.5.4.2. Prior knowledge

The more prior knowledge a receiver has about a topic, the more likely they are to carefully consider the quality of arguments presented as they are better able to engage in issue relevant thinking (Wood and Lynch, 2002; O'Keefe, 2002; Bhattacherjee and Sanford, 2006). Recipients with prior knowledge can assess the merits of message arguments since they can draw on relevant information in their memory to evaluate the argument contained in the message (Wood, 1982). Based on this evaluation, messages that are judged to provide a valid argument will be difficult to rebut (Wood, Kallgren and Preisler, 1985). However, those recipients with limited prior knowledge may lack relevant information thus impairing their ability to evaluate the message (Wood, Kallgren and Preisler, 1985). Consequently they will have little choice but to depend on peripheral cues (Wood and Lynch, 2002; Bhattacherjee and Sanford, 2006) since they will lack the ability to appreciate the strength or flaws in an argument (Petty, Wegener and Fabrigar, 1997) or engage in issue relevant thinking (O'Keefe, 2008). A diagram of the factors affecting elaboration can be seen below in Figure 2.

Figure 2. Factors affecting elaboration (Petty and Cacioppo, 1986).
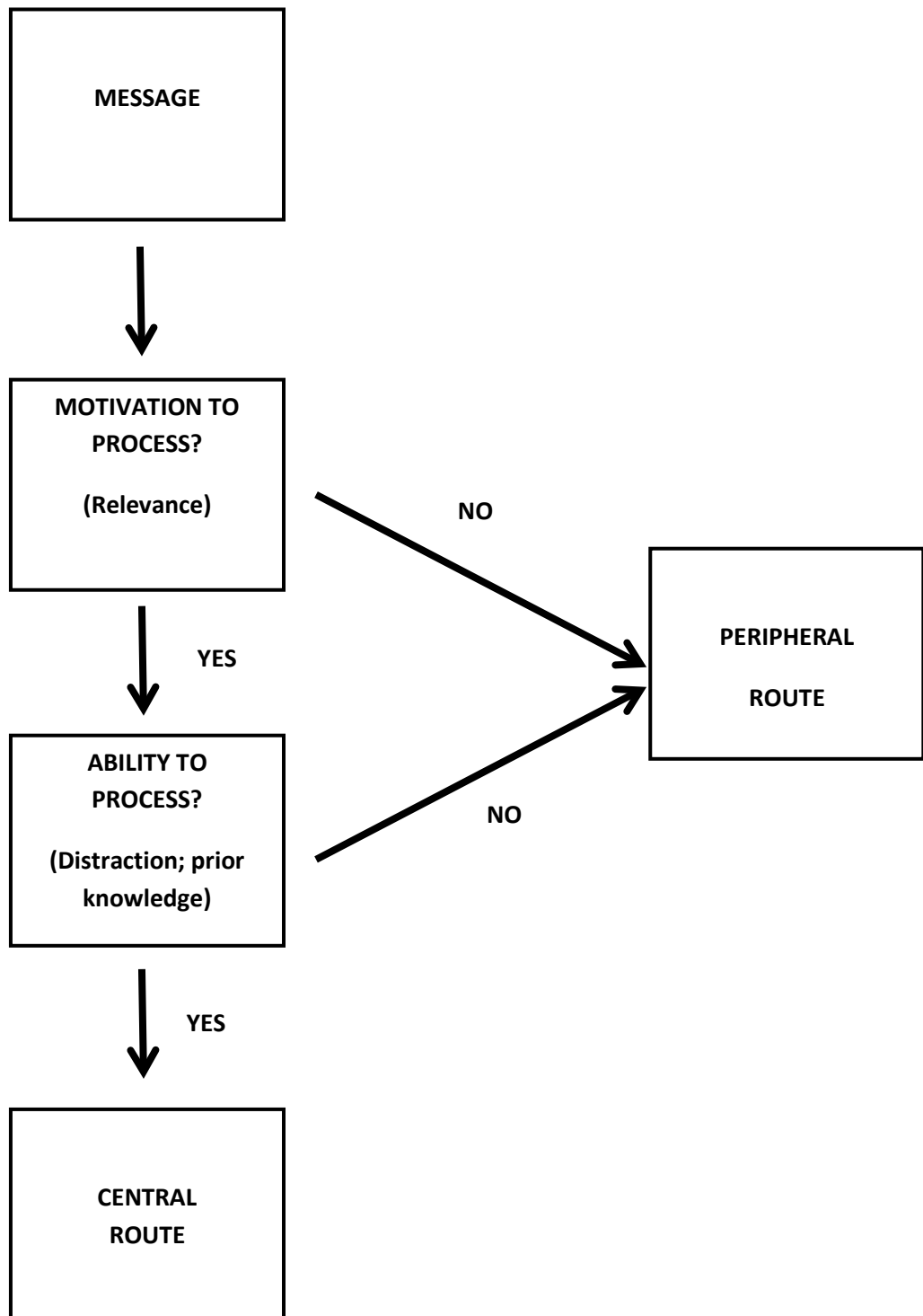
As discussed earlier, Hovland, Janis and Kelley (1953) (cited in Hogg and Vaughan, 2011) suggested that central to understanding why people's attitudes were changed by a persuasive message was the need to study the characteristics of the source of the message, the characteristics of the message and the characteristics of the receiver of the message. In the context of eWOM, the source of the message is the sender of the eWOM, the characteristic of the message refers to the content of the message, and the characteristics of the receiver refers to the individual in receipt of the message.

2.6. Message characteristics: argument strength

As discussed earlier, when a recipient is willing and able to cognitively elaborate on a message, argument strength is the critical determinant of informational influence. Argument strength refers to a message recipient's perception that the message contains an argument that is strong and coherent as opposed to weak and baseless (Petty and Cacioppo, 1984a; Petty, 1986; Areni and Lutz, 1988; Eagly and Chaiken, 1993). A strong argument will stimulate a cognitive response in the form of assessing and thinking about the information (Petty and Wegener, 1998; Moons, Mackie and Garcia-Marques, 2009) and will result in mainly positive issue-relevant thoughts (Handley and Runnion, 2011; Huang, Shi and Wang, 2012; Li, 2013). This cognitive response engenders persuasion (Coulter and Punj, 2004; Rucker and Petty, 2006; Moons, Mackie and Garcia-Marques, 2009). For attitude change to occur in the direction of advocacy, the thoughts generated by the message should be more positive than those available prior to message exposure (Petty and Cacioppo, 1986; O'Keefe, 2002). In contrast, a weak message contains arguments that generate

largely negative thoughts that will be resisted resulting in little attitude change or attitude change in the opposite direction from that advocated (Areni and Lutz, 1988; Mackie, Worth and Asuncion, 1990; Eagly and Chaiken, 1993; Coulter and Punj, 2004; Moons, Mackie and Garcia-Marques, 2009). Strong WOM messages are composed of very supportive arguments that use facts and figures, reference credible sources and highlight the discernible product attributes whereas weak arguments are composed of non-supportive arguments involving personal opinions, reference less credible sources and stress the less discernible product attributes (Johnson, 1991; Pham and Avnet, 2004; Rains, 2007).

2.7. Source characteristics

According to the literature there are several source characteristics that contribute to the influence of WOM. These are credibility (Berger, 2014), physical attractiveness (Benoy Joseph, 1982), similarity (McGuire, 1985) and likeability (Eagly and Chaiken, 1975).

2.7.1. Source credibility

Source credibility refers to the message recipient's perception of the credibility of the sender of the message (Sussman and Siegel, 2003; Perloff, 2014). There are two dimensions to source credibility; source expertise and source trustworthiness (Roobina, 1990; Yoon, Kim and Kim, 1998; Belch and Belch, 2001; O'Keefe, 2002). The effect of source credibility on the persuasion process has attracted much attention. Highly credible sources can have a positive effect on attitude change and

often induce more behavioural compliance than less credible sources (Sternthal et al., 1978; Petty and Wegener, 1998).

2.7.1.1. Source credibility online

In the offline environment, credibility was assumed to be integral to WOM messages from close friends and family members (Kozinets et al., 2010). However, the online environment provides the ability to receive eWOM messages from outside of one's close friends and family, often with no previous social connection (Godes and Mayzlin, 2004; Hennig-Thurau et al., 2004). Therefore, the credibility of the eWOM message sender is of concern to the message recipient as they may not be able to assess the message sender in the same manner as in the offline environment (Cheung et al., 2009). However, eWOM within SNSs may provide important cues to assess a senders' credibility. Facebook's terms and conditions require users to disclose their true identities and it also encourages members to connect with existing offline contacts so many Facebook connections are known to the user through prior offline relationships (Zhang and Watts, 2008; Chatterjee, 2011). Therefore Facebook enables users to access source credibility cues once thought to be only available in offline WOM (Moran and Muzellec, 2014). The perceived credibility of a communicator enhances the persuasiveness of online recommendations (Berger, 2014). Wu and Wang (2011) reported that electronic word of mouth messages sent by those with higher source credibility were positively related to stronger brand attitude and higher purchase intention than messages with lower message source credibility.

As discussed earlier, there are two elements to source credibility; source expertise and source trustworthiness (Roobina, 1990; Yoon, Kim and Kim, 1998; Belch and Belch, 2001; O'Keefe, 2002; Perloff, 2014). Source expertise represents the perceived knowledge or ability of the message source (Sternthal, Phillips and Dholakia, 1978; Gotleib and Sarel, 1991; Brown, Brodericks and Lee, 2007), whereas source trustworthiness represents the perceived traits of the message sender (Perloff, 2014).

2.7.2. Source expertise

Perceived source expertise can be due to the perception that the sender is a knowledgeable person (Gotleib and Sarel, 1991; Gilly et al., 1998) or that they are able to make sound judgements due to their relevant abilities (Sternthal, Phillips and Dholakia, 1978; Homer and Kahle, 1990). Source expertise can also be gained through direct brand experience and the greater the experience consumers are known to have with a brand, the more convincing their WOM (Mackiewicz, 2010; Moran and Muzellec, 2014). Compared to non-expert sources, a message from an expert should be perceived as more likely to present information that is correct (Homer and Kahle, 1990; Clark et al., 2012). Message recipients are more likely to be influenced by an expert than with a non-expert source appearing to invoke an 'experts are correct heuristic' (Petty, Cacioppo and Goldman, 1981). This heuristic cue may be used to influence attitudes whenever information about a message sender's expertise is accessible (Bohner, Ruder and Erb, 2002). People expend their cognitive resources strategically and the use of heuristics reduces their cognitive burden (Eagly and Chaiken, 1993; Tobin and Raymundo, 2009). Heuristic cues can

be employed if the motivation to process the message is low, the cognitive burden to process the message is high, or there is a lack of detailed information (Bohner, Ruder and Erb, 2002). In such situations, message recipients may agree with the position advocated by an expert without processing the message content in any depth (Petty, Cacioppo and Goldman, 1981). Experts are perceived to possess knowledge or skills relevant to the position advocated so this provides adequate evidence of the message's legitimacy (Homer and Kahle, 1990). A source with great expertise is more persuasive than a source with little expertise (Chaiken and Maheswaran, 1994; Homer and Kahle, 1990; Brinol and Petty, 2009; Clark et al., 2012), and source expertise is strongly associated with influence on the message recipient's decision making process (Gilly et al., 1998).

2.7.3. Source trustworthiness

Trustworthiness and trust are sometimes used interchangeably however much of the academic literature seeks to make a clear distinction between interpersonal trust in a message source and a source's perceived trustworthiness.

2.7.3.1. Interpersonal trust in a message source

Trust in another person is often referred to as interpersonal trust (Tan and Sutherland, 2004). Interpersonal trust is the "extent to which a person is confident in, and willing to act on the basis of the words, actions and decisions of another" (McAllister, 1995, p. 25). When high interpersonal trust exists, people are more willing to exchange information (Nahapiet and Ghoshal, 1998). Interpersonal trust

would therefore apply to a recipient's confidence and willingness to engage with eWOM from an individual source in a SNS.

Trust has been studied in a multitude of disciplines and as such, many diverse and conflicting definitions of trust exist. Rempel, Holmes and Zanna (1985) argued that interpersonal trust contains elements of predictability, dependability and faith. Predictability refers to that idea that trust develops as a relationship matures due to the consistency of the behaviour and responses of a relationship partner. Dependability is based on the idea that as a relationship evolves trust depends less on specific behaviours and more on the perceived virtues associated with the relationship partner. In this way, trust is placed in a person, not their actions. Finally, faith reflects an emotional aspect of trust, which is not based on past experience but allows one to feel assured of the future success of a trusting relationship (Rempel, Holmes and Zanna, 1985).

Another multidimensional view of trust that can be applied to a dyadic relationship was proposed by Mayer, Davis and Schoorman (1995, p.712), who argued that trust is:

> "The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that party".

Lewis and Weigert (1985) proposed that trust is comprised of three components. One component is based on a cognitive process that categorises people as trustworthy, not to be trusted and unknown. The second component is an affective component

consisting of the emotional bonds between people in a trusting relationship. The third component is based on the behavioural aspect of trust in which people act in ways that implies their trust in others (Lewis and Weigert, 1985).

Risk can be considered as the perceived probability of loss, according to those making a decision (Chiles and McMackin, 1996). Risk is essential for trust to arise since trust involves a willingness to assume risk (Lewis and Weigert, 1985; Mayer, Davis and Schoorman, 1995). However, trust and risk taking are also considered to be in a reciprocal relationship so although risk creates an opportunity for trust, trust also enables people to take risks (Jarvenpaa, Knoll and Leidner, 1998; Rousseau et al., 1998). Risk-taking behaviour such as revealing personal information and the sharing of information in social networking sites can be primarily viewed as the outcome of trust (Grabner-Krauter and Bitter, 2013).

A trait of the trustor, characterised as propensity to trust will affect the trust the trustor has in another party (Mayer, Davis and Schoorman, 1995). Propensity to trust is assumed to be stable because it is not influenced by context (Colquitt, Scott and LePine, 2007), but is influenced by the trustor's cultural and social backgrounds as well as their personality type (Mayer, Davis and Schoorman, 1995). People with a propensity to trust may be especially likely to give trustees the benefit of the doubt when faced with a situation where they lack knowledge regarding the trustee (Kuo, 2014). A trustor will be willing to be trust another person if they perceive that the trustee is trustworthy (Mayer and Davis, 1999; Tan and Sutherland, 2004). The traits and actions of a trustee will determine their perceived trustworthiness (Mayer, Davis and Schoorman, 1995; Buttner and Goritz, 2008). Repeated social interactions between people enables them to revise their perception of trustworthiness (Mayer,

Davis and Schoorman, 1995; McAllister, 1995; Tsankova et al., 2012). Thus trustworthiness can be seen as a characteristic of the trustee that ultimately predicts trust levels (Shinners, 2009; Toma, 2010).

2.7.3.2. Trust in SNSs

SNSs allow members to share their thoughts, opinions and experiences with each other (Nepal, Sherchan and Paris, 2011). When a trusting relationship exists, people listen to others' knowledge (Levin and Cross, 2004). Trust allows members of SNSs to assess the sender and the merit of a message, and therefore impacts on their likelihood to engage with eWOM (Chu and Kim, 2011).

2.7.3.3. Trustworthiness

As discussed, much of the academic literature seeks to make a clear distinction between interpersonal trust in a message source and a source's perceived trustworthiness. Mayer, Davis and Schoorman (1995) distinguished between trust and trustworthiness with ability, benevolence and integrity being classed as characteristics of the trustee and antecedents of trust. This model was later adopted by amongst others McKnight, Cummings and Chervany (1998); Williams (2001) and Buttner and Goritz (2008). Therefore, trustworthiness can be regarded as the characteristics of a message sender that causes other people to view them as worthy of trust (Toma, 2010; Thirunarayan and Anantharam, 2011). These characteristics consist of subjective judgements (Brown, Brodericks and Lee, 2007; Wu and Wang, 2011), so there can often be very different opinions about the trustworthiness of the same person (Golbeck and Hendler, 2006).

2.7.3.3.1. The dimensions of trustworthiness

As discussed, Mayer, Davis and Schoorman (1995) argued that the trustworthiness of a trustee is comprised of three characteristics, ability, benevolence and integrity. These characteristics account for much of the variance in perceived trustworthiness, and predict and individual's intention to trust (Williams, 2001; Colquitt, Scott and LePine, 2007). Ability refers to the skills and proficiencies of an individual (Mayer, Davis and Schoorman, 1995: Fang and Chiu, 2010). This is precise view of ability that encapsulates the knowledge and skills necessary for a specific task (Butler, 1991; Mayer and Gavin, 2005; Colquitt, Scott and LePine, 2007). Mayer, Davis and Schoorman (1995) discussed synonyms used by other theorists to represent the ability construct and acknowledged that competency and perceived expertise were similar to ability in their conceptualisation. Hence in the context of eWOM, ability would relate to the trustee's perceived expertise or competence related to the subject addressed in the message. Most Facebook interaction takes place between friends (Backstrom et al., 2011) so a sender's ability or expertise regarding the content of an eWOM message may be known to recipients. In addition, many Facebook users convey information about themselves and their activities which may include professional or educational experience that may demonstrate ability or expertise that is relevant to the subject of the eWOM message (Amichai-Hamburger and Hayat, 2013).

Benevolence is the degree to which a trustee is believed to feel care and concern for the trustor (Jarvenpaa, Knoll and Leidner, 1998). As discussed earlier, connecting with close friends is a common activity on Facebook (Ellison, Steinfield and Lampe, 2011). Strong feelings of benevolence depend on close enduring relationships

(Riegelsberger, Sasse and McCarthy, 2003). Thus if a close friend sends a message within Facebook, the recipient is likely to believe the sender cares about their interests and will be seen as having benevolence for the message recipient. However, Facebook supports a wide variety of relationships from close friends to relative strangers (Ellison, Steinfield and Lampe, 2011). The average Facebook member has about four percent of connections with complete strangers and about a third with friends of friends or people they met only once (Manago, Taylor and Greenfield, 2012). Facebook provides many ways for all contacts to interact ranging from direct one to one communication such as writing on a friend's wall to broadcasting content to a wide variety of contacts using Facebook status updates (Ellison et al., 2013). These interactions provide an opportunity for the trustor to determine the trustee's benevolence (Mayer, Davis and Schoorman, 1995). Interaction via Facebook has been found to increase the strength and quality of relationships especially regarding acquaintances (Burke and Kraut, 2014; Vitak, 2014). Thus if a Facebook member is frequently posting content to all their contacts then even their acquaintances may feel their relationship is strengthening and therefore develop feelings of benevolence towards the sender.

Integrity refers to the trustor's perception that the trustee is dependable and reliable (Mayer, Davis and Schoorman, 1995; Fang and Chiu, 2010). This judgement is based on a sense of the trustee as fair or possessing sound values (Colquitt, Scott and LePine, 2007). Maintenance of relationships within SNSs allows for an assessment of integrity as people can express their values and their adherence to these values can be witnessed. In extreme cases, a loss of perceived integrity could result in being removed from a friend list.

However, in SNSs the ease of link formation can lead to large networks with diverse relationship strengths where best friends and acquaintances are mixed together (Donath and Boyd, 2004; Xiang, Neville and Rogati, 2010), of which the majority can be classed as weak ties (Walther, 2013). Weak ties are comprised of acquaintances that are characterised by absent or infrequent contact (Granovetter, 1973). Assessments of trustworthiness develop from the social interaction between people (Golbeck and Hendler, 2004; Brown, Brodericks and Lee, 2007), and infrequent or absent contact may negatively impact on perceptions of trustworthiness.

According to Toma (2010) and Cheshire (2011), judgements regarding someone's trustworthiness can be made within a SNS even in the absence of social interaction, based on the static profile information provided. SNSs like Facebook provide a platform where users can present themselves (Anderson et al., 2012). Facebook, users tend to display their actual name on their personal profile (Van Der Heide and Schumaker, 2013). Profile owners also disclose their activities, hobbies and physical identities through photographs. High levels of self-disclosure signals openness on the part of the profile owner which in turn generates more trustworthiness (Toma, 2014). SNS profiles increasingly include multiple channels through which individuals can contribute to and co-construct the profiles of their friends (Ellison and Boyd, 2013; Toma, 2014). Facebook users assign more meaning to profile information generated by friends than by profile owners themselves so even without knowing anything else about a person, Facebook users can gauge trustworthiness from profile activity (Toma, 2014).

2.7.4. Social attractiveness

Source credibility is an important factor in attitude change but another source characteristic, social attractiveness can also induce attitude change. Communicator characteristics such as physical attractiveness, similarity to the message recipient and whether they are likeable influences attitudes (Perloff, 2014).

2.7.4.1. Physical attractiveness

Physically attractive message communicators generate greater influence on attitudes than unattractive communicators (Horai et al., 1974; Benoy Joseph, 1982). To the extent that the receiver finds the source attractive, they will adopt a similar position to the source in terms of attitudes (Belch and Belch, 2006). Attractiveness leads to attitude change via identification (Kelman, 1961). In this method of attitude change the message recipient feels motivated to establish a rewarding relationship to the message sender, either in reality or as part of their desired self-concept (McGuire, 1985). By adopting the position proposed by the source, the message recipient can enhance their self-esteem through their identification with the source, so the factual basis of the position becomes incidental (McGuire, 1985).

2.7.4.2. Similarity

McCracken (1989) and Byrne, Whitehead and Breen (2003) defined similarity as a perceived likeness between the source and receiver of a message. Triandis (1971) maintained that the greater the perceived likeness between a source and message recipient, the greater the influence of the source. McGuire (1985) stated that a

person is influenced by a source they perceive to be like themselves in a variety of traits. Simons, Berkowitz and Moyer (1970) described these traits as being either attitudinal similarity, which encompasses interests, beliefs and feelings, or as membership-group similarity which includes similarity in origin, schooling, economic class and work experiences. A message recipient might infer that what the source is advocating is good for them as well and thus align their attitude correspondingly (Perloff, 2014). When two people are attitudinally similar and have an opportunity to interact, they reward each other because it is generally rewarding to hear another person agree with one's opinions (Triandis, 1971). When a person is rewarded, they seek to interact more frequently with the person with whom they agree to repeat the rewarding experience. As the two discuss matters, they tend to increase their cognitive similarity so that gradually they converge in attitudes even more than they did previously.

2.7.4.3. Likability

Likability is defined as affection for a message source (McCracken, 1989; Byrne, Whitehead and Breen, 2003). Liked communicators are more influential than disliked communicators (Eagly and Chaiken, 1975). Ziegler and Diehl (2001) and O'Keefe (2002) attributed likeability's impact on influence to the heuristic that 'people I like usually have correct opinions'. Likeable people make message recipients feel good and those positive feelings are transferred to the message (Perloff, 2014). The influence of liked communicators over disliked communicators lessens as the relevance of the message to the recipient increases (Chaiken, 1980).

Likability and physical attractiveness are also associated as attractive communicators are consistently liked more than unattractive ones (Benoy Joseph, 1982). Eagly and Chaiken (1975) argued that classical conditioning explains why people are inclined to like physically attractive people. Physically attractive people can elicit a positive emotional response in others and because of the association of the person with their physical attributes, this positive evaluative response becomes conditioned to the attractive person and their attitudinal statements, thus enhancing recipients' agreement with their messages (Eagly and Chaiken, 1975).

Social attractiveness is liable to be salient in a SNS as perceived attractiveness, source similarity and likability may be able to be gauged by message recipients (Perloff, 2014). Facebook members interact with people they already know offline (Ellison, Steinfield and Lampe, 2007). Therefore, similarity is likely to be salient as friend or common interest groups will share common goals and needs. Facebook encourages users to provide profile details and for many users this involves uploading a personal photo or image. Facebook uses the photo or image from a user's profile to accompany their posts so if a photo is available, recipients are likely to make assessments of the sender's physical attractiveness and likeability. However, if an image is used that does not feature the sender's likeness then assessments of physical attractiveness and likeability may not be able to be made.

2.8. Interpersonal factors

2.8.1. Tie strength

Interpersonal communication and social influence is not just about content but is also about the relationship between the communicators (Koerner, 2011). Social networks whether real or virtual, are collections of human communities (Petroczi, Nepusz and Bazso, 2007). Consumers can communicate with a variety of different audiences within a social network from close friends to acquaintances (Berger, 2014). Social networks are comprised of nodes (or network members) that are connected by friendships and the flow of information and influence (Marin and Wellman, 2009). Relationships between the nodes are referred to as ties (Haythornthwaite, 2002; Tuten and Solomon, 2015). Granovetter (1973, p.1361) identified the concept of tie strength and defined the strength of a tie as:

"a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie."

WOM sources can be characterised according the strength of the tie between them and the message recipient (Brown and Reingen, 1987). Individuals sustain a range of ties that are socially diverse, spatially dispersed and with a range of strengths (Wellman and Wortley, 1990; Haythornthwaite, 2002; Gilbert and Karahalios, 2009; Wuchty, 2009), and in the context of WOM, which is a social behaviour, an individual will communicate with people with varying degrees of tie strength (Wirtz and Chew, 2002). Granovetter (1973) recognised two types of tie, strong and weak. Strong ties

are those people who are close friends and relatives, with whom relationships can be costly to maintain and involve larger time commitments and effort between the two parties. In a similar vein, Gilbert and Karahalios (2009) stated that strong ties are the people you really trust and who mix in social circles similar to your own. Weak ties are comprised of loose acquaintances that are characterised by absent or infrequent contact that can be less costly to maintain (Granovetter, 1973). So a best friend whom you are connected to on Facebook would be considered a strong tie whilst a friend of a friend or someone you met once would be considered a weak tie. The strength of a tie is determined by looking at the frequency of contact between the ties, the length of the relationship, the intimacy of the tie, and the mutual support (Granovetter, 1973; Hansen, 1999; Haythornthwaite, 2002; Donath and Boyd, 2004). Marsden and Campbell (1984) investigated measurement of tie strength and concluded that closeness (or the emotional intensity of a relationship) was the best indicator of the concept of tie strength. Mathews et al., (1988) repeated Marsden and Campbell's study (1984) and reported intimacy (or the mutual confiding in a relationship) to be the strongest indicator of tie strength.

2.8.2. The benefits of strong and weak ties

Information from strong ties is perceived as more influential by recipients than information from weak ties (Weimann, 1983; Brown and Reingen, 1987). This view was later confirmed by Weenig and Midden (1991), who discussed how strong ties are highly trustworthy sources of information and therefore have high potential for influence. Due to the level of mutual confiding between strongly tied individuals there is likely to be an understanding about what types of products would suit the other

tie's requirements. This leads to WOM between strong ties that is aligned with the message recipient's desires and needs (Duhan et al., 1997; Steffes and Burgee, 2009). Strong ties positively influence a message receiver's attitudes and purchase decisions (Weenig and Midden, 1991; Bansal and Voyer, 2000). However, strong ties are usually located at the interior of groups and will therefore lead to diffusion of information to a more limited number of people (Granovetter, 1973). Granovetter (1973) argued that weak ties serve important bridging functions that allow information to travel from one densely knitted social group to another and are therefore important for the diffusion of new information across the network. This view was later confirmed by Weimann (1983), Brown and Reingen (1987) and by Stevenson and Gilly (1991) who argued that tie strength affects the transmission of information, with weak ties playing a critical role in information flow across groups. Weak ties are generally less effective than strong ties in enabling information flow across groups but since people usually sustain more weak than strong tie relationships, they are more numerous than strong ties and it is their numbers that aids their effectiveness (Friedkin, 1982: Duhan et al., 1997). Weak ties provide people with access to new information from outside of their own tightly knit social circle (Granovetter, 1983; Gilbert and Karahalios, 2009; Gilbert, 2012). Therefore, individuals are more likely to receive novel information from weak tie sources (Duhan et al., 1997; Levin and Cross, 2004; McFayden and Cannella, 2004), making weak ties a more important source of novel information than strong ties (Constant, Sproull and Kiesler, 1996).

2.8.3. The impact of tie strength on WOM

Individuals participate in more WOM with strong ties than with weak ties (Wirtz and Chew, 2002; Chung and Qianyi, 2009; Van Hoye and Lievens, 2009). People are more likely to actively look for information from strong ties due to the high credibility assigned to the message sender (Bansal and Voyer, 2000; Sun et al., 2006). Strong tie sources are also sought when people feel overwhelmed by the decision task due to the number of product alternatives and attributes on which the decision is based since people tend to ask sources in whom they have greater confidence (Duhan et al., 1997). Individuals seek weak tie opinions when they feel they possess sufficient technical knowledge and experience regarding a product to make informed decisions themselves (Duhan et al., 1997). Strong tie WOM information influences a receiver's purchase decision (Bansal and Voyer, 2000; Sun et al., 2006). This is due to the quality of the relationship between the WOM sender and recipient (Weenig and Midden, 1991), whereas WOM from weak ties, where the quality of the relationship is lower, leads to less influential WOM (Brown and Reingen, 1987).

2.8.4. Homophily

Homophily is the tendency of individuals to associate with others who share similar characteristics such as age, gender, education, values, attitudes, and beliefs (Rogers, 1983; McPherson, Smith-Lovin and Cook, 2001). People interact more with those that are similar to them than those who are dissimilar (McPherson, Smith-Lovin and Cook, 2001). Homophily is strongly present in offline social networks (McPherson, Smith-Lovin and Cook, 2001) leading to an increased likelihood of relationships and trust between individuals (Ruef et al., 2003). Homophilic sources

have been shown to influence decision making within WOM communication (Brown and Reingen, 1987; Gilly et al., 1998; Sweeney, Soutar and Mazzarol, 2008; Steffes and Burgee, 2009).

For most users, Facebook supports offline social relationships (Boyd and Ellison, 2007) so homophily has been found to exist within groups in SNSs (Thelwall, 2009). Homophily increases with tie strength, so strong ties tend to be more similar to each other (Granovetter, 1973). Whilst strong ties exhibit high similarity, the more numerous weak ties exhibit greater heterophily (Hristova, Musolesi and Mascolo, about a product to which the message pertains (Kiecker and Cowles, 2002; Park and Lee, 2008; Lee and Youn, 2009). eWOM has also become a major factor in influencing purchase behaviour (Mangold and Faulds, 2009).

2.9. How attitudes affect behaviour

2.9.1. Introduction

Attitudes are linked to an expression or response and guide peoples' choices and decisions for action (Taylor, 2007; Hogg and Vaughan, 2011). People who hold positive attitudes tend to behave in a way that supports the attitude object and people who hold negative attitudes tend to behave in a way that opposes the attitude object (Eagly and Chaiken, 1993). Intention to behave in a certain way refers to a person's motivation to carry out a behaviour (Ajzen, 1991; Eagly and Chaiken, 1993; O'Keefe, 2002). Influencing behaviour is achieved through influencing a person's intentions (O'Keefe, 2002) and a distinction is made between behaviour and behavioural intentions because it is not possible to predict with certainty what people will do

(Taylor, 2007). Intentions and behaviour may differ because people do not want to perform the intended behaviour or because they forget to perform it (Maio and Haddock, 2009). The longer the time interval between intention and behaviour, the greater the likelihood that people will change their intention due to unexpected events (Ajzen, 1988; East, Wright and Vanhuele, 2013). Attitudes also generally influence behaviour if they are accessible (Kallgren and Wood, 1986). Accessibility refers to the ease with which a given attitude comes to mind (Young and Fazio, 2013). When people have a highly accessible attitude, it guides their perceptions of the attitude object and prompts a behavioural response (Maio and Haddock, 2012; Perloff, 2014). Attitudes that people perceive as important predict their behaviour and highly accessible attitudes are seen as being of importance (Roese and Olson, 1994; Fiske and Taylor, 2013).

2.9.2. Multi-attribute models of attitudes

Ajzen (1988) argued that people form beliefs about an attitude object by associating it with characteristics that are valued positively or negatively. Thus people form favourable attitudes to objects they believe have mainly desirable characteristics and negative attitudes to those associated with mainly undesirable characteristics. The expectancy-value model provides an explanation of the link between attitudes and the beliefs regarding an attitude object (Eagly and Chaiken, 1993). The expectancy-value model proposes that attitudes are comprised of cognition and affect. Thus an attitude is a combination of the beliefs that an attitude object has certain characteristics and the evaluation of the importance of these characteristics (Perloff, 2014). Beliefs are the information the consumer holds regarding the characteristics or

attributes of the object (Petty and Cacioppo, 1981) whilst evaluation refers to the process of judging the consequences of the beliefs (O'Keefe, 2002). This summative conception of attitude is embedded in the theory of reasoned action and the theory of planned behaviour (O'Keefe, 2002).

2.9.2.1. The theory of reasoned action

According to Ajzen and Fishbein (1980), the theory of reasoned action was designed to explain virtually any human behaviour and to predict deliberative and reasoned volitional behaviour from attitude (O'Keefe, 2002; Maio and Haddock, 2009). Central to this model was the idea that people act in logical ways and think their decisions through (Ajzen, 1988). According to the theory of reasoned action (a diagram of the theory can be seen below in Figure 3), intentions are determined by two factors, one attitudinal and the other via social influence. The attitudinal element is the individual's attitude towards the act itself which is a function of behavioural beliefs and outcome evaluations (Ajzen and Fishbein; 1980; Eagly and Chaiken, 1993). A behavioural belief refers to beliefs about the behaviour (Blythe, 2013; Perloff, 2014). Outcome evaluations concern outcomes or perceived consequences of the behaviour (Eagly and Chaiken, 1993; O'Keefe, 2002). An individual will hold a favourable attitude toward performing a behaviour if they expect that the behaviour will have a desired consequence (Ajzen and Fishbein, 1980).

The second factor of intention is a person's perceptions of how significant others view the behaviour and is termed subjective norm (Webb and Sheeran, 2006). Subjective norm represents an individual's perception of what significant others think the individual should do regarding the behaviour (Cooke and Sheeran, 2004). The

subjective norm is also based on the individual's motivation to comply with the behaviour or norms of the others (O'Keefe, 2002; Evans, Jamal and Foxall, 2009). Therefore the subjective norm is a function of an individual's beliefs about whether significant others think they should perform the behaviour, and the individual's motivation to comply with those significant others (Becker, Randall and Riegel, 1995; O'Keefe, 2002).

Figure 3. The theory of reasoned action (Ajzen, 1988).
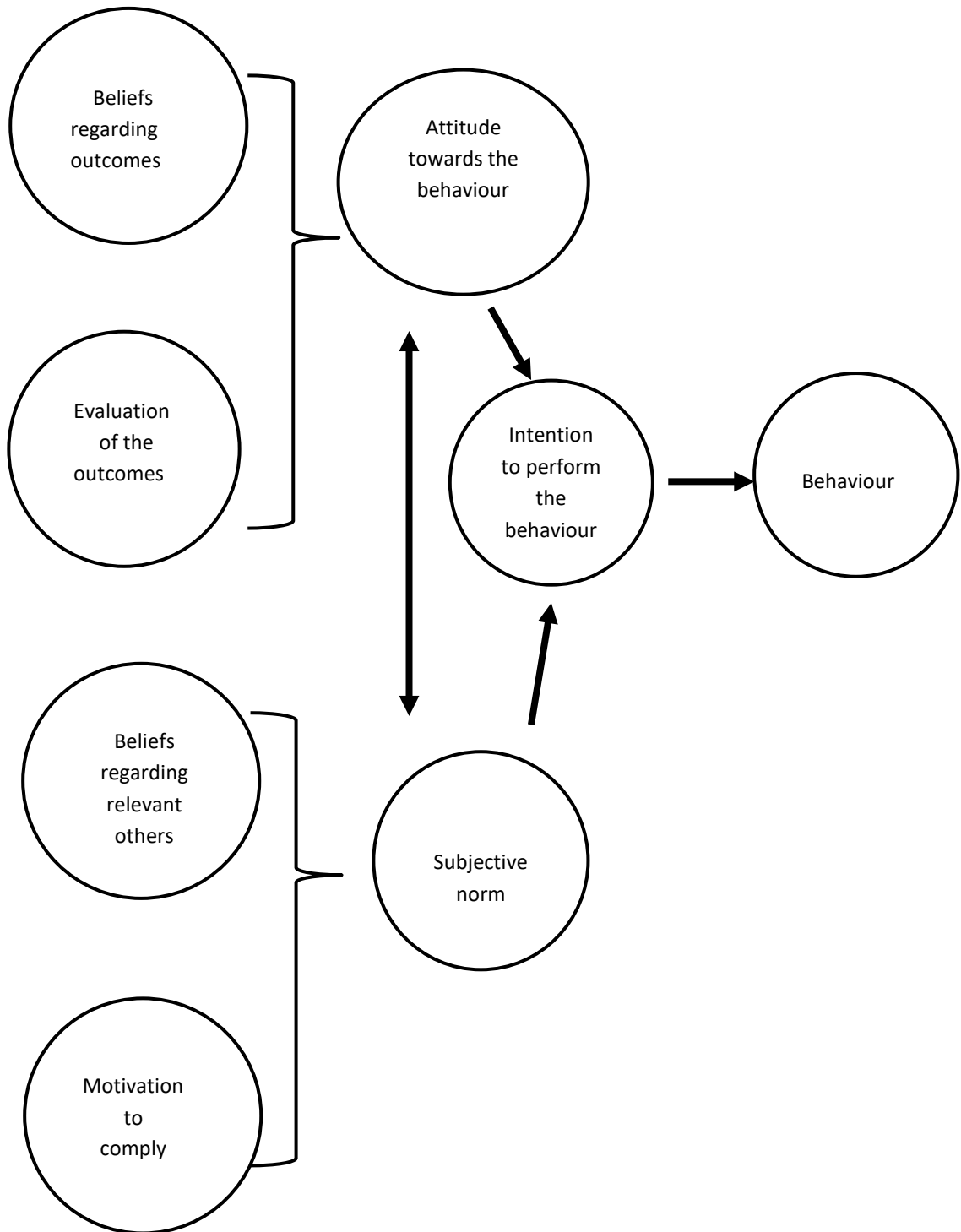
Ajzen (1988) argued that for some intentions, attitudinal factors are more important than normative ones and vice versa. However, he was also of the opinion that frequently both factors are important but the relative weights of both factors may vary from person to person. Individuals will weigh the relative importance of the attitudinal and the normative factors to form an intention of how to behave (Blythe, 2013). The relative strengths of the attitudinal and normative factors can be measured using semantic differential scales and calculated using the algebraic formula for the TRA (O'Keefe, 2002; East, Wright and Vanhuele, 2013).

Ajzen and Fishbein (1980) acknowledged that personality characteristics and demographic factors were related to behaviour, but rather saw them as external variables not considered by the theory that may influence beliefs or perceptions of social norms. Despite this, Eagly and Chaiken (1993) argued that the theory of reasoned action provides a useful model to explain how attitudes predict behaviour.

2.9.2.2. The theory of planned behaviour

The theory of reasoned action was based on volitional behaviour. Ajzen (1991) later developed the theory of planned behaviour to improve the model to predict behaviour over which people do not have complete control (Notani, 1998; Taylor, 2007; Ajzen, 2011). A diagram of the model can be seen below in Figure 4. The theory of planned behaviour proposes that behaviour is a function of beliefs associated with the behaviour (Azjen, 1991). The theory again determined that the central factor of a given behaviour is the individual's intention to perform the behaviour (Kidwell and Jewell, 2003). However the idea was introduced that behaviour is also determined by the individual's belief they can carry out the behaviour, represented by the concept of

perceived control (Maio and Haddock, 2009; Kim and Chung, 2011). Intention alone is not sufficient to carry out behaviours as people need to also have the ability to carry it out (Notani, 1998). Perceived behavioural control refers to the person's perception of their ability to perform the behaviour including whether they possess the opportunities or necessary resources (Connor and Armitage, 1998; O'Keefe, 2002; Maio and Haddock, 2009). The theory of planned behaviour proposes that behavioural control influences behaviour in two ways, indirectly from intentions and directly from perceived control (Ajzen 1998). The single perceived behavioural control construct has been adapted into two elements, internal and external control (Connor and Armitage, 1998; Kidwell and Jewell, 2003). A behaviour may be internally controllable when an individual perceives that they possess sufficient willpower and self-control over their personal resources and skills necessary to perform the behaviour (Notani, 1998; Armitage et al., 1999). A behaviour may be externally controllable when an individual perceives it is easy to perform since it is free from external variables that can hinder performance of the behaviour (Kidwell and Jewell, 2003; East, Wright and Vanhuele, 2013). Hindrances can include the necessary cooperation of others in performing the behaviour or the lack of sufficient time to perform the behaviour (Notani, 1998). Therefore according to the theory of planned behaviour, intentions are determined by attitudes, subjective norms and perceived behavioural control (Ajzen, 2001; Cooke and Sheeran, 2004; Crano and Prislin, 2006).

The theory of planned behaviour includes a second direct effect of perceived behavioural control on behaviour (East, Wright and Vanhuele, 2013). In Figure 4 (shown below), this is illustrated by the dotted arrow between perceived behavioural

control and behaviour represents the direct influence of the former on the latter. In many instances the performance of a behaviour depends on actual control over the behaviour in question; that is whether the behaviour in reality can be performed (Eagly and Chaiken, 1993; Notani, 1998). So for example, an individual may believe they have the financial resources to purchase a product but the reality is that they do not. However, people are expected to carry out their intentions when necessary opportunities and resources are available (Hsu and Chiu, 2004).

Figure 4. The theory of planned behaviour (Ajzen, 1988).
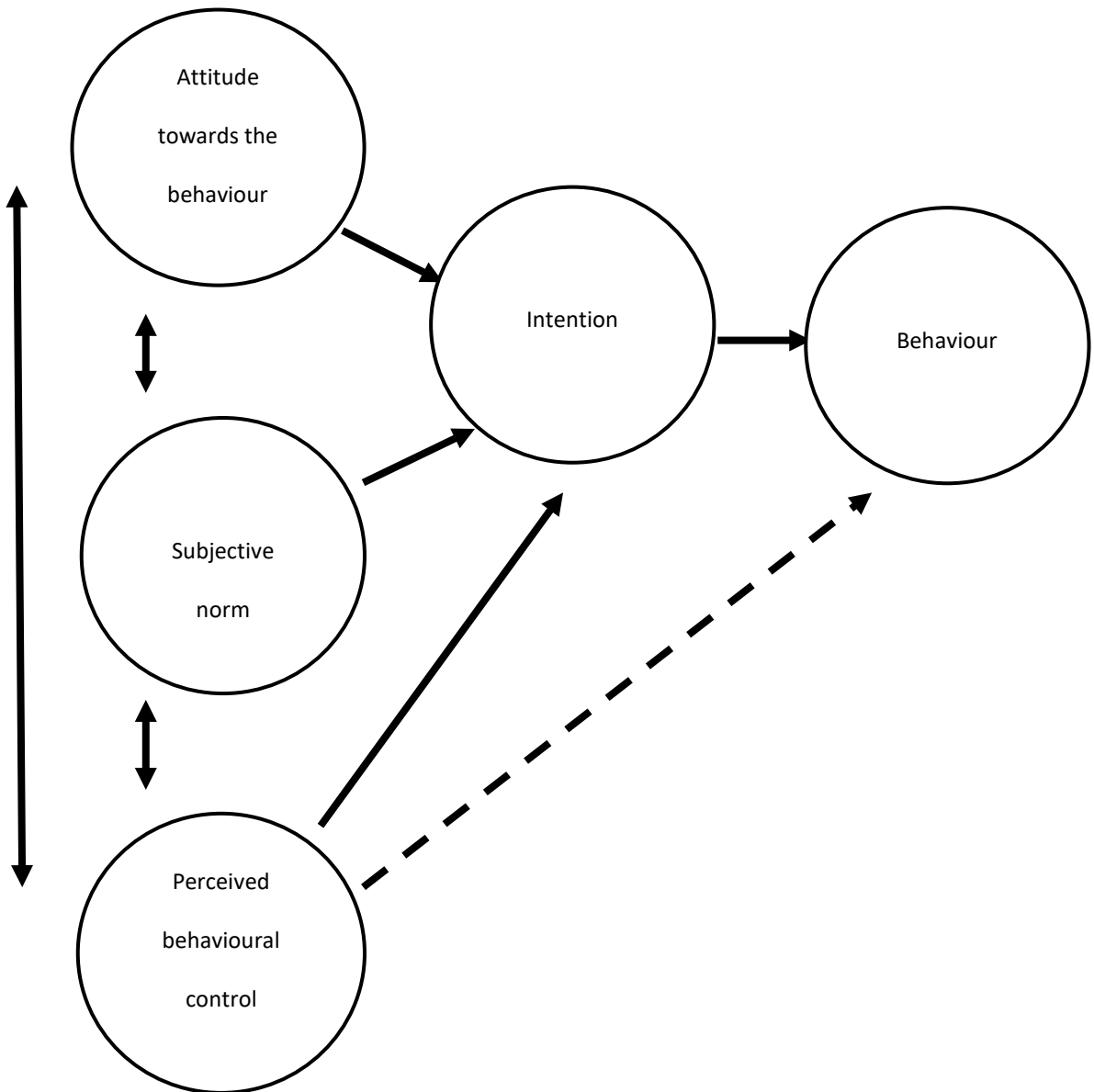
2.10. Hypotheses development

It has been established that due to technological advancements such as social media, eWOM has taken on greater significance. Consumers are increasingly turning to friends or acquaintances for advice on a wide variety of products. This product related communication can either be positive or negative towards the product but is seen as more credible and helpful by recipients than marketer initiated communication. This has lessened the impact of traditional marketing communications and given the voice of the consumer greater impact than ever before. This interpersonal communication has a powerful influence on consumer attitudes and purchase decisions. The literature has identified many factors that can impact on the influence of an eWOM message. This study will focus on argument strength, source expertise and tie strength. The conceptual framework is shown below in Figure 5.

Figure 5. The conceptual framework.

Perceived expertise of message source

H2b

H2a

H3a

Message recipient's attitude towards the product

H3b

Perceived strength of the message argument

H1a

H1b

H5a

H5b

Message recipient's intention to purchase the product

Strength of the tie between message sender and recipient

H4a

H4b
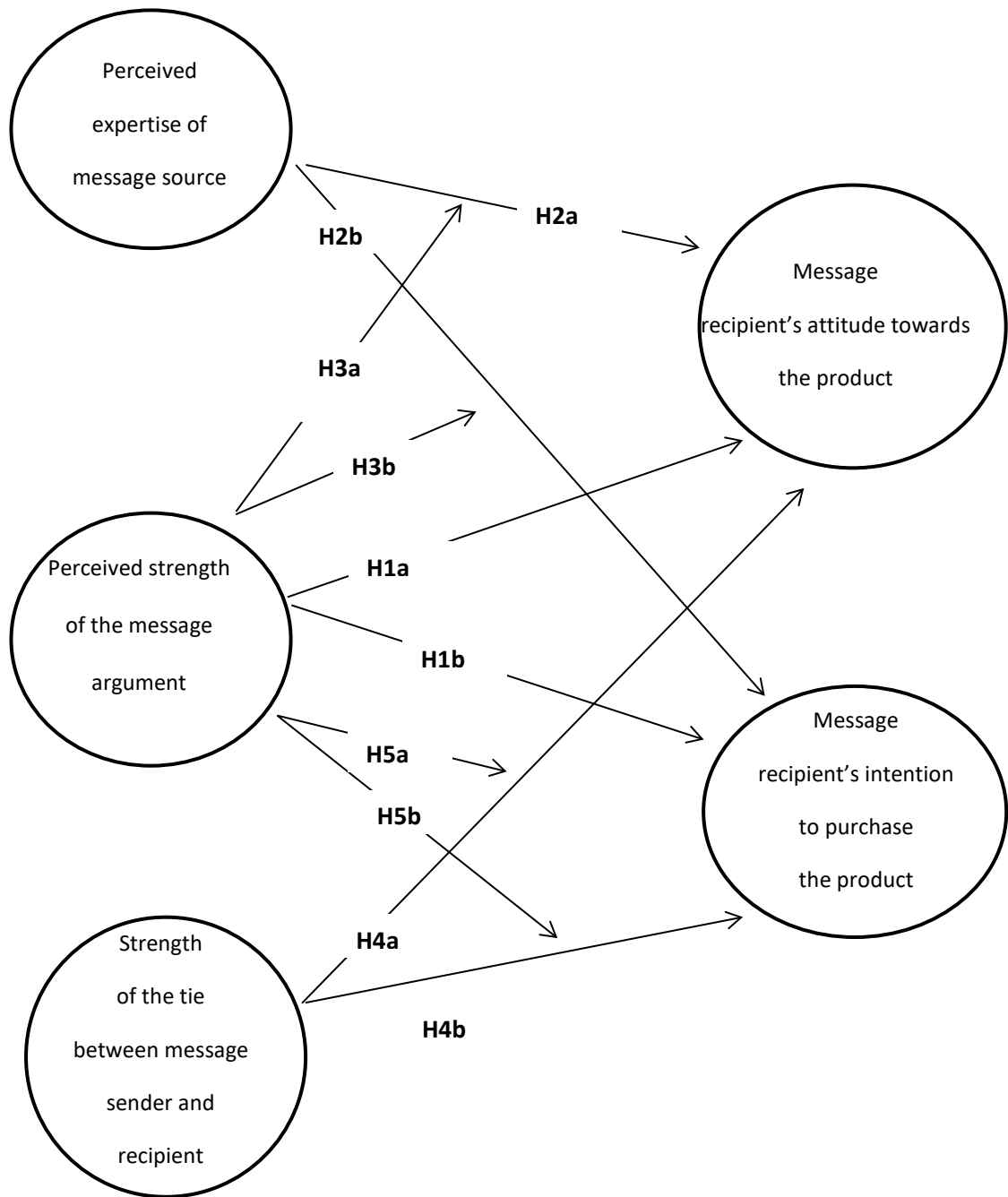
2.10.1. Argument strength

This research aims to consider the influence mechanism of eWOM in the Facebook News Feed through the theoretical lens of the ELM, which integrates source, message and recipient effects (Petty and Cacioppo, 1986). According the ELM, when a message seems personally relevant, people invest the cognitive effort to examine it (Petty, Cacioppo and Goldman, 1981). When a recipient cognitively elaborates on a message, argument strength (the central route) is the critical determinant of informational influence. Argument strength has been shown to influence purchase intention in online reviews (Park, Lee and Han, 2007; Zhang et al., 2014), information adoption in online customer communities (Cheung, Lee and Rabjohn, 2008) and brand attitudes in blogs (Chu and Kamal, 2013). Perceived argument strength is expected to be salient in eWOM in Facebook as it takes place in an asynchronous online environment (Lin, Lu and Wu, 2012). Asynchronous eWOM communication allows the message sender time to carefully compose, reflect on and even edit the message before it is posted (Walther, 2007; Das and Kramer, 2013; Berger, 2014). Strong arguments are composed of very supportive arguments that use facts and figures and reference credible sources whereas weak arguments are composed of non-supportive arguments involving personal opinion and references to less credible sources (Johnson, 1991; Rains, 2007). More time and effort in creating eWOM should allow for more persuasive arguments (Berger, 2014). Therefore, it was considered necessary to provide argument strength as a treatment variable that could be manipulated as part of Study 1. Consequently, it is hypothesised that:

H1a: The greater the perceived argument strength of the message, the more favourable the message recipient's attitude towards the product

H1b: The greater the perceived argument strength of the message, the greater the message recipient's intention to purchase the product

2.10.2. Source expertise

When a recipient is unable or unwilling to elaborate on a message, peripheral cues such as source attractiveness, likeability and source credibility exert influence (Petty, 1986; Eagly and Chaiken, 1993; Sussman and Siegal, 2003; Li and Zhan, 2011). Consideration was given to whether perceived source attractiveness and likability are liable to be salient in the Facebook News Feed. It is acknowledged that not all Facebook users post a picture of themselves on their profile, with some opting to use the default profile picture or symbols or animals (Segalin et al., 2017). Therefore, the attractiveness of the message sender may not be apparent to all message recipients. Based on this, source attractiveness was not chosen as a treatment variable as part of Study 1. Likability is defined as affection for a message source (McCracken, 1989; Byrne, Whitehead and Breen, 2003). Likeability occurs as a result of affection for a source due to their physical appearance (McCracken, 1989; Byrne, Whitehead and Breen, 2003). Due to Facebook profiles sometimes containing little or no indication of the sender's physical appearance (Segalin et al., 2017), source likeability was not chosen as a treatment variable as part of Study 1.

The perceived credibility of a communicator enhances the persuasiveness of eWOM (Berger, 2014) with high credibility sources positively impacting on attitude towards a brand and purchase intention (Wu and Wang, 2011). There are two dimensions to source credibility; source expertise and source trustworthiness (Roobina, 1990; Yoon, Kim and Kim, 1998; Belch and Belch, 2001; O'Keefe, 2002). Source expertise

can be gained through direct experience with a product and the greater the experience consumers are known to have with a product the more convincing their WOM (Mackiewicz, 2010; Moran and Muzellec, 2014). As this study intended to investigate eWOM regarding a product, source expertise was likely to be an important variable in the influence mechanism of the eWOM. Furthermore, the study intended to feature PWOM which involves consumers telling others about particularly pleasing consumption to demonstrate their expertise (Hennig-Thurau et al., 2004) and to help other consumers make product decisions (Sundaram, Mitra and Webster, 1998). This also led the researcher to conclude that source expertise was likely to be an important variable in the influence mechanism of the eWOM. Consideration was also given to whether perceived source expertise is likely to be salient in the Facebook News Feed. Within Facebook, it is likely that message senders will be known to some degree to the recipient since the majority of Facebook users are usually using it to maintain offline social relationships (Ellison, Steinfield and Lampe, 2011). Most major SNSs, including Facebook, also employ a 'Real Name Policy', which removes user anonymity by linking verifiable names to user accounts (Moran and Muzellec, 2014). Many Facebook users expose different parts of themselves and their activities (Amichai-Hamburger and Hayat, 2013). Therefore, a Facebook user's profile may contain educational, occupational, training or experience information that indicates they are in a position to have sufficient expertise regarding the subject of the message. Furthermore, the 'friending' procedure in Facebook encourages contacts to go through each other's profiles, which may increase knowledge of their relevant expertise (Chu and Kim, 2011). Therefore, it was considered necessary to

include source expertise as a treatment variable that could be manipulated as part of Study 1. Consequently, it is hypothesised that:

H2a: The greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product

H2b: The greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product

As discussed, the ELM of attitude change states that when a message recipient is unable or unwilling to elaborate on a message, peripheral cues such as source expertise exert influence (Petty, 1986; Eagly and Chaiken, 1993). At higher levels of motivation, people still use peripheral cues but also cognitively elaborate on the message (Petty, 1986; Bohner, Ruder and Erb, 2002). People expect a message to contain more valid arguments when presented by an expert as opposed to non-expert sources (Chaiken and Maheswaran, 1994; Clark et al., 2012). This primed expectancy heuristic can bias cognitive responses in a positive manner leading to an assimilation effect in attitude formation or serve as a point of reference for message recipients leading to the generation of negative responses and contrast effects in attitude formation (Bohner, Ruder and Erb, 2002). Thus if a message is delivered by an expert, but contains a weak argument, the positive expectancies of the receiver are contradicted leading to a negative processing bias and a more negative judgement about the communicator's position (Bohner, Moskowitz and Chaiken, 1995; Bohner, Ruder and Erb, 2002). However, a strong argument delivered by a non-expert will contradict the receiver's negative expectancy leading to a positive

processing bias and a more positive judgement regarding the communicator's position (Bohner, Ruder and Erb, 2002). Therefore it is hypothesised that:

H3a: Argument strength moderates the impact of source expertise on the message recipient's attitude towards the product

H3b: Argument strength moderates the impact of source expertise on the message recipient's intention to purchase the product

2.10.3. Tie strength

As discussed earlier, there are two dimensions to source credibility; source expertise and source trustworthiness (Roobina, 1990; Yoon, Kim and Kim, 1998; Belch and Belch, 2001; O'Keefe, 2002). Mayer, Davis and Schoorman, (1995) stated that source trustworthiness is comprised of three characteristics, ability, benevolence and integrity. Ability refers to the competency and perceived expertise of an individual (Mayer, Davis and Schoorman, 1995: Fang and Chiu, 2010). Benevolence is the degree to which a trustee is believed to feel care and concern for the trustor (Jarvenpaa, Knoll and Leidner, 1998). Integrity refers to the trustor's perception that the trustee is dependable and reliable (Mayer, Davis and Schoorman, 1995).

Moran and Muzellec, (2014) argued that in the context of eWOM in SNSs, source credibility is determined by the relationship between the eWOM sender and its recipient. Relationships between friends and acquaintances can be characterised according the strength of the tie between them (Granovetter, 1973). SNSs start from a base of friendships or acquaintances acquired offline (Ellison, Steinfield and Lampe, 2007; Padua, 2012). Therefore, tie strength remains an important concept

online (Haythornthwaite, 2002; Grabowicz et al., 2012). Tie strength has been used in previous studies to characterise the relationship between senders and receivers of eWOM (Steffes and Burgee, 2009; Chu and Kim, 2011; Chang, Chen and Tan, 2012; Wang and Chang, 2013).

Consideration was given by the researcher whether to include source trustworthiness or tie strength as a treatment variable in Study 1. As discussed earlier, it was considered necessary to include source expertise as a treatment variable that could be manipulated as part of Study 1. This is similar to the ability characteristic of source trustworthiness. Strong feelings of benevolence are usually limited to strong ties Riegelsberger, Sasse and McCarthy, 2003; Levin and Cross, 2004; Grabner-Krauter and Bitter, 2015). Strong ties are characterised by frequent contact between the ties whether offline or online (Grabner-Krauter and Bitter, 2015) which allows for an assessment of integrity as people can express their values and their adherence to these values can be witnessed (Fang and Chiu, 2010).

SNSs enable the continuation of existing ties and the formation of new ties as they make it much easier to form and maintain some kind of connection with other people (Donath and Boyd, 2004; Ellison, Steinfield and Lampe, 2007). Indeed, social interaction and connection is the objective of SNSs (Cheung, Chiu and Lee, 2011) and people maintain ties with a large number of people (Donath and Boyd, 2004). In the context of Facebook, the average user has 338 friend connections and 15% have over 500 (Smith, 2014). The low cost of link formation in Facebook can lead to personal networks with diverse relationship strengths where best friends and acquaintances are mixed together (Xiang, Neville and Rogati, 2010; Walther, 2013). Thus users can chose to interact with ties of differing strengths (Grabowicz et al.,

2012). Facebook users tend to have met the vast majority of their friends in some offline context, but many of these people are no longer close to them or in frequent contact and as a result may be considered to reflect the properties of weak ties (Walther, 2013). Users of SNSs can increase the number weak ties they can acquire and maintain because the technology makes the process easy and cheap (Chu and Kim, 2001; Haythornthwaite, 2002; Donath and Boyd, 2004). Consequently, the decision was made to include tie strength as a treatment variable in Study 1 and not source trustworthiness.

Therefore, it is hypothesised that:

H4a: The stronger the tie between the message sender and recipient, the more favourable the message recipient's attitude towards the product

H4b: The stronger the tie between the message sender and recipient, the greater the message recipient's intention to purchase the product

People tend to trust others with whom they are strongly tied (Jun, Cha and Aggarwal, 2011). Strong ties are close friends and relatives and are highly trusted (Jun, Cha and Aggarwal, 2011). Trust is more likely to emerge among strong ties due to greater emotional bonds, better knowledge and understanding (Levin, Cross and Abrams, 2002). Trust is only needed in situations involving uncertainty (Lewis and Weigert, 1985; Mayer, Davis and Schoorman, 1995). A weak argument that lacks clear and logical evidence will cause the recipient uncertainty and thus the need to depend on strong ties (Chu and Kamal, 2008; Jun, Cha and Aggarwal, 2011). eWOM containing a strong argument will present evidence that is clear and logical (Petty and Cacioppo,

1984; Perloff, 2014). Argument strength has been found to have a positive effect on trust in the message sender (Yi et al., 2013). Thus the receiver of an eWOM message is only likely to need to trust the sender of a message when the message contains a weak argument. When the message contains a strong argument the role of tie strength is diminished. Therefore, it is hypothesised that:

H5a: Argument strength moderates the impact of tie strength on the message recipient's attitude towards the product

H5b: Argument strength moderates the impact of tie strength on the message recipient's intention to purchase the product

3. Methodology

3.1. Overview

A mixed method research strategy was adopted as the research used both a quantitative and a qualitative approach (Creswell and Plano Clark, 2011). The research design evolved as the research project progressed (Gorard, 2010), and is best described as an explanatory sequential design (Ivankova, Creswell and Stick, 2006; Creswell and Plano Clark, 2011). In the traditional classification of an explanatory, sequential design the collection and analysis of the quantitative data has the priority for answering the research question whilst the second qualitative phase helps the researcher interpret the initial quantitative results by exploring the participants' views in more depth and providing a contextual understanding (Tashakkori and Teddlie, 1998; Creswell and Plano Clark, 2011; Bryman, 2012; Miles, Huberman and Saldana, 2014). More complex designs with multiple phases can also be employed with priority given to one phase over the others or a more equal weighting given to each of the phases (Morgan 1998; Cresswell, 2009). In this research project, priority was given to the two quantitative phases of the research over the single qualitative phase. This was due to the fact that the two quantitative phases constituted the principal aspects of the mixed-methods data collection process and were most important to the project's goal of considering the influence mechanism of eWOM in the Facebook News Feed through the theoretical lens of the ELM. The quantitative data would help to explain and identify the relationships between the independent and dependent variables featured in the research project (Watkins and Gioia, 2015). The qualitative phase constituted a complementary data

collection process that added to the research design's overall ability to meet the project's goals (Morgan, 1998; Ivankova, Creswell and Stick, 2006). Study 1 employed an experimental design with a questionnaire, followed by Study 2 which employed a cross-sectional design with semi-structured interviews. Study 3 replicated Study 1 but with a few modifications, so also employed an experimental design with a questionnaire.

Mixed method research can provide evidence of relationships between variables but also an explanation of the process underlying causality (Sayer, 1992; Maxwell, 2012; Bazeley, 2018). The aim of mixed methods research is not to replace either the quantitative or the qualitative approach but to use the strengths of both whilst minimising their weaknesses across a research study (Johnson and Onwuegbuzie, 2004). Mixed methods research is typically linked with pragmatism which offers an alternative philosophical position to those most usually associated with quantitative or qualitative approaches (Felizer, 2010; Morgan, 2014). Pragmatism adopts an ontological position of multiple realism which acknowledges the realities associated with qualitative and quantitative approaches but attempts to connect the subjective and objective realities of the human world into a multiple reality (Johnson and Gray, 2010; Creswell and Plano Clark, 2011). Pragmatism accepts philosophically that there are singular and multiple realities open to research and that no single point of view will provide a complete picture (Saunders, Lewis and Thornhill, 2012). Pragmatism also adopts an epistemological stance that the forced dichotomy of positivism and interpretivism should be abandoned and researchers should collect data using appropriate methods for the objective of the research and in order to answer the research question (Creswell and Plano Clark, 2011; Punch, 2014).

Researchers do not have to be constrained in their use of research methods by adherence to epistemological and ontological commitments because the connections between epistemological and ontological commitments and research methods are not deterministic (Johnson and Onwuegbuzie, 2004; Biesta, 2010; Felizer, 2010; Bryman, 2016). Pragmatism focuses on the primary importance of the research question and on choosing the best tools for answering it rather than the methods employed (Biesta, 2010; Tashakkori and Teddlie, 2010; Creswell and Plano Clark, 2011). A diagram of the evolution of the research is shown below in Figure 6.

Figure 6. The evolution of the research.

Study 1: quantitative strategy
Research instrument design:
experiment and questionnaire
design

Study 1: pilot test A and revision

Study 1: pilot test B and revision

Study 1

Adoption of a mixed method
strategy
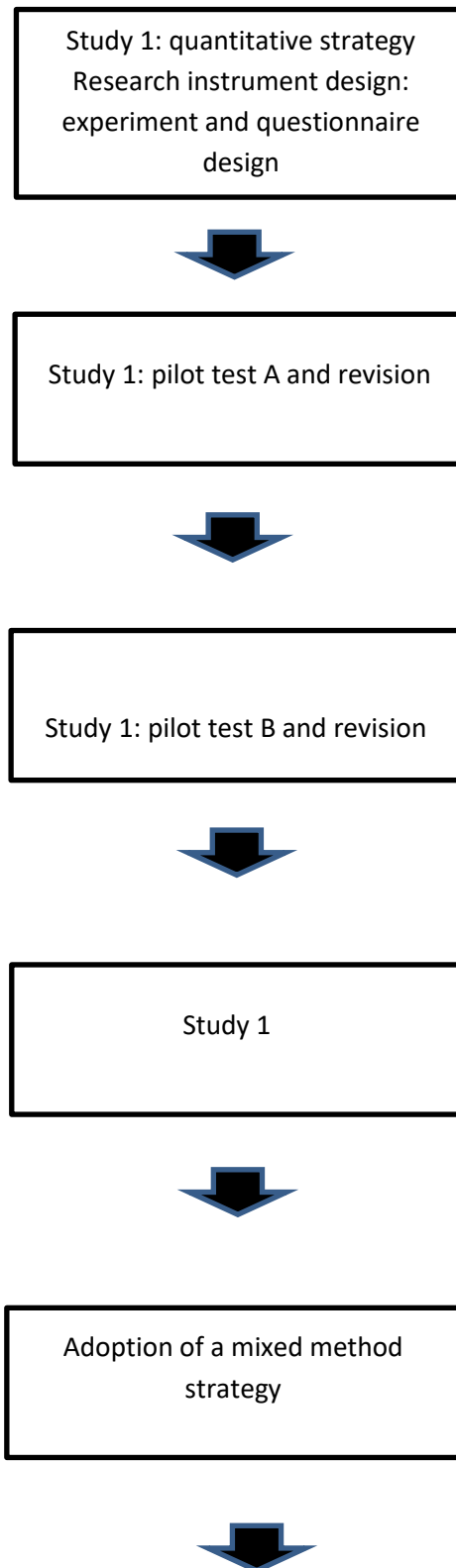
Study 2: qualitative strategy
Research instrument design:
interview schedule design

Study 2:
Administration of the interviews

Study 3: quantitative strategy
Research instrument design:
experiment and questionnaire
design

Study 3: pilot test A and revision

Study 3: pilot test B

Study 3

3.2. Study 1: experiment and questionnaire design

3.2.1. Experimental design

An experimental design was used in Study 1 to explain behaviour and develop causal explanations. It allowed the researcher to examine the relationships between the variables especially regarding causality (Bryman, 2012). A classic experimental design focuses on two variables, the independent and the dependent variable. In the classic experimental design participants are randomly allocated to a group, all participants are then tested on the dependent variable, the treatment or intervention is applied to one group and both groups are then tested on the dependent variable again (Crano, Brewer and Lac, 2015). The requirements of random allocation are that assignment to treatment or control groups is purely by chance (Crano, Brewer and Lac, 2015). Any differences between groups should be random thus producing groups with comparable profiles on both known and unknown factors (De Vaus, 2001). Threats to internal validity are reduced so differences in the dependent variable between the two groups can be attributed to the treatment (Saunders, Lewis and Thornhill, 2012). If the groups are large enough, random allocation allows for the pre-test measurement stage to be removed leading to what is known as a post-test only control group design (De Vaus, 2001; Crano, Brewer and Lac, 2015). Study 1 used a post-test design as the researcher intended that the pool of participants would be large enough to assign at least 25 individuals per experimental condition in order to achieve equivalence of the groups (Crano, Brewer and Lac, 2015; Robson and McCartan, 2016). Pre-testing participants prior to interventions can cause problems of pre-test sensitisation where participants become sensitised to the experimental

intervention (Bryman, 2016). Measurement errors are propagated by statistical calculations so the simpler post-test only design should be preferred to the pre- and post-test design to lessen the magnitude of error (Gorard, 2013).

This experimental design can be added to by including more than two groups for the independent variable or including more than one independent variable (De Vaus, 2001). Multiple groups are used in situations where independent variables have more than two categories whilst factorial experimental designs are used to evaluate the effects of more than one independent variable (De Vaus, 2001). Study 1 intended to employ only two categories for the independent variables in order to keep the number of conditions manageable and to limit the number of participants required to populate the conditions to a feasible level (Coolican, 2014). Study 1 investigated the impact of tie strength, source expertise and argument strength on the persuasiveness of an eWOM message. Therefore there were three independent variables. Carrying out three separate post-test only control group experiments for each independent variable would have been time consuming and would not allow the researcher to see how the independent variables might combine together (De Vaus, 2001). Therefore a 2 (tie strength: strong and weak) x 2 (source expertise: expert and non-expert) x 2 (argument strength: strong and weak) factorial design was used that allowed the investigation of the direct effects of a number of independent variables and how these independent variables combine together to produce persuasion (De Vaus, 2001). There were two dependent variables used in Study 1 to measure persuasion: attitude towards the product and intention to purchase the product. The eight different experimental conditions and the control condition are shown in Table 1.

Table 1. Experimental conditions

Experimental condition	Tie strength	Source expertise	Argument strength
1	Strong	Expert	Strong
2	Strong	Expert	Weak
3	Strong	Non-expert	Strong
4	Strong	Non-expert	Weak
5	Weak	Expert	Strong
6	Weak	Expert	Weak
7	Weak	Non-expert	Strong
8	Weak	Non-expert	Weak
9 (control)	None	None	None

3.2.2. The purchase scenario

Participants were asked to read carefully the hypothetical but realistic scenario (shown below).

"Imagine that your television has stopped working and is considered beyond repair. As a consequence, you have decided to buy a new television and have started looking at what is available. Fortunately, you have recently been given £500 and have decided to spend all of it on buying the new TV.

Meanwhile, you are on Facebook and receive a post about a TV"

The first two sentences of the scenario were designed to create a situation in the participant's mind where they needed to purchase a new Smart TV and were actively

involved in an information search regarding Smart TVs. This would increase involvement for the participants and their motivation to process the information contained in the Facebook post (Petty and Cacioppo, 1990; Blythe, 2013). The purpose of an experiment is to control any factors that may influence the outcome variable but are not the objective of the research (East, Wright and Vanhuele, 2013). Smart TVs are expensive so the third sentence of the scenario was designed to control the effect of affordability perceptions on the participants' responses by creating a situation where the participant believed they had sufficient financial resources to purchase the product (Notani, 1997).

Each participant was randomly allocated to a mock Facebook News Feed post featuring one of the eight experimental conditions containing the product photograph, product description and manipulations of tie strength, source expertise and argument strength or the control condition containing the product photograph and product description only. Each participant would only see one of the eight experimental conditions or the control condition. After the mock Facebook post participants were directed to an online questionnaire to measure the three independent variables, tie strength, source expertise and argument quality. The questionnaire then measured the two dependent variables, the participant's attitude towards the product and their intention to purchase the product.

3.2.2.1. The product used in the purchase scenario

Consideration was given to the type of product to be featured in Study 1. The researcher was mindful of social media marketing methods being employed by brands and retailers at that time and wanted to replicate, as much as possible, the

manner in which a product related eWOM post would appear in a Facebook user's News Feed. Therefore, the eWOM message needed to include a product photo and description, so the researcher decided that the eWOM post needed to feature a single, specific product. Research subjects should be familiar with the stimulus product (Edell and Staelin, 1983) so consideration was given to what product class the specific product should belong to. Fashion items or leisure items were considered to be familiar to all potential participants but ultimately not appropriate to the study as it was deemed too difficult to create a purchase scenario featuring one of these type of products that would be desirable to all participants regardless of their age or gender. Therefore, it was decided to feature a technology product as the researcher believed that a technology product would be likely to be desired by and familiar to all participants regardless of their age or gender. Consideration was then given as to what type of technology product to feature in study 1. Featuring a mobile phone in the purchase scenario was considered but rejected as a mobile phone might be classed as an enduring involvement product for many participants (Aghdaie, Boustani and Pourzamani, 2014), who would then devote more attention and expend greater cognitive effort on the eWOM message than with other less involving products (Celsi and Olson, 1988). The researcher wanted to feature a product that was less likely to have enduring involvement for the participants as most consumers have few high enduring involvement products (Richins, Bloch and Mcquarrie, 1992). Furthermore, featuring a low enduring involvement product would be a better reflection of many of the products appearing in a user's New Feed and many of the products being marketed by companies. The product chosen to feature in the purchase scenario was a Smart television which is a TV with integrated internet

capabilities (BBC, 2013). This product was considered to be likely to be familiar with participants given that 97% of UK homes have a digital television and in the UK 16 to 24 year olds spent an average of 124 minutes each day watching television in 2015 (Ofcom, 2016). Furthermore, a poll of a convenience sample of 15 final year undergraduate students studying Music Performance Management at Buckinghamshire New University confirmed that most were familiar with this product class because they owned a Smart television or had experience of using the product via friends. According to the ELM, certain product categories can influence elaboration likelihood because central cues are difficult for people to understand or they lack knowledge about the product category (Bitner and Obermiller, 1985). By featuring a familiar product such as a Smart TV in Study 1, the researcher intended that the eWOM message would be relatively straightforward for participants to understand which would allow them to cognitively elaborate on the message.

A fictional brand name was used to avoid extra experimental sources of variance such as pre-existing brand preference, brand knowledge or usage experience prejudice (Keller and Aaker, 1992; Kao, 2012). A review of Amazon's web site by the researcher showed that the top six best-selling Smart TV brands in 2015 were from either Japan or South Korea. Country of origin can act as a quality cue for consumers (Cordell, 1992) so the fictional brand name of 'Intui' was chosen so as to not be easily identified as being from a particular country to control the effect that country of origin may have on participants' evaluations of the product. The letters and numbers 'IT-42AS500B' were added to the brand name in the product description. Many of the top selling Smart TV brands identified on Amazon used the number 42 to denote screen size and other letters and numbers as a product identifier. Adding 'IT-

42AS500B' to the brand name was done to replicate the experiences customers would have regarding product descriptions on major retailers' websites.

A product photograph of a 42 inch Smart TV was taken from a retailer's website to provide a professional and credible image of a Smart TV. Care was taken not to use an image that contained any brand name or could be easily identified with any existing brands. It was decided to add a short product description to the product photograph to closely resemble the way brand related content would appear in a Facebook News Feed when shared by a user. To construct the product description, a review of some of the academic literature relating to consumer attitudes towards television features was conducted. Kempf and Plan (2006) determined the salient attributes of televisions using a free elicitation technique. As a result, six attributes were found to be most salient: screen size, remote control and on-screen programming, stereo sound, picture quality, well-known brand and warranty. Similarly, Zhang, Narayanan and Choudhary (2010) compiled product features for televisions based on the consumer reports found at consumereports.org. From the set of features identified, Zhang, Narayanan and Choudhary (2010) then ranked the features according to the relative importance of those features when customers are making product choices. Screen size was found to be the most important feature followed by film-mode and picture quality. The product description used in Study 1 was based on these findings and incorporated the screen size and the picture quality. The product photograph and product description used in Study 1 is shown below in Figure 7.

Figure 7. Product photograph and product description (Study 1).

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p   image quality.
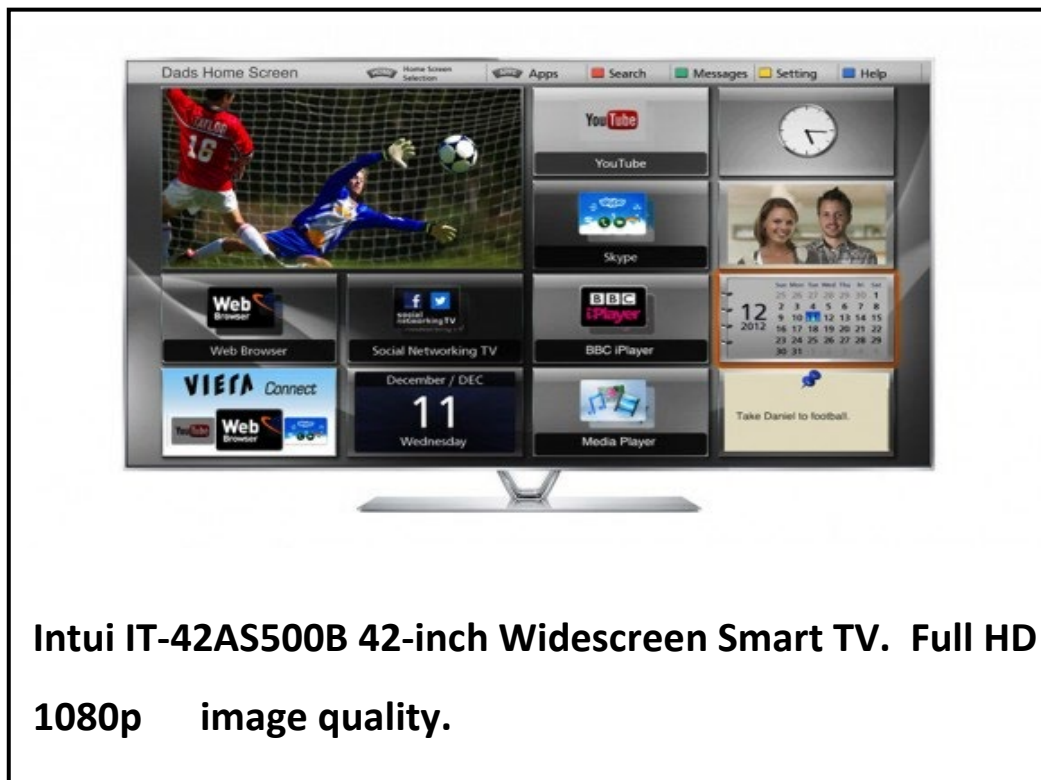
3.2.3. Developing the experimental conditions

3.2.3.1. Tie strength manipulation

A descriptor of the message sender that characterised them as a 'best friend' (strong tie) or 'an acquaintance you met on holiday' (weak tie) was included in the Facebook post. This manipulation of tie strength was adapted from Marsden and Campbell (1984) who showed that closeness or friendship is the best indicator of tie strength. Further studies by Mathews et al., 1988 and Petróczi, Nepusz and Bazsó (2007) confirmed friendship as an important indicator of tie strength. Facebook uses a default profile picture for users of a white silhouette on a grey background so this was added to the tie strength descriptor to replicate the Facebook experience. These strong tie and weak tie descriptors were incorporated into the eight experimental

conditions containing manipulations of tie strength, source expertise and argument

strength. Both tie strength descriptors and the default profile picture are shown below

in Figure 8 and Figure 9.

Figure 8. Strong tie descriptor with default Facebook profile picture.
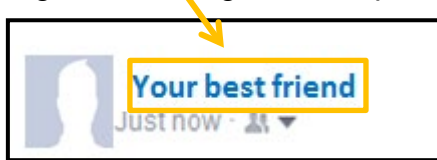
Figure 9. Weak tie descriptor with default Facebook profile picture.
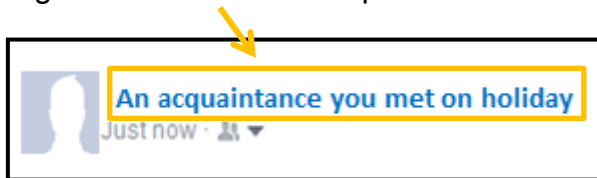
3.2.3.2. Source expertise manipulation

Eight different comments regarding the product were constructed, with each

comment featuring a demonstration of source expertise. This manipulation of source

expertise was adapted from Mackiewicz (2010). A pre-test was conducted to identify

the comment that best demonstrated high source expertise and the comment that

best demonstrated low source expertise. A convenience sample of 46 final year

undergraduate students from the Music Management and Live Events course at

Buckinghamshire New University were invited to participate in the pre-test of the

source expertise manipulation to be used in the experiment. Convenience samples

are appropriate for piloting research instruments before using them in a study

(Bryman, 2016). None of the participants in the pre-test were invited to take part in

later phases of the experiment. Pre-test participants were given the following

instruction: "You are on Facebook and someone sends you a message regarding a

'Smart TV'". Participants were then instructed to look at eight different comments and rate each comment on a seven point semantic differential scale to assess the perceived expertise of the source of the comment. The pre-test is shown below in Table 2.

Table 2. Pre-test of source expertise comments.

Comment ID	Comment	Mean (n=46)	Standard deviation
E1	"I bought this last month and can confidently say as a self-confessed tech geek that this is the best TV I have ever owned"	4.65	1.27
E2	"This is the third Intui TV I have bought and it is easily the best designed with the best picture quality and sound"	4.65	1.70
E3	"I haven't tried this TV but as someone who is a really technology illiterate, I think it at least looks good"	2.07	1.31
E4	"This is really a high spec TV which if it's as good as their other TV's will be a winner"	4.07	1.51
E5	"I don't know the brand or understand all the Smart technology but it will suit my living room"	1.35	0.71
E7	"Not sure what a Smart TV does but it will hopefully do what I need"	1.26	0.71
E7	"Not owned a Smart TV before. I hope I can figure out how to work it"	1.52	1.05
E8	"I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement"	5.91	1.44

Anchors for the scale used: 1=non-expert to 7=expert

The comment with the highest mean score of source expertise (E8) was used in the experiment to represent a comment provided by an expert and the comment with the lowest mean score (E7) was used in the experiment to represent a comment being provided by a non-expert. These two comments were then incorporated into the eight experimental conditions containing manipulations of tie strength, source expertise and argument strength. Both expert and non-expert comments are shown below in Figure 10 and Figure 11.

Figure 10. Comment by an expert source.

Figure 11. Comment by a non-expert source.
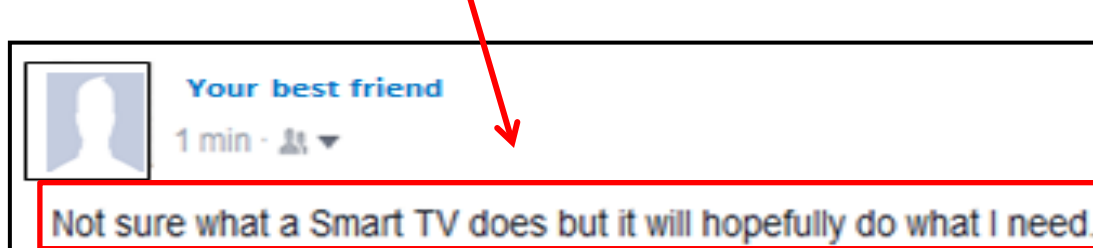
3.2.3.3. Argument strength manipulation

Eight comments with differing strength in terms of supporting argumentation were constructed. This manipulation of argument strength was adapted from Johnson (1991); Rains (2007) and Pham and Avnet (2004). A pre-test was conducted to identify the comment that best demonstrated a strong argument and the comment that best demonstrated a weak argument. This pre-test was conducted at the same time as the pre-test for source expertise so the same sample of undergraduate students was used for both pre-tests. Participants were asked to rate each comment on a seven point semantic differential scale from 7 (strong argument) to one (weak argument) to assess the perceived argument strength. The pre-test is shown below in Table 3.

Table 3. Pre-test of strong and weak arguments.

Comment ID	Comment	Mean (n=46)	Standard deviation
A1	"I heard that you can use your smartphone or tablet as a remote control"	3.93	1.68
A2	"According to all the tech blogs, this is number one Smart TV on the market today for quality and usability"	5.15	1.49
A3	"This got a 5 star review on Amazon for picture quality and sound"	5	1.32
A4	"I think Spotify will sound great on it"	3.20	1.64
A5	"My mate says the screen size should be perfect for watching sport"	3.30	1.50
A6	"According to Currys this is the best-selling TV in Japan"	4.37	1.62
A7	"Pinterest will look amazing"	2.46	1.35
A8	"My techie mate says this is the highest specification TV on the market for the price"	4.78	1.38

Anchors for the scale used: 1=weak argument to 7=strong argument

The comment with the highest mean score of argument strength (A2) was used in the experiment to represent a comment containing a strong argument and the comment with the lowest mean score (A7) was used in the experiment to represent a comment containing a weak argument. These two comments were incorporated into the eight experimental conditions containing manipulations of tie strength, source expertise and argument strength. The comments containing a strong or weak argument are shown below in Figures 12 and 13.

Figure 12. Comment containing a strong argument.
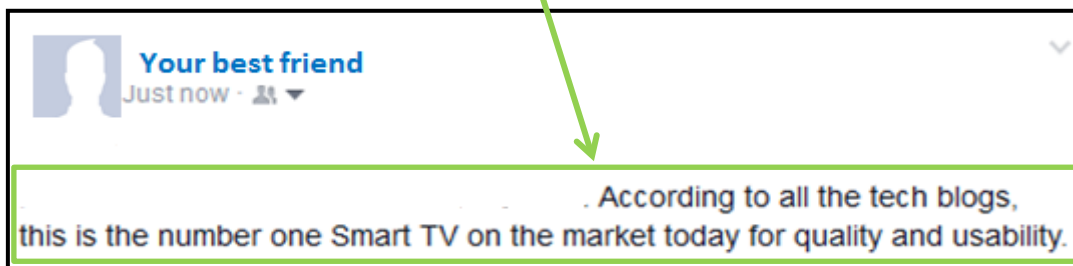
Figure 13. Comment containing a weak argument.
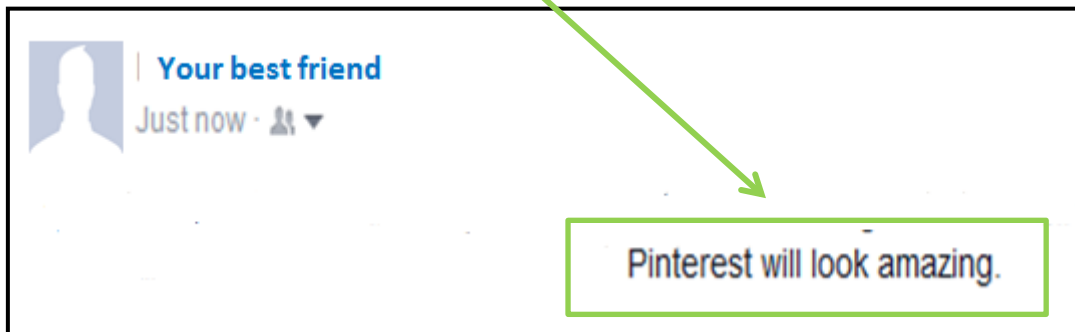
These three manipulations of tie strength, source expertise and argument strength were then combined to create the eight experimental conditions. A summary of the eight experimental conditions and the manipulations of tie strength, source expertise and argument strength are shown below in Table 4.

Table 4. Summary of the eight experimental conditions and the manipulations of tie strength, source expertise and argument strength

Condition	Tie strength	Source expertise	Argument strength
1	Strong: "Your best friend"	Expert: "I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement"	Strong: "According to all the tech blogs, this is number one Smart TV on the market today for quality and usability"
2	Strong: "Your best friend"	Expert: "I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement"	Weak: "Pinterest will look amazing"
3	Strong: "Your best friend"	Non-expert: "Not sure what a Smart TV does but it will hopefully do what I need"	Strong: "According to all the tech blogs, this is number one Smart TV on the market today for quality and usability"
4	Strong: "Your best friend"	Non-expert: "Not sure what a Smart TV does but it will hopefully do what I need"	Weak: "Pinterest will look amazing"
5	Weak: "An acquaintance you met on holiday"	Expert: "I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement"	Strong: "According to all the tech blogs, this is number one Smart TV on the market today for quality and usability"
6	Weak: "An acquaintance you met on holiday"	Expert: "I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement"	Weak: "Pinterest will look amazing"
7	Weak: "An acquaintance you met on holiday"	Non-expert: "Not sure what a Smart TV does but it will hopefully do what I need"	Strong: "According to all the tech blogs, this is number one Smart TV on the market today for quality and usability"
8	Weak: "An acquaintance you met on holiday"	Non-expert: "Not sure what a Smart TV does but it will hopefully do what I need"	Weak: "Pinterest will look amazing"
9 (control)	None	None	None

Examples of two of the experimental conditions and the control condition are shown below in Figures 14, 15 and 16.

Figure 14. Experimental condition1: Strong tie, expert, strong argument.

Figure 15. Experimental condition 8: Weak tie, non-expert, weak argument.
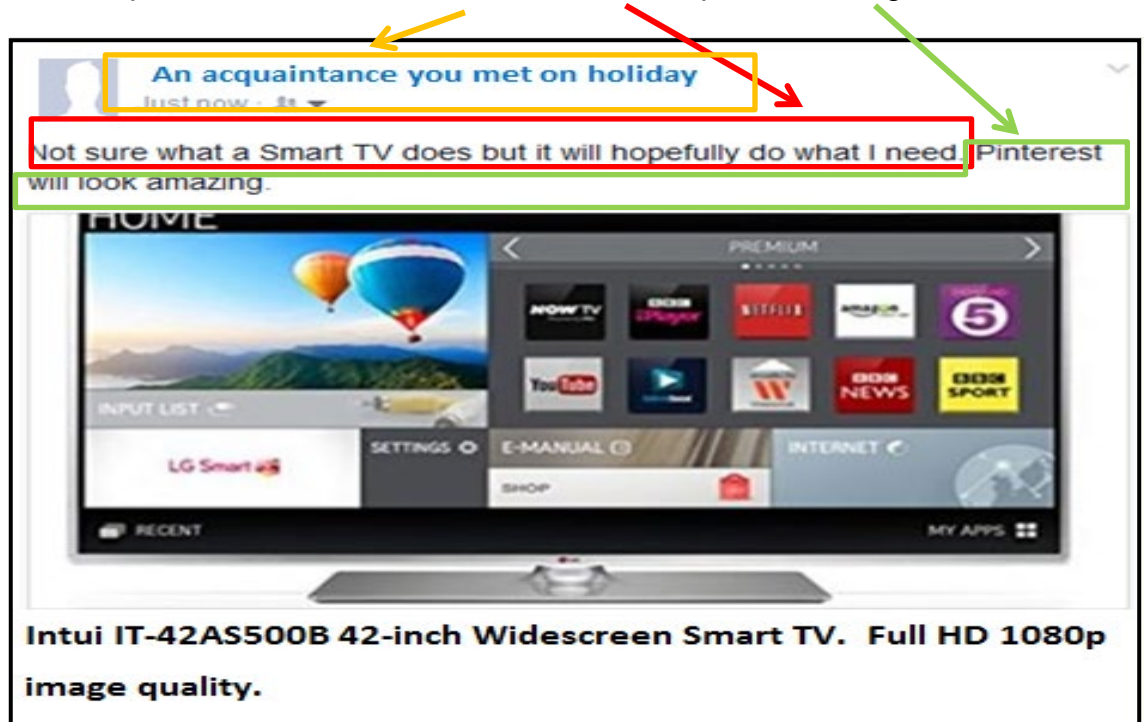
Figure 16. Control condition.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

3.2.4. Questionnaire design

Research designs do not dictate a particular method of data collection (De Vaus, 2001). The data collection method used should produce valid data in the sense that the outcome variable is appropriately measured and should produce data to measure if the experimental manipulation worked as intended (Bryman, 2016). Questionnaires can be used to understand the extent of an issue and to explore relationships between variables (Saunders, Lewis and Thornhill, 2012). Questionnaires can be either qualitative or quantitative with the former less structured and seeking depth of response, whilst the latter is more structured and seeks to measure responses to the same set of questions that are administered to all participants in the same order (Cohen, Manion and Morrison, 2000; Saunders, Lewis and Thornhill, 2012). Participants in questionnaires are expected to interpret the questionnaire items identically so any differences in their responses are assumed to reflect real

differences in their attitudes (Crano, Brewer and Lac, 2015). An online structured self-administered questionnaire was developed using SurveyMonkey that contained a series of closed questions designed to measure respondents' attitudes towards the product, their intention to purchase the product, tie strength, perceived source expertise and perceived argument strength. In this way the two outcomes variables were measured and data was collected to ascertain if the experimental conditions had performed as planned. A self-administered web based questionnaire was used as they are relatively cheap to produce, are quick and easy to administer and can be easily accessed and completed quickly by participants (Bryman, 2016). Web based questionnaires can use a wider variety of features such as colour, formatting and response styles than paper based surveys (Bryman, 2016). Web based questionnaires allow for the responses to be automatically downloaded into a database thus eliminating the need to code a large number of questionnaires and reducing possible sources of error and improving accuracy (Poynter, 2010, Bryman, 2016).

3.2.4.1. Developing the questionnaire

The questionnaire was made up of three sections. The first section contained the consent form. Once participants had given consent they were asked to click the 'next' button on their screen which took them to part two of the questionnaire. The second section incorporated the experimental scenario. Participants were instructed to read the scenario carefully and after reading it were asked to study the next page carefully as they were to be asked a series of questions about it. Having clicked the 'next 'button on their screen, participants were randomly allocated to one of the

experimental or control conditions. After reading the Facebook post participants were

then instructed to click the 'next' button which took them to part three of the

questionnaire. Part three of the questionnaire measured participants attitude towards

the product featured in the mock Facebook post, their intention to purchase the

product, their perception of the expertise of the sender of the post, their perception of

the quality of the argument contained in the comment written by the sender and the

relationship of the recipient to the sender (tie strength). Finally, participants were

asked their gender and their age and thanked for taking part in the questionnaire.

Overall, the questionnaire contained 31 items.

3.2.4.2. Measuring the independent variables

It was necessary to measure the three independent variables in the questionnaire to

be able to perform manipulation checks to see if the manipulations of tie strength,

source expertise and argument strength had been successful.

3.2.4.2.1. Tie strength

Tie strength was measured using a scale validated by Frenzen and Davis (1990) and

is shown below in Table 5.

Table 5. Tie strength scale (Frenzen and Davis, 1990).

Indicator	Item	Scale
Closeness	Rate your relationship to the sender of the post"	10-point scale (where 10 = "extraordinarily close" and 1 = "not close at all")
Intimacy	What is the likelihood of you sharing a personal confidence with the sender of the Facebook post?	Six-point scale (where 5 = "very likely," 4 = "likely," 3 = "neither likely nor unlikely," 2 = "unlikely," 1 "very unlikely," and 0 = "I don't know this person")
Support	What is the likelihood of you doing a favour for the sender of the Facebook post?	Six-point scale (where 5 = "very likely," 4 = "likely," 3 = "neither likely nor unlikely," 2 = "unlikely," 1 "very unlikely," and 0 = "I don't know this person")
Association	What is the likelihood of you spending a free afternoon with the sender of the Facebook post?	Six-point scale (where 5 = "very likely," 4 = "likely," 3 = "neither likely nor unlikely," 2 = "unlikely," 1 "very unlikely," and 0 = "I don't know this person")

The four indicators were summed to create a 25-point, composite tie strength measure. Frenzen and Davis (1990) tested the internal reliability of the scale and reported a Cronbach's Alpha of 0.93. This scale was later used by Bansal and Voyer (2000); De Bruyn and Lilien (2008); Chang, Chen and Tan (2012) who also tested the internal reliability of the scale. The results are shown below in Table 8. Saunders, Lewis and Thornhill (2012) asserted that good internal reliability is represented with alpha values of 0.70 and above whilst Coolican (2014) similarly argued that good reliability is represented with alpha values from 0.75 up to 1. Bryman (2012) holds the view that a figure of 0.80 is typically employed as a rule of thumb of reliability. Taking into consideration all three of these opinions, it is clear that according to

several studies the Cronbach's alpha of internal consistency for the scale developed by Frenzen and Davis (1990) is consistently found to be in an acceptable range.

3.2.4.2.2. Source expertise

The source expertise of the person providing the information was assessed using a scale developed and validated by Ohanian (1990), which is shown below in Table 6. To assess source expertise, participants were instructed in the questionnaire as follows: "Thinking of the Facebook post, for each pair of words below indicate your perception of the sender in relation to Smart TVs".

Table 6. Source expertise scale (Ohanian, 1990).

Item	Scale
Not an expert….expert	7-point scale (where 1 = " Not an expert " and 7 = "expert ")
Inexperienced….experienced	7-point scale (where 1 = " Inexperienced " and 7 = " experienced ")
Unknowledgeable….knowledgeable	7-point scale (where 1 = " Unknowledgeable " and 7 = ".knowledgeable ")
Unqualified….qualified	7-point scale (where 1 = " Unqualified " and 7 = " qualified ")
Unskilled….skilled	7-point scale (where 1 = " Unskilled " and 7 = " skilled ")

The four items were summed to create a 35-point, composite source expertise measure. Using two samples, Ohanian (1990) reported Cronbach's alpha coefficients of 0.885 and 0.892. Ohanian (1990) also reported that following factor analysis the scale demonstrated acceptable convergent and discriminant validity. The scale has been subsequently used by Senecal and Mantel (2004); Doss (2011) and Sweeney, Soutar and Mazzarol (2014), who also tested the internal reliability of the scale. The

results are shown below in Table 8. All these studies indicate that the Cronbach's alpha of internal consistency for the scale developed by Ohanian (1990) is in an acceptable range.

3.2.4.2.3. Argument strength

Argument strength was assessed using a scale developed and validated by Zhao et al., (2011), which is shown below in Table 7. To assess argument strength, participants were instructed in the questionnaire as follows: "Thinking of the Facebook post, for each statement below please indicate your level of agreement or disagreement".

Table 7. Perceived argument strength scale (Zhao et al., 2011).

Item	Scale
The reason given in the Facebook post for me to consider buying the Intui-42AS500B TV was believable	5-point Likert scale (strongly disagree to strongly agree)
The reason given in the Facebook post for me to consider buying the Intui-42AS500B TV was convincing	5-point Likert scale (strongly disagree to strongly agree)
The Facebook post gave a reason for me to consider buying the Intui-42AS500B TV that was important to me	5-point Likert scale (strongly disagree to strongly agree)
The Facebook post has helped me feel confident about buying the Intui-42AS500B TV	5-point Likert scale (strongly disagree to strongly agree)
The Facebook post would help my friends to consider buying the Intui-42AS500B TV	5-point Likert scale (strongly disagree to strongly agree)
The Facebook post put thoughts in my mind about wanting to buy the Intui-42AS500B TV	5-point Likert scale (strongly disagree to strongly agree)
The Facebook post put thoughts in my mind about <u>NOT</u> wanting to buy the Intui-42AS500B TV	5-point Likert scale (strongly disagree to strongly agree)
Overall, how much do you agree or disagree with the opinions expressed in the Facebook post?	5-point Likert scale (strongly disagree to strongly agree)
Is the reason the Facebook post gave for buying the Intui-42AS500B TV a strong or weak reason?	5-point Likert type scale (very weak to very strong)

Item 7 was subtracted from item 6 to create a single thought favourability item and
then the new item was converted to a 5-point scale by dividing it by 2 and then adding a
constant of 3. All the items were then summed to create an overall measure of argument strength

The scale was evaluated by Zhao et al., (2011) using two different types of persuasive messages who reported Cronbach's alphas of 0.85 and 0.87. This scale has been used by Lee, Capella and Strasser (2011) and Arden and Armitage (2011) who also tested the internal reliability of the scale. The results are shown below in Table 8. Both these studies indicate that the Cronbach's alpha of internal consistency for the scale developed by Zhao et al., (2011) is in an acceptable range.

Table 8. Internal reliability of scales to measure tie strength source expertise and argument strength.

Independent variable	Item	Employed by	Reported reliability
Tie strength	10 point semantic differential scale/ 6 point Likert scale	Frenzen and Davis (1990)	0.93
		Bansal and Voyer (2000)	0.87
		De Bruyn and Lilien (2008)	0.93
		Chang, Chen and Tan (2012)	0.92
Source expertise	7 point semantic differential scale	Ohanian (1990)	0.89
		Senecal and Mantel (2004)	0.88
		Doss (2011)	0.96
		Sweeney, Soutar and Mazzarol (2014)	0.80
Argument strength	5 point Likert scale	Zhao et al., (2011)	0.85
		Lee, Capella and Strasser (2011)	0.94
		Arden and Armitage (2011)	0.74

3.2.4.3. Measuring the dependent variables

3.2.4.3.1. Measuring attitudes

Attitudes are not directly observable and can only be inferred from respondents' responses (Himmelfarb, 1993). There are a variety of procedures to assess attitudes (Perloff, 2014), what follows is a discussion of some of these procedures. A distinction is made in attitude measurement between explicit and implicit measures

(Maio and Haddock, 2009). Explicit attitude measures require respondents to self-report their attitude whilst implicit measures do not directly ask the respondent for information (Fazio and Olson, 2003). Explicit measures of attitude often employ self-administered questionnaires in which respondents are asked direct questions about their opinions (Maio and Haddock, 2009).

A common approach is the Thurstone equal appearing intervals method (Crano, Brewer and Lac, 2015). The first step in this method is to produce a large number of potential statements, both positive and negative that initially appear to relate to the attitude object. A panel of judges is then recruited to rate each statement on a scale from 1 (extremely unfavourable attitude) to 11 (extremely favourable attitude). The mean and standard deviation of each statement are calculated with any exhibiting high standard deviations being discarded since this suggests a disagreement between the judges regarding the statement's interpretation. The mean ratings of the remaining items are now taken as their scale values. From this remaining pool of statements a number are chosen to represent the entire range of possible evaluations of the attitude object. Respondents are asked to indicate the items with which they agree and their overall score is the total value of the scale value of the items with which they agreed (Maio and Haddock, 2009; Coolican, 2014; Crano, Brewer and Lac, 2015).

Another self-report approach uses semantic differential scales first developed by Osgood, Suci and Tannenbaum (1957) who chose not to assess beliefs or agreement with opinion statements rather they explored the meanings that people attach to social objects, focusing on the emotional aspect of an attitude. Osgood, Suci and Tannenbaum (1957) discovered that people typically employ three

dimensions to rate concepts: evaluation (whether the person thinks the object is good or bad); potency or power of the object (strong or weak) and activity or movement of the object (active or passive). Although it is best to develop a semantic differential scale with items involving a mix of evaluation, potency and activity, the exclusive use of evaluation anchors is common and sufficient for most research purposes (Perloff, 2014; Crano, Brewer and Lac, 2015). Semantic differential scales require a respondent to rate a single object or idea on a series of bipolar rating scales where each bipolar scale is described as a pair of opposite adjectives designed to anchor the respondents' attitudes towards the object (Saunders, Lewis and Thornhill, 2012). The respondent is invited to select a point on the scale that the object holds on that scale for them with responses towards the middle reflecting more neutral opinions on the continuum (Coolican, 2014). Scores on the individual items are averaged to form a single attitudinal score (Maio and Haddock, 2009). Semantic differential scales are generally shorter in length, easier to read and more difficult to misinterpret than Likert scales. From the scales constructor's perspective, semantic scales are considerably more efficient.

Perhaps the most frequently used self-report measure is the Likert scale (Likert, 1932) in which a respondent is asked how strongly they agree or disagree with a set of statements, usually on a seven point scale. A Likert scale assumes that each item assesses the same underlying attitude and that there are significant interrelationships among items (Perloff, 2014). Construction of a Likert scale begins with assembling a large number of attitude relevant statements as an initial pool from which the scale items will be selected. Test respondents are requested to indicate their agreement or disagreement with each item, with the most favourable responses being scored the

highest and the least favourable responses scored as a 'one'. An overall attitude score can then be calculated for each respondent. Item analysis is then conducted to find a number of items that are the most strongly correlated with the overall attitude score. The final scale is then ready for administering to respondents (O'Keefe, 2002).

Multiple meta-analyses have revealed that self-report assessments of attitudes predict a wide variety of behaviours (Glasman and Albarracín, 2006). However, these types of measures of attitude have their limitations, for example respondents may not be aware of their underlying attitudes towards an object (Greenwald and Banaji, 1995). Furthermore, the validity of self-report assessments can be compromised if respondents decide that they do not want to report their true evaluation due to a desire to present themselves in a socially acceptable manner so misrepresent their attitudes (Maio and Haddock, 2009). Furthermore, most explicit self-report measures require a deliberative process so more spontaneous and initial aspects of an evaluation that might be important for guiding certain behaviours may be overridden and therefore not reported (Herring et al., 2013).

Indirect methods attempt to circumvent some of the problems associated with direct measures and one of the most important techniques is the evaluative priming technique (Fazio et al., 1995). The priming procedure permits assessment of the extent to which the presentation of an attitude object automatically activates an associated evaluation from memory. This technique allowed for reaction times being taken as a measure of the strength of the association between the attitude object and its evaluation (Maio and Haddock, 2009). The shorter the reaction time, the stronger the association between the attitude object and its evaluation (Fazio and Olson, 2003). In this way the priming procedure serves as an unobtrusive measure of

attitude that is not subject to the respondent's self-presentational concerns with social desirability (Fazio et al., 1986).

A second indirect measure of attitudes is the Implicit Association Test (IAT) (Greenwald, McGhee and Schwartz, 1998). This is also based on the assumption that attitude objects can activate spontaneous evaluations which affect subsequent responses and the speed with which the responses are made (Maio and Haddock, 2009). In a typical IAT study, participants are asked to classify adjectives and attitude objects, and to make their responses as quickly as possible. Response times are measured and faster responses are associated with highly associated categories (Greenwald, McGhee and Schwartz, 1998). Overall the IAT may be especially useful for attitudes that people hesitate to report explicitly (Fiske and Taylor, 2013).

Study 1 utilised an explicit self-reported attitude measure in the form of an existing semantic differential scale for measuring attitude towards the product developed by Roehm and Sternthal (2001). The study also used an existing probability scale developed by Juster (1966). These scales were used as the researcher was confident that both existing scales measured the concept of interest and had been empirically tested and evaluated (Saunders, Lewis and Thornhill, 2012).

3.2.4.3.2. Measuring attitude towards the product

Attitude towards the product was measured in the questionnaire using the Attitude Towards the Product scale (high tech) developed by Roehm and Sternthal (2001), shown below in Table 9. To assess attitude towards the product, participants were instructed in the questionnaire as follows: "Thinking about the Intui IT-42AS500B TV,

for each pair of words below please indicate on the scales what you think and feel about the product".

Table 9. Attitude towards the product scale (Roehm and Sternthal, 2001).

Item	Scale
like / dislike	7-point scale (where 7 = " like " and 1 = " dislike ")
useful / not useful	7-point scale (where 7 = " useful " and 1 = " not useful ")
high-tech / not high-tech	7-point scale (where 7 = " high-tech " and 1 = " not high-tech ")
good / bad	7-point scale (where 7 = " good " and 1 = " bad ")
high quality / low quality	7-point scale (where 7 = " high quality " and 1 = " low quality ")
practical / impractical	7-point scale (where 7 = " practical " and 1 = " impractical ")
worth owning / not worth owning	7-point scale (where 7 = " worth owning " and 1 = " not worth owning ")
impressive / not impressive	7-point scale (where 7 = " impressive " and 1 = " not impressive ")
valuable / not valuable	7-point scale (where 7 = " valuable " and 1 = " not valuable")
advanced / not advanced	7-point scale (where 7 = " advanced " and 1 = " not advanced ")

The 10 items were summed to create a composite attitude towards the product measure. Roehm and Sternthal (2001) reported the scale's internal consistency reliability as assessed by Cronbach's alpha as 0.93. Roehm and Sternthal (2001) conducted an exploratory factor analysis on the scale items. Results indicated that the items loaded on a single factor, and a confirmatory factor analysis was also consistent with this interpretation.

This scale has been used in several studies including Pulkkinen and Sääksjärvi (2008); Lado et al., (2011) and Sääksjärvi and Samiee (2011) who also tested the internal reliability of the scale. The results are shown below in Table 10. These results indicate that the Cronbach's alpha of internal consistency for the scale developed by Roehm and Sternthal (2001) is in an acceptable range.

Table 10. Reported reliability of attitude towards the product scale (Roehm and Sternthal, 2001).

Dependent variable	Item	Employed by	Reported reliability
Attitude Towards a Product (High Tech)	**7 point semantic differential scale**	Roehm and Sternthal (2001)	**0.93**
		Lado et al., (2011)	**0.92**
		Sääksjärvi and Samiee (2011)	**0.92**

3.2.4.3.3. Measuring intention to purchase the product

Intention to purchase the product was measured in the questionnaire using a purchase probability scale developed by Juster (1966), shown below in Table 11. To assess intention to purchase the product, participants were instructed in the questionnaire as follows: "How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)".

Table 11. The Juster (1966) scale with verbal descriptions and probabilities associated with each number.

10	Certain, practically certain	(99 in 100)
9	Almost sure	(9 in 10)
8	Very probable	(8 in 10)
7	Probable	(7 in 10)
6	Good possibility	(6 in 10)
5	Fairly Good possibility	(5 in 10)
4	Fair possibility	(4 in 10)
3	Some possibility	(3 in 10)
2	Slight possibility	(2 in 10)
1	Very slight possibility	(1 in 10)
0	No chance, almost no chance	(1 in 100)

Day et al., (1991) reviewed intention measurement and reported on the superior predictive ability of the Juster Scale compared to buying intentions scales, whilst also confirming the practicality of using the Juster Scale for predicting purchases of a range of items including durable consumer goods. Subsequently, Wright and McRae (2007) reported that the Juster scale was empirically unbiased thus improving the confidence researchers can have in the use of the scale.

3.2.5. Sampling

Study 1 aimed to determine some of the causal mechanisms of eWOM in Facebook using an experimental design. The success of an experimental design in establishing causality depends on the assumption that experimental and control groups are identical on all characteristics except their exposure to differing experimental conditions which is achieved by random allocation of participants to groups (Crano, Brewer and Lac, 2015). Random allocation enhances the internal validity of a study by controlling extraneous variables and eliminating rival explanations of the causal mechanism (Punch, 2005; Bryman, 2012). Study 1 used a convenience sample of

undergraduate students at Buckinghamshire New University. The students were chosen due to the ease of access by the researcher to large groups of undergraduate students, the relative ease in conducting the experiments with large student groups, and to achieve the required power for the study (see below). Furthermore, in 2014, the majority of undergraduates in UK Universities were under the age of 24 (Universities UK, 2015), with 47% of UK Facebook users aged 18-34 (Nayak, 2014) which would be the age range of the majority of the participants in the study. Moreover, it was reported in 2014 that 47.9% of people in the UK would have participated in higher education by the time they reached 30 years old (Department for Education, 2019). Therefore, it was deemed by the researcher that the students would likely be active users of Facebook and therefore familiar with the Facebook News Feed. These participants would represent real-life consumers and be familiar with the SNS context of the research (Ok, Shanklin and Back, 2008). Study 1 participants were randomly allocated to the experimental conditions using SurveyMonkey. In this way the core requirement of random allocation was achieved in that each participant in Study 1 had an equal chance of being assigned to any of the experimental or control condition as any other participant (Crano, Brewer and Lac, 2015). Therefore, confidence in the causal findings of Study 1 is greatly enhanced (Bryman, 2012).

3.2.5.1. Sample size

The sample size for Study 1 was developed on the basis of the level of power required in the study (Field, 2013). The power of a statistical test is the probability of not making a type II error (Coolican, 2014). The conventional acceptable level for

power is 0.80 (Cohen, 1992) and this was adopted in this study. Effect size is an objective and standardised measure of an observed effect (Kent, 2015) and medium effect size of 0.25 was adopted for this study (Cohen, 1992). Power and effect size were used to calculate the necessary sample size for the experiment and G*Power statistical tool was used to perform the necessary calculations (Coolican, 2014; Faul et al., 2007; Field, 2013). An a priori sample size test for ANOVA was conducted using G*Power and the total sample size required was found to be 113.

All students who participated in Study 1 were undergraduate full-time students at Buckinghamshire New University and were from two schools within the university, the School of Music and Event Management, and The Business School. Fifty-seven percent of Buckinghamshire New University students are from a 'widening participation' background with thirty-six percent of full-time undergraduate students qualifying for full state support (Buckinghamshire New University, 2017). The researcher's familiarity with both schools allows him to confirm that these figures are likely to be broadly representative of both schools.

3.2.6. Administration of Study 1

The students were approached at the start of scheduled lectures where a Participant Information sheet containing information on the purposes of the research was shown to all present using PowerPoint slides projected onto the lecture theatre screen. Students were then given the opportunity to ask the researcher questions regarding the research. Following this, the researcher projected a web address on the lecture theatre screen and those students who wished to participate were invited to post the

address in their personal laptop, tablet or mobile phone browser to access the SurveyMonkey web page connected to Study 1. The web address directed participants to a SurveyMonkey web page containing a means to signal consent. Once consent was gained, participants were invited to begin Study 1. Participants were asked to read carefully the hypothetical scenario and were then randomly allocated to a mock Facebook post featuring one of the experimental conditions. Once participants had been shown the mock Facebook post they were instructed to complete the online questionnaire to measure the three independent and two dependent variables featured in Study 1. Most participants completed the questionnaire within 15 minutes.

3.2.7. Ethics

The researcher was committed to ensuring that the research conducted in Study 1 was carried out in conformity with generally accepted ethical standards as well as The University of Birmingham's code of practice for research. Care was taken to obtain written informed consent (see appendix A) from all participants of Study 1. By way of a Participant Information sheet (see appendix B), potential participants were informed of the purpose of the study, the time required and the procedures involved, their right to decline or withdraw at any time, and that there was no payment or reward for their participation. It was ensured that all potential participants were given all the relevant information to understand what was required of them and that they were provided an opportunity to ask any questions regarding the research.

The researcher was aware that the potential for undue pressure is greatest in an organisational context where people may feel they will be judged as uncooperative if

they decline to participate, so steps were taken to negate this. The researcher made sure that participants were not placed under pressure to participate in the study and that they understood that they could withdraw from the study at any time with the right to have their data withdrawn and deleted. It was also made clear to the students that there would be no consequences for any participant withdrawing from the study. To further, negate the potential for students to feel pressured to take part, those students who wished to not participate were invited to spend time on their connected device so the lecturer could not visually ascertain who was participating in the study and who was not.

All potential participants were assured that their participation or non-participation in the research would be confidential. It was made clear to participants that only the researcher would have access to the information and data would not be passed on without their consent. Students were also notified that full ethical approval had already been obtained from the University of Birmingham and Buckinghamshire New University.

As part of the ethical review process at the University of Birmingham and Buckinghamshire New University, the researcher stated that participants would remain anonymous. Anonymity can be achieved by researchers not requesting the names of participants or any other data that might enable them to be identified (De Vaus, 1995; Oliver, 2003). Therefore, participants were not asked their name in the questionnaire, and the biographical data sought in the questionnaire was limited to that required for the research purposes so only participant's age and gender was captured. Therefore, participants that completed the questionnaire were ensured complete and total anonymity. Once participants had completed the questionnaire a

more complete description of the purpose of the research was given to all the participants in verbal form by the researcher.

The data from Study 1 has been stored on the researcher's personal computer which is the property of their employer, Buckinghamshire New University. The personal computer is only used by the researcher and access is restricted by a password which is only known to the researcher. The personal computer is further protected by anti-virus software which is installed and maintained by the IT department at Buckinghamshire New University. To comply with the University of Birmingham's code of practice for research, the data will be preserved and accessible for 10 years. In the event of the need for a new personal computer, the data will be transferred to the new device and erased from the 'old' device by the researcher themselves. It is acknowledged by the researcher that SurveyMonkey stores UK customer data on its servers in the United States of America (SurveyMonkey, 2017) but it should be noted that SurveyMonkey is certified under and complies with the EU-US Privacy Shield Program which has been deemed adequate to enable data transfers under European Union law (Privacy Shield Framework, 2017).

3.2.8. Study 1: pilot test A

Pilot studies allow researchers to ascertain if the research instrument as a whole is functioning correctly (Bryman, 2016). A pilot test (A) of Study 1 was conducted to determine if the manipulations for tie strength, argument strength and source expertise had worked as planned and that the questionnaire operated as intended. The eight experimental conditions and the control condition used in the pilot of Study 1 are shown in appendix C.

3.2.8.1. Sample for pilot test A

Pilot test A was conducted using a convenience sample of final year undergraduate students from The Music Business course at Buckinghamshire New University. 30 participants took part. 62% were female and 38% were male.

3.2.8.2. Study 1: pilot test A results

The data was analysed to see if the intended manipulations of tie strength, source expertise and argument strength had performed as intended. The results of the analysis are shown below in Table 12.

Table 12. Results of descriptive statistics and t-tests for argument strength, source expertise and tie strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
Strong argument	M = 29.63, SD = 5.34, n= 16	
Weak Argument	M = 26.04, SD = 4.79, n = 14	t= 1.93, p = 0.062
Expert	M = 22.19, SD = 5.80, n = 14	
Non- expert	M = 14.93, SD = 6.38, n = 16	t= 3.27, p = 0.003
Strong tie	M = 17.87, SD = 1.59, n = 22	
Weak tie	M = 9.75, SD = 1.28, n = 8	t= 3.98, p = 0.001

Anchors for the scales used: 10=weak argument to 40.5=strong argument; 5=non-expert to 25=expert 1= weak tie to 25=strong tie

For the argument strength manipulation, the strong argument was perceived to be stronger (M= 29.63, SD= 5.34) than the weak argument (M= 26.04, SD = 4.79), but this was not statistically significant t (28) = 1.93, p = 0.06. Hence, the manipulation of argument strength was not effective. For the source expertise manipulation, the expert source was perceived to be stronger (M= 22.19, SD= 5.80) than the non-

expert source (M= 14.93, SD = 6.38), t (28) = 3.27, p = 0.003. Hence, the manipulation of source expertise was effective. For the tie strength manipulation, the strong tie was perceived to be stronger (M= 17.87, SD = 1.59) than the weak tie (M= 9.75, SD = 1.28), t (25) = 3.98, p = 0.001. Hence, the manipulation of tie strength was effective.

3.2.9. Revision of the experimental conditions

Consideration was given as to why the argument strength manipulation had not succeeded and it was felt that the argument itself had become somewhat obscured within the combined argument strength and source expertise manipulation. Therefore, it was decided that the comment should only feature the argument strength manipulation and that a source expertise descriptor should be placed adjacent to the tie strength indicator (shown below in Figures 17 and 18). This configuration of the three manipulations would more closely mirror the actual Facebook experience where the eWOM comment would most likely contain only comments regarding the product. The sender's level of expertise regarding the product may already be known due to an offline relationship or through information contained within their Facebook profile. It was decided to simplify the source expertise descriptors and present the message sender as either someone who 'has their own tech blog' or 'who is not sure what a Smart TV does' (Petty, Cacioppo and Goldman, 1981; Jun, Cha and Aggarwal, 2011). It was felt that this should allow participants to determine what the argument was within the eWOM comment and what was a characteristic of the message sender. A summary of these changes are

shown below in Table 13 and two examples of stimulus conditions are shown below in Figures 17 and 18.

Table 13. Summary of the changes to the experimental conditions.

		Study 1: pilot test A	Study 1: pilot test B
Tie strength manipulation	Strong tie descriptor	'Your best friend'	'Your best friend' (NO CHANGE)
	Weak tie descriptor	'An acquaintance you met on holiday'	'An acquaintance you met on holiday' (NO CHANGE)
Source expertise manipulation	Expert comment/ descriptor	'I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement'	'Has their own tech blog' (CHANGED: to an expertise descriptor and placed adjacent to the tie strength descriptor)
	Non-expert comment/ descriptor	'Not sure what a Smart TV does but it will hopefully do what I need'	'Not sure what a Smart TV does' (CHANGED: to an expertise descriptor and placed adjacent to the tie strength descriptor)
Argument strength manipulation	Strong argument	'According to all the tech blogs, this is number one Smart TV on the market today for quality and usability'	'According to all the tech blogs, this is number one Smart TV on the market today for quality and usability' (NO CHANGE)
	Weak argument	'Pinterest will look amazing'	'Pinterest will look amazing' (NO CHANGE)

Figure 17. Revised experimental condition 1: Strong tie, expert, strong argument.

Your best friend who has their own tech blog

According to all the tech blogs, this is the number one Smart TV on the market today for quality and usability

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Figure 18: Experimental condition 8: Weak tie, non-expert, weak argument.

An acquaintance you met on holiday who is not sure what a Smart TV does

Pinterest will look amazing

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.
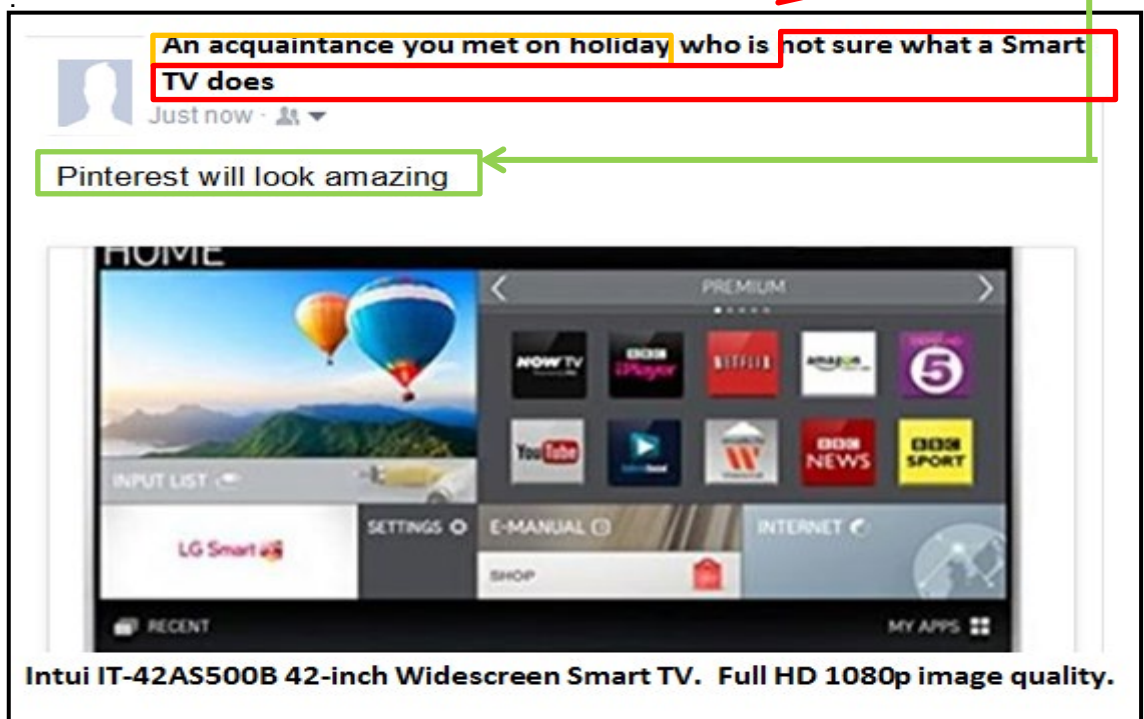
3.3. Study 1: pilot test B

Following the revisions to the experimental conditions as discussed earlier, a second pilot test (B) of Study 1 was conducted. The eight experimental conditions and the control condition used in Study 1 are shown in appendix D.

3.3.1. Sampling

Pilot test B of Study 1 was conducted using a convenience sample of first and second year undergraduate students from the Music and Event Management courses at Buckinghamshire New University. Care was taken to select a separate cohort of students from those who had participated in the pilot of the study to ensure students were not able to participate for a second time to eliminate possible effects of pre-test sensitisation (Crano, Brewer and Lac, 2015). 178 participants took part. 58% were female and 42% were male.

3.3.2. Study 1: pilot test B results

The data was analysed to see if the intended manipulations of tie strength, source expertise and argument strength had performed as intended. The results of the analysis are shown below in Table 14.

Table 14. Results of descriptive statistics and t-tests for argument strength, source expertise and tie strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
Strong argument	M = 24.39, SD = 5.74, n= 79	t= 1.82, p = 0.071
Weak Argument	M = 22.75, SD = 6.06, n = 94	
Expert	M = 18.91, SD = 7.43, n = 99	t= 3.46, p = 0.001
Non- expert	M = 15.05, SD = 7.71, n = 89	
Strong tie	M = 13.08, SD = 6.26, n = 96	t= 5.61, p = 0.000
Weak tie	M = 8.50, SD = 4.78, n = 88	

Anchors for the scale used: 10=weak argument to 40.5=strong argument; 5=non-expert to 25=expert 1= weak tie to 25=strong tie.

For the argument strength manipulation, the strong argument was perceived to be stronger (M= 24.39.63, SD= 5.74) than the weak argument (M= 22.75, SD= 6.06), t (171) = 1.82, p = 0.07. Therefore, the manipulation of argument strength was not effective. For the source expertise manipulation, the expert source was perceived to be stronger (M= 18.91, SD= 7.43) than the non-expert source (M= 15.05, SD= 7.71), t (186) = 3.46, p = 0.001. Therefore, the manipulation of source expertise was effective. For the tie strength manipulation, the strong tie was perceived to be stronger (M= 13.08, SD= 6.26) than the weak tie (M= 8.50, SD= 4.78), t (176) = 5.61, p = 0.00. Therefore, the manipulation of tie strength was effective.

3.3.3. Revision of the experimental conditions

In light of the argument strength manipulations not performing as intended, it was decided to revise the argument strength manipulations. Eight new eWOM comments featuring four strong and four weak arguments were adapted from Johnson (1991); Pham and Avnet (2004) and Rains (2007). Fully mocked up Facebook posts were then constructed using the eight comments plus the tie strength and source expertise descriptors. The control condition was removed as it seemed unnecessary as manipulation checks would be made. This would also help increase the group size for each stimulus condition. Re-test participants were given the following instruction: "You are on Facebook and someone sends you a message regarding a 'Smart TV'". Participants were then instructed to look at eight different mock Facebook posts and rate each post as to how much or how little they presented a strong argument regarding the Smart TV. An example of how one of the mock Facebook posts was presented to the pre-test participants is shown below in Figure 19.

Figure 19. Mock Facebook post (comment A1).
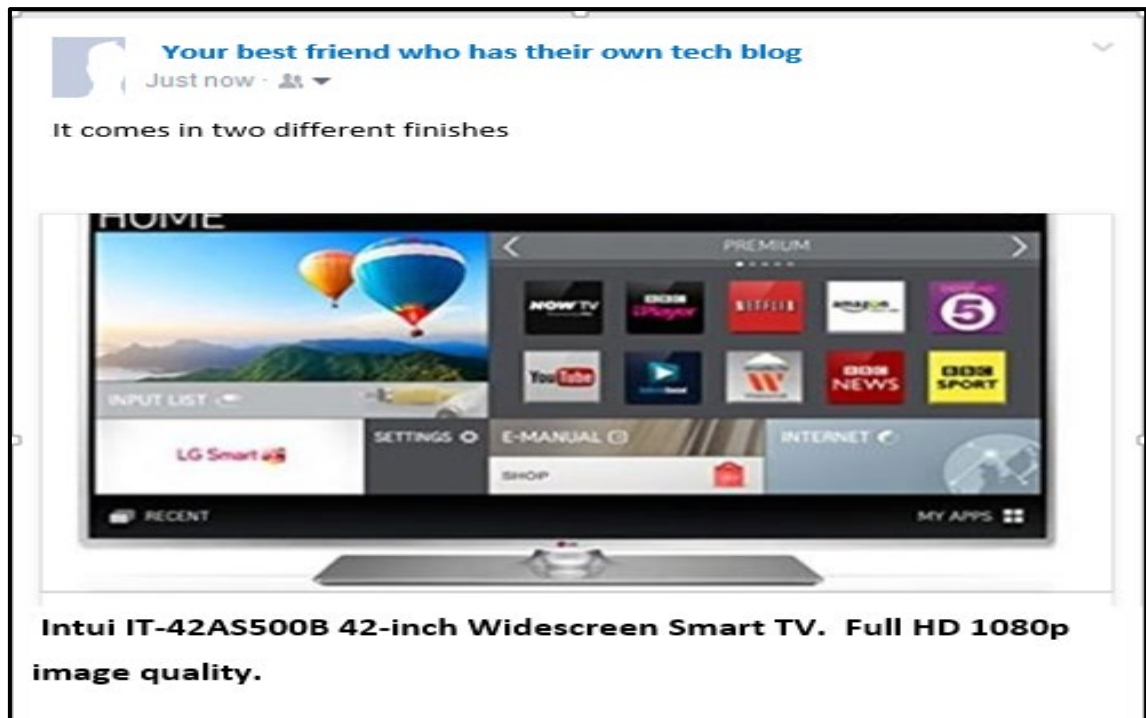
3.3.3.1. Sample for re-test of argument strength manipulation

The re-test of the argument strength manipulations was conducted using a convenience sample of 34 final year undergraduate students from the Event and Festival Management course at Buckinghamshire New University. Participants were asked to rate all eight comments on scales from seven (strong argument) to one (weak argument). The results are shown below in Table 15.

Table 15. Results of the re-test of argument strength manipulations.

Comment ID	Comment	Mean (n=34)	Standard deviation
A1	It comes in two different finishes	1.68	0.73
A2	This is the number 1 Smart TV on the market today for quality and usability	3.82	1.73
A3	Amazon gave this a 5 star review for picture quality and sound	3.79	1.53
A4	It has a power saving function	2.44	1.28
A5	It has its own stand	1.67	1.33
A6	According to Currys this is the best-selling TV in Japan	3.29	1.43
A7	You can choose the colour of the plug	1.50	1.24
A8	This is the highest specification TV on the market for the price	5.00	1.53

Anchors for the scale used: 1=weak argument to 7= strong argument

The eWOM comments with the highest (A8) and lowest (A7) mean scores were used to represent comments containing a strong argument and weak argument respectively. These two comments were incorporated into the eight experimental conditions containing manipulations of tie strength, source expertise and argument strength. A summary of these changes are shown below in Table 16 and two examples of stimulus conditions are shown below in Figures 20 and 21.

Table 16. Summary of the changes to the experimental conditions.

		Study 1: pilot test B	Study 1
Tie strength manipulation	Strong tie descriptor	'Your best friend'	'Your best friend' (NO CHANGE)
	Weak tie descriptor	'An acquaintance you met on holiday'	'An acquaintance you met on holiday' (NO CHANGE)
Source expertise manipulation	Expert comment/ descriptor	'Has their own tech blog'	'Has their own tech blog' (NO CHANGE)
	Non-expert comment/ descriptor	'Not sure what a Smart TV does'	'Not sure what a Smart TV does' (NO CHANGE)
Argument strength manipulation	Strong argument	'According to all the tech blogs, this is number one Smart TV on the market today for quality and usability'	'This is the highest specification TV on the market for the price' (CHANGED after re-test)
	Weak argument	'Pinterest will look amazing'	'You can choose the colour of the plug' (CHANGED after re-test)

Figure 20. Revised experimental condition 1: Strong tie, expert, strong argument.

Your best friend who has their own tech blog
Just now

This is the highest specification TV on the market for the price

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Figure 21. Revised experimental condition 8: Weak tie, not an expert, weak argument.

An acquaintance you met on holiday who is not sure what a Smart TV does

You can choose the colour of the plug

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

A summary of the changes to the manipulations of tie strength, source expertise and argument strength used in pilot test A of Study 1, pilot test B of Study 1, and Study 1 are shown below in Table 17.

Table 17. Summary of the changes to the manipulations of tie strength, source expertise and argument strength.

		Study 1: pilot test A	Study 1: pilot test B	Study 1
Tie strength manipulation	Strong tie descriptor	'Your best friend'	'Your best friend' (NO CHANGE)	'Your best friend' (NO CHANGE)
	Weak tie descriptor	'An acquaintance you met on holiday'	'An acquaintance you met on holiday' (NO CHANGE)	'An acquaintance you met on holiday' (NO CHANGE)
Source expertise manipulation	Expert comment/ descriptor	'I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement'	'Has their own tech blog' (CHANGED: to an expertise descriptor and placed adjacent to the tie strength descriptor)	'Has their own tech blog' (NO CHANGE)
	Non-expert comment/ descriptor	'Not sure what a Smart TV does but it will hopefully do what I need'	'Not sure what a Smart TV does' (CHANGED: to an expertise descriptor and placed adjacent to the tie strength descriptor)	'Not sure what a Smart TV does' (NO CHANGE)
Argument strength manipulation	Strong argument	'According to all the tech blogs, this is number one Smart TV on the market today for quality and usability'	'According to all the tech blogs, this is number one Smart TV on the market today for quality and usability' (NO CHANGE)	'This is the highest specification TV on the market for the price' (CHANGED after re-test)
	Weak argument	'Pinterest will look amazing'	'Pinterest will look amazing' (NO CHANGE)	'You can choose the colour of the plug' (CHANGED after re-test)

3.4. Study 1

Following the revisions to the experimental conditions as discussed earlier, Study 1 was conducted. The eight experimental conditions used in Study 1 are shown in appendix E.

3.4.1. Sampling

Male and female undergraduates at Buckinghamshire New University were invited to participate in Study 1. The students were either drawn from the second and final year cohorts of the Music Business programme or were taken from the second and final year cohorts of the Business School. Students that had taken part in the pre-testing of the stimulus conditions or previous administrations of the study were not invited to participate to remove the potential for interaction effects (Bryman, 2012). 262 participants took part. 53% were female, 42% were male, and 5% declined to identify their gender.

3.4.2. Data analysis

According to Gravetter and Wallnau (2005) and Punch (2005), evaluating the results from an experimental study involves looking for differences between two or more sets of data or groups. Analysis of variance (ANOVA) allows for the evaluation of mean differences between scores of different groups (Salkind, 2014) so was considered an appropriate test for this design. Furthermore, analysis of variance allowed the researcher to look at the individual effects of each factor plus the simultaneous

effects through what is called interactions (Black, 1999; Coolican, 2014; Salkind, 2014).

3.5. Study 2: Qualitative Interviews

Qualitative data can help a researcher to understand the findings of a quantitative study that has yielded little or no significant findings (Weinholtz et al., 1995). Furthermore, collecting quantitative and qualitative data within a single research study can provide a more complete understanding of the research topic (Bryman, 2016). Therefore, in order to further explore some of the issues that had emerged from Study 1, a more comprehensive view of Facebook user's attitudes towards interacting with brand and product related content in their News Feed was sought using face to face interviews. In the explanatory sequential design, qualitative data is collected in the second phase of the study and is related to the outcomes from the initial quantitative phase (Ivankova, Creswell and Stick, 2006; Watkins and Gioia, 2015). The intention of conducting the second qualitative phase was to help explain why the variables manipulated in the first quantitative phase were significant and non-significant factors in the influence mechanism of eWOM in the Facebook News Feed.

3.5.1. Research design

Study 2 employed a cross-sectional research design. A cross-sectional design entails the collection of data on a sample of cases at a single point in time (Bryman, 2016). Cross-sectional designs are useful in obtaining an overall picture of a phenomenon

(Kumar, 2005) but it is difficult to establish causal direction from the resulting data (Bryman, 2016). A cross-sectional design is appropriate for descriptive analysis such as the attitudes of Facebook users towards brand related content in their News Feed (De Vaus, 2001).

3.5.1.1. Research method

The data was collected in Study 2 using interviews. Interviews allow the interviewee more freedom to express their own perspective on an issue or topic than the more rigidly structured questionnaire (Bryman, 2012). A semi-structured approach to the interviews was adopted which is where the interviewer has a set of pre-determined topics or questions to be covered that can be tailored to each interviewee (Crano, Brewer and Lac, 2015). The quality of the interaction between the interviewer and interviewee is important so interviews require the interviewer to have a certain degree of skill so they can establish a rapport with interviewees to encourage detailed answers (De Vaus, 1995; Kvale, 2007). Whilst the interviewer may employ a research schedule, they have the flexibility to deviate from the schedule so they can respond to and probe interesting comments made by the interviewee (Bryman, 2012). This flexibility also allows the interviewer to rephrase questions or to seek clarity on answers where required (Oppenheim, 1992) and also to encourage the interviewee to go into greater depth on answers that seem pertinent (Kvale, 2007). However, conducting semi-structured interviews takes time and a lack of interview skills on the part of the interviewer can adversely affect the quality of the data gained from interviewees (Fink and Kosecoff, 1998; Punch, 2014). The interviewer must not ask leading questions (Bryman, 2012) so care was taken when preparing the

interview schedule to avoid this. There is an ongoing debate as to how the concept of reliability is relevant to qualitative methods such as interviews (Bryman, 2012). The idea of semi-structure interviews being repeatable is difficult to attain due to the impact of factors such as place and the interviewee's mood (Kumar, 2005). However, there is less focus on reliability in qualitative research than quantitative research since it is primarily concerned with the degree of consistency in coding passages of text (Cresswell and Plano Clark, 2011). To ensure the reliability of this method, the researcher took care to document their procedures and to demonstrate that coding categories were used consistently (Silverman, 2013).

3.5.1.2. Interview schedule

An interview schedule was developed from the existing theory reviewed in the literature review and from the outcomes of Study 1. The interview schedule used in the semi-structured interviews is shown below in Figure 22.

Figure 22: Semi-structured interview schedule.

Instruction: I would like to talk to you about brands that you are interested in

Question: Do you discuss brands with friends?

> *Prompt: What brands? What kinds of things do you discuss? Do you discuss face to face or over social media?*

Question: Do you value your friends' opinions regarding brands?

Question: Do some friends know more about certain product types than others?

Question: Would you rely on friends' advice in choosing brands?

> *Prompt: Which type of brands?*

Question: Would you seek their opinion regarding brands if you were looking to make a purchase?

> *Prompt: Why?*

> *Prompt: For which type of products/brands?*

Instruction: I would like to talk to you about how you use social media

Question: Which social media do you regularly use?

Question: What do you use social media for?

Question: What type of content do you enjoy looking at?

Question: What do you use Facebook for?

Instruction: I would like you to think about seeing posts containing brand related content in your Facebook News Feed

Question: Do you read content created by brands on Facebook?

> *Prompt: Why/ why not?*

Question: Do you read content created by brands if it is shared by a friend?

> *Prompt: Why/ why not?*

Question: Do you read comments posted by friends regarding brand related content?

> *Prompt: Why/ why not?*

Instruction: I would like you to look at your Facebook News Feed (but <u>not</u> show me)

Question: Do you follow brands on Fb? Tell me something about the brands you follow and why you follow them?

> *Prompt: What type of brands?*

Question: Do you notice any posts from brands on Fb?

> *Prompt: What type of brands do you notice posts from?*

Question: What type of branded content do you receive?

Question: What do you look at in this type of post?

Instruction: Imagine you needed to buy a new TV

Question: How would you go about selecting the TV to buy?

Question: Where would you look for information regarding TVs?

Question: Would you seek advice from friends?

Instruction: Imagine you were sent this (participant shown a screenshot of a branded post on Facebook)

Question: How would you feel about receiving a post like this?

 Question: Would you read the post?

> *Prompt: Why/ why not?*

Question: Would it matter to you if the post was sent by a close friend or an acquaintance?

> *Prompt: Why would it not matter/ in what way would it matter?*

Question: Would it impact on your attitude towards the TV featured in the post?

> *Prompt: Why/ why not?*

Question: Would it impact on your decision about which TV to buy?

> *Prompt: Why/ why not?*

Question: Would it matter to you if the post was sent by someone you perceived to be an expert regarding TVs?

> *Prompt: In what way would it matter?*

Question: Would their perceived expertise impact on your attitude towards the TV featured in the post?

> *Prompt: Why/ why not?*

Question: Would their perceived expertise impact on your decision about which TV to buy?

> *Prompt: Why/ why not?*

Question: Would it matter more to you if the post contained facts regarding features of the TV as opposed to personal opinions about it?

> *Prompt: In what way would it matter?*

Question: Would facts regarding features of the TV impact on your attitude towards the TV featured in the post?

Prompt: Why/ why not?

Question: Would facts regarding features of the TV impact on your decision about which TV to buy?

Prompt: Why/ why not?

Instruction: Thank you for your time. The interview is now ended.

The questions in the interview schedule addressed participants' use of friends for advice regarding brands and products and whether they relied on that advice. Participants were also asked about what social media they used, and what they used it for. This was further explored by questions regarding the participant's attitude towards receiving brand related content in Facebook and whether they would consume it, share it or read comments attached to it by fellow consumers. Participants were then given the same scenario used in Study 1, where they needed to buy a new TV and were asked to describe how they would go about searching for and selecting such a product and whether WOM would play a role in that process. Following this, participants were shown a screenshot (on the researcher's computer) of a mock Facebook post that was used in Study 1. The post featured a Smart TV product photo, product description and a comment containing a strong argument written by one of their best friends who they knew to be a technology expert. This mock Facebook post was chosen as it contained manipulations of the conditions that should, according to the literature, lead to message attention and elaboration on the part of the respondents (Duhan et al., 1997). It was deemed appropriate to ask

participants directly if those stimulus conditions did encourage those outcomes to help augment the results from Study 1.

Participants were then asked to explain their attitude towards receiving such a post, their reaction to it and whether the quality of the argument contained in the comment, the expertise of the source, or the strength of their relationship to the source would impact on their attitude towards the TV or their likelihood to purchase the TV. The mock Facebook post shown to interview participants is shown in appendix F.

3.5.1.3. Sampling

As discussed earlier, the research adopted a mixed method explanatory sequential design which began by collecting quantitative data followed by qualitative data. The two data collections were related to each other as one informed the other so the participants for the qualitative phase should be those who also participated in the initial quantitative phase (Cresswell and Plano-Clark, 2011). Therefore, only Buckinghamshire New University students who had participated in Study 1 were approached to take part in Study 2. 10 undergraduate second and final year students at Buckinghamshire New University studying Music Management degrees were contacted via email and invited to take part in Study 2 (the email can be found in appendix G). The researcher approached students that he had taught regularly and therefore were well known to each other. This was felt to be advantageous to putting the participants at ease and helping engender the quality of interaction between the interviewer and interviewee. The researcher was aware that there was the potential for undue pressure to be felt by the students to participate. Therefore, the researcher

was careful not to pressurise the students to take part and to make sure that they were fully aware of their right to not participate and withdraw their participation at any point.

The only inclusion criteria for potential participants was that they were active users of Facebook. A purposive sampling design was employed to ensure that participants were regular users of Facebook and were familiar with the Facebook News Feed. When using purposive sampling, the researcher decides who can provide the best information to answer the research questions (Kumar, 2005). Purposive samples cannot be considered statistically representative samples of a population so therefore statistical inferences cannot be made from the sample (Saunders, Lewis and Thornhill, 2012). Ten interviews were conducted. Consideration was given to the sample size required. The researcher's intention was to use the interviews to provide detailed information on eWOM behaviour in Facebook so the in-depth understanding of eWOM behaviour in Facebook from relatively few people would suffice (Cresswell and Plano-Clark, 2011). Furthermore, the population from which the sample was to be drawn (students) could be considered relatively homogenous so the sample size could be relatively small (Bryman, 2016). Taking into consideration these two factors, Saunders, Lewis and Thornhill (2012) argued that a sample size of between 4 and 12 would be sufficient. As a result, ten interviews were considered appropriate for Study 2. Six of the interview participants were female and four were male. All were aged between 20 and 24 years old.

3.5.1.4. Interview administration

Prior to conducting the interviews, the researcher compiled an interview schedule to help ensure that all of the main topics were addressed in all of the interviews. The interviews were conducted in meeting rooms on the University campus and audio recorded. The interviews lasted 25 minutes on average

3.5.1.5. Ethics

The researcher was committed to ensuring that the research conducted in Study 2 was carried out in conformity with generally accepted ethical standards as well as The University of Birmingham's code of practice for research. Potential participants were initially contacted via email and invited to take part in the research. Included in this email was a Participant Information sheet (the email and the Participant Information sheet can be found in appendices G and H) that provided information on the purposes of the research and the procedures involved. Care was taken to ensure that potential participants were not pressured to take part and that there would be no consequences for any participant withdrawing from Study 2. Potential participants were given the option to ask further questions to clarify what was expected of them should they participate.

The researcher was careful to reassure potential participants that their participation or non-participation in the study would be kept confidential. It was made clear to potential participants that only the researcher would have access to the data and that data would not be passed on without their consent. Those students who wished to participate were invited to arrange a suitable time to meet the interviewer on campus

at Buckinghamshire New University to conduct the interview. Prior to the interview getting underway, written informed consent was obtained from all participants (the consent form can be found in appendix I).

The participants in the semi-structured interviews were guaranteed anonymity by the researcher. Therefore the researcher took care to remove direct or indirect identifiers at the transcription phase (De Vaus, 1995; Oppenheim, 1992). Participants were also promised confidentiality which was ensured by the researcher preventing unauthorised access or disclosure of the data (Cohen, Manion and Morrison, 2000). Due to the methodological differences between Study 1 and Study 2, full ethical approval was re-applied for prior to the conducting the interviews. This was approved by the University of Birmingham and Buckinghamshire New University.
The data from Study 2 has been stored on the researcher's personal computer which as discussed earlier is protected by anti-virus software and access is restricted by a password known only to the researcher. To comply with the University of Birmingham's code of practice for research, the data will be preserved and accessible for 10 years. In the event of the need for a new personal computer, the data will be transferred to the new device and erased from the 'old' device by the researcher themselves.

3.5.1.6. Data analysis

The data from the semi-structured interviews was analysed using thematic analysis which is a method that can provide a detailed and complex interpretation of data (Braun and Clarke, 2006). Thematic analysis was deemed a suitable method for Study 2 as it can be used to answer research questions regarding factors that

influence participant's behaviour, can be used to analyse interview data and can be applied to theory driven analysis (Braun and Clarke, 2006; Clarke and Braun, 2013). There are several varieties of thematic analysis but the researcher chose theoretical thematic analysis as it is guided by the existing theory and conceptual framework relevant to the study (Braun and Clarke, 2013). As discussed, the aim of Study 2 was to further explore some of the issues that had emerged from Study 1, so it was deemed appropriate to analyse the interview data using the theoretical and conceptual framework from Study 1. During the first stage of the thematic analysis, the researcher spent time reading through the data to become familiar with its content (Basit, 2003; Howitt, 2013). The next stage involved the researcher generating codes for as many patterns in the data as they saw fit (Basit, 2003; Kvale, 2007; Punch, 2014). A complete coding approach was employed where anything relevant to answering the research question and those issues that had arisen from the results of Study 1 were coded (Braun and Clarke, 2013). Two types of code were employed by the researcher: data derived codes which provided a succinct summary of the explicit content of the data, and researcher derived codes which used the conceptual framework to identify implicit meanings in the data (Braun and Clarke, 2013; Punch, 2014). Once the data was coded, larger patterns in the data in the form of themes were identified. Themes should capture something important about the data in relation to the research question and are typically broader than a single code (Braun and Clarke, 2006; Bryman, 2016).

3.6. Study 3 experiment and questionnaire design

3.6.1. Experimental design

Study 3 was designed to eliminate some of the possible explanations for the results of Study 1 as discussed earlier. Study 3 replicated many of the features of Study 1 but was also modified. In Study 1, participants were presented with a scenario that was intended to make the product personally relevant and of personal consequence to participants to increase their involvement with the product. According to the ELM this should have led to participants elaborating on the eWOM message and using the strength of the argument regarding the featured product to form their attitude towards the product and intention to purchase the product. The lack of a significant result for the impact of argument strength on attitude towards the product and intention to purchase the product from Study 1 suggests that the participants may not have been involved with the product. This possibility was tested in Study 3. A high and low involvement manipulation was added to Study 3. In this way the level of involvement of participants could be measured to see if high involvement participants were not behaving as predicted by the ELM but in the manner suggested by the results of Study 1. It was also therefore necessary to provide participants with a central processing route so the argument strength condition was retained for Study 3 and exactly replicated from Study 1. The source expertise experimental condition from Study 1 was also exactly replicated in Study 3. The tie strength manipulation featured in Study 1 was removed from Study 3. The decision to remove tie strength was based on the results from Study 1. In Study 1, source expertise was found to have a significant impact on intention to purchase the product but not attitude towards the

product. Study 3 aimed to re-examine this apparent inconsistency. In Study 1, tie strength was found to have no significant impact on attitude towards the product or intention to purchase the product. Both source expertise and tie strength are considered peripheral route cues by the ELM (Petty and Cacioppo, 1986). Study 1 participants may have felt that the message from an expert was sufficient to give them the confidence they were making a correct decision and had no need to seek further assurance from other cues in the message (Bohner, Moskowitz and Chaiken, 1995). Involvement has been found to moderate the impact of source expertise in an offline environment (Homer and Kahle, 1990) so this was also investigated in Study 3 to see if this result could be replicated in the online environment of a Facebook News Feed.

3.6.2. Hypotheses

Based on the results of Study 1 and Study 2, the following hypotheses were proposed for Study 3.

H6a: The greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product

H6b: The greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product

H7a: Involvement moderates the impact of source expertise: the effect of source expertise on attitude towards the product is greater for high involvement participants than low involvement participants.

H7b: Involvement moderates the impact of source expertise: the effect of source expertise on intention to purchase the product is greater for high involvement participants than low involvement participants.

Study 3 employed a post-test only design. A 2 (involvement: high and low) x 2 (source expertise: expert and non-expert) x 2 (argument strength: strong and weak) factorial design was used. There were two dependent variables used in Study 3 to measure persuasion: attitude towards the product and intention to purchase the product. The eight different experimental conditions used in Study 3 are shown below in Table 18.

Table 18. Experimental conditions.

Experimental condition	Purchase decision involvement	Source expertise	Argument strength
1	High	Expert	Strong
2	High	Expert	Weak
3	High	Non-expert	Strong
4	High	Non-expert	Weak
5	Low	Expert	Strong
6	Low	Expert	Weak
7	Low	Non-expert	Strong
8	Low	Non-expert	Weak

Each participant was randomly allocated to a mock Facebook News Feed post featuring one of the eight experimental conditions containing the product photograph, product description and manipulations of involvement, source expertise and argument strength. Each participant was shown only one of the eight experimental conditions. After the mock Facebook post, participants were directed to an online

questionnaire to measure the three independent variables, involvement, source

expertise and argument quality. The questionnaire then measured the two dependent

variables, the participant's attitude towards the product and their intention to

purchase the product.

3.6.3. The product used in the experiment

The product used was exactly the same as the product featured in Study 1. The

product photograph and product description used in Study 3 were also exactly the

same as those used in Study 1. The product photograph and product description

used in Study 3 is shown below in Figure 23.

Figure 23. Product photograph and product description (Study 3).

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.
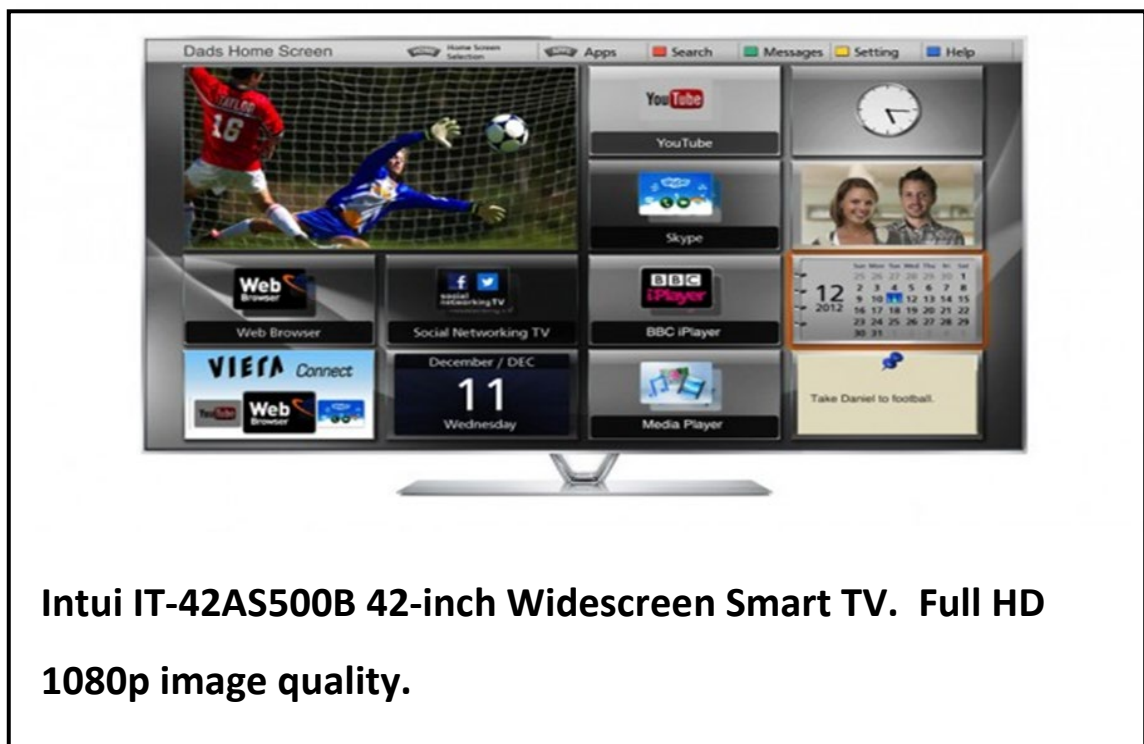
3.6.4. Developing the experimental conditions

3.6.4.1. Purchase decision involvement manipulation

Involvement requires a goal object which can be a product, brand or a purchase decision (Mittal, 1989; Blythe, 2013). Involvement with a product can be an enduring interest with the product class or a temporary, situational interest in the product during the purchase decision process (Celsi and Olson, 1988). Purchase decision involvement is 'the extent of interest and concern that a consumer brings to bear upon a purchase-decision task' (Mittal, 1989, p. 150). Many consumers would not be constantly involved in a Smart television, but they would become highly involved when deciding to purchase one (Mittal and Lee, 1988). Both product and purchase decision involvement influence consumers' motivation to process information (Park, Lee and Han, 2007).

Study 3 employed purchase decision involvement for the involvement manipulation by using role-play scenarios at the start of the experiment. Participants in the high purchase decision involvement condition were asked to read carefully the hypothetical but realistic scenario (shown below).

"Imagine that your television has stopped working and is considered beyond repair. As a consequence, you have decided to buy a new television and have started looking at what is available. Fortunately, you have recently been given £500 and have decided to spend all of it on buying the new TV.

Meanwhile, you are on Facebook and receive a post about a TV"

The high involvement scenario placed participants in a purchase decision situation (Bloch and Richins, 1983). High purchase decision involvement participants were instructed that they had to make a purchase decision regarding the featured product. This provided participants with a goal object and should have led to interest and concern regarding the purchase decision task (Mittal, 1989).

Low involvement participants were asked to read carefully the hypothetical but realistic scenario (shown below):

You are on Facebook and receive a post about a TV"

In the low involvement scenario participants were not told that they would have to make a purchase decision about the Smart television so had no goal object and therefore should have had little purchase decision involvement (Petty, Cacioppo and Schumann, 1893). For many consumers, a largely utilitarian product such as a Smart television has little enduring product involvement (Mittal, 1989). Therefore, participants exposed to the low purchase decision involvement experimental condition were likely to have only a low involvement with either the product or the purchase decision process.

3.6.4.2. Source expertise manipulation

The manipulation of source expertise was adapted from Mackiewicz (2010) and was exactly the same as that used in Study 1.

3.6.4.3. Argument strength manipulation

The manipulation of argument strength was adapted from Johnson (1991); Rains (2007) and Pham and Avnet (2004) and was exactly the same as that used in Study 1.

Study 1 featured a manipulation of tie strength but this was removed in experiment 3 and replaced by a manipulation of purchase decision involvement. Examples of two of the experimental conditions are shown below in Figures 24 and 25.

Figure 24. Experimental condition 1: Expert, strong argument.
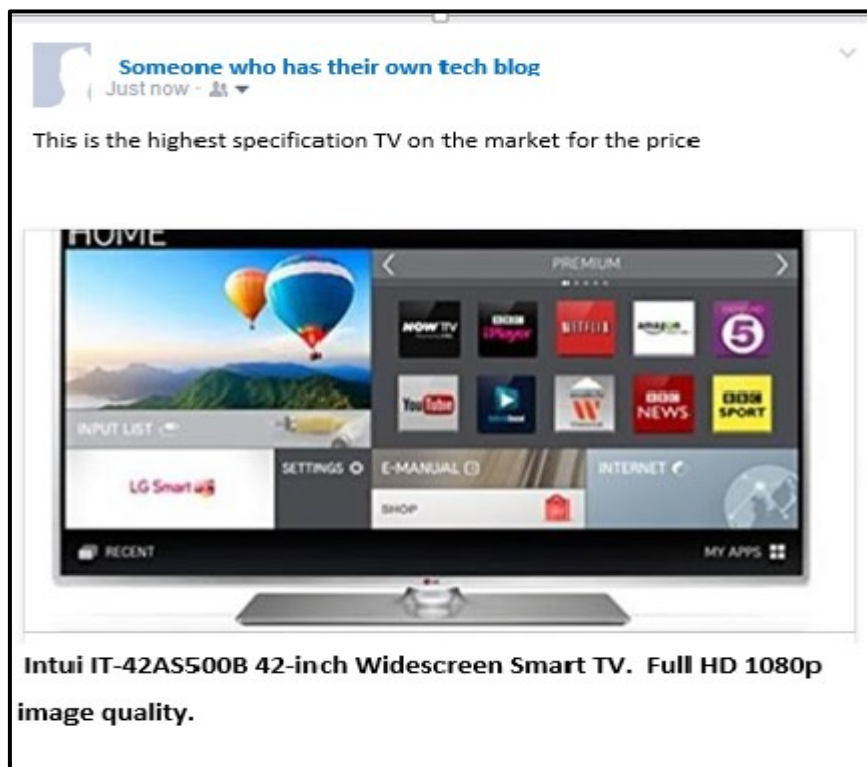
Figure 25. Experimental condition 4: Non-expert, weak argument.

3.6.5. Questionnaire design

An online structured self-administered questionnaire was developed using SurveyMonkey that contained a series of closed questions designed to measure respondents' attitudes towards the product, their intention to purchase the product, purchase decision involvement, perceived source expertise and perceived argument strength. This allowed for the outcome variables to be measured and data to be collected to ascertain if the experimental conditions had performed as planned.

3.6.5.1. Developing the questionnaire

The questionnaire was made up of three sections. The first section contained the consent form. Once participants had given consent they were asked to click the 'next' button on their screen which took them to part two of the questionnaire. The second

section incorporated the manipulation of purchase decision involvement. Participants were randomly allocated to either the high involvement or low involvement scenario where they were instructed to read the scenario carefully and after reading it were asked to study the next page carefully as they were to be asked a series of questions about it. Having clicked the 'next 'button on their screen, participants were randomly allocated to one of four mock Facebook posts featuring manipulations of source expertise and argument strength. After reading the Facebook post participants were then instructed to click the 'next' button which took them to part three of the questionnaire. Part three of the questionnaire measured participant's attitude towards the product featured in the mock Facebook post, their intention to purchase the product, their perception of the expertise of the sender of the post, their perception of the strength of the argument contained in the comment written by the sender and their level of purchase decision involvement. Finally, participants were asked their gender and their age and thanked for taking part in the questionnaire. Overall, the questionnaire contained 31 items.

3.6.5.2. Measuring the independent variables

It was necessary to measure the three independent variables in the questionnaire to be able to perform manipulation checks to see if the manipulations of purchase decision involvement, source expertise and argument strength had been successful.

3.6.5.2.1. Purchase decision involvement

Purchase decision involvement was measured using the purchase decision involvement scale developed and validated by Mittal (1989), shown below in Table 19.

Table 19. Purchase decision involvement scale (Mittal, 1989)

Indicator	Item	Scale
Care about the product	In selecting from the many types and brands of this product available in the market, would you say that:	7-point scale (where 7 = " I would care a great deal as to which one I buy " and 1 = " I would not care at all as to which one I buy ")
Perceived brand differences	"Do you think that the various types and brands of this product available in the market are all very alike or are all very different?	7-point scale (where 7 = "They are all very different " and 1 = " They are alike ")
Importance of making the right choice	"How important would it be to you to make a right choice of this product?	7-point scale (where 7 = " Extremely important " and 1 = " Not at all important")
Concern with outcome	"In making your selection of this product, how concerned would you be about the outcome of your choice?	7-point scale (where 7 = "Very much concerned" and 1 = " Not at all concerned")

The four indicators were summed to create a 28-point, composite purchase decision involvement measure.

Mittal (1989) tested the internal reliability of the scale and reported a Cronbach's Alpha of 0.85. This scale was later used by Kim and Sung (2009); Chen, Kim and Lin (2015); Prasad, Gupta and Totala (2017) and Sang, Xue and Zhao (2018) who also tested the internal reliability of the scale. The results are shown below in Table 20.

Table 20. Internal reliability of the scale to measure purchase decision involvement.

Independent variable	Item	Employed by	Reported reliability
Purchase decision involvement	7 point semantic differential scale	Mittal (1989)	0.85
		Kim and Sung (2009)	0.94
		Chen, Kim and Lin (2015)	0.88
		Prasad, Gupta and Totala (2017)	0.82
		Sang, Xue and Zhao (2018)	0.76

3.6.5.2.2. Source expertise

The source expertise of the person providing the information was assessed using a scale developed and validated by Ohanian (1990) and was the same as the scale used in Study 1.

3.6.5.2.3. Argument strength

Argument strength was assessed using a scale developed and validated by Zhao et al., (2011) and was the same as the scale used in Study 1.

3.6.5.3. Measuring the dependent variables

3.6.5.3.1. Measuring attitude towards the product

Attitude towards the product was measured using the Attitude Towards the Product scale (high tech) developed by Roehm and Sternthal (2001) and was the same as the scale used in Study 1.To assess attitude towards the product, participants were instructed in the questionnaire as follows: "Thinking about the Intui IT-42AS500B TV,

for each pair of words below please indicate on the scales what you think and feel about the product".

3.6.5.3.2. Measuring intention to purchase the product

Intention to purchase the product was measured using a purchase probability scale developed by Juster (1966) and was the same as the scale used in Study 1. To assess intention to purchase the product, participants were instructed in the questionnaire as follows: "How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)".

3.6.6. Sampling

Study 3 used a convenience sample of undergraduate students at Buckinghamshire New University who were then randomly allocated to the experimental conditions using SurveyMonkey. This ensured that the core requirement of random allocation was achieved in that each participant in Study 3 had an equal chance of being assigned to any of the experimental or control condition as any other participant (Crano, Brewer and Lac, 2015). As discussed earlier, using only undergraduate students from one UK University represents a restricted population who are unlikely to be representative of the population of interest, therefore it would be unwise to generalise the results of Study 3 to a broader adult population (Bryman, 2012) but can be used to generalise theories to a particular context (Silverman, 2013).

3.6.6.1. Sample size

The sample size for Study 3 was developed on the basis of the level of power required in the study (Field, 2013). An a priori sample size test for ANOVA was conducted using G*Power and the total sample size required was found to be 113. All students who participated in Study 3 were undergraduate full-time students at Buckinghamshire New University and were from two schools within the university, the School of Media and Creative Industries and The Business School.

3.6.7. Administration of Study 3

The students were approached at the start of scheduled lectures where a Participant Information sheet containing information on the purposes of the research was shown to all potential participants using PowerPoint slides projected onto the lecture theatre screen. Students were given the opportunity to ask the researcher questions regarding the research after which a web address was projected on the lecture theatre screen and those students who wished to participate were invited to post the address in their personal laptop, tablet or mobile phone browser to access the SurveyMonkey web page connected to Study 3. The SurveyMonkey web page contained a means to signal consent and once consent was gained, participants were invited to begin Study 3. Participants were randomly allocated to a page containing either the high or low purchase decision involvement scenario and instructed to read the page carefully. Participants were then randomly allocated to a mock Facebook post featuring one of the four experimental conditions featuring manipulations of argument strength and source expertise. Once participants had been shown the mock Facebook post they were instructed to complete the online

questionnaire to measure the three independent and two dependent variables featured in Study 3. The questionnaire was completed by most participants within 15 minutes.

3.6.8. Ethics

The researcher was committed to ensuring that the research conducted in Study 3 was carried out in conformity with generally accepted ethical standards as well as The University of Birmingham's code of practice for research. Potential participants were informed of the purpose of the study by way of a Participant Information sheet (see appendix K). The researcher ensured that all potential participants were given all the relevant information to understand what was required of them. Potential participants were also given an opportunity to ask questions regarding the research. Following this, written informed consent (see appendix L) was obtained from all participants of Study 3.

It was made clear to all participants that only the researcher would have access to the questionnaire data and that it would not be passed on without their consent. Students were also notified that full ethical approval had already been obtained from the University of Birmingham and Buckinghamshire New University.

Participants were not asked their name in the questionnaire, and the biographical data sought in the questionnaire was limited to that required for the research purposes so only participant's age and gender was captured. In this way, participants were ensured complete and total anonymity.

The data from Study 3 has been stored on the researcher's personal computer which as discussed earlier is protected by anti-virus software and access is restricted by a password known only to the researcher. To comply with the University of Birmingham's code of practice for research, the data will be preserved and accessible for 10 years.

3.6.9. Study 3: pilot test A

A pilot test of Study 3 was conducted to determine if the manipulations of purchase decision involvement, argument strength and source expertise had worked as planned and that the questionnaire operated as intended. The purchase decision involvement manipulation and the four experimental conditions used in the pilot test of Study 3 are shown in appendix M.

3.6.9.1. Sampling

Pilot test A of Study 3 was conducted using a convenience sample of first year undergraduate students from the BA Events and Festivals Management course at Buckinghamshire New University. 20 participants took part. 65% were female, 35% were male.

3.6.9.2. Study 3: pilot test A results

The data was analysed to see if the intended manipulations of purchase decision involvement, source expertise and argument strength had performed as intended. The results of the analysis are shown below in Table 21.

Table 21. Results of descriptive statistics and t-tests for purchase decision involvement, source expertise and argument strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
High purchase decision involvement	M = 16.13, SD = 3.48 n= 8	t= 0.92, p = 0.37
Low purchase decision involvement	M = 14.67, SD = 3.47, n = 12	
Expert	M = 14.40, SD = 5.28, n = 10	t= 2.0, p = 0.85
Non- expert	M = 13.90, SD = 5.99, n = 10	
Strong argument	M = 15.50, SD = 4.10, n = 7	t= -0.99, p = 0.34
Weak Argument	M = 17.50, SD = 4.31, n = 11	

Anchors for the scales used: 4=low purchase decision involvement to 28=high purchase decision involvement; 5=non-expert to 25=expert; 10=weak argument to 40.5=strong argument

For the purchase decision involvement manipulation, the high purchase decision involvement condition was greater (M = 16.13, SD = 3.48) than the low purchase decision involvement condition (M = 14.67, SD = 3.47), $t(18) = 0.92$, $p = 0.37$. Hence, the manipulation of tie strength was not effective. For the source expertise manipulation, the expert source was perceived to be stronger (M = 14.40, SD = 5.28) than the non-expert source (M = 13.90, SD = 5.99), $t(18) = 2.00$, $p = 0.85$. Hence, the manipulation of source expertise was not effective. For the argument strength manipulation, the strong argument was not perceived to be stronger (M = 15.50, SD = 4.10) than the weak argument (M = 17.50, SD = 4.31), $t(16) = -0.99$, $p = 0.34$. Hence, the manipulation of argument strength was not effective.

3.6.9.3 Study 3: pilot test B

Consideration was given as to why the manipulations of purchase decision involvement, source expertise and argument strength had not performed as intended. In experiment 1, the exact same manipulations for source expertise and argument had performed as intended so the decision was made to continue with this manipulation and pilot it again. The two purchase decision involvement scenarios were altered to make the high involvement scenario more involving, and the low involvement scenario less involving. A second pilot test, hereafter referred as pilot test B was conducted. The scenarios used in pilot test A of Study 3 and the revised scenarios used in pilot test B of Study 3 are shown below in Table 22.

Table 22. Summary of the changes to the experimental conditions for purchase decision involvement.

	Study 3: pilot test A	Study 3: pilot test B
High PDI	**"Imagine that your television has stopped working and is considered beyond repair. As a consequence, you have decided to buy a new television and have started looking at what is available. Fortunately, you have recently been given £500 and have decided to spend all of it on buying the new TV.** **Meanwhile, you are on Facebook and receive a post about a TV"**	**"Imagine that your television has stopped working and is considered beyond repair. As a consequence, you have to buy a new television and have started looking at what is available. Fortunately, you have recently been given £500 and have decided to spend all of it on buying the new TV.** **Meanwhile, you are on Facebook and receive a post about a TV"**
Low PDI	**You are on Facebook and receive a post about a TV"**	**You are on Facebook and receive a post"**

3.6.9.4. Sampling

Pilot test B of Study 3 was conducted using a convenience sample of third year undergraduate students from the BA Music and Live Events Management course at Buckinghamshire New University. 35 participants took part. 60% were female, 34% were male and 6% declined to answer.

3.6.9.5. Study 3: pilot test B results

The data was analysed to see if the intended manipulations of purchase decision involvement, source expertise and argument strength had performed as intended. The results of the analysis are shown below in Table 23.

Table 23. Results of descriptive statistics and t-tests for purchase decision involvement, source expertise and argument strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
High purchase decision involvement	M = 16.81, SD = 3.92 n= 16	t= 2.06, p = 0.048
Low purchase decision involvement	M = 14.21, SD = 3.47, n = 19	
Expert	M = 19.23, SD = 7.46, n = 15	t= 3.02, p = 0.006
Non- expert	M = 12.30, SD = 5.67, n = 20	
Strong argument	M = 20.58, SD = 7.58, n = 13	t= 1.12, p = 0.28
Weak Argument	M = 17.96, SD = 4.84, n = 21	

Anchors for the scales used: 4=low purchase decision involvement to 28=high purchase decision involvement; 5=non-expert to 25=expert; 10=weak argument to 40.5=strong argument

For the purchase decision involvement manipulation, the high purchase decision involvement condition was greater (M = 16.81, SD = 3.92) than the low purchase decision involvement condition (M = 14.21, SD = 3.47), t (33) = 2.06, p = 0.048. Hence, the manipulation of purchase decision involvement was effective. For the source expertise manipulation, the expert source was perceived to be stronger (M =

19.23, SD = 7.46) than the non-expert source (M = 12.30, SD = 5.67), t (33) = 3.02, p = 0.006. Hence, the manipulation of source expertise was effective. For the argument strength manipulation, the strong argument was perceived to be stronger (M = 20.58, SD = 7.58) than the weak argument (M = 17.96, SD = 4.84), t (32) = 1.12, p = 0.28. Hence, the manipulation of argument strength was not effective.

3.6.10. Study 3

Following pilot test B, Study 3 was conducted. The eight experimental conditions used in Study 3 are shown in appendix M.

3.6.10 .1. Sampling

Male and female undergraduates at Buckinghamshire New University were invited to participate in Study 3. The students were either drawn from the second and final year cohorts of the Music Business programme or were taken from the second and final year cohorts of the Business School. Students that had taken part in previous administrations of the study were not invited to participate to remove the potential for interaction effects (Bryman, 2012). 127 participants took part. 51% were female, 44% were male, and 5% declined to identify their gender.

4. Results

4.1. Study 1

4.1.1. The participants

262 participants took part. 53% were female, 42% were male and 5% declined to identify their gender. The ages of the participants are shown below in Figure 26.

Figure 26. Participant's age.
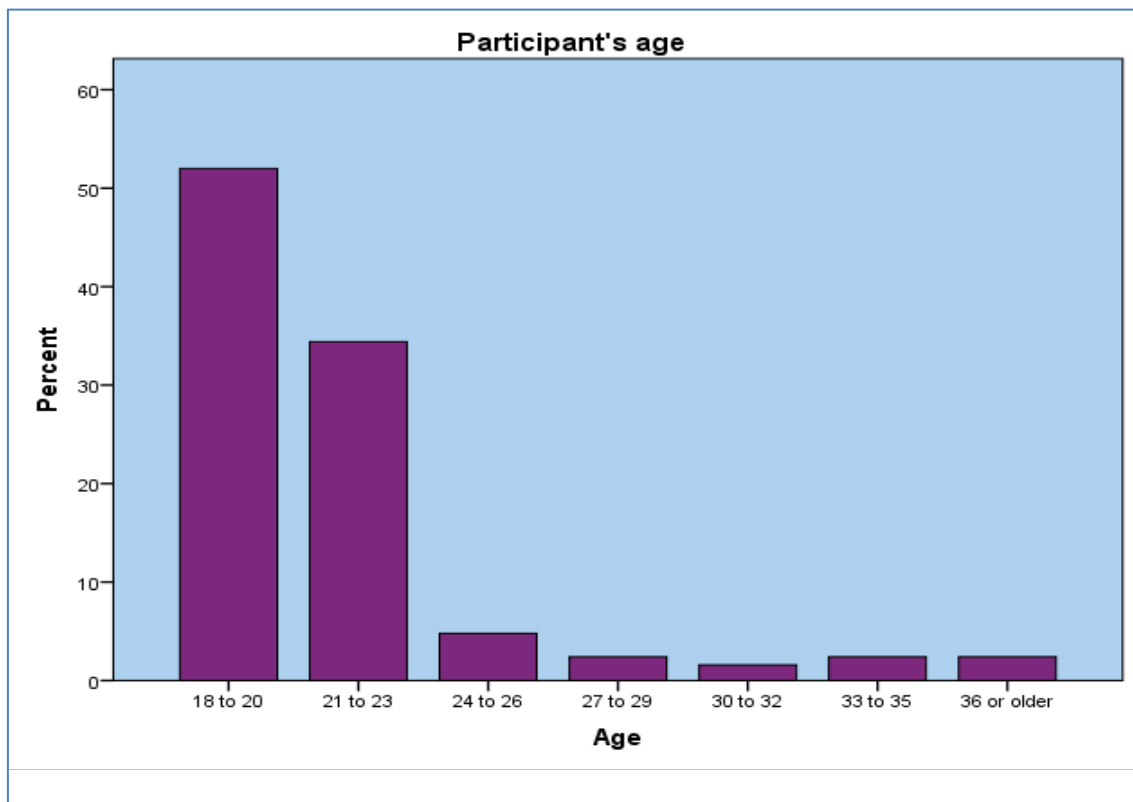
4.1.2. Manipulation checks

The data was analysed to see if the manipulations of argument strength, source expertise and tie strength had performed as intended. The results of the analysis are shown below in Table 24.

Table 24. Results of descriptive statistics and t-tests for argument strength, source expertise and tie strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
Strong argument	M = 23.04, SD = 6.54, n= 139	
Weak Argument	M = 21.05, SD = 6.41, n = 106	t= 2.39, p = 0.018
Expert	M = 19.67, SD = 6.62, n = 129	
Non- expert	M = 14.80, SD = 7.69, n = 128	t= 5.83, p = 0.000
Strong tie	M = 12.29, SD = 5.49, n = 132	
Weak tie	M = 8.67, SD = 4.44, n = 126	t= 5.52, p = 0.000

Anchors for the scale used: 10=weak argument to 40.5=strong argument; 5=non-expert to 25=expert
1= weak tie to 25=strong tie

The strong argument (M = 23.04, SD = 6.54) was perceived to be stronger than the weak argument (M = 21.05, SD = 6.41), t (228.38) = 2.39, p = 0.002. Therefore, the manipulation of argument strength was effective.

The expert source (M = 19.67, SD = 6.62) was perceived to have more expertise than the non-expert source (M = 14.80, SD = 7.69), t (255) = 5.83, p = 0.00. Therefore, the manipulation of source expertise was effective.

The strong tie (M = 12.29, SD = 5.49) was perceived to be stronger than the weak tie (M = 8.67, SD = 4.44), t (249.34) = 5.52, p = 0.00. Therefore, the manipulation of tie strength was effective.

4.1.3. Hypothesis testing

4.1.3.1. Attitude towards the product

A 2 (strong argument vs. weak argument) x 2 (expert source vs. non-expert source) x 2 (strong tie vs. weak tie) factorial ANOVA was performed to examine the main effects and interaction effects of argument strength, source expertise and tie strength on attitude towards the product. The results of the analysis of the data are shown below in Table 25 and Table 26.

Table 25. Descriptive statistics for attitude towards the product in each of the experimental conditions.

Source expertise	Tie strength	Strong argument	Weak argument
Expert	Strong	51.41 (39, 10.27)	48.24 (33, 11.36)
	Weak	49.68 (43, 11.80)	46.65 (26, 10.30)
Non-expert	Strong	46.34 (37, 11.23)	46.69 (26, 12.15)
	Weak	47.15 (34, 11.68)	45.27 (33, 8.96)

Note: Mean (N, SD).
Anchors for the scale used: 7=very negative attitude to 70=very positive attitude

Table 26. Analysis of the effect of argument strength, source expertise and tie strength on attitude towards the product.

Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	η_p^2
Argument strength	241.248	1	241.248	1.987	0.160	0.008
Source expertise	442.104	1	442.104	3.641	0.057	0.014
Tie strength	63.396	1	63.396	0.522	0.471	0.002
Argument strength * Source expertise	86.087	1	86.087	0.709	0.401	0.003
Argument strength * Tie strength	16.762	1	16.762	0.138	0.711	0.001

H1a: The greater the perceived argument strength of the message, the more favourable the message recipient's attitude towards the product

Argument strength had no significant effect on attitude towards the product, F (1, 254) = 1.99, p = 0.16, η_p^2 = 0.008. Therefore, hypothesis H1a was not supported.

H2a: The greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product

Source expertise had no significant effect on attitude towards the product, F (1, 254) = 3.64, p = 0.06, η_p^2 = 0.014. Therefore, hypothesis H2a was not supported.

H3a: Argument strength moderates the impact of source expertise on the message recipient's attitude towards the product

The interaction effect of argument strength and source expertise on attitude towards the product, $F(1, 254) = 0.71$, $p = 0.40$, $\eta_p^2 = 0.003$, did not reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H3a was not supported.

H4a: The greater the tie strength between the message sender and recipient, the more favourable the message recipient's attitude towards the product

Tie strength had no significant effect on attitude towards the product, $F(1, 254) = 0.52$, $p = 0.47$, $\eta_p^2 = 0.002$. Therefore, hypothesis H4a was not supported.

H5a: Argument strength moderates the impact of tie strength on the message recipient's attitude towards the product

The interaction effect of argument strength and tie strength on attitude towards the product, $F(1, 254) = 0.14$, $p = 0.71$, $\eta_p^2 = 0.001$ did not reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H5a was not supported.

4.1.3.2. Intention to purchase the product

A 2 (strong argument vs. weak argument) x 2 (expert source vs. non-expert source) x 2 (strong tie vs. weak tie) factorial ANOVA was performed to examine the main effects and interaction effects of argument strength, source expertise and tie strength on intention to purchase the product. The results of the analysis are shown below in Table 27 and Table 28.

Table 27. Descriptive statistics for intention to purchase the product for each of the experimental conditions.

Source expertise	Tie strength	Strong argument	Weak argument
Expert	Strong	4.49 (35, 2.80)	4.75 (32, 2.72)
	Weak	4.79 (34, 2.63)	4.08 (25, 2.65)
Non-expert	Strong	3.81 (36, 2.45)	4.08 (26, 2.93)
	Weak	3.66 (32, 2.87)	3.82 (33, 2.27)

Note: Mean (N, SD).
Anchors for the scale used: 0=no chance, almost no chance to 10=certain, practically certain

Table 28. Analysis of the effect of argument strength, source expertise and tie strength on intention to purchase the product.

Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	η_p^2
Argument strength	0.182	1	.182	0.026	0.873	0.000
Source expertise	33.926	1	33.926	4.792	0.030	0.019
Tie strength	3.658	1	3.658	0.517	0.473	0.002
Argument strength * Source expertise	4.564	1	4.564	0.645	0.423	0.003
Argument strength * Tie strength	3.067	1	3.067	0.433	0.511	0.002

H1b: The greater the perceived argument strength of the message, the greater the message recipient's intention to purchase the product

Argument strength had no significant effect on intention to purchase the product, $F(1, 245) = 0.03$, $p = 0.87$, $\eta_p^2 = 0.000$. Therefore, hypothesis H1b was not supported.

H2b: The greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product

Perceived expertise had a significant effect on intention to purchase the product, $F(1, 245) = 4.79$, $p = 0.03$, $\eta_p^2 = 0.019$. Therefore, hypothesis H2b was supported although the effect size was small.

H3b: Argument strength moderates the impact of source expertise on the message recipient's intention to purchase the product

The interaction effect of argument strength and source expertise on intention to purchase the product, $F(1, 245) = 0.65$, $p = 0.42$, $\eta_p^2 = 0.003$, did not reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H3b was not supported.

H4b: The greater the tie strength between the message sender and recipient, the greater the message recipient's intention to purchase the product

Tie strength had no significant effect on intention to purchase the product, F (1, 245) = 0.52, p = 0.47, η_p^2 = 0.002. Therefore, hypothesis H4b was not supported.

H5b: Argument strength moderates the impact of tie strength on the message recipient's intention to purchase the product

The interaction effect of argument strength and tie on intention to purchase the product, F (1, 245) = 0.43, p = 0.51, η_p^2 = 0.002 did not reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H5b was not supported.

4.2. Study 2: the semi-structured interviews

4.2.1. The participants

10 participants took part. 6 were female and 10 were male.

The interview data was analysed using theoretical thematic analysis. This involved analysing the interview data using the theoretical and conceptual framework from Study 1 to help explore some of the results from Study 1. A complete coding approach was employed where anything relevant to answering the research question or explaining the issues that had arisen from the results of Study 1 were coded (Braun and Clarke, 2013). 17 codes were applied to the data. These were: the impact of argument strength on attitude towards the product; the impact of argument strength on intention to purchase the product; the impact of argument strength on the

product consideration set; the impact of source expertise on attitude towards the product; the impact of source expertise on intention to purchase the product; the impact of tie strength on attitude towards the product; the impact of tie strength on intention to purchase the product tie strength as a decision heuristic; communication mode; opinions or facts; the participant's use of eWOM; Facebook and brands; product involvement; product risk; use of Facebook over time; information overload; Lack of a familiar brand. The codes applied to the data and associated quotes are shown below in Tables 29 to 45 inclusive.

Table 29. Quote excerpts illustrating the initial code 'The impact of argument strength on attitude towards the product'.

Participant ID	Code: The impact of argument strength on attitude towards the product
A (Female)	"It [the comment] would have a positive impact [on my attitude towards the product]
B (F)	
C (F)	
D (F)	
E (Male)	Yeah, it [the argument contained in the eWOM message] would make me think more favourably [towards the product]
F (M)	It would have no impact on my attitude towards the product
G (M)	"As a whole the impact [on my attitude towards the product] is positive"
H (F)	It would [make me think more favourably towards the product]
I (M)	
J (F)	

Table 30. Quote excerpts illustrating the initial code 'The impact of argument strength on intention to purchase the product'

Participant ID	Code: The impact of argument strength on intention to purchase the product
A (Female)	
B (F)	
C (F)	"No [impact on likelihood to buy]"
D (F)	"It wouldn't impact [on my likelihood to buy the TV]"
E (Male)	
F (M)	
G (M)	"No [it would not make me more likely to purchase the TV]"
H (F)	"It would [make me more likely to buy the product]"
I (M)	"No [I wouldn't be more likely to buy the TV]"
J (F)	

Table 31. Quote excerpts illustrating the initial code 'The impact of argument strength on the product consideration set'.

Participant ID	Code: The impact of argument strength on the product consideration set
A (Female)	
B (F)	"If [the argument] was coherent and knowledgeable I would maybe do a bit of research into it [the TV]"
C (F)	"I'd want to be fully informed about it [the product]" "I would probably want a bit more information"
D (F)	"I'd need further confirmation [of the argument]"
E (Male)	
F (M)	"I'd have a lot more interest [in the Smart TV] …..because I like to know specifics and details
G (M)	"I'd need to do further research [on the product]"
H (F)	
I (M)	"I would be interested to….. read about the actual product"
J (F)	"I'd want further information [on the product]"" No I don't think so [be more likely to buy the TV]…..but I would be interested to read about the technology and the actual product"

Table 32. Quote excerpts illustrating the initial code 'The impact of source expertise on attitude towards the product'.

Participant ID	Code: The impact of source expertise on attitude towards the product
A (F)	It would have a positive impact [on my attitude towards the TV]"
B (F)	"If they know about it [the TV].....yeah [my attitude towards the product might improve"
C (F)	[It wouldn't affect my attitude towards the product]....as I would probably want a bit more information"
D (F)	"I'd probably view the TV a bit less if they didn't have the full know how about it"
E (M)	"Yeah [it would have a positive impact on my attitude towards the product]..... because it's the knowledge thing again"
F (M)	"It [the post] wouldn't affect me [attitude towards the product]"
G (M)	"Yes [I would think more favourably about the product] .....if they [the message sender] had their own tech blog"
H (F)	"Yes [I would think more favourably towards the product]..... if it was someone who had a good knowledge in that area"
I (M)	"Yeah [I'd look at the post].....because they obviously know that they are talking about"
J (F)	"[A post from a non-expert] would make me question it [their opinion].....there wouldn't be as much trust there.....maybe I wouldn't click on it"

Table 33. Quote excerpts illustrating the initial code 'The impact of source expertise on intention to purchase the product'.

Participant ID	Code: The impact of source expertise on intention to purchase the product
A (F)	"Maybe [it would impact on my decision of which TV to buy] in consideration if I hadn't looked at it before"
B (F)	"If they know about it [the TV].....I'd be more likely to buy it".
C (F)	"I wouldn't take their [expert] opinion for something I'd buy.....I'd want to be fully informed about it"
D (F)	
E (M)	
F (M)	"It [the post] would not really have any effect [on intention to purchase the product]"
G (M)	"If this one [post] came up from my best friend who has their own tech blog then I would probably consider it as a purchase"
H (F)	"It would [make me more likely to buy the product]"
I (M)	
J (F)	

Table 34. Quote excerpts illustrating the initial code 'The impact of tie strength on attitude towards the product'.

Participant ID	Code: The impact of tie strength on attitude towards the product
A (Female)	
B (F)	"Yeah, my attitude towards the product would improve [if the post came from a best friend]"
C (F)	"No, it [a post from a best friend] wouldn't make a difference [on my attitude towards the product]"
D (F)	" I would view the product more favourably [if a friend posted the message]"
E (Male)	
F (M)	
G (M)	"Yes [I'd think more favourably about the product] if the post came from a best friend"
H (F)	
I (M)	"No, it [a post from a close friend] wouldn't make a difference [on my attitude towards the product]"
J (F)	

Table 35. Quote excerpts illustrating the initial code 'The impact of tie strength on intention to purchase the product'.

Participant ID	Code: The impact of tie strength on intention to purchase the product
A (Female)	
B (F)	"I 'd be more likely to buy it [the product["
C (F)	"I wouldn't look at it [the post]"
D (F)	No [it wouldn't impact on my likelihood to buy the TV]"
E (Male)	It [the product] wouldn't make my buying decision there and then
F (M)	"Just because my friend is selling it, it doesn't mean I'd buy it off them"
G (M)	No [I would not be more likely to buy the TV]"
H (F)	
I (M)	"It would make no difference to me [purchase decision] if the post came from a close friend"
J (F)	

Table 36. Quote excerpts illustrating the initial code 'Tie strength as a decision heuristic'.

Participant ID	Code: Tie strength as a decision heuristic
A (F)	"I'd probably have a look at it [the post]…..because it's come from my friend" "I'm just scrolling past [brand content] looking for what my friends are saying" "If my friend was sharing brand content, I would like to see why they are interested in it…. what their reason is for sharing it"
B (F)	"Yeah [I would read comments posted by a friend] "
C (F)	Yes, definitely [I'd read the post]…..if I wanted to know about something I would go to one of my friends" "I'd like to understand why they [a strong tie] think it's [brand content] relevant and good enough to share"
D (F)	"Yes [I would read comments posted by a friend]…..cause that's already like a trusting relationship, you know like a solid bond" "I would definitely look at it [brand related content from a friend]…..you trust your friends, what they share"
E (M)	"You'll be scrolling down and you'll see the video, say it is a video or post, you'll look above it and see that it's your friend that shared it"
F (M)	"If a friend posted a picture of a car they were selling, I would look at it, even if I wasn't going to buy it" "It definitely makes a difference who [friend or acquaintance] shares [brand related content]"
G (M)	"Yes [I would read a post by a friend]" "I would look at it [the post], because I'd want to know what they are talking about"
H (F)	[I would look at the post] because a friend sent it to me and they want me to look at it. I mean it's not like a brand, they don't know me as a person"
I (M)	"I probably would have a look at it [the post]"
J (F)	"Yes, I'd give it a read [a post from a close friend]…..that's even more trustworthy" "[Comments from close friends] are even more trustworthy…..I'd give it a read

Table 37. Quote excerpts illustrating the initial code 'Communication mode'.

Participant ID	Code: Communication mode
A (F)	
B (F)	
C (F)	
D (F)	
E (M)	"I use Facebook Messenger to keep up with friends"
F (M)	
G (M)	
H (F)	
I (M)	
J (F)	"I share [posts from brands] directly [to my friends], not on my Facebook page" "There's a big difference in what people post in the News Feed and what they send you in person… the direct conversation is more of a personal conversation". "If someone [a best friend] is sending this [eWOM message] out to everyone, it's a different way of messaging, I mean a different language they are talking than if they are sending it to a close friend" "There would be a lot more truth behind it [a direct message] than a post to everyone" "[I see direct messages as] having a lot more endearment in it if it's direct to me" "I see direct messages a lot more as a priority". "[I see posts to everyone's News Feed as involving] another alternative motive for them to do it…..an inducement [by the brand]".

Table 38. Quote excerpts illustrating the initial code 'Opinions or facts'.

Participant ID	Code: Opinions or facts
A (Female)	
B (F)	"I would just want the facts"
C (F)	"If a comment is factual…..I would want evidence, I'd want to know why, because you can't just say this is the best one [the TV], because how, why?"
D (F)	"Their opinion is more valuable to me….because you can go online and look at the tech spec of it [the TV], you don't have to reiterate it, because I can see that" "I'd be really welcoming of their opinion [regarding the TV]"
E (Male)	"Regardless of who it was [the sender] if they had the facts I'd listen to it more [the comment]" "If that's a genuine fact….then it would make me think more positively [of the TV] than if it was an opinion"
F (M)	"I do like to hear my friends' opinions"
G (M)	"It [the comment about the TV] could influence my opinion a lot more if they were saying [the comment] how I would say it…..no one talks about the specification"
H (F)	"If someone said this is a great TV its really easy to use, whereas someone else might say…... it's a Smart TV with loads of things on it, if its high resolution you can do x, y and z on it, yeah that would appeal to me more"
I (M)	"Well I suppose that's just their opinion….. facts are more valuable [to me]"
J (F)	That's less important to me [the comment about the TV being the highest specification TV on the market for the price], because to me, that might be the priority to them, but to me I want to know if it works and is good value for money"

Table 39. Quote excerpts illustrating the initial code 'Participant's use of eWOM'.

Participant ID	Code : Participant's use of eWOM
A (F)	"I would ask my friends first…..and then I'd read the reviews of the ones I'd been recommended"
B (F)	"I would look online for the best TVs to buy"
C (F)	" I would rely on reviews [when looking for a TV to buy]"
D (F)	
E (M)	"Reviews first [when looking for TV to buy]"
F (M)	
G (M)	"I'd go on Google and type in best TVs……I'd go by ratings"
H (F)	"I'd look at reviews, see customer reviews, see what it's [the TV] like"
I (M)	" I do trust Amazon reviews"
J (F)	"I'd look at Amazon [to find out about TVs] because they have very good reviews

Table 40. Quote excerpts illustrating the initial code 'Facebook and brands'.

Participant ID	Theme: Facebook and brands
A (F)	"I don't read posts from brands"
B (F)	"I do not read stuff that I've followed [brand related content on Facebook]"
C (F)	"Yeah [I follow brands] but I don't know if I pay much attention"
D (F)	"If it's a brand I'm just getting interested in…..I will go and look at the posts, the page"
E (M)	"There's so many [brands] constantly posting shit that I don't want to see like marketing" "If its [the brand] just trying to sell me something then I will probably skip it [the post]"
F (M)	"Yeah…..I look at content from brands"
G (M)	"If I do [have brand content] I'm ignoring it straight away"
H (F)	"I don't follow any brands on Facebook…..I find brands intrusive"
I (M)	"No [I wouldn't look at posts from brands]"
J (F)	"Yeah [I look at posts from brands]"

Table 41. Quote excerpts illustrating the initial code 'Product involvement'.

Participant ID	Code : Product involvement
A (F)	"No [I would not read the post if I wasn't looking for a TV]…..it's just not something that would interest me"
B (F)	"Yes [I'd ignore the post unless I happened to need a TV] or unless I had an active interest"
C (F)	
D (F)	
E (M)	"When I'm in buying mode and I need to go find that information, then I would look at it [the post]…..I would skip that if I didn't need a telly"
F (M)	
G (M)	"I would look at it [the post], because I'm looking for a TV]"
H (F)	Yeah [I would look at the post] because I am actively looking for something"
I (M)	
J (F)	"If I wasn't looking for a TV, I don't think it [the post] would interest me enough"

Table 42. Quote excerpts illustrating the initial code 'Product risk'

Participant ID	Code: Product risk
A (F)	
B (F)	
C (F)	
D (F)	"Especially with a product as expensive as a TV…..I'd still have to go and do my digging"
E (M)	"I do like to hear my friends' opinions…..but I will go and do my full research on it [the TV]"
F (M)	"When it comes to me spending a large sum of money [on a TV] I do like to hear my friends opinions on it"
G (M)	
H (F)	
I (M)	
J (F)	"It [the TV] is an investment product…..I'm not just going to spend money…..it's a risk"

Table 43. Quote excerpts illustrating the initial code 'Use of Facebook over time'.

Participant ID	Code: Use of Facebook over time
A (F)	"Facebook I use to keep in contact with my family"
B (F)	"On Facebook I've just got my family and High school friends" "If it was something I liked when I first started using Facebook…..I'm going to ignore that"
C (F)	"I use Facebook for close family and friends"
D (F)	"It's quite interesting to see what they are doing [my friends] on a day to day basis" "[I see Facebook] more of a communication tool with friends, I think for me that's what Facebook originally was"
E (M)	[I use] "Facebook to keep up with friends"
F (M)	"I saw Facebook as just a social media platform that you could interact with people"
G (M)	"Facebook is for friends that are in my life, as in friends that I have met…..face to face" "Facebook now…..it's lots of posts by people that I don't really know"
H (F)	"I use Facebook for work [networking]"
I (M)	"I got it [Facebook] in 2008…..but it's a lot more brand based now"
J (F)	"Yeah [I follow brands on Facebook]"

Table 44. Quote excerpts illustrating the initial code 'Information overload'.

Participant ID	Code: Information overload
A (F)	"I'm just scrolling past [brand content] looking for what friends are saying" "I've ended up following so many things…..now it all comes up on your [News] Feed"
B (F)	
C (F)	"It's so easy to scroll past certain things [brand posts]" "I wouldn't pay attention to all those people [Facebook acquaintances]….I don't care about their opinion"
D (F)	
E (M)	"There's a lot of stuff I just skim through on Facebook now…..people I'm friends with share a lot [of content]"
F (M)	
G (M)	
H (F)	
I (M)	
J (F)	"A lot of the brands are posting all the time"

Table 45. Quote excerpts illustrating the initial code 'Lack of a familiar brand'

Participant ID	Code: Lack of familiar brand
A (F)	
B (F)	
C (F)	
D (F)	
E (M)	
F (M)	"[The Facebook post] wouldn't affect me [unless I know the brand]"
G (M)	
H (F)	
I (M)	
J (F)	"I would be apprehensive about it [the TV]…. that would be very risky, because say I don't have experience of that brand or any of its products."

Once the data was coded, larger patterns in the data in the form of themes were identified. These were: eWOM message impact, message attention and Facebook user experience.

Figure 27: A visual thematic map of the themes and codes arising from the analysis of the qualitative data from Study 2.
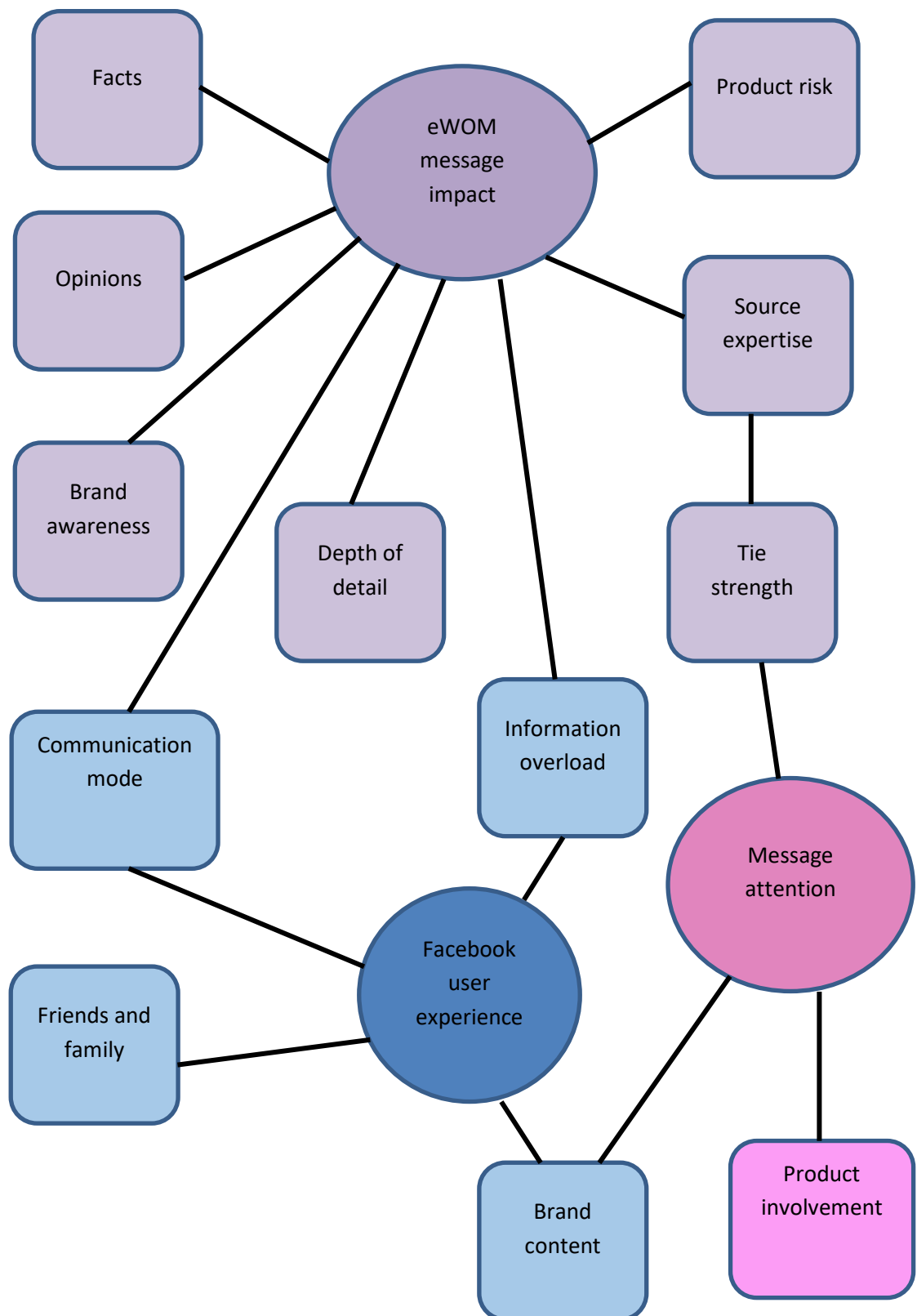
4.3. Study 3

4.3.1. The participants

127 participants took part. 51% were female, 44% were male and 5% declined to identify their gender. The ages of the participants are shown below in Figure 28.

Figure 28. Participant's age.
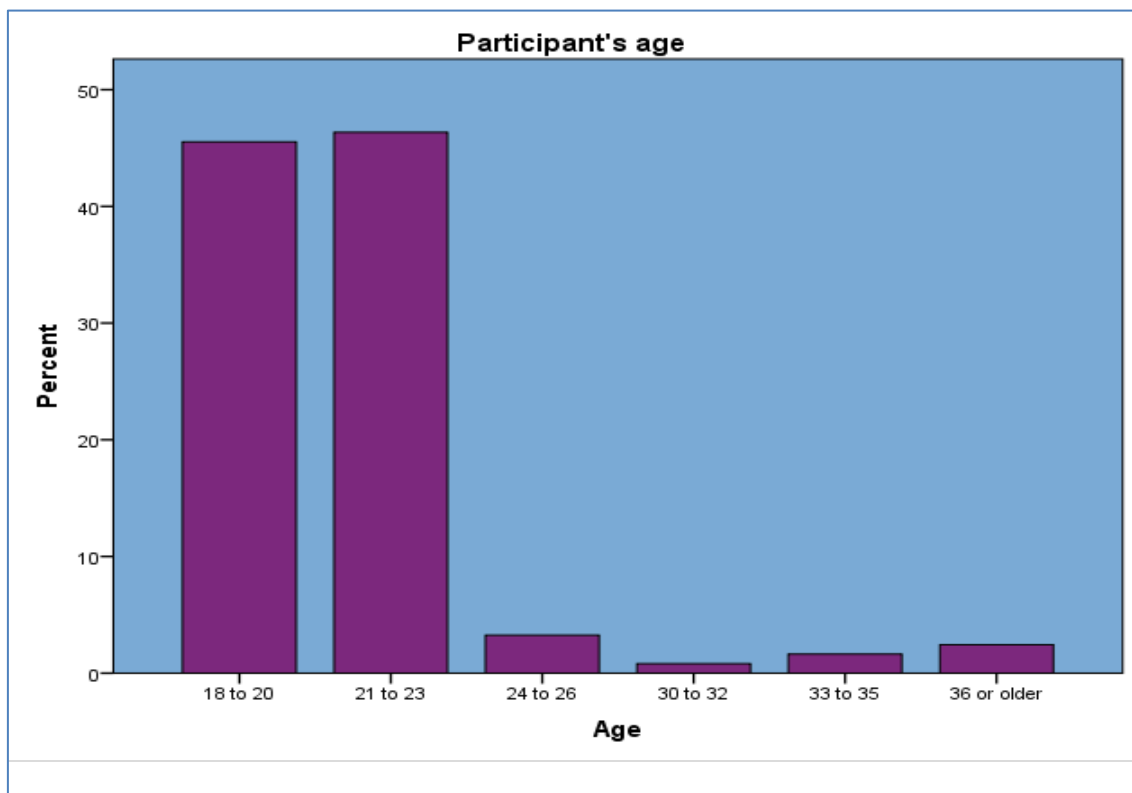
4.3.2. Manipulation checks

The data was analysed to see if the manipulations of purchase decision involvement, source expertise and argument strength had performed as intended. The results of the analysis are shown below in Table 46.

Table 46. Results of descriptive statistics and t-tests for purchase decision involvement, source expertise and argument strength manipulations.

Manipulation	Descriptive statistics	Test statistic and significance
High purchase decision involvement	M = 17.11, SD = 3.41, n= 56	t= 3.06, p = 0.003
Low purchase decision involvement	M = 15.10, SD = 3.90, n = 69	
Expert	M = 18.93, SD = 6.35, n = 53	t= 4.68, p = 0.000
Non- expert	M = 13.43, SD = 6.67, n = 72	
Strong argument	M = 20.70, SD = 6.33, n = 56	t= 0.92, p = 0.361
Weak Argument	M = 19.67, SD = 5.74, n = 63	

Anchors for the scales used: 4=low purchase decision involvement to 28=high purchase decision involvement; 5=non-expert to 25=expert; 10=weak argument to 40.5=strong argument

For the purchase decision involvement manipulation, the high purchase decision involvement condition was greater (M = 17.11, SD = 3.41) than the low purchase decision involvement condition (M = 15.10, SD = 3.90,), t (123) = 3.06, p = 0.003. Hence, the manipulation of purchase decision involvement was effective.

For the source expertise manipulation, the expert source was perceived to be stronger (M = 18.93, SD = 6.35) than the non-expert source (M = 13.43, SD = 6.67), t (123) = 4.68, p = 0.000. Hence, the manipulation of source expertise was effective.

For the argument strength manipulation, the strong argument was perceived to be stronger (M = 20.70, SD = 6.33) than the weak argument (M = 19.67, SD = 5.74), t (117) = 0.92, p = 0.361. Hence, the manipulation of argument strength was not effective.

4.3.3. Hypothesis testing

4.3.3.1. Attitude towards the product

A 2 (high purchase decision involvement) x 2 (expert source vs. non-expert source) x 2 (strong argument vs. weak argument) factorial ANOVA was performed to examine the main effects and interaction effects of purchase decision involvement, source expertise and argument strength on attitude towards the product. The results of the analysis of the data are shown below in Table 47 and Table 48.

Table 47. Descriptive statistics for attitude towards the product in each of the experimental conditions.

Source expertise	PDI	Strong argument	Weak argument
Expert	High	51.89 (9, 8.80)	46.39 (13, 7.78)
	Low	42.40 (10, 13.79)	39.21 (19, 13.36)
Non-expert	High	45.28 (18, 12.31)	42.57 (14, 10.92)
	Low	38.40 (20, 10.81)	42.33 (21, 10.20)

Note: Mean (N, SD).
Anchors for the scale used: 7=very negative attitude to 70=very positive attitude

Table 48. Analysis of the effect of purchase decision involvement, source expertise and argument strength on attitude towards the product.

Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	η_p^2
Purchase decision involvement	1000.29	1	1000.29	7.91	0.006	0.064
Source expertise	225.95	1	225.95	1.79	0.184	0.015
Argument strength	98.63	1	98.63	0.78	0.379	0.007
Product decision involvement * Source expertise	161.246	1	161.246	1.274	0.261	0.015

H6a: The greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product

Source expertise had no significant effect on attitude towards the product, F (1, 116) = 1.79, p = 0.18, η_p^2 = 0.015. Therefore, p> 0.05 so hypothesis H6a was not supported.

H7a: Involvement moderates the impact of source expertise: the effect of source expertise on attitude towards the product is greater for high involvement participants than low involvement participants.

The interaction effect of purchase decision involvement and source expertise on attitude towards the product, $F(1, 116) = 1.27$, $p = 0.26$, $\eta_p^2 = 0.015$, did not reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H7a was not supported.

Table 49. Descriptive statistics for intention to purchase the product in each of the experimental conditions.

Source expertise	PDI	Strong argument	Weak argument
Expert	High	4.33 (9, 3.00)	3.43 (14, 3.08)
	Low	2.00 (10, 2.00)	2.35 (20, 2.39)
Non-expert	High	3.61 (18, 3.15)	3.53 (15, 2.26)
	Low	2.05 (19, 2.46)	2.57 (21, 2.82)

Note: Mean (N, SD).
Anchors for the scale used: 0=no chance, almost no chance to 10=certain, practically certain

Table 50. Analysis of the effect of purchase decision involvement, source expertise and argument strength on intention to purchase the product.

Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	η_p^2
Purchase decision involvement	63.41	1	63.41	8.864	0.004	0.070
Source expertise	0.212	1	0.212	0.030	0.863	0.000
Argument strength	0.023	1	0.023	0.003	0.955	0.000
Product decision involvement * Source expertise	1.432	1	1.432	0.200	0.655	0.002

H6b: The greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product

Source expertise had no significant effect on intention to purchase the product, $F_{(1, 118)} = 0.03$, $p = 0.86$, $\eta_p^2 = 0.00$. Therefore, hypothesis H6b was not supported.

H7b: Involvement moderates the impact of source expertise: the effect of source expertise on intention to purchase the product is greater for high involvement participants than low involvement participants.

The interaction effect of purchase decision involvement and source expertise on intention to purchase the product, $F_{(1, 118)} = 0.20$, $p = 0.66$, $\eta_p^2 = 0.002$, did not

reach the significance level suggesting no existence of an interaction effect. Therefore, hypothesis H7b was not supported.

4.4. Further investigation of the conceptual model

A discussed earlier this research aims to consider the influence mechanism of eWOM in the Facebook News Feed through the theoretical lens of the ELM, which integrates source, message and recipient effects (Petty and Cacioppo, 1986). Study 1 investigated the impact of the expertise of the eWOM message source, the strength of the argument contained in the eWOM message and the strength of the relationship between the sender and recipient of the eWOM message on the recipient's attitude towards the product featured in the message and their intention to purchase the product.

A test of the overall conceptual model used in Study 1 was conducted using multiple regression. This allowed the researcher to see if there were any correlations between the independent variables, the effect of the combination of the three independent variables on the two dependent variables, and the contribution of each individual independent variable to the model. The independent variables used in Study 1 were found to be only very weakly correlated with each other. The combination of source expertise, argument strength and tie strength was found to have no significant contribution to attitude towards the product or intention to purchase the product. Consistent with the results from the ANOVAs conducted as part of Study 1 (shown earlier in section 4.1.3.), source expertise contributed significantly to intention to purchase the product (standardized B= 0.15, p= 0.021), whilst tie strength (standardized B= 0.04, p= 0.55) and argument strength (standardized B= 0.007, p= 0.91) did not contribute significantly to attitude towards the product or intention to

purchase the product. It should be noted by the reader, that this regression analysis is extra to the main body of work contained in this thesis. The results of the regression analysis of the data from Study 1 can be found in appendix M.

Following the results from Study 1 and Study 2, Study 3 introduced a manipulation of purchase decision involvement to ensure some participants were motivated to elaborate on the eWOM message. Therefore, Study 3 investigated the impact of the level of purchase decision involvement of the eWOM message recipient, the expertise of the eWOM message source and the strength of the argument contained in the eWOM message on the recipient's attitude towards the product featured in the message and their intention to purchase the product.

A test of the overall conceptual model used in Study 3 was conducted using multiple regression. The independent variables used in Study 3 were found to be only very weakly correlated with each other. The combination of source expertise, argument strength and purchase decision involvement was found to have a significant contribution to attitude towards the product and intention to purchase the product. Consistent with the results from the ANOVAs conducted as part of Study 3 (shown earlier in section 4.3.3.), source expertise (standardized B= -0.006, p= 0.95) and argument strength (standardized B= 0.012, p= 0.89) did not contribute significantly to attitude towards the product or intention to purchase the product. It should be noted by the reader that this regression analysis is extra to the main body of work contained in this thesis. The results of the regression analysis of the data from Study 3 can be found in appendix N.

5. Discussion

This section will discuss the interpretation of the results from both the qualitative and quantitative data to provide a more complete understanding of the research study (Bryman, 2006; Creswell and Plano Clark, 2011; Robson and McCartan, 2016). The integration of the analyses of data from two or more separate sources before conclusions are drawn is a defining characteristic of mixed methods research (Bazeley, 2018). The integration provides a fuller understanding of the causal process and increased confidence in the results as they are supported by a number of sources of evidence (Maxwell, 2004; Bazeley, 2018).

Study 1 used a quantitative research strategy to investigate three factors hypothesised to influence recipients of an eWOM message in Facebook. The three factors were the perceived expertise of the sender of the eWOM message, the strength of the argument contained in the eWOM message, and the strength of the relationship between the sender and recipient of the eWOM message, characterised as tie strength. Two interaction effects were also hypothesised and investigated, namely the interaction between argument strength and source expertise, and the interaction between argument strength and tie strength. Influence was measured using the recipient's attitude towards the product featured in Study 1 and their likelihood to buy the product. Study 2 used a qualitative research strategy and employed ten semi-structured interviews to investigate participants' views on how eWOM in their Facebook News Feed impacted on their attitude towards the product featured in the eWOM post, and their intention to purchase the product. Study 3 used a quantitative research strategy to investigate three factors hypothesised to influence recipients of an eWOM message in Facebook. The three factors were purchase

decision involvement, the perceived expertise of the sender of the eWOM message, and the strength of the argument contained in the eWOM message. One interaction effect was also hypothesised and investigated, namely the interaction between purchase decision involvement and source expertise. Influence was measured using the recipient's attitude towards the product featured in Study 3 and their likelihood to buy the product. Study 1, Study 2 and Study 3 all featured the same product.

5.1. Overview of the quantitative results

5.1.1. An overview of the findings from Study 1 is shown below in Figure 29.

Figure 29. Overview of Study 1 results.
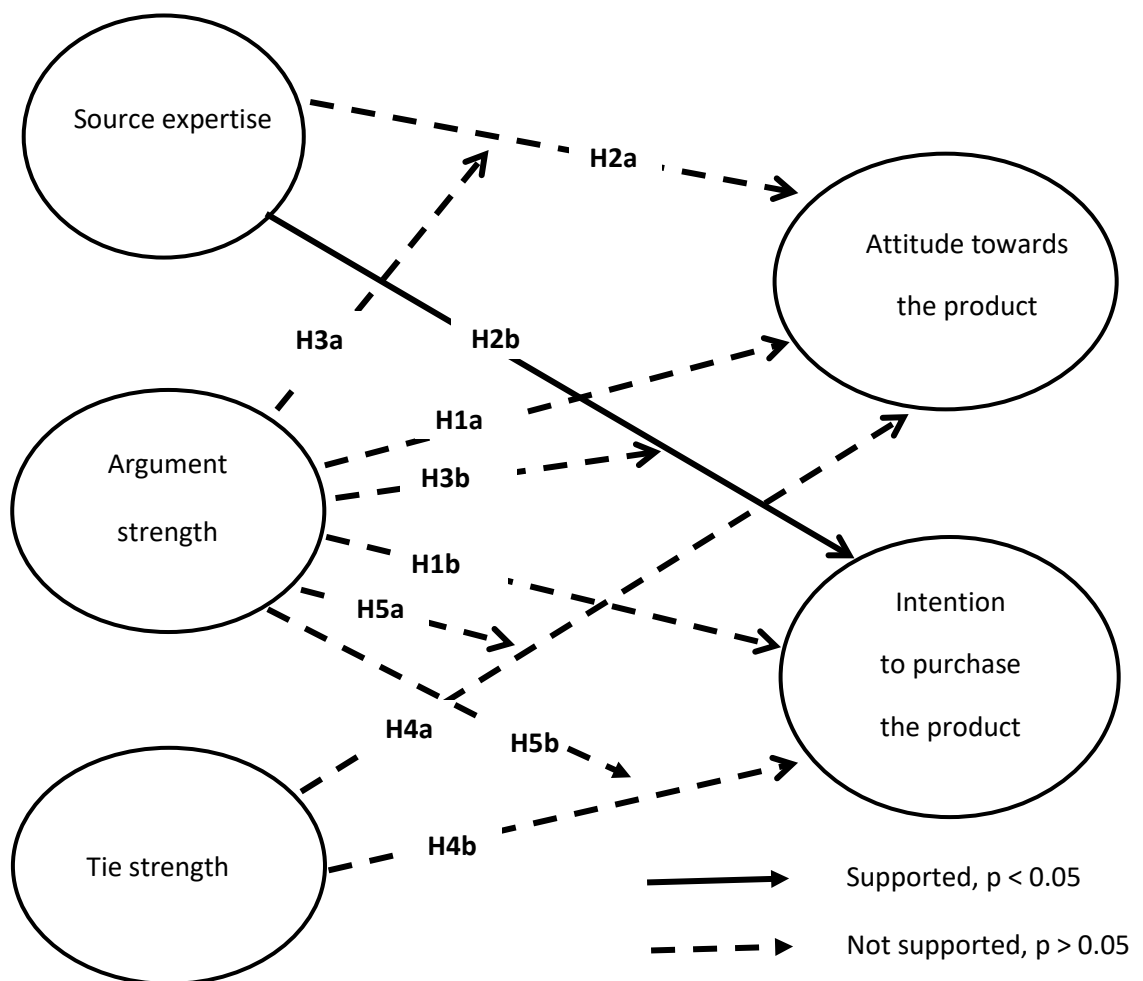
Only hypothesis 2b was supported in that source expertise was found to have a significant effect on intention to purchase the product. Source expertise was not found to have a significant effect on attitude towards the product so hypothesis 2a was not supported. No significant effects were found for hypotheses 1a; 1b; 3a; 3b; 4a; 4b; 5a and 5b. This indicated that argument strength had no significant effect on attitude towards the product or intention to purchase the product; tie strength had no significant effect on attitude towards the product or intention to purchase the product; argument strength did not significantly moderate the impact of source expertise on attitude towards the product or intention to purchase the product, and argument strength did not significantly moderate the impact of tie strength on attitude towards the product or intention to purchase the product.

5.1.2. An overview of the findings from Study 3 is shown below in Figure 30.

Figure 30. Overview of Study 3 results.
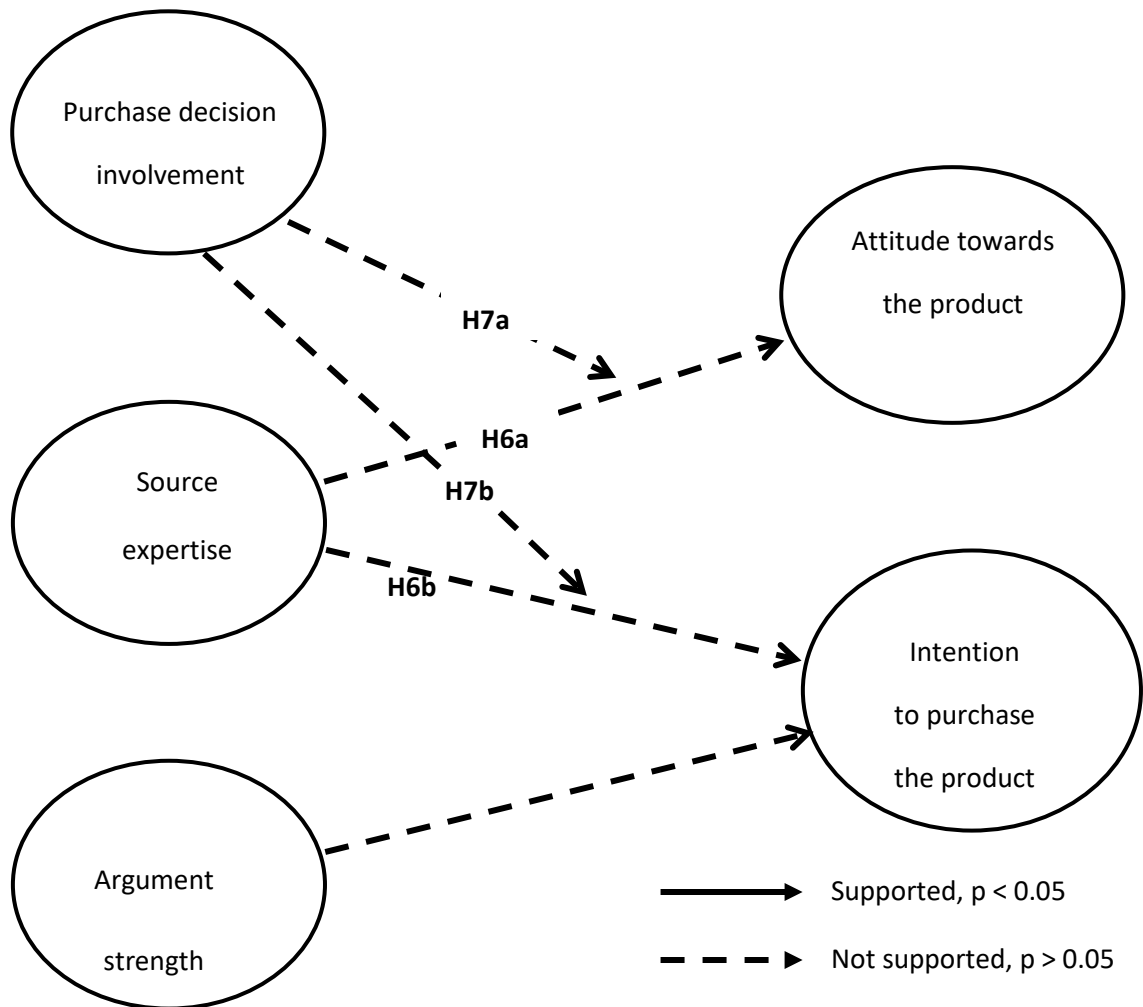
None of the hypotheses were supported. Source expertise was not found to have a significant effect on attitude towards the product or intention to purchase the product, so hypotheses 6a and 6b were not supported. Source expertise did not significantly moderate the impact of purchase decision involvement on attitude towards the

product or intention to purchase the product so hypotheses 7a and 7b were not supported.

5.2. Discussion of the quantitative and qualitative results

5.2.1. Argument strength

Strong arguments use facts and figures, reference credible sources and highlight the discernible product attributes, whereas weak arguments are composed of non-supportive arguments involving personal opinions, reference less credible sources and stress the less discernible product attributes (Johnson, 1991; Pham and Avnet, 2004; Rains, 2007). According to the ELM, when a recipient is able and willing to cognitively elaborate on a message, argument strength is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). Study 1 provided a scenario to participants that was designed to create a situation in the participant's mind where they needed to purchase a new Smart TV. This should have increased the participant's motivation to process the information contained in the Facebook post (Petty and Cacioppo, 1990; Blythe, 2013). It was therefore expected that participants in Study 1 would use the central route to persuasion by cognitively elaborating on the argument contained in the eWOM message. However, the results from Study 1 showed a lack of a significant effect for argument strength on attitude towards the product and intention to purchase the product, which is contrary to the expectations of the ELM (Petty, Cacioppo and Schumann, 1983).

Hypothesis 1a proposed that the greater the perceived argument strength of the message, the more favourable the message recipient's attitude towards the product.

As indicated above, Study 1 failed to provide empirical support for hypothesis 1a in that argument strength had no significant effect on attitude towards the product. Participants in Study 2 were asked about the impact of the argument contained in the eWOM message on their attitude towards the product. Study 2 participants were shown the following eWOM message: "This is the highest specification TV on the market for the price." This was the same argument as used in Study 1 and was an example of a strong argument. Some Study 2 participants reported that the argument contained in the message would have no impact on their attitude towards the product. As interview participant F commented: "It [the argument contained in the eWOM message] would have no impact on my attitude towards the product." Interview participant F explained this by saying "I do like to hear my friends' opinions…..but at the end of the day, I will go and do my full research on it." Hypothesis 1b proposed that the greater the perceived argument strength of the message, the greater the message recipient's intention to purchase the product. Study 1 failed to provide empirical support for hypothesis 1b in that argument strength had no significant effect on intention to purchase the product. The findings from Study 2 supported this in that when participants were asked directly if they would be more likely to buy the TV based on the argument, interview participant D commented: "It [the argument] wouldn't impact [on my likelihood to buy the TV]" and interview participant I reported: "No [I wouldn't be more likely to buy the TV based on the argument]." Contrary to the expectations of the ELM, participants in Study 1 and Study 2 were not using the central route cue of argument strength to form an opinion about the product or their intention to purchase the product.

As discussed earlier, according to the ELM, when a recipient is willing to cognitively elaborate on a message, argument strength is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). People mainly use SNSs for entertainment and social interaction (Chen, 2013) so participants in Study 1 may not have been willing to elaborate on the argument contained in the eWOM message. Participants in Study 1 may have found a post about a consumer product not worthy of careful scrutiny (Petty and Cacioppo, 1981). In this environment, users may pay less attention to messages from brands regarding functional products like a Smart TV (Schulze, Scholer and Skiera, 2014). Study 2 participants were asked about receiving brand and product related content in their Facebook News Feed. Interview participant A stated: "I don't read posts from brands" and interview participant C remarked: "Yeah [I follow brands] but I don't know if I pay much attention" and interview participant G commented: "If I do [have brand content] I'm ignoring it straight away." Therefore, Facebook may not be seen as an environment where investing cognitive effort on product related posts fits with users' motivations for using the platform. In this environment, Facebook users are more likely to behave as cognitive misers and conserve their effort and time they spend on a post. The results from Study 1 and Study 2 might suggest that Facebook users behave contrary to the expectations of the ELM by not using the cognitively taxing central route to form opinions about functional products. The argument contained in the eWOM message is perceived as requiring too much effort to process in an environment where users are motivated by the desire to socialise and be entertained.

Facebook allows users to broadcast information to their entire network leading to users having to process large amounts of information in their News Feed (Feng et al.,

2015), often leading to information overload (Atwood and Morosan, 2015; Koroleva and Kane, 2017). The News Feed was introduced in 2006 and has undergone many alterations, most notably in 2011 with the introduction of an algorithm to sort the content with further revisions to the algorithm in 2015, 2016 and 2018 (Beres, 2018). With so many brands now posting content, the average Facebook user can face up to 2,000 posts a day (Scammell, 2018). Participants in Study 2 were asked about their experience of the Facebook News Feed. Interview participant A commented: "I've ended up following so many things…..now it all comes up on your [News] Feed" and interview participant E remarked: "There's a lot of stuff I just skim through on Facebook now…..people I'm friends with share a lot [of content]." People scroll through 300 feet of content in their social media News Feed every day and it takes a Facebook user 1.7 seconds to consume mobile content versus 2.5 seconds for the desktop (Re, 2018). Faced with so much content, Facebook users will skim through content and employ heuristic cues to aid their decision making (Schulze, Scholer and Skiera, 2014; Koroleva and Kane, 2017). The results from Study 1 and Study 2 might suggest that Facebook users will behave contrary to the expectations of the ELM and not use the central route cue of argument strength to form opinions about the product as they are unwilling to invest the time and effort to elaborate on the argument contained in the eWOM message.

Study 1 and Study 2 positioned the participants at the start of their decision journey when the need for a new product was apparent and they were beginning to search for information to aid their purchase decision. Participants in Study 2 were shown a screenshot of a Facebook post containing the eWOM message and were asked to read the argument contained in the message. As discussed earlier, some Study 2

participants indicated that the argument would have no effect on their attitude towards the product or their intention to purchase the product. Several Study 2 participants did report that the impact of argument strength was that the product would enter their consideration set but only to the extent that they would then conduct a further information search before considering any purchase. Interview participant I reported: "I would be interested to read about the actual product [after reading the argument in the eWOM message....I'd look on Amazon at their reviews]" and interview participant J commented: "[After reading the argument in the eWOM message]..... "I'd want further information [on the product....I would look on Amazon reviews]." Despite Study 1 creating a scenario where participants' involvement with the purchase decision was manipulated to be high, participants were not persuaded by the argument contained in the eWOM message. Word of mouth impacts all phases of the consumer decision process from formation of the consideration set through to active evaluation of products and to the moment of purchase (Bughin, Doogan and Vetvik, 2010). It is possible that a similar message received at a later stage of the consumer decision process would have a different outcome. At that point in their decision journey, a consumer may have accumulated many positive thoughts regarding the TV from a variety of sources so a positive eWOM message in their News Feed may impact on their attitude towards the product and their intention to purchase the product. Perhaps the impact of the argument contained in the message is moderated by where the consumer is in their decision journey.

Both Study 1 and Study 2 used a scenario that was intended to make the product personally relevant and of personal consequence to participants to increase their involvement with the product (Petty, Cacioppo and Schumann, 1983). Research has

shown that information-processing motivation is influenced by involvement (Petty and Cacioppo, 1979; Celsi and Olson, 1988). As discussed earlier, the ELM states that when a recipient is motivated to cognitively elaborate on a message, argument strength is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). The results from Study 1 and Study 2 might suggest that even though the participants were given a scenario designed to increase their involvement with the product, it may not have been successful leading to a lack of motivation by participants to elaborate on the argument contained in the message. It is also possible that for some Study 1 and Study 2 participants, a Smart TV might be part of a product class which engenders little involvement in any scenario leading to a lack of motivation to process the argument contained in the eWOM message. The possibility of the scenario used in Study 1 and Study 2 being ineffective was investigated in Study 3 by introducing a high and low purchase decision involvement manipulation. The high purchase decision involvement manipulation provided participants with a scenario where their TV had stopped working, was beyond repair, they had sufficient funds for a new purchase and were actively looking for a new TV. Participants were then informed that they were on Facebook and had received a post about a TV in their News Feed. The low purchase decision involvement manipulation provided participants with the scenario that they were on Facebook and received a post about a TV in their News Feed. According to the ELM, participants in a high purchase decision involvement scenario will be motivated to elaborate on the eWOM message whilst those in the low purchase decision involvement scenario will not. The manipulation check for Study 3 confirmed that the purchase decision involvement manipulation had

performed as intended. However, the results from Study 3 showed that the high purchase decision involvement scenario participants were not influenced by the strength of the argument contained in the eWOM message when forming their attitude towards the product or their intention to purchase the product. This is contrary to the expectations of the ELM where high purchase decision involvement should motivate participants to use the central route cue of argument strength to form their opinions about the product. As discussed earlier, the large volume of posts encountered by Facebook users in their News Feed, and the motivation of users to seek fun and entertainment leads to users adopting the tactics of cognitive misers to manage their cognitive effort. Elaborating on the argument contained in the eWOM message requires too much effort for Facebook users. Furthermore, as discussed earlier, Study 3 participants may have been interested in the purchase task but less so in the product class. A Smart TV might be inherently uninvolving for some participants leading to an unwillingness to invest cognitively in elaborating on the eWOM message. Some participants may have been motivated to complete the purchase task but attached less importance to the choice of the product itself leading to a lack of motivation to elaborate on the argument contained in the eWOM message.

According to the ELM, a recipient needs to be motivated and able to cognitively elaborate on a message. When a recipient is both motivated and able, argument strength (the central route) is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). Ability to process the information can be determined by prior knowledge of the attitude object or the presence of distractions (Bhattacherjee and Sanford, 2006; Perloff, 2014).

Even if the participants of Study 1, Study 2 and Study 3 were motivated to actively think about the argument contained in the eWOM message, they may have not been able to understand the argument given that it was a (semi) technical product. The eWOM comment of: "This is the highest specification TV on the market for the price" featured in all three studies would mean very little if participants were not familiar with or interested in the technological aspects of a Smart TV. If Study 1 and Study 3 participants lacked the technological knowledge to understand the argument contained in the eWOM message (Wood, Kallgren and Preisler, 1985) they may have instead depended on peripheral cues such as the expertise of the eWOM message source (Wood and Lynch, 2002; Bhattacherjee and Sanford, 2006). Park and Kim (2008) reported that consumers with low existing expertise in an electronic product sought peripheral cues in evaluating eWOM in the form of reviews, whilst consumers with existing product expertise in the product used central route cues to evaluate the eWOM message. These results were confirmed by Cheung, Xiao and Liu (2012) who reported that low expertise consumers in online forums used peripheral cues to assess eWOM, whilst expert consumers relied more on central cues. This might explain the lack of an effect of argument strength on attitude towards the product and intention to purchase the product found in Study 1, Study 2 and Study 3. However, in Study 1, Study 2 and Study 3, the participants should have been able to think about the product as the eWOM message was free of technical jargon thus making it easy to elaborate on the argument contained in the message with or without prior knowledge of the product category. Participants were also asked to consider the eWOM message in their own time so were not rushed when assessing the message, giving them sufficient time to assess the argument in the eWOM message. It is

therefore unlikely that participants of Study 1, Study 2 and Study 3 lacked the ability to evaluate the argument contained in the eWOM message.

The ability to process the information contained in a message can be determined by the presence of distractions (Bhattacherjee and Sanford, 2006; Perloff, 2014). Study 1 and Study 3 presented the eWOM message in a lecture theatre via participants' personal devices where there were relatively few distractions available to them. Thus, the presence of distractions was unlikely to be salient in Study 1 or Study 3 so participants should have been able to focus on the argument contained in the eWOM message. Participants in Study 2 were shown a screenshot of a Facebook post containing the eWOM message: "This is the highest specification TV on the market for the price." In this scenario there were also relatively few distractions available to the participants of Study 2. Therefore, it is unlikely that participants from either Study 1, Study 2 or Study 3 were distracted from elaborating on the argument contained in the eWOM message.

It could also be argued that the relative lack of detailed information regarding the product featured in Study 1 and Study 3 may have affected the impact of the eWOM message. It is possible that the strong argument of: "This is the highest specification TV on the market for the price" did not contain enough detail for participants to be of sufficient use in influencing their attitude towards the product or their intention to purchase the product. Interview participant C commented on the post: "I would probably want a bit more information" and as interview participant F discussed: "I'd have a lot more interest [in the Smart TV] …..because I like to know specifics and details." All three studies used a single eWOM post. When detailed information is lacking, people may use a heuristic cue and simply agree with an expert (Bohner,

Ruder and Erb, 2002). Perhaps the perceived risk associated with a technical product would require additional pieces of information to sufficiently reduce the perceived risk to enable a purchase decision. Interview participant J discussed the risk associated with purchasing a Smart TV: "It [the TV] is an investment product…..I'm not just going to spend money…..it's a risk" and as interview participant D commented: "Especially with a product as expensive as a TV…..I'd still have to go and do my digging." The greater the degree of perceived risk, the more likely are consumers to seek additional information from many sources (Arndt, 1967; Rogers, 1995; Bansal and Voyer, 2000). The quantity of reviews on an online review site has been found to have an effect on purchase intention (Park, Lee and Han, 2007; Cheung and Thadani, 2012; Zhang et al., 2014). A single eWOM post in Facebook's News Feed may not be sufficient to affect a recipient's purchase intention especially when they are at the start of their decision journey.

It is possible that participants were already familiar with Smart TVs so did not feel the need for product information by way of reading the argument contained in the message. They may have felt confident that they had sufficient existing knowledge about Smart TVs to not need further information. It is also possible that participants felt there was little difference between Smart TVs in terms of technical specification so also did not feel they needed to read the argument contained in the eWOM message. Therefore, participants in Study 1 and Study 2 would not have been motivated to actively think about the argument contained in the eWOM message, which might explain why argument strength had no impact on their attitude towards the product or their intention to purchase the product.

In summary with regard to argument strength, it is argued that the participants in studies 1, 2 and 3 were able to elaborate on the argument contained in the eWOM message. It could also be argued that despite being involved in the purchase scenario, participants were not sufficiently motivated to elaborate on the argument contained in the eWOM message. Facebook is primarily used for fun and entertainment so a post about a functional product like a Smart TV will likely be addressed with minimal cognitive effort with the result that the argument contained in the post will have no impact on attitudes or purchase intention. Facebook users also face information overload in their News Feed so will skim through content and employ heuristic cues to aid their decision making (Schulze, Scholer and Skiera, 2014; Koroleva and Kane, 2017). Study 2 participants highlighted the lack of sufficient detail contained in the eWOM message as an important factor especially when accompanying a product such as a Smart TV which they confirmed as involving a financial risk. Study 1 and Study 2 positioned participants at the start of a buying journey, where they received a single eWOM message about a product. The results from study 1 showed that the argument contained in the eWOM message had no effect on participants' attitudes towards the product or their intention to purchase the product. Study 2 showed that the impact of the argument contained in the eWOM message was on a participant's consideration set which would then prompt a further information search prior to a purchase decision from sites with reviews such as Amazon. Perhaps the impact of the argument contained in the eWOM message is moderated by where the consumer is in their decision journey.

5.2.2. Source expertise

Perceived source expertise can be characterised as the perception that a message sender is a knowledgeable person (Gotleib and Sarel, 1991; Gilly et al., 1998), or has the relevant ability to make a sound judgment (Sternthal, Phillips and Dholakia, 1978; Homer and Kahle, 1990) or has direct brand experience (Mackiewicz, 2010; Moran and Muzellec, 2014). According to the ELM, when a recipient is not willing to cognitively elaborate on a message, source expertise (the peripheral route) is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). Study 1 and Study 3 manipulated the expertise of the eWOM sender with the expert characterised as 'having their own tech blog' and the non-expert as 'not sure what a Smart TV does'. Hypothesis 2a proposed that the greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product. Study 1 failed to provide empirical support for hypothesis 2a in that source expertise had no significant effect on attitude towards the product. Hypothesis 6a proposed that the greater the perceived expertise of the message sender, the more favourable the message recipient's attitude towards the product. Study 3 failed to provide empirical support for hypothesis 6a in that source expertise had no significant effect on attitude towards the product. These two results contradict much of the existing academic literature where source expertise has been found to be a strong indicator of the influence of WOM on the receiver's attitude towards a product (Yoon, Kim and Kim, 1998; Dou et al., 2012). Yoon, Kim and Kim (1998) and Dou et al., (2012) both used very prestigious brand names in their studies that would be well known to participants and may have affected their attitude towards the brand. Study 1 and Study 3 used a

fictitious brand name and this may have impacted on participants' attitudes towards the product as a familiar brand is more likely to receive favourable evaluation than an unfamiliar brand (Sundaram and Webster, 1999). Consumers lack certainty about their evaluation of unfamiliar brands due to a lack of information and experience with these brands (Lim and Chung, 2014). It is possible that despite the eWOM coming from a perceived expert, the lack of a familiar brand may have negatively impacted on the message recipients' attitudes towards the product. This was supported by participants in Study 2 who were asked about the eWOM post featuring a fictitious brand. Interview participant F remarked: "[The Facebook post] wouldn't affect me [unless I know the brand]" and interview participant J commented: "I would be apprehensive about it [the TV].… that would be very risky, because say I don't have experience of that brand or any of its products." It appears that despite the Smart TV being recommended by a perceived expert, the influence of a familiar brand outweighs the influence of an expert for eWOM in Facebook. With a product such as a Smart TV that carries a financial risk, consumers appear to value a familiar brand more highly than the word of a perceived expert. It is also possible that for an unfamiliar brand in a high risk context, a single message by an expert is not enough to affect attitudes or behaviours. Consumers may need multiple messages from experts when commenting on an unfamiliar brand for the message to have an impact on their attitude towards the product. It could also be the case that even multiple messages regarding an unfamiliar brand may have less impact on purchase behaviour than that of a well-known brand. A strong brand in this environment may be the most powerful factor regarding attitudes and purchase intention.

Hypothesis 2b proposed that the greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product. Study 1 did provide empirical support for hypothesis 2b in that the perceived expertise of the eWOM message source had a significant effect on the message recipient's intention to purchase the product. This confirmed the academic view where source expertise has been found to be a strong indicator of the influence of WOM on the receiver's purchase behaviour (Yoon, Kim and Kim, 1998; Bansal and Voyer, 2000; Dou et al., 2012). This result suggests that participants were not evaluating the argument contained in the message but evaluating the message using the cue of source expertise. Participants appear to be using the heuristic that experts are correct as a short cut to their decision making (Homer and Kahle, 1990; Clark et al., 2012). A WOM message recipient may agree with the advocated position of an expert without considering the merits of the argument contained in the message (Lim and Chung, 2014). If a heuristic cue delivers sufficient information to enable a message recipient to form an attitude, other cues might not matter (Bohner, Moskowitz and Chaiken, 1995). Some Study 2 participants reported that the perceived expertise of the sender of the eWOM message would have an impact on their intention to purchase the product. As interview participant B commented: "If they know about it [the TV]…..I'd be more likely to buy it" and interview participant H remarked: "It [the expertise of the sender] would [make me more likely to buy the product]." As discussed earlier Study 1 and Study 3 found no influence by argument strength on a participant's attitude towards the product or intention to purchase the product. The added cognitive load of elaborating on an eWOM message regarding a functional product may have proved too taxing for many Study 1 participants leading

to them rely on peripheral route cues to form their purchase intention regarding the product. Source expertise can be used as a heuristic cue to reduce the cognitive burden of carefully elaborating on an eWOM message and to accept a message's conclusion (Chaiken, 1980). According to the ELM, a message recipient who is unwilling to elaborate on a message will use peripheral cues such as source expertise to form an opinion (Petty, 1986; Eagly and Chaiken, 1993; Sussman and Siegal, 2003). The result for hypothesis 2b appears to confirm the expectations of the ELM. Hypothesis 2b proposed that the greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product.

Another possible explanation for the results for hypotheses 2b, where source expertise had a significant effect on intention to purchase the product could lie in the type of product featured in Study 1, which was a Smart TV. Many products involve both utilitarian and hedonic dimensions and consumers perceive some products as primarily hedonic and others as primarily utilitarian (Dhar and Wertenbroch 2000; Wen, Tan and Chang, 2009). Hedonic goods are characterised as pleasurable and fun (Hirschman and Holbrook, 1982) whilst utilitarian products are functional, necessary and practical (Voss, Spangenberg and Grohmann, 2003). Decisions about utilitarian products are guided by opinions regarding its functional attributes so expert sources of WOM are preferred to non-expert (Smith, Menon and Sivakumar, 2005). Expert sources are most effective for technology-oriented products, most of which are primarily utilitarian (Biswas, Biswas and Neel, 2006). Consumers do not visit Facebook to learn about utilitarian products so rely on simple cues to process messages about products (Schulze, Schöler and Skiera, 2014). In SNSs, expert

sources are associated with higher levels of purchase intention than non-expert sources for eWOM regarding utilitarian products (Wen, Tang and Chan, 2009). It is possible that Study 1 participants viewed the Smart TV as primarily a utilitarian product and therefore relied on an expert source in forming their intention to purchase the product.

Hypothesis 6b proposed that the greater the perceived expertise of the message sender, the greater the message recipient's intention to purchase the product. Study 3 did not provide empirical support for hypothesis 6b in that the perceived expertise of the eWOM message source had no significant effect on the message recipient's intention to purchase the product. This was contrary to Study 1 that found source expertise to have a significant impact on intention to purchase the product. Study 1 and Study 3 both used the same product, the same product photograph and description, and the same manipulations of argument strength and source expertise. The difference between the two studies was that Study 1 manipulated a third variable, tie strength whilst Study 3 manipulated a third variable of purchase decision involvement. The decision was made to remove the tie strength manipulation from Study 3 as the results from Study 1 showed that tie strength had no significant effect on attitude towards the product or intention to purchase the product. This was supported by the results from Study 2 as participants reported that tie strength had no impact on their attitude towards the product or their intention to purchase the product. In Study 1, the eWOM message was presented with the source being identified as either "your best friend" or "an acquaintance you met on holiday." Therefore, participants in Study 1 were able to ascertain the strength of the tie between them and the message sender as either a strong or a weak tie respectively.

Strong ties are people you can trust (Weenig and Midden, 1991; Gilbert and Karahalios, 2009), so an eWOM message from a strong tie in Study 1 would be seen as a coming from a more trustworthy source than an eWOM message from a weak tie (Koroleva and Kane, 2017). This view was confirmed by interview participant D who stated: "You trust your friends, what they share." In Study 1, the identification of the message source as either a strong or weak tie would have, to varying degrees, positively impacted on the perceived trustworthiness of the eWOM source which may have influenced participants' decisions to purchase the product. In Study 3, the tie strength manipulation was removed. The eWOM message was presented without any identification of the source so the recipient was unable to ascertain the strength of the tie between them and the message sender. eWOM from unknown sources is seen as less trustworthy than eWOM messages from friends (Park, Lee and Han, 2007) so recipients may lack confidence about their opinion regarding the product because they were unable to determine the source's identity (Zhang and Li, 2006; Rains, 2007). It could therefore be argued that the lack of any information about the identity of the eWOM message sender, negatively impacted on the trustworthiness of the sender and the confidence the message recipients felt regarding their opinion of the product (Zhang and Li, 2006). This might explain the result from Study 3 in that the perceived expertise of the eWOM message source had no significant effect on the message recipient's intention to purchase the product.

5.2.3. The impact of argument strength on source expertise

Hypothesis 3a proposed that argument strength would moderate the impact of source expertise on the message recipient's attitude towards the product. Study 1 failed to provide empirical support for hypothesis 3a in that argument strength was found to have no significant moderating effect on the impact of source expertise on the message recipient's attitude towards the product. Hypotheses 3b proposed that argument strength would moderate the impact of source expertise on the message recipient's intention to purchase the product. Study 1 also failed to provide empirical support for hypothesis 3b in that argument strength was found to have no significant moderating effect on the impact of source expertise on the message recipient's intention to purchase the product. According to the ELM, attitude change is often determined by both central and peripheral processes (Petty, Wegener and Fabrigar, 1997). People expect a message to contain more valid arguments when presented by an expert as opposed to non-expert sources (Chaiken and Maheswaran, 1994; Clark et al., 2012). This expectancy can bias cognitive responses in a positive manner leading to an assimilation effect in attitude formation or serve as a point of reference for message recipients leading to the generation of negative responses and contrast effects in attitude formation (Bohner, Ruder and Erb, 2002). However, as discussed earlier participants in Study 1 and Study 3 were behaving as cognitive misers and not elaborating on the argument contained in the eWOM message. Even if participants were expecting a strong argument from an expert, which would lead to an assimilation effect on their attitudes and intention to purchase the product, their lack of elaboration on the argument contained in the eWOM message removed any potential moderating impact. If participants believed that the single cue of source

expertise delivered sufficient information to enable them to form an attitude, other cues such as the argument contained in the eWOM message might not matter (Bohner, Moskowitz and Chaiken, 1995; Koroleva, Krasnova and Günther, 2010).

5.2.4. Tie strength

The strength of a tie between two parties is determined by the frequency of contact, the length of the relationship, the intimacy between the parties, and the mutual support (Granovetter, 1973; Hansen, 1999; Haythornthwaite, 2002; Donath and Boyd, 2004). According to the ELM, tie strength should be considered to be a heuristic cue used by recipients of eWOM messages (Petty and Cacioppo 1986a; Jun, Cha and Aggawal, 2011). The ELM states that when a recipient is not willing to cognitively elaborate on a message, tie strength (the peripheral route) is a critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). Hypothesis 4a proposed that the stronger the tie between the message sender and recipient, the more favourable the message recipient's attitude towards the product. Study 1 failed to provide empirical support for hypothesis 4a in that tie strength had no significant effect on attitude towards the product. Hypothesis 4b proposed that the stronger the tie between the message sender and recipient, the greater the message recipient's intention to purchase the product. Study 1 failed to provide empirical support for hypothesis 4b in that tie strength had no significant effect on intention to purchase the product. Offline, tie strength has been found to impact on attitude towards a product and intention to purchase a product (Brown and Reingen, 1987; Weenig and Midden, 1991; Bansal and Voyer, 2000). However, online the impact of tie strength is less clear. Steffes and

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Burgee (2008) reported that weak ties were more influential than strong ties for eWOM in an online forum. This may be due to contributors to a forum being seen as an expert due to having direct product experience, which makes them more convincing (Mackiewicz, 2010; Moran and Muzellec, 2014). Wang and Chan (2013) found strong ties to be more influential than weak ties for expensive products but not inexpensive products. When evaluating expensive products, a strong tie source's trustworthiness may help consumers form a more confident opinion (Zhang and Li, 2006). However, Aghakhani, Karimi and Salehan (2018) reported that tie strength had no significant effect on attitude towards the product for eWOM in Facebook. The result from Study 1 where tie strength had no significant effect on attitude towards the product seems to support the findings of Aghakhani, Karimi and Salehan (2018). However, it should be acknowledged that the study by Aghakhani, Karimi and Salehan (2018) asked participants to recall instances of receiving eWOM in their Facebook News Feed about products in general so this would likely encompass all types of products including but not limited to technology products such as a Smart TV.

As discussed earlier, the type of product featured in Study 1 and Study 2 was a Smart TV. It is possible that Study 1 participants viewed the Smart TV as primarily a utilitarian product. When a product is perceived as primarily utilitarian, the objective and tangible attributes are important in its evaluation (Wen, Tan and Chang, 2009). If technical or performance aspects of a product are important to a consumer they will use weak tie sources for decision making (Constant, Sproull and Kiesler, 1996; Duhan et al., 1997; Obal, Burtch and Kunz, 2012) because weak ties are more varied and numerous, and may have access to more novel information (Levin and Cross,

2004; McFayden and Cannella, 2004). This was supported by Schulze, Scholer and Skiera (2014) who found that eWOM messages in Facebook regarding utilitarian products were more effective if sent by a stranger than if sent by a friend. This might explain the results for hypotheses 4a and 4b in that there was no significant result for the impact of strong ties on attitude towards the product or intention to purchase the product.

Another possible explanation for the lack of a significant effect for tie strength on attitude towards the product and intention to purchase the product could be due to the way different methods of interpersonal communication are used and perceived by users of Facebook. Facebook allows users to send messages to their friends in a variety of ways. Users can send a direct message to a single or specific group of friends, or post a status update to all of their contacts. Both Study 1 and Study 2 used a status update as the method of disseminating the eWOM in Facebook. However, people use more personal forms of communication with friends than with acquaintances (Haythornthwaite, 2005; Koroleva, Krasnova and Günther, 2010; Brown, Michinov and Mango, 2017). Direct messaging in Facebook is associated with increases in tie strength, more so than broadcasted messages via the News Feed (Burke and Kraut, 2014). As interview participant E commented: "I use Facebook Messenger to keep up with friends." Some participants in Study 2 reporting the different way that status updates and direct messages from friends are perceived. As interview participant J discussed: "There's a big difference in what people post in the News Feed and what they send you in person… the direct conversation is more of a personal conversation." The range of ties within SNSs makes tailoring a status update to all ties quite difficult so they may lack personalisation (Eisingerich et al.,

2015). Information from strong ties is more likely to be aligned with the recipients needs and wants than that from a weak tie so is therefore more likely to influence the recipient (Palazon, Sicilia and Lopez, 2015). It is possible that a broadcast recommendation via ones News Feed as opposed to a recommendation via a direct message lessens the personalisation, customisation and therefore influence of the eWOM message. This was confirmed by Palazon, Sicilia and Lopez (2015) who reported that for posts to the Facebook News Feed, weak ties are as equally influential as strong ties. Furthermore, Schulze, Schöler and Skiera (2014) found that direct messages regarding utilitarian products to friends in Facebook were more influential than broadcast messages via the News Feed. The results from Study 1 and Study 2 suggest that the influence of tie strength is diminished by the one to many broadcast function of the Facebook News Feed.

Study 1 showed that strong ties had no significant impact on attitude towards the product or intention to purchase the product. However, the analysis of the data from Study 2 suggested tie strength did impact on the participants' awareness stage of their decision making process. eWOM communication can be actively sought via a review site or passively attained via being shared by a friend in Facebook. Both Study 1 and Study 2 used an eWOM communication that was passively attained by the recipient as they had not actively sought out a friend's opinion. This is typical of much of the sharing behaviour on Facebook as Facebook encourages content sharing by making it easy to do (Oeldorf-Hirsch and Sundar, 2015). Users may experience information overload and it becomes difficult for Facebook users to identify the interesting information from within the high volume of content in the News Feed (Koroleva, Krasnova and Gunther, 2010). Interview participant A reported: "I've

ended up following so many things…..now it all comes up on your [News] Feed" and interview participant E commented: "There's a lot of stuff I just skim through on Facebook now…..people I'm friends with share a lot [of content]." A message sender's identity is always made available in Facebook (Koroleva and Kane, 2017). Homophily increases with tie strength, so the stronger the social tie connecting two individuals, the more similar they tend to be in opinions and beliefs (Granovetter, 1973; McPherson, Smith-Lovin and Cook, 2001). This leads to strong ties being seen as providing more relevant content in SNSs (Antheunis, Valkenburg and Peter, 2012). Study 1 featured a form of eWOM where a Facebook user shares brand generated content to their Facebook friends. Participants in Study 2 were asked about receiving similar posts in their Facebook News Feed and reported that strong ties are providers of content in Facebook that is worthy of their attention, even if the content originated from the brand itself: As interview participant C commented: "I'd like to understand why they [a strong tie] think it's [brand content] relevant and good enough to share." This confirms the results of Koroleva, Krasnova and Gunter (2010) who reported that the level of closeness in a relationship between Facebook friends is the principal factor of information relevance. This also confirms the findings of Wang and Chan (2013) who reported that strong ties provide product information in Facebook that is seen as more useful than that from weak ties. Conversely, Study 2 participants reported that weak ties on Facebook are seen as less valuable sources of eWOM and not worthy of their attention: As participant E reported: "If it's a Facebook friend that I'm just friends with on Facebook, then I'd just scroll past, because again it's almost like the brand, it's just irrelevant to me." People use source factors to determine how much thinking to do about a message (Petty and Cacioppo,

1984). It seems that tie strength is being used as a decision heuristic by Facebook users to decide what brand related content is deserving of their attention in their News Feed with strong ties increasing message attention. This appears to confirm the findings of De Bruyn and Lilien (2008) and Chu and Kim (2011) who reported that tie strength influences the decision of recipients to engage with unsolicited eWOM messages.

5.2.5. The impact of argument strength on tie strength

Hypothesis 5a proposed that argument strength would moderate the impact of tie strength on the message recipient's attitude towards the product. Study 1 failed to provide empirical support for hypothesis 5a in that argument strength was found to have no significant moderating effect on the impact of tie strength on the message recipient's attitude towards the product. Hypothesis 5b proposed that argument strength would moderate the impact of tie strength on the message recipient's intention to purchase the product. Study 1 failed to provide empirical support for hypothesis 5b in that argument strength was found to have no significant moderating effect on the impact of tie strength on the message recipient's intention to purchase the product. As discussed earlier, it is likely that Study 1 participants were not using the central route to process the eWOM message as they were behaving as cognitive misers. Cognitive misers will abstain from effortful message scrutiny when the message communicator is perceived to be an expert and delivering accurate information (Priester and Petty, 1995; Chu and Kamal, 2008). This lack of attention to the argument in the eWOM message would remove any potential moderating impact

of the strength of the argument contained in the eWOM message on attitude towards the product or intention to purchase the product.

5.2.6. The impact of purchase decision involvement on source expertise

Hypothesis 7a proposed that purchase decision involvement moderates the impact of source expertise on attitude towards the product. Study 3 failed to provide empirical support for hypothesis 7a in that purchase decision involvement was found to have no significant moderating effect on the impact of source on the message recipient's attitude towards the product. Hypothesis 7b proposed that purchase decision involvement moderates the impact of source expertise on intention to purchase the product. Study 3 failed to provide empirical support for hypothesis 7b in that purchase decision involvement was found to have no significant moderating effect on the impact of source on the message recipient's intention to purchase the product. Involvement has been found to moderate the impact of source expertise in an offline environment (Homer and Kahle, 1990). When individuals have a high degree of involvement they will devote more effort to elaborating on either a central or peripheral cue, which is more likely to be evaluated favourably (Homer and Kahle, 1990). However, as discussed earlier, participants in Study 3 were not told of the source of the eWOM message which may have impacted on their perceptions of the trustworthiness of the sender and therefore the impact of the eWOM message.

In Study 2, involvement was shown to have an impact on the consumer. Study 2 participants discussed how involvement affected their attention to product related eWOM posts in their Facebook News Feed. Interview participant A commented: "No [I would not read the post if I wasn't looking for a TV]…..it's just not something that

would interest me" and interview participant B stated: "Yes [I'd ignore the post unless I happened to need a TV] or unless I had an active interest" and interview participant J remarked: "If I wasn't looking for a TV, I don't think it [the post] would interest me enough" so product related eWOM is unlikely to gain attention in the News Feed unless it is relevant to the current needs and wants of the recipient.

Study 2 participants were asked about how they would begin looking for a TV in the event of needing to purchase one. eWOM played a part in many of the participants' answers but not via social platforms such as Facebook but via online reviews via Amazon or Google. As interview participant J commented: "I'd look at Amazon [to find out about TVs] because they have very good reviews" and interview participant G remarked: "I'd go on Google and type in best TVs……I'd go by ratings." People will seek eWOM when purchase decision involvement is high but reviews from trusted websites are far more likely to be used than eWOM via the Facebook News Feed. Facebook is not seen as an appropriate environment to seek product related eWOM when other online environments are easily accessible.

A diagram of a summary of the research findings is shown below in figure 31. The diagram depicts the Facebook News Feed environment which is information rich. Studies 1, 2 and 3 featured an unsolicited eWOM message so the information was not sought by the message recipient. Factors that featured in all three studies that may have influenced how the eWOM message impacted participants' attitudes and purchase intentions are shown. These factors are the qualities of the product featured and are shown as utilitarian, high risk and relating to an unfamiliar brand. The qualities of the message content are shown as a single message, lacking detail and containing a strong argument. The message sender's qualities are shown as

being sent from an expert who is also strongly tied to the recipient. Message recipient factors are shown as being highly involved in the purchase and having a degree of existing product knowledge. Users visit Facebook to be entertained and socialise so an eWOM message regarding a utilitarian product is unlikely to motivate recipients to elaborate on the argument contained in the message. Furthermore, in order to manage the volume of posts in their Facebook News Feed, users will adopt tactics to minimise their cognitive effort when addressing posts. Due to both of these factors, Facebook users will adopt the tactics of a cognitive miser which leads to users not fully elaborating on the argument contained in the eWOM resulting in it having no impact on their attitude towards the product or their intention to purchase the product. The impact of the argument contained in the eWOM message is shown as moving the product into the message recipient's consideration set. Figure 32 also shows that whilst behaving as cognitive misers, Facebook users will use the peripheral route heuristic cue of source expertise to inform their intention to purchase the product. High source expertise was found to have no impact on a recipient's attitude towards the product. An eWOM message from a strong tie will not impact attitudes or purchase intention but will cause message recipients to attend to the message.

Figure 31: Summary of the research findings.
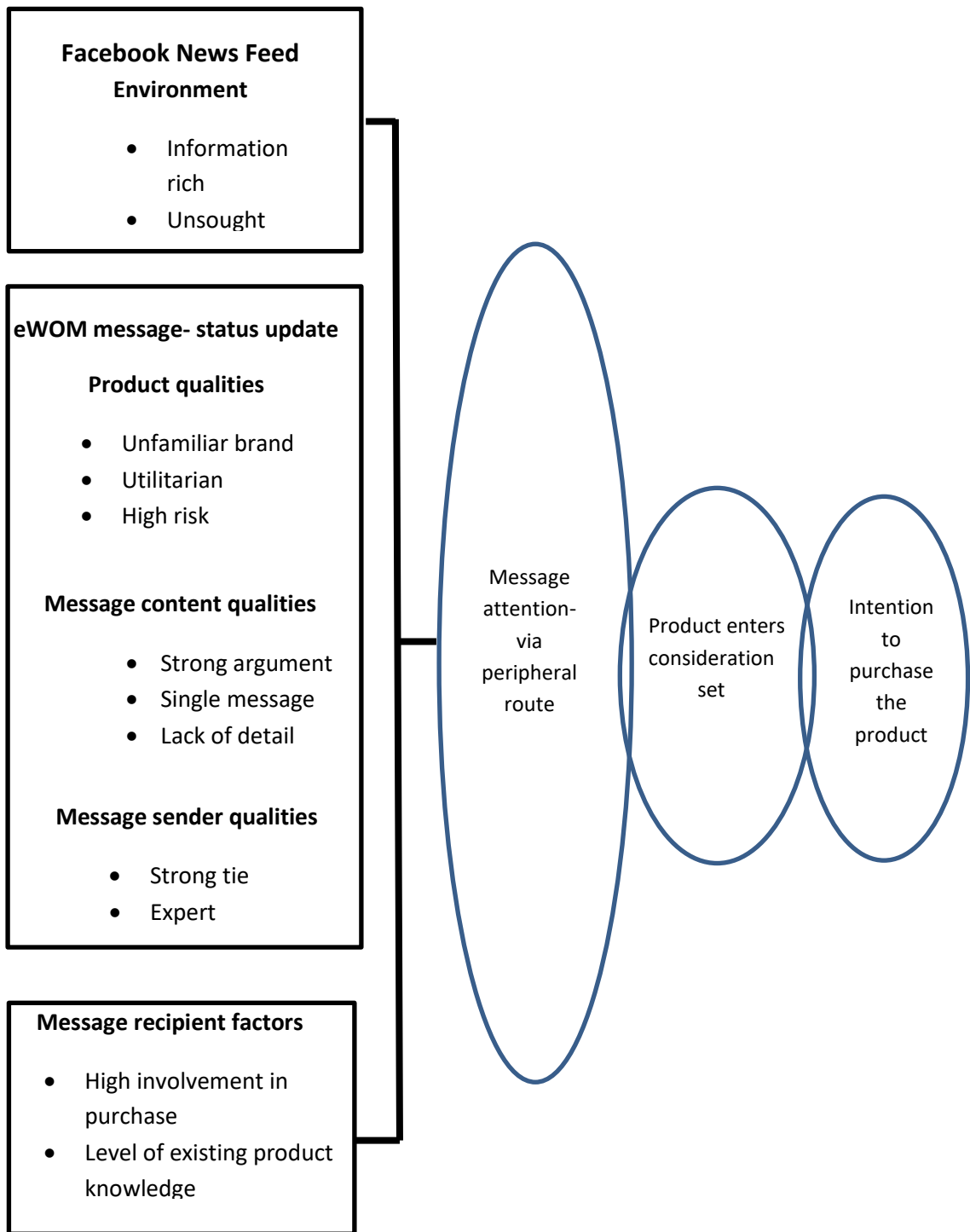
6. Conclusions

6.1. Academic contributions of the research

6.1.1 Theoretical contribution of the research

This research has shown that despite being involved in the purchase decision, Facebook users will not behave according to the ELM and use the argument contained in the eWOM message to form opinions about products. The ELM states that message recipients will vary in the extent to which they cognitively elaborate on a particular message. When an individual has high involvement, they are motivated to process information and elaborate on the message (Petty and Cacioppo, 1979). When a recipient is not motivated to elaborate on a message, peripheral cues exert influence (Petty, 1986; Eagly and Chaiken, 1993; Sussman and Siegal, 2003). There are many reasons why a person may not be motivated to elaborate on the content of a message (Petty and Cacioppo, 1981) including the situation, time and the technology (Bhattacherjee and Sanford, 2006). The ELM was developed during the 1980s, prior to the advent of interactive social media, so the way consumers process messages may have changed (Kerr et al., 2015; Kitchen et al., 2014). Until recently, much of the existing literature that addressed argument strength and eWOM was situated in the context of online reviews and forums (Park, Lee and Han, 2007; Cheung, Lee and Rabjohn, 2008; Zhang and Watts, 2008, Huang et al., 2011; Lin, Lee and Horng, 2011; Yi et al., 2013; Zhang et al., 2014; Teng et al., 2017). All of these studies reported a significant effect for the influence of argument strength on attitude towards the product and/or intention to purchase the product. These studies confirmed the predictions of the ELM in that motivated consumers will use central

route processing (argument strength) when considering online reviews. However, recently it has been recognised that eWOM in online forums and eWOM in Facebook should be viewed as distinct contexts in which the mechanism of influence may differ (Cheung and Thadani, 2012; Fang, 2014; Aghakhani, Karimi and Salehan, 2018). Many online websites invite users to provide feedback on their experiences with products and services (Wang and Rodgers, 2011) so people may actively search for eWOM and be motivated to elaborate on the contents of the message. Both Study 1 and Study 2 used an eWOM communication that was passively attained by recipients as they had not sought out a friend's opinion, so their motivation to elaborate on the eWOM message was likely to be reduced in this situation.

54% of UK adults consume social media whilst they are also watching TV (OFCOM, 2018), so in this multi-channel context, their elaboration of eWOM messages may differ from other offline and online contexts. If Facebook user is distracted from paying attention to a eWOM message then they are less able to engage in issue-relevant thinking (Petty, Wells and Brock, 1976; Petty, Wegener and Fabrigar, 1997; O'Keefe, 2002). Therefore, many people receiving a message through Facebook may be distracted from issue relevant thinking which will impact on their ability to engage in elaboration (Petty, Wegener and Fabrigar, 1997).

In the environment of the Facebook News Feed, where visitors are primarily looking to socialise and be entertained (Chen, 2013), a product related post is seen as less deserving of careful scrutiny even if message recipients have a high degree of involvement. This research suggests that in the Facebook News Feed, involvement is not the primary determinant of the processing route users will use when encountering eWOM. The environment of the Facebook News Feed encourages

users to adopt the tactics of a cognitive miser to minimise their effort and to use the peripheral cue of source expertise to form opinions about the product. Involvement has been shown in many studies both online and offline to be the determinant of the route to persuasion. This research has shown that in the context of the Facebook News Feed, motivation to elaborate on an eWOM message is more impacted by the Facebook News Feed environment than by involvement.

Facebook's technology makes it easy for users broadcast information to their entire network, so users scroll through a lot of content in their News Feed every day and devote an average of just over two seconds to consume content (Re, 2018). Faced with so much content, Facebook users will employ heuristic cues to aid their decision making (Schulze, Scholer and Skiera, 2014; Koroleva and Kane, 2017). Facebook also has a technological feature that allows users to choose the mode of message delivery to one's friends. Strong ties are trustworthy and therefore influential but this influence is reduced for eWOM in the Facebook New Feed when it is broadcast to all of one's friends. The predictions of the ELM are impacted by technological features when applied to the Facebook News Feed. Whilst the ELM has provided much valuable explanation of the influence mechanism in some online contexts, it is apparent that the Facebook News Feed has its own particular environmental and technological features that may impact on the influence mechanism of eWOM. The predictive ability of the ELM across a multitude of online contexts may prove more difficult to apply as technological innovation progresses.

People primarily use SNSs for entertainment, social interaction seeking and to interact with content (Chen, 2013) which encompasses both affective and cognitive considerations (Hoffman and Novak, 2011; Pillai and Mukherjee, 2011; Wilson et al.,

2012; Fang, 2014). Using only the ELM to understand the mechanism of influence may not provide a full account of how eWOM influences attitudes (Shih, Lai and Cheng, 2013) as it does not consider the affective dimension (Morris, Woo and Singh, 2005; Fiske and Taylor, 2013; Fang, 2014). In SNSs, both affective and cognitive components play a role in attitude formation (Koroleva, Krasnova, and Güntheer, 2010). In the Facebook News Feed environment, where people are facing information overload and are only briefly exposed to content, message recipients will process a message even in the case of brief exposure but it is likely to be non-conscious (Ferraro, Bettman and Chartrand, 2009). As a way of coping with so much content that is often not sought out in one's News Feed, fast, intuitive and emotionally driven processing (Kahneman, 2011) may be more reflective of the way today's consumers act than the slower, more deliberate cognitively orientated process proposed by the ELM. This research has only considered the cognitive aspects of attitude formation but only addressing influence using the ELM may not be sufficient. Recent research provides support for this as affective elaboration was found to supersede cognitive elaboration of eWOM posts in Facebook for high involvement consumers and utilitarian products (Chen, Kim and Lin, 2015). It could be argued that the ELM still is relevant in explaining some of the cognitive mechanisms by which eWOM messages in Facebook affect attitudes and behaviour but other considerations such as the affective component of message processing need greater consideration than has previously been afforded in this study.

6.1.2. Methodological contribution of the research

This research began in 2012. At that point in time, the ELM had been used to understand the mechanism of influence in several studies featuring WOM and eWOM. Many of these studies that investigated eWOM using the theoretical foundation of the ELM looked at online communities and customer reviews, not eWOM via Facebook. Cheung and Thadani (2012) conducted a literature analysis of eWOM research and produced a quantitative summary that confirmed that by 2012, the ELM had not been applied to Facebook or the Facebook News Feed. By late 2012, Facebook reported that it had 1 billion users per month (Schroeder, 2012) so it was deemed important to the researcher that such a popular platform on which many users were posting eWOM be the subject of academic research. Subsequently, the ELM and eWOM have been investigated by other researchers in the context of Facebook. Atwood and Morosan (2015) reported that they were the first researchers to apply the ELM in a social media context. However, their research looked at brand to customer communication on a brand's Facebook page, not eWOM, and used elaboration and source credibility as its two independent variables. Aghakhani, Karimi and Salehan (2018) applied the ELM to the context of eWOM in the Facebook News Feed. Aghakhani, Karimi and Salehan (2018) used tie strength and source credibility as two of the independent variables with eWOM adoption as the single dependent variable. In contrast, Study 1 of this research study used argument strength, source expertise and tie strength as the independent variables and Study 3 used argument strength, source expertise and purchase decision involvement as the independent variables. Both Study 1 and Study 3 used attitude towards the product and intention to purchase the product as the dependent variables. Furthermore, the

study by Aghakhani, Karimi and Salehan (2018) used a retrospective survey as opposed to the experiments conducted in Study 1 and Study 3 and the interviews in Study 2 of this research. Moreover, the eWOM featured in the study by Aghakhani, Karimi and Salehan (2018) differed from the type of eWOM featured in this research. Aghakhani, Karimi and Salehan (2018) used eWOM created by a consumer and eWOM generated by a Facebook Like. This research used eWOM that featured a product photograph and product description that was created by the brand, accompanied by an eWOM comment about the product created by the eWOM message sender. This was designed to mirror one of the social media marketing strategies prevalent in 2012 and still used today where consumers can share product and brand generated content via social platforms and add their own eWOM comments. Therefore, this research makes an original contribution to the application of the ELM to eWOM in the context of the Facebook News Feed by using a distinct methodology and type of eWOM from other published research.

6.2. Managerial implications

WOM marketing has become increasingly important to marketers (Nail, 2005). With the growth in popularity of social media and SNSs, many marketers are seeking to encourage eWOM about their products to raise awareness of their products and to help consumers make purchase decisions (Zhang et al., 2014). Advances in technology have created a proliferation in platforms and devices for viewing media. Many consumers now simultaneously consume different media on multiple devices as part of their daily media consumption (Yeykelis et al., 2014; Courage et al., 2015; Kazakova et al., 2015). This media multi-tasking is likely to lead to many Facebook

users from spending their time paying attention to all their Facebook posts. Furthermore, Facebook users are likely to experience a large volume of information in their News Feed so will adopt strategies and tactics to manage this. Marketers should balance their need to deliver sufficient quality information to users to help them form an attitude towards the product featured without overloading them with information in an environment where consumers are mainly present to socialise and be entertained. Marketers should make use of links to detailed information or videos that can deliver more information in a short space of time to attention poor consumers (Nahai, 2017). Marketers will also need to present brand related information in a way that is seen as more entertaining and less cognitively taxing to fit in with people's primary reasons for using Facebook. Marketers will need to create more authentic content about themselves and their products that is less polished so it more aligns with the fun and entertainment focus of Facebook (Chen, 2013).

For products that contain an element of financial risk in the purchase decision, marketers will need to be aware that a single eWOM post in Facebook is unlikely to be sufficient to alter attitudes or purchase behaviour. Marketers will need to ensure that these messages are repeated or reinforced within Facebook and on other platforms to help the consumer move forward in their decision journey. Marketers can also utilise links to more content to reinforce their messages.

In an environment of abundant information, Facebook users are likely to conserve their cognitive effort and use short cuts such as source expertise to form opinions about the products featured in the posts. Marketers should seek to enlist those seen as experts within related fields to endorse and feature their products in their Facebook posts. Therefore, marketers will need to identify those of their followers

who demonstrate a degree of expertise within the related product field. This is particularly important for utilitarian products. When these 'expert' followers share posts, recipients are likely to use the heuristic of agreeing with the expert because it is less cognitively taxing than elaborating on the contents of the eWOM message. Marketers should seek to foster relationships with some of these 'expert followers via Facebook and other social platforms as they are likely to recommend products to others on social networks (Sashi, 2012). Marketers will also need to encourage those consumers who wish to demonstrate their expertise to do so. People will share and contribute their knowledge because they want to establish themselves as experts and build their reputation (Cheung and Lee, 2012). Facebook has just introduced a new feature where brands can post updates to only their 'top Page fans' specifically (Hutchinson, 2019). Marketers should use this new feature to post exclusive content to these 'expert' fans to create a stronger connection to them and to enable these passionate advocates to spread their messages to their own networks to demonstrate their expertise.

Although tie strength was found to have no impact on attitude towards the product or intention to purchase the product, it was found to be used by Facebook users as a way of discerning which content was worthy of their attention. As users scroll through their Facebook News Feed, they are making multiple judgements as to the origin and quality of the content and use heuristics to make those judgements (Sondra and Limperos, 2013). The results from Study 2 suggest that Facebook users are using tie strength as a heuristic to assess whether News Feed content is worthy of their attention. Facebook users are paying decreasing attention to their News Feed due to the vast amount content and too much irrelevant and low quality content (Koroleva,

Krasnova and Günther, 2010). Facebook recently acknowledged that users' News Feeds are increasingly crowded with posts from brands and that they intend to prioritise content shared between friends over posts directly from brand pages (Zuckerberg, 2018). Facebook uses an algorithm to control what users see in their News Feed with the result that brands with millions of fans on Facebook have seen the reach of their posts fall below 2% of their followers (Rosenthal and Brito, 2017). However, eWOM in the form of shared brand related content will be prioritised by the Facebook algorithm leading to higher reach (Mavrck, 2017). As marketers attempt to engage consumers with brand related content in social media, encouraging the sharing of their content by followers becomes ever more important as a way of ensuring it is the subject of attention. Marketers will need to ensure that the quality of content that they create as part of their content marketing efforts is of sufficient quality and value to their customers so that their customers will share it to their networks on Facebook. It is likely to be shared to strong and weak ties alike, with strong ties being less numerous. In the absence of a means for brands to identify and target users with large amounts of strong ties, they could look at the engagement rate that their followers' posts attract and from that discern those followers that garner the most attention and perhaps influence.

Using social media marketing to increase awareness, influence desire and encourage purchase is now an established part of marketing communications (Tuten and Solomon, 2018). However, despite Facebook being a free tool for brands it is still requires day to day management which carries a cost. Participants in Study 2 were clear that unless they were actively looking for a TV, an eWOM post about a TV would be ignored as it would be deemed irrelevant. Facebook is not seen as an

environment where users are looking to engage with brand related content. Therefore, marketers need to be aware that much of their brand related content they create and post in Facebook is likely to be skimmed past even if it is shared by one of their followers unless the recipient considers it timely. Marketers need to consider if this type of social media marketing realises an acceptable level of return on investment. Marketers should consider paying for Facebook ads to target people based on their recent behaviours and interests with content that features eWOM about their products from recognised experts. In this way, marketers will reach consumers who are more involved with the product class which should help attract their interest towards and attention to their posts. Recipients should also find these eWOM messages more timely and therefore relevant, which will increase attention and their subsequent impact on purchase decision. This paid for, more targeted message may deliver a higher return on investment to marketers.

6.3. Limitations of the research

As discussed earlier, a large number of participants were required to reach the desired level of power for Study 1 and Study 3, and these were drawn from a convenience sample of undergraduate students. The advantage of using this sampling method was that the researcher had easy and low cost access to large numbers of real life Facebook users who would potentially participate in sufficient numbers to reach the required sample size. Petty and Cacioppo (1996) argued that research with college students can be valuable in studying a wide variety of conceptual variables as many of the variables that can be studied in the general

population can also be studied within the population of college students. However, the generalisability of the results of a study is dependent of the features of the pool from which the sample was drawn (Crano, Brewer and Lac, 2015). According to Bryman (2012), using only undergraduate students from one UK University represents a restricted population who are unlikely to be representative of the population of interest, therefore it would be unwise to generalise the results of Study 1 or Study 3 to a broader adult population (Bryman, 2012). Calder, Phillips and Tybout (1981) argued that there are two types of generalisability, namely theory application and effects application generalisability. Effects application research expects the results to be generisable to other contexts and populations in the real world, whilst theory application research expects the theoretical explanation to be generisable (Calder, Phillips and Tybout, 1981; Peterson, 2001). For theory application, homogeneous samples such as students are preferred because their use enables more precise predictions and enhances statistical-conclusion validity, thereby increasing the rigour of theory testing (Calder, Phillips and Tybout, 1981). Therefore, the results of Study 1 and Study 3 can be used to generalise theories to a particular context and not to a population (Silverman, 2013). In order to be able to generalise the results of Study 1 and Study 3 to a population, a further study would need to be conducted using non-student participants (Peterson, 2001).

Generalisability to real world situations can also be affected by laboratory based experiments that lack a connection between the setting of the experiment and real world behaviours (East, Wright and Vanhuele, 2013; Bryman, 2016). Social media is often accessed whilst users are consuming other media simultaneously (Barnidge, Gil de Zuniga and Diehl, 2017), potentially leading to the rise of partial attention. In all

three studies participants only had one screen available to them so could potentially devote their entire attention to the Facebook post. Clearly, this may not be an accurate reflection of real world behaviour. Furthermore, elaboration of an eWOM message can be affected by distraction (Petty and Cacioppo, 1984; Petty, Wegener and Fabrigar, 1997) leading to the use of peripheral cues. In both studies, participants had fewer distractions than in a real world setting. Replicating the multi-channel environment experienced by many consumers would have provided a more realistic setting for the research.

Facebook allows users to broadcast information simultaneously to their entire network of friends which creates an abundance of information that may lead users to experience information overload (Koroleva and Kane, 2017). Information overload and electronic screens both encourage reading by skimming rather than by deep considered reading (Bridger, 2017). In all three studies, the participants were presented with a single static post and asked to look at it carefully. This is unlikely to accurately reflect real world behaviour. It could be argued that social networks such as Facebook, with endless streams of information, encourage the skimming of content even when the content of the message is of high relevance. This limited attention on content can be seen as an indicator of limited elaboration (Sülflow, Schäfer and Winter, 2019). Processing of message arguments in this context may represent too much effort for some users who may skim messages and use heuristic cues enable efficient information processing (Fiske and Taylor, 2013). Replicating this real world environment where participants are faced with large volumes of information would have been desirable. Given this, it could be argued that in a real world setting, a single eWOM post may struggle to gain little if any attention within

the crowded space of the Facebook News Feed. The 'forced' attention of studies 1, 2 and 3 may have led to results that may not be replicated in a real world setting.

Furthermore, in Study 1 and Study 3, participants were asked to review the eWOM message and then immediately were asked for their views on the product and their purchase intention. In this situation, participants may have felt under pressure to review the eWOM comment quickly which may have impacted on their likelihood to elaborate on the eWOM message. Elaboration likelihood will be lower when message recipients are under time pressure, so under these circumstances, the consumer will often rely on peripheral cues in making judgments about products (Bitner and Obermiler, 1985). Therefore, the forced need of participants to make an immediate decision immediately after viewing the eWOM message may have led them to rely on peripheral route cues for their decision making. Had participants been given more time to consider the eWOM message, they may have used central route cues to form their attitudes. This short time frame afforded to participants in Study 1 and Study 3 does not necessarily replicate real world behaviour where consumers may see eWOM in their News Feed and form opinions about products over a period of time (Christiansen and Tax, 2000).

Facebook allows users to interact with posts in the form of likes, comments, shares and other actions. Facebook also allows users to see the amount of these interactions that each post has gained from other users. Facebook users use the quantity of these interactions as a heuristic cue to evaluate content shared on Facebook (Koroleva and Kane, 2017). Study 1, Study 2 and Study 3 did not feature these social cues thereby removing their potential impact on the effectiveness of the eWOM message. As a consequence, the participants of this research may have

evaluated the mock Facebook post differently from how they would evaluate a real eWOM post in their Facebook News Feed.

As discussed earlier in the methodology, a pre-test was conducted to identify an eWOM comment that best demonstrated a strong argument and one that best demonstrated a weak argument. The manipulation of argument strength was adapted from Johnson (1991); Rains (2007) and Pham and Avnet (2004). However, when Study 2 participants were shown the Facebook post containing a strong argument as defined by the literature, there was a difference of opinion as to whether that argument would influence their attitudes and behaviour due to the nature of the message. For some participants, the strong argument containing facts would be influential but for other participants, a weak argument containing opinions would have been more influential. It is possible that the conceptualisation of a strong and weak argument as utilised in all three studies may not fully reflect the way eWOM messages are perceived in social media.

In this research, the product chosen to feature in the purchase scenario was a Smart television. Consumers characterise some products as primarily hedonic and others as primarily utilitarian (Dhar and Wertenbroch, 2000). Most technology-oriented products are primarily utilitarian (Biswas, Biswas and Neel, 2006), with utilitarian products seen as largely functional (Dhar and Wertenbroch, 2000). Research has shown that the influence mechanism for WOM featuring utilitarian or hedonic products differs (Smith, Menon and Sivakumar, 2005; Biswas, Biswas and Neel, 2006; Wen, Tang and Chan, 2009). This research featured a primarily utilitarian product which may have impacted the extent to which participants elaborated on the eWOM message. The Facebook News Feed is likely to feature eWOM regarding

primarily utilitarian, primarily hedonic and products seen as having both dimensions. Therefore, this research has only considered one product aspect which does not fully reflect the range of product aspects found in the Facebook News Feed.

Another limitation of the research associated with the choice of the product featured in the research is that it is a relatively expensive product. Participants in Study 1 and Study 3 were told at the start of the experiment that they had "recently been given £500 and have decided to spend all of it on buying the new TV". Participants in the interviews in Study 2 confirmed that they perceived the Smart TV as expensive and involving a financial risk. Financial risk associated with a product purchase has been shown to have a significant positive effect on the influence of WOM on the receiver's purchase decision (Lin and Cheng-Hsi, 2006). Featuring a product with little perceived financial risk would likely have a different impact on the influence of the eWOM message.

Study 1 and Study 3 did not use a profile image with the eWOM post shown to participants. This does not replicate the usual manner in which Facebook displays posts in the News Feed as Facebook will use the photo or image from a user's profile to accompany their posts. When viewing posts in the News Feed, Facebook users are likely to gauge the physical attractiveness of the message sender (Perloff, 2014). Physically attractive message communicators generate greater influence on attitudes than unattractive communicators (Horai et al., 1974; Benoy Joseph, 1982). By not displaying the image of the eWOM poster in Study 1 and Study 3, the potential impact of the attractiveness of the source on participants' attitudes towards the product and their purchase intention was removed. As a consequence, the

participants of this research may have evaluated the mock Facebook post differently from how they would evaluate a real eWOM post in their Facebook News Feed.

6.4. Suggestions for future research

Only one product (i.e. a Smart TV) was used in the current study. As product type can moderate the impact of eWOM (Sen and Lerman, 2007), future research could examine whether the current findings can be generalised to eWOM regarding other types of products. As discussed earlier, a Smart TV can be considered a utilitarian product. A future study could use a hedonic product such as an item of clothing. Hedonic products are affective and sensory (Hirschman and Holbrook, 1982) so their choice is likely to be subject to normative influence from a strong tie as opposed to informational influence from an expert (Wen, Tan and Chang, 2009; Chang, Chen and Tan, 2012). Future research could also include a more diverse sample of Facebook users in different age categories and professions.

This study has used the ELM as a theoretical lens to examine eWOM in Facebook. However, there is recent evidence that this cognitive processing focused lens may not be sufficient to understand a more complete view of the influence mechanism at work (Koroleva, Krasnova, and Güntheer, 2010; Fang, 2014; Chen, Kim and Lin, 2015. Affective and cognitive elaboration can occur at the same time (Petty and Wegener, 1998). Future research could examine more of the affective processing of eWOM in the context of Facebook. This could include using profile pictures of those posting the eWOM or video content about the product as these can both provide affective cues to users (Fang, 2014). Furthermore, all three studies did not feature

any of the social cues such as the number of likes, comments and shares that accompany posts in the Facebook News Feed as these also have an impact on affective processing (Aghakhani, Karimi and Salehan, 2018) . A future study could incorporate these cues to determine their impact on the influence mechanism of eWOM posts. This would contribute to a fuller view of the influence mechanism of eWOM in Facebook and contribute to the development of a model that encompasses both cognitive and affective elaboration.

A future study could investigate the impact of eWOM sent via a direct message in Facebook as opposed to broadcast to all of one's friends via the Facebook News Feed. Direct messaging plays a role in developing relationships between friends (Hu et al., 2004), and in Facebook is associated with increases in tie strength, more so than broadcasted messages (Burke and Kraut, 2014). A future study could look at the impact of eWOM messages sent by direct messaging over time to see if a growth in tie strength is associated with an increase in attitude towards the product and intention to purchase the product. Interaction effects between tie strength and source expertise, and their impact on attitudes and purchase behaviour could also be investigated.

This study only investigated the impact of a single eWOM message that was not sought by the recipient. A future study could investigate the impact of multiple eWOM messages about a product over a period of time. This would allow the research to investigate the impact of repeated mere exposure to eWOM on recipients' attitudes (Zajonc, 1968; Humphrey, Laverie and Rinaldo, 2017). Facebook users may well be exposed to multiple messages about a product, so this may more effectively replicate a real world experience.

6.5. Concluding remarks

The ELM has been used to understand the mechanism of influence in many studies featuring eWOM (Cheung and Thadani, 2012). According to the ELM, when a recipient is able and willing to cognitively elaborate on a message, argument strength (the central route) is the critical determinant of informational influence (Petty, Cacioppo and Schumann, 1983; Petty, Wegener and Fabrigar, 1997). As discussed earlier, it has been recognised that eWOM in Facebook should be viewed as a distinct eWOM context from online sites primarily focussed on providing consumer reviews and feedback (Cheung and Thadani, 2012; Wang and Rodgers, 2011; Fang, 2014; Aghakhani, Karimi and Salehan, 2018). Many online websites invite users to provide feedback on their experiences with products and services (Wang and Rodgers, 2011) so people may actively search for eWOM and be motivated to elaborate on the contents of the message. Facebook's mission is to enable people to stay connected with friends and family (Facebook, 2019b), so although users can post eWOM to their friends, recipients may not be actively looking for the information at that time so may pay less attention to it. According to the ELM, if Facebook users lack involvement they will not be motivated to elaborate on the content of the EWOM message and will use peripheral route cues to form their opinions about the product. Morosan (2015) found that despite creating a high involvement situation for participants using Facebook, they were not processing messages centrally but were using the peripheral route of source expertise to form judgements about the attitude object. Similarly, Koroleva and Kane (2017) reported that Facebook users rely more on peripheral route cues than central routes when processing posts. The results from these more recent studies that featured eWOM in Facebook suggest that the

processing of the eWOM message by participants did not function in the manner predicted by the ELM. Despite the participants in studies 1, 2 and 3 being able to elaborate on the argument in the eWOM message, argument strength was not found to be the critical determinant of informational influence which is contrary to the expectations of the ELM. These results would seem to confirm those of Atwood and Morosan (2015) and Koroleva and Kane (2017). In an online environment primarily focussed on providing consumer reviews and feedback, users may be more likely to be motivated to elaborate on eWOM messages and use the central route of argument strength to forms opinion about products (Park, Lee and Han, 2007; Cheung, Lee and Rabjohn, 2008; Zhang and Watts, 2008, Huang et al., 2011; Lin, Lee and Horng, 2011; Yi et al., 2013; Zhang et al., 2014; Teng et al., 2017). However, in Facebook, where users are seeking fun and entertainment, eWOM message recipients will lack sufficient motivation to elaborate on the argument contained in the message. In this environment, the strength of the argument contained in the eWOM message will have no impact on attitude towards the product or intention to purchase the product. The impact of the argument contained in the eWOM message is to move the product into the recipient's consideration set and that they would then seek further information from online sites with reviews such as Amazon. This indicates that in the entertainment seeking environment of the Facebook News Feed, the impact of argument strength is less than that predicted by the ELM and supported by previous research regarding online review sites.

According to the ELM, if Facebook users are not motivated to elaborate on eWOM messages in their News Feed, they will use peripheral route cues to form opinions. The environment of Facebook's News Feed with its endless scroll causes information

overload which users must attempt to manage and navigate. This is causing Facebook users to minimise their cognitive effort by using mental shortcuts to form an opinion. In minimising their cognitive effort, Facebook users will employ the shortcut that 'experts are correct' to form an intention to purchase the product. However, brand familiarity is likely to affect the impact of source expertise on Facebook users' attitudes towards a product. An unfamiliar brand is more likely to receive an unfavourable and less confident evaluation than a familiar brand (Sundaram and Webster, 1999; Lim and Chung, 2014). Despite the perceived expertise of the source being used as a cue to form opinions, the lack of a familiar brand outweighs the impact of the source's expertise on opinions about a product. The type of product featured in the eWOM post is also likely to affect the impact of source expertise on recipients' opinions. People do not visit Facebook to learn about utilitarian products so will rely on simple cues such as source expertise to make a judgement regarding utilitarian products.

According to the ELM, Facebook users who lack motivation to elaborate on an eWOM post will use the tie strength cue to make judgements about a product. However, no significant result was found for the impact of tie strength on attitude towards the product or intention to purchase the product. Strong ties are trustworthy, but the one to many broadcast nature of the Facebook News Feed impacts on the trust placed in posts, which leads to a loss of persuasion. A direct post using Facebook Messenger is seen as a more personal and trustworthy channel and is likely to have more impact on recipients' opinions about the product. Tie strength is used as a heuristic to determine whether to pay attention to posts in the Facebook News Feed. In the information overload environment of the Facebook News Feed,

users are adopting tactics to manage their time and cognitive load and tie strength is seen as a valid signal to ascertain a post's likely importance or relevance and therefore worthy of their attention. The type of product featured in an eWOM post may also affect the impact of tie strength on opinion making. Facebook users primarily visit their News Feed to connect with friends and be entertained so when presented with information regarding a utilitarian product they are likely to use a decision heuristic such as source expertise to make a judgement regarding the product (Schulze, Schöler and Skiera, 2014). For a utilitarian product like a Smart TV, its objective and tangibles attributes are important so consumers will rely on informational influence with strong and weak ties equally persuasive (Wen, Tan and Chang, 2009).

List of References:

Abdul-Raham, A. and Hailes, S. (2000) 'Supporting trust in virtual communities', *Proceedings of the 33rd Annual Hawaii International Conference on System Sciences.* Maui, Hawaii, 4-7 January 2000. IEEE. doi: 10.1109/HICSS.2000.926814.

Ackland, R. (2013) *Web social science: concepts, data and tools for social scientists in the digital age.* London, UK: Sage Publications.

Adali, S., Escriva, R., Goldberg, M. K., Hayvanovych, M., Magdon-Ismail, M., Szymanski, B. K., Wallace, W.A. and Williams, G. (2010) 'Measuring behavioural trust in social networks', *Proceedings of the IEEE International Conference on Intelligence and Security Informatics.* Vancouver, BC, Canada 23-26 May 2010. IEEE. doi: 10.1109/ISI.2010.5484757.

Aghakhani, N., Karimi, J. and Salehan, M. (2018) 'A unified model for the adoption of electronic word of mouth on social network sites: Facebook as the exemplar', *International Journal of Electronic Commerce*', 22 (2), pp. 202-231. doi: 10.1080/10864415.2018.1441700.

Aghdaie, S.F.A., Boustani, H.R. and Pourzamani, J. (2014) 'The study of the relationship between consumer involvement and purchase decision (case study: customers of mobile phones)', *Advances in Environmental Biology.* 8, pp. 625-631.

Ahuvia, Y. (2013) *Infinite scroll: let's get to the bottom of this.* Available at: https://www.smashingmagazine.com/2013/05/infinite-scrolling-lets-get-to-the-bottom-of-this/ (Accessed: 9 November 2017).

Ajzen, I. (1988) *Attitudes, personality and behaviour.* Buckingham, UK: Open University Press.

Ajzen, I. (1991) 'The theory of planned behaviour', *Organizational Behaviour and Human Design Processes,* 50 (2), pp. 179-211. doi: 10.1016/0749-5978(91)90020-T.

Ajzen, I. (2001) 'Nature and operation of attitudes', *Annual Review of Psychology,* 52 (1), pp. 27-58. doi: 10.1146/annurev.psych.52.1.27.

Ajzen, I. (2002) *Constructing a TPB questionnaire: conceptual and methodological considerations.* Available at: http://www.uni-bielefeld.de/ikg/zick/ajzen%20construction%20a%20tpb%20questionnaire.pdf (Accessed: 19 September 2013).

Ajzen, I. (2011) 'The theory of planned behaviour: reactions and reflections', *Psychology and Health*, 26 (9), pp. 1113-1127. doi: 10.1080/08870446.2011.613995.

Ajzen, I. and Fishbein, M. (1980) *Understanding attitudes and predicting social behaviour.* New Jersey, USA: Prentice Hall.

Albarracín, D. and Vargas, P. (2010) 'Attitude and persuasion: from biology to social responses to persuasive intent', in Fiske, S.T., Gilbert, D.T. and Lindzey, G. (eds.) *Handbook of social psychology.* 5th edn. Vol.1. NJ, USA: John Wiley and Sons, pp. 394-427.

Alexander, M. and Jaakkola, E. (2016) 'Customer engagement behaviours and value co-creation', in Brodie, R.J., Hollebeek, L.D. and Conduit, J. (eds.) *Customer engagement: contemporary issues and challenges*. Oxon, UK: Routledge, pp. 3-20.

Al-Oufi, S., Kim, H.N. and El Saddik, A. (2012) 'A group trust metric for identifying people of trust in online social networks', *Expert Systems with Applications,* 39 (18), pp. 13173-13181. doi: 10.1016/j.eswa.2012.05.084.

Amazon. (2015) *Amazon best sellers*. Available at: https://www.amazon.co.uk/Best-Sellers-Electronics-TVs/zgbs/electronics/560864 (Accessed: 2 February 2015).

Amichai-Hamburger, Y. and Hayat, Z. (2013) 'Internet and personality', in Amichai-Hamburger, Y. (ed.) *The social net: understanding our online behavior*. 2nd edn. Oxford, UK: Oxford University Press, pp. 1-20.

Anderson, B., Fagan, P., Woodnutt, T. and Chamorro-Premuzic, T. (2012) 'Facebook psychology: popular questions answered by research', *Psychology of Popular Media Culture*, 1 (1), pp. 23-37. doi: 0.1037/a0026452.

Anderson, E.W. (1998) 'Customer satisfaction and word of mouth', *Journal of Service Research,* 1 (1), pp. 5-17. doi: 10.1177/109467059800100102.

Andrews, K. M. and Delahaye, B.L. (2000) 'Influences on knowledge processes in organizational learning: the psychosocial filter', *Journal of Management Studies,* 37 (6), pp. 797-810. doi: 10.1111/1467-6486.00204.

Antheunis, M., Valkenburg, P. and Peter, J. (2012) 'The quality of online, offline, and mixed-mode friendships among users of a social networking site', *Journal of Psychosocial Research on Cyberspace*, 6 (3), pp. 6-16. doi: 10.5817/CP2012-3-6.

Arden, M.A. and Armitage, C.J. (2011) *An on-product self-affirmation intervention to promote alcohol consumption within government recommended guidelines: a pilot study*. Available at:
http://www.alcoholresearchuk.org/downloads/finalReports/FinalReport_0089.pdf
(Accessed: 8 October 2014).

Arechar, A.A., Gächter, S. and Molleman, L. (2018) 'Conducting interactive experiments online', *Experimental Economics,* 21, pp. 99-131. doi: 10.1007/s10683-017-9527-2.

Areni, C.S. and Lutz, R.J. (1988) 'The role of argument quality in the elaboration likelihood model', in Houston, M.J. (ed.) *Advances in consumer research volume 15.* Provo, UT: Association for Consumer Research, pp. 197-203.

Argyle, M. (1998) *Social influence*. Leicester, UK: BPS Books.

Armitage, C.J., Conner, M., Loach, J. and Willets, D. (1999) 'Different perceptions of control: applying an extended theory of planned behaviour to legal and illegal drug use', *Basic and Applied Social Psychology*, 21 (4), pp. 301-316. doi: 10.1207/s15324834basp2104_4.

Armitage, C.J. and Connor, M. (2000) 'Attitudinal ambivalence: a test of three key hypotheses', *Personality and Social Psychology Bulletin*, 26 (11), pp. 1421-1432. doi: 10.1177/0146167200263009.

Armitage, C.J. and Conner, M. (2001) 'Efficacy of the Theory of Planned Behaviour: a meta-analytic review', *British Journal of Social Psychology*, 40 (4), pp. 471-499. doi: 10.1348/014466601164939.

Arndt, J. (1967) 'Role of product-related conversations in the diffusion of a new product', *Journal of Marketing Research,* 4 (3), pp. 291-295. doi: 10.2307/3149462.

Artz, D. and Gil, Y. (2007)' A survey of trust in computer science and the Semantic Web', *Web Semantics: Science, Services and Agents on the World Wide Web*, 5 (2), pp. 58-71. doi: 10.1016/j.websem.2007.03.002.

Assael, H. (1995) *Consumer behaviour and marketing action.* 5th edn. Ohio, USA: South Western.

Atwood, M. and Morosan, C. (2015) 'An investigation of the persuasive effects of firm consumer communication dyads using Facebook', *Worldwide Hospitality and Tourism Themes*, 7 (3), pp.295-313. doi: 10.1108/WHATT-03-2015-0015.

Awad, N.F. and Ragowsky, A. (2008) 'Establishing trust in electronic commerce through online word of mouth: an examination across genders', *Journal of Management Information Systems,* 24 (4), pp. 101-121. doi: 10.2753/mis0742-1222240404.

Back, M.D., Stopfer, J.M., Vazire, S., Gaddis, S., Schmukle, S.C., Egloff, B. and Gosling, S.D. (2010) 'Facebook profiles reflect actual personality not self-idealization', *Psychological Science*, 21 (3), pp. 372-374. doi: 10.1177/0956797609360756.

Backstrom, L. (2011) *Anatomy of Facebook.* Available at: http://www.facebook.com/note.php?note_id=10150388519243859 (Accessed: 15 May 2012).

Backstrom, L. (2013) *News Feed FYI: a window into News Feed.* Available at: https://www.facebook.com/business/news/News-Feed-FYI-A-Window-Into-News-Feed (Accessed: 1 December 2016).

Backstrom, L., Bakshy, E., Kleinberg, J., Lento, T.M. and Rosen, I. (2011) 'Center of attention: how Facebook users allocate attention across friends', *Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media.* Barcelona, Spain. 17-21 July 2011. Association for the Advancement of Artificial Intelligence. Available at: www.aaai.org/ocs/index.php/ICWSM/ICWSM11/paper/download/2899/3259 *(Accessed 15 July 2015).*

Bae, S. and Lee, T. (2011) 'Product type and consumers' perception of online consumer reviews', *Electronic Markets,* 21 (4), pp. 255-166. doi: 10.1007/s12525-011-0072-0.

Bagozzi, R.P. and Dholakia, U.M. (2002) 'Intentional social action in virtual communities', *Journal of Interactive Marketing*, 16 (2), pp. 2-21. doi: 10.1002/dir.10006.

Bagozzi, R.P. and Lee, K.H. (2002) 'Multiple routes for social Influence: the role of compliance, internalization, and social identity', *Social Psychology Quarterly,* 65 (3), pp. 226-247. doi: 10.2307/3090121.

Bagozzi, R.P. (2007) 'The legacy of the technology acceptance model and a proposal for a paradigm shift', *Journal of the Association for Information Systems*, 8 (4), pp. 244-254. doi:10.12691/ajis-3-2-3.

Bakos, Y.J. (1997) 'Reducing buyer search costs: implications for electronic marketplaces', *Management Science,* 43 (12), pp.1676-1692. doi: 10.1287/mnsc.43.12.1676.

Bakshy, E., Marlow, C., Rosenn, I. and Adamic, L. (2012) 'The role of social networks in information diffusion', *WWW '12 Proceedings of the 21st International Conference on World Wide Web.* Lyon, France. 16-20 April 2012. ACM. doi: 10.1145/2187836.2187907.

Balasubramanian, S. and Mahajan, V. (2001) 'The economic leverage of the virtual community', *International Journal of Electronic Commerce,* 5 (3), pp. 103-138. doi: 10.2307/27750984.

Bansal, H.S. and Voyer, P.A. (2000) 'Word-of-mouth processes with a services purchase decision context', *Journal of Service Research,* 3 (2), pp. 166-177. doi: 10.1177/109467050032005.

Bapna, R., Gupta, A., Rice, S. and Sundararajan, A. (2017) 'Trust and the strength of ties in online social networks: an exploratory field experiment', *MIS Quarterly*, 41 (1), pp. 115–130. doi:10.25300/MISQ/2017/41.1.06.

Barnidge, M., Gil de Zúñiga, H. and Diehl, T. (2017) 'Second screening and political persuasion on social media', *Journal of Broadcasting and Electronic Media,* 61 (2), pp. 309-331. doi: 10.1080/08838151.2017.1309416.

Basit, T. (2003) 'Manual or electronic? The role of coding in qualitative data analysis', *Educational Research*, 45 (2), pp. 143-154. doi: 10.1080/0013188032000133548.

Batra, R. and Stayman, D.M. (1990) 'The role of mood in advertising effectiveness', *The Journal of Consumer Research,* 17 (2), pp. 203 -214. doi: 10.1086/208550.

Bazeley, P. (2017) *Integrating analyses in mixed methods research*. CA, USA: Sage Publications.

Bearden, W.O. and Etzel, M.J. (1982) 'Reference group influence on product and brand purchase decisions', *Journal of Consumer Research,* 9 (2), pp. 183-194. doi: 10.1086/208911.

Bearden, W.O., Netemeyer, R.G. and Teel, J.E. (1989) 'Measurement of consumer susceptibility to interpersonal influence', *Journal of Consumer Research*, 15 (4), pp. 473-481. doi: 10.1086/209186.

Bearden, W.O., Netemeyer, R.G. and Teel, J.E. (1990) 'Further validation of the consumer susceptibility to interpersonal influence scale', *Advances in Consumer Research,* 17, pp. 770-776.

Bearden, W.O., Netemeyer, R.G. and Haws, K.L. (2011) *Handbook of marketing scales: multi item measures for marketing and consumer behaviour research.* 3rd edn. CA, USA: Sage.

Becker, T.E., Randall, D.M., and Riegel, C.D. (1995) 'The multidimensional view of commitment and the theory of reasoned action: a comparative evaluation', *Journal of Management,* 21 (4), pp. 617-638. doi: 10.1016/0149-2063(95)90002-0.

Belch, G.E. and Belch, M.A. (1999) *Advertising and promotion: an integrated marketing communications perspective.* 4th edn. Singapore: McGraw-Hill.

Belch, M.A., Krentlera, K.A. and Willis-Flurry, L.A. (2005) 'Teen internet mavens: influence in family decision making', *Journal of Business Research,* 58 (5), pp. 569-575. doi: 10.1016/j.jbusres.2003.08.005.

Beldad, A., de Jong, M. and Steehouder, M. (2010) 'How shall I trust the faceless and the intangible? A literature review on the antecedents of online trust', *Computers in Human Behaviour*, 26 (5), pp. 857-869. doi: 10.1016/j.chb.2010.03.013.

Bem, D.J. (1972) 'Self-perception theory', in Berkowitz, L. (ed.) *Advances in experimental social psychology.* Vol. 6. San Diego, USA: Academic Press. Pp. 1- 62.

Benoy Joseph, W. (1982) 'The credibility of physically attractive communicators: a review', *Journal of Advertising,* 11 (3), pp. 15-24. doi: 10.1080/00913367.1982.10672807.

Bentea, C.C. and Anghelache, V. (2012) 'Persuasion in the context of the efficient didactic communication', *Procedia - Social and Behavioral Sciences,* 63, pp. 145-151. doi: 10.1016/j.sbspro.2012.10.022.

Beres, D. (2018) *Facebook needs to kill the News Feed.* Available at: https://mashable.com/2018/01/18/facebook-needs-to-kill-the-news-feed/?europe=true (Accessed 10 September 2019).

Berger, J.A. and Iyengar, R. (2012) *How interest shapes word-of-mouth over different channels*. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2013141 (Accessed: 17 September 2016).

Berger, J. (2014) 'Word of mouth and interpersonal communication: a review and directions for future research', *Journal of Consumer Psychology*, 24 (4), pp. 586-607. doi: 10.1016/j.jcps.2014.05.002.

Berscheid, E. (1985) 'Interpersonal attraction', in Lindzey, G. and Aronson, E. (eds.) *Handbook of social psychology*. 3rd edn. Vol. 2. NY, USA. Random House, pp. 413-484.

Bhattacherjee, A. (2000) 'Acceptance of e-commerce services: the case of electronic brokerages', *IEEE Transactions on systems, Man, and Cybernetics – Part A: Systems and Humans,* 30 (4), pp. 411-420. doi: 10.1109/3468.852435.

Bhattacherjee, A. and Sanford, C. (2006) 'Influence processes for information technology acceptance: an elaboration likelihood model', *MIS Quarterly,* 30 (4), pp. 805-825. doi: 10.2307/25148755.

Bickart, B. and Schindler, R.M. (2001) 'Internet forums as influential sources of consumer information', *Journal of Interactive Marketing,* 15 (3), pp. 31-40. doi: 10.1002/dir.1014.

Biesta, G. (2010) in Tashakkori, A. and Teddlie, C. (eds.) 'Pragmatism and the philosophical foundations of mixed methods research', *Handbook of mixed methods in social and behavioural research.* 2nd edn. CA, USA: Sage, pp. 95-118.

Biswas, D., Biswas, A. and Neel, D. (2006) 'The differential effects of celebrity and expert endorsements on consumer risk perception,' *Journal of Advertising,* 35 (2), 2006, pp. 17-31.

Bitner, M.J. and Obermiller, C. (1985) in Hirschman, E.C. and Holbrook, M.B. (eds.) 'The elaboration likelihood model: limitations and extensions in marketing', *NA - Advances in consumer research volume 12*, Provo, UT, USA: Association for Consumer Research, pp. 420-425.

Black, T.R. (1999) *Doing quantitative research in the social sciences: an integrated approach to research design, measurement and statistics.* London, UK: Sage.

Blanchard, O. (2011) *Social media ROI: managing and measuring social media efforts in your organisation.* Indiana, USA: Que Publishing.

Blazevic, V., Hammedi, W., Garnefeld, I., Rust, R.T., Keiningham, T., Andreassen, T.W., Donthu, N. and Walter Carl, W. (2013) 'Beyond traditional word-of-mouth an expanded model of customer-driven influence', *Journal of Service Management*, 24 (3), pp. 94-313. doi: 10.1108/09564231311327003.

Bloch, P. H. and Richins, M. L. (1983) 'A theoretical model for the study of product importance perceptions', *Journal of Marketing, 47* (3), pp. 69-81.

Blythe, J. (2013) *Consumer behaviour.* 2nd edn. London, UK: Sage.

Boerman, S. C., Willemsen, L. M. and Van der Aa, E. (*2017*) 'This post is sponsored: effects of sponsorship disclosure on persuasion knowledge and electronic word of mouth in the context of Facebook', *Journal of Interactive Marketing,* 38, pp. 82-92. doi: 10.1016/j.intmar.2016.12.002.

Bohner, G., Moskowitz, G.B. and Chaiken, S. (1995) 'The interplay of heuristic and systematic processing of social information', *European Review of Social Psychology,* 6 (1), pp. 33-68. doi: 10.1080/14792779443000003.

Bohner, G., Ruder, M. and Erb, H.P. (2002) 'When expertise backfires: contrast and assimilation effects in persuasion', *British Journal of Social Psychology*, 41 (4), pp. 495-519. doi: 10.1348/014466602321149858.

Bonds-Raacke, J. and Raacke, R. (2010) 'MySpace and Facebook: identifying dimensions of uses and gratifications for friend networking sites', *Individual Differences Research,* 8 (1), pp. 27-33. doi: 10.1089/cpb.2007.0056.

Bone. P.F. (1992) 'Determinants of word-of-mouth communications during product consumption', *Advances in Consumer Research,* 19, pp. 579-583. doi: 9301106583.

Boyd, D. M. and Ellison, N. B. (2007) 'Social network sites: definition, history, and scholarship', *Journal of Computer-Mediated Communication*, 13 (1), pp. 210-230. doi: 10.1111/j.1083-6101.2007.00393.x.

Bradley-Jones, L. (2012) *From TV diners to connected consumers – new 'second screen' research.* Available at: http://corporate.sky.com/skyviews/sky/from_tv_diners_to_connected_consumers_new_second_screen_research (Accessed: 25 April 2013).

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3 (2), pp. 77-101. doi: 10.1191/1478088706qp063oa.

Braun, V. and Clarke, V. (2013) *Successful qualitative research*. London, UK: Sage.

Bridger, D. (2017) *Neuro design: neuromarketing insights to boost engagement and profitability*. London, UK: Kogan Page.

Brinol, P., Petty, R.E. and Tormala, Z.L. (2004) 'Self validation of cognitive responses to advertisements', *The Journal of Consumer Research*, 30 (4), pp. 559-573. doi: 10.1086/380289.

Brinol, P. and Petty, R.E. (2009) 'Source factors in persuasion: a self-validation approach', *European Review of Social Psychology,* 20 (1), pp. 49-96. doi: 10.1080/10463280802643640.

British Broadcasting Corporation (2013) *What is a Smart TV?* Available at: http://www.bbc.co.uk/webwise/0/22717887 (Accessed: 8 August 2014).

Brodie, R.J., Ilic, A., Juric, B. and Hollebeek, L.D. (2013) 'Consumer engagement in a virtual brand community: an exploratory analysis', *Journal of Business Research*' 66 (1): pp. 105–14. doi: 10.1016/j.jbusres.2011.07.029.

Brooks, M.E. and Highhouse, S. (2006) 'Familiarity breeds ambivalence', *Corporate Reputation Review,* 9 (2), pp. 105-113. doi: 10.1057/palgrave.crr.1550016.

Brown, G., Michinov, N. and Manago, A.M. (2017) 'Private message me s'il vous plait: preferences for personal and masspersonal communications on Facebook among American and French students', *Computers in Human Behavior,* 70, pp. 143-170. doi: 10.1016/j.chb.2016.12.051.

Brown, J., Broderick, A.J. and Lee, N. (2007) 'Word of mouth communication within online communities: conceptualising the online social network', *Journal of Interactive Marketing,* 21 (3), pp. 2-20. doi: 10.1002/dir.20082.

Brown, J.J. and Reingen, P.R. (1987) 'Social ties and word-of-mouth referral behaviour', *Journal of Consumer Research,* 14 (3), pp. 350-362. doi: 10.1086/209118.

Brown, R. (2009) *Public relations and the social web: how to use social media and web 2.0 in communications*. London, UK: Kogan Page.

Bryman, A. (2012) *Social research methods*. 4th edn. Oxford, UK: Oxford University Press.

Bryman, A. (2016) *Social research methods.* 5th edn. Oxford, UK: Oxford University Press.

Brymer, C. (2009) *The nature of marketing: marketing to the swarm as well as the herd*. Hampshire, UK. Palgrave Macmillan.

Buckinghamshire New University. (2017) *Buckinghamshire New University Access Agreement 2017-18.* Available at: https://www.offa.org.uk/agreements/Buckinghamshire%20New%20University%201718.pdf (Accessed 12 December 2017).

Burke, M., Kraut, R. and Marlowe, C. (2011) 'Social capital on Facebook: differentiating uses and users', *Proceedings of the International Conference on Human Factors in Computing Systems, CHI 2011.* Vancouver, BC, Canada. 7-12 May 2011. CHI. doi: 10.1145/1978942.1979023.

Burke, M. and Kraut, R. (2014) 'Growing closer on Facebook: changes in tie strength through social network site use', *CHI 2014.* Toronto, ON, Canada. 26-01 April/May 2014. CHI. doi: 10.1145/2556288.2557094.

Burnett, G. (2000) 'Information exchange in virtual communities: a typology', *Information Research*, 5 (4), pp.1-20.

Burnkrant, R.E. and Cousineau, A. (1975) 'Informational and normative social influence in buyer behaviour', *Journal of Consumer Research*, 2 (3): pp. 206-215. doi: 10.1086/208633.

Butler, J.K. Jr. (1991) 'Towards understanding and measuring conditions of trust: evolution of conditions of trust inventory', *Journal of Management,* 17 (3), pp. 643-660. doi: 10.1177/014920639101700307.

Buttner, O.B. and Goritz, A.S. (2008) 'Perceived trustworthiness of online shops', *Journal of Consumer Behaviour*, 7 (1), pp. 35-50. doi: 10.1002/cb.235.

Byrne, A., Whitehead, M. and Breen, S. (2003) 'The naked truth of celebrity endorsement', *British Food Journal,* 105 (4/5), pp. 288-296. doi: 10.1108/00070700310477086.

Cacioppo, J.Y. and Petty, R.E. (1979) 'Effects of message repetition and position on cognitive responses, recall and persuasion', *Journal of Personality and Social Psychology,* 37 (1), pp. 97-109. doi: 10.1037//0022-3514.37.1.97.

Cacioppo, J.T. and Petty, R.E. (1980) 'Sex differences in influenceability: towards specifying the underlying processes', *Personality and Social Psychology Bulletin,* 6 (4), pp. 651-656. doi: 10.1177/014616728064016.

Cacioppo, J.T., Kao, C.F., Petty, R.E. and Rodriguez, R. (1986) 'Central and peripheral routes to persuasion: an individual difference perspective', *Journal of Personality and Social Psychology*, 51 (5), pp. 1032-1043. doi: 10.1037//0022-3514.51.5.1032.

Cacioppo, J.T. and Petty, R.E. (1982) 'The need for cognition', *Journal of Personality and Social Psychology*, 42 (1), pp. 116-131. doi: 10.1037/0022-3514.42.1.116.

Cacioppo, J.T., Petty, R.E., Feinstein, J.A. and Jarvis, W.B.G. (1996) 'Dispositional differences in cognitive motivation: the life and times of individuals varying in need for cognition', *Psychological Bulletin,* 119 (2), pp. 197-253. doi: 10.1037//0033-2909.119.2.197.

Calder, B.J., Phillips, L.W. and Tybout, A.M. (1981) 'Designing research for application', *Journal of Consumer Research,* 8, (2), pp. 197-207. doi: 10.1086/208856.

Cameron, K.A. (2009) 'A practitioner's guide to persuasion: an overview of 15 selected persuasion theories, models and frameworks', *Patient Education and Counselling,* (74), pp. 309-317. doi: 10.1016/j.pec.2009.07.004.

Carifio, J. and Perla, R.J. (2007) 'Ten common misunderstandings, misconceptions, persistent myths and urban legends about Likert scales and Likert response formats and their antidotes', *Journal of Social Sciences*, 3 (3), pp. 106-116. doi: 10.3844/jssp.2007.106.116.

Celsi, R.L. and Olson, J.C. (1988) 'The role of involvement in attention and comprehension processes', *Journal of Consumer Research*, 15 (2), pp. 210-224. doi: 10.1086/209158.

Centola, D. (2010) '*The spread of behaviour in an online social network experiment', Science,* 329 (5996), pp. 1194-1197. doi: 10.1126/science.1185231.

Cha, M., Haddadi, H., Benevenuto, F. and Gummadi, K.P. (2010) 'Measuring user influence in Twitter: the million follower fallacy', *Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media.* Association for the Advancement of Artificial Intelligence. Available at: http://snap.stanford.edu/class/cs224w-readings/cha10influence.pdf (Accessed 9 October 2012).

Chafey, D. (2018) *Facebook ad clickthrough rates*. Available at: https://www.smartinsights.com/social-media-marketing/facebook-marketing/facebook-ad-clickthrough-rates/ (Accessed 1 July 2019).

Chaiken, S. (1979) 'Communicator physical attractiveness and persuasion', *Journal of Personality and Social Psychology*, 37 (8), pp. 1387-1397. doi: 10.1037//0022-3514.37.8.1387.

Chaiken, S. (1980) 'Heuristic versus systematic information processing and the use of source versus message cues in persuasion', *Journal of Personality and Social Psychology,* 39 (5), pp. 752-766. doi: 10.1037/0022-3514.39.5.752.

Chaiken, S. and Eagly, A.H. (1976) 'Communication modality as a determinant of message persuasiveness and message comprehensibility', *Journal of Personality and Social Psychology*, 34 (4), pp. 605-614. doi: 10.1037//0022-3514.34.4.605.

Chaiken, S. and Eagly, A.H. (1983) 'Communication modality as a determinant of persuasion: the role of communicator salience', *Journal of Personality and Social Psychology*, 45 (2), pp. 241-256. doi: 10.1037//0022-3514.45.2.241.

Chaiken, S. and Maheswaran, D. (1994) 'Heuristic processing can bias systematic processing: effects of source credibility, argument ambiguity, and task importance on attitude judgment', *Journal of Personality and Social Psychology*, 66 (3), pp. 460-473. doi: 10.1037//0022-3514.66.3.460.

Chang, K.T.T., Chen, W. and Tan, B.C.Y. (2012) 'Advertising effectiveness in social networking sites: social ties, expertise, and product Type', *IEEE Transactions on Engineering Management,* 59 (4), pp. 634-643. doi: 10.1109/tem.2011.2177665.

Chatterjee, P. (2011) 'Drivers of new product recommending and referral behaviour on social network sites', *International Journal of Advertising,* 30 (1), pp. 77-102. doi: 10.2501/ija-30-1-077-101.

Chen, K.J., Kim, J. and Lin, J.S. (2015) 'The effects of affective and cognitive elaborations from Facebook posts on consumer attitude formation', *Journal of Consumer Behaviour,* 14 (3), pp. 208-218. doi: 10.1002/cb.1515.

Chen, R. (2013) 'Member use of social networking sites — an empirical examination', *Decision Support Systems*, 54, pp.1219–1227. doi: 10.1016/j.dss.2012.10.028.

Chen, S.H. and Lee, K.P. (2008) 'The role of personality traits and perceived values in persuasion: an elaboration likelihood model perspective on online shopping', *Social Behaviour and Personality,* 36 (10), pp. 1379-1400. doi: 10.2224/sbp.2008.36.10.1379.

Chen, Y. and Xie, J. (2008) 'Online consumer review: word-of-mouth as a new element of marketing communication mix', *Management Science,* 54 (3), pp. 477-491. doi: 10.1287/mnsc.1070.0810.

Cherry, J. and Fraedrich, J. (2002) 'Perceived risk, moral philosophy and marketing ethics: mediating influences on sales managers' ethical decision making', *Journal of Business Research,* 55 (12), pp. 951-962. doi: 10.1016/s0148-2963(00)00215-0.

Cheshire, C. (2011) 'Online trust, trustworthiness or assurance?' *American Academy of Arts and Sciences,* 140 (4)*, pp.* 49-58. doi: 10.1162/daed_a_00114.

Cheung, C.M.K., Chiu, P.Y. and Lee, M.K.O. (2011) 'Online social networks: why do students use Facebook'? *Computers in Human Behaviour*, 27 (4): pp, 1337-1343. doi: 10.1016/j.chb.2010.07.028.

Cheung, C.M.K., Lee, M.K.O. and Rabjohn, N. (2008) 'The impact of electronic word of mouth: the adoption of online opinions in online customer communities', *Internet Research,* 18 (3), pp. 229-247. doi: 10.1108/10662240810883290.

Cheung, C.M.K. and Lee, M.K.O. (2010) 'A theoretical model of intentional social action in online social networks', *Decision Support Systems*, 49 (1), pp. 24-30. doi: 10.1016/j.dss.2009.12.006.

Cheung, C.M.K. and Lee, M.K.O. (2012) 'What drives consumers to spread electronic word of mouth in online consumer-opinion platforms', *Decision Support Systems*, 53 (1), pp. 218-225. doi: 10.1016/j.dss.2012.01.015.

Cheung, M.Y., Luo, C., Sia, C.L. and Chen, H. (2009) 'How do people evaluate electronic word-of-mouth? Informational and normative based determinants of perceived credibility of online consumer recommendations in China', *Information Systems Research,* 19 (4), 516-518. doi: 10.2753/jec1086-4415130402.

Cheung, C.M.K. and Thadani, D.R. (2010) 'The state of electronic word-of-mouth research: a literature analysis*', Pacific Asia Conference on Information Systems.* Taipei, Taiwan, 9-12 July 2010. Pacific Asia Conference on Information Systems. Available at: http://aisel.aisnet.org/pacis2010/151/ (Accessed 26 March 2013).

Cheung, C.M.K., Xiao, B. and Liu, I.L.B (2012) 'The impact of observational learning and electronic word of mouth on consumer purchase decisions: the moderating role of consumer expertise and consumer involvement', *45th Hawaii International Conference on System Sciences*. 4 – 07 January 2012. IEEE. Available at: https://pdfs.semanticscholar.org/2292/65fbf8c46413001a3983bc3dd3c0bcc1e6ae.pdf (Accessed 19 April 2018).

Chevalier, J.A. and Mayzlin, D. (2006) 'The effect of Word of Mouth on sales: online book reviews', *Journal of Marketing,* 71 (2), pp. 262-275. doi: 10.1509/jmkr.43.3.345.

Christiansen, T. and Tax, S.S. (2000) 'Measuring word of mouth: the questions of who and when?' *Journal of Marketing Communications*, 6 (3), pp. 185-199. doi: 10.1080/13527260050118676.

Chu, K.M. and Shiu, C. (2009) 'The construction model of customer trust, perceived value and customer loyalty', *Journal of American Academy of Business,* 14 (2), pp. 98-103.

Chu, S.C. and Kamal, S. (2008) 'The effect of perceived blogger credibility and argument quality on message elaboration and brand attitudes', *Journal of Interactive Advertising*, 8 (2), pp. 26-37. doi: 10.1080/15252019.2008.10722140.

Chu, S.C. and Kim, Y. (2011) 'Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networks', *International Journal of Advertising,* 30 (1), pp. 2-20. doi: 10.2501/ija-30-1-047-075.

Chung, C.M.Y. and Tsai, Q. (2009) 'The effects of regulatory focus and tie strength on word-of-mouth behaviour', *Asia Pacific Journal of Marketing and Logistics*, 21(3), pp. 329-341. doi: 10.1108/13555850910973829.

Chung, Y.J., Kim, E. and Ahn, H. (2017) 'Going native (or not): antecedents of consumer avoidance of native advertising on social networking sites', *American Academy of Advertising*, pp. 106-118.

Cialdini, R. B. (2001) *Influence: science and practice*. 4th edn. New York, USA: HarperCollins.

Clark, J.K., Wegener, D.T., Habashi, M.M. and Evans, A.T. (2012) 'Source expertise and persuasion: the effects of perceived opposition or support on message scrutiny', *Personality and Social Psychology Bulletin*, 38 (1), pp. 90-100. doi: 10.1177/0146167211420733.

Clark, R.A., Goldsmith, R.E. and Goldsmith, E.B. (2008) 'Market mavenism and consumer self-confidence, *Journal of Consumer Behaviour,* 7 (3), pp. 239-248. doi: 10.1002/cb.248.

Clarke, V. and Braun, V. (2013) 'Teaching thematic analysis: overcoming challenges and developing strategies for effective learning', *The Psychologist*, 26 (2), pp. 120-123. Available from: http://eprints.uwe.ac.uk/21155 (Accessed 23 May 2017).

Cohen, L., Manion, L. and Morrison, K. (2000) *Research methods in education.* 5th edn. London, UK: RoutledgeFalmer.

Cohen, P. (1992) 'A power primer', *Psychological Bulletin,* 112 (1), pp. 155-159. doi: 10.1037//0033-2909.112.1.155.

Colquitt, J.A., Scott, B.A. and LePine, J.A. (2007) 'Trust, trustworthiness, and trust propensity: a meta-analytic test of their unique relationships with risk taking and job performance', *Journal of Applied Psychology,* 92 (4), pp. 909-927. doi: 10.1037/0021-9010.92.4.909.

comScore (2012a) *Facebook shows strong growth over past five years.* Available at: http://www.comscoredatamine.com/2012/02/facebook-shows-strong-growth-over-past-five-years/ (Accessed: 7 May 2012).

comScore. (2012b) *People spent 6.7 billion hours on social networks in October.* Available at: http://www.comscoredatamine.com/2012/01/people-spent-6-7-billion-hours-on-social-networks-in-october/ (Accessed 7 May 2012).

comScore. (2012c) *2012 mobile future in focus: key insights from 2011 and what they mean for the coming year*. Available at: http://www.comscore.com/Press_Events/Presentations_Whitepapers/2012/2012_Mobile_Future_in_Focus (Accessed: 12 April 2012).

Connor, M. and Armitage, C.J. (1998) 'Extending the theory of planned behaviour: a review and avenues for further research', *Journal of Applied Social Psychology*, 28 (15), pp. 1429-1464. doi: 10.1111/j.1559-1816.1998.tb01685.x.

Constant, D., Sproull, L. and Kiesler, S. (1996) 'The kindness of strangers: the usefulness of electronic weak ties for technical advice', *Organization Science*, 7 (2), pp. 119-135. doi: 10.1287/orsc.7.2.119.

Cooke, R. and Sheeran, P. (2004) 'Moderation of cognition-intention and cognition-behaviour relations: a meta-analysis of properties of variables from the theory of planned behaviour', *British Journal of Social Psychology*, 43 (2), pp. 159-186. doi: 10.1348/0144666041501688.

Coolican, H. (2014) *Research methods and statistics in psychology.* 6th edn. East Sussex, UK: Psychology Press.

Coulter, K.S. and Punj, G.N. (2004) 'The effects of cognitive resource requirements, availability, and argument quality on brand attitudes: a melding of elaboration likelihood and cognitive resource matching theories', *Journal of Advertising*, 33 (4), pp. 53-64. doi: 10.1080/00913367.2004.10639177.

Cordell, V. (1992) 'Effects of consumer preferences for foreign sourced products', *Journal of International Business Studies*, 23 (2), pp. 251-69. doi: 10.1057/palgrave.jibs.8490267.

Courage, M.L., Bakhtiar, A., Fitzpatrick, C., Kenny, K. and Brandeau, K. (2015) 'Growing up multitasking: the costs and benefits for cognitive development', *Developmental Review*, 35, pp. 5-41. doi: 10.1016/j.dr.2014.12.002.

Crano, W.D. and Prislin, R. (2006) 'Attitudes and persuasion', *Annual Review of Psychology*, 57, pp. 345-374. doi: 10.1146/annurev.psych.57.102904.190034.

Crano, W.D., Brewer, M.B. and Lac, A. (2015) *Principles and methods of social research.* 3rd edn. NY, USA: Routledge.

Creswell, J.W. (2009) 'Editorial: mapping the field of mixed methods research', *Journal of Mixed Methods Research*, 3 (2), pp. 95-108. doi: 10.1177/1558689808330883.

Creswell, J.W. (2013) *Qualitative enquiry and research design: choosing among five approaches*. 3rd edn. CA, USA: Sage.

Creswell, J.W. and Plano Clark, V.L. (2011) *Designing and conducting mixed methods research.* 2nd edn. CA, USA: Sage.

Crotty, M. (1998) *The foundations of social research: meanings and perspectives in the research process.* NSW, Australia: Sage.

Cunningham, M.R., Roberts, A.R., Barbee, A.P., Druen, P.B. and Wu, C.H. (1995) 'Their ideas of beauty are, on the whole, the same as ours: consistency and variability in the cross-cultural perception of female physical attractiveness', *Journal of Personality and Social Psychology*, 68 (2), pp. 261-279. doi: 10.1037//0022-3514.68.2.261.

Cusumano, M.A. and Goeldi, A. (2013) 'New businesses and new business models, in Dutton, W. H. (ed.) *The Oxford handbook of Internet studies*. Oxford, UK: Oxford University Press, pp.239-261.

Cvijikj, I. P. and Michahelles, F. (2011) 'Monitoring trends on Facebook', *IEEE Ninth International Conference.* Zurich, Switzerland 12 December 2011 to 14 December, 2011. IEEE. doi: 10.1109/DASC.2011.150.

Das, S. and Kramer, A. (2013) 'Self-censorship on Facebook', *Proceedings of the Seventh International AAAI Conference on Weblogs and Social Media.* Cambridge, Massachusetts, USA, July 8–11, 2013. Association for the Advancement of Artificial Intelligence. Available at: https://www.aaai.org/ocs/index.php/ICWSM/ICWSM13/paper/viewFile/6093/6350 (Accessed 16 August 2015).

Davis, F. (1989) 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, 13 (3), pp. 319-340. doi: 10.2307/249008.

Day, D., Boon G., Gendall, P. and Esslemont, D. (1991) 'Predicting purchase behaviour', *Marketing Bulletin*, 2, pp. 18–30.

DeBono, K.G. and Harnish, R.J. (1988) 'Source expertise, source attractiveness, and the processing of persuasive information: a functional approach', *Journal of Personality and Social Psychology*, 55 (4), pp. 541-546. doi: 10.1037//0022-3514.55.4.541.

De Bruyn, A. and Lilien, G.L. (2008) 'A multi-stage model of word-of-mouth influence through viral marketing', *International Journal of Research in Marketing*, 25 (3), pp.151-163. doi: 10.1016/j.ijresmar.2008.03.004.

De Chernatony, L. (2010) *From brand vision to brand evaluation*. 3rd edn. Oxford, UK: Butterworth-Heinemann.

De Valck, K., Van Bruggen, G. and Wierenga, B. (2009) 'Virtual communities: a marketing perspective', *Decision Support Systems*, 47 (3), pp. 185-203. doi: 10.1016/j.dss.2009.02.008.

De Vaus, D.A. (1995) *Surveys in social research.* 4th edn. London, UK: Routledge.

De Vaus, D.A. (2001) *Research design in social research*. London, UK: Sage.

De Vellis, R.F. (2012) *Scale development: theory and application*. 3rd edn. Thousand Oaks, USA: Sage.

Dellarocas, C. (2003) 'The digitization of word of mouth: promise and challenges of online feedback mechanisms', *Journal of Management Science,* 49 (3), pp.1407-1424. doi: 10.1287/mnsc.49.10.1407.17308.

Dellarocas, C., Narayan, R. and Smith, R.H. (2005) *What motivates consumers to review a product online? A study of the product-specific antecedents of online movie reviews.* Available at:
http://student.bus.olemiss.edu/files/conlon/mis309/Fall11_Stuff/Lectures/Lecture9/Webpages/MIS309WebPage/Webpages_Summer10/Papers_References/What%20motivates%20consumers%20to%20review%20a%20product%20online.pdf (Accessed: 22 September 2012).

Deloitte. (2012) *The rise and rise of 'second screening'.* Available at: http://www.deloitte.com/view/en_GB/uk/industries/tmt/f0f3f07a77349310VgnVCM300 0001c56f00aRCRD.htm (Accessed: 1 May 2013).

DeLone, W.H. and McLean, E.R. (2003) 'The DeLone and McLean model of information systems success: a ten-year update', *Journal of Management Information Systems*, 19 (4), pp. 9-30. doi: 10.1080/07421222.2003.11045748.

Denscombe, M. (1998) *The good research guide: for small scale research projects.* Buckingham, UK: Open University Press.

Department for Education. (2019) *Participation rates in higher education: academic years 2006/2007 – 2017/2018.* Avialable from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachm ent_data/file/843542/Publication_HEIPR1718.pdf (Accessed 10 April 2020).

Deutsch, M. and Gerard, H.B. (1955) 'A study of normative and informational social influences upon individual judgment', *The Journal of Abnormal and Social Psychology*, 51(3), pp. 629-636. doi: 10.1037/h0046408.

Dhar, R. and Wertenbroch, K. (2000) 'Consumer choice between hedonic and utilitarian goods', *Journal of Marketing Research, 37* (1), pp. 60-71. doi:10.1509/jmkr.37.1.60.18718.

Dholakia, U. M. (2001) 'A motivational process model of product involvement and consumer risk perception', *European Journal of Marketing, 35* (11/12), pp. 1340-1360. doi: 10.1108/eum0000000006479.

Di Blasio, P. and Milani, L. (2008) 'Computer-mediated communication and persuasion: Peripheral vs. central route to opinion shift', *Computers in Human Behaviour, (24)*, pp. 798-815. doi: 10.1016/j.chb.2007.02.011.

Diamantopoulos, A. and Schlegelmilch, B.B. (1997) *Taking the fear out of data analysis.* London, UK: The Dryden Press.

Dichter, E. (1966) 'How word-of-mouth advertising works', *Harvard Business Review* (November – December), pp.147-166.

Dion, K., Berscheid, E. and Walster, E. (1972) 'What is beautiful is good', *Journal of Personality and Social Psychology*, 24 (3), pp. 285-290. doi: 10.1037/h0033731.

DMR (2013) *By the numbers: 64 amazing Facebook statistics.* Available at: http://expandedramblings.com/?p=10338 (Accessed: 7 January 2014).

Doh, S.J. and Hwang, J.S. (2009) 'How consumers evaluate eWOM (electronic word-of-mouth) messages', *Cyber Psychology and Behaviour*, 12 (2), pp.193-197. doi: 10.1089/cpb.2008.0109.

Donath, J. and Boyd, D. (2004) 'Public displays of connection', *BT Technology Journal*, 22 (4), pp. 71-82. doi: 10.1023/b:bttj.0000047585.06264.cc.

Doss, S. (2011) 'The transference of brand attitude: the effect on the celebrity endorser', *Journal of Management and Marketing Research*, 7, pp. 1-11.

Dou, X., Walden, J.A., Lee, S. and Lee, J.I. (2012) 'Does source matter? Examining source effects in online product reviews', *Computers in Human Behaviour*, 28 (5), pp. 1555-1563. doi: 10.1016/j.chb.2012.03.015.

Douglas, K.M., Sutton, R.M. and Stathi, S. (2010) 'Why I am less persuaded than you: people's intuitive understanding of the psychology of persuasion', *Social Influence*, 5 (2), pp. 133-148. doi: 10.1080/15534511003597423.

Druckman, J. N. and Kam, C. D. (2009) *Students as experimental participants: a defense of the 'narrow data base'*. Available at https://ssrn.com/abstract=1498843 (Accessed 23 May 2020).

Duhan, D.F., Johnson, S.D., Wilcox, J.B. and Harrell, G.D. (1997) 'Influences on consumer use of word of mouth recommendation sources', *Journal of the Academy of Marketing Science*, 25 (4), pp. 283-295. doi: 10.1177/0092070397254001.

Dunbar, R.I.M. (2016) 'Do online social media cut through the constraints that limit the size of offline social networks'? *Royal Society Open Science,* 3, pp. 1-9. doi: 10.1098/rsos.150292.

Eagly, A.H. and Chaiken, S. (1975) 'An attribution analysis of the effect of communicator characteristics on opinion change: the case of communicator attractiveness', *Journal of Personality and Social Psychology*, 32 (1), pp. 136-144. doi: 10.1037/h0076850.

Eagly, A.H. and Chaiken, S. (1993) *The psychology of attitudes.* Orlando, USA: Harcourt Brace College Publishers.

Eagly, A.H., Makhijani, M.G., Ashmore, R.D. and Longo, L.C. (1991) 'What is beautiful is good, but....: a meta-analytic review of research on the physical attractiveness stereotype', *Psychological Bulletin*, 110 (1), pp. 109-128. doi: 10.1037//0033-2909.110.1.109.

East, R., Hammond. K., Lomax, W. and Robinson, H. (2005) 'What is the effect of a recommendation? *The Marketing Review,* 5 (2), pp. 145-157. doi: 10.1362/1469347054426186.

East, R., Hammond, K. and Wright, M. (2007) 'The relative incidence of positive and negative word of mouth: a multi-category study', *International Journal of Research in Marketing*, 24 (2), pp. 175-184. doi: 10.1016/j.ijresmar.2006.12.004.

East, R., Hammond, K. and Lomax, W. (2008) 'Measuring the impact of positive and negative word of mouth on brand purchase probability', *International Journal Research in Marketing*, 25 (3), pp. 215-224. doi: 10.1016/j.ijresmar.2008.04.001.

East, R., Wright, M. and Vanhuele, M. (2013) *Consumer behaviour: applications in marketing.* 2nd edn. London, UK: Sage.

Ebermann, J., Stanoevska-Slabeva, K. and Wozniak, T. (2011) 'Influential factors of recommendation behaviour in social network sites - an empirical analysis', *European Conference on Information Systems.* 9-11 June, Helsinki, Finland. ECIS. Available at: http://aisel.aisnet.org/ecis2011/259 (Accessed: 18 March 2017).

Edell, J. E. and Staelin, R. (1983) 'The information processing of pictures in print advertisements', *Journal of Consumer Research*, 10 (1), pp. 45-61. doi: 10.1086/208944.

Eisingerich, A.B., Chun, H. H., Liu, Y., Jia, H. and Bell, S. J. (2015) 'Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth', *Journal of Consumer Psychology*, 25 (1), pp.120-128. doi: 10.1016/j.jcps.2014.05.004.

Ellison, N. B. and Boyd, D. (2013) 'Sociality through social network sites', in Dutton, W. H. (ed.) *The Oxford handbook of Internet studies*. Oxford, UK: Oxford University Press, pp.151-172.

Ellison, N.B., Gray, R., Vitak, J., Lampe, C. and Fiore, A.T. (2013) *Calling all Facebook friends: exploring requests for help on Facebook.* Available at: http://www-personal.umich.edu/~enicole/Ellison_etal_ICWSM2013.pdf (Accessed: 25 October 2013).

Ellison, N.B., Steinfield, C. and Lampe, C. (2007) 'The benefits of Facebook "friends: social capital and college students' use of online social network sites', *Journal of Computer Mediated Communication*, 12 (4), pp. 1143-1168. doi: 10.1111/j.1083-6101.2007.00367.x.

Ellison, N.B., Steinfield, C. and Lampe, C. (2011) 'Connection strategies: social capital implications of Facebook-enabled communication practices', *New Media and Society*, 13 (6), pp. 873-892. doi: 10.1177/1461444810385389.

Ellison, N.B., Vitak, J., Gray, R. and Lampe, C. (2013) 'Cultivating resources on social network sites: Facebook relationship maintenance behaviors and their role in social capital processes', *Journal of Computer Mediated Communication*, 19 (4), pp. 855-870. doi: 10.1177/1461444810385389.

Erdem, T. and Swait, J. (2004) 'Brand credibility, brand consideration, and choice', *Journal of Consumer Research*, 31(1), pp. 191–198. doi: 10.1086/383434.

Evans, M., Jamal, A. and Foxall, G. (2009) *Consumer behaviour.* 2nd edn. West Sussex, UK: Wiley and Sons.

Everdell, I. (2014) 'Web content', in Bergstrom, J.R. and Schall, A.J. (eds.) *Eye tracking in user experience design*. MA, USA: Morgan Kaufmann, pp. 163-186.

Facebook. (2012) *The power of Facebook News Feed.* Available at: https://en-gb.facebook.com/business/news (Accessed: 6 June 2013).

Facebook. (2013) *How News Feed works.* Available at: https://en-gb.facebook.com/help/327131014036297/ (Accessed: 6 June 2013).

Facebook. (2019a) *Stats.* Available at: https://newsroom.fb.com/company-info/ (Accessed 1 July 2019).

Facebook. (2019b) *Our mission.* Available at: https://newsroom.fb.com/company-info/ (Accessed 28 July 2019).

Fang, C.H., Lin, T.M.Y., Liu, F. and Lin, Y.H. (2011) 'Product type and word of mouth: a dyadic perspective', *Journal of Research in Interactive Marketing,* 5 (2/3), pp.189-202. doi: 10.1108/17505931111187802.

Fang, Y.H. (2014) 'Beyond the credibility of electronic word of mouth: exploring eWOM adoption on social networking sites from affective and curiosity perspectives', *International Journal of Electronic Commerce*, 18 (3), pp. 67–101. doi: 10.2753/JEC1086-4415180303.

Fang, X., Singh, S. and Ahluwalia, R. (2007) 'An examination of different explanations for the mere exposure effect', *Journal of Consumer Research*, 34 (1), pp. 97–103. doi: 10.1086/513050.

Faul, F., Erdfelder, E., Lang, A.G. and Buchner, A. (2007) 'G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences', *Behavior Research Methods*, 39 (2), pp. 175-191. doi: 10.3758/bf03193146.

Fazio, R.H., Sanbonmatsu, D.M., Powell, M.C. and Kardes, F.R. (1986) 'On the automatic activation of attitudes', *Journal of Personality and Social Psychology*, 50 (2), pp: 229-238. doi: 10.1037//0022-3514.50.2.229.

Fazio, R.H., Jackson, J.R., Dunton, B.C. and Williams, C.J. (1995) 'Variability in automatic activation as an unobtrusive measure of racial attitudes: a bona fide pipeline'? *Journal of Personality and Social Psychology*, 69 (6), pp. 1013-1027. doi: 10.1037/0022-3514.69.6.1013.

Fazio, R.H. and Olson, M.A. (2003) 'Implicit measures in social cognition research: their meaning and use', *Annual Review of Psychology*, 54, pp. 297-327. doi: 10.1146/annurev.psych.54.101601.145225.

Feick, L.F. and Price, L.L. (1987) 'The market maven: a diffuser of marketplace information', *Journal of Marketing*, 51 (1), pp. 83-97. doi: 10.2307/1251146.

Feick, L.F., Price, L.L. and Higie, R.A. (1986) 'People who use people: the other side of opinion leadership', *Advances in Consumer Research*, 13, pp.301-305.

Field, A. (2013) *Discovering statistics using IBM SPSS statistics.* 4th edn. London, UK: Sage Publications.

Felizer, M.Y. (2010) 'Doing mixed methods research pragmatically: implications for the rediscovery of pragmatism as a research paradigm', *Journal of Mixed Methods Research*, 4 (1), pp. 6-16. doi: 10.1177/1558689809349691.

Feng, L., Hu, Y., Li, B., Eugene Stanley, H., Havlin, S. and Braunstein, L.A. (2015) 'Competing for attention in social media under information overload conditions', *PLoS ONE,* 10 (7), pp. 1-13. doi:10.1371/journal.pone.0126090.

Ferraro, R., Bettman, J. R. and Chartrand, T. L. (2009) 'The power of strangers: the effect of incidental consumer brand encounters on brand choice', *Journal of Consumer Research,* 35 (5), pp. 729–741. doi: 10.1086/592944.

Fill, C. (2002) *Marketing communications: context, strategies and applications.* 3rd edn. Harlow, UK: Pearson.

Fink, A. and Kosecoff, J. (1985) *How to conduct surveys: a step-by-step guide.* CA, USA: Sage.

Fishbein, M. (1967) *A behavior theory approach to the relations between beliefs about an object and attitude toward the object.* New York, USA: Wiley.

Fischer, P., Fischer, J.K., Aydin, N. and Frey, D. (2010) 'Physically attractive social information sources lead to increased selective exposure to information', *Basic and Applied Social Psychology*, 32: pp, 340-347. doi: 10.1080/01973533.2010.519208.

Fiske, S.T. and Taylor, S.E. (2013) *Social cognition: from brains to culture.* 2nd edn. London, UK: Sage.

Fitch, J.L. and Ravlin, E.C. (2005) 'Willpower and perceived behavioural control: influences on the intention-behaviour relationship and post behaviour attributions', *Social Behaviour and Personality*, 33 (2), pp. 105-123. doi: 10.2224/sbp.2005.33.2.105.

Fogg, B. J., Soohoo, C., Danielson, D. R., Marable, L., Stanford, J. and Tauber, E. R. (2003) 'How do users evaluate the credibility of Websites? A study with over 2500 participants', *Proceedings of the 2003 conference on designing for user experiences.* San Francisco, CA, USA 05 – 07 June 2003. ACM. doi: 10.1145/997078.997097.

Forsyhte, S.M. and Shi, B. (2003) 'Consumer patronage and risk perception in Internet shopping', *Journal of Business Research*, 56 (11), pp. 867-875. doi: 10.1016/s0148-2963(01)00273-9.

Fournier, S. and Avery, J. (2011) 'The uninvited brand', *Business Horizons*, 54 (3), pp. 193-207. doi: 10.2139/ssrn.1963056.

Foux, G. (2008) 'Consumer generated media: get your customers involved', *Brand Strategy*, 202, pp. 38-39.

Fragale, A.R. and Heath, C. (2004) 'Evolving informational credentials: the (mis) attribution of believable facts to credible sources', *Personality and Social Psychology Bulletin*, 30 (2), pp. 225-36. doi: 10.1177/0146167203259933.

Frenzen, J.K. and Davis, H.L. (1990) 'Purchasing behaviour in embedded markets', *Journal of Consumer Research*, 17 (1), pp. 1-12. doi: 10.1086/208532.

Friedkin, N.E. (1980) 'A test of structural features of Granovetter's strength of weak ties theory', *Social Networks*, 2, pp. 411-422. doi: 10.1016/0378-8733(80)90006-4.

Friedkin, N.E. (1982) 'Information flow through strong and weak ties in intraorganizational social networks', *Social Networks*, 3, pp. 273-285. doi: 10.1016/0378-8733(82)90003-x.

Fu, P.W., Wu, C.C. and Cho, Y.J. (2017) 'What makes users share content on Facebook? Compatibility among psychological incentive, social capital focus, and content type', *Computers in Human Behavior*, 67, pp. 23-32. doi: 10.1016/j.chb.2016.10.010.

Fuggetta, R. (2012) *Brand advocates: turning enthusiastic customers into a powerful marketing force.* New York, USA: Wiley.

Gangadharbatla, H. (2008) '*Facebook* me: collective self-esteem, need to belong, and internet self-efficacy as predictors of the I-generation's attitudes toward social networking sites', *Journal of Interactive Advertising*, 8 (2), pp. 5-15. doi: 10.1080/15252019.2008.10722138.

Geissler, G.L. and Edison, S.W. (2005) 'Market mavens' attitudes towards general technology: implications for marketing communications', *Journal of Marketing Communications*, 11 (2), pp. 73-94. doi: 10.1080/1352726042000286499.

Gefen, D. (2000) 'E-commerce: the role of familiarity and trust', *Omega*, 28, pp. 725-737. doi: 10.1016/s0305-0483(00)00021-9.

Gefen, D., Karahanna, E. and Straub, D. (2003) 'Trust and TAM in online shopping: an integrated model', *MIS Quarterly*, 27 (1), pp. 51-90. doi: 10.2307/30036519.

George, J.F. (2002) 'Influences on the intent to make Internet purchases', *Internet Research: Electronic Networking Applications and Policy*, 12 (2), pp. 165-180. doi: 10.1108/10662240210422521.

Ghosh, R. and Lerman, K. (2010) 'Predicting influential users in online social networks', *Proceedings of the 16th ACM SIGKDD international conference on knowledge discovery and data mining.* Washington, DC, USA, 24-28 July 2010. Available from: http://arxiv.org/abs/1005.4882 [Accessed 9 January 2013].

Gilbert, E. (2012) 'Predicting tie strength in a new medium', *Computer supported cooperative work* and social computing 12. Seattle, Washington, USA, 11–15 February 2012. ACM. doi: 10.1145/2145204.2145360.

Gilbert, E. and Karahalios, K. (2009) 'Predicting tie strength with social media', *Proceedings of the 27th international conference on human factors in computing systems.* Boston, USA, 4-9 April 2009. ACM. doi: 10.1145/1518701.1518736.

Gilly, M.C., Graham, J.L., Wolfinbarger, M.F. and Yale, L.J. (1998) 'A dyadic study of interpersonal information search', *Journal of the Academy of Marketing Science*, 26 (2), pp. 83-100. doi: 10.1177/0092070398262001.

Gladwell, M. (2000) *The tipping point: how little things can make a big difference.* London, UK: Abacus.

Glasman, L.R. and Albarracín, D. (2006) 'Forming attitudes that predict future behavior: a meta-analysis of the attitude–behavior relation', *Psychological Bulletin*, 132 (5), pp. 778-822. doi: 10.1037/0033-2909.132.5.778.

Gnambs, T. and Batinic, B. (2011) 'Convergent and discriminant validity of opinion leadership: multitrait-multimethod analysis across measurement occasion and informant type', *Journal of Individual Differences*, 32 (2), pp. 94-102. doi: 10.1027/1614-0001/a000040.

Godes, D. and Mayzlin, D. (2004) 'Using online conversations to study word-of-mouth communication', *Marketing Science*, 23 (4), pp. 545-560. doi: 10.2139/ssrn.327841.

Godes, D. and Mayzlin, D. (2009) 'Firm created word-of-mouth communication: evidence from a field test', *Marketing Science*, 28 (4), pp. 721-739. doi: 10.1287/mksc.1080.0444.

Golbeck, J. and Hendler, J. (2006) 'Inferring binary trust relationships in web-based social networks', *ACM Transactions on Internet Technology*, 6 (4), pp.497-529. doi: 10.1145/1183463.1183470.

Goldenberg, J., Libai, B. and Muller, E. (2001) 'Talk of the network: a complex systems look at the underlying process of word-of-mouth', *Marketing Letters*, 12 (3), pp. 211-223. doi: 10.1023/A:1011122126881.

Goldenberg, J., Sangman, H., Lehmann, D.R. and Hong, J.W. (2009) 'The role of hubs in the adoption process', *Journal of Marketing*, 73 (2), pp. 1-13. doi: 10.1509/jmkg.73.2.1.

Goldsmith, R.E. and Horowitz, D. (2006) 'Measuring motivations for online opinion seeking', *Journal of Interactive Advertising*, 6 (2), pp. 2-14. doi: 10.1080/15252019.2006.10722114.

Goldsmith, R.E., Flynn, L.R. and Clark, R.A. (2012) 'Motivators of market mavenism in the retail environment', *Journal of Retailing and Consumer Services*, 19 (4), pp. 390-397. doi: 10.1016/j.jretconser.2012.03.005.

Goodey, C. and East, R. (2008) 'Testing the market maven concept', *Journal of Marketing Management*, 24 (3/4), pp. 265-282. doi: 10.1362/026725708x306095.

Goodrich, K. and de Mooij, M. (2014) 'How 'social' are social media? A cross-cultural comparison of online and offline purchase decision influences', *Journal of Marketing Communications*, 20 (1-2), pp.103-116. doi: 10.1080/13527266.2013.797773.

Google. (2012) *Navigating the new multi-screen world: insights show how consumers use different devices together.* Available at: http://googlemobileads.blogspot.co.uk/2012/08/navigating-new-multi-screen-world.html (Accessed: 25 April 2013).

Gorard, S. (2010) 'Research design as independent of methods', in Tashakkori, A. and Teddlie, C. (eds.) *Handbook of mixed methods in social and behavioural research.* 2nd edn. CA, USA: Sage, pp. 237-252.

Gorard, S. (2013) *Research design: creating robust approaches for the social sciences.* London, UK: Sage.

Gotleib, J.B. and Sarel, D. (1991) 'Comparative advertising effectiveness: the role of involvement and source credibility', *Journal of Advertising*, 20 (1), pp. 38-45. doi: 10.1080/00913367.1991.10673205.

Grabner-Krauter, S. (2009) 'Web 2.0 Social networks: the role of trust', *Journal of Business Ethics*, 90 (4), pp. 505-522. doi: 10.1007/s10551-010-0603-1.

Grabner-Krauter, S. and Bitter, S. (2015) 'Trust in online social networks: a multifaced perspective', *Forum for Social Economics*, 44 (1), pp. 48-68. doi: 10.1080/07360932.2013.781517.

Grabowicz, P.A., Ramasco, J.J., Moro, E., Pujol, J.M. and Equiluz, V.M. (2012) 'Social features of online networks: the strength of intermediary ties in online social media', *PLoS One*, 7 (1), pp. 1-9. doi: 10.1371/journal.pone.0029358.

Granovetter, M.S. (1973) 'The strength of weak ties', *American Journal of Sociology*, 78 (6), pp. 1360-1380. doi: 10.1086/225469.

Granovetter, M. (1983) 'The strength of weak ties: a network theory revisited', *Sociological Theory*, 1, pp. 210-233. doi: 10.2307/202051.

Gravetter, F.J. and Wallnau, L.B. (2005) *Essentials of statistics for the behavioural sciences.* 5th edn. CA, USA: Wadsworth.

Greenwald, A.G. and Banaji, M. R. (1995) 'Implicit social cognition: attitudes, self-esteem, and stereotypes', *Psychological Review*, 102 (1), pp. 4-27. doi: 10.1037//0033-295x.102.1.4.

Greenwald, A.G., McGhee, D.E. and Schwartz, J.L.K. (1998) 'Measuring individual differences in implicit cognition: the implicit association test', *Journal of Personality and Social Psychology*, 74 (6), pp. 1464-1480. doi: 10.1037/0022-3514.74.6.1464.

Grewal, R., Cline, T.W. and Davies, A. (2003) 'Early entrant advantage, word-of-mouth communication, brand similarity, and the consumer decision-making process', *Journal of Consumer Psychology,* 13 (3), pp. 187–197. doi: 10.1207/s15327663jcp1303_01.

Grix, J. (2004) *The foundations of research.* Hampshire, UK: Palgrave Macmillan.

Groeger, L. (2012) 'Making sense of conversations: using Facebook friendship networks and social network analysis to demystify word of mouth', *Asia Kaleidoscope.* Shanghai, China, 15-17 April 2012. ESOMAR. Available at: https://www.researchonline.mq.edu.au/vital/access/manager/Repository/mq:19645 (Accessed 16 June 2015).

Groeger, L. and Buttle, F. (2014) 'Word of mouth marketing influence on offline and online communications: evidence from case study research', *Journal of Marketing Communications*, 20 (1-2), pp. 21-41. doi: 10.1080/13527266.2013.797736.

Gruen, T.W., Osmonbekov, T. and Czaplewski, A.J. (2006) 'eWOM: the impact of customer-to-customer online know-how exchange on customer value and loyalty', *Journal of Business Research*, 59 (4), pp. 449-456. doi: 10.1016/j.jbusres.2005.10.004.

Gu, B., Park, J. and Konana, P. (2012) 'The impact of external word-of-mouth sources on retailer sales for high involvement products', *Information Systems Research*, 23 (1), pp. 182-196. doi: 10.1287/isre.1100.0343.

Guadagno, R.E. and Cialdini, R.B. (2007) 'Persuade him by email, but see her in person: online persuasion revisited', *Computers in Human Behaviour*, 23 (2), pp. 999-1015. doi: 10.1016/j.chb.2005.08.006.

Guadagno, R.E. and Muscanell, N.L., Rice, L.M. and Roberts, N. (2013) 'Social influence online: the impact of social validation and likability on compliance', *Psychology of Popular Media Culture*, 2 (1), pp. 51-60. doi: 10.1037/a0030592.

Hagel III, J. and Armstrong, A.G. (1997) *Net gain: expanding markets through virtual communities*. MA, USA: Harvard Business School.

Hammill, J. (2016) 'The end of marketing as usual: be social: be digital', in Baker, M.J. and Hart, S. (eds.) *The marketing book*. 7th edn. London, UK: Routledge, pp. 415-438.

Hampton, K.N., Goulet, L.S., Marlow, C. and Rainie, L. (2012) *Why most Facebook users get more than they give*. Available at: http://pewinternet.org/~/media/Files/Reports/2012/PIP_Facebook%20users_2.3.12.pdf (Accessed: 29 October 2013).

Hancock, J.T. and Toma, C.L. (2009) 'Putting your best face forward; the accuracy online dating profile photographs', *Journal of Communication*, 59, pp. 376-386. doi: 10.1111/j.1460-2466.2009.01420.x.

Handley, I.M. and Runnion, B.M. (2011) 'Evidence that unconscious thinking influences persuasion based on argument quality', *Social Cognition*, 29 (6), pp. 668-682. doi: 10.1521/soco.2011.29.6.668.

Hanel, P.H.P. and Vione, K.C. (2016) 'Do student samples provide an accurate estimate of the general public? *PLoS ONE* 11 (12). doi: 10.1371/journal.pone.0168354.

Hansen, M. T. (1999) 'The search-transfer problem: the role of weak ties in sharing knowledge across organization subunits', *Administrative Science Quarterly*, 44 (1), pp. 82-111. doi: 10.2307/2667032.

Harrison-Walker, L J. (2001) 'The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents', *Journal of Service Research*, 4 (1), pp. 60-76. doi: 10.1177/109467050141006.

Hass, R.G. (1981) 'Effects of source characteristics on cognitive responses and persuasion', in Petty, R.E., Ostrom, T.M. and Brock, T.C. (eds.) *Cognitive responses in persuasion.* NJ, USA: Lawrence Erlbaum Associates, pp.141-172.

Hassanein, K. and Head, M. (2007) 'Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping', *International Journal of Human Computer Studies*, 65 (8), pp. 689-708. doi: 10.1016/j.ijhcs.2006.11.018.

Haythornthwaite, C. (1999) 'Collaborative work networks among distributed learners', *Thirty-second annual Hawaii international conference on system sciences*. Maui, Hawaii, 5-8 January 1999. Available at: 10.1109/HICSS.1999.772707.

Haythornthwaite, C. (2002) 'Strong, weak, and latent ties and the impact of new media', *The Information Society*, 18 (5), pp. 385-401. doi: 10.1080/01972240290108195.

Haythornthwaite, C. (2005) 'Social networks and Internet connectivity effects', *Information, Communication and Society*, 8 (2), pp. 125-147. doi: 10.1080/13691180500146185.

He, J., Siu, C., Chaparro, B. and Strohl, J. (2014) 'Mobile', in Bergstrom, J.R. and Schall, A.J. (eds.) *Eye tracking in user experience design*. MA, USA: Morgan Kaufmann, pp. 255-290.

Heesacker, M., Petty, R, E. and Cacioppo, J, T. (1983) 'Field dependence and attitude change: source credibility can alter persuasion by affecting message relevant thinking', *Journal of Personality*, 51 (4), pp. 653-666. doi: 10.1111/j.1467-6494.1983.tb00872.x.

Hennig-Thurau, T., Gwinner, K.P., Walsh, G. and Gremler, D.D. (2004) 'Electronic word of mouth via consumer opinion platforms: what motivates consumers to articulate themselves on the internet'? *Journal of Interactive Marketing*, 18 (1), pp. 38-52. doi: 10.1002/dir.10073.

Hennig-Thurau, T., Malthouse, E.C., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A. and Skiera, B. (2010) 'The impact of new media on customer relationships', *Journal of Service Research*, 13 (3), pp. 311-33. doi: 10.1177/1094670510375460.

Henningsen, D. D. and Henningsen, M. L. M. (2003) 'Examining social influence in information-sharing contexts', *Small Group Research,* 34 (4), pp. 391-412. doi: 10.1177/1046496403251933.

Herr, P.M., Kardes, F.R. and Kim, J. (1991) 'Effects of word-of-mouth and product-attribute information on persuasion: an accessibility-diagnosticity perspective', *Journal of Consumer Research,* 17 (4), pp. 454-462. doi: 10.1086/208570.

Herring, D. R., White, K. R., Jabeen, L. N., Hinojos, M., Terrazas, G., Reyes, S. M., Taylor, J. H. and Crites, S. L. Jr. (2013) 'On the automatic activation of attitudes: a quarter century of evaluative priming research', *Psychological Bulletin*, 139 (5), pp. 1062-1089. doi: 10.1177/1046496403251933.

Higie, R.A., Feick, L.F. and Price, L.L. (1987) 'Types and amount of word-of-mouth communication about retailers', *Journal of Retailing*, 63 (3), pp. 260-278.

Hill, S., Provost, F. and Volinsky, C. (2006) 'Network-based marketing: identifying likely adopters via consumer networks', *Statistical Science*, 21 (2), pp. 256-276. doi: 10.1214/088342306000000222.

Hiltz, S.R. and Wellman, B. (1997) 'Asynchronous learning networks as a virtual classroom', *Communications of the ACM*, 40 (9), pp. 44-49. doi: 10.1145/260750.260764.

Himmelfarb, S. (1993) 'The measurement of attitudes', in Eagly, A.H. and Chaiken, S. (eds.) *The psychology of attitudes.* Orlando, USA: Harcourt Brace College Publishers, pp. 23-88.

Hirschman, E.C. and Holbrook, M.B. (1982) 'Hedonic consumption: emerging concepts, methods and propositions', *Journal of Marketing*, 46 (3), pp. 92-101. doi: 10.2307/1251707.

Hirunyawipada, T. and Paswan, A. K. (2006) 'Consumer innovativeness and perceived risk: implications for high technology product adoption', *Journal of Consumer Marketing,* 23 (4), pp. 182-198. doi: 10.1108/07363760610674310.

Hoffman, D. L. and Novak, T. (2013) *Online experience in social media: two paths to feeling close and connected.* Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1990005 (Accessed 14 June 2018).

Hogg, M. and Vaughan, G. (2011) Social Psychology. 6th edn. London, UK: Prentice Hall.

Hollebeek, L.D. and Chen, T. (2014) 'Exploring positively- versus negatively-valenced brand engagement: a conceptual model, *The Journal of Product and Brand Management*, 23 (1), pp. 62-67. doi: 10.1108/jpbm-06-2013-0332.

Holmes, J.H. and Lett, J.D. (1977) 'Product sampling and word of mouth', *Journal of Advertising Research*, 17 (5), pp. 35-40.

Homer, P. M. and Kahle, L. R. (1990) 'Source expertise, time of source identification, and involvement in persuasion: an elaborative processing perspective', *Journal of Advertising*, 19 (1), pp. 30-39. doi: 10.1080/00913367.1990.10673178.

Horai, J., Naccari, N. and Fatoullah, E. (1974) 'The effects of expertise and physical attractiveness upon opinion agreement and liking', *Sociometry*, 37 (4), pp. 601-606. doi: 10.2307/2786431.

Howitt, D. (2013) *Introduction to qualitative methods in psychology.* 2nd edn. Harlow, UK: Pearson.

Hristova, D., Musolesi, M. and Mascolo, C. (2014) *Keep your friends close and your Facebook friends closer: a multiplex network approach to the analysis of offline and online social ties*. Available at: https://www.cl.cam.ac.uk/~dh475/papers/icwsm14.pdf (Accessed: 17 March 2016).

Hsu, M.H. and Chiu, C.M. (2004) 'Predicting electronic service continuance with a decomposed theory of planned behaviour', *Behaviour and Information Technology*, 23 (5), pp. 359-373. doi: 10.1080/01449290410001669969.

Hu, Y., Fowler Wood, J., Smith, V. and Westbrook, N. (2004) 'Friendships through IM: examining the relationship between Instant Messaging and intimacy', *Journal of Computer- Mediated Communication,* 10 (1), pp. 00. doi: 10.1111/j.1083-6101.2004.tb00231.x .

Huang, Y., Shi, J. and Wang, L. (2012) 'Consumer susceptibility to interpersonal influence in mainland China', *Asian Journal of Social Psychology*, 15, pp. 140-144. doi: 10.1111/j.1467-839x.2011.01365.x.

Hughes, M., Griffith, J.A., Zeni, T.A., Arsenault, M.L., Cooper, O.D., Johnson, G., Hardy, J.H., Connelly, S. and Mumford, M.D. (2014) 'Discrediting in a message board forum: the effects of social support and attacks on expertise and trustworthiness', *Journal of Computer-Mediated Communication*, 19 (3), pp: 325 -341. doi: 10.1111/jcc4.12077.

Hugstad, P., Taylor, J, W. and Bruce, G, D. (1987) 'The effects of social class and perceived risk on consumer information search', *Journal of Consumer Marketing*, 4 (2), pp. 47-52. doi: 10.1108/eb008195.

Humphrey, W.F., Laverie, D.A. and Rinaldo, S.B. (2017) 'Brand choice via incidental social media exposure', *Journal of Research in Interactive Marketing*, 11 (2), pp. 110-130. doi.10.1108/JRIM-04-2016-0025.

Hung, K.A. and Li, S.Y. (2007) 'The influence of eWOM on virtual customer communities: social capital, consumer learning, and behavioural outcomes', *Journal of Advertising Research*, 47 (4), pp.485-495. doi: 10.2501/s002184990707050x.

Hutchinson, A. (2016) *Facebook releases 4th quarter and full-year results for 2015.* Available at: http://www.socialmediatoday.com/social-networks/facebook-releases-4th-quarter-and-full-year-results-2015 (Accessed: 1 February 2016).

Hutchinson, A. (2019) *Facebook adds 'Top Fans' targeting option for organic page posts.* Available at: https://www.socialmediatoday.com/news/facebook-adds-top-fans-targeting-option-for-organic-page-posts/557729/ (Accessed: 3 July 2019).

Hyoung-Yong, L., Hyunchul, A., Heung Kee, K. and Jongwon, L. (2014) 'Comparative analysis of trust in online communities', *Procedia Computer Science,* 31, pp.1140-114. doi: 10.1016/j.procs.2014.05.370.

Internet Advertising Bureau UK. (2016) *Ad blocking software - consumer usage and attitudes Feb 16.* Available at: http://www.iabuk.net/research/library/ad-blocking-software-consumer-usage-and-attitudes-feb-16 (Accessed 1 December 2016).

Internet World Stats. (2012) *Internet users in the world: distributed by world regions 2011.* Available at: http://www.internetworldstats.com/stats.htm (Accessed: 12 April 2012).

ITU. (2012) *Key global telecom indicators for the world telecommunication service sector.* Available at: http://www.itu.int/ITU-D/ict/statistics/at_glance/KeyTelecom.html (Accessed: 12 April 2012).

Ivankova, N. V., Creswell, J. W. and Stick, S. L. (2006) 'Using mixed-methods sequential explanatory design: from theory to practice', *Field Methods,* 18 (1), pp. 3-20. doi: 10.1177/1525822X05282260.

Iyengar, R., Van Den Bulte, C. and Valente, T.W. (2011) 'Opinion leadership and social contagion in new product diffusion', *Marketing Science*, 30 (2), pp. 195-212. doi: 10.1287/mksc.1100.0566.

Jaffe, J. (2010) Flip the funnel. New Jersey, USA: Wiley and Sons.

Jalivand, M.R., Esfahani, S.S. and Samiei, N. (2011) 'Electronic word-of-mouth: challenges and opportunities', *Procedia Computer Science,* 3, pp. 42-46. doi: 10.1016/j.procs.2010.12.008.

Jansen, B.J., Zhang, M., Sobel, K. and Chowdury, A. (2009) 'Twitter power: tweets as electronic word of mouth', *Journal of the American Society for Information Science and Technology*, 60 (11), pp. 2169-2188. doi: 10.1002/asi.21149.

Jarvenpaa, S. L., Knoll, K. and Leidner, D.E. (1998) 'Is anybody out there? Antecedents of trust in global virtual teams', *Journal of Management Information Systems*, 14 (4), pp. 29-64. doi: 10.1080/07421222.1998.11518185.

Johnson, B.T. (1991) 'Insights about attitudes: meta-analytic perspectives', *Personality and Social Psychology Bulletin*, 17 (3), pp. 289-299. doi: 10.1177/0146167291173009.

Johnson, B.T. and Eagly, A.H. (1989) 'Effects of involvement on persuasion: a meta-analysis', *Psychological Bulletin*, 106 (2), pp. 290-314. doi: 10.1037//0033-2909.106.2.290.

Johnson, L. (2011) *1.3B will access social media sites via mobile by 2016: study*. Available at: http://www.luxurydaily.com/1-3b-will-access-social-media-sites-via-mobile-by-2016-study/ (Accessed: 20 April 2012).

Johnson, R.B. and Gray, R. (2010) 'A history of philosophical and theoretical issues for mixed methods research', in Tashakkori, A. and Teddlie, C. (eds.) *Handbook of mixed methods in social and behavioural research.* 2nd edn. CA, USA: Sage, pp. 69-94.

Johnson, R. B. and Onwuegbuzie, A.J. (2004) 'Mixed methods research: a research paradigm whose time has come', *Educational Researcher,* 33 (7), pp. 14-26.

Joinson, A.N., McKenna, K.Y.A., Postmesm, T. and Reips, U. D. (2007) 'Introduction to the handbook', in Joinson, A.N., McKenna, K.Y.A., Postmesm, T. and Reips, U-D. (eds.) *The Oxford handbook of Internet psychology.* Oxford: Oxford University Press, pp.1-3.

Jun, S.Y., Cha, T. and Aggarwal, P. (2011) 'How much better? The effect of tensile information on word-of-mouth effectiveness', *Journal of Marketing Theory and Practice,* 19 (3), pp. 263-276. doi: 10.2753/mtp1069-6679190301.

Juster, T. F. (1966) 'Consumer buying intentions and purchase probability: an experiment in survey design', *Journal of the American Statistical Association*, 61 (315), pp. 658-696. doi: 10.2307/2282779.

Kahle, L.R. and Homer, P.M. (1985) 'Physical attractiveness of the celebrity endorser: a social adaptation perspective', *Journal of Consumer Research*, 11 (4), pp. 954-961. doi: 10.1086/209029.

Kahneman, D. (2011) *Thinking fast and slow.* Penguin.

Kallgren, C.A. and Wood, W. (1986) 'Access to attitude-relevant information in memory as a determinant of attitude-behavior consistency', *Journal of Experimental Social Psychology*, 22 (4), pp. 328-338. doi: 10.1016/0022-1031(86)90018-1.

Kao, D.T. (2012) 'Exploring the effects of regulatory focus on ad attitudes: the moderating role of message sidedness and argument quality', *International Journal of Psychology*, 47 (2), pp. 142-153. doi: 10.1080/00207594.2011.628672.

Kaplan, M.F. and Miller, C.E. (1987) 'Group decision making and normative versus informational influence: effects of type of issue and assigned decision rule', *Journal of Personality and Social Psychology*, 53 (2), pp. 306-313. doi: 10.1037//0022-3514.53.2.306.

Kaplan, A.M. and Haenlein, M. (2010) 'Users of the world, unite! The challenges and opportunities of social media', *Business Horizons,* 53, pp. 59-68. doi: 10.1016/j.bushor.2009.09.003.

Kastanakis, M, N. and Balabanis, G. (2012) 'Between the mass and the class: antecedents of the "bandwagon" luxury consumption behaviour', *Journal of Business Research*, 65 (10), pp. 1399-1407. doi: 10.1016/j.jbusres.2011.10.005.

Katona, Z., Zubcsek, P.P. and Sarvary, M. (2007) 'Network effects and personal influences: the diffusion of an online social network', *Journal of Marketing Research*, 48 (3), pp. 425-443. doi: 10.1509/jmkr.48.3.425.

Katz, E. and Lazarsfeld, P.F. (1955) *Personal Influence*. New York, USA: Free Press.

Kazakova, S., Cauberghe, V., Pandelaere, M. and De Pelsmacker, P. (2015) 'Can't see the forest for the trees? The effect of media multitasking on cognitive processing style', *Media Psychology*, 18 (4), pp. 1-26. doi: 10.1080/15213269.2015.1006789.

Keaveney, S, M. (1995) 'Customer switching behavior in service industries: an exploratory study', *Journal of Marketing,* 59 (2), pp. 71-82. doi: 10.2307/1252074.

Keenan, A. and Shiri, A. (2009) 'Sociability and social interaction on social networking websites', *Library Review*, 58 (6), pp. 438-450. doi: 10.1108/00242530910969794.

Keller, E. and Berry, J. (2003) *Influentials.* New York, USA: Simon and Schuster.

Keller, E. (2007) 'Unleashing the power of word of mouth: creating brand advocacy to drive growth', *Journal of Advertising Research*, 47 (4), pp. 1-8. doi: 10.2501/s0021849907070468.

Keller, K. L. and Aaker, D. A. (1992) 'The effects of sequential introduction of brand extensions', *Journal of Marketing Research*, 29 (1), pp. 35-50. doi: 10.2307/3172491.

Kelly, L., Gerr, G. and Drennan, J. (2010) Avoidance of advertising in social networking sites: the teenage perspective', *Journal of Interactive Advertising*, 10 (2), pp. 16-27. doi: 10.1080/15252019.2010.10722167.

Kelman, H.C. (1961) 'Processes of opinion change', *Public Opinion Quarterly*, 25 (1), pp. 57- 78. doi: 10.1086/266996.

Kemp, S. (2016) *Digital in 2016.* Available at: http://wearesocial.com/uk/special-reports/digital-in-2016 (Accessed: 1 February 2016).

Kempe, D., Kleinberg, J. and Tardos, E. (2003) 'Maximising the spread of social influence through a social network', *Proceedings of the ninth ACM SIGKDD international conference on knowledge discovery and data mining.* Washington DC, 24-27 August 2003. doi: 10.1145/956750.956769.

Kempf, D.S. and Palan, K.M. (2006) 'The effects of gender and argument strength on the processing of word-of-mouth communication', *Academy of marketing Studies Journal*, 10 (1), pp. 1-18.

Kent, R. (2015) *Analysing quantitative data: variable-based and case-based approaches to non-experimental data sets.* London, UK: Sage.

Kerr, G., Schultz, D.E., Kitchen, P.J., Mulhern, F. and Beede, P. (2015) 'Does traditional advertising theory apply to the digital world? A replication analysis questions the relevance of the elaboration likelihood model', *Journal of Advertising Research,* 55 (4), pp. 390-400. doi: 10.2501/JAR-2015-001.

Kidwell, B. and Jewell, R.D. (2003 'An examination of perceived behavioural control: internal and external influences on intention', *Psychology of Marketing*, 20 (7), pp. 625-642. doi: 10.1002/mar.10089.

Kiecker, P. and Hartman, C.L. (1994) 'Predicting buyers' selection of interpersonal sources: the role of strong ties and weak ties', *Advances in Consumer Research*, 21(1), pp. 464-469.

Kiecker, P. and Cowles, D. (2002) 'Interpersonal communication and personal influence on the internet: a framework for examining online word-of-mouth', *Journal of Euromarketing*, 11 (2), pp. 71-88. doi: 10.1300/j037v11n02_04.

Kiesler, S., Siegel, J. and McGuire, T.W. (1984) 'Social psychological aspects of computer-mediated communication', *American Psychologist*, 39 (10), pp. 1123-1134. doi: 10.1037//0003-066x.39.10.1123.

Kim, H.Y. and Chung, J.E. (2011) 'Consumer purchase intentions for organic personal care products', *Journal of Consumer Marketing*, 28 (1), pp. 40-47. doi: 10.1108/07363761111101930.

Kim, J. and Sung, Y. (2009) 'Dimensions of purchase-decision involvement: affective and cognitive involvement in product and brand', *Journal of Brand Management,* 16 (8), pp. 504-519. doi: 10.1057/bm.2008.39.

Kim, J., Baek, Y. and Choi, Y.H. (2012) 'The structural effects of metaphor-elicited cognitive and affective elaboration levels on attitude toward the Ad', *Journal of Advertising,* 41 (2), pp. 77-96. doi: 10.2753/JOA0091-3367410206.

Kim, J.K. and Sundar, S.S. (2016) 'Mobile persuasion: can screen size and presentation mode make a difference to trust'? *Human Communication Research*, 42 (1), pp. 45–70. doi: 10.1111/hcre.12064.

Kimmel, A.J. (2010) *Connecting with customers: marketing for new marketplace realities.* Oxford, UK: Oxford University Press.

Kimmel, A.J. and Kitchen, P.J. (2014a) 'Word of mouth and social media', *Journal of Marketing Communications*, 20 (1-2), pp. 2-4.

Kimmel, A.J. and Kitchen, P.J. (2014b) 'WOM and social media: presaging future directions for research and practice', *Journal of Marketing Communications*, 20 (1-2), pp. 5-20. doi: 10.1080/13527266.2013.797730.

Kingsnorth, S. (2016) *Digital marketing strategy: an integrated approach to online marketing.* London, UK: Kogan Page.

Kirby, J. and Marsden, P. (2006) *Connected marketing: the viral, buzz and word of mouth revolution.* Oxford, UK: Elsevier.

Kitchen, P.J., Kerr, G., Schultz, D.E., McColl, R. and Pals, H. (2014) 'The elaboration likelihood model: review, critique and research agenda', *European Journal of Marketing,* 48 (11), pp. 2033-2050. doi: 10.1108/EJM-12-2011-0776.

Ko, D.G., Kirsch, L.J. and King, W, R. (2005) 'Antecedents of knowledge transfer from consultants to clients in enterprise', *MIS Quarterly*, 29 (1), pp. 59-85.

Koerner, A. (2001) 'The importance of relational context in interpersonal influence: investigating the role of third parties', *Annual convention of the international communication association.* Washington, DC, USA. 24-28 May 2001. Available at: http://s3.amazonaws.com/academia.edu.documents/31292807/ica2001.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1478174081&Signature=hH9xlmjkBby8bkI3pXzaI%2BYxnW4%3D&response-content-disposition=inline%3B%20filename%3DThe_Importance_of_Relational_Context_in.pdf (Accessed 16 March 2013).

Koernig, S. K. (2003) 'E-scapes: the electronic physical environment and service tangibility', *Psychology and Marketing*, 20 (2), pp. 151-167. doi: 10.1002/mar.10065.

Koroleva, K. and Kane, G.C. (2017) 'Relational affordances of information processing on Facebook', *Information and Management*, 54 (5), pp. 560-572. doi: 10.1016/j.im.2016.11.007.

Koroleva, K., Krasnova, H. and Günther, O. 'STOP SPAMMING ME! - exploring information overload on Facebook' *Americas Conference on Information Systems.* Lima, Peru.12-15 August, 2010. AMCIS. Available at: http://aisel.aisnet.org/amcis2010/447. (Accessed 3 February 2015).

Koroleva, K., Krasnova, H. and Günther, O. (2011) 'Cognition or affect? Exploring information processing on Facebook," in Datta, A., Shulman, S., Zheng, B., Lin, S.D., Sun, A., and Lim, E.P. (eds.) *Social Informatics: Third International Conference SocInfo.* Berlin: Springer, pp. 171 -183.

Kotler, P. and Armstrong, G. (2012) *Principles of marketing*. 14th edn. Harlow, UK: Pearson.

Kozinets, R.V., de Valck, K., Wojnicki, A.C. and Wilner, S.J.S. (2010) 'Networked Narratives: understanding word-of-mouth marketing in online communities', *Journal of Marketing*, 74 (2), pp. 71-89. doi: 10.1509/jmkg.74.2.71.

Krawczyk, J. and Steinberg, J. (2012) *How content is really shared: close friends, not 'Influencers'.* Available at: http://m.adage.com/article?articleSection=digitalnext&articleSectionPhD: Name=DigitalNext&articleid=http%3A%2F%2Fadage.com%2Fdigitalnext%2Fpost%3 Farticle_id%3D233147 (Accessed: 12 March 2012).

Kruglanski, A.W. and Thompson, E.P. (1999) 'Persuasion by a single route: a view from the unimodel', *Psychological Enquiry*, 10 (2), pp. 83-109. doi: 10.1207/s15327965pl100201.

Ku, Y.C., Wei, C.P. and Hsiao, H.W. (2012) 'To whom should I listen? Finding reputable reviewers in opinion sharing communities', *Decision Support Systems*, 53 (3), pp. 534-542. doi: 10.1016/j.dss.2012.03.003.

Kumar, R. (2005) *Research methodology: a step by step guide for beginners.* 2nd edn. London, UK: Sage.

Kuo, E. and Thompson, L.F. (2014) 'The influence of disposition and social ties on trust in new virtual teammates', *Computers in Human Behavior*, 37 (1), p.41-48. doi: 10.1016/j.chb.2014.04.030.

Kuo, J.C., Horng, D.J., Lin, C.H. and Lee, S.H. (2012) 'The causal relationship between need for cognition and advertising recall', *Social Behaviour and Personality*, 40 (6), pp. 1025-1032. doi: 10.2224/sbp.2012.40.6.1025.

Kvale, S. (2007) *Doing interviews*. London, UK: Sage.

Lacey, R. and Morgan, R.M. (2009) 'Customer advocacy and the impact of B2B loyalty programs', *Journal of Business and Industrial Marketing*, 24 (1), pp. 3-13. doi: 10.1108/08858620910923658.

Lado, H., Maydeu-Olivares, A., Cesaroni, F. and Ho, H.C. (2011) *Co-branding strategies applied to high-tech products and luxury brands: a cross cultural perspective.* Available at: http://www.marketing-trends-congress.com/archives/2011/Materiali/Paper/Culture/Lado_MaydeuOlivares_Cesaroni_Ho.pdf (Accessed: 30 September 2014).

Lankton, N. K. and McKnight, D. H. (2011) 'What does it mean to trust Facebook? Examining technology and interpersonal trust beliefs', *Database for Advances in Information Systems*, 42 (2), pp. 32-54. doi: 10.1145/1989098.1989101.

Lampe, C., Ellison, N. B. and Steinfield, C. (2006) 'A Face(book) in the crowd: social searching versus social browsing', *Proceedings of the 2006 20th anniversary conference on computer supported cooperative work*. Alberta, Canada, 4-8 November 2006. ACM. doi: 10.1145/1180875.1180901.

Lampe, C., Ellison, N. B. and Steinfield, C. (2008) 'Changes in use and perception of Facebook', *Proceedings of the 2008 ACM conference on computer supported cooperative work*. San Diego, California, USA, 8-12 November 2008. ACM. doi:10.1145/1460563.1460675.

Lee, H.H. and Ma, J.Y. (2012) 'Consumer perceptions of online consumer product and service reviews. Focusing on information processing confidence and susceptibility to peer influence', *Journal of Research in Interactive Marketing*, 6 (2), pp.110-132. doi: 10.1108/17505931211265426.

Lee, M. and Youn, S. (2009) 'Electronic word of mouth (eWOM) – how eWOM platforms influence consumer product judgement', *International Journal of Advertising*, 28 (3), pp. 1-18. doi: 10.2501/s0265048709200709.

Lee, M.K.O., Cheung, C.M.K., Lim, K, H. and Ling Sia, C. (2006) 'Understanding customer knowledge sharing in web-based discussion boards', *Internet Research*, 16 (3), pp. 289-303. doi: 10.1108/10662240610673709.

Lee, M.K.O., Shi, N., Cheung, C.M.K., Lim, K.H. and Sia, C.L. (2011) 'Consumer's decision to shop online: the moderating role of positive informational social influence', *Information and Management*, 48 (6), pp. 185-191. doi: 10.1016/j.im.2010.08.005.

Lee, S., Capella, J.N. and Strasser, A.A. (2011) 'Smoking cues, argument strength and perceived effectiveness of antismoking PSAs', *Nicotine and Tobacco Research*, 13 (4), pp. 282-299. doi: 10.1093/ntr/ntq255.

Lee, S., Ha, S. and Widdows, R. (2011) 'Innovation, diffusion, and adoption of high-technology products and services', *Journal of Business Research*, 64 (4), pp. 1195-1200.

Lee, Y.C. (2014) 'Impacts of decision-making biases on eWOM retrust and risk-reducing strategies', *Computers in Human Behavior*, 40, pp. 101-110. doi: 10.1016/j.chb.2014.08.002.

Lee-Kelly, L., Gilbert, D. and Mannicom, R. (2003) 'How e-CRM can enhance customer loyalty', *Marketing Intelligence and Planning*, 21 (4/5), pp. 239-248. doi: 10.1108/02634500310480121.

Lemanski, J.L. and Lee, H.S. (2012) 'Attitude certainty and resistance to persuasion: investigating the impact of source trustworthiness in advertising', *International Journal of Business and Social Science*, 3 (1), pp. 66-75.

Levin, D.Z. and Cross, R. (2004) 'The strength of weak ties you can trust: the mediating role of trust in effective knowledge transfer', *Management Science*, 50 (11), pp. 1477-1490. doi: 10.1287/mnsc.1030.0136.

Levin, D.Z., Walter, J. and Murnighan, J.K. (2011) 'Dormant ties: the value of reconnecting', *Organization Science*, 22 (4), pp. 923-939. doi: 10.1287/orsc.1100.0576.

Levine, R., Locke, C., Searls, D. and Weinberger, D. (2000) *The cluetrain manifesto: the end of business as usual.* Available at: http://www.cluetrain.com/book/markets.html. (Accessed: 3 February 2012).

Lewis, J. D. and Weigert, A. (1985) 'Trust as a social reality', *Social Forces*, 63 (4), pp. 967-985. doi: 10.2307/2578601.

Li, C.Y. (2013) 'Persuasive messages on information system acceptance: a theoretical extension of elaboration likelihood model and social influence theory', *Computers in Human Behaviour*, 29 (1), pp. 264-275. doi: 10.1016/j.chb.2012.09.003.

Li, J. and Zhan, L. (2011) 'Online persuasion: how the written word drives WOM: evidence from consumer-generated product reviews', *Journal Advertising Research*, 51 (1), pp. 239-257. doi: 10.2501/jar-51-1-239-257.

Li, X. and Hitt, L.M. (2008) 'Self-selection and information role of online product reviews', *Information Systems Research*, 19 (4), pp. 456-474. doi: 10.1287/isre.1070.0154.

Libai, B., Bolton, R., Bugel, M.S., de Ruyter, K., Gotz, O., Risselada, H. and Stephen, A.T. (2010) 'Customer-to-customer interactions: broadening the scope of word of mouth research', *Journal of Service Research*, 13 (3), pp. 267-282. doi: 10.1177/1094670510375600.

Lim, B.C. and Chung, C.M.Y. (2014) 'Word-of-mouth: the use of source expertise in the evaluation of familiar and unfamiliar brands', *Asia Pacific Journal of Marketing and Logistics*, 26 (1), pp. 39-53. doi: 10.1108/apjml-02-2013-0027.

Lin, C.L., Lee, S.H. and Horng, D.J. (2011) 'The effects of online reviews on purchasing intention: the moderating role of the need for cognition', *Social Behavior and Personality*, 39 (1), pp. 71-82. doi: 10.2224/sbp.2011.39.1.71.

Lin, N., Ensel, W.M. and Vaughn, J.C. (1981) 'Social resources and strength of ties: structural factors in occupational status attainment', *American Sociological Association*, 46 (4), pp. 393-405. doi: 10.2307/2095260.

Lin, H.S. (2007) 'Predicting consumer intentions to shop online: an empirical test of competing theories', *Electronic Commerce and Research Applications*, 6 (4), pp. 433-442. doi: 10.1016/j.elerap.2007.02.002.

Lin, T.M.Y. and Cheng-Hsi, F. (2006) The effects of perceived risk on the word-of-mouth communication dyad. *Social Behavior and Personality,* 34 (10), pp. 1207-1216. doi: 10.2224/sbp.2006.34.10.1207.

Lin, T.M.Y., Lu, K.Y. and Wu, J.J. (2012) 'The effects of visual information on eWOM communication', *Journal of Research in Interactive Marketing*, 6 (1), pp. 1-7. doi: 10.1108/17505931211241341.

Linneman, T.J. (2018) *Social statistics: managing data, conducting analyses, presenting results.* 3rd edn. Oxford, UK: Routledge.

Lis, B. (2013) 'In eWOM we trust', *Business and Information Systems Engineering*, 5 (3), pp. 129-140. doi: 10.1007/s11576-013-0360-8.

Liu, Z., Liu, L. and Li, H. (2012) 'Determinants of information retweeting in microblogging', *Internet Research,* 22 (4), pp. 1066-2243. doi: 10.1108/10662241211250980.

Loken, B. (2006) 'Consumer psychology: categorisation, inferences, affect and persuasion', *Annual Review of Psychology*, 56 (1), pp 453-484. doi: 10.1146/annurev.psych.57.102904.190136.

Lopez, M. and Sicilia, M. (2014) 'eWOM as a source of influence: the impact of participation in eWOM and perceived source trustworthiness on decision making', *Journal of Interactive Marketing,* 14 (2), pp. 86-97. doi: 10.1080/15252019.2014.944288.

Lord, C.G., Lepper, M.R. and Mackie, D. (1984) 'Attitude prototypes as determinants of attitude-behaviour consistency', *Journal of Personality and Social Psychology*, 46 (6), pp. 1254-1266. doi: 10.1037//0022-3514.46.6.1254.

Lowenstein, M. (2011) *The customer advocate and the customer saboteur: linking social word-of-mouth, brand impression, and stakeholder behaviour.* Milwaukee, USA: American Society for Quality.

Mackie, D.M., Worth, L.T. and Asuncion, A.G. (1990) 'Processing of persuasive in-group messages', *Journal of Personality and Social Psychology*, 58 (5), pp. 812-822. doi: 10.1037//0022-3514.58.5.812.

Mackiewicz, J. (2010) 'Assertions of expertise in online product reviews', *Journal of Business and Technical Communication*, 24 (3), pp. 3-28. doi: 10.1177/1050651909346929.

Madden, M. (2012) *Privacy management on social media sites.* Available at: http://www.pewinternet.org/~/media/Files/Reports/2012/PIP_Privacy_management_on_social_media_sites_022412.pdf (Accessed: 29 October 2013).

Maheswaran, D. and Chaiken, S. (1991) 'Promoting systematic processing in low-motivation settings: effect of incongruent information on processing and judgment', *Journal of Personality and Social Psychology***,** 61(1), pp. 13-25. doi: 10.1037//0022-3514.61.1.13.

Maio, G.R. and Haddock, G. (2009) *The psychology of attitudes and attitude change.* London, UK: Sage.

Mahajan, V., Muller, E. and Bass, F.M. (1990) 'New product diffusion models in marketing: a review and directions for research', *Journal of Marketing*, 54 (1), pp. 1-26. doi: 10.2307/1252170.

Manago, A.M., Taylor, T. and Greenfield, P.M. (2012) 'Me and my 400 friends: the anatomy of college students' Facebook networks, their communication patterns, and well-being', *Developmental Psychology*, 48 (2), pp. 369 –380. doi: 10.1037/a0026338.

Mangold, W.G. and Faulds, D.J. (2009) 'Social media: the new hybrid element of the promotion mix', *Business Horizons*, 52 (4), pp. 357-365. doi: 10.1016/j.bushor.2009.03.002.

Marin, A. and Wellman, B. (2009) *Social network analysis: an introduction.* Available from: http://www.mendeley.com/research/introduction-to-social-network-analysis-2/ (Accessed: 13 February 2012).

Marsden, P.V. and Campbell, K.E. (1984) 'Measuring tie strength', *Social Forces*, 63 (2), pp. 482-501. doi: 10.2307/2579058.

Marsden, P.V. and Campbell, K.E. (2012) 'Reflections on conceptualising and measuring tie strength', *Social Forces,* 91 (1), pp. 17-23. doi: 10.1093/sf/sos112.

Martin, B.A.S., Lang, B. and Wong, S. (2004) 'Conclusion explicitness in advertising: The moderating role of need for cognition (NFC) and argument quality (AQ) on persuasion', *Journal of Advertising*, 32 (4), pp: 57-66. doi: 10.1080/00913367.2003.10639148.

Mathews, K.M., White, M.C., Long, R.G., Soper, B. and Von Bergen, C.W. (1998) 'Association of indicators and predictors of tie strength', *Psychological Reports*, 83 (3), pp. 1459-1469. doi: 10.2466/pr0.1998.83.3f.1459.

Matook, S., Brown, S.A. and Rolf, J. (2015) 'Forming an intention to act on recommendations given via online social networks', *European Journal of Information Systems,* 24 (1), pp. 76-92. doi: 10.1057/ejis.2013.28.

Mavrck. (2017) *The 2017 Facebook user-generated content benchmark report.* Available from: http://info.mavrck.co/facebook-user-generated-content-benchmark-report-q1-2017. (Accessed 19 March 2018).

Maxwell, A.J. (2004) 'Causal explanation, qualitative research and scientific enquiry in education', *Educational Researcher*, 33 (2), pp. 3-11. doi: 10.3102/0013189X033002003.

Maxwell, A.J. (2012) 'The importance of qualitative research for causal explanation in education', *Qualitative Enquiry*, 18 (8), pp. 655-661. doi: 10.1177/1077800412452856.

May, T. (2001) *Social research: issues, methods and process.* 3rd edn. Buckingham, UK: Open University Press.

Mayer, R. C., Davis, J. H. and Schoorman, F. D. (1995) 'An integrative model of organizational trust', *Academy of Management Review*, 20 (3), pp. 709-734. doi: 10.5465/amr.1995.9508080335.

Mayer, R. C. and Davis, J. H. (1999) 'The effect of the performance appraisal system on trust for management: a field quasi-experiment', *Journal of Applied Psychology*, 84 (1), pp. 123-136. doi: 10.1037//0021-9010.84.1.123.

Mayer, R.C. and Gavin, M.B. (2005) 'Trust in management and performance: who minds the shop while the employees watch the boss'? *Academy of Management Journal*, 48 (5), pp. 874-888. doi: 10.5465/amj.2005.18803928.

Mazzarol, T., Sweeney, J.C. and Soutar, G.N. (2007) 'Conceptualising word of mouth activity, triggers and conditions: an exploratory study', *European Journal of Marketing*, 41 (11/12), pp. 1475-1494. doi: 10.1108/03090560710821260.

McAllister, D, J. (1995) 'Affect- and cognition-based trust as foundations for interpersonal cooperation in organisations', *Academy of Management Journal*, 38 (1), pp. 24-59. doi: 10.2307/256727.

McCracken, G. (1989) 'Who is the celebrity endorser? Cultural foundations of the endorsement process', *Journal of Consumer Research*, 16 (3), pp. 310-321. doi: 10.1086/209217.

McFayden, M.A. and Cannella Jr, A.A. (2004) 'Social capital and knowledge creation: diminishing returns of the number and strength of exchange relationships', *Academy of Management Journal*, 47 (5), pp. 735-746. doi: 10.2307/20159615.

McGuire, W.J. (1985) 'The nature of attitudes and attitude change', in Lindzey, G. and Aronson, E. (eds.) *The handbook of social psychology.* 2nd edn. Vol. 3. MA, USA. Addison-Wesley Publishing, pp. 136-314.

McKinney, V., Yoon, K. and Zahedi, F. (2002) 'The measurement of Web-customer satisfaction: an expectation and disconfirmation approach', *Information Systems Research*, 13 (3), pp. 296-315. doi: 10.1287/isre.13.3.296.76.

McKnight, D.H., Cummings, L.L. and Chervany, N.L. (1998) 'Initial trust formation in new organizational relationships', *The Academy of Management Review*, 23 (3), pp. 473-490. doi: 10.5465/amr.1998.926622.

McKnight, D. H. and Chervany, N. L. (2002) 'What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology', *International Journal of Electronic Commerce*, 6 (2), pp. 35-59.

McKnight , D.H., Choudhury, V. and Kacmar, C. (2002) 'Developing and validating trust measures for e-commerce: an integrative typology', *Information Systems Research*, 13 (3), pp. 334-359. doi: 10.1287/isre.13.3.334.81.

McPherson, M., Smith-Lovin, L. and Cook, J.M. (2001) 'Birds of a feather: homophily in social networks', *Annual Review of Sociology*, 27, pp. 415-444. doi: 10.1146/annurev.soc.27.1.415.

Mendelson, A.L. and Papachariss, Z. (2010) 'Look at us: collective narcissism in college student Facebook photo galleries', in Papachariss, Z. (ed.) *The networked self: community and culture on social network sites.* Hoboken, USA: Routledge, pp. 251-273.

Miles, M. B., Huberman, A.M. and Saldana, J. (2014) *Qualitative data analysis: a methods source book.* 3rd edn. London, UK: Sage.

Mittal, B. (1989) 'Measuring purchase-decision involvement', *Psychology and Marketing*, 6 (2), pp. 147-162. doi: 10.1002/mar.4220060206.

Mittal, B. (1995) 'A comparative analysis of four scales of consumer involvement', *Psychology and Marketing, 12* (7), pp. 663-683. doi: 10.1002/mar.4220120708.

Mittal, B. and Lee, M. (1988) 'Separating brand-choice involvement from product involvement via consumer involvement profiles', *Advances in Consumer Research*, 15 (1), pp. 43-49.

Moe, W. W. and Trusov, M. (2011) 'The value of social dynamics in online product rating forums', *Journal of Marketing Research*, 48 (3), pp. 444-456. doi: 10.2139/ssrn.1479792.

Money, R.B., Gilly, M.C. and Graham, J.L. (1998) 'Explorations of national culture and word of mouth referral behaviour in the purchase of industrial services in the United States and Japan', *Journal of Marketing, 64* (4), pp. 76-87. doi: 10.2307/1252288.

Monin, B. (2003) 'The warm glow heuristic: when liking leads to familiarity', *Journal of Personality and Social Psychology, 85* (6), pp. 1035-1048. doi: 10.1037/0022-3514.85.6.1035.

Moons, W.G., Mackie, D.M. and Garcia-Marques, T. (2009) 'The impact of repetition–induced familiarity on agreement with weak and strong arguments', *Journal of Personality and Social Psychology*, 96 (1), pp. 32-44. doi: 10.1037/a0013461.

Moran, G. and Muzellec, L. (2014) 'eWOM credibility on social networking sites: a framework', *Journal of Marketing Communications*, 20 (1-2), pp. 1-13. doi: 10.1080/13527266.2014.969756.

Moran, G., Muzellec, L. and Nolan, E. (2014) 'Consumer moments of truth in the digital context: how "search" and "e-word of mouth" can fuel consumer decision making', *Journal of Advertising Research*, 54 (2), pp. 200-204. doi: 10.2501/jar-54-2-200-204.

Morgan, D. L. (1998) 'Practical strategies for combining qualitative and quantitative methods: applications to health research', Q*ualitative Health Research,* 8 (3), pp. 362-376. doi: 10.1177/104973239800800307.

Morgan, D.L. (2014) 'Pragmatism as a paradigm for social research', *Qualitative Inquiry*, 20 (8), pp. 1045-1053. doi: 10.1177/1077800413513733.

Morgan, R.M. and Hunt, S.D. (1994) 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58 (3), pp. 20-38. doi: 10.2307/1252308.

Morris, J. D., Woo, C. and Singh, A. J. (2005) 'Elaboration likelihood model: a missing intrinsic emotional implication', *Journal of Targeting, Measurement and Analysis for Marketing, 14* (1), pp. 79-98. doi: 10.1108/EJM-12-2011-0776.

Morris, M.R., Teevan, J. and Panovich, K. (2010a) A comparison of information seeking using search engines and social networks. Available at: http://research.microsoft.com/en-us/um/people/merrie/papers/icwsm_searching_vs_asking.pdf (Accessed: 25 October 2013).

Morris, M.R., Teevan, J. and Panovich, K. (2010b) 'What do people ask their social networks and why? A survey study of status message and Q&A behaviour', *Proceedings of the SIGCHI conference on human factors in computing systems.* Atlanta, Georgia USA. 10-15 April 2010. Microsoft. doi: 10.1145/1753326.1753587.

Mosseri, A. (2016) *Building a better News Feed for you.* Available at: http://newsroom.fb.com/news/2016/06/building-a-better-news-feed-for-you/ (Accessed 1 December 2016).

Murray, K.B. (1991) 'A test of services marketing theory: consumer information acquisition activities', *Journal of Marketing, 55* (1), pp. 10-25. doi: 10.2307/1252200.

Meyers-Levy, J. and Sternthal, B. (1993) 'A two-factor explanation of assimilation and contrast effects', *Journal of Marketing Research*, 30 (3), pp. 359-368. doi: 10.2307/3172887.

Nahai, N. (2017) *Webs of influence: the psychology of persuasion online.* 2nd edn. Harlow, UK: Pearson.

Nahapiet, J. and Ghoshal, S. (1998) 'Social capital, intellectual capital, and organizational advantage', *Academy of Management Review*, 23 (2), pp. 242-266. doi: 10.5465/amr.1998.533225.

Nail, J. (2005) *What's the buzz on word of mouth marketing: social computing and consumer control put momentum into viral marketing.* Available at: http://www.forrester.com/rb/Research/whats_buzz_on_word-of-mouth_marketing/q/id/36916/t/2 (Accessed: 26 November 2011).

Nayak, V. (2014) *More than 66% Of Internet Users In The U.K Are On Facebook Inc. Available at:* https://dazeinfo.com/2014/01/08/66-internet-users-u-k-facebook-inc-fb-report/ (Accessed: 10 April 2020).

Nepal, S., Sherchan, W. and Paris, C. (2011) 'STrust: a trust model for social networks', *2011 IEEE 10th International conference on trust, security and privacy in computing and communications.* 16-18 November. Changsha, China: IEEE. doi: 10.1109/TrustCom.2011.112.

Nielsen (2012) *U.S. media trends by demographic.* Available at: http://www.nielsen.com/us/en/newswire/2012/report-u-s-media-trends-by-demographic.html (Accessed: 25 April 2013).

Notani, A.S. (1997) 'Perceptions of affordability: their role in predicting purchase intent and purchase', *Journal of Economic Psychology*, 18 (5), pp. 525-546. doi: 10.1016/S0167-4870(97)00022-6.

Notani, A.S. (1998) 'Moderators of perceived behavioural control's predictiveness in the theory of planned behaviour: a meta-analysis', *Journal of Consumer Psychology*, 7 (3), pp. 247-271. doi: 10.1207/s15327663jcp0703_02.

Nyilasy, G. (2006) 'Word of mouth: what we really know – and what we don't', in Kirby, J. and Marsden, P. (eds.) *Connected marketing: the viral, buzz and word of mouth revolution.* London: Butterworth-Heinemann, pp. 161-184.

Oechslein, O. and Hess, T. (2014) 'The value of a recommendation: the role of social ties in social recommender systems', *47th Hawaii International Conference on System Sciences.* Waikoloa, HI, USA, 6-9 January 2014 *.IEEE.* doi: https://doi.org/10.1109/HICSS.2014.235.

Oeldorf-Hirsch, A. and Sundar, S. S. (2015) 'Posting, commenting, and tagging: effects of sharing news stories on Facebook', *Computers in Human Behavior,* 44, pp. 240-249. doi: 10.1016/j.chb.2014.11.024.

Oetting, M., Niesytto, N., Sievert, J. and Dost, F. (2010) *Positive word-of-mouth is more effective than negative – because it sticks!* Available at: http://www.trndload.com/trndco/trnd_wom_monitor_01_EN.pdf (Accessed: 22 September 2015).

Ofcom. (2014) *Digital day 2014.* Available from: http://stakeholders.ofcom.org.uk/binaries/research/cross-media/2014/Digital_Day_2014_Overview_of_Findings.pdf (Accessed: 18 February 2016).

Ofcom. (2018) *The communications market 2018 (August).* Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0022/117256/CMR-2018-narrative-report.pdf (Accessed: 1 July 2019).

Ofcom. (2018) *A decade of digital dependency.* Available at: https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/decade-of-digital-dependency (Accessed 1 July 2019).

Ohanian, R. (1990) 'Construction and validation of a scale to measure celebrity endorsers' perceived expertise, trustworthiness, and attractiveness', *Journal of Advertising,* 19 (3), pp. 39-52. doi: 10.1080/00913367.1990.10673191.

Ok, C., Shanklin, C.W. and Back, K.J. (2008) 'Generalizing survey results from student samples: implications from service recovery research', *Journal of Quality Assurance in Hospitality & Tourism,* 8 (4), pp. 1-23.
doi: 10.1080/15280080802103037

O'Keefe, D.J. (1987) 'The persuasive effects of delaying identification of high-and-low-credibility communicators: a meta-analytic review', *Central States Speech Journal*, 38 (2), pp. 63-72. doi: 10.1080/10510978709368231.

O'Keefe, D.J. (2002) *Persuasion: theory and research.* 2nd edn. Thousand Oaks, USA: Sage.

O'Keefe, D.J. (2008) 'The Elaboration Likelihood Model', in Donsbach, W. (ed.) *The international encyclopaedia of communication.* Volume IV. MA, USA: Blackwell Publishing, pp. 1475-1480.

Oliver, P. (2003) *The student's guide to research ethics*. Buckingham, UK: Open University Press.

O' Reilly, T. (2005) *What is web 2.0?* Available at: http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html (Accessed: 3 February 2016).

Oppenheim, A.N. (1992) *Questionnaire design, interviewing and attitude measurement.* London, UK: Pinter.

Osgood, C.E., Suci, G.J. and Tannenbaum, P.H. (1957) *The measurement of meaning.* Urbana, USA: University of Illinois Press.

Padua, D. (2012) *Trust, social relations and engagement: understanding customer behaviour on the web.* Hampshire, UK: Palgrave Macmillan.

Pagefair and Adobe. (2015) *The cost of ad blocking.* Available at: http://downloads.pagefair.com/reports/2015_report-the_cost_of_ad_blocking.pdf (Accessed: 18 February 2016).

Palazon, M., Sicilia, M. and Lopez, M. (2015) 'The influence of "Facebook friends" on the intention to join brand pages', *Journal of Product and Brand Management,* 24 (6), pp. 580-595. doi: 10.1108/JPBM-08-2014-0696.

Pan, L.Y. and Chiou, J.S. (2011) 'How much can you trust online information? Cues for perceived trustworthiness of consumer-generated online information', *Journal of Interactive Marketing*, 25 (2), pp. 67-74. doi: 10.1016/j.intmar.2011.01.002.

Panovich, K., Miller, R.C. and Karger, D.R. (2012) 'Tie strength in question and answer on social networking sites', *Proceedings of the ACM 2012 conference on computer supported cooperative work*. Washington, USA, 11-15 February 2012. ACM. doi: 10.1145/2145204.2145361.

Park, C. and Lee, T.M. (2009) 'Antecedents of online review's usage and purchase influence: an empirical comparison of US and Korean consumers', *Journal of Interactive Marketing*, 23 (4), pp. 332-340. doi: 10.1016/j.intmar.2009.07.001.

Park, D.H., Lee, J. and Han, I. (2007) 'The effect of on-line consumer reviews on consumer purchasing intention: the moderating role of involvement', *International Journal of Electronic Commerce*, 11 (4), pp. 125-148. doi: 10.2753/jec1086-4415110405.

Park, D.H. and Lee, J. (2008) 'eWOM overload and its effect on consumer behavioral intention depending on consumer involvement', *Electronic Commerce Research and Applications*, 7 (4), pp. 386-398. doi: 10.1016/j.elerap.2007.11.004.

Park, G.W. and Lessig, V.P. (1977) 'Students and housewives: differences in susceptibility to reference group influence', *Journal of Consumer Research*, 24 (2), pp. 131-145. doi: 10.1086/208685.

Park, N., Kee, K.F. and Valenzuela, S. (2009) 'Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes', *Cyberpsychology and Behaviour*, 12 (6), pp .729-723. doi: 10.1089/cpb.2009.0003.

Park, N. and Lee, S. (2014) 'College students' motivations for Facebook use and psychological outcomes', *Journal of Broadcasting and Electronic Media*, 58 (4), pp. 601-620. doi: 10.1080/08838151.2014.966355.

Pavlou, P.A. and Fygenson, M. (2006) 'Understanding and predicting electronic commerce adoption: an extension of the theory of planned behaviour', *MIS Quarterly*, 30 (1), pp. 115-143. doi: 10.2307/25148720.

Penenberg, A. (2009) *Viral loop: the power of pass-it-on.* London, UK: Sceptre.

Perloff, R.M. (2014) *The dynamics of persuasion: communication and attitudes in the 21st century.* 5th edn. New York, USA: Routledge.

Peters, K., Chen, Y., Kaplan, A.M. Ognibeni, B. and Pauwels, K. (2013) 'Social media metrics: a framework for guidelines and managing social media', *Journal of Interactive Marketing,* 27 (4), pp. 281-298. doi: 10.1016/j.intmar.2013.09.007.

Peterson, R.A. (2001) On the use of college students in social science research: insights from a second- order meta-analysis. *Journal of Consumer Research,* 28 (3), pp. 450-461. doi: 10.1086/323732.

Petroczi, A., Nepusz, T. and Bazso, F. (2007) 'Measuring tie strength in virtual social networks', *Connections*, 27 (2), pp. 39-52.

Petty, R.E. (1986) *Communication and persuasion.* New York, USA: Springler-Verlag.

Petty, R. E., Brinol, P. and Tormala, Z.L. (2002) 'Thought confidence as a determinant of persuasion: the self-validation hypothesis', *Journal of Personality and Social Psychology*, 82 (5), pp. 722-741. doi: 10.1037//0022-3514.82.5.722.

Petty, R.E. and Cacioppo, J.T. (1979) 'Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses', *Journal of Personality and Social Psychology*, 37 (10), pp. 1915 -1926. doi: 10.1037//0022-3514.37.10.1915.

Petty, R.E. and Cacioppo, J.T. (1981) *Attitudes and persuasion: classic and contemporary approaches*. Iowa, USA: WmC Brown Company.

Petty, R.E. and Cacioppo, J.T. (1984a) 'Source factors and the elaboration likelihood model of persuasion', *Advances in Consumer Research*, 11 (1), pp. 668-672.

Petty, R.E. and Cacioppo, J.T. (1984b) 'The effects of involvement on responses to argument quantity and quality: central and peripheral routes to persuasion', *Journal of Personality and Social Psychology*, 46 (1), pp. 69-81. doi: 10.1037//0022-3514.46.1.69.

Petty, R.E. and Cacioppo, J.T. (1986a) *Communication and persuasion: central and peripheral routes to attitude change.* New York, USA: Springer-Verlag.

Petty, R.E. and Cacioppo, J.T. (1986b) 'The elaboration likelihood model of persuasion', in Berkowitz, L. (ed.) *Advances in experimental social psychology*, Vol. 19. Orlando, USA: Academic Press, pp. 124-181.

Petty, R.E. and Cacioppo, J.T. (1990) 'Involvement and persuasion: tradition versus integration', *Psychological Bulletin*, 107 (3), pp. 367-374. doi: 10.1037//0033-2909.107.3.367.

Petty, R.E. and Cacioppo, J.T. (1996) 'Addressing disturbing and disturbed consumer behavior: is it necessary to change the way we conduct behavioral science?' *Journal of Marketing Research,* 33 (1), pp. 1-8. doi: 10.2307/3152008.

Petty, R.E., Cacioppo, J.T. and Goldman, R. (1981) 'Personal involvement as a determinant of argument-based persuasion', *Journal of Personality and Social Psychology*, 41 (5), pp. 847-855. doi: 10.1037//0022-3514.41.5.847.

Petty, R.E., Cacioppo, J.T. and Schumann, D. (1983) 'Central and peripheral routes to advertising effectiveness: the moderating role of involvement', *Journal of Consumer Research*, 10 (2), pp. 135-146. doi: 10.1086/208954.

Petty, R.E., McMichael, S.M. and Brannon, L.A. (1992) 'The elaboration likelihood model of persuasion: applications in recreation and tourism', in Manfredo, M.J. (ed.) *Influencing human behavior: theory and applications in recreation, tourism, and natural resources management*. IL, USA: Sagamore Publishing. pp. 77-101.

Petty, R.E., Wegener, D.T. and Fabrigar, L.R. (1997) 'Attitudes and attitude change', *Annual Review of Psychology*, 48, pp. 609-647. doi: 10.1146/annurev.psych.48.1.609.

Petty, R.E. and Wegener, D.T. (1998) *Attitude change: multiple roles for persuasion variables.* Available at: http://www.fca.pucminas.br/saogabriel/ci/raop/pdf/attitudechange.pdf (Accessed: 6 June 2013).

Petty, R.E., Wells, G.L. and Brock, T.C. (1976) 'Distraction can enhance or reduce yielding to propaganda: through disruption versus effort justification', *Journal of Personality and Social Psychology*, 34 (5), pp. 874-884. doi: 10.1037//0022-3514.34.5.874.

Pfeffer, J., Zorbach, T. and Carley, K.M. (2014) 'Understanding online firestorms: negative word-of-mouth dynamics in social media networks', *Journal of Marketing Communications*, 20 (1-2), pp. 117-128. doi: 10.1080/13527266.2013.797778.

Pham, M. T. and Avnet, T. (2004) 'Ideals and thoughts and the reliance on affect versus substance in persuasion', *Journal of Consumer Research*, 30 (4), pp. 503–518. doi: 10.1086/380285.

Phelps, J.E., Lewis, R., Mobilio, L., Perry, D. and Raman, N. (2004) 'Viral marketing or electronic word of mouth advertising: examining consumer responses and motivations to pass along email', *Journal of Advertising Research*, 44 (4), pp. 333-348. doi: 10.1017/s0021849904040371.

Pillai, A. and Mukherjee, J. (2011) 'User acceptance of hedonic versus utilitarian social networking web sites', *Journal of Indian Business Research, 3* (3), pp. 180-191. doi: 10.1108/17554191111157047.

Poynter, R. (2010) *The handbook of online and social media research: tools and techniques for market researchers.* West Sussex, UK: Wiley and Sons.

Prasad, S., Gupta, I. C. and Totala, N. K. (2017) 'Social media usage, electronic word of mouth and purchase-decision involvement', *Asia - Pacific Journal of Business Administration, 9* (2), pp. 134-145. doi: 10.1108/APJBA-06-2016-0063.

Price, L.L and Feick, L.F. (1984) 'The role of interpersonal sources in external search: an informational perspective', *Advances in Consumer Research*, 11 (1), pp. 250-255.

Priester, J. R., and Petty, R. E. (1995) 'Source attribution and persuasion: perceived honesty as a determinant of message scrutiny', *Personality and Social Psychology Bulletin*, 21 (6), pp. 637–654. doi: 10.1177%2F0146167295216010.

Priester, J.R. and Petty, R.E. (2003) 'The influence of spokesperson trustworthiness on message elaboration, attitude strength and advertising effectiveness', *Journal of Consumer Psychology*, 13 (4), pp. 408-421. doi: 10.1207/s15327663jcp1304_08.

Protalinski, E. (2011) *Zuckerberg: 4 billion "things" are shared on Facebook every day.* Available at: http://www.zdnet.com/blog/facebook/zuckerberg-4-billion-8220things-8221-are-shared-on-facebook-every-day/2020 (Accessed: 6 March 2012).

PRWeb. (2012) *4 in 5 Smartphone and Tablet owners use their devices while watching television.* Available at: http://news.yahoo.com/4-5-smartphone-tablet-owners-devices-while-watching-060041839.html (Accessed: 25 April 2013).

Puckett, J.M., Petty, R.E., Cacioppo, J.T. and Fischer, D.L. (1983) 'The relative impact of age and attractiveness stereotypes on persuasion', *Journal of Gerontology*, 38 (3), pp. 340-343. doi: 10.1093/geronj/38.3.340.

Pulkkinen, E. and Sääksjärvi, M. (2008) 'The effects of emotions and product attachment on consumer preferences for new products', *European Advances in Consumer Research*, 8, pp. 317-318.

Punch, K.F. (2005) *Introduction to social research: quantitative and qualitative approaches.* 2nd edn. London, UK: Sage.

Racherla, P. and Friske, W. (2012) 'Perceived 'usefulness' of online consumer reviews: an exploratory investigation across three services categories', *Electronic Commerce Research and Applications*, 11 (6), pp. 548-559. doi: 10.2139/ssrn.2196873.

Rains, S.A. (2007) 'The impact of anonymity on perceptions of source credibility and influence in computer-mediated group communication: a test of two competing hypotheses', *Communication Research*, 34 (1), pp. 100-125. doi: 10.1177/0093650206296084.

Re, R.S. (2018) *The speed of the social feed*. Available at: https://www.socialmediatoday.com/news/the-speed-of-the-social-feed-infographic/524147/ (Accessed 12 June 2018).

Reeves, B., Lang, A., Kim, E.Y. and Tatar, D. (1999) 'The effects of screen size and message content on attention and arousal', *Media Psychology*, 1 (1), pp. 49-67. doi: 10.1207/s1532785xmep0101_4.

Reichelt, J., Sievert, J. and Jacob, F. (2014) 'How credibility affects eWOM reading: the influences of expertise, trustworthiness, and similarity on utilitarian and social functions', *Journal of Marketing Communications*, 20 (1-2), pp 65-81. doi: 10.1080/13527266.2013.797758.

Rempel, J.K., Holmes, J.G. and Zanna, M. P. (1985) 'Trust in close relationships', *Journal of Personality and Social Psychology*, 49 (1), pp. 95-112. doi: 10.1037//0022-3514.49.1.95.

Richins, L. and Bloch, P.H. (1986) 'After the new wears off: the temporal context of product involvement', *Journal of Consumer Research*, 13 (2), pp. 280-285. doi: 10.1086/209067.

Richins, M.L. (1983) 'Negative word-of-mouth by dissatisfied customers: a pilot study', *The Journal of Marketing*, 47 (1), pp. 68-78. doi: 10.2307/3203428.

Richins, M.L. and Root-Shaffer, T. (1988) 'The role of involvement and opinion leadership in consumer word-of-mouth: an implicit model made explicit', *Advances in Consumer Research*, 15 (1), pp. 32-36.

Richins, M.L, Bloch, P. and Mcquarrie, E. (1992) 'How enduring and situational involvement combine to create involvement responses', *Journal of Consumer Psychology,* 1 (2), pp. 143-153. Doi: 10.1016/S1057-7408(08)80054-X.

Ridings, C.M., Gefen, D. and Arinze, B. (2002) 'Some antecedents and effects of trust in virtual communities', *Strategic Information Systems*, 11 (3-4), pp. 271-295. doi: 10.1016/s0963-8687(02)00021-5.

Riegelsberger, J., Sasse, M.A. and McCarthy, J.D. (2003) 'The researcher's dilemma: evaluating trust in computer-mediated communication', *International Journal of Human-Computer Studies*, 58 (6), pp. 759-781. doi: 10.1016/s1071-5819(03)00042-9.

Rieh, S.Y. (2002) 'Judgment of information quality and cognitive authority in the Web', *Journal of the American Society for Information Science and Technology*, 53 (2), pp. 145-161. doi: 10.1002/asi.10017.

Roberts, M.J. and Russo, R. (1999) *A student's guide to analysis of variance.* London, UK: Routledge.

Robson, C. (2011) *Real world research: a resource for users of social research methods in applied settings*. 2nd edn. Chichester, UK: Wiley.

Roehm, M, L. and Sternthal, B. (2001) 'The moderating effect of knowledge and resources on the persuasive impact of analogies', *Journal of Consumer Research,* 28 (2), pp. 257-272. doi: 10.1086/322901.

Roese, N.J. and Olson, J.M. (1994) 'Attitude importance as a function of repeated attitude expression', *Journal of Experimental Social Psychology,* 30 (1), pp. 39-51. doi: 10.1006/jesp.1994.1002.

Rogers, E.M. (1995) *Diffusion of innovations.* 4th edn. New York, USA: Free Press.

Rogers, E.M. (2000) 'Reflections on news event diffusion research', *Journalism and Mass Communication Quarterly*, 77 (3), pp. 561-576. doi: 10.1177/107769900007700307.

Roobina, O. (1990) 'Construction and validation of a scale to measure celebrity', *Journal of Advertising*, 19 (3), pp. 39-52. doi: 10.1080/00913367.1990.10673191.

Rosen, C.S. (2000) 'Integrating stage and continuum models to explain processing of exercise messages and exercise initiation among sedentary college students', *Health Psychology*, 19 (2), pp.172-180. doi: 10.1037//0278-6133.19.2.172.

Rosen, E. (2002) *The anatomy of a buzz: how to create word of mouth marketing.* New York, USA: Doubleday.

Rosenthal, B. and Brito, E.P.Z. (2017) 'How virtual brand community traces may increase fan engagement in brand pages', *Business Horizons*, 60 (3), pp. 375-384. doi: 10.1016/j.bushor.2017.01.009.

Rosselli, F., Skelly, J.J. and Mackie, D. M. (1995) 'Processing rational and emotional messages: the cognitive and affective mediation of persuasion', *Journal of Experimental Social Psychology,* 31 (2), pp.163-190. doi: 10.1006/jesp.1995.1008.

Rousseau, D. M., Sitkin, S.B., Burt, R.S. and Camerer, C. (1998) 'Not so different after all: a cross-discipline view of trust', *Academy of Management Review*, 23 (3), pp. 393-404. doi: 10.5465/amr.1998.926617.

Rucker, D.D. and Petty, R.E. (2006) 'Increasing the effectiveness of communications to consumers: recommendations based on elaboration likelihood and attitude certainty perspectives', *Journal of Public Policy and Marketing*, 25 (1), pp. 39-52. doi: 10.1509/jppm.25.1.39.

Ruef, M., Aldrich, H. E. and Carter, N. M. (2003) 'The structure of founding teams: homophily, strong ties and isolation among U.S. entrepreneurs', *American Sociological Review*, 68 (2), pp. 195–222. doi: 10.1177/000312240406900208.

Ryan, D. and Jones, C. (2012) *Understanding digital marketing: marketing strategies for engaging the digital generation.* 2nd edn. London, UK: Kogan Page.

Ryu, G., Park, J. and Feick, L. (2006) 'The role of product type and country-of-origin in decisions about choice of endorser ethnicity in advertising', *Psychology and Marketing,* 23 (6), pp. 487–513. doi: 10.1002/mar.20131.

Sääksjärvi, M. and Samiee, S. (2010) 'Assessing multifunctional innovation adoption via an integrative model', *Journal of the Academy of Marketing Science*, 39 (5), pp. 717-73. doi: 10.1007/s11747-010-0231-4.

Salkind, N.J. (2014) *Statistics for people who (think they) hate statistics.* 5th edn. CA, USA: Sage Publications.

Sang, H., Xue, F. and Zhao, J. (2018) 'What happens when satisfied customers need variety? –effects of purchase decision involvement and product category on Chinese consumers' brand-switching behavior', *Journal of International Consumer Marketing.* pp. 1-10. doi: 10.1080/08961530.2018.1423662.

SanJose-Cabezudo, R., Gutierrez-Arranz, A.N. and Gutierrez-Cillan, J. (2009) 'The combined influence of central and peripheral routes in online persuasion process', *Cyber Psychology and Behaviour*, 12 (3), pp. 299-308. doi: 10.1089/cpb.2008.0188.

Sashi, C.M. (2012) 'Customer engagement, buyer-seller relationships, and social media', *Management Decision,* 50 (2): pp. 253-272. doi: 10.1108/00251741211203551.

Sassenberg, K. and Jonas, K.J. (2007) 'Attitude change and social influence on the net', in Joinson, A.N., McKenna, K.Y.A., Postmesm, T. and Reips, U-D. (eds.) *The Oxford handbook of Internet psychology.* Oxford, UK: Oxford University Press, pp.273-288.

Saunders, M., Lewis, P. and Thornhill, A. (2012) *Research methods for business students*. 6th edn. Essex, UK: Pearson.

Sayer, A. (1992) *Method in social science: a realist approach.* 2nd edn. London, UK: Routledge.

Scammell, R. (2018) *Avoiding the algorithm: messaging tool offers solution to Facebook's crowded News Feed. Avialable at:* https://www.verdict.co.uk/messaging-tool-solution-facebooks-crowded-news-feed/ (Accessed: 10 September 2019).

Scaraboto, D., Rossi, C.A.V. and Costa, D. (2012) 'How consumers persuade each other: rhetorical strategies of interpersonal influence in online communities', *Brazilian Administration Review*, 9 (3), pp. 246-267. doi: 10.1590/s1807-76922012000300002.

Schindler, R.M. and Bickart, B. (2012) 'Perceived helpfulness of online consumer reviews: the role of message content and style', *Journal of Consumer Behaviour*, 11 (3), pp. 234-243. doi: 10.1002/cb.1372.

Schivinski, B., and Dabrowski, D. (2015) 'The impact of brand communication on brand equity through Facebook', *Journal of Research in Interactive Marketing, 9* (1), pp. 31-53. doi: 10.1108/JRIM-02-2014-0007.

Schroeder, S. (2012) *Facebook hits one billion active users.* Avialable from: https://mashable.com/2012/10/04/facebook-one-billion/?europe=true (Accessed 1 March 2020).

Schulze, C., Schöler L. and Skiera, B. (2014) 'Not all fun and games: viral marketing for utilitarian products', *Journal of Marketing,* 78 (1), pp. 1–19. doi: 10.1509/jm.11.0528.

Schwandt, T.A. (2003) 'Three epistemological stances for qualitative enquiry: interpretivism, hermeneutics and Social constructionism', in Denzin, N.K. and Lincoln, Y.S. (eds.) *The landscape of qualitative research: theories and issues.* 2nd edn. CA, USA: Sage.

Segalin, C., Celli, F., Polonio, L., Kosinski, M., Stillwell, D., Sebe, N., Cristani, M. and Lepri, B. (2017) 'What your Facebook profile picture reveals about your personality', *Proceedings of the 25th ACM international conference on multimedia.* Mountain View, CA, USA. 23–27 October 2017. ACM. doi: 10.1145/3123266.3123331.

Sen, S. and Lerman, D. (2007) 'Why are you telling me this? An examination into negative consumer reviews on the web', *Journal of Interactive Marketing,* 21 (4), pp. 76-94. doi: 10.1002/dir.20090.

Senecal, S. and Nantel, J. (2004) 'The influence of online product recommendations on consumers' online choices', *Journal of Retailing*, 80 (2), pp.159-169. doi: 10.1016/j.jretai.2004.04.001.

Seng, C.S. and Keat, L.H. (2014) 'Marketing sports products on Facebook: the effect of social influence', *Physical Culture and Sport Studies and Research*, 61 (1), pp. 65-73. doi: 10.2478/pcssr-2014-0006.

Seno, B. and Lukas, B.A. (2007) 'The equity effect of product endorsement by celebrities: a conceptual framework from a co-branding perspective', *European Journal of Marketing*, 41 (1/2), pp. 121-134. doi: 10.1108/03090560710718148.

Sharma, A. (1999) 'Does the salesperson like customers? A conceptual and empirical examination of the persuasive effect of perceptions of the salesperson's affect toward customers', *Psychology and Marketing*, 16 (2), pp. 141-162. doi: 10.1002/(sici)1520-6793(199903)16:2<141::aid-mar5>3.3.co;2-#.

Shi, X., Adamic, L.A. and Strauss, M.J. (2006) *Networks of strong ties.* Available at: http://arxiv.org/pdf/cond-mat/0605279.pdf (Accessed: 20 November 2012).

Shih, H., Lai, K. and Cheng, T. E. (2013) 'Informational and relational influences on electronic word of mouth: an empirical study of an online consumer discussion forum', *International Journal of Electronic Commerce*, 17 (4), pp. 137-166. doi:10.2753/JEC1086-441517040.

Shin, S. I., Hall, D.J., Song, J., Lee, K.B. and Lang, T. (2016) 'Examining the factors affecting corporate image from social networking fan page usage using the Elaboration Likelihood Model', *2016 49th Hawaii international conference on system sciences*. 6-7 January, Hawaii, USA. doi: 10.1109/HICSS.2016.657.

Shinners, E. (2009) *Effects of the "what is beautiful is good" stereotype on perceived trustworthiness.* Available at: http://www.uwlax.edu/urc/jur-online/pdf/2009/shinners-erinpsy.pdf (Accessed: 11 October 2013).

Shirky, C. (2000) *The toughest virus of all.* Available at: http://www.shirky.com/writings/toughest_virus.html (Accessed: 13 January 2012).

Shrivastav, H., Collins, R., Hiltz, S. and Dwyer, D. (2012) 'Facebook News Feed: relevance or noise?' *Proceedings of the eighteenth Americas conference on information systems.* Seattle, Washington, USA. 9-12 August 2012. AMCIS. Available at:
http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1437&context=amcis2012 (Accessed 8 May 2014).

Siegler, M.G. (2011) *Twitter: 1 billion items delivered a day is nice, Google+. we do 350 billion.* Available at: http://techcrunch.com/2011/07/15/twitter-350-billion/ (Accessed: 10 April 2012).

Silverman, D. (2013) *Doing qualitative research.* 4th edn. London, UK: sage Publications.

Simons, H.W., Berkowitz, N.N. and Moyer, R.J. (1970) 'Similarity, credibility, and attitude change: a review and theory', *Psychological Bulletin*, 73 (1), pp. 1-16. doi: 10.1037/h0028429.

Slama, M., D'Onofrio, M. and Celuch, K. (1993) 'Consumer complaint behaviour in market mavens', *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, 6, pp. 175-180.

Slater, M.D. and Rouner, D. (1996) 'How message evaluation and source attributes may influence credibility assessment and belief change', *Journalism and Mass communication Quarterly*, 73 (4), pp. 974-991. doi: 10.1177/107769909607300415.

Smith, A. (2014) *6 new facts about Facebook.* Available from: http://www.pewresearch.org/fact-tank/2014/02/03/6-new-facts-about-facebook/ (Accessed 9 May 2017).

Smith, D., Menon, S. and Sivakuma, K. (2005) 'Online peer and editorial recommendations, trust, and choice in virtual markets', *Journal of Interactive Marketing*, 19 (3), pp. 15-37. doi: 10.1002/dir.20041.

Smith, P.R. and Zook, Z. (2011) *Marketing communications: integrating offline and online with social media*. London, UK: Kogan Page.

Smith, S.M. and Shaffer, D.R. (1995) 'Speed of speech and persuasion: evidence for multiple effects', *Personality and Social Psychology Bulletin*, 21 (10), pp.1051-1060. doi: 10.1177/01461672952110006.

Smith, T., Coyle, J.R., Lightfoot, E. and Scott, A. (2007) 'Reconsidering models of influence: the relationship between consumer social networks and word-of-mouth effectiveness', *Journal of Advertising Research*, 47 (7), pp. 2-14. doi: 10.2501/s0021849907070407.

Snyder, M. and Gangestad, S. (1986) 'On the nature of self-monitoring: matters of assessment, matters of validity', *Journal of Personality and Social Psychology*, 51 (1), pp.125-39. doi: 10.1037//0022-3514.51.1.125.

Socialmediatoday. (2011) *Facebook demographics revisited: 2011 statistics.* Available at: http://socialmediatoday.com/kenburbary/276356/facebook-demographics-revisited-2011-statistics (Accessed: 15 May 2012).

Solis, B. (2011) *Engage: the complete guide for brands and businesses to build, cultivate, and measure success in the new web.* New Jersey, USA: Wiley and Sons.

Solomon, M.R. (2011) *Consumer behaviour: buying, having, and being.* 9th edn. New Jersey, USA: Pearson.

Spreng, R. A. and Page, T. J. (2001). 'The impact of confidence in expectations on consumer satisfaction', *Psychology and Marketing*, 18 (11), pp. 1187-1204. doi: 10.1002/mar.1049.

Sproull, L. and Kiesler, S. (1986) 'Reducing social context cues: electronic mail in organizational communication', *Management Science*, 32 (11), pp. 1492-1513. doi: 10.1287/mnsc.32.11.1492.

Steffes, E.M. and Burgee, L.E. (2009) 'Social ties and online word of mouth', *Internet Research*, 19 (1), pp. 42-59. doi: 10.1108/10662240910927812.

Sternthal, B., Phillips, L.W. and Dholakia, R. (1978) 'The persuasive effect of source credibility: a situational analysis', *The Public Opinion Quarterly*, 42 (3), pp.285-314. doi: 10.1086/268454.

Stevenson, W.B. and Gilly, M.C. (1991) 'Information processing and problem solving: the migration of problems through formal positions and networks of ties', *Academy of Management Journal*, 34 (4), pp. 918-929. doi: 10.2307/256396.

Stone, R, N. and Gronhaug, K. (1993) 'Perceived risk: further considerations for the marketing discipline', *European Journal of Marketing*, 27 (3), pp. 39-51. doi: 10.1108/03090569310026637.

Sülflow, M., Schäfer, S. and Winter, S. (2019) 'Selective attention in the News Feed: An eye-tracking study on the perception and selection of political news posts on Facebook', *New Media ans Society*, 21 (1), pp. 168–190. doi: 10.1177/1461444818791520.

Sun, T., Youn, S., Wu, G. and Kuntaraporn, M. (2006) 'Online word of mouth (or mouse): an exploration of its antecedents and consequences', *Journal of Computer Mediated Communication*, 11 (4), pp. 1104-1127. doi: 10.1111/j.1083-6101.2006.00310.x.

Sundar, S, S. and Limperos, A.M. (2013) 'Uses and grats 2.0: new gratifications for new media', *Journal of Broadcasting and Electronic Media,* 57 (4), pp. 504-525. doi: 10.1080/08838151.2013.845827.

Sundaram, D.S., Mitra K. and Webster, C. (1998) 'Word of mouth communications a motivational analysis', *Advances in Consumer Research*, 25 (1), pp. 527-531.

Sussman, S.W. and Siegel, W.S. (2003) 'Informational influence in organizations: an integrated approach to knowledge adoption', *Information Systems Research*, 14 (1), pp. 47-65. doi: 10.1287/isre.14.1.47.14767.

Svensson, A. (2011) *Facebook - the social newspaper that never sleeps: a study of Facebook eWOM's persuasiveness on the receivers.* MSc Thesis. University of Gothenburg. Available at: https://gupea.ub.gu.se/dspace/bitstream/2077/26249/1/gupea_2077_26249_1.pdf [Accessed 14 June 2012].

Sweeney, J.C., Soutar, G.N. and Mazzarol, T. (2008) 'Factors influencing word of mouth effectiveness: receiver perspectives', *European Journal of Marketing*, 42 (3), pp. 344-364. doi: 10.1108/03090560810852977.

Sweeney, J.C., Soutar, G.N. and Mazzarol, T. (2012) 'Word of mouth: measuring the power of individual messages', *European Journal of Marketing,* 46 (1/2), pp. 237 – 257. doi: 10.1108/03090561211189310.

Sweeney, J., Soutar, G. and Mazzarol, T. (2014) 'Factors enhancing word-of-mouth influence: positive and negative service-related messages', European *Journal of Marketing*, 48 (1/2), pp. 336 – 359. doi: 10.1108/EJM-06-2012-0336.

Szmigin, I. and Piacentini, M. (2015) *Consumer behaviour*. Oxford, UK: Oxford University Press.

Sztompka, P. (2002) *Trust: a cultural resource.* Available at: http://www.colbud.hu/honesty-trust/sztompka/pub01.PDF (Accessed: 5 November 2013).

Szulanski, G., Cappetta, R. and Jensen, R.J. (2004) 'When and how trustworthiness matters: knowledge transfer and the moderating effect of causal ambiguity', *Organization Science,* 15 (5), pp. 600-661. doi: 10.1287/orsc.1040.0096.

Tadena, N. (2014) *Why the C3 V. C7 debate in TV advertising may be irrelevant.* Available at: http://blogs.wsj.com/cmo/2014/05/28/why-the-c3-v-c7-debate-in-tv-advertising-may-be-irrelevant/ (Accessed: 18 February 2016).

Tashakkori, A. and Teddlie, C. (1998) *Mixed methodology: combining qualitative and quantitative approaches*. CA, USA: Sage.

Tan, F.B. and Sutherland, P. (2004) 'Online consumer trust: a multi-dimensional model', *Journal of Electronic Commerce in Organizations*, 2 (3), pp. 40-58. doi: 10.4018/jeco.2004070103.

Taylor, S. and Todd, P. A. (1995a) 'Decomposition and crossover effects in the theory of planned behavior: a study of consumer adoption intentions', *International Journal of Research in Marketing*, 12 (2), pp.137-156. doi: 10.1016/0167-8116(94)00019-k.

Taylor, S. and Todd, P.A. (1995b) 'Understanding information technology usage: a test of competing models', *Information system research*, 6 (2), pp.144-176. doi: 10.1287/isre.6.2.144.

Taylor, S. (2007) 'Attitudes', in Langridge, D. and Taylor, S. (eds.) *Critical readings in social psychology*. Maidenhead, UK: Open University Press, pp. 45-48.

Techcrunch. (2013) *Facebookers feed graph search and set a record by uploading 1.1B photos on New Year's Day/Eve.* Available at: https://techcrunch.com/2013/01/17/facebook-photos-record/ (Accessed: 14 June 2013).

Teddlie, C. and Tashakkori, A. (2010) 'Overview of contemporary issues in mixed methods research in Tashakkori, A, and Teddlie, C. (eds.) *Sage handbook of mixed methods in social and behavioral research*. 2nd edn. CA, USA: Sage.

Teng, S., Khong, K. W., Chong, A. L. and Lin, B. (2016) 'Persuasive electronic word-of-mouth messages in social media', *The Journal of Computer Information Systems,* 57 (1), pp. 76-88. doi: 10.1080/08874417.2016.1181501.

Thelwall, M. (2009) 'Homophily in MySpace', *Journal of the American Society for Information Science and Technology*, 60 (2), pp. 219-223. doi: 10.1002/asi.20978.

Thirunarayan, K. and Anantharam, P. (2011) 'Trust networks: interpersonal, sensor, and social', *International conference on collaboration technologies and systems.* Philadelphia, USA, 23-27 May 2011. IEEE. doi: 10.1109/CTS.2011.5928659.

Thorn, B.K. and Connelly, T. (1987) 'Discretionary data bases: a theory and some experimental findings', *Communication Research*, 14 (5), pp. 512-528. doi: 10.1177/009365087014005004

Tobin, S.J. and Raymundo, M.M. (2009) 'Persuasion by causal arguments: the motivating role of perceived causal expertise', *Social Cognition*, 27 (1), pp. 105-127. doi: 10.1521/soco.2009.27.1.105.

Toder Alon, A., Brunel, F.F. and Fournier, S. (2014) 'Word-of-mouth rhetorics in social media talk', *Journal of Marketing Communications*, 20 (1-2), pp. 42-64. doi: 10.1080/13527266.2013.797756.

Toma, C.L. (2010) 'Perceptions of trustworthiness online: the role of visual and textual information', *Proceedings of the 2010 ACM conference on computer supported cooperative work.* Savannah, Georgia, USA, 6-10 Feb 2010. doi: 10.1145/1718918.1718923.

Toma, C.L. (2014) 'Counting on friends: cues to perceived trustworthiness in Facebook profiles', *Eighth international AAAI conference on weblogs and social media.* Oxford, UK, 27-29 May 2014. Available at: https://www.aaai.org/ocs/index.php/ICWSM/ICWSM14/paper/view/8044 (Accessed 27 November 2014).

Tormala, Z.L. (2016) 'The role of certainty (and uncertainty) in attitudes and persuasion', *Current Opinion in Psychology*, 10, pp. 6–11. doi: 10.1016/j.copsyc.2015.10.017.

Tormala, Z. L. and Petty, R.E. (2004) 'Source credibility and attitude certainty: a metacognitive analysis of resistance to persuasion', *Journal of Consumer Psychology*, 14 (4), pp. 427-442. doi: 10.1207/s15327663jcp1404_11.

Tormala. Z. L., Brinol, P. and Petty, R.E. (2006) 'When credibility attacks: the reverse impact of source credibility on persuasion', *Journal of Experimental Social Psychology*, 42 (5), pp. 684-691. doi: 10.1521/soco.2007.25.4.536.

Tormala. Z. L., Brinol, P. and Petty, R.E. (2007) 'Multiple roles for source credibility under high elaboration: it's all in the timing', *Social Cognition*, 25 (4), pp. 536-552. doi: 10.1521/soco.2007.25.4.536.

Tong, S.T. and Walther, J.B. (2010) 'Relational maintenance and CMC', in Wright, K. and Webb, L. (eds.) *Computer-mediated communication in personal relationships.* USA: Peter Lang, pp. 98-118.

Triandis, C. (1971) *Attitude and attitude change.* NY, USA: Wiley and Sons.

Trusov, M., Bucklin, R.E. and Pauwels, K. (2009) 'Effects of word of mouth versus traditional marketing: findings from an internet social networking site', *Journal of Marketing*, 73 (5), pp. 90-102. doi: 10.2139/ssrn.1129351.

Trusov, M., Bodapati, A.V. and Bucklin, R.E. (2010) 'Determining influential users in internet social networks', *Journal of Marketing Research*, 47 (4), pp. 643-658. doi: 10.2139/ssrn.1479689.

Tsai, M.T., Chin, C.W. and Chen, C.C. (2010) 'The effect of trust belief and salesperson's expertise on consumer's intention to purchase nutraceuticals: applying the theory of reasoned action', *Social Behavior and Personality*, 38 (20), pp. 273-288. doi: 10.2224/sbp.2010.38.2.273.

Tsankova, E., Aubrey, A.J., Krumhuber, E., Mollering, G., Kappas, A., Marshall, D. and Rosin, P.L. (2012) *Facial and vocal cues in perceptions of trustworthiness.* Available at: http://users.cs.cf.ac.uk/Paul.Rosin/resources/papers/trust-ACCV.pdf (Accessed: 14 October 2013).

Tsao, W.C. and Hsieh, M.T. (2015) 'eWOM persuasiveness: do eWOM platforms and product type matter'? *Electronic Commerce Research*, 15 (4), pp 509-541. doi: 10.1007/s10660-015-9198-z.

Tuten, T.L. and Solomon, M.R. (2015) *Social media marketing*. 2nd edn. London, UK: Sage.

Universities UK. (2015) *Patterns and trends in UK higher education 2015*. Avialable from: https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/patterns-and-trends-2015.pdf (Accessed 3 March 2020).

Urban, G.L., Amyx, C. and Lorenzon, A. (2009) 'Online trust: state of the art, new frontiers, and research potential', *Journal of Interactive Marketing*, 23 (2), pp. 179-190. doi: 10.1016/j.intmar.2009.03.001.

Urdan, T.C. (2017) *Statisics in plain English.* 4th edn. Oxford, UK: Routledge.

Van Der Heide, B. and Schumaker, E.M. (2013) 'Computer-mediated persuasion and compliance: social influence on the internet and beyond', in Amichai-Hamburger, Y. (ed.) *The social net: understanding our online behavior.* 2nd edn. Oxford, UK: Oxford University Press, pp. 79-98.

Van Den Broeck, E., Poels, K. and Walrave, M. (2018) 'An experimental study on the effect of ad placement, product involvement and motives on Facebook ad avoidance', *Telematics and Informatics,* 35 (2), pp. 470-479. doi: 10.1016/j.tele.2018.01.006.

Van Der Zee, K., Vos, M. and Luijters, K. (2009) 'Social identity patterns in demographically diverse work teams', *Social Science Information*, 48 (2), pp. 175-198. doi: 10.1177/0539018409102406.

Van Hoye, G. and Lievens, F. (2009) 'Tapping the grapevine', *Journal of Applied Psychology*, 94 (2), pp. 341-352. doi: 10.1037/a0014066.

Van Noort, G., Antheunis, M.L. and van Reijmersdal, E.A. (2012) 'Social connections and the persuasiveness of viral campaigns in social network sites: persuasive intent as the underlying mechanism', *Journal of Marketing Communications,* 18 (1), pp.39-53. doi: 10.1080/13527266.2011.620764.

Van Noort, G. and Willemsen, L.M. (2012) 'Online damage control: the effects of proactive versus reactive webcare interventions in consumer-generated and brand-generated platforms', *Journal of Interactive Marketing*, 26 (3), pp. 131-140. doi: 10.1016/j.intmar.2011.07.001.

Varnali, K. (2012) 'SMS advertising: how is message relevance linked to the attitude toward the brand'? *Journal of marketing Communications,* 20 (5), pp. 1-13. doi: 10.1080/13527266.2012.699457.

Venkatesh, V. and Brown, S.A. (2001) 'A longitudinal investigation of personal computers in homes: Adoption determinants and emerging challenges', *MIS Quarterly*, 25 (1): pp. 71-102. doi: 10.2307/3250959.

Venkatraman, M.P. (1989) 'Opinion leaders, adopters, and communicative adopters: a role analysis', *Psychology and Marketing,* 6 (1), pp. 51-68. doi: 10.1002/mar.4220060104.

Viswanath, B., Mislove, A., Cha, M. and Gummadi, K.P. (2009) 'On the evolution of user interaction in Facebook', *Proceedings of the 2nd ACM workshop on online social networks.* Barcelona, Spain, 17 August 2009. ACM. doi: 10.1145/1592665.1592675.

Vitak, J. (2014) 'Facebook makes the heart grow fonder: relationship maintenance strategies among geographically dispersed and communication-restricted connections', *Proceedings of the 17th ACM conference on computer supported cooperative work and social computing.* Baltimore, USA, 15 – 19 February 2014. ACM. doi: 10.1145/2531602.2531726.

Villanueva, J., Yoo, S. and Hanssens, D.M. (2008) 'The impact of marketing-induced versus word-of-mouth customer acquisition on customer equity growth', *Journal of Marketing Research,* 45 (1), pp. 48-59. doi: 10.1509/jmkr.45.1.48.

Voss, K. E., Spangenberg, E.R. and Grohmann, B. (2003) 'Measuring the hedonic and utilitarian dimensions of consumer attitude', *Journal of Marketing Research*, 40 (3), pp. 310-320. doi: 10.1509/jmkr.40.3.310.19238.

Vraga, E., Bode, L. and Troller-Renfree, S. (2016) 'Beyond self-reports: using eye tracking to measure topic and style differences in attention to social media content', *Communication Methods and Measures,* 10 (2-3), pp. 149-164. doi: 10.1080/19312458.2016.1150443.

Wallace. E., Buil, I. and de Chernatony, L. (2012) 'Facebook 'friendship' and brand advocacy', *Journal of Brand Management*, 20 (2), pp. 128-146. doi: 10.1057/bm.2012.45.

Walsh, G., Gwinner, K. P. and Swanson, S. R. (2004) 'What makes mavens tick? Exploring the motives of market mavens' initiation of information diffusion', *The Journal of Consumer Marketing*, 21 (2/3), pp. 109-122. doi: 10.1108/07363760410525678.

Walther, J.B. (2007) 'Selective self-presentation in computer-mediated communication: hyperpersonal dimensions of technology, language, and cognition', *Computers in Human Behavior*, 23 (5), pp. 2538–2557. doi: 10.1016/j.chb.2006.05.002.

Walther, J.B., Van Der Heide., Kim, S.Y., Westerman, D. and Tong, S.T. (2008) 'The role of friends' appearance and behaviour on evaluations of individuals on Facebook: are we known by the company we keep'? *Human Communication Research*, 34 (1), pp. 28-49. doi: 10.1111/j.1468-2958.2007.00312.x.

Walther, J.B. (2013) 'Groups and computer-mediated communication', in Amichai-Hamburger, Y. (ed.) *The social net: understanding our online behavior*. 2nd ed. Oxford, UK: Oxford University Press, pp. 165-179.

Wang, J.C. and Chang, C.H. (2013) 'How online ties and product-related risks influence purchase intentions: a Facebook experiment', *Electronic Commerce Research and Applications*, 12 (5), pp. 337-346. doi: 10.1016/j.elerap.2013.03.003.

Wang, Y. and Rodgers, S. (2011) 'Electronic word of mouth and consumer generated content: from concept to application', in Eastin, M.S. and Burns, N.M. (eds.) *Handbook of research on digital media and advertising: user generated content consumption*. NY, USA: IGI Global, pp.212-231.

Wathen, C.N. and Burkell, J. (2002) 'Believe it or not: factors influencing credibility on the Web', *Journal of the American Society for Information Science and Technology*, 53(2), pp.134-144. doi: 10.1002/asi.10016.

Watkins, D. and Gioia, D. (2015) *Mixed methods research.* Oxford, UK: Oxford University Press.

Watts, D.J and Dodds, P.S. (2007) 'Influentials, networks, and public opinion formation', *Journal of Consumer Research*, 34 (4), pp. 441-458. doi: 10.1086/518527.

Watts, S. (2011) 'Mobile applications for ethical consumption - metrics and frameworks', *The first international conference on social eco-informatics.* Barcelona, Spain, 23-29 October 2011. IARIA. Available at: https://www.thinkmind.org/download.php?articleid=sotics_2011_1_10_30035 (Accessed 3 February 2015).

Webb, T.L. and Sheeran, P. (2006) 'Does changing behavioural intentions engender behaviour change? A meta-analysis of the experimental evidence', *Psychological Bulletin*, 132 (2), pp. 249-268. doi: 10.1037/0033-2909.132.2.249.

Weenig, M.W.H. and Midden, C.J.H. (1991) 'Communication network influences on information diffusion and persuasion', *Journal of Personality and Social Psychology*, 61 (5), pp. 734-742. doi: 10.1037//0022-3514.61.5.734.

Wei, K.K. and Li, W.Y. (2013) 'Measuring the impact of celebrity endorsement on consumer behavioural intentions: a study of Malaysian consumers', *International Journal of Sports Marketing and Sponsorship*, 14 (3), pp. 157-177. doi: 10.1108/ijsms-14-03-2013-b002.

Weimann, G. (1983) 'The strength of weak conversational ties in the flow of information and influence', *Social Networks,* 5 (3), pp. 245-267. doi: 10.1016/0378-8733(83)90027-8.

Weinholtz, D., Kacer, B. and Rocklin, T. (1995) Pearls, pith and provocation: salvaging quantitative research with qualitative data, *Qualitative Health Research,* 5 (3), pp. 388-397. doi: 10.1177/104973239500500308.

Wellman, B. and Wortley, S. (1990) 'Different strokes from different folks: community ties and social support', *American Journal of Sociology*, 96 (3), pp. 558-588. doi: 10.1086/229572.

Wen, C. Tan, B.C.Y. and Chang, K.T. (2009) 'Advertising effectiveness on Social Network Sites: an investigation of tie strength, endorser expertise and product type on consumer purchase intention', *Proceedings of the International Conference on Information Systems,* Phoenix, Arizona, USA, 15-18 December 2009. ICIS. Available at: https://aisel.aisnet.org/icis2009/151.

Werner, C.M., Sansone, C. and Brown, B.B. (2008) 'Guided group discussion and attitude change: the roles of normative and informational influence', *Journal of Environmental Psychology*, 28 (1), pp. 27-41. doi: 10.1016/j.jenvp.2007.10.002.

Wharton. (2016) *The end of digital advertising as we know it*. Available from: http://knowledge.wharton.upenn.edu/article/end-digital-advertising-know/ (Accessed 8 November 2017).

Wiedmann, K.P., Walsh, G. and Mitchell, V.W. (2001) 'The German mannmaven: an agent for diffusing market information', *Journal of Marketing Communications*, 7 (4), pp. 1-17. doi: 10.1080/13527260127413.

Wiener, J.L. and Mowen, J.C. (1986) 'Source credibility: on the independent effects of trust and expertise', *Advances in Consumer Research*, 13 (1), pp. 306-310.

Williams, M. (2001) 'In whom we trust: group membership as an affective context for trust development', *Academy of Management Review*, 26 (3), pp. 377-396. doi: 10.5465/amr.2001.4845794.

Wilson, A. (2019) *Marketing research: delivering customer insight.* 4th edn. London, UK: Red Globe Press.

Wilson, E.V. (2003) 'Perceived effectiveness of interpersonal persuasion strategies in computer-mediated communication', *Computers in Human Behaviour*, 19 (5), pp. 537-552. doi: 10.1016/s0747-5632(03)00006-2.

Wilson, R., Gosling, S., Gosling, S. and Graham, L. (2012) 'A review of Facebook research in the social sciences, *Perspectives on Psychological Science,* 7 (3), pp. 203-220. doi: 10.1177%2F1745691612442904.

Wirtz, J. and Chew, P. (2002) 'The effects of incentives, deal proneness, satisfaction and tie strength on word-of-mouth behaviour', *International Journal of Service Industry Management*, 13 (20), pp. 141-162. doi: 10.1108/09564230210425340.

Wise, W., Alhabash, S. and Park, H. (2010) 'Emotional responses during social information seeking on Facebook', *Cyberpsychology, Behavior, and Social Networking*, 13 (5), pp. 555-562. doi: 10.1089/cyber.2009.0365.

Wood, S.L. and Lynch, J.G. (2002) 'Prior knowledge and complacency in new product learning', *The Journal of Consumer Research*, 29 (3), pp.416-426. doi: 10.2139/ssrn.339383.

Wood, W. (1982) 'Retrieval of attitude-relevant information from memory: effects on susceptibility to persuasion and on intrinsic motivation', *Journal of Personality and Social Psychology*, 42 (5), pp. 798-810. doi: 10.1037//0022-3514.42.5.798.

Wood, W. (2000) 'Attitude change: persuasion and social influence', *Annual Review of Psychology*, 51, pp. 539-570. doi: 10.1146/annurev.psych.51.1.539.

Wood, W., Kallgren, C.A. and Preisler, R.M. (1985) 'Access to attitude-relevant information in memory as a determinant of persuasion: the role of message attributes', *Journal of Experimental Social Psychology*, 21 (1), pp. 73-85. doi: 10.1016/0022-1031(85)90007-1.

Word of Mouth Marketing Association (WOMMA). (2005) *WOMMA terminology framework.* Available at: http://www.businesswire.com/news/home/20050711005837/en/WOMMA-Releases-Standards-Track-Measure-Word-Mouth (Accessed 12 February 2016).

Wu, C. and Shaffer, D.R. (1987) 'Susceptibility to persuasive appeals as a function of source credibility and prior experience with the attitude object', *Journal of Personality and Social Psychology*, 52 (4), pp. 677-688. doi: 10.1037//0022-3514.52.4.677.

Wu, C.C., Huang, Y. and Hsu, C.I. (2014) 'Benevolence trust: a key determinant of user continuance use of online social networks', *Information Systems and e-Business Management*, 12 (2), pp.189-211. doi: 10.1007/s10257-013-0216-1.

Wu, I.L. and Chen, J.L. (2005) 'An extension of Trust and TAM model with TPB in the initial adoption of on-line tax: an empirical study', *International Journal of Human-Computer Studies*, 62 (6), pp. 784-808. doi: 10.1016/j.ijhcs.2005.03.003.

Wu, W.L. and Lee, Y.C. (2012) 'The effect of blog trustworthiness, product attitude, and blog involvement on purchase intention', *International Journal of Management and Information Systems*, 16 (3), pp. 265-276. doi: 10.19030/ijmis.v16i3.7079.

Wuchty, S. (2009) 'What is a social tie'? *Proceedings of the National Academy of Sciences*, 106 (36), pp. 15099-15100. doi: 10.1073/pnas.0907905106.

Xiang, R., Neville, J. and Rogati, M. (2010) 'Modelling relationship strength in online social networks', *Proceedings of the 19th international conference on world wide web.* NC, USA, 26-30 April 2010. ACM. doi: 10.1145/1772690.1772790.

Xue, F. and Zhou, L. (2018) 'Social Information in Facebook News Feed ads: effects of personal relevance and brand familiarity', *Journal of Promotion Management,* pp. 1-19. doi: 10.1080/10496491.2018.1500410.

Yang, T. (2012) 'The decision behaviour of Facebook users', *Journal of Computer Information Systems,* 52 (3), pp. 50-59. doi: 10.1080/08874417.2012.11645558.

Yap, K.B., Soetarto, B. and Sweeney, J.C. (2013) 'The relationship between electronic word-of-mouth motivations and message characteristics: the sender's perspective', *Australasian Marketing Journal*, 21 (1), pp. 66–74. doi: 10.1016/j.ausmj.2012.09.001.

Yeykelis, L., Cummings, J.J. and Reeves, B. (2014) 'Multitasking on a single device: arousal and the frequency, anticipation, and prediction of switching between media content on a computer', *Journal of Communication*, 64 (1), pp. 167-192. doi: 10.1111/jcom.12070.

Yi, M.M., Yoon, J.J., Davis, J.M. and Lee, T. (2013) 'Untangling the antecedents of initial trust in web-based health information: the roles of argument quality, source expertise, and user perceptions of information quality and risk', *Decision Support Systems*, 55 (1), pp. 284–295. doi: 10.1016/j.dss.2013.01.029.

Yoo, C.Y. (2009) 'Effects beyond click-through: incidental exposure to web advertising', *Journal of Marketing Communications,* 15 (4), pp. 227-246. doi: 10.1080/13527260802176419.

Yoon, K., Kim, C.H. and Kim, M.S. (1998) 'A cross-cultural comparison of the effects of source credibility on attitudes and behavioural intentions', *Mass Communication and Society*, 1 (3/4), pp. 153-173. doi: 10.1080/15205436.1998.9677854.

You, Y., Vadakkepatt, G.G. and Joshi, A.M. (2015) 'A meta-analysis of electronic word-of-mouth elasticity', *Journal of Marketing*, 79 (2), pp. 19-39. doi: 10.1509/jm.14.0169.

Young, A.I and Fazio, R.H. (2013) 'Attitude accessibility as a determinant of object construal and evaluation', *Journal of Experimental Social Psychology*, 49 (3), pp: 404–418. doi: 10.1016/j.jesp.2012.12.009.

Young, M.L. and Tseng, F.C. (2008) 'Interplay between physical and virtual settings for online interpersonal trust formation in knowledge-sharing practice', *Cyber Psychology and Behavior*, 11 (1), pp. 55-64. doi: 10.1089/cpb.2007.0019.

Zajonc, R. B. (1968) 'Attitudinal effects of mere exposure', *Journal of Personality and Social Psychology Monograph Supplements*, 9 (2), pp.1-27. doi: 10.1037/h0025848.

Zaichkowsky, J. L. (1985) 'Measuring the involvement construct', *Journal of Consumer Research*, 12 (3), pp. 341-352. doi: 10.1086/208520.

Zhang, K., Narayanan, R. and Choudhary, A. (2010) 'Voice of the customers: mining online customer reviews for product feature-based ranking', *Proceedings of the third Wonference on online social networks*. Boston, MA, USA, 22-25 June 2010**.** Available from: http://dl.acm.org/citation.cfm?id=1863201 [Accessed 15 July 2015].

Zhang, K. Z. K., Zhao, S. J., Cheung, C.L. and Lee, M. K.O. (2014) 'Examining the influence of online reviews on consumers' decision-making: a heuristic-systematic model', *Decision Support Systems*, 67. pp. 78–89. doi: 10.1016/j.dss.2014.08.005.

Zhang, H. and Li, H. (2006) 'Factors affecting payment choices in online auctions: a study of eBay traders', *Decision Support Systems*, 42 (2), pp. 1076-1088. doi: 10.1016/j.dss.2005.09.003.

Zhang, W. and Watts, S. (2002) 'Donkeys travel the world: knowledge management in online communities of practice', *Proceedings of the Americas conference on information systems.* Dallas, TX, USA, 8 August 2002. AMCIS. Available from: aisel.aisnet.org/cgi/viewcontent.cgi?article=1648&context=amcis2002 [Accessed 29 July 2015].

Zhang, W. and Watts, S. (2008) 'Capitalizing on content: information adoption in two online communities', *Journal of the Association for Information Systems*, 9 (2), pp. 73-94.

Zhang, X. and Dong, D. (2008) 'Ways of identifying the opinion leaders in virtual communities', *International Journal of Business and Management*, 3 (7), pp. 21-27. doi: 10.5539/ijbm.v3n7p21.

Zhao, X., Strasser, A., Capella, J.N., Lerman, C. and Fishbein, M. (2011) 'A measure of perceived argument strength: reliability and validity', *Communication Methods and Measures*, 5 (1), pp. 48-75. doi: 10.1080/19312458.2010.547822.

Ziegler, C.N. and Lausen, G. (2005) 'Propagation models for trust and distrust in social networks', *Information Systems Frontiers*, 7 (4/5), pp. 337-358. doi: 10.1007/s10796-005-4807-3.

Ziegler, R. and Diehl, M. (2001) 'The effect of multiple source information on message scrutiny: the case of source expertise and likability', *Swiss Journal of Psychology*, 60 (4), pp. 253-263. doi: 10.1024//1421-0185.60.4.253.

Zuckerberg, M. (2018) 12 January. Available at https://www.facebook.com/zuck/posts/10104413015393571 (Accessed 16 March 2018).

Appendices.

Appendix A: Study 1: participant Information sheet.

Determinants of persuasion within electronic word of mouth messages in Facebook

This study forms part of my PhD thesis, conducted on behalf of the University of Birmingham.

The research aims:

The research will investigate how persuasion transmits through product related posts in Facebook. I wish to understand what factors contribute to persuasion so as to further the existing knowledge of consumer behaviour in social media

What I wish to do:

Research volunteers will be provided with a single web address and requested that they complete the research by themselves. The web address will direct participants to a page containing informed consent information and a means to signal consent. Once consent is gained, participants will be randomly redirected to a mock Facebook News Feed containing product information and accompanying positive WOM regarding the product that features one of eight scenarios containing manipulations of tie strength, source expertise and argument strength. Some participants will also be randomly allocated to a News Feed containing product information but no positive WOM. Each participant will only be able to access one scenario. Participants will then be instructed to follow a link to series of questions designed to measure their attitude towards the product and their intention to purchase.

The identities and records of co-operating and non-cooperating participants will be kept confidential. Data will not be passed on without consent and will be stored safely on my personal laptop computer that I alone will have access to. I will maintain principles of confidentiality so that participants are protected.

<u>Your role in the research:</u>

You **<u>DO NOT</u>** have to take part in this research. Should you choose to participate in the research you can also refuse at any stage for whatever reason, to continue to take part. If you wish to withdraw then you have right to withdraw any data supplied. I will ensure that I will inform all participants if there are any significant changes in the programme of the research.

Should you wish to verify the nature of my research, and that the research has the approval and support of The University of Birmingham, the contact details of my dissertation supervisor, Professor Isabelle Szmigin are listed on the consent form. You are free to contact her at any time regarding this research.

THANK YOU FOR YOUR COOPERATION

Russel Stone.

Buckinghamshire New University

High Wycombe Campus

Room e2.04

Tel: 01494 522141 e: 4372

Email: russel.stone@bucks.ac.uk

This research has received full ethical approval from Buckinghamshire New University (UEP2015JanEX01) and The University of Birmingham (ERN_14-0925).

This participant information sheet is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

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Appendix B: Study 1: online consent form.

Determinants of persuasion within electronic word of mouth messages in Facebook

CONSENT FORM

With regard to the above study,   Please tick each box

I have read and understood the information sheet …………………………….. ☐

I have had the chance to ask questions about it …………………………….. ☐

I am free to change my mind and withdraw from the study at any time …………… ☐

Involvement/withdrawal from the study will have no bearing on

my role as a student ….. ……………………………………………………………. ☐

I understand that the information collected will be kept confidential and ☐

will be stored securely and accessed only by the investigator ……………… ☐

There is no payment for participating in the study…………………………………..

On this basis I am happy to participate in the **Determinants of persuasion within electronic word of mouth messages in Facebook** study

Participant's name: ………………………   Date: ………………………

This research has received full ethical approval from Buckinghamshire New University (UEP2015JanEX01) and The University of Birmingham (ERN_14-0925).

This consent form is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

Appendix C: Study 1: pilot study A experimental conditions.

Experimental condition 1.

Experimental condition 2.

Experimental condition 3.

Experimental condition 4.

Experimental condition 5.

An acquaintance you met on holiday
Just now ·

I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement. According to all the tech blogs, this is the number one Smart TV on the market today for quality and usability.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 6.

An acquaintance you met on holiday
Just now ·

I gave this a 5 star review on my tech blog. Intui have managed to top their last Smart TV which is some achievement. Pinterest will look amazing.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 7.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 8.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Control condition.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Appendix D: Study 1: pilot test B experimental conditions.

Experimental condition 1.

Experimental condition 2.

Experimental condition 3.

Your best friend who is not sure what a Smart TV does
Just now ·

According to all the tech blogs, this is the number one Smart TV on the market today for quality and usability

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 4.

Your best friend who is not sure what a Smart TV does
Just now ·

Pinterest will look amazing

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 5.

An acquaintance you met on holiday who has their own tech blog
Just now ·

According to all the tech blogs, this is the number one Smart TV on the market today for quality and usability

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 6.

An acquaintance you met on holiday who has their own tech blog
Just now ·

Pinterest will look amazing

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 7.

Experimental condition 8.

Control condition.

An Intui advertisement on Facebook
Just now ·

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Appendix E: Study 1: experimental conditions.

Experimental condition 1.

Experimental condition 2.

Experimental condition 3.

Experimental condition 4.

Experimental condition 5.

An acquaintance you met on holiday who has their own tech blog

This is the highest specification TV on the market for the price

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 6.

An acquaintance you met on holiday who has their own tech blog

You can choose the colour of the plug

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 7.

An acquaintance you met on holiday who is not sure what a Smart TV does

This is the highest specification TV on the market for the price

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 8.

An acquaintance you met on holiday who is not sure what a Smart TV does

You can choose the colour of the plug

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Appendix F: Mock Facebook post shown to interview participants.

Appendix G: Study 2: email to potential participants.

Hi (*student name inserted here*),

The research for my PhD is continuing and I would like to **invite** you to take part. I am looking for people who are regular Facebook users and are willing to be interviewed by me regarding their use of Facebook for brand and product related content. The interviews will be face to face, should take half an hour and will be conducted at Bucks New University. I would like the interviews to be held during May/ June 2017.

You **do not** have to take part. Furthermore, there is no payment for taking part. However, I hope you will find the experience interesting and you will also be helping to advance our understanding of how social media is affecting consumers' opinions of brands and products.

I have attached an information sheet containing more details. If you have any questions regarding the interviews then please ask. This research has received full ethical approval from Buckinghamshire New University (UEP2015JanEX01) and The University of Birmingham (ERN_14-0925A).

If you would like to take part, please indicate your willingness by return of email and we can arrange a suitable time for the interview.

Many thanks,

Russel.

Russel Stone.

Course Leader BA Music Business

Course Leader BA Music Business and Brand Marketing

Department of Media and Creative Industries, Buckinghamshire New University

T: 01494 522 141 ex 4372

Appendix H: Study 2: participant Information sheet.

Determinants of influence within electronic word of mouth messages in Facebook

This study forms part of my PhD thesis, conducted on behalf of the University of Birmingham.

The research aims:

The research will investigate how influence transmits through product related posts in Facebook. I wish to understand what factors contribute to influence so as to further the existing knowledge of consumer behaviour in social media

What I wish to do:

I wish to interview people who use Facebook. I am interested in finding out about how they search for products; what sources of information are useful to them and whether they use Facebook for such purposes. I intend to ask people about the type of brands or products they follow on Facebook and their attitude towards receiving brand related content. The interviews will take place face to face at Buckinghamshire New University and the interviewer will be Russel Stone. The interviews will be audio recorded for ease of transcribing. Once the interviews have been transcribed, the audio recordings will be deleted.

The identities and records of co-operating and non-cooperating participants will be kept anonymous and confidential. Data will not be passed on without consent and will be stored safely on my personal laptop computer that I alone will have access to. I will maintain principles of confidentiality so that participants are protected.

Your role in the research:

You **DO NOT** have to take part in this research. Should you choose to participate in the research you can also refuse at any stage for whatever reason, to continue to take part. If you wish to withdraw then you have right to withdraw any data supplied. You have the right to withdraw your data for up to **one month** after you complete your interview. I will ensure that I will inform all participants if there are any significant changes in the programme of the research.

Should you wish to verify the nature of my research, and that the research has the approval and support of The University of Birmingham, the contact details of my dissertation supervisor, Professor

Isabelle Szmigin are listed on the consent form. You are free to contact her at any time regarding this research.

This research has received full ethical approval from Buckinghamshire New University (UEP2015JanEX01) and The University of Birmingham (ERN_14-0925A).

THANK YOU FOR YOUR COOPERATION

Russel.

Russel Stone.

Buckinghamshire New University

High Wycombe Campus

Room e2.04

Tel: 01494 522141 e: 4372

Email: russel.stone@bucks.ac.uk

This participant information sheet is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

Appendix I: Study 2: consent form.

Determinants of influence within electronic word of mouth messages in Facebook

CONSENT FORM

With regard to the above study,   Please tick each box

I have read and understood the information sheet …………………………………. ☐

I have had the chance to ask questions about it ……………………………………. ☐

I am free to change my mind and withdraw from the study at any time …………… ☐

Involvement/withdrawal from the study will have no bearing on my role as a student ….. ☐

I understand that the information collected will be kept confidential and

will be stored securely and accessed only by the investigator ………………………. ☐

There is no payment for participating in the study……………………………………….. ☐

I agree to the interview being audio recorded…………………………………………….. ☐

I agree to the use of anonymised quotes from my interview in publications, reports and   the final
thesis relating to this study………………………………………………………… ☐

On this basis I am happy to participate in the **Determinants of influence within electronic word of mouth messages in Facebook** study

Participant name: ………………………

Participant signature   ………. ……………   Date :

Researcher name: Russel Stone

Researcher signature   ………………………   Date:

If you have any queries or concerns, please contact:

Russel Stone, tel: 01494 522141 ex: 4372 /russel.stone@bucks.ac.uk

Or my research supervisor: Professor Isabelle Szmigin, tel: 0121 414 7357/ i.t.szmigin@bham.ac.uk

This research has received full ethical approval from Buckinghamshire New University (UEP2015JanEX01) and The University of Birmingham (ERN_14-0925A).

This consent form is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

Appendix J: Study 3: participant Information sheet.

Determinants of persuasion within electronic word of mouth messages in Facebook

This study forms part of my PhD thesis, conducted on behalf of the University of Birmingham.

The research aims:

The research will investigate how persuasion transmits through product related posts in Facebook. I wish to understand what factors contribute to persuasion so as to further the existing knowledge of consumer behaviour in social media

What I wish to do:

Research volunteers will be provided with a single web address and requested that they complete the research by themselves. The web address will direct participants to a page containing informed consent information and a means to signal consent. Once consent is gained, participants will be directed to an anonymous online questionnaire designed to measure their attitude towards Social media, Facebook and brand content.

The data provided by participants will be kept confidential so that participants are protected. Data will not be passed on without consent and will be stored safely on my personal laptop computer. The personal computer is only used by the researcher and access is restricted by a password which is only known to the researcher. The personal computer is further protected by anti-virus software which is installed and maintained by the IT department at Buckinghamshire New University.

Your role in the research:

You **DO NOT** have to take part in this research. Should you choose to participate in the research you can also refuse at any stage for whatever reason, to continue to take part. However, please note that you will be unable to withdraw any data supplied because the questionnaire is anonymous. I will ensure that I will inform all participants if there are any significant changes in the programme of the research.

Should you wish to verify the nature of my research, and that the research has the approval and support of The University of Birmingham, the contact details of my dissertation supervisor, Professor Isabelle Szmigin are listed on the consent form. You are free to contact her at any time regarding this research.

THANK YOU FOR YOUR COOPERATION

Russel Stone.

Buckinghamshire New University

High Wycombe Campus

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Tel: 01494 522141 e: 4372

Email: russel.stone@bucks.ac.uk

This research has received full ethical approval from Buckinghamshire New University (UEP2018SepEX01) and The University of Birmingham (ERN_14-0925B).

This participant information sheet is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

Appendix K: Study 3: online consent form.

Determinants of persuasion within electronic word of mouth messages in Facebook

CONSENT FORM

With regard to the above study,   Please tick each box

I have read and understood the information sheet …………………………………. ☐

I have had the chance to ask questions about it …………………………………. ☐

I am free to change my mind and withdraw from the study at any time …………… ☐

Involvement/withdrawal from the study will have no bearing on

my role as a student ….. ……………………………………………………………. ☐

I understand that the information collected will be kept confidential and

will be stored securely and accessed only by the investigator ……………… ☐

There is no payment for participating in the study…………………………….. ☐

On this basis, I am happy to participate in the **Determinants of persuasion within electronic word of mouth messages in Facebook** study

Participant's name: ………………………   Date: ………………………

This consent form is adapted from: Stone, R. (2010) *Evaluating teaching and learning in small groups.* M.A. Thesis. Buckinghamshire New University.

Appendix L: Study 3: experimental conditions.

Experimental condition 1.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 2.

Intui IT-42AS500B 42-inch Widescreen Smart TV. Full HD 1080p image quality.

Experimental condition 3.

Experimental condition 4.

Appendix M: Multiple regression analysis: Study 1

Multiple regression was carried out on the data from Study 1 using the 'enter' method, with attitude towards the product as the dependant variable and tie strength, source expertise and argument strength as the dependent variables (model 1). Table 51 (below) shows the correlation between the variables. Tie strength, source expertise and argument strength are all very weakly correlated with attitude towards the product. Tie strength, source expertise and argument strength are also all very weakly correlated with each other. Table 52 (below) shows the regression model summary, giving R (0.163), R square (0.026) and adjusted R square (0.015). This shows that tie strength, source expertise and argument strength combined explains only 2.6% of the variance in attitude towards the product. Table 53 (below) shows the ANOVA for the regression model which is not significant (p=0.074). Therefore tie strength, source expertise and argument strength combined cannot explain a statistically significant portion of the variance in attitude towards the product. Table 54 (below) shows that only 1 independent variable, source expertise, contributed significantly to attitude towards the product (standardized B= 0.13, p= 0.04). Tie strength (standardized B= 0.04, p= 0.51) and argument strength (standardized B= 0.09, p= 0.156) did not contribute to the model.

Table 51: Regression analysis Study 1 (model 1): correlation between attitude towards the product and tie strength, source expertise and argument strength.

Correlations		AP_sum	TSgroup	SEgroup	Asgroup
Pearson Correlation	AP_sum	1.000	.050	.130	.089
	TSgroup	.050	1.000	.061	.028
	SEgroup	.130	.061	1.000	.007
	Asgroup	.089	.028	.007	1.000
Sig. (1-tailed)	AP_sum	.	.208	.018	.074
	TSgroup	.208	.	.163	.328
	SEgroup	.018	.163	.	.456
	Asgroup	.074	.328	.456	.
N	AP_sum	262	262	262	262
	TSgroup	262	262	262	262
	SEgroup	262	262	262	262
	Asgroup	262	262	262	262

Table 52: Regression analysis Study 1 (model 1): regression model summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.163[a]	.026	.015	10.96134	1.878

a. Predictors: (Constant), Asgroup, SEgroup, TSgroup

b. Dependent Variable: AP_sum

Table 53: Regression analysis Study 1 (model 1): ANOVA of the regression model

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	841.510	3	280.503	2.335	.074[b]
	Residual	30998.948	258	120.151		
	Total	31840.458	261			

a. Dependent Variable: AP_sum

b. Predictors: (Constant), Asgroup, SEgroup, TSgroup

Table 54: Regression analysis Study 1 (model 1): coefficients of the dependent variables

			Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	39.243	3.538		11.092	.000					
	TSgroup	.888	1.358	.040	.654	.514	.050	.041	.040	.996	1.004
	SEgroup	2.806	1.357	.127	2.068	.040	.130	.128	.127	.996	1.004
	Asgroup	1.937	1.362	.087	1.422	.156	.089	.088	.087	.999	1.001

a. Dependent Variable: AP_sum

Multiple regression was carried out on the data from Study 1, using the 'enter' method, with intention to purchase the product as the dependant variable and tie strength, source expertise and argument strength as the dependent variables (model 2). Table 55 (below) shows the correlation between the variables. Tie strength, source expertise and argument strength are all very weakly correlated with intention to purchase the product. Tie strength, source expertise and argument strength are also all very weakly correlated with each other. Table 56 (below) shows the regression model summary, giving R (0.153), R square (0.023) and adjusted R square (0.012). This shows that tie strength, source expertise and argument strength combined explains only 2.3% of the variance in intention to purchase the product. Table 57 (below) shows that the ANOVA for the regression model is not significant (p=0.117). Therefore tie strength, source expertise and argument strength combined cannot explain a statistically significant portion of the variance in intention to purchase the product. Table 58 (below) shows that only 1 independent variable, source expertise, contributed significantly to intention to purchase the product (standardized B= 0.15, p= 0.021). Tie strength (standardized B= 0.04, p= 0.55) and argument strength (standardized B= 0.007, p= 0.91) did not contribute to the model.

Table 55: Regression analysis Study 1 (model 2): correlation between intention to purchase the product and tie strength, source expertise and argument strength

		How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	TSgroup	SEgroup	Asgroup
Correlations					
Pearson Correlation	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	1.000	.045	.148	.010
	TSgroup	.045	1.000	.044	.018
	SEgroup	.148	.044	1.000	.012
	Asgroup	.010	.018	.012	1.000
Sig. (1-tailed)	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	.	.240	.009	.440
	TSgroup	.240	.	.245	.387
	SEgroup	.009	.245	.	.423
	Asgroup	.440	.387	.423	.
N	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	253	253	253	253
	TSgroup	253	253	253	253
	SEgroup	253	253	253	253
	Asgroup	253	253	253	253

Table 56: Regression analysis Study 1 (model 2): regression model summary

			Model Summary[b]		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.153[a]	.023	.012	2.64609	1.751
a. Predictors: (Constant), Asgroup, SEgroup, TSgroup					
b. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)					

Table 57: Regression analysis Study 1 (model 2): ANOVA of the regression model

		ANOVA[a]				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.595	3	13.865	1.980	.117[b]
	Residual	1743.448	249	7.002		
	Total	1785.043	252			
a. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)						
b. Predictors: (Constant), Asgroup, SEgroup, TSgroup						

Table 58: Regression analysis Study 1 (model 2): coefficients of the dependent variables

	Coefficients[a]									
	Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	2.693	.871		3.093	.002					
TSgroup	.202	.333	.038	.607	.545	.045	.038	.038	.998	1.002
SEgroup	.775	.333	.146	2.327	.021	.148	.146	.146	.998	1.002
Asgroup	.038	.334	.007	.114	.909	.010	.007	.007	1.000	1.000

a. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)

Appendix N: Multiple regression analysis: Study 3

Multiple regression was carried out on the data from Study 3 using the 'enter' method, with attitude towards the product as the dependant variable and purchase decision involvement, source expertise and argument strength as the dependent variables (model 3). Table 59 (below) shows the correlation between the variables. Purchase decision involvement is weakly correlated with attitude towards the product, whilst source expertise and argument strength are very weakly correlated. Purchase decision involvement, source expertise and argument strength are also all very weakly correlated with each other. Table 60 (below) shows the regression model summary, giving R (0.258), R square (0.067) and adjusted R square (0.043). This shows that purchase decision involvement, source expertise and argument strength combined explains only 6.7% of the variance in attitude towards the product. Table 61 (below) shows that the ANOVA for the regression model is significant (p=0.04). Therefore purchase decision involvement, source expertise and argument strength combined can explain a statistically significant portion of the variance in attitude towards the product. Table 62 (below) shows that only 1 independent variable, purchase decision involvement, contributed significantly to attitude towards the product (standardized B= 0.24, p= 0.008). Source expertise (standardized B= 0.09, p= 0.32) and argument strength (standardized B= 0.05, p= 0.62) did not contribute to the model.

Table 59: Regression analysis Study 3 (model 3): Correlation between attitude towards the product and purchase decision involvement source expertise and argument strength

Correlations		AP_Sum	PDIgroup	ASgroup	SEgroup
Pearson Correlation	AP_Sum	1.000	.241	.049	.080
	PDIgroup	.241	1.000	.071	-.007
	ASgroup	.049	.071	1.000	-.146
	SEgroup	.080	-.007	-.146	1.000
Sig. (1-tailed)	AP_Sum	.	.004	.296	.187
	PDIgroup	.004	.	.216	.470
	ASgroup	.296	.216	.	.053
	SEgroup	.187	.470	.053	.
N	AP_Sum	124	124	124	124
	PDIgroup	124	124	124	124
	ASgroup	124	124	124	124
	SEgroup	124	124	124	124

Table 60: Regression analysis Study 3 (model 3): Regression model summary

				Model Summary[b]		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.258[a]	.067	.043	11.27296	2.326
a. Predictors: (Constant), SEgroup, PDIgroup, ASgroup					
b. Dependent Variable: AP_Sum					

Table 61: Regression analysis Study 3 (model 3): ANOVA of the regression model

		ANOVA[a]				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1088.417	3	362.806	2.855	.040[b]
	Residual	15249.543	120	127.080		
	Total	16337.960	123			
a. Dependent Variable: AP_Sum						
b. Predictors: (Constant), SEgroup, PDIgroup, ASgroup						

Table 62: Regression analysis Study 3 (model 3): Coefficients of the dependent variables

		Coefficients[a]									
		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	30.468	5.345		5.701	.000					
	PDIgroup	5.514	2.047	.238	2.694	.008	.241	.239	.238	.995	1.005
	ASgroup	1.028	2.059	.045	.499	.618	.049	.046	.044	.974	1.027
	SEgroup	2.065	2.080	.089	.993	.323	.080	.090	.088	.979	1.022
a. Dependent Variable: AP_Sum											

Multiple regression was carried out on the data from Study 3 using the 'enter' method, with intention to purchase the product as the dependant variable and purchase decision involvement, source expertise and argument strength as the dependent variables. Table 63 (below) shows the correlation between the variables. Purchase decision involvement is weakly correlated with intention to purchase the product, whilst source expertise and argument strength are very weakly correlated. Purchase decision involvement, source expertise and argument strength are also all very weakly correlated with each other. Table 64 (below) shows the regression model summary, giving R (0.254), R square (0.065) and adjusted R square (0.042). This shows that purchase decision involvement, source expertise and argument strength combined explains only 4.2% of the variance in intention to purchase the product. Table 65 (below) shows that the ANOVA for the regression model is significant (p=0.04). Therefore purchase decision involvement, source expertise and argument strength combined can explain a statistically significant portion of the variance in intention to purchase the product. Table 66 (below) shows that only 1 independent variable, purchase decision involvement, contributed significantly to intention to purchase the product (standardized B= -0.26, p= 0.004). Source expertise (standardized B= -0.006, p= 0.95) and argument strength (standardized B= 0.012, p= 0.89) did not contribute to the model.

Table 63: Regression analysis Study 3 (model 4): Correlation between attitude towards the product and purchase decision involvement source expertise and argument strength

		How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	PDIgroup	ASgroup	SEgroup
Correlations					
Pearson Correlation	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	1.000	-.254	-.005	-.003
	PDIgroup	-.254	1.000	.068	-.018
	ASgroup	-.005	.068	1.000	-.147
	SEgroup	-.003	-.018	-.147	1.000
Sig. (1-tailed)	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	.	.002	.480	.488
	PDIgroup	.002	.	.225	.421
	ASgroup	.480	.225	.	.050
	SEgroup	.488	.421	.050	.
N	How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)	126	126	126	126
	PDIgroup	126	126	126	126
	ASgroup	126	126	126	126
	SEgroup	126	126	126	126

Table 64: Regression analysis Study 3 (model 4): Regression model summary

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.254[a]	.065	.042	2.64368	1.915
a. Predictors: (Constant), SEgroup, PDIgroup, ASgroup					
b. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)					

Table 65: Regression analysis Study 3 (model 4): ANOVA of the regression model

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.994	3	19.665	2.814	.042[b]
	Residual	852.665	122	6.989		
	Total	911.659	125			
a. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)						
b. Predictors: (Constant), SEgroup, PDIgroup, ASgroup						

Table 66: Regression analysis Study 3 (model 4): Coefficients of the dependent variables

Coefficients[a]											
		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	10.047	1.250		8.041	.000					
	PDIgroup	-1.380	.475	-.255	-2.905	.004	-.254	-.254	-.254	.995	1.005
	ASgroup	.064	.480	.012	.134	.894	-.005	.012	.012	.974	1.027
	SEgroup	-.031	.482	-.006	-.064	.949	-.003	-.006	-.006	.978	1.022
a. Dependent Variable: How likely are you to purchase the Intui IT-42AS500B TV (select one answer from the drop down menu)											