UNIVERSITY OF
WEST LONDON

The Effect of Multimodal Metaphors on Social Media Platforms & Impact on Consumer Purchase Decisions

NAZISH RIAZ

Submitted in partial fulfilment of the requirements for the degree of

Doctors of Philosophy (PhD)

Supervised by

Professor Dimitrios Rigas

UNIVERSITY OF WEST LONDON

April 2019

Acknowledgement

The journey to the completion of this thesis has been very challenging, specifically given to personal circumstances. However, I would like to take this opportunity and express my sincere gratitude to the never-ending support and guidance of my supervisor, Professor Dimitrios Rigas, who has supported me throughout with his enthusiasm, patience and immense knowledge. His guidance has helped me through all the stages of my PhD writing, and this study would have been not possible without his support and guidance.

Table of Contents

Table of Figures

Abstract

This empirical research programme investigated the way in which multimodality can be integrated on messages in social platforms and its impact on consumer purchase decision. This study investigated effects of specific combinations of multimodal metaphors, including *textual descriptions*, *images*, *textual descriptions combined with Images* and *video* as messages on social platform to communicate information, enhance product likeness, influence purchase intentions, and increase overall effectiveness of the online presentation. Furthermore, it investigated the effectiveness of specific metaphors in product advertising context as well as the positive influence on purchase decisions. This was achieved by conducting an empirical investigation with two main phases. The opportunistic sampling technique was used to select respondents. The first phase gathered empirical data on the impact of individual and combined multimodal metaphors on consumer decisions. Second phase validated the results extrapolated from the first phase. It involved specific designs to understand the impact of different multimodal metaphors and the way in which they contributed towards product understanding, product likeness and final purchase decision. Data was collected using questionnaires. The results were analyzed with the use of SPSS which enabled conducting statistical tests such as descriptive and chi-square tests. The outcomes of this research provided a better understanding of the role of multimodal metaphors on online presentation effectiveness, user's understanding and decision-making. Video was found to be the most significant factor in affecting purchase decision. A set of empirically derived guidelines within a working framework has emerged. These guidelines can be used on the effective use on multimodal metaphors in social media marketing presentation techniques in order to create

product likeness, detailed user understanding and overall effectiveness which will lead to purchase decision.

Keywords: *Consumer Behaviour, Consumer Purchase Decision, Multimodality, Multimodal Metaphors, Social Media Marketing*

Publications

Rigas, D. and Riaz, N., E-Commerce purchase intention in emerging markets: The influence of gender and culture. Notes in Computer Science Volume 9181, (2015), pp90-100

Rigas, D. and Riaz, N., Multimodal impact on consumer purchase decisions: Initial results. [To be published as Lecture Notes for Computer Sciences (LNCS) by Springer Publishing, August, 2016]

Rigas, D., Hussain, H. A., & Riaz, N. (2016). Online Branding and Marketing: A User Perspective. International Journal of Socio-technology and Knowledge Development (IJSKD), 8(2), p.g. 27-38.

Chapter 1 Introduction

1.1 Introduction and Background

Consumer buying behaviour and patterns have changed over the years with the introduction of Internet and social media. According to Smithee (2011), social media has changed marketing by shifting adaptability and flexibility of influence and by altering the attitudes and ways in which consumers *share*, *assess* and *choose* information. The Internet era and its associated entertainment weakened the influence of traditional media (e.g. television). Today, well-known social media platforms prevail. Examples include Facebook, Twitter, LinkedIn, Flickr, YouTube, MySpace, Instagram and many more. Social media provides organisations with a platform for direct contact with end-users (Kaplan and Haenlein, 2010). Social media is used to advertise, create a brand and increase the desirability of a product (Mangold and Faulds, 2009). Majority of the firms in the UK and US advertise their products and services using social media. According to eMarketer, the overall digital ad spending in the UK in 2018, accounts for 63.6%, and this will increase by 9.9% in 2019. This trend is continuously increasing, and the volume of its use raises important questions for the effective use and presentation of social media content (EMarketer, 2019).

1.1.1 Background

1.1.1.1 Social Media

Organisations often consider social media marketing an essential part of their business to succeed in a competitive environment. Significant investment is therefore targeted to the development and implementation of social media (Weingber and Pehlivan, 2011). Due to the limited availability of effective guidelines, framework or specific design approaches, organisations often do not gain significant benefits from the social media marketing implementation of their strategies. This is often resolved by allocating additional investment in order to secure the desired level of consumer engagement (Weingberg and Pehlivan, 2011).

One of the challenges is to measure the effectiveness of social media marketing. Although, the benefit of social media is largely accepted, there is a lack of a substantiated method to measure the tangible return on the investment made. Therefore, a standard metric would be beneficial from the economic and design point of view. New Return on Investment (ROI) calculators are being proposed as quickly as new social networks are emerging (Fisher, 2009).

A model proposed by Zhao and Zho (2010), assessed the returns on investment on social media marketing using a series of measures that are influenced by the competitor's actions.

Another model proposed by Hoffman and Fodor (2010), presented more than 50 metrics to evaluate the effectiveness of social media to promote *brand-engagement*, *brand-awareness* and *word-of-mouth* (WOM). Another study by Tiago and Verissimo (2014), stated that the most important metrics for managers were brand-awareness, WOM, customer satisfaction, user-generated content and web analytics out of the 50

metrics initially proposed by Hoffman and Fodor (2010). But it can be argued that these findings can be only a perception of the managers being surveyed. Tiago & Verissimo (2014) claimed that the popularity surrounded by social media is leading to a rather very rational approach.

In order to determine and understand the motivations behind a firm's adoption of online communication strategies, marketing managers of large firms in Portugal were surveyed in 2011. 170 responses were received out of the 2,000 surveyed. Portugal was selected for survey purposes due to the high degree of information & communication technologies and social networking embraced there. With access to a wide spread of high-speed wireless networks and increase in mobile usage of Portuguese citizens, has led to an overall increase of internet usage.

As per Eurostat, Portugal had an internet penetration rate in excess of 61% (Seybert, 2012). This study demonstrated the 'external competitive pressure' to be the most major factor in driving the organization to employ digital media for marketing. The second most influential factor was the 'internal efficiency', followed by facilitation of top-down directives to adopt social media marketing strategies. Ainscough and Luckett (1996) argued that web can be used to publish, conduct online sales, market research and offer customer support. Whereas, other authors state that web can be used to create and spread word of mouth (WOM), build brand, and buzz marketing (Whitla, 2009).

According to Eid and El-Gohary, (2011), internet helped develop and implement marketing strategies, as well as improves the overall performance of organizations. The benefits, which an organization avails through social media marketing depends on the extent to which it engages with such platform. Scholars have argued that the investment in social media marketing evolve in parallel with the perceived benefits

15

such that, high levels of social media marketing indicate high level of digital interaction and low level of social media marketing indicate greater traditional web presence.

1.1.1.2 Social Media Marketing

Social media can be defined as a medium through which people interact in order to create, share and exchange information and ideas in the virtual networks and communities. The main differences which set social media apart from traditional media include *permanence, immediacy, frequency, cost and reach* (Katona & Sarvary, 2014). The importance of social media has been widely accepted and it is omnipresent in both personal and professional environments. Over the last decade, the internet and precisely its social elements have been largely embraced by the consumers to a degree beyond belief. It is believed that social media has brought about a great change in shopping patterns.

Recently, the most major change in human interaction is the increase of online social networks (Tiago & Verissimo, 2014). The nature of human activities and interactions have changed dramatically with a sudden expeditious growth of web-based platforms which facilitate online social behavior. The real-world social interactions and relationships have now been replaced with the virtual world with the development of online communities which allow people from across the globe to come together and socialize. These online communities enable people to share their knowledge, experiences and engage and promote dialogues within different cultures (Budden, Anthony, Budden & Jones, 2011).

Social media provides consumers with a platform through which they can conveniently communicate and gain multiple benefits such as efficiency, convenience, richer and participative information, vast range of products, cost reduction and competitive prices

16

(Bayo-Moriones & Lera-Lopez, 2007). Social networking further enhances these benefits by enriching the consumer experience as they can actively engage with other consumers and receive detailed information and opinions of others for specific products. Studies suggest that in doing so they have shown a greater value to peer reviews and judgments rather firm promotions, demonstrating a shift in the locus of persuasive power (Berthon, Pitt, Plangger & Shapiro, 2012).

At present, customers are engaging with social media, this means that organisations need to engage with social media too. Customer relationship has always been critical for the success of any business, and organizations have always communicated to their customers through different modes. However, in present times this has changed into two-way communication, where the customers also respond to the firms, through the online communication tools (Mangold & Faulds, 2009). This phenomenon has been continuously building, developing and shifting the locus of market power from firms to consumers (Berthon et al., 2012; Pitt et al., 2002). Hence, this has urged the need for two-way communication, (consumers and organisations), which exerted additional pressure on the firm to adopt a more digital presence.

According to Silva (2008), online content-based marketing strategy could not only bridge customer-firm gap but also the physical-virtual gaps. In order to do so, it would not only require an effective marketing strategy but also a new relationship-building paradigm.

1.1.1.3 Multimodality

Multimodality is an integrated approach, which is based on the phenomenon that recognizes representation and communication to be more than just about language. Multimodality has been developed significantly over the last decade in order to

17

systematically address the highly debated questions about the changes in the society, such as in relation to new media and technologies.

1.1.1.4 Multimodality and Human Interaction

Human interaction with the world is inherently multimodal (Bunt et al., 1988; Quek et al., 2002). Humans employ multiple senses, consecutively and in parallel, in order to explore their environment. In sheer contrast to human experience to the natural world, human-computer interaction has been focused historically on uni-modal communication. Uni-modal communication is information or data communicated between human and computer through a single mode or channel. Multimodal metaphors describe the interactive systems that seek to leverage the natural human capabilities to communicate effectively via audio, visual, graphical, and other modalities.

This brings together more complex and sophisticated integration of metaphors that work in collaboration to make the user-web interaction more effective and natural. Although the literature of multimodality is still sparse, studies suggest that multimodal interfaces might increase task efficiency, but perhaps not significantly. Humans may process information faster & better (Wassenhove et al., 2005). However, the effectiveness of multiple metaphors for advertisement on social platform and its impact on purchase decision has yet not been extensively studied.

1.1.1.5 Social Presence Theory

Social presence has been defined as, the extent to which a medium allows users to experience others as being psychologically present (Fulk et al., 1987). In the theory of social presence, it is regarded as a quality inherent in a communication medium. Some researchers characterize the social presence of a medium as its capacity to transmit

information about facial expressions, posture and other non-verbal cues (Short et al., 1976), whereas some focus on its capability of information richness which dwells on media interactivity. Others stress on the psychological connection, where social presence is related to 'warmth'. In this perspective, an information medium is considered to be warm if it conveys a feeling of human contact and sociability (Yoo and Alavi, 2001). For the purpose of this research all three perspectives have been adopted, which will allow to identify the positive role between the information richness and transmission through social platforms and its impact on consumer decision making. Also, this will help understand, how successful current online virtual assistants are in providing online user satisfaction.

1.2 Rationale

Consumer behaviour is complex as it varies depending on individual idiosyncrasies and characteristics. Purchases can be *rational* or *emotional* (Solomon et at. 2013). Typically, the purchase decision-making has five steps. These are the *recognition* of a need, information *search*, *evaluation*, product *choice* and *outcome*. Consumers employ multiple senses, both sequentially and in parallel, in order to actively and passively explore their environment to confirm expectation and to perceive new information (Turk, 2014). External stimuli contribute during information search and evaluation. In the context of advertising a product on a social media platform, multimodal metaphors provide additional bandwidth to communicate information. Despite the consumers' knowledge about a product, they will still need to supplement their knowledge with some form of an external search. Some of this supplementary data is obtained through advertisements, friends and increasingly social media platforms (Solomon et al,. 2013).

Fortin and Dholakia (2005), <mark>suggested</mark> that as the complexity of the presentation of an advertisement increases, the possibility of diminishing returns on effectiveness also increases. This complexity is often mitigated by balancing the interactive features and design in a way that the presented media impacts favourably on the purchase decision of a potential consumer. The impact of using multimodal metaphors, on their own or in combinations, on social platforms has not been extensively researched. Hence, there is a need to pursue the role of multimodal metaphors interactivity in this context. Rigas and Alseid, (2011), for example, <mark>demonstrated</mark> the successful use of multimodal metaphors to communicate information in e-learning.

Also, Rigas and Almutairi (2013), identified the positive impact of multimodal metaphors on ease of use of learning materials & other information. Interfaces that communicate information to users using several communication channels often provide a more usable interaction (Rigas and Almutairi, 2014). Rigas et al., <mark>suggested</mark> that the use of multimodal metaphors in interfaces aids the communication process. In interface application the use of speech and non-speech reduces the time taken to complete task and restraints users from making mistakes. This study aims to understand the impact of different multimodal metaphors (e.g. text, image, video) used on social media platforms, when presenting a product online, to provide positive impact on consumer's purchase decision. The study examines whether the presence or absence of these multimodal metaphors on social platforms affects effectiveness and purchase decision.

This study also aims to assess the current online platform in regard to providing online user satisfaction. This study helps to understand in greater detail the role of these multimodal metaphors, when used alone and in combination towards aiding users with product information, enhancing product likeness, and affecting final purchase

20

decision. This study also investigates whether pictorial cues, such as emoji's and reactions impact the product image on the online domain.

1.3 Aims and Objectives

To identify the role, contribution and appropriate use of multimodal metaphors in social media marketing which affect product understanding, product likeness, effectiveness and purchase decision.

1.3.1 Objectives

1. Gather an overall viewpoint of the user comprehension on the use or lack of multimodality. This will be investigated through a simulation to address the following:

   a) How well do users understand and appreciate the presence of multimodality?

   b) Does the presence of multimodality help users to develop an accurate understanding of the information relating to the product being advertised?

2. Determine the specific multimodal metaphors or combinations that increase the effectiveness of the online advertisement, product likeness, and aid user understanding, making the decision process more convenient for the consumer. Surveys will be conducted to identify specific metaphors that are most effective in maximising human cognitive abilities and positively influencing their purchase decision.

3. Understand the effect of presence and absence of Multimodal metaphors on social platforms on the consumer's final purchase decision.

4. Do multimodal metaphors only act as information tool or does their presence has an impact on the user's final purchase decision?

5. Test a conceptual framework reflecting the correlation between increased communication via social platforms and its positive effect on consumer purchase decision.

6. Produce a set of guidelines for the effective use on Multimodal metaphors in social media marketing. Combination of metaphors that prove to be more efficient and effective, leading to positive purchase decision will be produced. This will allow interface designers to develop more effective interfaces and interaction methods.

These aim and objectives were achieved by conducting a two-stage empirical investigation.

1.4 Contribution

This study contributes to the literature of multimodality, social media interfaces and consumer buying behaviour. This study has been able to understand in greater detail the impact of different multimodal metaphors, when used to present a product online on a social media platform. The main aim of the study was to develop empirically driven guidelines through the development of a conceptual framework. The proposed framework suggested that all four multimodal metaphors play an extremely vital role in enhancing the overall effectiveness of an online presentation, and in turn effectiveness and satisfaction leads to a positive purchase decision on the online platform.

Based on these, guidelines have been developed, which will allow digital marketers and online businesses to effectively make use of different multimodal metaphors

online to advertise product effectively, which would lead to a positive purchase decision. The empirically derived framework adds on to the existing literature, knowledge and understanding of the impact of multimodal metaphors used on social media platforms and its impact on consumer buying decision. Also, the current limitations of online virtual assistant have been highlighted, including absence of human warmth and associated lack of trust. Furthermore, this study has found that online reactions and emoji's, used by users to express their feelings towards a product advertised online, has an impact on the product image of the potential consumers. The main contributions have been summarised below.

1. Effectiveness on the online platform can be achieved when presenting a product with the use of all four multimodal metaphors, Text, Image, Image+ Text and Video. However, studying each metaphor separately, it has been drawn that text, when used alone to present a product online is most effective in aiding user information. Similarly, when Image alone is used to advertise a product online, it is most successful in increasing product likeness. Out of all metaphors, Video is the most effective and successful in aiding product understanding, increasing product likeness, and positively influencing purchase decision. Although, previous studies have demonstrated the successful use of multimodal metaphors to communicate information in e-learning (Rigas, and Aleid, (2011)), and identified the positive impact of multimodal metaphors on ease of use of learning materials and other information (Rigas and Almutairi, (2013). Also, a study by Alijani, Mancuso, Kwun and Omar, (2010), suggested that embedded video advertisement helps recall online advertisement, however, the impact of all these multimodal metaphors on enhancing product likeness, aiding product understanding, influencing purchase intention, and in

turn increasing the overall effectiveness of a product presented online to positively influence purchase decision has not been tested before.

2. This study further contributes by identifying that online virtual assistants, perceived usefulness and security perception can achieve satisfaction on the online platform, which in turn positively affects the purchase decision. It also identifies current limitations of the online virtual assistant, including the absence of human warmth and lack of trust, which can hinder achieving user satisfaction; hence needs to be addressed. Furthermore, this study found that online reactions and emoji's, used to express their feelings by online users of the product advertised, have an impact towards the product image in the minds of other users. Some studies support and suggest that the use of emoji's and emoticons tends to reduce the virtual gap to some extent by reducing the perceived psychological distance, (Ganster, Eimler, &Nicole 2012; Hayes, Carr, & Wohn, 2016; Janssen, Ijsselstijn, & Westerink, 2014; Lo, 2008). However, no previous study has tested the link between emoji's and product image on the online domain.

3. Set of guidelines have been proposed to effectively use metaphors when advertising products online. The empirically derived framework adds on to the existing literature and understanding of the role and use of multimodal metaphors on social media platforms and its impact on consumer buying decision. Previous studies in this domain have not tested the impact of specific multimodal metaphors on product likeness, understanding, purchase intention and on the overall effectiveness of the online product presentation leading to positive purchase decision, and how to achieve effectiveness with the use of

appropriate multimodal metaphors on the online platform, which remains to be the major contribution of this study.

1.5 Methodology

The research will be carried out through a positivist research approach. Positivism research philosophy suggests that the social world exists externally, and its properties can be measured objectively (Smith et al, 2015). A positivist viewpoint suggests that knowledge is considered significant if it is based on the observations of external reality and hence can be empirically verified. Aiken, (1956), suggests that positivism provides the most effective way of studying human and social behaviour. Also, this approach allows testing theory through developing and testing hypotheses. This study will mainly collect and analyze quantitative data in order to investigate the effectiveness of multimodality and social presence in e-marketing. The approaches, variables and unit of analysis chosen are those which are most appropriate for finding an answer for the research questions and to achieve research objectives (Tashakkori and Teddlie, 1998).

Data will be collected through self-developed questionnaire consisting questions of multiple format, including multiple choice, dichotomous answers, self-assessment Likert-scale questions and few open-ended questions. This will allow understanding the impact of individual metaphors on consumer purchase decision. Furthermore, with the use of some open-ended questions, the effect of multimodal interfaces will be analyzed and understood in greater detail. This will also help understand the effect of 'simulated human presence' on social media platform on user satisfaction and consumer purchase decision.

1.6 Unit of Analysis

A non-probability sampling method will be adopted for this research. A sample of 60 respondents (n=60) will be selected from different parts of London through convenience sampling for stage I. Convenience sampling method will be chosen as it allows collecting data from population members who are conveniently available to participate in the study. Convenience sampling is used for majority of social sciences and due to it being available to the researcher by virtue of its accessibility, (Brymen and Bell, 2011). The data collected through convenience sampling allows not only developing findings but offers a springboard for future research. Convenience sampling technique has found to play a more prominent role than usually supposed. Authors suggest that in the area of business and management, convenience sampling is more prominent and common as compared to samples based on non-probability sampling, and in the area of consumer behavior research, they have become the norm (Bryman 1989a: 113-14, cited in Brymen and Bell, 2011). The group of respondents selected have been chosen carefully to ensure a hold of representative sample. The main reason for selecting this sampling technique is the difficulty and inconvenience of surveying an entire population and due to budget constraints.

An Empirical Investigation will take place by surveying on two groups. A survey study was conducted, and the main empirical investigation was conducted via multi-group study. The survey was conducted to compare traditional conventional E-marketing approach and multimodal social presence approach. This was to determine the impact of multimodal metaphors and social presence, on the users understanding and engagement with E-marketing.

Groups were formed in order to evaluate different multimodal presentations and determine their impact on consumer purchase decision. The survey was divided into 2 stages which is explained in detail below.

1.7 Sampling Error

Complete bias is difficult to be eliminated in any research. Bias should be eliminated from the sample selection as much as it is possible. But in reality, it is nearly impossible and extremely difficult to completely remove the bias and stem a genuinely representative sample. However, measures and steps can be taken in place to ensure that the bias is kept to complete minimum. Further chances of sampling-related error, which are errors linked with activities related to sampling process and threat the validity of the findings have been minimized. These errors include choosing inappropriate respondents for the research. In this study, such errors have been avoided to the best ability possible to ensure that the most suitable respondents are selected who can be studied to understand the impact and influence this study is trying to research. Also, high response rate has been met to ensure the validity and reliability of this research. Non-response error and unreachable respondents leading to no response error have been kept to minimum to ensure a 95% confidence level in the responses and hence findings and only a 5% margin error tolerated for this study.

1.8 Stage I Methodology

(Combined Multimodal effect on Consumer Decision and Analysis of the Impact of Individual Metaphors on Consumer Decision)

The first quantitative phase of the research aimed to identify the effect of multimodal metaphors on social platforms to market specific products and the absence of these multimodal metaphors, and how it impacts the final purchase decision of the user. A positivist approach was adopted for the first stage of the survey. Structured questionnaire was designed to investigate the user comprehension on the use or lack of multimodality and determine whether its presence help users develop a clear and robust understanding of the product advertised. The questionnaire consisted questions of multiple format, including multiple choice, dichotomous answers, self-assessment Likert-scale questions and few open-ended questions. This allowed developing a greater understanding of the overall viewpoint and establish whether multimodal metaphors only act as informant tools or their presence has as impact on the user's final purchase decision. Opportunistic sample was collected from London.

1.9   Sampling

A non-probabilistic, opportunistic sampling technique was used for this stage. A sample number of 60 respondents (n=60) were selected through convenience sampling, out of which 58 valid responses were collected. The sample was collected through convenience sampling from London. This sampling method was chosen as the most suitable technique considering its feasibility and suitability to effectively address the research questions and research objectives. Due to the impracticality and difficulty of surveying the entire population, a suitable number with a true

representation of the population was chosen to take part in the survey. Furthermore, a sample number greater than 30 ensures a suitable number for statistical analysis (Stutley, 2003).

1.10 Stage II: Empirically Driven Framework

In the second stage of the experiment, the total group of respondents, (n=100), were divided into four groups, each of (n=25) and were exposed to four different presentation contexts of two different products. All four presentations were aimed to present the two products with the use of different Multimodal Metaphors, in order to understand the impact of these metaphors on presentations product likeness, understanding, effectiveness and final purchase decision. The response of all the groups exposed to these presentations was recorded via self-developed questionnaire. The main aim was to identify whether Multimodal Interactivity on social platform leads to positive purchase decision and user satisfaction. This is a Prima Facie case. The effect of individual multimodal metaphors on the users purchase intention and decision was tested. This helped develop a clear understanding of the positive correlation between specific metaphors leading to a positive purchase decision. The effect of these metaphors on consumer purchase intention and buying behaviour was investigated through questionnaires.

Stage I
- N=60
- TEST OVERALL USER COMPREHENSION ON ABSENCE & PRESENCE OF MULTIMODAL METAPHORS ON SOCIAL MEDIA PRESENTATION

Stage II
- N=100 DIVIDED INTO FOUR SEPARATE GROUPS (N=25) EACH
- TEST IMPACT OF SPECIFIC MULTIMODAL METAPHORS ON PURCHASE DECISION

Simulation A (n=25)
Presentation of product X and Y with the use of Text Presentation
Response recorded via questionnaire

Simulation B (n=25)
Presentation of product X and Y with the use of Image Presentation
Response recorded via questionnaire

STAGE II
N=100 DIVIDED INTO 4 SEPARATE GROUPS (N=25) EACH

Simulation C (n=25)
Presentation of product X and Y with the use of Text+Image Presentation
Response recorded via questionnaire

Simulation D (n=25)
Presentation of Prpduct X and Y with the use of Video Presentation
Response recorded via questionnaire

Figure 1 The Two-Staged Empirical Investigation.

1.11 Data Analysis

Prior to conducting statistical analysis, data was screened to help identify any missing data. The descriptive statistics were summarized in the text and reported in tabular form. Frequencies analysis were conducted to identify valid percent for responses from the survey. Different statistical tests, including chi-square test was taken to test hypotheses. All the statistical analysis of the quantitative results was analysed with

Statistical Package for Social Sciences Software (SPSS) and the results were reported in the form of discussion. Graphical illustrations and charts were also used to demonstrate the findings.

1.12 Validity

The validity of an instrument is critical for decreasing errors, which might arise due to measurement problems in the research study. Validity refers to the degree to which a study reflects or assesses a specific concept or construct, which the researcher is attempting to measure (Thorndike, 1997). Pilot study was carried out on a sample of 20 users to confirm the feasibility of the approach and internal consistency prior to actual data collection. The main purpose was not just to make sure that the questions developed are operating well but it ensures that the research instrument is working well as a whole (Bryman, 2012). Alternate form questions were also used to confirm the findings. The approach undertaken in this study is to investigate the effectiveness of Multimodal metaphors on social platforms in advertisement is the most relevant in its paradigm.

1.13 Ethical Considerations

Ethical considerations have been taken into account throughout the study and at all stages including data collection and analysis. It has been ensured that no risk of harm is caused to individuals taking part in this research or anyone who is directly or indirectly involved with the study. Furthermore, data confidentiality and anonymity of the respondents taking part in the study has been maintained. The participation in this study was voluntary and the participants had complete right to withdraw at any stage

during the data collection. Maximum measures were put in place to ensure that the ethical considerations are not comprised at any stage of the research.

1.14 Thesis Outline

The thesis is made-up of five Chapters and Appendices. Below is a brief description of the content of each of the Chapters.

Chapter 1: Introduction – This includes an overall introduction to the thesis. It reflects on background information, research rationale, research aim, objectives, contribution, research methodology and outline of the structure of the thesis. The methodology section discusses the research approach adopted for both stages of the study and reflects on unit of analysis, sampling technique, and questionnaire design.

Chapter 2: Literature Review - This Chapter includes a review of previous body of work related to social media, online buying behaviour, purchase decision and multimodality. It discusses background information around social media and social media marketing. It also explores the online virtual assistant, social presence and multimodality and human interaction. The last section offers a critical summary of the previous work.

Chapter 3: Impact of Multimodal metaphors on Consumers Purchase Decision – This Chapter addresses the first stage of the empirical investigation. Data is collected in order to investigate the user comprehension on the use or lack of multimodality and explore whether its presence help users develop a clear and robust understanding of the product advertised. It also gathers the consumer viewpoint in regard to the effectiveness and efficiency of the current online social media platforms as compared

to the traditional/conventional shopping experience. Findings and analysis are presented in the form of graphs and discussion.

Chapter 4: Determining Product understanding, likeness, effectiveness and purchase decision – This Chapter conducts the second stage of the empirical investigation in order to understand the impact of different multimodal metaphors used in online presentation on the likeness, understanding, and effectiveness of the product. Furthermore, this Chapter also explores the factor of 'simulated human presence' on social platforms and its impact on consumer purchase decision-making and user satisfaction. This Chapter offers the analysis of the data collected and presents the empirically derived framework.

Chapter 5: Conclusion and Guidelines – The final Chapter presents the empirically derived framework, set of guidelines derived from the study to effectively present a multimodal presentation on social media platforms to positively affect consumer purchase decision. Further to this, the Chapter also includes limitations of the study, future scope for research, and epilogue.

Chapter 2 Literature Review

A review of existing literature related to the research was conducted to be able to reflect on the key findings and current understanding of consumer buying behavior in the online context. A detailed review of previous body of knowledge related to social media, online buying behaviors, consumer behavior, purchase decision and multimodality has been carried out. Although there has been some research in the area of multimodality, but literature in multimodality is still sparse. This section not only discusses background information of social media marketing but also explores themes such as online virtual assistants, social presence, multimodality and human interaction on the online domain. The purpose of this review was not only to gain a detailed and up to date understanding of the subject area but also to identify the gap in the literature and help inform the research questions and objectives of this study.

2.1 Social Media

Social media can be defined as a medium through which people interact in order to create, share and exchange information and ideas in the virtual networks and communities. Social media is differentiated from traditional media by attributes such as permanence, immediacy, frequency, cost and reach (Katona & Sarvary, 2014). The importance of social media has been widely accepted today and it is pervasive in both personal and professional environments. Over the last decade, the internet and social media has grown in usage and acceptability. This has changed consumer behavior

and purchasing patterns. Human interaction has fundamentally and profoundly changed by the extensive use of online social networks (Tiago & Verissimo, 2014). This change has been accompanied by a strong growth of web-based platforms that facilitate this interaction. Some of the in vivo social interactions and relationships have been replaced with an equivalent counterpart in virtual worlds using online communities. These online communities enable people to share their knowledge, experiences and engage and promote dialogues within different cultures (Budden, Anthony, Budden & Jones, 2011).

According Bayo-Moriones & Lera-Lopez (2007) social media provided a platform through which consumers can conveniently communicate and gain numerous benefits such as efficiency, convenience, richer and participative information, vast range of products, cost reduction and competitive prices. Social networking further enriches consumer experience as the consumers are given a platform to engage with other users and supplement their product knowledge by receiving detailed information and opinion of other users for specific products. Studies suggest that consumers show greater value to peer reviews and judgments rather than firm promotions, demonstrating a shift in the focus of persuasive power (Berthon, Pitt, Plangger & Shapiro, 2012).

Increased customer engagement with social media directs towards the need of the organisations engagement with the social media too. Customer relationship has always been critical for the success of any business, and organisations have constantly communicated to their customers through different mediums. Over the past few years, this has evolved from one-way communication to two-way communication, where not only the organisations communicate to their customers, but the customers also respond to the firms, through the online communication tools (Mangold & Faulds,

2009). This phenomenon has been continuously building, developing and shifting the locus of market power from firms to consumers (Berthon et al., 2012; Pitt et al., 2002). Hence, this has urged the need for two-way communication between consumers and organisations, which in turn has exerted additional pressure on the businesses to adopt a more digital presence.

According to Silva (2008), online content-based marketing strategy could not only bridge customer-firm gap but also the physical-virtual gaps. In order to bridge this gap, not only a very effective marketing strategy is required but also a new relationship-building paradigm.

Organisations often consider social media marketing an essential part of their business to succeed in a competitive environment. Significant investment is therefore targeted to the development and implementation of social media (Weingber and Pehlivan, 2011). Due to the limited availability of effective guidelines, framework or specific design approaches, organisations often do not gain significant benefits from the social media marketing implementation of their strategies. This is often resolved by allocating additional investment in order to secure the desired level of consumer engagement (Weingberg and Pehlivan, 2011).

One of the challenges is to measure the effectiveness of social media marketing. Although, the benefit of social media is largely accepted, however, there is a lack of a corroborated method to measure the tangible return on the investment made. Therefore, a standard metric would be beneficial from the economic and design point of view. New Return on Investment (ROI) calculators are being proposed as quickly as new social networks are emerging (Fisher, 2009). A model proposed by Zhao and Zho (2010), evaluated the returns on investment on social media marketing using a series of measures that are influenced by the competitor's actions.

Another model proposed by Hoffman and Fodor (2010), presented more than 50 metrics to evaluate the effectiveness of social media to promote *brand-engagement*, *brand-awareness* and *word-of-mouth* (WOM). Another study by Tiago and Verissimo (2014), stated that the most important metrics for managers were brand-awareness, WOM, customer satisfaction, user-generated content and web analytics out of the 50 metrics initially proposed by Hoffman and Fodor (2010). However, it can be argued that these findings can be only a perception of the managers being surveyed. Tiago & Verissimo (2014), claimed that the popularity surrounded by social media is directing towards a relatively very rational approach.

In order to understand and identify the underlying motivations behind the organisations adoption of online communication strategies, marketing managers of large firms in Portugal were surveyed in 2011. 170 responses were received out of the 2,000 surveyed. Portugal was selected for survey purposes due to the high degree of information & communication technologies and social networking embraced there. With access to a wide spread of high-speed wireless networks and increase in mobile usage of Portuguese citizens, has led to an overall increase of internet usage. As per Eurostat, Portugal has an internet penetration rate in excess of 61% (Seybert, 2012). This study demonstrated the 'external competitive pressure' to be the most major factor in driving the organisation to employ digital media for marketing. The second most influential factor was the 'internal efficiency', followed by facilitation of top-down directives to adopt social media marketing strategies. Ainscough and Luckett (1996), argues that web can be used to publish, conduct online sales, market research and offer customer support. Whereas, other authors state that web can be used to create and spread word of mouth (WOM), build brand and buzz marketing (Whitla, 2009). Eid and El-Gohary, (2011), state that along with helping develop and implementing

marketing strategies, internet helps improve the overall performance of organisations. The benefits, which an organization avails through social media marketing depends on the extent to which it engages with such platform.

Scholars have argued that the investment in social media marketing is in parallel with the perceived benefits of this platform, high levels of social media marketing indicate high level of digital interaction and low level of social media marketing indicate greater traditional web presence.

2.2 Consumer Behaviour

Consumer behaviour can be defined as "a study of the process involved when individuals or groups select, purchase, use or dispose of products, services, ideas, or experiences to satisfy needs and desires" (Solomon, 2009). Bagozzi et al, (2005), defined consumer behaviour as a combination of social and psychological processes, which people endure through the possession, use and disposal of products or services. It is the understanding of the interpersonal and social reasons underpinning consumer decision-making and the transactions associated with it. Consumer behaviour is complex as it varies depending on individual characteristics and idiosyncrasies. Buying behaviour of an individual is highly dependent on their cultural variables and idiosyncratic values. The behaviour of an individual towards a particular context is the result of that individual's cultural value system (Ilyas et.al 2010). The cultural value system is made up of various elements including norms, values, religion and collectivism. The cultural values, which are shared amongst a group of members belonging from one particular society, depict their choice of behaviour and are likely

to affect the overall consumer behaviour and consumption style of that particular society.

2.3 Online Buying Behaviour

With the increased engagement of customers and firms with social media, it is imperative to develop an understanding of online consumer buying behaviour. The key issue which needs to be understood and addressed by businesses which are aiming to gain competitive advantage, precisely those competing in the fast-growing virtual marketplace and practitioners, is the online buying behaviour and the mechanisms of online shopping. Hence many researchers have drawn their attention to this study area. The continuous expansion of Internet in regards to transactions and business penetration highlights the need for the massive research. According to Taylor Nelson Sofres, 2002, more than 20 per cent of Internet users buy services and products online. According to Foster Research, 2003, 50 per cent of US Internet users regularly buy online. These developments are transforming e-commerce into a mainstream business activity. According to recent statistics last year the annual average weekly spend online in UK was £718.7 million, (ONS, 2015). Also, in 2018, 77% of adults have made purchases of goods and services online, which has considerably gone up from 53% in 2008 (ONS,2018). Consumers are likely to engage in relational behaviours for multiple perceived benefits, including achieving greater efficiency in decision-making, reducing information processing, reduce perceived risks with future purchases and to achieve greater cognitive consistency in purchase decisions (Sheth and Parvatiyar, 1994). Online shopping environment provides the potential customer

with a vast selection, vast information, and product comparison, which in turn minimizes their decision-making effort (Alba et al., 1997).

2.4 Purchase Decision Making

Buying and purchase patterns have evolved significantly over time. Purchases are not just rational based, which is the old traditional manner but can also be emotional based to quite an extent. Consumers, irrespective of the culture they belong to undergo a five step (stage) process before making a purchase decision. This five-stage decision-making model was developed by Engel and Blackwell in 1978. The five steps include Problem Recognition, Information Search, Evaluation of Alternatives, Product Choice and Outcomes. At all the five stages, culture plays great importance and has an influential role (Hussain and Sarki, 2013).

Figure 2: Decision Making Process (taken from Engel and Blackwell, 1978).

The first step of the decision-making model is the *Recognition of the Need.* Advertising latest electronic products, using celebrity endorsements or publishing latest fashion styles on social media sites or from the social surroundings, either can induce the need. This creates a gap between the actual state and the desire of acquiring those new products (Solomon 2013). The recognition for need can also be triggered from within when the actual state is decreased, for example, an old electronic product such as old laptop or headphones, which do not perform up to the required level or an out-dated electronic product, which makes you feel inferior when moving in a social circle.

Once the need is recognized, the next step is the *Information Search*. A consumer might start searching for information for the required product in-store or online after the need is recognized. Some consumers, specifically those who consider themselves shopaholics, engage themselves in *on-going* search (Bloch et al., 1986). On-going search helps to differentiate between internal and external search. Internal search helps scan through memory and remember something an individual came across before and assess product alternatives. But even those who have great market knowledge need to supplement their knowledge with external search, which can be obtained through advertisements, friends or people around them (Solomon, 2013). A purchase decision which compromises of extensive information search also involves *perceived risk,* which is a belief that there will be consequences of using or not using the product.

Once all the information required is achieved the next step towards making a purchase decision is *Evaluating the Alternatives*. In products such as apparel, fashion items and electronics, there is not only infinite number of brands to choose from but also a large number of styles and designs to make choice from. The purchase can be made by either carrying out a habitual decision, where the consumer will choose a product, a style or a brand previously experienced. In some cases, the consumer engages in extended processing, usually when they sense negative results or affects associated with the purchase of any product available in the choices (Solomon 2013).

In the case of shopping online, the presence of multimodal metaphors and absence of human warmth can influence the purchase decisions of the consumer. This part of the process takes into consideration the "influencers", which is one of the roles of actors in the buying centre of the decision-making unit (DMU) (Webster and Wind, 1972). The Influencers are those individuals who directly or indirectly influence the decision-

making process by either providing information or setting up criteria for evaluating the alternatives or deciding on one option.

After the assembly and evaluation of all the choices available the next process is to make the *Product Choice* (Jennifer Lach, 1999). Once a product is selected the last stage of the decision-making process is achieved, known as the *Outcome*. After undergoing a long process of information gathering and evaluation, the consumer is able to make a final purchase decision at this stage.

2.5 Factors Influencing Online Purchase Decisions

Many researchers in the past suggest that different factors tend to influence the choice consumers make between retail stores and in-home, more precisely known as online shopping method. Some of the influencing factors highlighted consist of the demographic factors and socio-economic factors (Cunningham and Cunningham, 1973); some authors suggest perceived purchase risk (Spence et al.1970 and Prasad 1975). Further researchers have identified factors including product type and distribution methods (Akaah and Korgaonkar 1989); personal traits and characteristics (Cunningham and Cunningham, 1973) and shopping and delivery times (Arora, 1991 and Sharma et al., 1983). Other factors include intrusiveness, eagerness, confrontation and contact control (Brezen et al. 1987); Brand reputation (Akaah and Korgaonkar, 1989); type and source of offer (Korgaonkar, 1989); price and refund or exchange policies (Arora, 1991).

When consumers make use of online shopping, factors highlighted above are more apparent. Internet, when used as a marketing channel stands out as it consists of both, its own unique characteristics and more similar characteristics, which it shares with

other marketing mediums. The ability of internet to store an almost infinite amount of information at different virtual locations and making it readily available to consumers on demand, is one of its unique characteristics which is not shared amongst other marketing mediums.

A study was conducted by Steven D Alessandro, Antonia Girardi and Lila Tiangsoongnem, (2012), to investigate the impact of perceived risk and trust on online purchasing behaviour. The study in particular investigated the nature of purchasing associations with expensive, high risk, complex and credence products such as gemstones. The results suggested that the form of online marketing strategy and the buyer's privacy and security practices influence the buyers perceived risk to purchase gemstones online. The study also suggested, that the perceived risk is likely to reduce trust and hence online purchases. The authors have suggested to address the privacy and security concerns of the online buyers in order to reduce the perceived risk, which will help gain trust, resulting in positive online purchasing. They have also suggested businesses, that market high-risk products online, to consider the policies that promote trust and reduce risk. They suggested, that the use of multi-channels reduces perceived risk.

A study by Limbu et al., (2012), investigated the impact of consumer's perception of the ethical behaviour of online retailers and whether it affected consumer purchase and re-visit intentions. The results suggested that the consumers perceived ethical behaviour of online retailers has a significant effect on consumer's attitude and trust towards the retailer and hence on their purchase intention and re-visit intention. Trust is known to be positively related to attitude towards online retailer. However, the study did not observe any direct correlation between perceived ethics and behavioural intentions.

Despite the absence of human warmth and direct human-interaction, the findings suggest that online retailers, who operate ethically have a positive effect on customer revisits and purchase intentions. Online retailers should perform ethically by ensuring that their privacy policies are not only clearly stated and easy to understand but also readily available to the potential customer. It should be clearly stated how the customer information will be used. Furthermore, they should offer secure payment methods and clearly display the terms and conditions. The online retailer should avoid any hidden charges and deceptive practices as well as exaggerations of product features. The product information and purchase process should be transparent and true to the best knowledge, avoiding any discrepancies.

A study conducted by Hernandez et al., (2011), designed a study in order to determine the impact of socioeconomic factors, such as age, gender and income on online shopping behaviour. The participants chosen were all experienced shoppers. Results suggest, that socioeconomic factors do not influence the e-commerce perceptions and online shopping behaviour. According to their study, it could be concluded that socio economic factors do not play a very significant role in influencing the online shopping behaviour of online shoppers. However, it is important to note that the location and selection of participants means it is not necessary that these findings could be generalised. On the other hand, some studies suggest otherwise. According to Kotler and Keller, (2016), demographics factors, including, age, gender, income, and educational qualifications are connected to the needs and wants of the consumers and so are used by marketers to target their potential customers. Another major study, conducted by Tong (2010), aimed to understand the impact of perceived risk and perceived online usefulness of online shopping on purchase intentions. Technology acceptance model, (TAM), was tested in a cross-national study, in online shopping in

US and China. Results suggested that both perceived risk and perceived usefulness have invariant effect on consumer's online purchase intentions.

Another paper published by Lin and Sun (2009), investigated the internal and external factors, such as service quality of website and holdup costs. The paper also explored the relation between online customer satisfaction and loyalty and how these are affected by internal and external variables. Their research underpinned following findings:

1. E-Customer satisfaction directly influences positive e-loyalty

2. The external factors, specifically the technology acceptance factors, have a positive effect on customer e-satisfaction, which in turn leads to online loyalty.

3. Website service quality positively influences customer satisfaction leading to e-loyalty.

Yu-Bin et al., (2005), proposed a model for online purchase intentions. The model suggested four "exogenous constructs, personal awareness of security, personal innovativeness, perceived usefulness and perceived ease of purchasing". Their model suggested that these four factors not only have direct influence on the attitudes of consumers, but they can have a direct influence on the purchase intention by altering the attitude towards a specific product. Their study also aimed to determine the difference in behavioural patterns across genders.

The results revealed, that the influence of both perceived usefulness and personal innovativeness on attitude and online purchase intentions are similar in both genders indicating no difference in behavioural patterns across genders. However, the influence of personal security awareness on attitude and online purchase intentions are strong for males, whilst in the females no such effects exist. On the other hand,

the influence of supposed ease of purchasing on both attitudes and online purchase intentions are stronger for females than for males.

Shih (2004) argued that individual attitudes towards online shopping are positively and strongly related with user acceptance. The results reflected that the perceived ease of use of buying/selling online and perceived usefulness, significantly determine individual loyalty towards online shopping. The results also signified that the user satisfaction towards online shopping and the perceptions of information systems and services affect user acceptance considerably. Huang (2008), found out that perceived ease of use, good surfing experience and entertainment gratification are major predictors of online shopper's intentions.

2.6 Theory of Reasoned Action and Planned Behaviour

Theory of reasoned action, (TRA), is one of the contemporary models of action in consumer behaviour (see Figure 5). TRA is widely used in psychology and is a parsimonious description of action (Ajzen and Fishbein 1980; Sheppard et al.1988; van den Putte 1993). TRA assumes that the action is a direct function of the intention of an individual. Ajzen and Fishbein claimed, that theory of reasoned action is applicable to behaviours which are under "volitional" control. This means that *people can easily perform these behaviours, if they are inclined to do so"* (Ajzen, 1985). TRA suggests that behaviour is just about equivalent to the behavioural intention, which can be obtained from the combination of the attitude of consumer towards purchase of the product and the subjective norms about the behaviour.

Subjective norm is the perception of an individual about the social stress and pressure as to execute or not execute an action (Ajzen and Fishhbein 1980). Due to the notion

of subjective norm, this theory acknowledges the influence and power of other people/ societal members in influencing specific behaviours (Solomon, Bamossy et al. 2006). It is not only the views of others about the behaviour, but also the extent of motivation to comply with those beliefs of the consumer, which together forms the subjective norm.
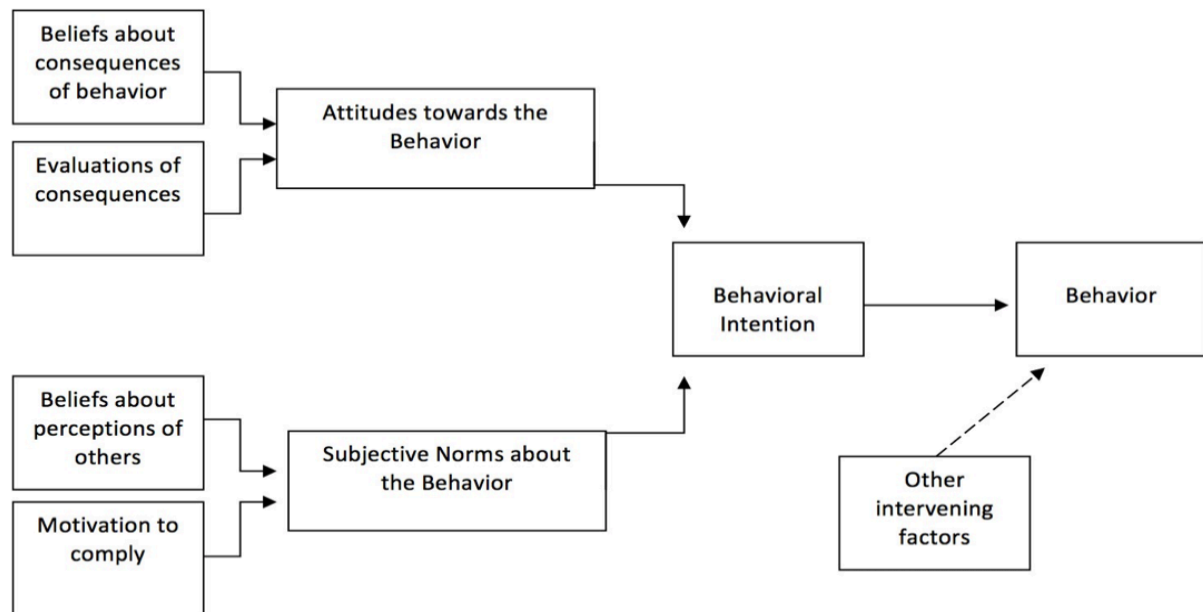
The contribution of attitudes and subjective norms might not necessarily be equal in predicting the behaviour (Miller 2005). It is dependent on the tendency of the consumer to consider the views of others towards the purchase or it might also be dependent on the type of the product, as noticeably consumed products are more likely to be highly influenced by subjective norms (Schultz 2006). Another important aspect in TRA is, that the attitude towards the behaviour (actual purchase/act of buying) is measured rather than just measuring the attitude towards the product. It is important to ensure that the attitude towards behaviour (act of buying) is measured as it is possible that the consumer has a positive attitude towards the product but not necessarily

proceeding with the purchase (Solomon, Bamossy et al. 2006). For example, an individual would like a new fashion style, carried by a celebrity, however, would not consider purchasing it due to factors such as high price, or social constraints from the society on the consumption of that product.

This theory was criticised by Warshaw (1980), as behaviour is not necessarily always under complete control of the actor and an additional variable intermediating between intentions and behaviour is essential. Mostly researchers tend to apply TRA in western settings (Solomon 2013). Hence, the assumptions innate in the model may not apply to consumers from other cultures. Numerous cultural barriers reduce the universality of TRA (Sing et. Al 1995). An additional variable was developed in 1985 in a new model proposed by Ajzen, which was the extended version of TRA, called the Theory of Planned Behaviour (TPB). The TPB included a new variable called the "perceived behavioural control".

As the behaviours are a form of goals in the mind of a consumer, which are subjected to doubt or interference, perceived behavioural control measures the extent to which an individual takes into consideration personal and situational factors that promote or restrict the action (Bagozzi et al., 2005). Solomon et al., (2013), suggests that in certain situations and circumstances, the behaviour is not resulted from attitude evaluation but entire affective response in a process known as "affect-referral". This is a major limitation in the context of apparel shopping, where the purchases are thought to be highly influenced by hedonistic desires and entire affective evaluation (Bray, 2012).
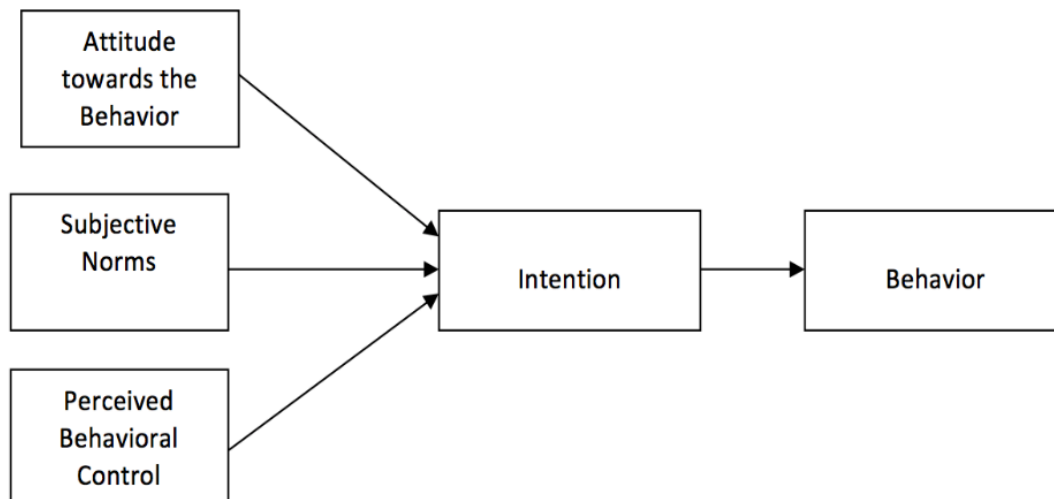
2.7 Social Media & its Impact on Consumer Behaviour

With improved communication abilities, enhanced social networking and access to widespread information, internet has significantly altered the lives of individuals, consumers, communities and organisations (Kucuk and Krishnamurthy, 2007). Thus, social networks can be defined as e-websites that bring together users from across the globe to share same hobbies, interests and likes. Some of the most widespread and popular social media platforms include, Blogs, YouTube, Facebook, Twitter and Instagram (Sin, et al., 2012). Users make use of various different social media platforms in order to communicate and share ideas and information, including electronic word of mouth, about different products, brands and services. These platforms facilitate communication with other consumers, who are looked upon as more reliable and unbiased source of information (Kozinets, 2002).

The colossal popularity and the unique characteristics of social media has revolutionised marketing practices including advertising and promotion (Hanna, Rohn and Crittenden, 2011). Social media has also influenced consumer behaviour from the

49

information acquisition to the post purchase behaviour in relation to a product or a company (Mangold and Faulds, 2009). Over the last few years, the increased influence of organisations has been noted on online platforms. Social media platforms provide a great opportunity for businesses to effectively communicate, engage and interact with not only existing but potential customers. This encourages sense of intimacy and builds strong and long-term relationships with potential customers (Mersey, *et al.*, 2010). Organisations need to set apart by either the company or the brand image, which allows them communicating distinct advantages and positioning of the product. Several marketers believe that companies should promote only one advantage in their concerned market and online social networks helps them to appear more attractive to consumers in the online environment (Moise, 2011).

The efficiency of social media, as compared to other conventional communication channels, has encouraged industry leaders to state, that all organisations must take part in and make use of social media platforms such as Facebook and twitter to achieve success in the online environment (Kaplan and Haenlein, 2010). The ability of social media networks to incorporate both the corporate presence and the inclusion of users in the same circle, lead to posting of both positive and negative messages. According to a study conducted in 2009, majority of the top 100 companies had a profile on Facebook (79%), Twitter (69%) or both (59%), (Internet Retailer, 2009). Another study of Deloitte Touch' USA, indicated that around 62% of the US consumers read user generated reviews online, where 98% of these consumers found these reviews to be reliable. Further, 80% of these consumers stated that these reviews had an impact on their buying intentions (Pookulangaran, *et al.*, 2011). This stresses on the fact that electronic word of mouth stands to be more influential and impactful as compared to content generated by organisations.

The communication between brands on social media platforms and consumers, helps create an image in the minds of other individuals who read that information, which they then consider in their purchase decision. However, this is linked with company and user generated review in the form of comments; the impact of emoji's, emoticons and reactions has not been investigated. Previous studies have shown that even minimal negative information from very few postings online can have a major implication on consumer's attitude (Schlosser, 2005). When it comes to high-involvement products, Palmer (1996), suggested that consumers have an underlying need for an emotional bond with the product. Both brand development and relationship development are complimentary and exchangeable strategies, which help develop this bonding. The strengthening of the very important brand and consumer relationship leads to loyalty. Individuals use social media platforms on daily basis for various activities and reasons including maintaining relationships with friends and long-distance relatives. Social media offers a platform, which allows users to maintain interpersonal connectivity, which has associated benefits including providing and receiving social support, friendship and intimacy (Utpal et al., 2004). This helps users to connect with peers, facilitating communication within peer groups (Ahuja and Galvin 2003). Further research indicates that online groups apply a noticeable influence on the overall consumer behaviour, buying intention and indirectly purchase decision. According to Kozinets et al., 2010, social media platforms provide users with a public forum where everyone can share their thoughts and reviews and access product information, which assists their purchase decision. Shopping has been always considered as a social experience, and social media networking allows individuals from across the world to come together on one platform and interact with each other. Cultural factors also play an important role in influencing the consumer usage of social media networks as well

as online purchase intentions (Pookulangaran *et al*., 2011). Social media enhances e-commerce and makes it easier to reach out to more consumers. Various studies have found many different advantages associated with social media, where it allows organisations to come into direct contact with the end users, in a timely manner and at a very minimal cost (Kaplan and Haenlein, 2010). It has also found to significantly influence customer perception and behaviours (Williams and Cothrell, 2000), hence has been the centre of attention across different industries over the last few years.

2.8 Challenges & Opportunities of Social Media

2.8.1 Collaborative Projects

Collaborative projects allow end users to simultaneously and jointly create online content and hence in this context could be regarded as the most democratic manifestation of user generated content (UGC). The underlying idea behind collaborative projects is, that when multiple actors put in joint effort, this would likely lead to an improved outcome as compared to what an individual actor would have achieved. Organisations need to be aware of the increased usage of these collaborative projects for information retrieval by many online consumers. It is important to be aware that not all information available on these UGC's is authentic and reliable, however, it yet remains to be most searched for and relied on by online users.

2.8.2 Blogs

Blogs, which signify as one of the earliest forms of social media, are "special types of websites that usually display date-stamped entries in reverse chronological order"

(OECD, 2007). These can also be classified as social media equivalent of personal web pages and can be of various forms, ranging from personal diaries where the authors describe their personal life to summaries and reviews of all relevant information around one specific content area. Usually, blogs are managed by one person but allow communication and possible interaction with others through comments. Many organisations also make use of blogs to keep their employees, customers, and shareholders updated on relevant and important updates and developments.

As with any online platform, blogs too have their disadvantages and associated risks. Predominantly dissatisfied or disappointed consumers can engage in virtual complaints through the development of protest websites or blogs, which leads to the availability of potentially damaging information and reputation in the online space (Ward & Ostrom, 2006). Another associated risk is where active employee/staff members on blog can provide negative commentary on the business.

2.8.3 Social Networking Sites

Social networking sites can be defined as applications which allow users to connect online by the creation of personal information profile, inviting friends to have access to their profile and share content and send messages to contacts developed on these platforms. The profile can create and store various types of data. Many organisations are making use of these social networking sites in order to support the establishment of brand communities (Muniz & O'Guinn, 2001), or for the purpose of marketing research (Kozinets, 2002).

2.8.4 Virtual Social World

Virtual social worlds, also known as first group of virtual worlds, enable its occupants (users), to live a virtual life very similar to their real life allowing them to independently choose their behaviour. Similar to a gaming environment, the users can choose and appear in a form of avatar and interact in a 3-D virtual environment. This platform allows infinite range of self-presentation strategies and studies suggest, that the more the users engage with this experience and as the usage intensity increases, the occupants tend to display behaviour which closely reflects that noted in the real-life settings (Haenlein & Kaplan, 2009; Kaplan & Haenlein, 2009a, 2009b). These virtual social worlds allow users to create their own personal content such as virtual clothing's and make trade, i.e. sell contents to other users through virtual money. These social worlds tend to offer many different opportunities for companies which specialise in marketing including specialised tasks such as virtual product sales, virtual commerce and marketing research (Haenlein & Kaplan, 2009).

2.9 Effectiveness of Online Advertising

According to Zinkhan and Watson, (2004), online advertising requires effective strategies in order to reach out to the customers. These strategies compromise of content personalisation, incorporation of multimedia/interactive and real-time interfaces. Within online advertising, the biggest revenue shares are generated by display-based advertising and search-based advertising. In 2005, search-based advertising approximately accounted for $5.1 billion; making up 41% of total internet advertising revenue. Recent figures suggest, that companies in US have spent around $13.23 million on digital video advertisements in 2018 (World stream, 2018).

According to Goldberg and Gorn, (2005), Google and Yahoo are the leaders in search-based advertising market. This trend changed over the years where Google was joined by Facebook in leading digital marketing. Recent figures suggest that Google and Facebook continue to hold the largest share of the total US digital advertisement spend with, 38.6% and 19.9% respectively (World Stream, 2018).

Online advertising, in contrast to traditional media, mostly through its search engine, provides advertisers with access to large affiliate networks and opportunities for search-based and display based advertising (Green, 2001; Chen and Wells, 2005). Advertisements can also be conveyed through keywords as well as geographical data, which is contained in the IP address of the consumers. Online advertising, unlike the conventional media, tends to provide real-time information of the effectiveness of online advert by means of click through rate (CTR) metric. Multiple reasons can lead to low CRT's such as 'invalid clicks' and loss of interest of potential customers. Hence, apart from developing an effective strategy the consequence of online frauds in producing revenue should be taken into consideration (Spar, 2004; Goldsmith & Bridges, 2001). Donthu (2003), suggests, estimates for the frequency of online frauds vary due to the absence of an industry-accepted definition of in-valid clicks. However, recent statistics suggest that the average video CTR rates have increased in 2017 and have gone up to 0.45% from 0.35% in 2016 (World Stream, 2018).

This growing area of interactive advertising tends to present new and unexplored challenges for advertisers who in the past have implemented an interruptive strategy. Advertising online has many benefits associated with it, predominantly low costs and its ability to increase efficiency, provide flexibility and allow buyers and sellers to interact on one medium managing their business transactions.

A study conducted by Alijani, Mancuso, Kwun and Omar, (2010), aimed at exploring various different online advertisement factors, which tend to motivate and help consumers recall online adverts, which could facilitate a positive purchase decision. They examined a number of factors and effectiveness on a sample of 3,400 participants. Results suggested that some of the key factors, including embedded videos, price, products and credibility help make the advertisement an effective tool, which helps consumers to recall the online advert and this in the future could lead to business transactions. Their findings also suggested that marketers need to provide more tailored online adverts. Further findings of their study claim that banner, pop up, float adverts and music adverts are not very effective, and video embedded adverts are most effective out of these. However, the study was conducted on residents of New Orleans, Louisiana only and the findings could not be generalised to other populations, highlighting the need to study this further.

2.9.1 Effectiveness Measures

Over the past few years many studies have focused on investigating the effectiveness of online advertising and tested various measures, which are thought to determine effectiveness on the online domain. Some of the common measures of online advertisement effectiveness include advertisement recognition, recall, brand awareness, click through rate, attitude towards the brand/advertisement, and purchase considerations (Danaher and Mullarkey, 2003; Dreze and Hussher, 2003; Gong and Maddox, 2003; Palanisamy, 2004). For the purpose of this study, attitude towards the brand, attitude towards the advert in regard to likeness, and understanding and purchase considerations will be considered.

2.10 On-line Product Types

Consumers tend to go through an evaluation phase prior to the purchase, also known as pre-purchase phase, where they evaluate the merits and demerits of a product. The outcome of this evaluation process determines whether they will go forward with the purchase. The true nature, however, of this evaluation process is to some extent independent of the key attributes of the product. Many different classification schemes for categorising online products have been suggested.

2.10.1 Search Products vs Experience Products

Many researchers propose classifying products based on their search and experience attributes. Product features, which consumers can acquire complete information about and evaluate prior to the purchase are known as search attributes, such as price, size and shape of the product. On the other hand, experience features are those that necessitate consumers to first come into direct contact with the product, such as taste and fitting. The quality of such products is very difficult to assess before the purchase is made and the product is used.

2.10.2 Digital Vs Non-Digital Products

According to Lal and Sarvary, (1999), consumers usually require information on mainly two types of product attributes. The first one being Digital attributes, which can be experienced conveniently by consumers online at a fairly low cost and Non-digital attributes, which require physical inspection by the consumer. Digital products can help eliminate two major obstacles to online shopping, fulfilment and absence of instant enjoyment.

2.10.3 Geometric, Material or Mechanic Products

This categorisation is constructed on sensory magnitudes that are used by consumers whilst evaluating products. Geometrics are those products that can be evaluated through visual basis, which includes products like pictures, utensils and computer peripherals. On the other hand, material products are those, which can be evaluated through sense of touch, such as apparel and clothing items. According to Mc Cabe, (2001), geometric products are more well suited to online environment, as these can be evaluated visually. However, later this classification was extended, when mechanical products were proposed by Li, Daughtery and Biocca, (2002). These were products that consumers would be tempted to interact with, in their pre-purchase phase. Such products include smart phones, I-pads and digital personal assistants.

2.11 Information Oriented Product Classification Schemes

Nelson, (1974), classified products into *search* and *experience* goods from the theory of information economies. The rationale behind this classification was to analyse whether the availability of product quality can influence the monopoly power of consumer goods, advertising, store location and inventory policy. Search goods are those products whose information is readily available, and their quality can be objectively evaluated and appraised prior to purchase, depending on the available information. However, experience goods need to be consumed and examined personally before making an evaluation. As most products are neither entirely search goods, nor, pure experience products, Nelson, at a later stage, generalized his classification and defined *search goods* as those products which are dominated by product attributes for which information can be acquired prior to purchase. Whereas,

experience goods are dominated by those product attributes which cannot be assessed and known until the product has been consumed and whose information cannot be acquired easily, as it might not be readily available or too costly to extract.

Norton and Norton, (1988), extended Nelsons model, based on the *frequency of purchase,* by further dividing the experience goods into *durable* and *non-durable* experience goods. Word of mouth, (WOM), is believed to be more important for durable goods than non-durable goods. They also introduced '*credence goods*' as an additional category, in order to represent goods whose quality is hard to determine even after post purchase and consumption. An example of credence good can be a vitamin supplement. In order to judge the quality of such a product, potential customers value the reviews and opinion of experienced users and experts.

Nelsons model was also extended by Wright and Lynch, (1995), which included *"after using",* rather than *"after purchasing"*, where sampling is available. The major limitation of adopting the Nelsons classification is, that it was developed long before e-commerce gained its popularity; hence it does not take into consideration product characteristics pertinent to online market, which allows consumers to evaluate experience goods prior to purchase. For example, Internet allows evaluation by downloading movies or music files as well as demo games and software's prior to purchase. The recommendation systems, which are deployed at many e-commerce websites, also contribute to increase the confidence of the potential customer about the quality of experience goods based on the experience of other people.

Identifying the lack and need of new classification schemes appropriate for online market, several studies attempted to develop an appropriate classification scheme. An example of one such scheme is that proposed by Figueiredo (2000). He classified products into a band of four categories, which are:

1. Commodity – products whose quality can easily be determined by its description, such as oil.

2. Quasi-commodity – such as book

3. Look and feel – such as perfume

4. Look and feel with variable quality – such as second hand/used car.

The above classification scheme is based on the information asymmetry/irregularity between buyers and sellers over the Internet. The commodity products respond well with the search goods in the Nelsons model, while the look and feel with variable quality product has similar characteristics as experience goods. An online product typology was proposed by Jhang et al., (2000), which was based on two interactive functions of e-commerce for effective design of online stores. The two interactive functions are *Product Presence* (PP) and *Social Presence* (SP) needs. The Product Presence (PP) needs represent the sense of product, such as *seeing or hearing,* which helps buyer make a product choice decision. Social Presence (SP) needs represent the need for interaction and human presence between the buyer and seller. Over e-commerce, specifically for service-oriented products, interaction with buyers is extremely critical. With ever growing need of product and social presence, richer media and greater interaction support is required and should be provided on e-commerce.

Rosen and Howard (2000), differentiated products as *Homogenous* and *Heterogeneous,* according to product features such as size, fitness and texture. Choi et al., (2006), proposed a product classification framework which was based on the degree of information quality fitness, and consumer involvement, in order to provide website implementation guidelines for online retailers from the viewpoints of both, technology and consumers. Information quality fitness refers the extent to which a

product presented online can meet the potential consumer's requirement for accessing online information. Similar to the concept of Nelsons search and experience goods, low information fitness products resemble experience goods, which require touch and feel to evaluate; whereas high information fitness product resemble search goods, whose information can easily be acquired prior to purchase.

Involvement in this context refers to the degree of psychological identification or emotional ties, that consumers possess with a particular product. The amount of involvement influences online shopper's perception of the products presence and the amount of effort made on searching for product information. High involvement products are usually more expensive and complex, and consumers are likely to spend a large amount of time in understanding the various aspects of product before they make their purchase.

2.12 Transaction-Oriented Product Classification Schemes

Peterson et al., (1997), proposed one of the earliest three-dimension product classification scheme that distinguishes online and offline channel impacts. The three product dimensions are:

1. Cost and frequency of purchase.
2. Value proposition.
3. Degree of differentiation.

The frequency of purchase and the price, range between expensive and rarely purchased goods and expensive and regularly purchase goods. According to Peterson et al., (1997), consumers avoid making purchases for inexpensive products online. However, some studies suggest otherwise, supporting their argument by the fact that

usually individuals like to test or try expensive products prior to purchase hence avoid buying those online. The product value proposition differentiates products and categorises them into tangible and intangible products. The differentiation is related to the extent of personalization required.

2.13 Social Presence

Social presence has been defined as the extent to which a medium allows users to experience others as being psychologically present (Fulk et al., 1987). In the theory of social presence, social presence is regarded as a quality inherent in a communication medium. Some researchers characterise the social presence of a medium as its capacity to transmit information about facial expressions, posture and other non-verbal cues (Short et al., 1976); Whereas some focus on its capability of information richness, which dwells on media interactivity. Other researcher stress on the psychological connection, where social presence is related to 'warmth'. In this perspective, an information medium is considered to be warm if it conveys a feeling of human contact and sociability (Yoo and Alavi, 2001). For the purpose of this research all three perspectives are adopted in order to identify the positive role between the information richness and transmission through social platforms and its impact on consumer decision-making.

Gefen and Straub (2003), examined the effect of social presence on the purchase intentions in the context of e-service. They investigated the impact of social presence on trust and perceived usefulness constructs as precursors to the purchase intentions. Hassanein and Head (2007), based on the same model, further explored the impact of the social presence on online product purchasing. They further expanded the

existing model by adding additional enjoyment construct. Enjoyment has been found to be a psychological consequence lead by social presence and a precursor of consumer behaviour towards e-commerce websites.

This model was further explored and used to study various levels of socially rich websites design elements, which were rich through text and illustrations. Their impact on the user perception of social presence and on the website attitude was studied. Studies suggested that social presence can be instilled in e-commerce websites by making use of socially rich images and descriptions which positively affected perceived usefulness, enjoyment and trust, leading to a more positive attitude towards the website and online store. However, a major limitation of these studies was that the context of these studies was apparel websites, which is known as a product for which consumers seek fun and entertaining shopping experience. Burke argues, that for apparel shopping, consumers would like to seek fun and entertainment when it comes to online shopping experience, however, when searching for electronic products such as laptop or headphones, consumers would seek a more detailed product description and information. Social presence helps deliver human warmth by making individuals feel the presence of another human being psychologically present, but it is more suited for hedonic shopping motives rather than utilitarian. This means that instillation of social presence on online platforms should aid a more pleasurable experience rather than an efficient one. However, it would be interesting to seek whether this social presence could be delivered through use of online assistants to aid consumers shopping experience and in affecting their overall user satisfaction.

2.14 Multimodality & Human Interaction

Multimodality is a cohesive approach, that is grounded in the phenomenon, that acknowledges, information is communicated using more than one medium. Over the last decade, there has been a significant development in the area of multimodality in order to analytically address the highly debated questions in relation to the changes in the society due to new media and technologies.

The very first theoretical assumption is that presentation and communication are always built on multiple modes, that contribute towards the meaning. The main focus of multimodality is to analyse and explain the entire range of meaning-making resources, which are used by individuals in various different contexts. It also focuses on developing means in order to reflect on how these were understood and organised to be made meaningful. These resources create meanings that include spoken, visual, gestural and three-dimensional graphics along with many others, subject to the domain of the presentation (Jewitt, 2009).

The second assumption is based on the ideology that over a time period, resources are constructed socially, in order to convert into meaning-making resources, which communicate social and effective meaning, meeting the demands of different communities. These semiotic resources, which create meaning are referred to as modes and the choice of mode is a central aspect of meaning and interaction (Kress, 2009). The third assumption suggests that individuals develop meaning through selection and configuration of different modes and highlight the importance of interaction between various modes. Hence, it can be argued, that all communication acts are shaped by values and norms, which are also influenced by the personal interests and motivations of individuals in a specific social context.

Human interaction with the world is inherently multimodal (Bunt et al., 1988; Quek et al., 2002). Humans employ multiple senses consecutively and in parallel in order to explore their environment. In sheer contrast to human experience to the natural world, human-computer interaction has been focused historically on uni-modal communication. Uni-modal communication is information or data communicated between human and computer through a single mode or channel. Multimodal metaphors describe the interactive systems, that seek to leverage the natural human capabilities to communicate effectively via audio, visual, graphical, and other modalities.

This brings together more complex and sophisticated integration of metaphors, that work in collaboration to make the user-web interaction more effective and natural. Although, the literature of multimodality is still sparse, studies suggest that multimodal interfaces might increase task efficiency but perhaps not significantly. Humans may process information faster and better (Wassenhove et al., 2005). However, the effectiveness and efficiency of multiple metaphors for advertisement on social platform has yet not been studied.

2.15 Multimodal Metaphors and Effectiveness

The use of multi modal metaphors has a positive effect on the usability of interactive computer systems (Shaw and Marlow, 1999; Sarter, 2006). Other researchers suggest that the applications of multimodality can help assist users to enhance and improve learnability (Dix et.al 2004). Overload of user information can lead to important information being missed out which should have been communicated effectively. When more than one communication channel is incorporated, in order to

communicate different types of information, the overall usability of the computer interface is increased (Sarter, 2006). Within software applications after visual output, speed and sound have been noted as the most common methods of communicating information to the user (Rigas and Memery, 2002).

Results further suggested, that ear cons with short musical sounds stand to be the most effective and efficient metaphor to enhance the user interaction in the interface. Further studies tested the impact of visual metaphors including text, image and graphic on the effectiveness and efficiency of e-learning interfaces, precisely note-taking and results suggested, that all these metaphors increased the effectiveness of completing the task (Rigas and Sallam, 2010). However, these visual metaphors were tested in the context of enhancing e-learning, and there yet remains a gap to test the impact of these visual and audio metaphors in online shopping context, to establish whether it increases the effectiveness of the presentations presented online, in turn influencing the purchase decision of the consumers.

2.16 Online User Satisfaction

The use of e-commerce and online shopping studies suggest, that it has now become far easier to influence the potential customers through online retailing (Khan, Hatami, Sasidharan & Al-Roshdi, 2017b). Further studies have pointed out the factors, which are likely to help develop online customer loyalty and overall successful implementation on the e-commerce; these include the privacy of the customer, online security and speed of the service (Zatalini, & Pamungkas, (2017). Further factors, which have been argued to be the most imperative in enhancing user satisfaction on the online domain, include perceived usefulness of that platform or experience, trust,

and transaction security. According to Khan et al., (2017), information reliability if the most vital in enhancing online customer satisfaction. Other studies suggest, that perceived product quality and security perceptions directly affect online user satisfaction. According to Zamri (2014), the quality of the product, brand diversity and the overall online shopping experience have an influence on online customer satisfaction. Other studies have also been able to identify the constructs which shape up online customer satisfaction, which include perceived usefulness, perceived security, perceived convenience, information quality, and interactivity (Zhang *et al.*, 2006; Ha, 2006; Yang and Fang, 2004). However, the participants in this research were all from China, and it is important to involve individuals from different geographical regions in a study, which replicates a real time online shopping experience and then test their online satisfaction against some of these constructs, such as perceived usefulness, perceived security and the growing use of online virtual assistants. Online virtual assistants have been suggested as an important measure of online satisfaction due to the fact that these are widely used to replace the actual human presence and interaction on the online domain. For the purpose of this study perceived usefulness, perceived security and current online assistant will be considered.

2.17 Online Virtual Assistants and Avatars

Avatars can be described as "a pictorial representation of a human in a chat environment" (Bahorsky, Graber, and Mason 1998, p. 8), or as "a representation of the user as an animated character in virtual worlds" (Loos 2003, p. 17). In the context of technology-oriented approaches, avatars can also be described as graphic

personifications that run on computers (Halfhill 1996, p.69). Studies suggest that avatars can enhance the personification of a technology, and if so, they should also then be able to influence the purchase process of consumers, similar to the way human sales assistants do. Many studies suggest, that human sales assistants tend to increase satisfaction and also influence customer intention towards purchase (Katz and Lazarsfeld 1955; Webster 1968). If avatars and current online virtual assistants are of similar nature, they should also be able to enhance and positively influence customer purchase behaviour and decision.

Many studies and history of evidences suggest, that personal communication is far more effective than mass media communication. Also, there is ample evidence that personal communication is way more satisfying as any other means (Allen et al. 2002). These signify the importance of face to face interactions between retailers and potential consumers, which is considered extremely effective, as human assistants are far more capable in providing empathy, reliable information, gaining trust and building rapport with customers (Barlow, Siddiqui, and Mannion 2004).

A major limitation of the e-commerce for consumers is the lack of personalised services available on online platforms. The major and the most evident omission is the face-to-face communication. This is being eliminated through the use of avatars, and online virtual assistants to increase social presence and enhance online user experience. However, this is a developing area, as consumers tend to interact with their surrounding through symbolic constructionism, which is a continuous process, as they tend to construct and reconstruct the meanings they attach to various actions. It is therefore imperative to assess the current online platforms, the online assistance offered and its impact on user satisfaction.

2.18 Electronic Word of Mouth (e-WOM)

Electronic word of mouth, (e-WOM), is typically any positive or negative consumer generated content, that is posted on the online domain (Lee, Rodgers and Kim, 2009). Consumers participate in e-WOM for a series of different reasons, which includes sharing personal experiences, both good and bad, of using the product advertised, and sometimes support the product/company for a new product or campaign launched. The value of e-WOM is estimated to be around $900 billion to $1.3 trillion and suggested to influence around one third of consumer spending (Lu,Fan & Zhou, 2016). Consumers participate in e-WOM to give or seek opinion of others (López & Sicilia, 2014) and for personal development (Yap, Soetarto & Sweeney, 2013). Previous research on the impact of e-WOM on customer satisfaction and brand relationship has not fully addressed the impact on product image, specifically in combination with visual constructs including emojis and emoticons.

With the growing use of mobile phones for information search and online shopping, consumers have started to rely on online reviews. Although, the computer mediated communication, referred to as CMC, seems to offer instant sense of satisfaction, however, it lacks the ability to experience nonverbal cues, such as gestures, eye contact, facial expressions, touch, etc., which are used to pursue interpersonal goals. Hence, it is considered to be a form of "lean" media. This lack of nonverbal cues on the online domain effects the perceived quality of computer mediated communication, which could in turn lead to decreased feeling of connection and intimacy (Gunawardena, & Zittle, 1997; Janssen, Ijsselstijn, & Westerink, 2014).

2.19 Emoji and Emoticons

Emoji are used in electronic communication to fill the gap created by nonverbal cues. These graphical illustrations represent facial gestures, actions, characters and objects in order to fill the void generated through non-verbal communication cues (Ganster, Eimler, & Nicole, 2012; Tossell, Kortum, Shepard, Barg-Walkow,Rahmati, & Zhong, 2012). Also, some studies suggest that emoji tend to influence the personal mood of the receiver (Gangster, Eimler & Nicole, 2012). Emoji and emoticons are believed to increase intimacy and immediacy by reducing the perceived psychological distance and lack of human warmth on the online domain (Ganster, Eimler, & Nicole 2012; Hayes, Carr, & Wohn, 2016; Janssen, Ijsselstijn, & Westerink, 2014; Lo, 2008). However, there is limited academic research and though existing studies support and suggest, that the use of emoji and emoticons tends to reduce the virtual gap to some extent, but no study has explored when emoji and emoticons are used on online product presentations whether they have any sort of impact or influence on the image of the product advertised in the minds of the receiver/user. Hence, there is a need to further examine the impact of emoji and emoticons on product image.

2.20 Critical Conclusion

Consumer behaviour is complex as it varies depending on individual idiosyncrasies and characteristics. Purchases can be *rational* or *emotional* (Solomon et at. 2013). Consumers employ multiple senses, both sequentially and in parallel, in order to actively and passively explore their environment to confirm expectation and to perceive new information (Turk, 2014). External stimuli contribute during information search and evaluation. In the context of advertising a product on a social media

platform, multimodal metaphors provide additional bandwidth to communicate information. Despite the consumers' knowledge about a product, they will still need to supplement their knowledge with some form of an external search. Some of this supplementary data is obtained through advertisements, friends and increasingly social media platforms (Solomon et al. 2013). Fortin and Dholakia (2005) suggested, that as the complexity of the presentation of an advertisement increases, the possibility of diminishing returns on effectiveness also increases. This complexity is often mitigated by balancing the interactive features and design in a way that the presented media impacts favourably on the purchase decision of a potential consumer.

The impact of using multimodal metaphors, on their own or in combinations, on social platforms has not been extensively researched. Hence, there is a need to pursue the role of multimodal metaphors interactivity in this context. Rigas and Alseid, (2011), for example, demonstrated the successful use of multimodal metaphors to communicate information in e-learning. Also, Rigas and Almutairi (2013), identified the positive impact of multimodal metaphors on ease of use of learning materials & other information. Interfaces that communicate information to users using several communication channels often provide a more usable interaction (Rigas and Almutairi, 2014). Rigas et al., (2014), suggest, that the use of multimodal metaphors in interfaces aids the communication process. In interface application the use of speech and non-speech reduces the time taken to complete task and restraints users from making mistakes.

Further studies, such as that conducted by Alijani, Mancuso, Kwun and Omar, (2010), explored various online advertisement factors that motivate consumers to recall online advertisements, which then helps eventually to make a positive purchase decision. The results revealed that price, embedded videos, product or services and credibility

make advertisement a very effective tool in helping motivate consumers to recall online advertisements and hence in future making business transactions. Their research also stated, that embedded video advertisement is the most effective to enhance online advertisement and motivate consumers to make positive purchase decision. However, the study was conducted on residents of New Orleans, Louisiana only. Also, their study did not address the impact of other multimodal metaphors towards overall effectiveness and purchase decision. The study also overlooked the potential impact of these different metaphors on product understanding, likeness and purchase intention.

Studies in e-WOM and emoji have examined the impact of these on customer satisfaction and brand relationship but not addressed the impact on product image. Current studies suggest, that pictorial cues, specifically emoji, and reactions tend to reduce the perceived psychological gap on the social media platforms. However, additional investigation is needed to assess the impact of emoji on the product image, when used in online advertisement context.

This study aims to explore the way in which different multimodal metaphors (e.g. text, visual, graphical) can be best used on social media platforms to provide positive impact on the consumer's decision-making process. Furthermore, existing studies lack the understanding of the effect of individual multimodal metaphors on individual products. The study will examine whether the presence or absence of these multimodal metaphors on social media platforms affects effectiveness and user satisfaction, and also which specific multimodal metaphors when used in a presentation to present a product aid product *understanding,* product *likeness* and overall *effectiveness leading to positive purchase decision.* The impact of

effectiveness and user satisfaction on purchase decision will be investigated including the link between emoji and product image.

2.21 Key Literature Summary Table

Author	Key findings and limitations
Weingber and Pehlivan, 2011	Social media marketing is essential part of business to success, significant investments made on this area. However, limited availability of effective guidelines and framework to gains significant benefits.
Fortin and Dholakia, 2005	Increased presentation complexity decreases returns on effectiveness, but doesn't suggest which metaphors help decrease complexity.
Alijani, Mancuso, Kwun and Omar, 2010	Explored various online advertisement factors that motivate consumers to recall online advertisements which is expected to lead to purchase decision. The results revealed that price, embedded videos, product or services and credibility make advertisement a very effective tool in helping motivate consumers to recall online advertisements. However, their

	study did not address the impact of other multimodal metaphors towards overall effectiveness and purchase decision. The study also overlooked the potential impact of these different metaphors on product understanding, likeness and purchase intention.
Rigas and Alseid, 2011	Demonstrated the successful use of multimodal metaphors to communicate information in e-learning.
Rigas et al., 2014	Suggested that the use of multimodal metaphors in interfaces aids the communication process. However, impact of using multimodal metaphors on social platforms and its effect in creating product likeness, understanding, effectiveness and purchase decision not tested.
(Ganster, Eimler, & Nicole 2012; Hayes, Carr, & Wohn, 2016; Janssen, Ijsselstijn, & Westerink, 2014; Lo, 2008).	Emoji and emoticons have found to increase intimacy by reducing perceived psychological distance and lack of human warmth online, but the study has not explored when emoji and emoticons are used on online product presentations

	whether they have any sort of impact or influence on the image of the product advertised in the minds of the receiver/user.

Based on the literature review conducted and gaps highlighted in the current area of social media marketing and multimodality a series of research questions have been developed. These research questions are informed by literature, mostly from the key sources which have been discussed in the table above. The current gaps in the literature and limitations of existing studies have helped inform the research questions for this study which are listed below.

2.22 Research Questions

1. *Is there a contributing role of multi-modality and social media in e-marketing?*

   A large number of advertising web platforms will be analyzed to evaluate the role of multimodal metaphors and social media. Their effectiveness in influencing consumer purchase decision will be investigated.

2. *Is there a difference between multimodal with social presence and conventional marketing on consumer decision making?*

   The absence or presence of individual multimodal metaphors on social platform & its impact on the final purchase decision of the consumers will be investigated.

3. **What is the effectiveness of the combination of different communication metaphors to convey information involved in social media marketing?**

When a combination of metaphors, such as text, visual, graphical and others are used to feed consumers with product information, are they effective? Here effective is used in the context:

Effective: Successful in providing the consumer with right type and amount of information, without overloading the user, creating product likeness and product understanding leading to a positive purchase decision.

4. **To what extent does Multimodal interactivity on Social platform lead to user satisfaction?**

Do the interactive features of multimodality on social platforms, which play the role of humans, instill a feeling of 'warmth' & make the users feel comfortable and confident about the product knowledge and information. User satisfaction is reflected by the final purchase decision.

5. **How can we validate multimodal social media marketing to ensure its effectiveness?**

Experiments will be conducted to validate whether the presence of multimodal metaphors on social media contribute towards influencing the consumer to make a buying decision or not.

6. **How can interface designers take advantage of these findings?**

Guidelines will be developed highlighting combination of metaphors that prove to be more effective. Will allow interface designers to develop interaction methods and interfaces which eliminate the existing constraints in human-web interaction. The above-mentioned research questions will be achieved by conducting a 2 stage survey discussed within the Methodology in Chapter 1.

76

Chapter 3 - Stage I:

Combined Multimodal Effect on Consumer Decision and Analysis of the Impact of Individual Metaphors on Consumer Decision

3.1 Introduction

This Chapter addresses the first stage of the empirical investigation. The main purpose of this preliminary stage was to investigate the user comprehension on the use or lack of multimodality and explore whether its presence help users develop a clear and robust understanding of the product advertised. This stage with the help of adopting a quantitative approach, aimed to investigate the impact of multimodal interactivity on consumer purchase decision. It also reflected on single and combination metaphors, including, Video, video and text, Image and text and audio and seeked to address, what impact these metaphors have on the consumer purchase decision. Furthermore, this stage helped understand and gather the consumer viewpoint in regard to the effectiveness and efficiency of the current online social media platforms as compared to the traditional/conventional shopping experience. Lastly, it explored the current user satisfaction level of these social media platforms. In order to achieve these, a self-developed questionnaire was used which consisted questions of multiple format, including multiple choice, dichotomous answers, self-assessment Likert-scale questions and few open-ended questions. This allowed developing a greater understanding of the overall viewpoint and explore whether multimodal metaphors

only act as informant tools or their presence has as impact on the user's final purchase decision. Convenience sample was collected from London. The sample consisted of 58 participants, (29) male and (29) female, aged between 18 and 35 years old. The age profile of respondents consisted of 18-21 years old (8.6%), 21-25 (34.5%), 26-30 (37.9%) and 31-35 (19%).

Initially data from 60 respondents was collected, however 58 valid responses were gathered. The sample number was appropriate for the purpose of this study as the aim was to statistically analyze data in order to answer the proposed research questions. Research suggests that in order to effectively conduct statistical analysis a minimum of 30 respondents is sufficient. Hence 58 valid responses were considered as sufficient to effectively analyze data and answer research questions.

3.2 Aim and Objectives

The aim in this Chapter was to develop an overall opinion on the user comprehension of the presence or absence of multimodal metaphors on social media platforms. This empirical stage aimed at understanding whether the interactive multimodal features on social media aid user understanding of the product advertised or whether it also has any significant impact on consumers purchase decision. The data gathered also reflects upon whether the social media platforms are more effective and efficient, compared with conventional marketing approaches.

In order to achieve these aims, the objectives included gathering an overall understanding of the user knowledge on the absence or presence of the multimodal metaphors used on social media to advertise various products. The purpose was to explore whether the users appreciate the presence of these metaphors and whether

these metaphors only act as informant tools aiding user understanding or whether they also had any impact on the consumer's final purchase decision. Multimodal metaphors increase interactivity on social media platforms and try to overcome the human absence, the objectives addressed helped shed some light on to what extent this is true.

3.3 Research Questions

The stage I data gathering helped reflecting on a number of different research questions. The research questions were designed to better understand whether online users appreciate the presence and absence of multimodal metaphors on social media platforms; whether they find any significant difference between online advertisements (with the use of multimodal metaphors) and traditional/conventional marketing. Also, it was imperative to understand the role of these multimodal metaphors and seek more understanding in relation to their role, in providing users with the product information and whether these metaphors play any significant role in impacting consumers purchase decision. Furthermore, this survey helped reflect on the current user satisfaction level provided on social media platforms and further areas which will help increase user satisfaction were identified.

R.Q.1 - Is there a contributing role of multi-modality and social media in e-marketing?

R.Q.2 - Is there a difference between multimodal with social presence and conventional marketing on consumer decision making?

R.Q.3 - Does Multimodal interactivity on Social platform lead to user satisfaction?

3.4 Research Objectives

R.O.1 - Gather an overall viewpoint of the user comprehension on the use or lack of multimodality. This will be investigated to address the following:

a) How well do users understand and appreciate the presence of Multimodality?

b) Does its presence help users develop a clear & robust understanding of the product advertised?

R.O.2 - The effect of presence and absence of Multimodal metaphors on social media platforms on the consumer's final purchase decision. Do multimodal metaphors only act as information tool or does their presence has an impact on the user's final purchase decision?

3.5 Methodology

A positivistic approach was adopted for this stage. Quantitative research methods are appropriate to achieve the aims of this study as it helps to investigate the phenomenon in a systematic manner. Quantitative methods help offer analysis through a scientific approach and empirical observations, through the expression of quantitative relationships. Descriptive and inferential statistics were used to help better understand the phenomenon under investigation, which in this case is the understanding of the multimodal metaphors and their impact on purchase decisions on online platforms. Survey research is one of the most widely and commonly used methodologies of quantitative methods which allows carrying out a study on small and large populations by selecting a sample from desired population in order to determine relative distribution, incidence and interrelations (Kerlinger, 1973). A cross-sectional survey was conducted to fulfil the purpose of this stage.

3.6 Questionnaire Design

For the purpose of Stage I survey, a self-developed questionnaire was used in order to address the research questions and objectives in the most effective manner. The questionnaire includes questions of multiple format, such as multiple-choice questions, dichotomous questions, self-assessment Likert-scale questions, open-ended and closed-ended questions. This allowed gathering greater and detailed understanding of the user's overall viewpoint and comprehension on the absence and presence of multimodal metaphors and its impact on their purchase decisions. Range of different questions were developed in order to understand the role of multimodal metaphors in aiding user understanding and their impact on purchase decision. Furthermore, questions were developed to gain some understanding current interactivity on social media/online platforms and its impact on user satisfaction.

The questionnaire mainly falls into two distinct categories, the *demographics* questions and the *content* questions. The demographic questions are also known as the factual items and seek information from the respondents such as age, gender, marital status, occupation etc. The content questions allow exploring and underpinning the opinions, attitudes and behaviours of the respondents (Graziano and Raulin, 2004). The questionnaire includes variables such as demo graphs, attitudes, behaviour and knowledge items.

Initially a sample of 60 respondents was selected to be researched on but 58 valid responses were collected. The questionnaire developed for the survey I compromised of 31 questions of multiple format to reflect in detail on respondent demographics and their overall comprehension on the use or lack of multimodal metaphors on social media/online platforms. Series of questions were developed in order to understand the

current online shopping behaviour of the respondents. Questions were designed to be able to get a user viewpoint on general understanding of difference between online and traditional/conventional marketing. The first section of the questionnaire included demo graph questions, which allow to identify potential relationship between attitudes and knowledge (Milbrath et al. 1991). The next section of the questionnaire aimed to understand the online proficiency of the respondents. As the questionnaire is aimed at understanding whether users can differentiate between the absence and presence of multimodal metaphors and if they only act as informant tools or have a role beyond that such as impacting on purchase decision, it was important to understand that the respondents were proficient users of online platforms and if they had prior online shopping experience and the frequency of shopping online.

A series of Likert scale questions were developed. The main aim of Likert scale questions was to be able to measure the intensity and strength of feelings related to a phenomenon. For the purpose of this survey, Likert scale questions were developed in order to determine the difference between social media marketing and conventional marketing and offer a comparative analysis between these two in regard to many different factors. Statements were developed to understand the effectiveness, i.e. whether they have an impact on the purchase decision; the efficiency, i.e. the speed; the complexity of the adverts presented on these platforms; information richness of these two platforms, current interactivity and entertainment. These questions were developed as it was important to understand the attitude of current users towards the social media/online platforms as compared to the conventional shopping methods.

Furthermore, as this staged aimed to also determine how well users understand and appreciate the presence of multimodal metaphors on online platforms, specific questions were developed to investigate the impact of online adverts using Text,

Image, Audio and Video, to establish which of these metaphors help develop a more detailed understanding of the product advertised. Some studies suggest that multimodal metaphors help aid learning and understanding, however, it was also very important to understand whether these metaphors, when used alone or in combination have any impact on the final purchase decision. In order to reflect on this, another Likert scale question was developed where the impact of single and combination metaphors used in online advertisements including text alone, Illustration and text, audio alone, illustration and audio, video alone and video and text, were investigated in relation to their impact on positively impacting consumers final purchase decision. Users were asked, which of the single metaphors or combination metaphors when used in an online advert is likely to have a positive impact/influence on their final purchase decision. This question was vital for this stage as it was important to develop an understanding as to which metaphors, if any, not only act as an informant tool but goes beyond that and influences the purchase decision of the consumer.

Further questions were asked to understand whether multimodal interactivity on online platforms leads to user satisfaction and how the existing platforms can be further developed to improve the current online user experience and provide high online satisfaction.

In order to ensure the validity of the self-developed questionnaire various steps were taken. The questionnaire went through a four-stage development. First, the questionnaire was developed by the researcher ensuring that it will enable addressing the research questions for this stage in a significant manner. The questionnaire was then peer reviewed and also reviewed by the supervisor and feedback/changes were taken on board. After this stage a pilot study was conducted with a sample of 20 users to further ensure the instrument is

3.7   Data Analysis and Discussion

For the purpose of stage I survey, different variables were developed in order to effectively collect and analyse data. Different types of data including ordinal, nominal and dichotomous were collected.

3.7.1 Sample Profile against gender

A total number of 58 respondents took part in the survey, 29 (50%) male and 29 (50%) female and 58 valid responses were received. All the respondents fall in the age group between 18-35, with the largest group falling in the age group of 26-30, accounting for 37.9%, out of which 20.70% account for females and 17.20% males.
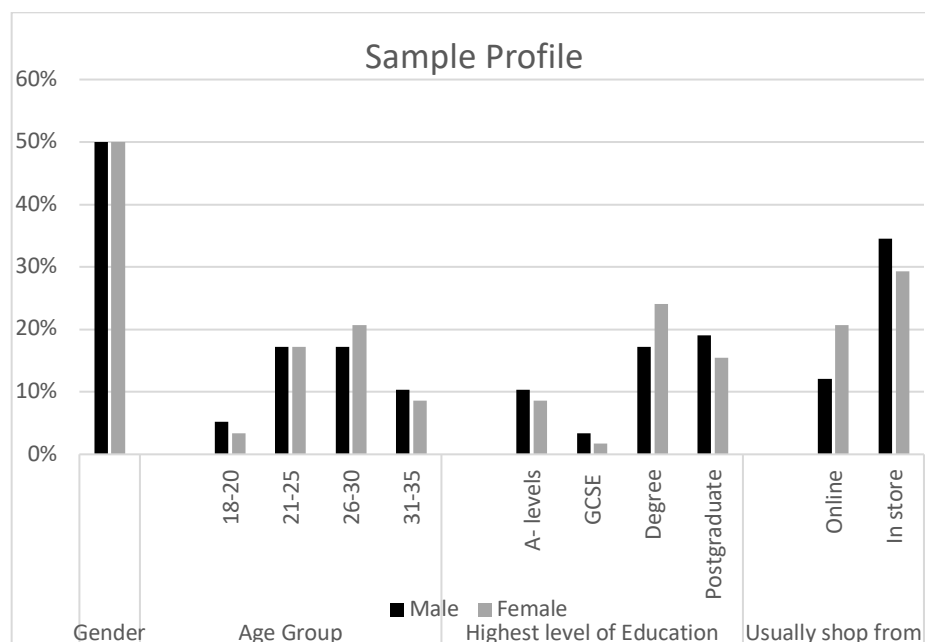
Figure 5: Sample profile against gender.

The second largest group falls in the age group of 21-25, making up 34.5%, out of which 17.20% account for females and 17.20% for males. However, the smallest group of respondents fall in the age group of 18-20, accounting for only 8.6%, of which 3.40% are female and 5.20% male.

Out of the 29 female respondents, the educational profile consists of 14 (24.10%), with Degree or Diploma, and 9 (15.5%) with a Postgraduate degree. Whereas, out of the 29 male respondents, 10 (17.2%) hold a degree and 11 (19%) have acquired postgraduate degree.

Out of the 58 respondents who took part in the survey, 63.8% prefer to shop in-store, out of which 34.50% account for male and 29.30% account for female. On contrary, 32.8% prefer to shop online, of which 20.70% are female and 12.10% male. This question had an invalid response of 3.4%.

3.7.2 Sample Internet Proficiency Against Gender

The respondents were posed with a set of different questions in the survey in order to identify their internet proficiency. The largest group accounting for 25 (43.1%), indicated that they use internet most on smart phone, of which 22.40% were female and 20.70% male. The second largest group of 22 (37.9%), indicated that they prefer using internet on their Laptop, out of which 15.50% were female and 22.40% male. It can be clearly seen that females prefer using internet most on their smart phones, whereas male prefer using internet on laptop. However, from the results, smartphone seems to be the device on which majority of the respondents prefer using internet on as compared to laptop, tablet and desktop. This can be largely due to the convenience factor, as smart phones allow you to perform most of the tasks which were previously

only possible on desktop or laptop, not to forget the ease of using internet on the go, made possible by smart phones.
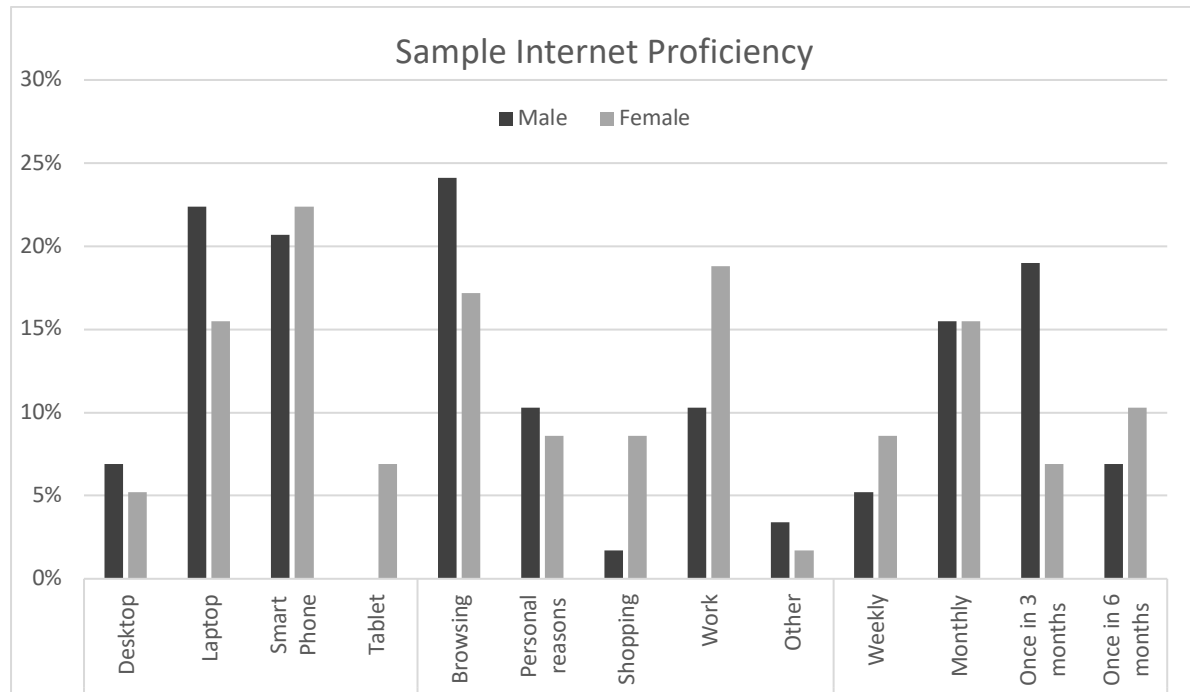
Figure 6: Respondent internet proficiency against gender.

A cross tabulation between gender and reasons for using internet most, indicated that the largest group of females accounting for 13.8% used internet most for work purposes. The second largest group (17.2%) used internet for browsing, followed by 8.6% who use internet for shopping. Whereas, 24.1% of male respondents indicated that they use internet most for browsing, followed by 10.30% who use for work purposes. However, the overall results indicate browsing to be the reason for which majority of total respondents (41.4%), use internet for, followed by work (24.1%), personal reasons (19.0%) and shopping (10.3%). It is interesting to notice that the smallest group, consisting of 1.7% male use internet for shopping purposes, which clearly indicates towards the difference in male and female shopping behaviour.

The survey aimed to gather an understanding of the frequency of online shopping. Results indicated that a large number of respondents, (31.0%) shop online on monthly basis, followed by 25.9% who shop once in every 3 months. Only 13.8% respondents shop on weekly basis. However, results indicated equal number of male and female (50%) who shop online on monthly basis. These statistics indicate towards ever growing trend of shopping online on significantly regular basis, equally by both genders.

3.7.3 User Perception of Different Advertisement Contexts

With the growth of internet and a shift in consumer buying behaviour, majority of the firms are now marketing through social media. In order to develop a greater understanding of the user perception of different advertisement contexts, specifically social media marketing versus conventional marketing, the respondents were asked a series of Likert-scale questions. Results illustrate that a large group of respondents (41.40%) strongly agree that social media marketing is more 'influential' as compared to conventional marketing. 22.40% agree, whereas only a small percentage of respondents (8.60%) disagree that advertisements on social media are more influential than conventional marketing.

On contrary, the largest group that perceives advertisements through conventional marketing to be more influential account for 34.50%. However, 6.90% disagree and 12.10% strongly disagree to the claim that conventional marketing is more influential than social media marketing. Social media is well known for providing a large audience the opportunity to communicate across the globe to share and exchange information. Peer reviews and word of mouth play a critical role in influencing purchase decisions,

which could be one of the reasons why the number of respondents perceive social media to be more influential.
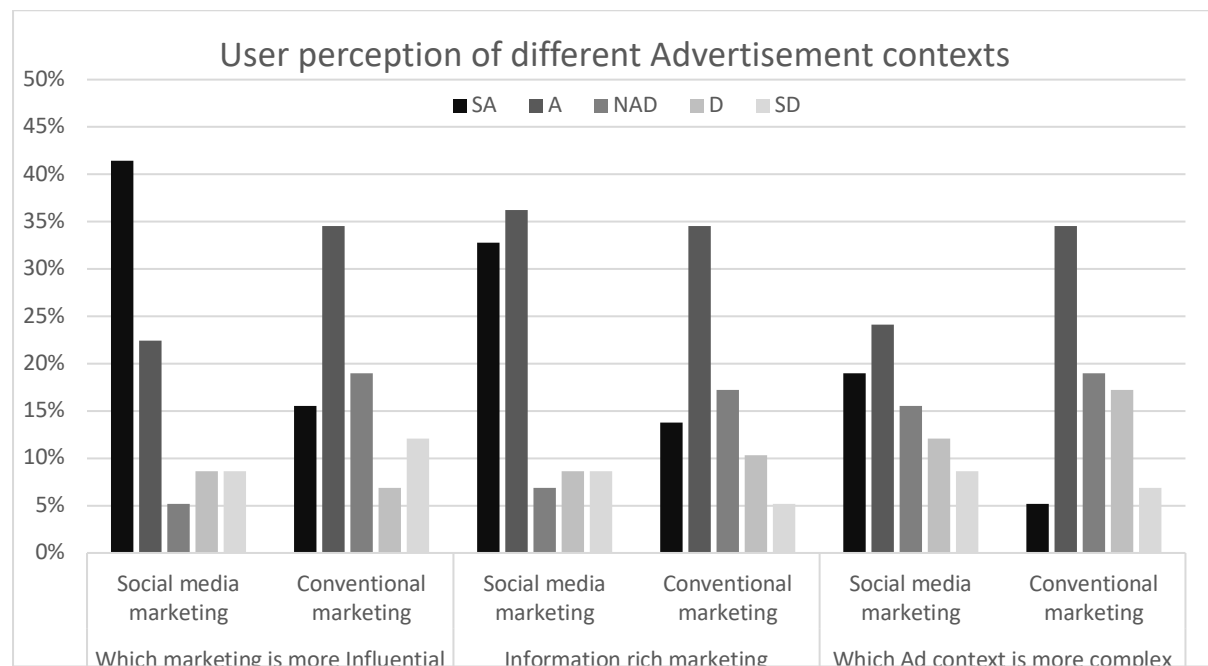
Figure 7: User perception of different Advertisement contexts.

Also, with the growing trend of social media Influencers, specifically on social media platforms such as Instagram, help create not only product awareness but also product desireness. Social media influencers are people who have either perceived or real power to exert influence over other people's purchase decisions, (Mavrk, 2014). This could be due to their knowledge, authority, position and/or relationship they have with other people on these platforms. The social media influencers play a very significant and extremely important role on these online platforms; they not only spread information through different means on the online platforms, such as videos, blogs, they share their own experiences and stories through various formats, including videos and pictures. They offer their own insights, thoughts and experiences in relation to different services and/or products and overall they play a very important role in

influencing people, (Alsulaiman, Forbes, Dean & Cohen, 2015; Alhidari, Iyer & Paswan, 2015).

Furthermore, the results indicated that a large number of respondents (69%), perceive social media marketing to be more information rich as compared to conventional marketing. Out of which 32.80% strongly agree and 36.20% agree. Only 17.2% respondents do not perceive social media to be more information rich. On the other hand, 34.50% of respondents agree and 13.80% strongly agree, that conventional marketing is more information rich. These results highlight the importance of social media as a medium to transmit information. The ability of social media to allow organisations and individuals to upload and share information, which is usually accessible to all, free of cost, makes it one of the most influential and information rich medium.

The main aim of marketing along with product/service promotion and brand creation is to be able to aid user understanding of the product or service advertised. Hence it is vital to ensure that the users do not find the advertisement context and the information marketed too complex to digest. Results from the survey illustrated, that a large group of respondents, accounting for 43.1% find advertisements via social media marketing to be a lot more complex as compared to conventional marketing, where 39.7% respondents find it more complex. However, 20.7% respondents disagree that social media marketing is more complex. In contrast a larger group of 24.1% respondents disagree that conventional marketing is more complex. This indicates that out of the respondents who took part in the survey, most of them find advertisements on social media to be more complex as compared to conventional marketing.

3.7.4 Respondent View-Point of different Advertisement Modes

To further understand the respondent view-point of specific advertisement modes, another set of Likert-scale questions were posed. From the results illustrated below it can be clearly seen that the largest group of respondents, 37.90% strongly agree and 31% agree that advertisements on social media are most convincing.
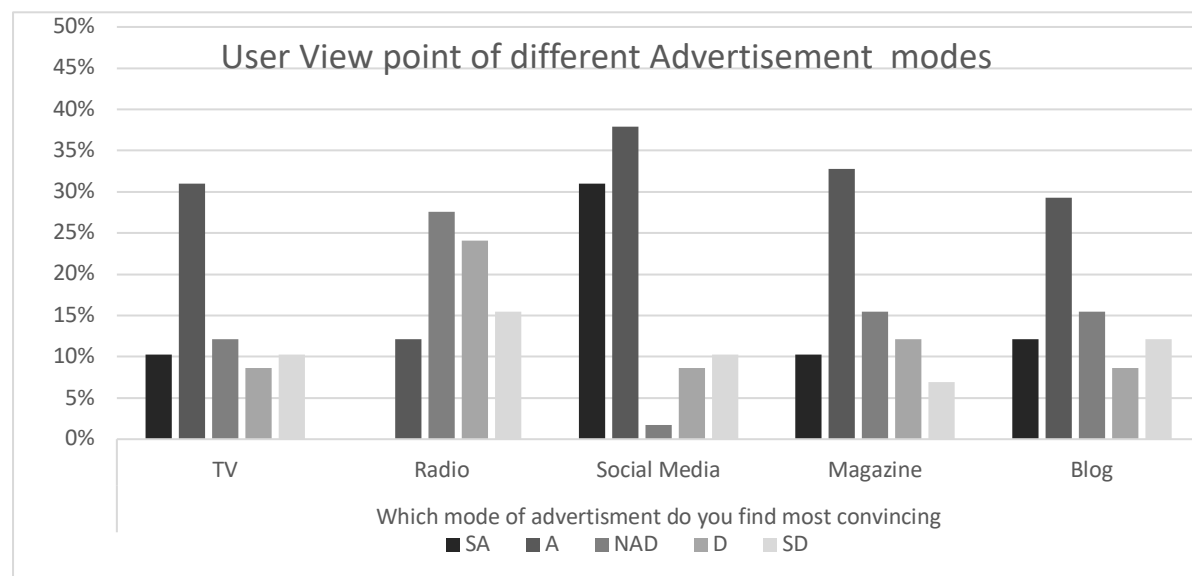
Figure 8: Respondent viewpoint of different advertisement modes.

The second most convincing advertisement mode form the results is magazine, 32.80% agree followed by TV where 31% respondents agree. However, the advertisement mode which seems to be least convincing from the results is Radio, where only a mere 12.10% agree and 24.10% disagree. The graphical illustrations reflect that the respondents find social media to be the most convincing mode of advertisement, which might be due to its information richness, as revealed from above results.

3.7.5 User Understanding of Social Media Marketing

In order to develop an understanding of respondent's view point of social media marketing, the social media marketing was tested against 5 variables, including Open systems, Two-way communication, Authentic content, Influencing and Real time creation. The aim was to identify which variables are accepted amongst the most respondents as significant traits of social media marketing.
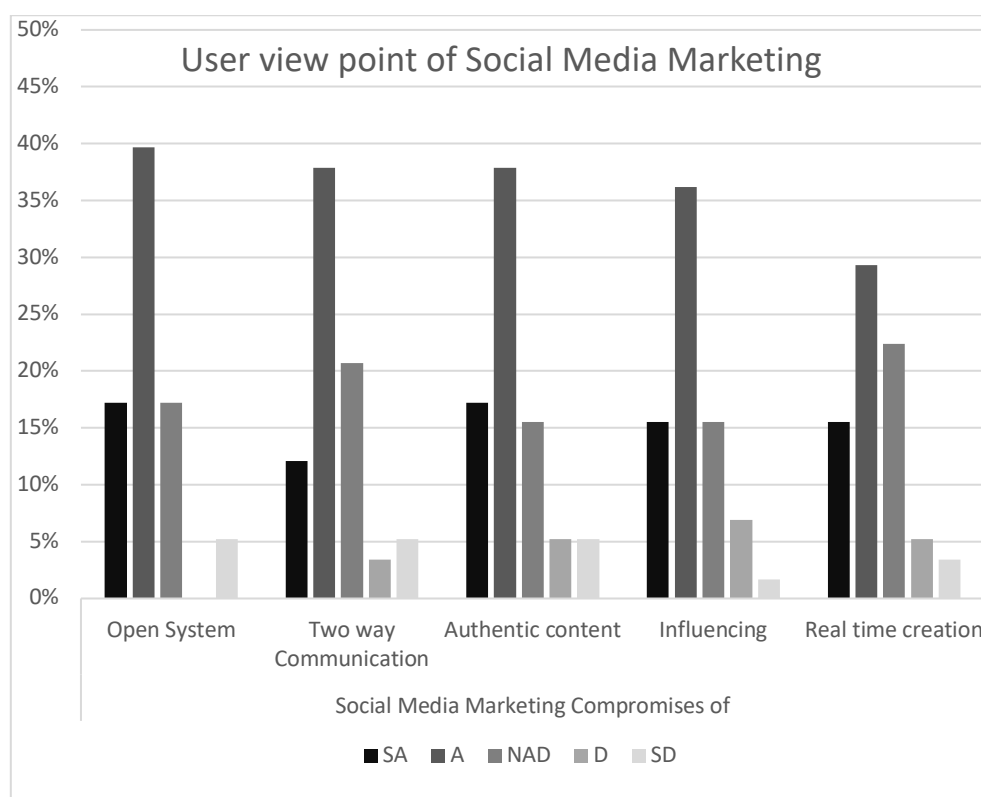
Figure 9: User View point of Social Media Marketing.

Results indicate that the largest group accounting for 56.9% believe social media marketing to be compromised of an open system. Out of these 39.70% agree and 17.20 strongly agree. The second largest group accounting for 55.1% perceive social media marketing offers authentic content. 51% claim it to be influencing and 50% believe it offers two-way communication. The smallest group, 44.8% of respondents,

felt that social media marketing offers real time creation. Open system and authentic content are the two major traits which majority of the respondents agree are part of the social media marketing.

Multimodal metaphors are interactive systems that aim to enhance human abilities to communicate effectively via audio, visual, graphical illustrations and other modalities. Multimodal metaphors are present on the digital domain to enhance user understanding of the product/service advertised. In order to identify the impact of individual multimodal metaphors to aid user understanding a series of Likert scale questions were posed to the respondents.
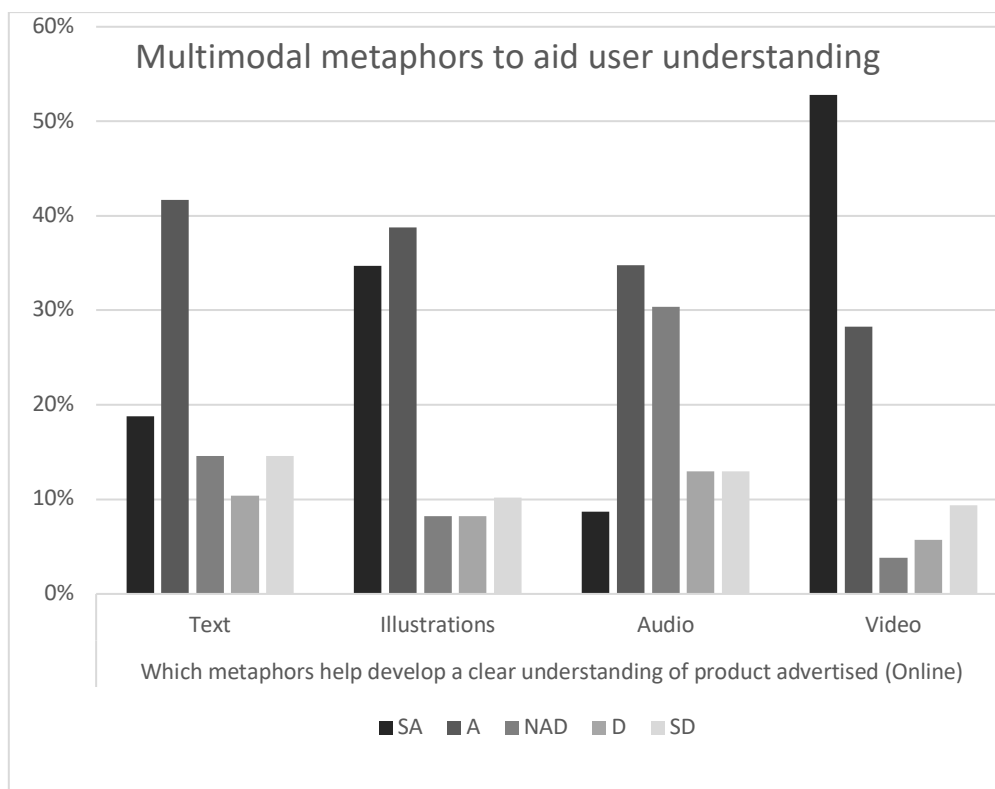
Figure 10: Impact of multimodal metaphors to aid user understanding.

Results illustrated that the largest group of respondents accounting for 81.1%, where 28.30 agree and 52.80 strongly agree, find Video to be the most significant metaphor in developing a clear understanding of the product advertised. The next metaphor which aids user understanding most after video is Illustrations for which 38.30% agree and 34.70% strongly agree, making a total group of 73.5%. 60% of the respondents find Text to aid their product understanding and only 43.5% find Audio to help them develop a clear understanding of the product advertised online.

The graph clearly illustrates that all 4 metaphors are significantly important to aid user understanding of the product advertised online. However, Video (which compromises of all remaining metaphors) and Illustrations appear to be the most critical metaphors in enhancing user understanding. Interestingly, text also seems to play predominant role in aiding user understanding of the product advertised.

3.7.7 Impact of Multimodal Interactivity on Purchase Decision

It is important to determine whether multimodal metaphors only act as informant tools to aid user understanding or if they have any impact on the consumer purchase decision. This has been addressed in the survey through dichotomous questions. 50% of the respondents stated that absence of sales assistant (human) does not affect their purchase decision, whereas 48.30% stated that it would affect their decision. However, a large percentage of females accounting for 29.30% agree that absence of sales assistant would affect their purchase decision, whereas a large proportion of the male respondents (31%) stated that their purchase decision would not be affected by the human absence. This clearly shows that although majority users feel that the absence of human would not have an impact on their purchase decision there is clearly a difference of shopping behaviour and preferences across genders.

93
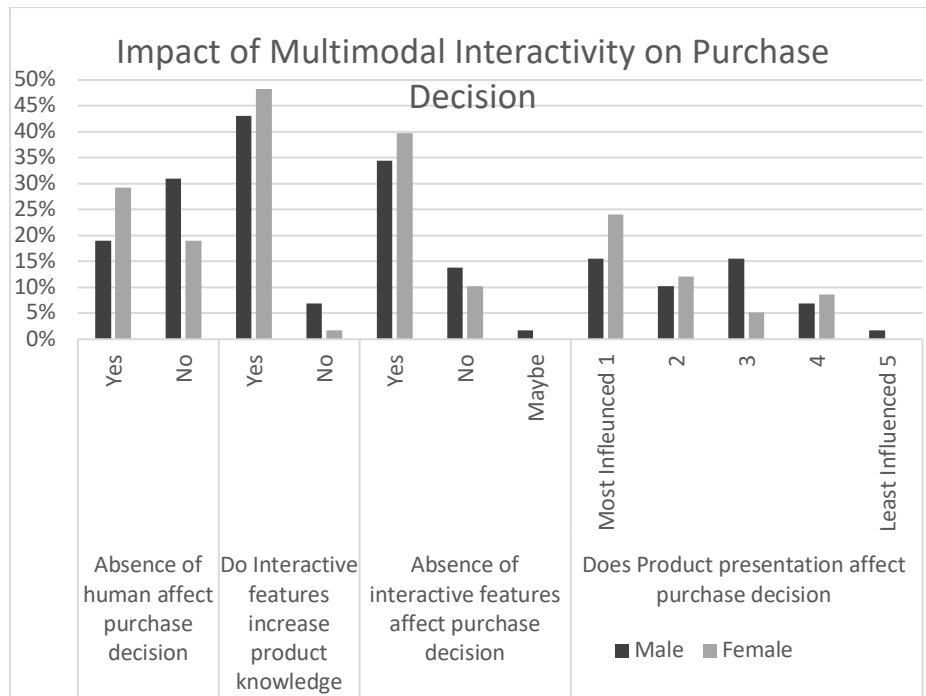
Figure 11: Impact of Multimodal Interactivity on user purchase decision.

The results have also revealed that a large proportion of respondents, both male & female, accounting for 91.4% agree that interactive features increase their product knowledge. Only a mere 8.6% disagree. This highlights the importance of interactive features to increase product knowledge. The respondents were further questioned to identify whether the absence of interactive features affects their purchase decision, to which 74.20% answered yes. A small group of 24.1% claim that interactive features have no influence on their purchase decision. 1.70% were unsure. These results demonstrate the importance of interactive features in not only increasing product knowledge and aiding user understanding but also affecting the purchase decision. Further, a large number of respondents (39.6%) stated that the product presentation affects their purchase decision. Only 1.70% are barely influenced by the presentation of the product.

3.7.8 Impact of Interactive Features on Consumer Purchase Decision
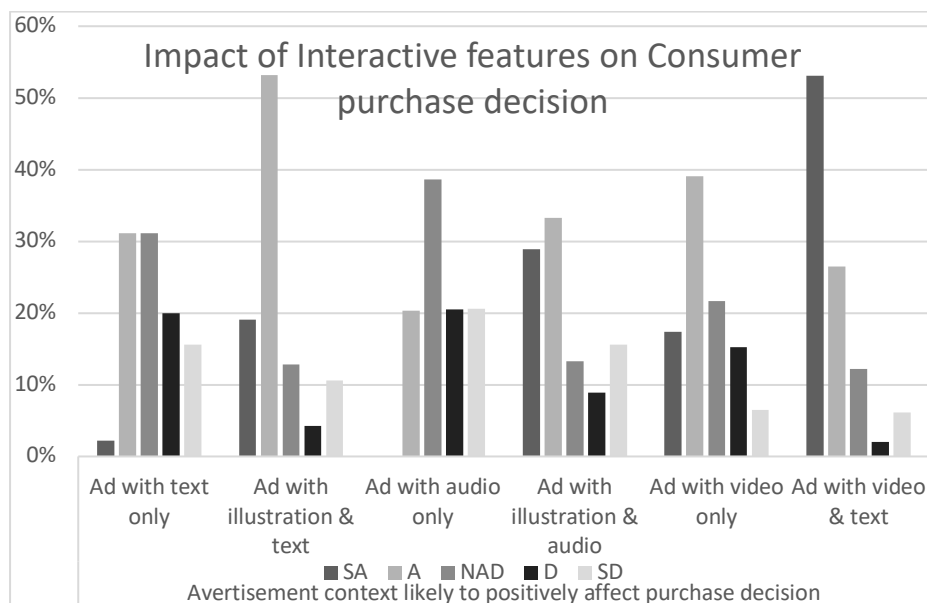
Figure 12: Impact of Interactive features on Consumer purchase decision.

To further understand the impact of specific single and combination metaphors used in advertisement context to positively affect consumer purchase decisions, another series of Likert scale questions were asked. The results indicate that the largest group accounting for 53.10% strongly agree and 26.50% agree, that advertisements with a combination of video and text are most likely to positively affect their final purchase decision. The second combination of metaphors which is believed to positively affect the purchase decision is advertisement with illustrations and text, strongly agreed by 19.10% and agreed by 53.20%. of the respondents.

However, advertisements with audio only seem to have little impact to positively affect the purchase decision, as only 20.30% agree that this combination positively affects their purchase decision. From the results, it can be devised that the combination of metaphors used in online advertisement, which are most likely to have a positive effect on the purchase decision are Video with text and Illustrations with text. Audio used on its own in advertisement context does not seem to have a significant impact on

95

purchase decision. One of the reasons could be as audio alone would not be sufficient enough to feed customers with significant information about the product advertised. And for most consumer's aesthetic value of a product is very high which can be satisfied through either video or illustrations prior to their purchase.

3.7.9 Online Commerce Effectiveness, Efficiency and User Satisfaction

With majority of the organisations now advertising their products and services online, it was important to investigate how efficient and effective advertisement on social media is. Efficient here is used in the context of faster and Effective in the context of successful in leading to a positive purchase decision.
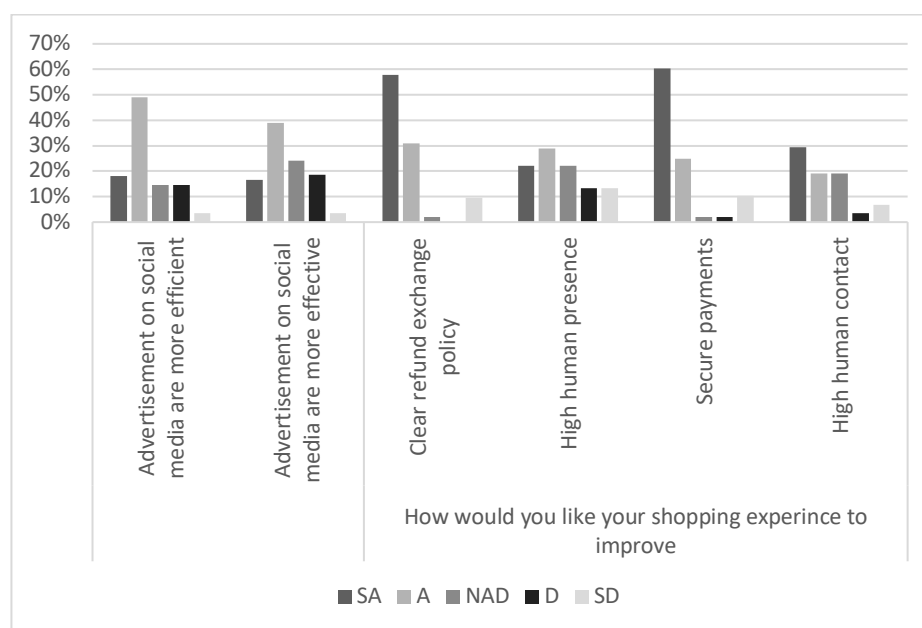
Figure 13: Online buying Effectiveness, Efficiency and User Satisfaction.

Most of the respondents, (49.10%), agree that advertisements on social media are more efficient. Only 14.50% disagree. A large number of respondents (38.9%) believe that advertisement on social media are more effective, hence leading to a positive purchase decision. However, 18.50% of the respondents disagree. The respondents were also asked how they would like their online shopping experience to improve. The

results indicate that a large number of respondents accounting for 60.40% want more secure payment procedures online, in order to avoid frauds and thefts and ensure that their banking information is secure with the retailer. The next largest group accounting for 57.50%, strongly agree that online shopping should have more clear refund and exchange policy. 29.30% want high human contact and 27.20% strongly agree that high human presence would improve their online shopping experience. This backs up the believe that social media lacks human warmth and we humans like to be surrounded by human social presence, as it leads to develop a better product understanding and gains confidence of the product knowledge acquired. However, the interactive multimodal features present on social media and integrated in online advertisements, largely contribute to aid product understanding, influence and positively affect consumer purchase decision.

3.8 Discussion

This research has identified many interesting facts about user view point of social media marketing, online shopping and the impact of multimodal metaphors on consumer purchase decision. With the growth of internet and technological devices to use internet on, Smartphone is the most common device on which majority of the respondents prefer using internet on. The results indicate that the highest online shopping frequency of the respondents is on monthly basis, indicating equal number of male and female (50%). These statistics indicate towards ever-growing trend on shopping online on significantly regular basis, equally by both genders. Results illustrate that a large number of respondents claim social media marketing to be more 'influential' and 'information rich' as compared to conventional marketing. However,

most of the respondents find advertisements on social media to be more complex, but still find social media to be the most convincing mode of advertisement, which might be due to its information richness. Open system and authentic content are the two major traits which majority of the respondents agree are part of the social media marketing.

The research also highlights that Text, illustration, audio and video all 4 metaphors are significantly important to aid user understanding of the product advertised online. However, Video and Illustrations appear to be the most critical metaphors in enhancing user understanding. Results also indicate that Interactive features are not only important in increasing product knowledge and aiding user understanding but also have an impact on the purchase decision. Majority users feel that the absence of human would not have an impact on their purchase decision, but females particularly feel that absence of human sales assistant might impact their purchase decision, there is clearly a difference of shopping behaviour and preferences across genders.

Further, the study identified that combination of metaphors used in online advertisement, which are most likely to have a positive effect on the purchase decision are Video with text and Illustrations with text. Audio used on its own in advertisement context does not seem to have a significant impact to positively affect the purchase decision. Most of the respondents agree that advertisements on social media are more efficient and effective, hence leading to a positive purchase decision. Although online shopping has increased tremendously but there is still room for improvement and development. This study identifies some areas which need to be further improvised. Consumers want their online shopping experience to improve by more secure payment procedures, clear exchange and refunds policy. Some degree of respondents also want high human presence. This study has derived from its results that

Multimodal metaphors based on social media advertisement do not only act as an informant tool by helping consumers gain a better understanding of the product advertised but also influence and positively impact final purchase decision.

3.9 Development of Conceptual Framework

The preliminary findings from the stage I of this study led to the development of a conceptual framework which suggested that multimodal metaphors, specifically video, text and image on social platforms help aid user understanding, offer increased interactivity, and help aid effectiveness and user satisfaction on online platforms, which in turn leads to a positive purchase decision. The conceptual framework proposes that multimodal metaphors help further enhance the likeness of the product presented and help provide detailed product understanding which makes the presentation effective and in turn positively affects the purchase decision. The conceptual framework also suggests that emoticons and reactions presented on the online domain by other users, on various different social media platforms allows sharing views about product advertised which can influence the product image in the mind of users. The conceptual framework has been guided by the literature review conducted in chapter 2, and by some key findings of stage I. the framework proposes that multimodal metaphors, including text, image, combination of text and image and video, present on online platform can create product likeness, product understanding and purchase intention. Once these tree variables are achieved on the online domain they lead to the effectiveness of that presentation. And in turn effectiveness of a presentation leads to positive purchase decision. Furthermore, the conceptual framework, form existing literature has proposed that current online virtual assistant,

security perception and perceived usefulness of an online presentation leads to user satisfaction, which in turn positively affects purchase decision. Lastly, it has been observed through the literature review that studies have tested the effect of emoticons and reaction towards creating intimacy and reducing psychological gap on the online domain but their effect on creating product image has not been investigated, so this framework also proposes that these can create product image in the mind of users. Hypotheses are developed from the proposed conceptual framework.

3.10 Proposed Framework
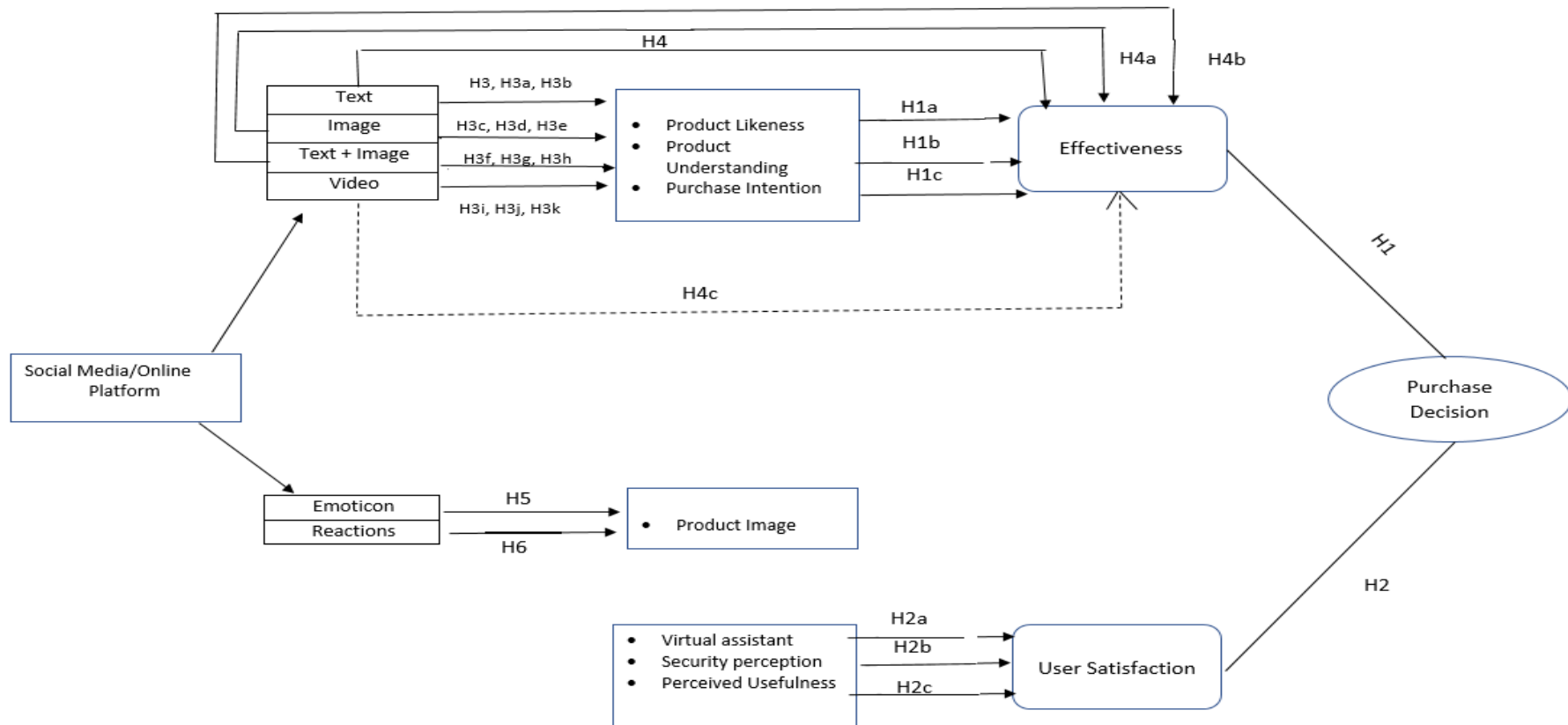
Figure 14: Conceptual Framework.

3.11 Proposed Hypotheses

Main Hypothesis	**H1- Effectiveness on social media/online platform leads to positive purchase decision**
Sub Hypotheses	H1a- Product likeness on social media/online platform has a positive impact on the effectiveness of the platform
	H1b- Product understanding enhances effectiveness of social media/online platform
	H1c- Product presentation on online social media platform has a positive impact on purchase intention
Main Hypothesis	**H2- User satisfaction achieved on social media/online platform leads to Purchase positive purchase decision**
Sub Hypotheses	H2a- Online virtual assistant helps achieve user satisfaction when making purchase queries online
	H2b- Finding social media/online platform secure to make purchases and share personal information allows achieving online user satisfaction
	H2c- The interactivity allows consumers to find social media platforms useful which has a positive impact on their satisfaction of that online experience.
Main Hypothesis	**H3- Presentations with the use of multimodal metaphors help achieve effectiveness on online platform**
	H3a- Text presentations help achieve product likeness on online platform
	H3b- Text presentations help aid user understanding of the product advertised on online platform
	H3b1- Text presentations positively influence purchase intention
	H3b2- Text presentations positively influence purchase intention
	H3c- Image presentations help achieve product likeness on online platform
	H3d- Image presentations help aid user understanding of the product advertised on online platform
	H3e- Image presentations have a positive influence on purchase intention
	H3f- Text+Image presentations make the product presented visually pleasing
	H3g- Text+Image presentations help aid user understanding of the product advertised on online platform
	H3h- Text+Image presentations have a positive influence on purchase intention
	H3 i- video presentations make the product presented visually pleasing
	H3j- Video presentations help aid user understanding of the product advertised on online platform
	H3k- Video presentations have a positive influence on purchase intention
Main Hypothesis	**H4 Presentation using multimodal metaphors on social media/online platform has an impact on the effectiveness of the advertisement.**
Sub Hypotheses	H4a- Text only presentation on social media/online platform has an impact on the effectiveness of the advertisement
	H4b- Image only presentation on social media/online platform has an impact on the effectiveness of the advertisement
	H4c- Text+Image presentation positively contributes to the effectiveness of the advert
	H4d- Video presentation on social media/online platform has an impact on the effectiveness of the advert
Main Hypothesis	**H5- Emoticons used in online adverts contribute towards the product image**
	H6- Reactions used in online adverts contribute towards the product image

Table 1: Proposed Hypotheses

3.12 Conclusion

The findings of this Chapter has led to the development of the conceptual framework and the proposed hypothesis, which suggests that multimodal metaphors, such as text, image, Text+Image and video can increase the overall effectiveness of the online presentation, which is likely to positively influence the purchase decision of the consumers, will be tested. Also, the framework proposes that these metaphors can aid product understanding, enhance product likeness and positively affect purchase intention. The framework also suggests that virtual assistance available on the online platform along with security perception and perceived usefulness is likely to increase user satisfaction, which in turn positively affects purchase decision. The framework also proposes the likelihood of emoticons and reactions, used as E-WOM by other users on the online product presentations can have an impact on the product image of the potential consumers.

These relationships were tested in Chapter four, where users were exposed to various product presentations with the use of above discussed multimodal metaphors and their reactions and responses were recorded. Further descriptive and causal tests were also conducted to understand the impact of these variables, if any, which would allow to approve or disapprove the proposed conceptual framework.

Chapter 4 – Stage II:

Determining Product Understanding, Likeness, Effectiveness and Purchase Decision

4.1 Introduction

This Chapter addresses the second stage of the empirical investigation. The main purpose of this stage was to understand the impact of different multimodal metaphors, used in online presentation, on the likeness, understanding, and effectiveness of the product. Usually, different multimodal metaphors are either used in combination or on their own in order to present a product on the online domain, however, it is necessary to understand what impact these metaphors have on the effectiveness of the product presentation. Furthermore, this investigation explored the factor of 'simulated human presence' on social platforms and its impact on consumer purchase decision making and user satisfaction. The multimodal impact was tested through a simulation of four different presentations. For this purpose, two electronic products (Headphone and Laptop) were chosen, which were presented using four different multimodal metaphors, Text only, Image only, Text and Image and Video.

In this second stage of empirical investigation, the total number of respondents, (n=100), were divided into four groups and each group was exposed to different presentations in order to test their product likeness, understanding, effectiveness and user satisfaction, which was recorded through a questionnaire.

The stage II empirical investigation aimed to investigate the Likeness, Understanding and Effectiveness of four multimodal metaphors, including Text only, Image only, Text and Image and Video, used to present products on the social platforms. It further aimed to determine its overall impact on consumer purchase decision. This stage also explored the factor of 'the simulated human presence' used on social platforms and its impact on user satisfaction and decision making. Furthermore, the impact of emoji and reactions on product image was also tested.

In order to achieve these aims a series of objectives were operationalised. The objectives included determining the specific multimodal metaphors or combinations, that increase the effectiveness of the product presentation, making the decision process more convenient for the consumer. The empirical investigation helped identify specific metaphors that are most effective in maximising human cognitive abilities and positively influencing their purchase decision. Furthermore, it was imperative to understand the effectiveness of simulated human presence on social platforms and to establish whether this simulated human presence offers a fulfilling experience leading onto user satisfaction.

4.3 Research Questions

This stage aimed to address a number of research questions. The research questions were designed to gain a better understanding of the effectiveness of specific multimodal metaphors including text, image, text and image and video when used to present a product and provide product information. The '*effectiveness*' here is used in the context to be successful in providing the consumer with right type and amount of

information, without overloading the user, leading to a positive purchase decision. Effectiveness was tested through product likeness, product understanding and purchase considerations. Furthermore, the presentations also aimed to understand, to what extent the interactive multimodal metaphors used on social platforms are successful in instilling the 'human warmth' factor leading to user satisfaction. It is important to understand the impact of artificial intelligence tools used to replace real humans and whether they are efficacious in providing overall customer satisfaction on the online domain. For this study perceived usefulness, perceived security and current online assistants were considered to investigate online user satisfaction.

Empirical investigation was conducted to validate whether the presence of multimodal metaphors on social media contribute towards influencing the consumer to make a buying decision or not. Guidelines were developed highlighting combination of metaphors that prove to be more effective and efficient. This will enable interface designers to develop interaction methods and interfaces eliminating the existing constraints in human-web interaction leading to increased effectiveness and user satisfaction on these social platforms, leading to positive purchase decisions.

R.Q.1. What is the Effectiveness of specific multimodal metaphors to present a product and convey information on social media platforms?

R.Q.2. To what extent does multimodal interactivity on social platforms lead to user satisfaction?

R.Q.3. How can we validate multimodal social media marketing to ensure its effectiveness?

R.Q.4. How can interface designers take advantage of these findings?

4.4 Research Objectives

R.O.1. Determine the specific multimodal metaphors or combinations that increase the effectiveness of the online advertisement, product likeness, and aid user understanding, making the decision process more convenient for the consumer. Identify specific metaphors that are most effective in maximising human cognitive abilities and positively influencing their purchase decision.

R.O.2. Produce a set of guidelines for the effective use on Multimodal metaphors in social media marketing. Combination of metaphors that prove to be more efficient and effective, leading to positive purchase decision will be produced. This will allow interface designers to develop more effective interfaces and interaction methods.

4.5 Methodology

A positivist approach has been adopted for the Stage II of the empirical investigation, in order to work with an observational social reality and to produce law-like generalisations which are applicable to a larger population (Remenyi et al., 1998:32). The main emphasis would be on quantifiable observation, which will lead to statistical analysis. Highly structured and robust methodology has been used in order to facilitate future replication (Gill and Jhonson, 2002).

A total number of n=100 respondents were selected through a non-probability, convenience sampling technique. This convenience sampling method is deemed as the most appropriate technique contemplating its feasibility and sensibility to address the research objectives and research questions. It is impractical to survey the entire population hence a reasonable, achievable, and sufficient sample of 100 respondents have been chosen from within London to take part in the study.

An empirical investigation was conducted by splitting the total n=100 respondents into four different groups. Each group was formed of equal number of participants (n=25). The stage II of the empirical investigation was developed to present two different products through four different presentations. The products that were used in this experiment included Kokoon Headphone (Product X) and a Hp Laptop (Product Y). Both these products were presented to the audience using four different presentations using different multimodal metaphors. Each group was exposed to only one presentation. The four different multimodal metaphors used in this experiment include, Text, Image, Text + Image and Video.

The first group, referred to as Group A made up of n=25, was exposed to a presentation, presenting both headphones and Laptop, (product X and product Y), with the use of Text only. The second group, referred to as Group B made up of n=25, was exposed to a presentation, again presenting both product X and Y with the use of Image only. The third group, which is signified as Group C made up of n=25, was exposed to a presentation advertising product X and Y with the use of Text and Image. And finally, the last and fourth group, known as Group D, also made up of n=25, was exposed to the presentation of both products, headphone and laptop, with the use of a Video.

The products presented in all four presentations remain consistent and the only condition, which changes in each presentation is the multimodal metaphor which is used to present those products. The purpose of the experiment is to be able to determine the effectiveness of different multimodal metaphors used, in combination or separately on online domain. The presentations used in each group are given below.
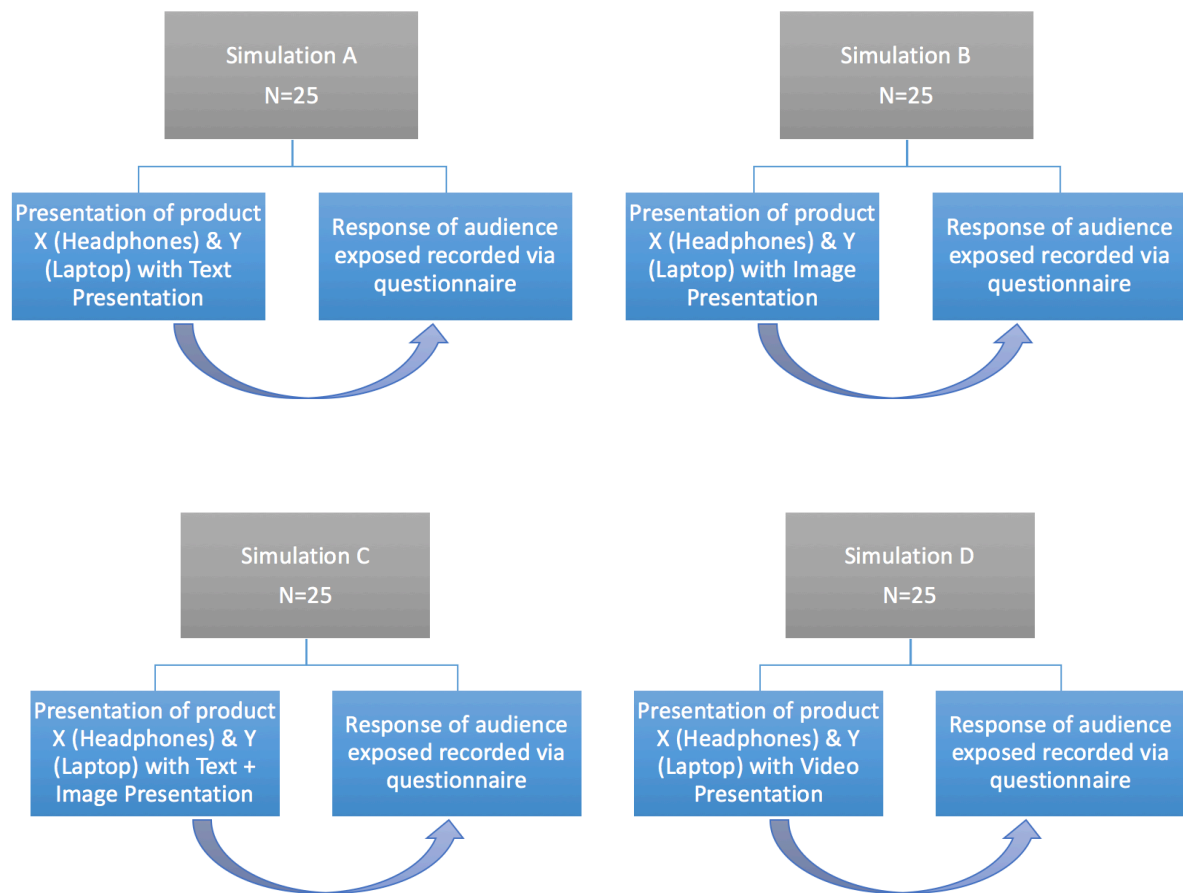
Figure 15: Simulation Design.

4.5.1 Simulation A (Text Only)

Group A (n=25) was presented with a text only presentation of both products, Laptop and Headphones. The presentation is presented in Figure 16 above. These presentations are using only one metaphor, text, to present both the products on the online domain. The purpose is to test how effective this metaphor (text, alone) is in aiding user with product information and positively affecting their purchase decision. After being exposed to this presentation the response of all the respondents was recorded via a questionnaire to determine product *likeness, understanding*, *effectiveness* and *final decision*.
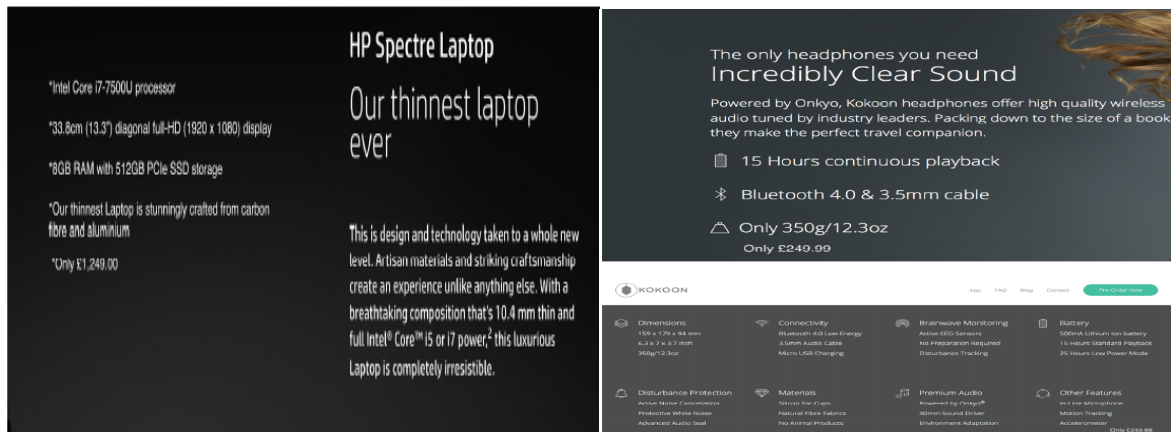
Figure 16 Simulation A Text.

Figure 17 Simulation B Image.
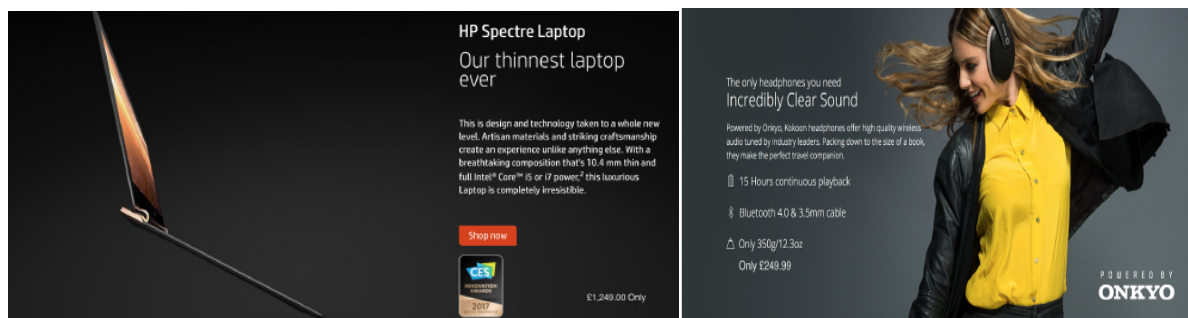
Figure 18 Simulation C Text+Image.
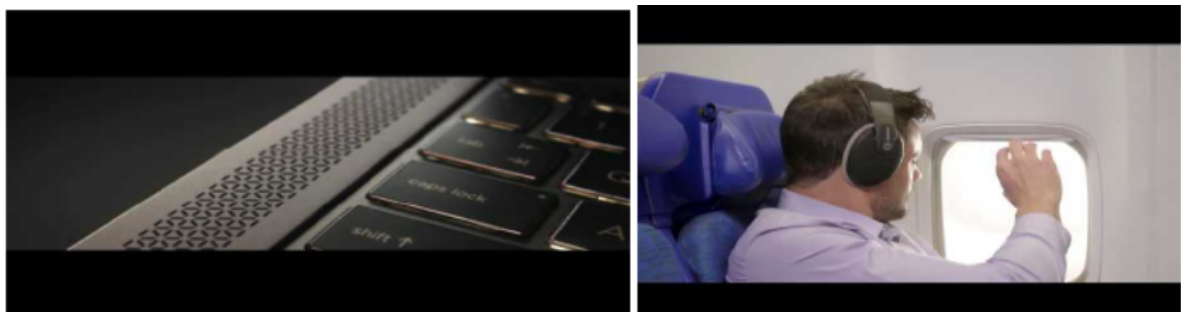
Figure 19 Simulation D Video.

4.5.2 Simulation B (Image Only)

Group B (n=25) was presented with an image only presentation of again both HP Laptop and Kokoon Headphones. The presentation is presented in Figure 17 above. Again, these presentations are using only one metaphor, image, to present both the products on the online domain. The purpose is to test how effective image alone as a cue is and the impact it has on product *likeness, understanding*, *effectiveness* and *final decision*. The responses of this group too will be recorded via questionnaire.

4.5.3 Simulation C (Text and Image Only)

Group C (n=25) was presented with a simulation using combination of two metaphors, text and image, to present the same products, laptop and headphones. After being exposed to this simulation, which is presented in Figure 18 above, the responses were tested via standard questionnaire in order to identify the effectiveness of this combination metaphors.

4.5.4 Simulation D (Video)

Group D (n=25) was exposed to a video presentation of the same products, Hp laptop and Kokoon headphones. After the presentation, the responses were recorded via questionnaire to assess the impact of video, as a metaphor on product likeness, effectiveness, understanding and user satisfaction.

4.6 Questionnaire Design

For Stage II empirical investigation, a self-developed questionnaire was used to ensure that the aims and research questions can be answered effectively. The questionnaire is made of multiple format questions, including dichotomous questions, Likert scale questions, and few open and closed ended questions. The questionnaire

is designed to help develop a greater and more detailed understanding of the impact of different multimodal presentations and their role in effectively aiding user understanding, leading to effectiveness and positive purchase decision. The questionnaire also aims to assess the impact of online assistant on user satisfaction and the role of emoticons on user's product image. Pilot study was conducted prior to actual data collection to ensure the validity of the questionnaire.

4.7 Stage II: Results and Findings

A set of four structured questionnaires were designed to investigate the impact of four different presentations (Image only, Text only, Image and Text and Video) used to present both Product X (headphones) and Product Y (laptop). Each group, after being exposed to the presentation, was provided with a set of structured questionnaire to assess the impact of presentation on product likeness, understanding, effectiveness, user satisfaction and purchase decision. Also, the presentation exposed the audience to artificial intelligence tools used to instil human warmth and provide user satisfaction on online domain. The questionnaire determined the effectiveness of these tools and their applicability to provide human warmth and user satisfaction.

4.7.1 Sample Profile against Gender Group 1 (Text)

Group 1 consisted of 25 respondents, (n=25), accounting for 50% males and 50% females. This question had one no-response error. All the respondents fall between the age group of 18 to 36 and above, with the largest group falling between the age group of 26-30, accounting for 33.33%, out of which 20.83% were males and 12.50% were females. The second largest group falls between the age group of 31-35, making

up 25%, out of which 12.50% account for males and 12.50% for females. However, the smallest group falls between the age of 36 or above, accounting for only 8.34%, of which 4.17% are males and 4.17% females.

Out of the 25 respondents 33.33% hold an Undergraduate Degree, out of which 25% are males and 8.33% are females. Also, the educational profile of respondents includes group of 25%, who hold a Postgraduate degree, out of which 4.17% are males and 20.83% are females. 8.33% have some professional qualifications and 4.17% are skilled professionals. Respondents were presented with questions to determine their internet proficiency. The results indicated, that the largest group of respondents accounting for 37.5%, use internet most for browsing the web, out of which 25% were male and 12.50% were females. The second most important reason to use internet within this group was shopping, which accounted for 20.84% of the respondents. 16.66% of the respondents used internet most for work purposes.
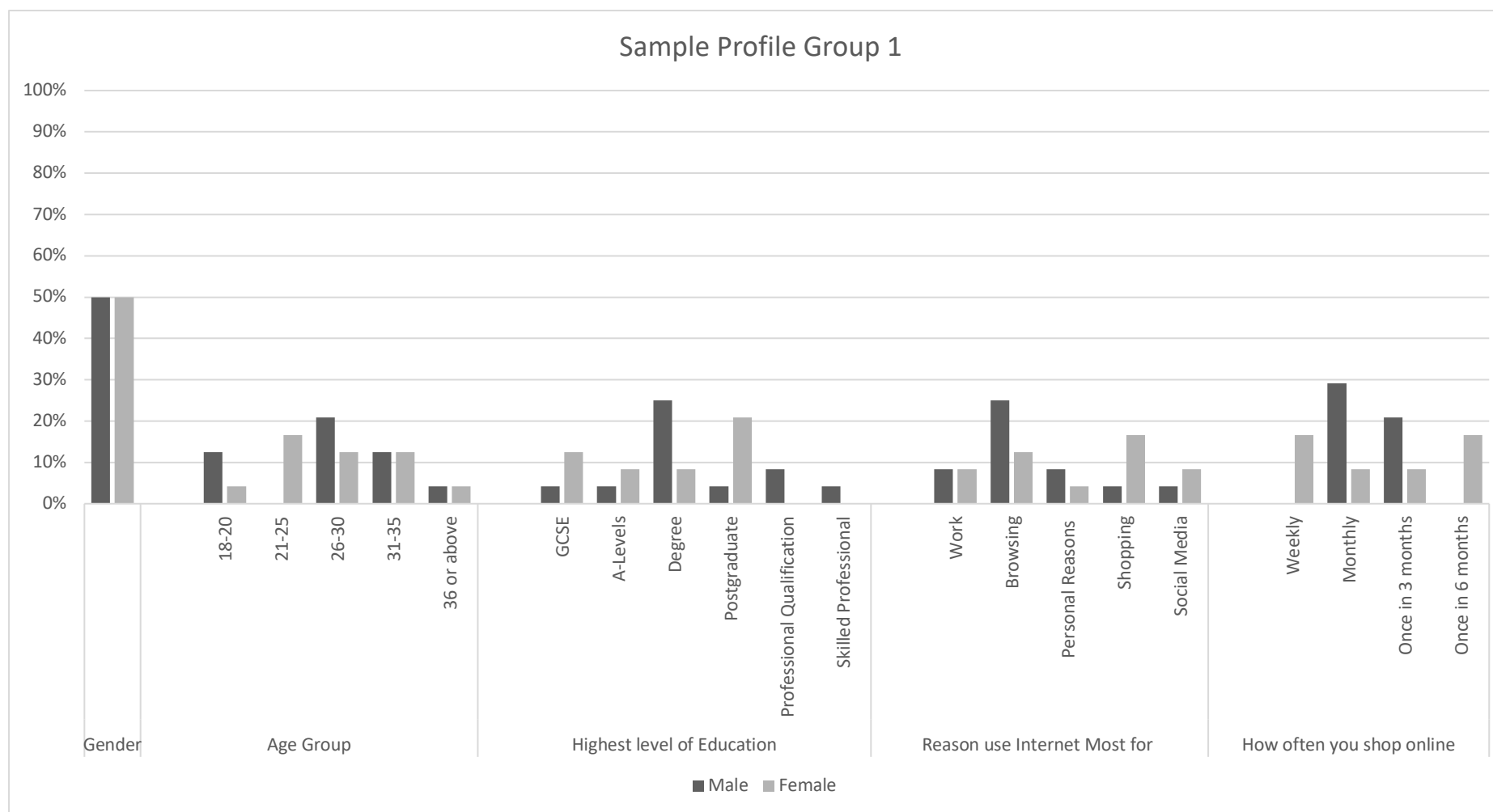
Figure 20: Sample profile of Group 1 (Text) against Gender.

And 12.5% used for social media and personal reasons. Out of these 25 respondents, the largest number of females used internet most for shopping, accounting for 16.67% and the largest number of males used internet most for browsing purposes, accounting for 25%. This indicates the preference differences between genders.

The largest group of respondents, accounting for 37.5% stated that they shop online on monthly basis. The next largest group making up 29.16%, shopped online once in 3 months. 16.67% females usually shopped online on a weekly basis and another group accounting for 16.67% indicated that they shop online only once in 6 months.

4.7.2 Sample Profile against Gender Group 2 (Image)

Figure 21 illustrates the sample profile of Group 2 against gender. Group 2 also consisted of 25 respondents, out of which 48% were females and 52% were males. Similar to group 1, these respondents also were aged between 18 to 36 or above. The largest group fell between the age group of 18 to 20, making up 40%, out of which 20% were females and 20% were males. The second largest group fell between the age group of 31 to 35, accounting for 24%. The third largest group, making up 20% of the sample, was between the age group of 21 to 25. And the smallest group, accounting for 16%, fell between the age group pf 26-30. None of the respondents within this group were aged 36 or above.
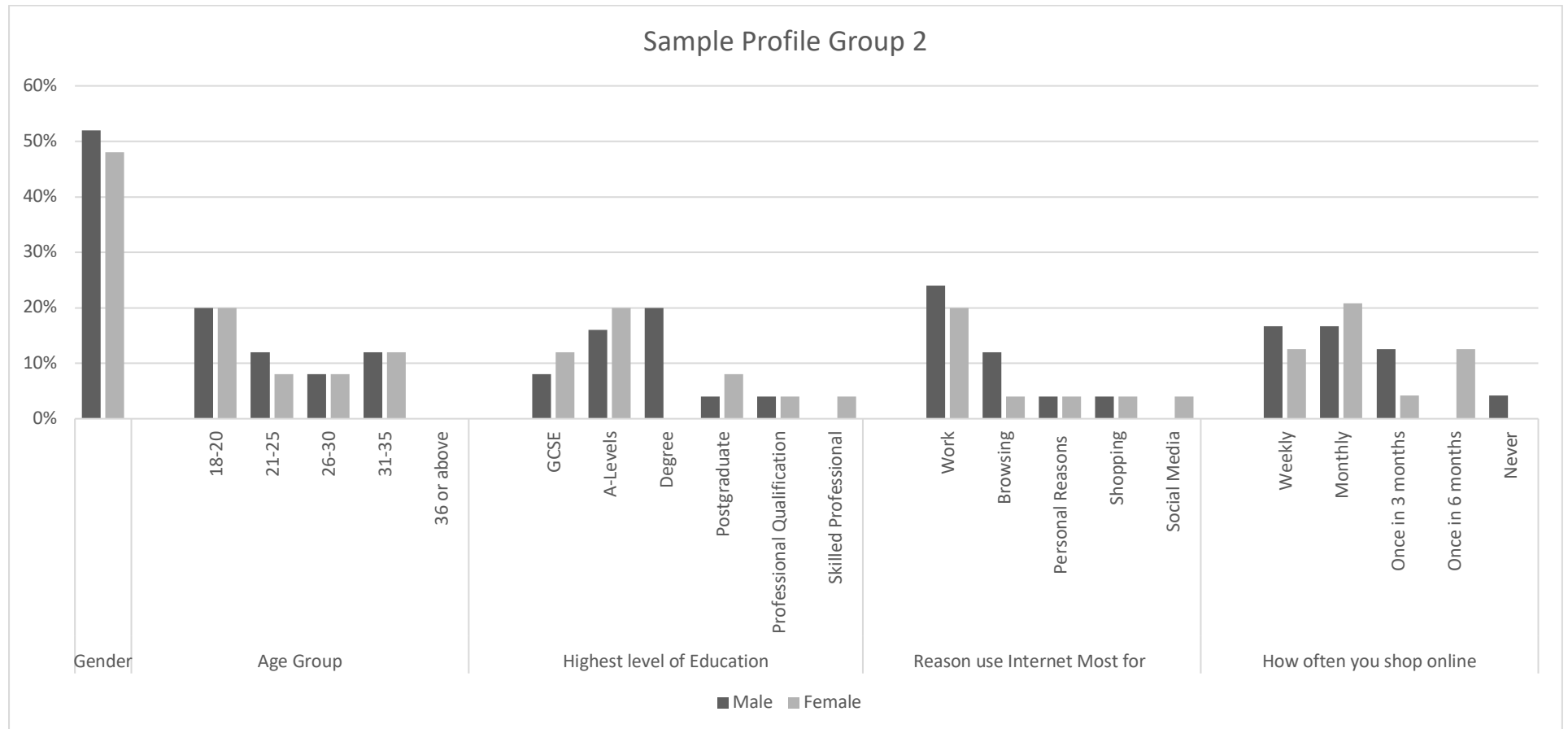
Figure 21: Sample profile Group 2 (Image) against Gender.

Within this group, as depicted in Figure 21, 36% of the respondents have done A-levels, 20% hold a GCSE qualification, another 20% have an Undergraduate degree and 12% hold a postgraduate degree. Within this group, 8% hold a professional qualification and only 4% are skilled professionals.

Further questions were asked to identify the main reasons for using internet. The results indicated that majority of the respondents, accounting for 44%, used internet mainly for work purposes. The next largest group, accounting for 16%, used internet most for browsing purposes. 8% used for shopping and another 8% used for personal reasons. Only 4% of the respondents used internet mainly for social media. To gain a better understanding of the internet proficiency of the sample, they were further enquired about how frequently they shop online. The results demonstrated that the largest group of respondents, accounting for 37.5%, shopped online on a monthly basis. The next largest group, made up of 29.17%, shopped online once a week. 16.67% of the respondents shopped online once in 3 months and 12.50% of the sample shopped occasionally, once in 6 months. However, the results also indicated that a small percentage of respondents, (4.17%), never shopped online. These results point out that although, there has been an increase in online shopping over the last couple of years, mainly due to the convenience factors; but there still are consumers who are sceptical towards online shopping, due to security issues and lack of trust.

4.7.3 Sample Profile against Gender Group 3 (Text + Image)

Group 3 was also made up of 25 respondents, where 48% were males and 52% were females. Out of these 25 respondents, the largest group accounting for 48% were aged between 21 to 25. 24% of the respondents were aged between 26 to 30. 16% were aged between 31 to 35. A small group accounting for 8% were aged between 36 and above and the smallest group accounting for only 4% were aged between 18 to 20.

Questions were posed to develop an understanding of the educational qualification of the sample. The results indicated that the largest group of respondents, accounting for 44%, held an Undergraduate degree. The second largest group, accounting for 40%, had achieved A-levels. 8% of the sample were skilled professionals. A small percentage of 4% had a postgraduate degree and another 4% had a professional qualification.

Further questions were designed to gain some insight on the reasons the respondents used internet most for. Results highlighted that the largest group of respondents, accounting for 52% used internet most for browsing. The second largest group making up to 20% used internet for personal reasons. 16% used internet most for online shopping. And the smallest group, accounting for 12% used internet most for work. In regard to the internet proficiency, the largest group of respondents, accounting for 36% shopped online on a monthly basis. The second largest group, making up 28% of the whole sample, shopped online on a weekly basis. 20% shopped online only once in 6 months and 8% shopped once in 3 months. However, a small group of 4% indicated that they shopped online on a daily basis and anther 4% shopped online when needed.
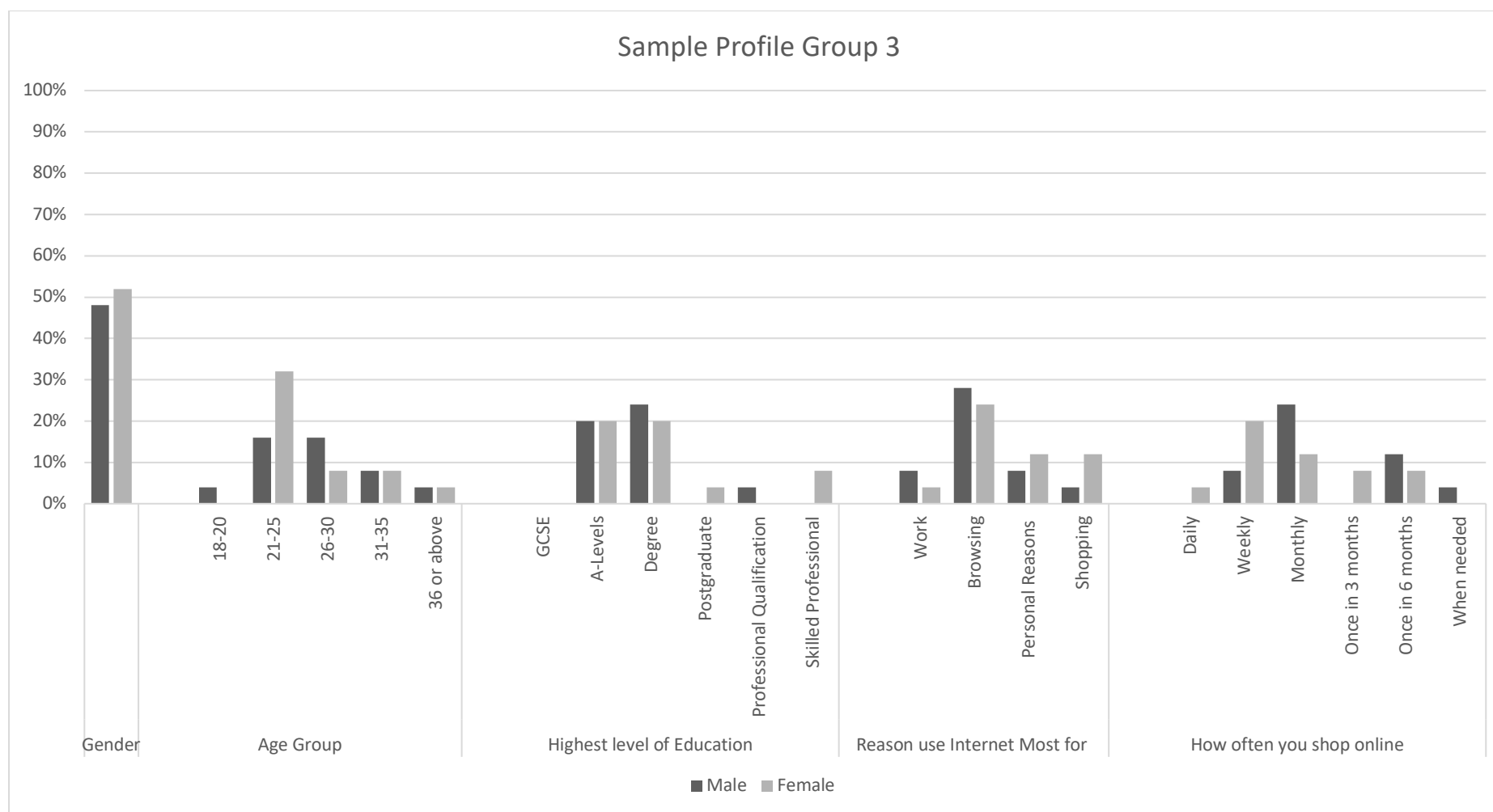
Figure 22: Sample profile Group 3 (Text and Image) against Gender.

4.7.4 Sample Profile against Gender Group 4 (Video)

Figure 23 illustrates the sample profile of group 4. Group 4 consisted of 25 respondents, out of which 52% were male and 48% were females. 40% of the sample was aged between 21 to 25 years. 20% of the sample was aged between 26 to 30 and another 20% were aged between 31 to 35 years of age. Around 16% were aged 36 or above and only a small percentage of 4% were aged between 18-20. All 25 respondents held some educational qualification. The largest group held an undergraduate degree, accounting for 40% of the overall sample. The second largest group, making up 24%, had completed their A-levels. 16% of the sample had a professional qualification. Further 12% of the respondents had achieved a postgraduate degree. And a small group of 8% were skilled professionals.

As illustrated in Figure 19, 52% of the respondents selected browsing as the main reason for using internet. 16% of the sample selected work and another 16% identified shopping as the reason for using internet. Further 8% identified use of social media and another 8% acknowledged personal reasons for using internet most. Further questions were asked to determine the online shopping frequency of the respondents and the results demonstrated similar patterns to the previous groups, where the largest group accounting for 52% shopped online on monthly basis. The second largest group, making up 20% of the sample, claimed shopping online once in 3 months. 12% of the sample indicated that they shop online on a weekly basis, out of which 8% were females. 8% claim to shop online once in 6 months. The smallest two groups, each accounting for 4%, claim to shop online daily and the other 4% shop online when needed.
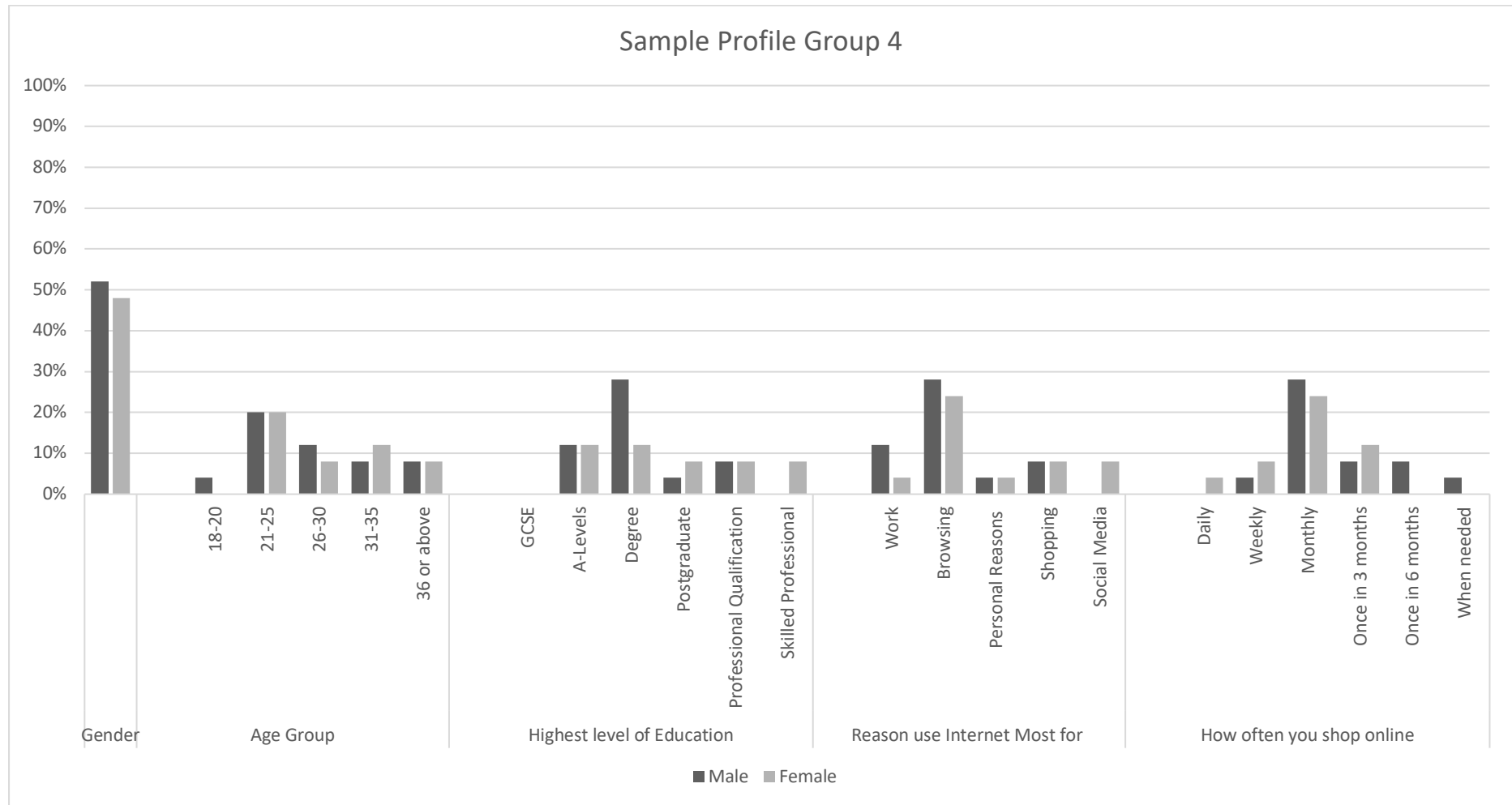
Figure 23: Sample profile Group 4 (Video) against Gender.

All 100 respondents seem to be the most appropriate sample for this investigation as they all hold at least GCSE as their minimal educational qualification and postgraduate degree as their highest educational qualification, which indicates they are educated and knowledgeable and serve as the right population to take part in this study. Furthermore, a large number of the population uses internet most for browsing, work and shopping purposes which makes them ideal for this study, as they would be able to reflect in great detail on the impact these presentations will have on their product likeness, understanding, effectiveness and user satisfaction. Another similar factor across the sample is that the entire sample (n=100), apart from the 4% who have never shopped online, have shopped online at some instance. A large sample from all the four groups either shop online monthly or on a weekly basis, which indicates that the sample is proficient in using internet, specifically for shopping purpose.

4.7.5 Influence of Different Product Presentations on Purchase Decision

Various multimodal metaphors are used on social platforms to present/advertise a product online. With the ever-increasing growth of social media marketing it is imperative to understand the impact of the multimodal metaphors used on the purchase decision of consumers. Each group was exposed to a presentation, presenting headphones and a laptop.
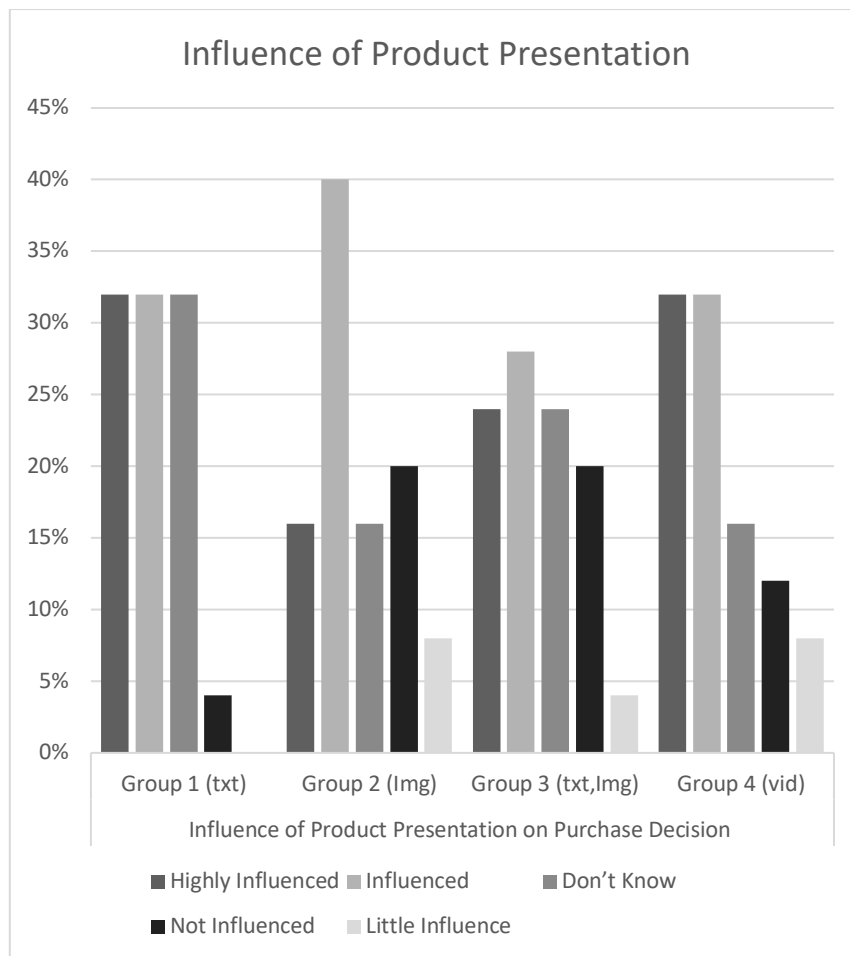
Figure 24: Influence of product presentation on purchase decision of each group.

However, the way the products were presented varied across each group as indicated earlier. Group 1 was presented using text only, group 2 was presented using image only, group 3 was presented using both text and image and group 4 was presented using video. After being exposed to these presentations, each group was asked to identify how much influence the presentation had on their purchase decision. Their influence was measured using a Likert-scale question with a scale of 1 to 5, where 1 was equivalent to being highly influenced and 5 was equivalent to being least influenced. As illustrated in the Figure above, respondents from group 1, who were exposed to a text only presentation, 32% claimed that their purchase decision was highly influenced by the presentation. Another 32% claimed to be influenced, whereas

only 4% were not influenced by the text presentation. These respondents were not exposed to the physical appearance of the products but still felt that the information provided in the form of text made a significant impact towards influencing their purchase decision.

Respondents of Group 2 were exposed to a presentation, presenting both headphones and laptop with the use of Image only. The results indicated that image alone had highly influenced 16% of the respondents and further 40% claimed their purchase decision to be influenced by image only presentation. 20% felt that they were not influenced at all and 8% claimed to be least influenced by this presentation. The reasons behind these statistics could be the fact that an image alone does not help provide consumers with sufficient information about the product and hence has a little influence on their purchase decision, especially if the product is new which they have limited knowledge about.

Group 3 respondents were presented with a presentation which used both text and image to present headphones and laptop. The results, as illustrated in Figure 24, indicate that only 24% of the respondents felt highly influenced and 28% felt influenced. 20% felt that the presentation had no influence on their purchase decision and a mere 4% felt they were least influenced. The results were surprising, as alone text and image seemed to have a stronger influence towards purchase decision, but when used in combination they seem to have a slightly lesser impact on the purchase decision.

Respondents from group 4 were exposed to a video presentation. The results demonstrate that 32% of the respondents were highly influenced and another 32% felt influenced. However, 20% felt that they were not influenced and 8% felt they were

least influenced. As consumers when we are provided with maximum information, we are in a position to make a more informed decision, in the case of Group 1 (text only) and Group 2 (image only), fewer number of respondents seemed to be least influenced as incomplete information does not allow us to make an informed decision. However, when these products were presented through the use of combination of text and image and video, more detailed information was picked up by the respondents of Group 3 and Group 4, which allowed them to evaluate their decision and this could be the reason/explanation behind higher percentage not being influenced by the presentation.

4.7.6 Consumer Perspective on the Impact of Online Advertisement

Respondents from all four groups were posed to pre-presentation questions to develop a general understanding on their perspective in relation to the impact of online advertisements. Audience were asked to identify to what extent they agree with the statement that consumers are often influenced towards impulse buying through online advertisements, and their responses were recorded on a scale from strongly disagree to strongly agree. All groups demonstrated similar results, where a higher percentage of respondents from each group claimed to agree or strongly agree that online advertisements did influence consumers towards impulse buying. From Group 1, 80% of the respondents agreed and 16% strongly agreed. 72% of the respondents from group 3 claimed to agree and 20% strongly agreed. Similarly, from group 3, 52% of the respondents agreed and 32% strongly agreed with this statement. Group 4 demonstrated similar results, where 68% agreed and 16% strongly agreed and felt that online adverts do have an impact and contribute towards impulse buying.

Although majority respondents from each group either agreed or strongly agreed with this statement, a small percentage felt otherwise.

12% of the respondents from group 3 and 8% from group 4 strongly disagreed. This indicates that although majority of the respondents felt that online advertisements influenced them towards impulse buying, however, there is a small percentage who feels that online advertisements do not influence them towards impulse buying. These respondents are likely to fall within a group of consumers, which tend to undertake detailed information search and evaluation prior to purchase decision, demonstrating rational buying behaviour.

To gain further understanding of consumer perspective on impact of online adverts, respondents were asked to what extent they agreed to the statement that, the more times a consumer views an online advert, the more likely they are to make a purchase. Results demonstrated, that majority of the respondents from all groups agreed, where 56% from group 1 agreed and 24% strongly agreed, 68% of the respondents from group 2 claimed to agree and 16% strongly agreed. And 52% from both group 3 and 4 agreed to the fact, that more times they view an online advertisement, the more likely they are to buy that product. The explanation behind these responses could be due to the fact that, usually when consumers come across an advert multiple times, it adds onto their knowledge and understanding of the product; and with repeated viewing of the advert, it is likely to develop product likeness, which can in turn influence the purchase decision.
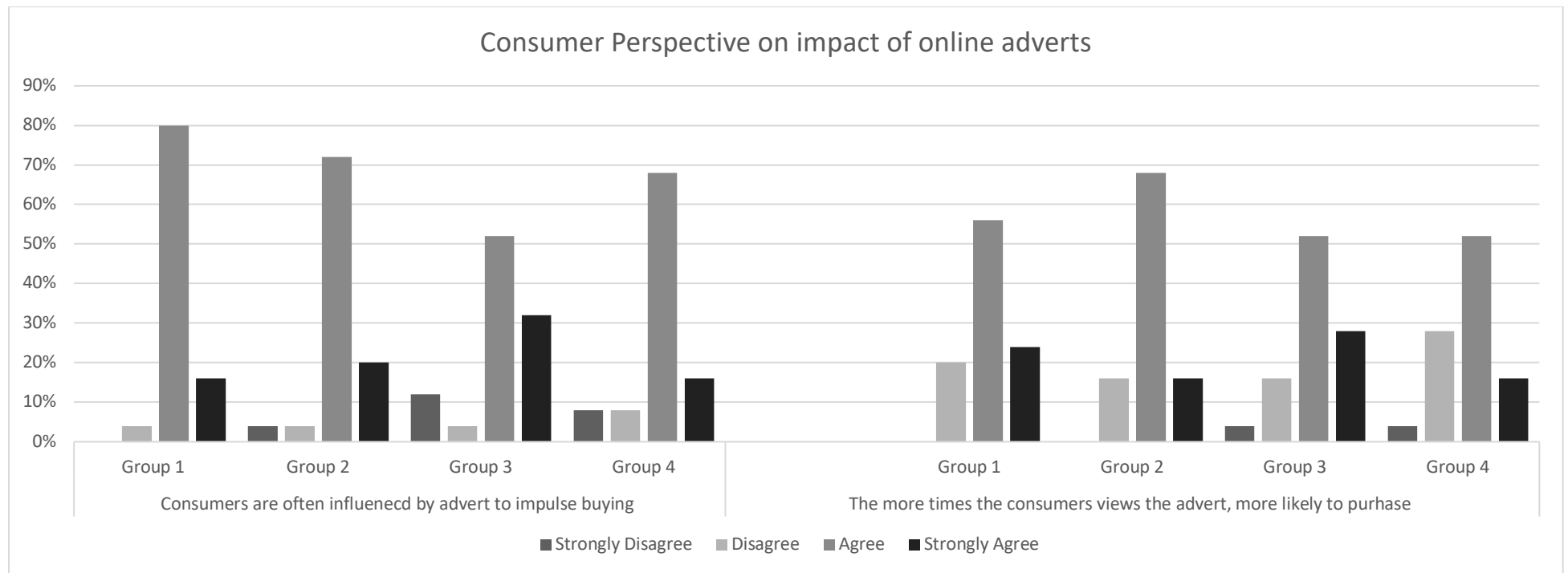
Figure 25: Consumer perspective on impact of online advert.

Although a large number of respondents agree to this statement, there is still a decent number of respondents, accounting for 20% from group 1, 16% from both group 2 and 3 and 28% from group 4, who disagree and feel that despite the frequency of viewing an advert online, it does not influence one towards buying that product. An important aspect here, to bear in mind, is the complex nature of consumer behaviour and psychology, which is extremely challenging to fully understand.

4.7.7 'Likeness' of Products using Different Presentations

After being exposed to the product presentation each group was asked a set of questions to determine their likeness of the product, presented through different presentations. As illustrated in Figure 26 below, Group 1, which was presented with headphones and laptop using text only presentation, 41% of the respondents found the product to be appealing and 58% did not find the product to be appealing.
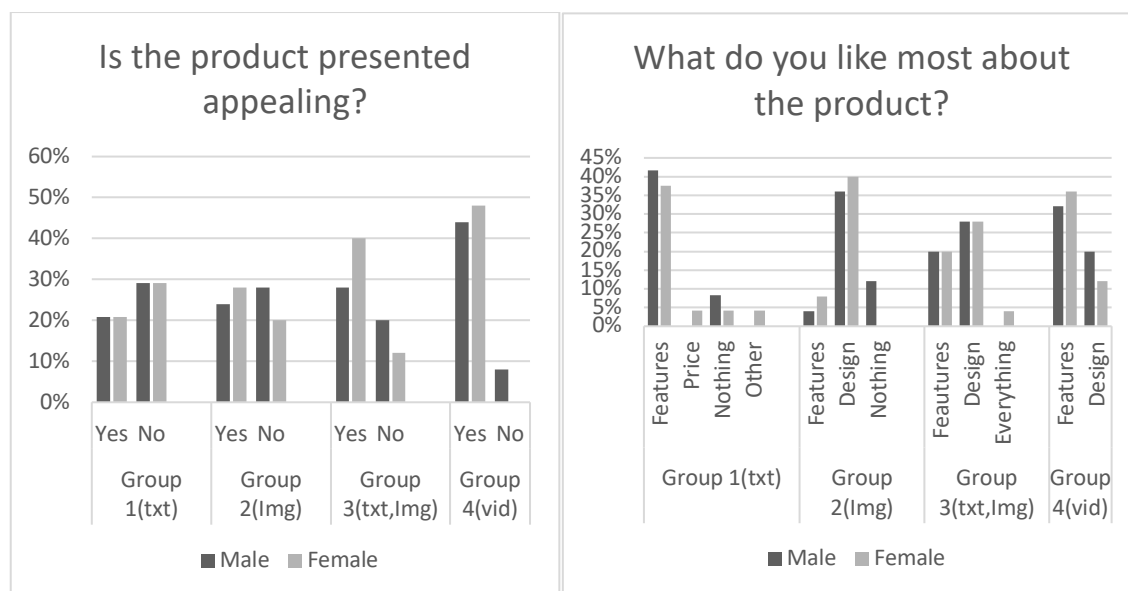
Figure 26: Consumer perspective in regard to likeness of the product presentations.

As this group was presented with both the products with the use of text only and could not visually see the product, hence majority of the respondents did not find the product

appealing. Group 2 respondents were presented with the same products, using image only and 52% of the respondents found it to be appealing. This can be due to the fact that they were able to see the product in the presentation and judge their likeness on that. However, 48% of the respondents did not find the product appealing. There can be two possible explanations behind this response, either the respondents did not like the image of the product presented or as only image was used to present the product and on its own it isn't sufficient for some consumers to decide on their product likeness. Other vital factors such as features, which can contribute towards their product likeness, are not explicitly evident in this presentation.

As those descriptions and details were missing in this presentation, this could also explain their response of not liking the product presented. Group 3 respondents were exposed to headphones and laptop, using text and image presentation and 68% of the respondents, out of which 28% were males and 40% were females, found the presented products appealing. Only 32% claimed that they did not find the products appealing. The majority respondents within this group found the products appealing and this could be due to the combination of metaphors used, (image and text), which significantly contributed in providing sufficient information to determine the likeness of the product. The respondents of the last group, group 4, were presented using video and 92% of all the respondents found the products presented appealing.

 A mere 8% stated that they did not find it appealing. All four groups were presented with same the products, headphone and laptop, the only difference was the multimodal metaphor, which was used to present these products. This large percentage from group 4 finding the products presented appealing, does indicate that it is the presentation and the way the product is presented which can have a significant impact on the likeness and appeal of the product. In this instance video presentation has been

most successful to appeal a large number of respondents. Furthermore, after being exposed to the presentation, each group was asked to identify what they liked most about the product. Respondents from Group 1, who were presented the product using text only, 79% claimed, that they liked the features most of the product. This could be due to the fact that as both products were presented using text only it was easier to develop a detailed understanding of the key features of the products.

Whereas group 2 respondents, who were presented with the products using image only, 76% of the respondents stated that they liked the design of the product most. Only 12% claimed to like the features. With the product being presented in the form of an image/illustration, it is easier to like or dislike the design which can be presented visually, however the features are difficult to determine with image only and as text was missing from this presentation this explains why only a small margin of respondents have identified features as the most likeable factor in the presentation.

Group 3 respondent's findings are considerably different, as this group was presented with the products using both text and image, which indicates that they were better able to reflect on the likeness of the features, which are explicitly explained in the form of text, and design which is visually presented through image of the products. Results indicate that 40% of the respondents like features and 56% like the design most of the products. 4% of the respondents felt that they liked everything about the product.

This indicates that this presentation, using both text and image, has provided the respondents with sufficient information about the product to be able to determine what they like most about it. Group 4 respondents were presented with the products using video. 68% of the respondents liked the features and 32% stated they like the design most of the products presented. Out of all groups, largest percentage from this group has selected features as the most liked element of the product presented, and this can

be due to the fact that the method of presentation (video) allowed them to reflect on great detail and depth on the features and go through a detailed evaluation of the product, which allowed them to like the features most as these were more explicitly presented and communicated through this medium.

4.7.8 Consumer perspective in regard to 'Likeness' of the different presentations used to present the products

Further questions were posed to assess the 'Likeness' of the presentations used to present the products. Respondents from group 1 (text only), 75% stated that they like the information most within the presentation. Presenting information with the use of text can be very beneficial as it is effective, sends out the right message and does not overload the user with information, which is why a very large number of respondents have stated that they like the information most from the presentation.
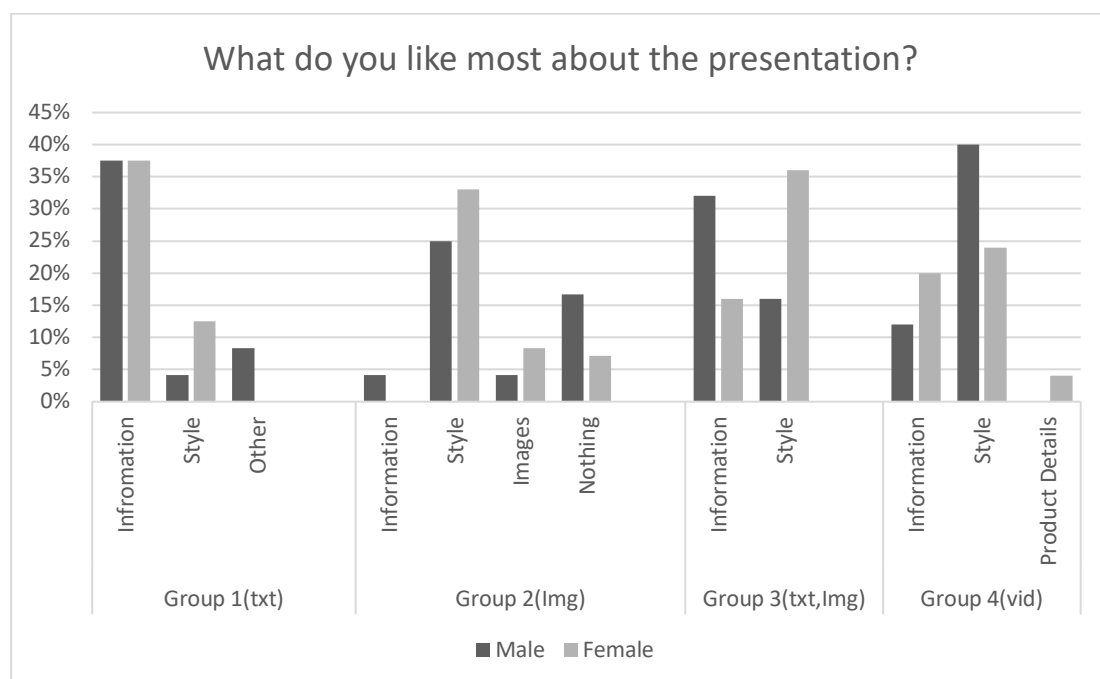
Figure 27: Consumer perspective in regard to likeness of four groups.

16% also claimed that they liked the style of the presentation, which is unusual as no sounds or images were used to present the product, yet the richness of information was maybe effective enough for the audience to appreciate the style of the presentation. Group 2 respondents were presented with the products with the use of image only, and results demonstrate that only 4% found information to be most likable in the presentation which is understandable as image alone would not be effective enough to inform the audience about the product details and they might feel the lack the information related to the product. A large number of respondents accounting for 58% liked the style and 12% liked the image itself used in the presentation. However, 23% of the respondents felt that they did not like anything in this presentation, which indicates again that image alone would not serve as the best suited metaphor to present products on the online domain.

Group 3 respondents were presented with headphones and laptop, using both image and text. As illustrated in Figure 27 above, 48% claimed that they liked the information presented most through the presentation, whilst 52% liked the style most of the presentation. As both text and image were used, this presentation seemed to be more information rich and also had likeable style because it demonstrated a visual presentation of the product and in the form of text offered details of product features and functions. The final group was presented with same products using a video presentation, and the results illustrate that 32% like information most in this presentation, 64% like the style and 4% like the product detail most in this presentation. These results indicate that a large percentage of respondents find the style to be most likable as the products are presented using a video and offer information through text, images, and sound in combination, which also provides them with more product detail.

4.7.9 'Understanding' of the Different Product Presentations

After being exposed to the presentation, each group was asked a set of questions to determine how effectively the respondents were able to understand the message communicated through the presentation and overall to what extent these presentations were successful in aiding user understanding. The respondents were presented with some statements and were asked to identify whether they strongly disagreed, disagreed, neither agreed or disagreed, agreed and strongly agreed. Group 1 was presented with the products using text only, and 48% of the respondents felt that the product was not well communicated and not well presented with 28% strongly disagreeing and 20% disagreeing.

However, 32% agreed that the product was well communicated and well presented. As text was used hence, 38% of the users might have felt that the product was communicated in an acceptable manner. But a large group accounting for 48% who did not feel that the product was well communicated might have felt that due to the absence of the images, as for them without images the product communication was not acceptable. When the same statement was presented to group 2 audience who were exposed to image only presentation, 20% strongly disagreed and 20% disagreed that the product was well communicated and well presented. Text was missing and hence it would have limited their understanding of the product, which explains this 40% disapproving the presentation. However, 28% felt that the product was well presented and the reason behind these stats could be that some respondents might have felt that the image is sufficient to present a product.
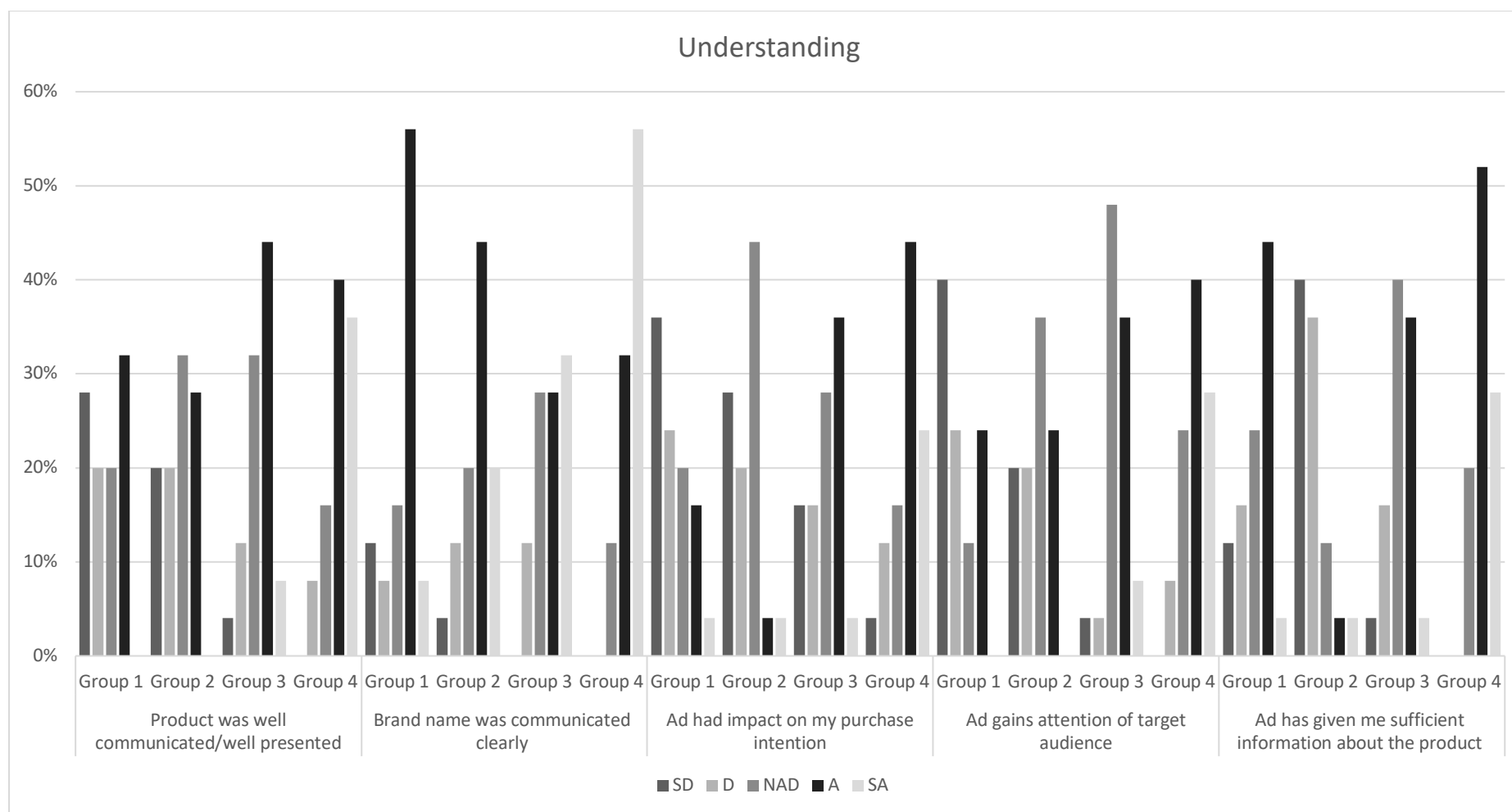
Figure 28: Consumer perspective in regard to Understanding.

Largely the majority of the respondents from this group disagreed that this presentation has presented and communicated the product well. The results for group 3 are relatively different from the previous two groups.

Respondents of group 3 were presented with the products using both text and image. Results indicate that 52% of the audience felt that the product was well presented and well communicated, which explains that both text and image in combination are essential to effectively present and communicate a product in the online domain. However, it is important to highlight that 16% of the respondents do not agree and still feel that the product was not well presented nor well communicated. This is an important factor to consider because on the online domain there is a group of audience who feels that image and text alone are not sufficient, maybe because they might not find them interactive enough and effective enough to aid their understanding. This highlights the importance of using the right combination of metaphors to effectively communicate and present products on the online domain. Respondents from group 4 were exposed to the presentation of both products using video. Majority of the respondents, accounting for 76%, felt that the product was well presented and well communicated, out of which 40% agreed and 36% strongly agreed. 16% were not sure and only 8% disagreed. The video provides a combination of metaphors including text, images, audio and overall stands out to be more interactive, where users can see other human beings using those products. Facial features, body language and other elements could be acting as critical factors aiding onto their understanding.

The focus of marketing has shifted towards e-commerce, however, there are areas which organisations are still facing challenges to cope with. Branding, creating brand awareness and gaining brand loyalty is the most critical and challenging task on the online domain, hence it was important to understand that the presentations were

effective enough or not in successfully communicating the brand name of the products presented. As illustrated in Figure 28, respondents of group 1 (text), felt that the brand name was communicated clearly through this presentation, with 64% agreeing to it. Presenting something with the use of text can be quite explicit and this could be the reason why majority respondents felt that the brand name was clear. However, 20% felt that the brand name was not communicated clearly. Group 2 respondents who saw image only presentation felt quite similar, where 64% agreed that the brand name was clearly communicated and only 16% felt that it wasn't. Group 3 which was exposed to both image and text presentation, 60% felt that there was a clear communication of the brand whereas only 12% felt it wasn't. Large number of respondents accounting to 28% within this group were unsure and neither agreed or disagreed. However, respondents from group 4, who were exposed to video presentation, 88% agreed that the brand name was communicated clearly and the remaining 12% were not sure. Not a single respondent from this group felt that the brand name was not communicated clearly.

Although majority respondents from all four groups felt that the brand name was communicated clearly in all presentations, however, it is only the video presentation where no one has disagreed, which indicates that in order to communicate brand name clearly it requires a lot more than only relying on text alone, image alone or text and image in combination. Another reason could be the fact that presentation used for group 4 was audible and the audience could hear the brand name being communicated which left a greater impact on their understanding as compared to other presentations.

Where it is extremely crucial for the presentations to be able to present and communicate the product effectively and communicate the brand name clearly,

another key element of the advert is to have a positive impact on the purchase intention of the customer. After all 100 respondents were exposed to different presentations, further questions were asked to gain an insight on whether each presentation had any impact on their purchase intention. The results illustrated in Figure 28 above demonstrate the responses from each group. All respondents were posed with the statement that 'the ad had an impact on my purchase intention' and were asked to rate to what extent they agree or disagree with the statement. Majority of the respondents (60%) from group 1 did not agree with this statement where 36% strongly disagreed and 24% disagreed. Only 20% agreed that the presentation had an impact on their purchase intention. These Figures are a clear indication that text alone is not sufficient to present a product in order to impact the purchase intention of the consumer. From group 2, again a large number of respondents, accounting for 48%, did not agree and only 8% felt that the ad did impact their purchase intention. From this group a large percentage of 44% was unsure. This shows that image alone again is not sufficient to have an impact on purchase intention. However, group 3 respondents revealed slightly different results, where a large percentage accounting for 40% felt that the ad had an impact on their purchase intention. This indicates that when text and image are used in combination to present a product, they can be far more effective in having an impact on the users purchase intention as compared to when used alone. However, 32% of the respondents who felt that there was no impact on their purchase intention also highlights, that the combination of these metaphors can be effective as compared to when used alone but not sufficient. More than half of the respondents from group 4 accounting for 68%, felt that the ad had an impact on their purchase intention. This explains that video, which has a combination of text, image, and audio can be way more interactive as compared to other metaphors and

can have a greater impact on the purchase intention. A small number of respondents making up 16% felt that it did not have any impact on their purchase intention. It is important to understand and appreciate that some metaphors when used alone, can be significant to communicate brand name and provide product information but not sufficient enough alone to have an impact on the purchase intention of the audience. Another key element of an effective advert is to be able to catch the attention of its audience. Advertisements on social platforms have to be designed to ensure they can catch the attention of their audience on a platform, which already has sufficient distractions. If it is unsuccessful in catching the attention of its audience, it stands a risk of losing a potential future customer because the audience will not watch the complete advert and their attention will be diverted. Bearing the importance of this, respondents from each group were asked if the ad gains attention of the target audience. 64% of the respondents from group 1 felt that the text only presentation does not gain attention of the target audience. Only 24% felt that it did gain their attention. Maybe text alone might be sufficient for a small audience who are interested to read about the product, however, the larger audience prefer something much more engaging. In group 2, again only 24% of the respondents felt that the ad had gained their attention. A larger group making up 40% did not agree and felt that the ad did not gain attention. 36% of the respondents from this group were unsure. These results again signify that image alone might be good enough to present the product but not to gain the attention of target audience. However, in the instance of group 3, where both image and text were used in combination to present the products, majority respondents accounting for 44% felt that the ad gained their attention. Only 8% did not agree, but there was a large percentage of 48% who were unsure. The fourth and the final group was exposed to video presentation and results indicate that majority

respondents, accounting for 68%, agreed that the ad gains attention of target audience, with only 8% disagreeing. This indicates that the video proves to be the most effective combination of metaphors used on the online domain to present products in order to gain attention of a larger audience.

Furthermore, in order to understand how effective each presentation was to aid user understanding, after being exposed to the presentations, respondents were asked to either agree or disagree to the statement that 'ad has given me sufficient information about the product'. Respondents from group 1, text presentation largely felt that they were provided with sufficient information with 44% agreeing and 4% strongly agreeing. Only 28% disagreed to this statement. This further supports our previous findings where audience exposed to text presentation largely felt that the brand name was communicated clearly. However, respondents from group 2 revealed very different results where image alone was used. Here only 8% felt that they were provided with sufficient information and largely 76% disagreed and felt they were not provided with sufficient information. This again supports previous findings where group 2 revealed that the ad did not have an impact on their purchase intention and a major reason behind that could be that they felt they were not provided with sufficient information. Group 3 respondents largely either agreed (40%) that ad provided sufficient information or were unsure (40%). Only 20% disagreed and felt sufficient information was provided. Here both text and image were used, but it is evident that in order to provide sufficient information even the combination of these two metaphors does not prove to be tremendously successful. Respondents from group 4, (video presentation), however felt that the presentation provided them with sufficient information about the products, with 80% of them agreeing to this statement. 20% were unsure and not even a single respondent disagreed to the statement. This indicates that the video is the

most effective metaphor which can be used on the online domain to effectively enhance user understanding and to provide them with sufficient information as compared to all the other metaphors, used alone or in combination.

4.7.10 'Effectiveness' of the Product Presentations

Further questions were asked to understand how effective the four different presentations were to aid user understanding of the product advertised, and whether these adverts persuaded the respondents to buy the products advertised. From Group 1, (Text only), 79% of the respondents felt that that the presentation did aid their understanding of the products advertised, and a small percentage of 20% felt that the presentation did not aid their product understanding. These results are in line with previous findings where most of the respondents felt that the product was well communicated through text presentation.
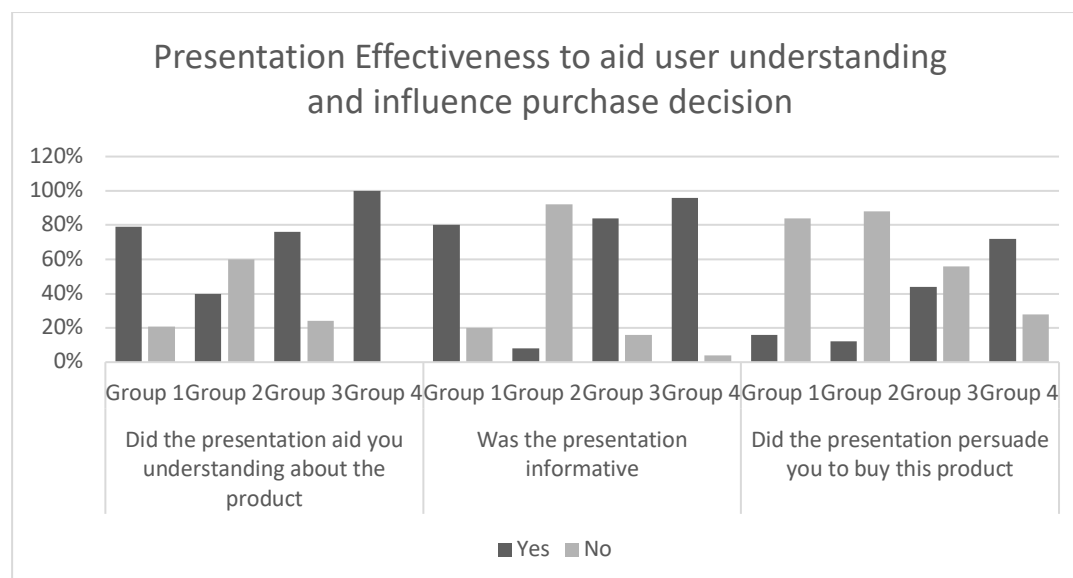
Figure 29: Respondent viewpoint with regard to presentation effectiveness to aid understanding.

Group 2 respondents who were exposed to image only presentation, only 40% felt that the presentation aided their product understanding, and a large group accounting for

60% felt that the presentation was not effective in aiding their product understanding with the image alone. Image can help an advert be visually appealing but this cue alone, as depicted by previous findings does not seem effective enough to provide consumers with sufficient product understanding. Group 3 respondents (Text and Image), largely felt that the presentation was effective and helped aid their product understanding with 76% agreeing and only 24% felt that the presentation did not aid their understanding. The small group accounting for those who felt that their product understanding was not aided through this presentation highlights that although it is easier to reach out to a larger audience on the online domain, but it is extremely challenging to cater the needs of all as different respondents perceive information provided in varying manners. The last group was presented with video presentation and all the respondents in this group, 100%, felt that the presentation aided their product understanding. This indicates that consumers on the social platform look out for increased interaction and engagement, and also it highlights the importance of sound, music and animation when used in combination with text and images. These cues, when used in combination prove to effectively aid users with product information and understanding.

All four groups were further asked after being exposed to the presentation whether they found the presentation informative. The results were similar to what has been discussed above, where out of all the four groups, the largest respondents from group 4, accounting for 96%, who were presented with video presentation felt that the presentation was informative. The next most informative presentation was the Image and text presentation where 84% of the respondents found it to be informative. The third best presentation, which proved to be informative, was the text only presentation, where 80% of the respondents found the presentation to be informative. Respondents

141

who were exposed to image only presentation, (group 3), majority of them, accounting for 92%, did not find the presentation to be informative.

Alongside with developing product awareness and providing product information, the online advertisements are designed to persuade consumers to buy the products advertised. Hence it was important not only to gain understanding around the effectiveness of the presentation in aiding user understanding, but also to examine whether these presentations have persuaded users to buy the advertised product or not. It is interesting to note from the results illustrated above, that although Group 1 (text only presentation) proved to be informative for most of the respondents, however only 16% felt that it persuaded them to buy the product and 84% felt otherwise. This highlights one of the strengths and weaknesses of the Text metaphor, when used alone, it can prove to be very effective to aid user understanding but it does not have a major influence in persuading the consumer to buy the product. Similar results have been noted with Image only presentation, where 88% of the respondents felt that the presentation did not persuade them to buy the product advertised. One of the reasons behind these results could be the lack of product understanding which is a major driving factor in purchase decision making. Group 3 respondents, who were exposed to a presentation using both text and image, 44% felt that the presentation had persuaded them, however 56% still felt not persuaded by the presentation to buy the products. This explains that although, text and image in combination prove to be more effective in persuading consumers to buy a product as compared to text and image used separately, but does not persuade larger audience and hence is not a very effective combination of metaphors to positively impact the purchase decision. The video presentation proved to be the most effective out of all the presentations used in

persuading respondents to buy the products advertised, where 72% of the respondents found themselves to be persuaded by the advert to buy the products.

4.7.11 User Perceived 'Effectiveness'

Another key purpose of this empirical investigation was to understand the effectiveness of the four different presentations used, the effectiveness here is used in different contexts. Some questions were asked to assess the effectiveness of the presentations in the context of successfully providing *important information* and successfully providing *sufficient information*. The results are illustrated in Figure 30 below, which indicate that presentation which used text only (group 1), 78.26% of the respondents agreed that the presentation was effective in providing important information, however when the same group was asked if the information provided was sufficient, only 37.50% agreed, whereas a large percentage of 54.16% disagreed. This indicates that when a presentation, using text only is presented in an online platform, viewers might find the information informative but not sufficient, which highlights the importance of other cues along with text, such as image, or sounds which enhance the presentation and ensure the delivery of sufficient information.

Group 2 respondents who were exposed to image only presentation, majority of the users, accounting for 84%, felt that the presentation was not effective as it did not provide important information with 24% strongly disagreeing and 60% disagreeing. Similarly, 92% of the respondents from same group also felt that the presentation was not effective as it did not provide sufficient information.
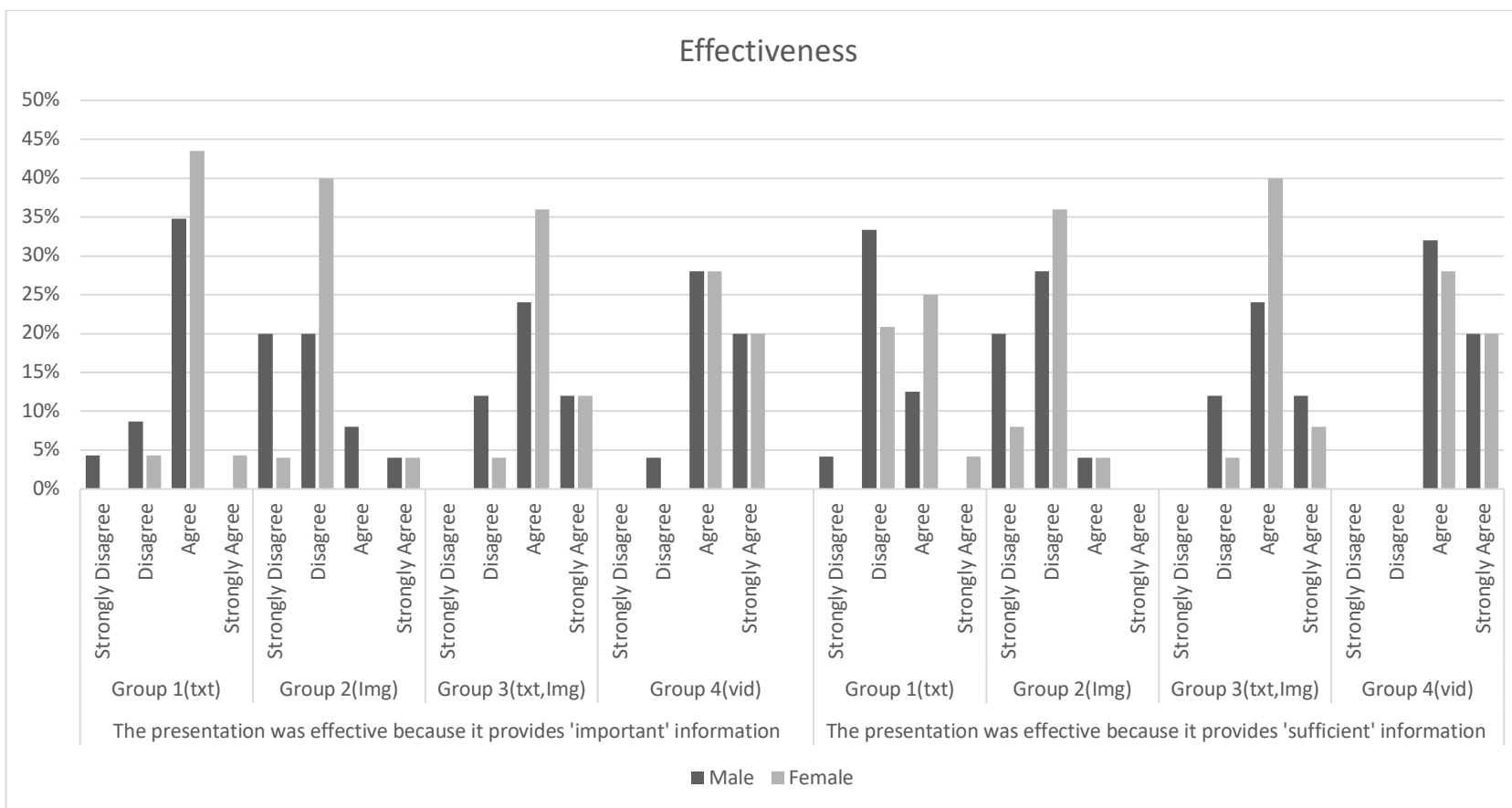
Figure 30: Respondent viewpoint on effectiveness of presentations to provide information.

These results point towards the similar trend which has been reflected through this study that image alone neither is effective in providing important nor sufficient information to online users about the product being advertised. Group 3 respondents who were exposed to text and image presentation, 60% agreed that they found the presentation to be effective as it provided important information and another 24% strongly agreed. Also 64% of these users agreed and 20% strongly agreed that the presentation was also effective because it provided sufficient information. This indicates that when text and image are used in combination to present a product on the online platform, they prove to be effective in both providing important and sufficient information.

The final group, which was presented with video presentation (group 4), majority of the respondents accounting for 96% claimed to find the presentation effective in providing important information, where 56% agreed, and 40% strongly agreed. And 100% of the respondents found the presentation to be affective in providing sufficient information, where 60% agreed and 40% strongly agreed. This is a clear indication of the effectiveness of the video in successfully providing both important and sufficient information on the online platform. This also indicates that though some cues, such as text alone could be effective in providing important information and image alone could be effective in appealing consumers but in order to provide a full experience to online user's video tends to be the most effective.

4.7.12 Product Presentations versus Purchase Decision

All groups were exposed to both product 1 (Kokoon headphones) and product 2 (Hp laptop). From text only group, majority of the respondents said they will not buy both the products, with only 20% agreeing to purchase laptop, and 8 % decided to buy the headphones. One of

the reasons behind this final decision could be that text alone doesn't allow them to make a fully informed decision.
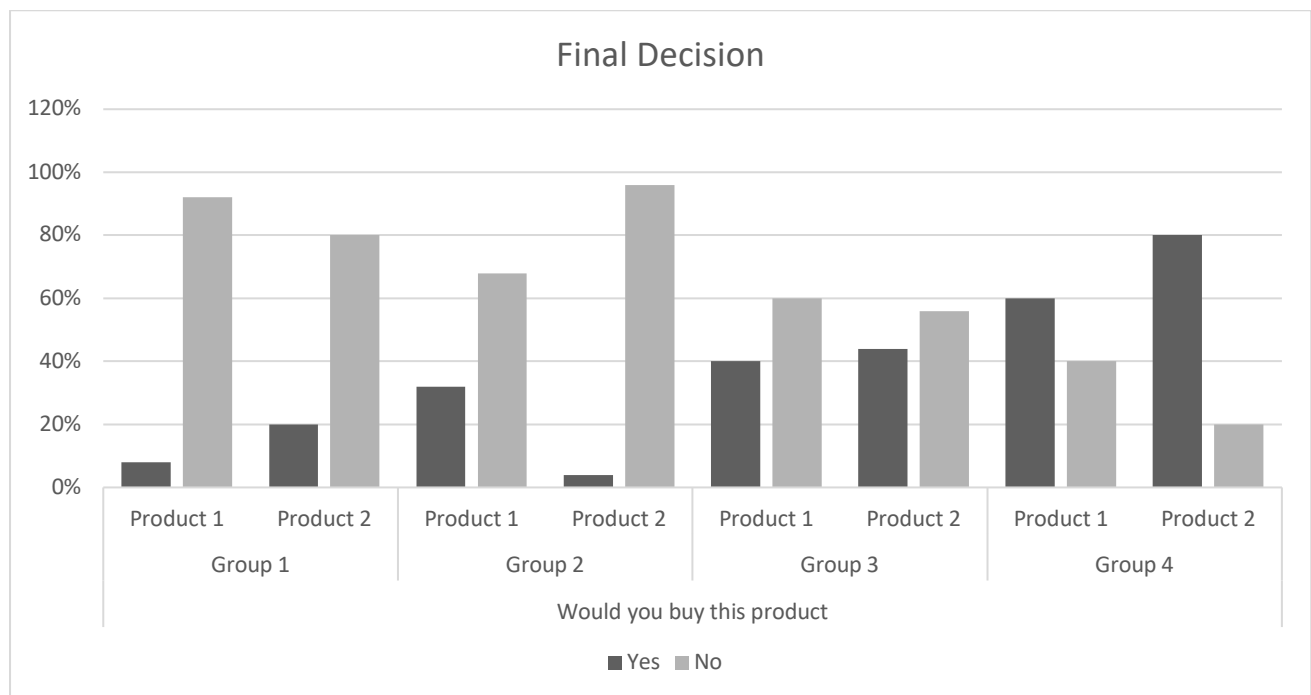
Figure 31: Impact on final purchase decision.

Similar results were revealed in group 2 respondents where image alone again hasn't proved sufficient to influence the final purchase decision of the consumers. Interestingly, group 3 respondents showed mix results, where 40% of the respondents final decision was to buy the headphones and 44% stated that they would also buy the laptop. Although the larger group still felt that both image and text together did not positively influence their purchase decision but when these metaphors are used in combination, they have stronger influence on positively impacting purchase decision as opposed to being used alone. Users from the final group, who were exposed to video, majority of them, accounting for 80%, were influenced by the presentation, which lead to a positive purchase decision. The above results demonstrate that video is the most effective out of all metaphors used to resent products to lead to an actual purchase decision. However, no metaphor has led to a 100% purchase decision, which highlights the potential interactivity and engagement problems with the online

platforms. Although the metaphors used in these presentations are effective in providing information, gaining attention, creating product appeal, and to some extent positively influencing the purchase decision, but there are existing limitations with these online domains. It is important to note that the purpose of this study is to empirically devise the role and importance of specific metaphors in order to overall enhance the effectiveness of online presentations.

4.8 Impact of 'Emoticons', 'Reactions' and Virtual Assistance

There has been an increased usage of emoticons on social media platforms to express feelings in a more expressive manner and to assist communication with the use of visual aid. Emoticons allow users to communicate in a non-verbal manner and to fill the gap created by current non-verbal cues on these online platforms. With audiences responding to adverts on social media through the use of emoticons it was important to understand whether these emoticons have any impact on the product image of the consumers. The respondents were exposed to the illustrations shown below in Figure 32 and the impact of emoticons and reactions, highlighted in red box, on their product image was tested.
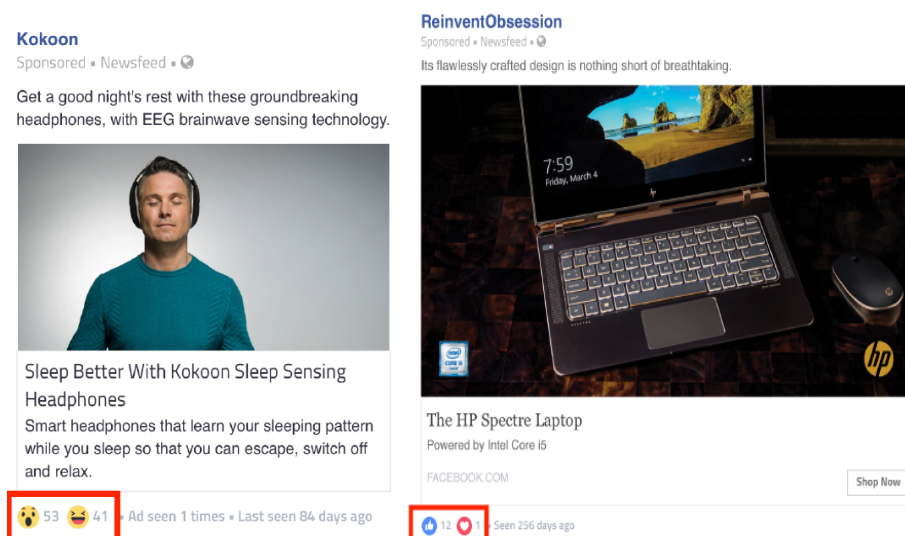
Figure 32: Emoticons and reaction on the presentation of products advertised on a social platform.
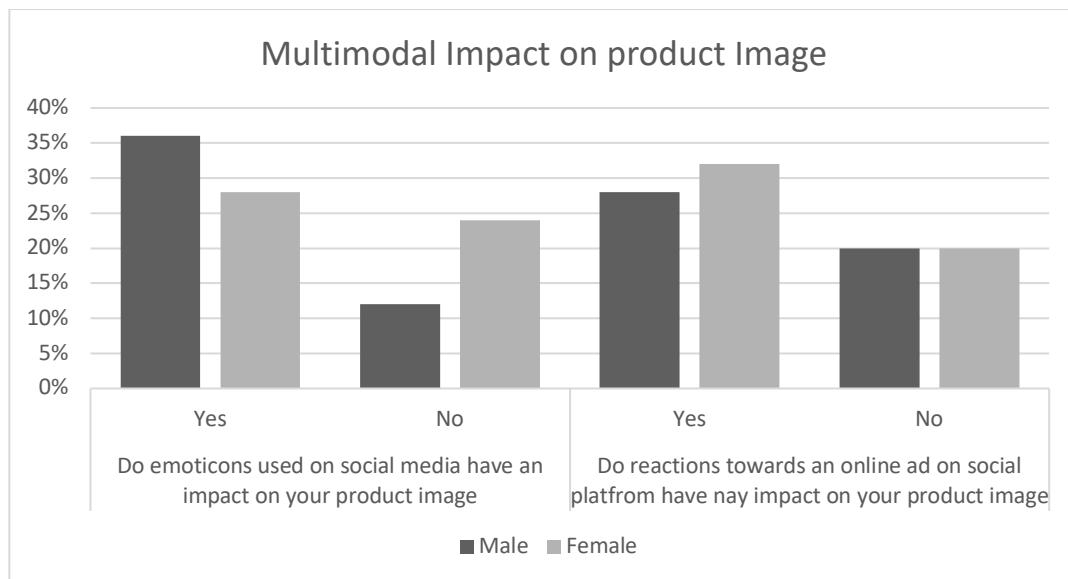
Figure 33: Multimodal impact on product image.

Results indicate that a large group of both males and females, accounting for 64%, felt that emoticons used on adverts do have an impact on their product image. However, 36% felt that it does not have any kind of impact on their product image. This could largely be due to the individualistic nature of these respondents who do not allow external factors, such as user generated reviews, to have an impact on their product image. But what is interesting is that the majority of the respondents, from all the four groups, feel that the emoticons which are used on social media have an impact on their product image.

Another important cue used on these online platforms are reactions depicted in the form of symbols such as thumbs up and heart symbols to express likeness on a post or advert. Although these reactions were developed to assist non-verbal communication between social media users, however users also make use of these reactions to express their thoughts on various products advertised online. With the growing usage of these reactions it was vital to understand whether these reactions on a particular advert on social media platform contributes to the product image of the user.

Respondents from all groups were exposed to advert of laptop on social media platform, illustrated in Figure 32, and asked whether the reactions on that advert had any impact on their product image. Results illustrated that 60% of the respondents felt that these reactions had an impact on their image of the product which was advertised. A smaller percentage of 40% felt that these reactions did not alter their image of the product. These results point towards the importance of these non-verbal cues, precisely emoticons and reactions, which play a significant role towards building the users image of the product advertised on social media. Although these cannot be completely controlled by the marketer but highlights the predominant role which these cues play in building a brand/product image in the mind of a potential customer on the online domain. These additional cues, which add on to the understanding and image of the product advertised online also point towards the complexity and the challenges that can be faced by marketers to effectively advertise on the digital domain.

4.9 Online User Satisfaction and Virtual Assistance

To ensure user satisfaction on the online domain it is important to ensure that the users are finding easy, convenient and user-friendly interactivity whilst making an online purchase. Absence of humans on the online domain is replaced by virtual assistance, but it is important to investigate how effective, easy to interact with and satisfying this online assistance is. The users were exposed to an online simulation, which replicated their real-time experience of making an enquiry whilst browsing and purchasing an apparel item on the online domain and in the process requiring some online assistance, illustrated in Figure 34 below. To be able to enquire further about a selected product the user was required to provide some personal information, including name and email address along with the query.
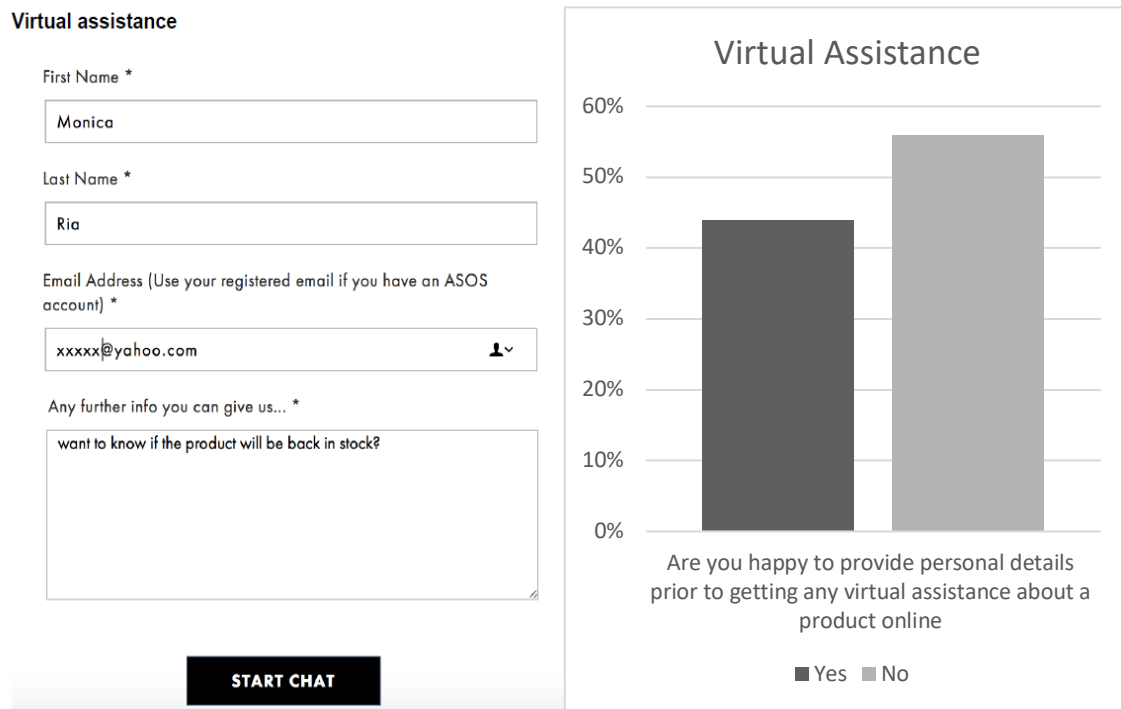
Figure 34: Personal details prior to receiving virtual assistance.

After being exposed to this, the users were then asked whether they were comfortable and happy to provide such personal details prior to receiving any virtual assistance about a product online. Majority of the respondents, accounting for 56%, stated that they were not happy nor comfortable sharing their personal details including their name and e-mail address online before receiving any online assistance. Upon asking to explain the reason behind their response, most of the users argued that the online experience whilst enquiring about a product must replicate the in-store experience alongside being more convenient. In store, customers are not required to share their personal details before being served by any customer assistant to deal any product related query. It is important to understand that the online shopping experience, when compared to in store shopping experience, is expected to be more convenient and sharing personal data on the online domain makes users feel vulnerable and insecure about passing on their personal information to a third part who can then use it for various purposes. Users are also wary of companies contacting them through

their e-mail with targeted advertisements, which could be avoided if they were to shop in store. A major limitation of the virtual assistance is the lack of trust. Humans find it easier to trust on a real person, which they experience in store. To not be able to see your online assistant creates trust issues which has a negative impact on the overall online user experience and satisfaction.

Online Queue

You're currently in the queue to speak to one of our team. You'll be connected as soon as possible.
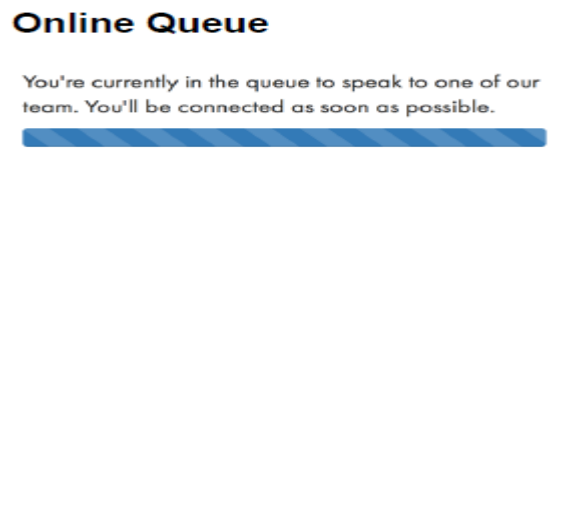
Figure 35: Online Queue prior to be served by a virtual assistant.

After providing their personal details, users were then placed in an online queue, illustrated in Figure 35 above, before they could be served by an online assistant. User reaction was noted towards being placed in this online queue and they were asked whether this wait would discourage them from making purchases online. Majority of the respondents felt very anxious and put off by this wait. Most of them felt that this process would discourage them from making future purchases online, as they relate online shopping experience to be far more convenient and efficient as compared to in-store. However, the amount and kind of information required and the process of waiting before the query could be dealt was very frustrating for them and majority did not find it to be convenient at all. Also, majority respondents claimed to discontinue and close the browser. Furthermore, some pointed out towards the main purpose of online shopping is to be served instantly and to avoid queues.

This highlights the user perception of what an online experience should be and how it differs from the in-store experience. But these current processes which are in place on most of the online domains are very different from what is expected, leading to difficult and complex interaction which lacks convenience and offers low user satisfaction which can in turn negatively affect purchase decision.
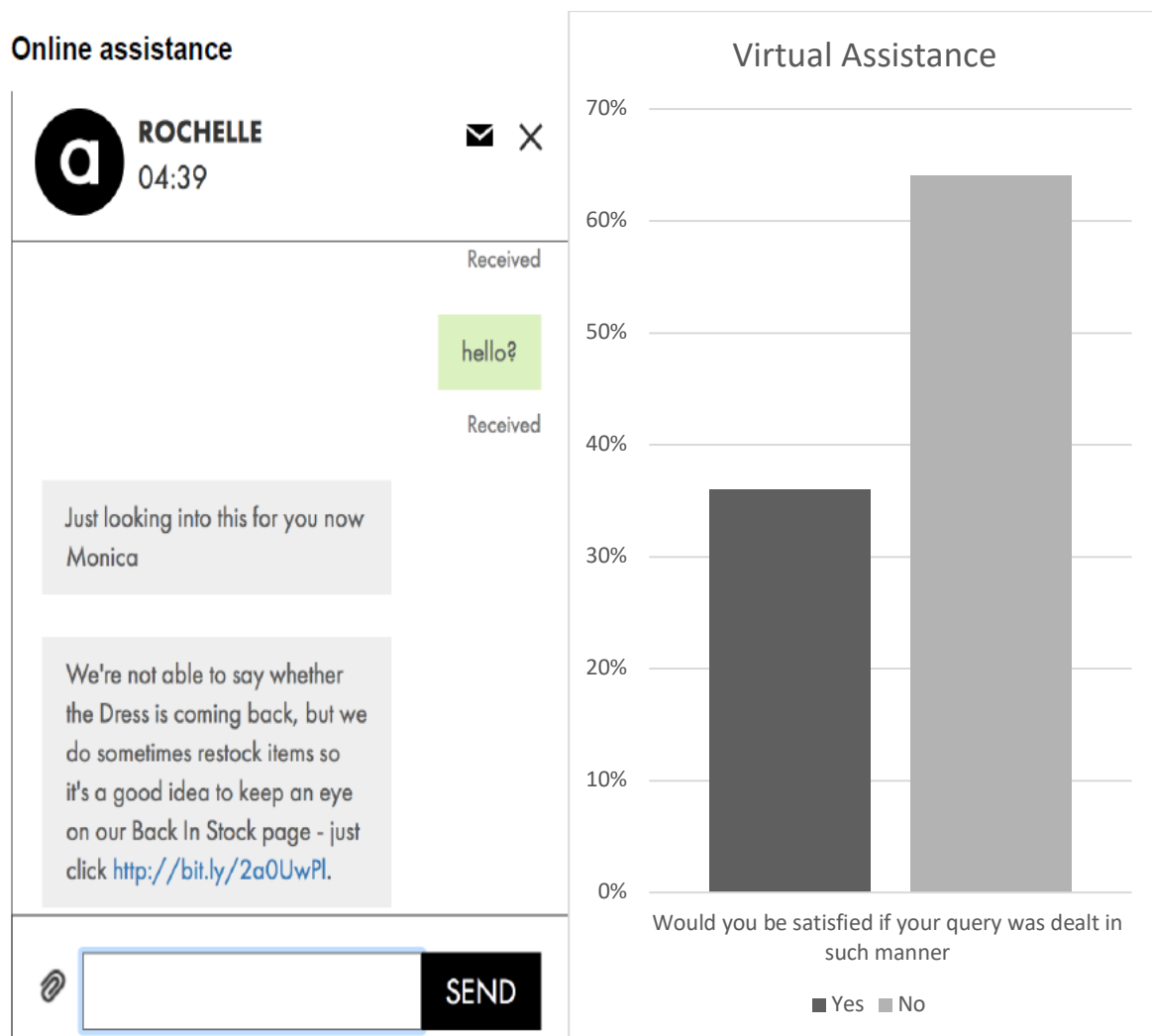
Figure 36: User satisfaction response in regard to virtual assistance offered.

In the process of making a product enquiry online, after being placed in an online queue, the users were then taken to the final stage of the process where the query was responded, illustrated in Figure 36 above. After being exposed to the response, the respondents were then asked whether they would be satisfied if their query is dealt in such manner to assess

the user satisfaction achieved through online interactivity. Majority of the respondents, accounting for 64%, stated that they would not be satisfied and only 36% felt otherwise. Mostly, the users felt that after going through such an extensive process of waiting they deserved a more definitive answer. This again points towards the current limitations and flaws on the online domain which make user experience complex and less satisfactory and these are the areas which need to be addressed to ensure that online interactivity can be further improved to ensure increased user satisfaction and decreased complexity of these platforms leading to positive purchase decisions.

4.10 Result of the Hypotheses

4.10.1 Hypothesis 1:

	X2 - value	df	P-value	Decision
H1: Effective social media/online platform leads to positive purchase decision				
H1a- Product likeness on social media/online platform has a positive impact on the effectiveness of the platform	4.641	1	.031	Accept
H1b- Product understanding enhances effectiveness of social media/online platform	5.821	1	.016	Accept
H1c- Effective product presentation on online social media platform has a positive impact on purchase intention	7.206	1	.007	Accept

Table 2: Hypotheses result for Effectiveness.

153

A chi-square goodness of fit test was used to test hypothesis 1, i.e., Effective social media/online platform leads to positive purchase decision. Based on the statistical tests it was concluded that product likeness on social media/online platform has a positive impact on the effectiveness of the platform, $\chi^2(1) = 4.641$, p<.05. Furthermore, product understanding was also found to enhance effectiveness of social media/online platform, $\chi^2(1) = 5.821$, p<.05, and lastly, it was found that effective product presentation on online media platform has a positive impact on purchase intention, $\chi^2(1) = 7.206$, p<.05. Overall, based on the above statistical tests it has been concluded that based on the observations considered in this study, effective social media/online platform leads to positive purchase decision.

4.10.2 Hypothesis 2:

	χ^2 - value	df	P-value	Decision
H2: User satisfaction achieved on social media/online platform leads to positive purchase decision				
H2a- Online virtual assistant helps achieve user satisfaction when making purchase queries online	1.001	1	.317	Reject
H2b1- Finding social media/online platform secure to make purchases and share personal information allows achieving online user satisfaction.	4.588	1	.032	Accept
H2b2- Finding social media/online platform secure to make purchases and share personal information allows achieving online user satisfaction	3.978	1	.046	Accept

H2c- The interactivity allows consumers to find social media platforms useful which has a positive impact on their satisfaction of that online experience.	4.393	1	.036	Accept

Table 3: Hypotheses result for User Satisfaction.

A chi-square goodness of fit test was used to test hypothesis 2, i.e., User satisfaction achieved on social media/online platform leads to positive purchase decision. It was concluded that current online virtual assistant does not significantly help in achieving user satisfaction when making purchase queries online, $\chi^2(1) = 1.001$, p>.05 and , $\chi^2(1) = .053$, p>.05 for hypothesis subset 2a. Finding social media/online platform secure to make purchases and share personal information was found to significantly allow achieving online user satisfaction, $\chi^2(1) = 4.588$, p<.05 . The sub hypothesis concluded that when users find online platforms secure enough to make purchases and share personal information, it subsequently leads to achieving online user satisfaction. Hence hypothesis 2b is accepted based on the observations of this study.

Further statistical tests revealed that hypothesis 2c, suggesting that interactivity allows consumers to find social media platforms useful which has a positive impact on their satisfaction of that online experience was also accepted, $\chi^2(1) = 3.978$, p<.05. This empirically supports the observations within this study, that user satisfaction on the online domain can be achieved through increased interaction, leading to a positive purchase decision.

4.10.3 Hypothesis 3

Presentations with the use of multimodal metaphors help achieve product likeness, user understanding and influence purchase intention on online platform	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H3a- Text presentations help achieve product likeness on online platform	.360	1	.549	Reject
H3b- Text presentations help aid user understanding of the product advertised on online platform	9.000	1	.003	Accept
H3b1- Text presentations positively influence purchase intention	12.261	4	.016	Accept
H3b2- Text presentations positively influence purchase intention	.070	1	.792	Reject

Table 4:Hypotheses result for multimodal metaphors.

Series of hypothesis and sub hypotheses were tested in order to determine the effectiveness of different multimodal metaphors. Hypothesis suggesting that text presentations enhance product likeness on online platform was rejected, $\chi^2(1)$ =.360, p>0.5. However, the chi-square test indicated that text presentations help aid user understanding, with H3b approved, $\chi^2(1)$ =9.000, p<0.5. These results are in line with the analysis and findings of the data gathered where text presentations were found to increase user understanding but have no impact on creating product likeness or influencing purchase decision.

Hypothesis 3c − 3e

	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H3c- Image presentations help achieve product likeness on online platform	4.840	1	.028	Accept
H3d- Image presentations help aid user understanding of the product advertised on online platform	1.00	1	.317	Reject
H3e1- Image presentations have a positive influence on purchase intention	14.400	4	.006	Accept
H3e2- Image presentations have a positive influence on purchase intention	14.440	1	.000	Accept

Table 5: Hypotheses result for multimodal metaphors.

While testing hypotheses 3c − 3e, chi square goodness of fit test was used to check the validity of the hypotheses and it was concluded that hypothesis H3c: Image presentations help achieve product likeness on online platform was significant. However, hypothesis H3d, suggesting image presentations help aid user understanding was not significant, $\chi^2(1) = 1.00$, p>0.5. These statistical tests support the observations from this study which suggested image presentations helped create product likeness but did not aid users with product understanding. Hypothesis H3e, suggesting that image presentations have a positive influence on purchase intention was found to be statistically significant (p<.05). However, it is important to note that image presentation can influence purchase intention but that does not necessarily mean it will lead to purchase decision.

Hypothesis 3f – 3h

	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H3f1- Text+Image presentations make the product presented visually pleasing	3.240	1	.072	Reject
H32- Text+Image presentations make the product presented visually pleasing	9.200	4	.056	Reject
H3g1- Text+Image presentations help aid user understanding of the product advertised on online platform	6.76	1	.009	Accept
H3g2- Text+Image presentations help aid user understanding of the product advertised on online plat-form	11.56	1	.001	Accept
Conclusion				Accept
H3h1- Text+Image presentations have a positive influence on purchase intention	7.600	4	.107	Reject
H3h2- Text+Image presentations have a positive influence on purchase intention	.360	1	.549	Reject

Table 6: Hypotheses result for multimodal metaphors

Hypothesis H3f: Text+Image presentations make the product presented visually pleasing was rejected (p>.05) While hypothesis H3g was accepted (p<.05) and based on the observation it is concluded that Text+Image presentations help aid user understanding of the product advertised on online platform. Lastly, it was concluded that there is no sufficient evidence to accept hypothesis H3h hence it can be concluded that Text+Image presentations does not have a positive influence on purchase intention. Although these statistical tests suggest that

his combination of metaphors does not influence purchase intention, but descriptive data suggests that these can positively influence purchase decision.

Hypothesis 3i – 3k

	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H3i1- video presentations make the product presented visually pleasing	17.640	1	.000	Accept
H3i2- Video presentations make the product presented visually pleasing	12.600	3	.006	Accept
H3j- Video presentations help aid user understanding of the product advertised on online platform	21.160	1	.000	Accept
H3k1- Video presentations have a positive influence on purchase intention	11.600	4	.021	Accept
H3k2- Video presentations have a positive influence on purchase intention	4.840	1	.028	Accept

Table 7: Hypotheses result for multimodal metaphors.

The hypothesis suggesting, that video presentations make the product presented visually pleasing was found valid, (p<.05), hence accepted. Also, hypothesis H3,j which stated that video presentations help aid user understanding of the product advertised on online platform was accepted as it was found to be significant (p<.05). Lastly, it was concluded that video presentations have a positive influence on purchase intention (p<.05). These statistics support the previous findings of this study, suggesting the importance and effectiveness of video, as compared to other metaphors in increasing product likeness, aiding user understanding and positively influencing purchase decision.

4.10.4 Hypothesis 4

Presentation using multimodal metaphors on social media/online platform has an impact on the effectiveness of the advertisement.	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H4.1- Text only presentation on social media/online platform has an impact on the effectiveness of the advertisement	38.000	3	.000	Accept
H4.2- Text only presentation on social media/online platform has an impact on the effectiveness of the advertisement	18.360	3	.000	Accept
H4a1- Image only presentation on social media/online platform has an impact on the effectiveness of the advertisement	18.040	3	.000	Accept
H4a2- Image only presentation on social media/online platform has an impact on the effectiveness of the advertisement	12.080	2	.002	Accept
H4b1- Text+Image presentation positively contributes to the effectiveness of the advert	7.600	4	.107	Reject
H4b2- Text+Image presentation positively contributes to the effectiveness of the advert	8.240	2	.016	Accept
H4b3- Text+Image presentation positively contributes to the effectiveness of the advert	10.640	2	.005	Accept
H4c1- Video presentation on social media/online platform has an impact on the effectiveness of the	11.600	4	.021	Accept
H4c2- Video presentation on social media/online platform has an impact on the effectiveness of the	10.640	2	.005	Accept
H4c3- Video presentation on social media/online platform has an impact on the effectiveness of the	1.00	1	.317	Reject

Table 8: Hypotheses result for multimodal metaphors.

Overall, hypothesis 4 was accepted having found eight (8) significant (p<.05) sub-hypotheses out of ten (10). The Chi-square test proved Hypothesis 4, indicating that all four metaphors have a significant impact on enhancing the effectiveness of the advert presented on the online platforms. Previous hypothesis (H3), have identified the specific roles of individual metaphors and their individual contribution in increasing the online presentation effectiveness.

4.10.5 Hypothesis 5 and 6

	Chi Square Test			Remarks
	χ^2-Val.	df	P-val.	
H5- Emoticons used in online adverts contribute towards the product image	9.000	1	.003	Accept
H6- Reactions of online users on online advert have an impact on the consumers product image	4.840	1	.028	Accept

Table 9: Hypotheses result for Product Image.

A chi-square goodness of fit test was used to test hypothesis 5, suggesting that emoticons used in online adverts contribute towards the product image. The hypothesis was accepted, $\chi^2(1) = 9.000$, p<.05. A chi-square goodness of fit test was used to test hypothesis 6, which stated that reactions of online users on online advert have an impact on the consumers' product image. This hypothesis was also accepted, $\chi^2(1) = 4.840$, p<.05. These statistical inferences support the descriptive analysis which suggested that both emoticons and reactions when used on the online platforms have an impact towards the product image in the minds of the consumers.

4.11 Discussion

Although statistical descriptive analysis of all the proposed hypothesis suggested most of them being approved but for further confirmation, the relationship between the variables being tested was run through a chi-square test to ensure the significance of the relationships. As expected, H1, was accepted, confirming that effectiveness on social media/online platforms positively influences purchase decision. In this study, when the respondents claimed to like the product, found the product presentation informative and the information given about the product sufficient, they claimed to have found the presentation to be effective in influencing their purchase decision. This highlights the importance of the presentation content advertised on social media, as current studies suggest that overloading users with information and complex presentations can reduce and hence diminish the returns of effectiveness (Fortin and Dholakia, 2005). Usually, this presentation complexity is alleviated by simplifying and balancing the interactive features, multimodal metaphors and designs in such a way, that media presented positively influences the purchase decision. The four multimodal metaphors, which were tested in this study include text, image, combination of text+image and video. These metaphors were tested to understand whether they have any impact towards increasing the effectiveness of the advert presented on the online platform and also whether these metaphors have any contribution in increasing product likeness of the product advertised, aiding understanding of the product and whether they have any impact on the purchase intention of the consumer.

In order to understand this a series of chi-square tests were run to establish whether there is any relationship between these constructs. The statistical analysis of the results and the chi square tests both prove that all four metaphors, including text, image, text+image and video have a significant impact in increasing the overall effectiveness of the product

advertised on the online platform. However, it is important to note that these metaphors have individual roles and contribution, which have been identified in this study. Video was found out to be the most significant metaphor out of all four in increasing the overall effectiveness of the product presentation on the online platform. Further tests indicated that Text, when used by itself to present a product online was most effective in aiding user understanding and providing user with important information about the product advertised. Image, when used alone to present a product was not found to be very effective in aiding user understanding but had more influence in increasing product likeness. After respondents were exposed to Image only presentation, they stated that it did create product likeness and product appeal but due to lack of information it did not influence them to purchase the product. Hence it was concluded, that when image is used alone in a presentation online it helps increase product likeness, which in turn has a positive impact on the purchase intention, but not necessarily purchase decision. The third metaphor, which was being observed in this study, combination of text+image, was also tested to understand if it has any significant impact on increasing the product likeness, in aiding product understanding and on the purchase intention of the user. Statistical analysis and chi square tests confirm that the combination metaphor, of text+image, when used to present a product on the online platform has a significant impact and aids the user with the product understanding of the product advertised. However, the results do not find this specific combination metaphor to have any impact on the product likeness.

Also, the results indicate that text+image, when used together do not have a positive influence on the purchase intention of the user. Respondents who were exposed to Text + Image presentation felt they had received sufficient information about the product, and maybe due to this sufficient information they were able to make a more informed decision of not liking the product. As opposed to image only presentation, where due to lack of product

information, majority respondents did develop product likeness. But when both Text+Image were used the respondents had significant information about the product, which could have impacted their likeness towards the product. For example, those who did not like specific features of the product felt that they did not develop likeness for the product, as compared to image only presentation where features were not detailed in textual form and superficial likeness would have been developed for the product. When asked if they would buy this product, majority of the respondents decided not to buy the product, indicating this presentation has not influenced their purchase decision. The fourth metaphor, video, was found out to be the most effective out of all the metaphors investigated, as statistical results and chi square test confirm its significance in increasing product likeness, aiding user understanding and also positively influencing the purchase intention of the user. After the respondents were exposed to the video presentation, they were then asked series of questions to determine their likeness and understanding of the product advertised. Majority of the respondents found that the presentation created product likeness and aided them with important and sufficient information about the product. Later recall questions were asked, and the results indicated that the presentation had helped them recall and recognize the product and its key features. Finally, they were asked if they would buy the product, as opposed to previous three groups, majority of the respondents from this group wanted to buy the product they were presented with. This confirms that video presentation positively influences the purchase decision of the customers, and when on the online domain, video presentations are used to present a product this can directly affect the purchase decision influencing customers to make an actual purchase. This is in line with a study conducted by Alijani, Mancuso, Kwun and Omar, (2010), which found video advert the most effective to enhance online advertisement and motivate consumers to make positive purchase decisions. Their study also, similar to this study, found text and other formats of online advert to have

164

little or no significant impact on the purchase decision of the consumers. It can be argued that in order to decrease complexity of the advert and increase its effectiveness on the online platform, video is found to be the most effective metaphor in order to trigger product likeness, aid users with the product understanding and motivate them to lead to a positive purchase decision.

Furthermore, this study aimed at assessing the current convenience and role of online virtual assistant in replicating the human assistant and providing user satisfaction. This study wanted to understand how effective online virtual assistants are and whether the lack of human warmth on the online platform had any negative implications on the consumers and their online experience. The study found that the users find their experience with the current online virtual assistant to be unsatisfactory. They have trust issues due to absence of real humans and feel sceptical and unsure of sharing their personal details prior to receiving online assistance, this highlights that the lack of human warmth certainly has negative implications on the consumers. Furthermore, as users associate convenience with online shopping experience, when placed in an online queue, before being served by an online assistant, found this process to be impinging their online shopping experience. Further statistical tests suggest that perceived trust and secure platform leads to user satisfaction which in turn leads to positive purchase decision.

CONCLUSION ON FRAMEWORK HYPOTHESIS SUMMARY

Hypotheses	Statement	Remark
1	Effectiveness on social media/online platform leads to positive purchase decision	Accept
2	User satisfaction achieved on social media/online platform leads to positive purchase decision	Accept
3	Presentations with the use of multimodal metaphors help achieve product likeness, user understanding and influence purchase intention on online platform	Partially Accepted
4	Presentation using multimodal metaphors on social media/online platform has an impact on the effectiveness of the advertisement.	Accept
5	Emoticons used in online adverts contribute towards the product image	Accept
6	Reactions of online users on online advert have an impact on the consumers product image	Accept
	Overall Conclusion on Framework	Valid

Table 10: Hypotheses conclusion summary.
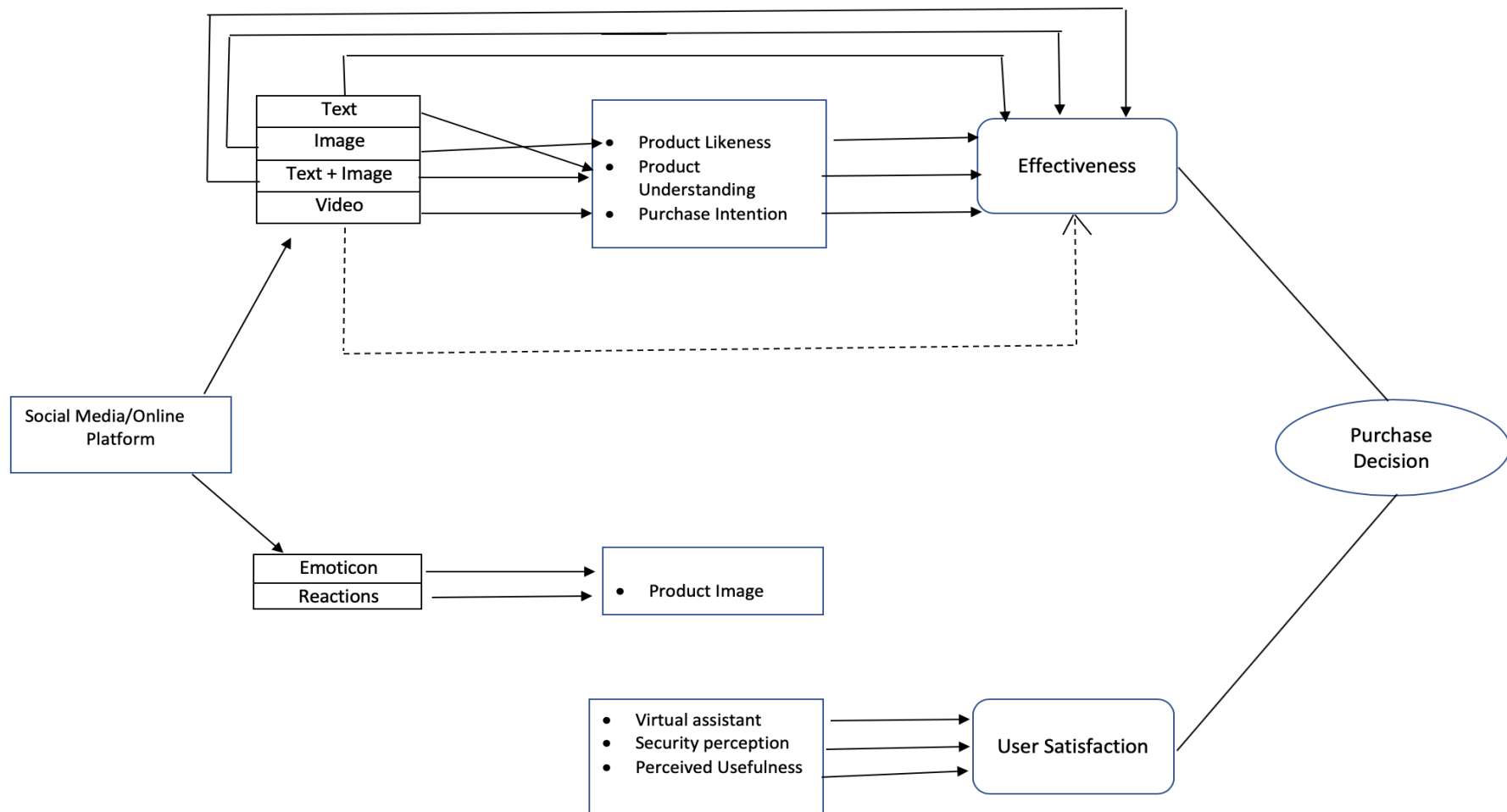
Figure 37: Empirically derived framework.

4.12 Conclusion

On the online domain, which lacks human warmth, various metaphors are used alone and in combination, to advertise products online and to positively impact on product likeness, understanding and effectiveness, which then leads to a positive purchase decision. However, it is important to bear in mind that increased complexity of the online platforms leads to poor user engagement and interaction which can have a negative impact on their purchase experience and decision. Experiment was conducted to test the impact of product presentations used to advertise specific products, Hp Laptop, and Kokoon headphones, through the use of specific metaphors including text, image, text and image in combination and video. The respondents were split into four group (n=25), and each group were exposed to the presentation of same products but with the use of different metaphors. Their product *likeness*, *understanding*, and *effectiveness* was then tested. Further tests were conducted to understand the effect of current online virtual assistants and how they affect user satisfaction on the online platforms. The study then observed the impact of user satisfaction and effectiveness towards positively affecting user purchase decision.

Results indicate that these four metaphors (Text, Image, Text+Image, Video), all play a very important role towards increasing the effectiveness of the online platforms. However, where text alone as a metaphor is very successful in aiding user information but has little impact on product likeness. Similarly, image as a metaphor alone when used to advertise a product is found to enhance product likeness but does not aid product understanding. However, when image and text are used together in combination, they are very effective in aiding user understanding. Out of all the metaphors used, video is the most successful in positively effecting user likeness,

understanding and effectiveness. Video presentation also has a significant impact towards positively influencing purchase decision. The major limitations, which are highlighted by this study point towards the complexity of the current online platforms and the lack of satisfaction and poor customer experience. Absence of humans on the online domain is replaced by virtual assistance, but it was important to investigate how effective, easy to interact with and satisfying this online assistance is. The users were exposed to an online simulation which replicated their real-time experience of making an enquiry whilst browsing and purchasing an apparel item on the online domain. And in this process, they were required to provide personal details, which majority of the respondents were not comfortable or happy to do so. This also indicates, that there is lack of trust, as you cannot see your virtual assistant, which is rather a different experience from in stores and hence leads to trust issues which is currently a major limitation of the online platform. The role of current online virtual assistant was tested in regard to providing online user satisfaction. The results observed, that users do not find current online virtual assistant helpful enough and feel that they do not gain user satisfaction by interacting with these virtual assistants. This study also highlighted the concerns of online users who are discouraged when placed in online queues before being served as they associate online shopping experience with convenience.

The current processes which are in place on most of the online domains are very different from what is expected, leading to difficult and complex interaction which lacks convenience and offers low user satisfaction. As an example, used for the purpose of this study, where respondents were exposed to an online simulation replicating their online shopping experience, where they were unable to purchase a product due to it being out of stock and required information in relation to when the product will be back in stock. In an offline store, customers can directly approach a sales assistant and

make a query in relation to the product, without necessarily providing personal details such as first name, last name and e-mail address. However, whilst shopping online before being served by an online virtual assistant, the customers were required to provide these details, and all are mandatory, i.e. without providing any of these details they could not be served by an online assistant. This was found to be a major factor acting as a demotivator and leading to low user satisfaction. This was also regarded as unnecessary and inconvenient by the respondents because where they associate online shopping as more convenient to in-store shopping, however, in reality they deemed the requirement of personal information prior to being served by online assistant as unnecessary, inconvenient and time consuming.

After providing with the personal information, the user was then placed in an online queue, where they had to wait for their turn to be served by an online assistant, which again was very frustrating for most of the respondents and considered as complex by many, because these stages and steps before being served by an online assistant made the process longer and complex for many as compared to the in-store experience. These current processes, which are in place on the online domains should avoid forcing customers to go through these complex stages as it takes away the elements of convenience and simplicity, which the online shopping experience is largely associated with in the mind of its users.

4.13 Key findings summary table

• Majority users found video presentations to enhance their product likeness the most, followed by the combination of image and text and then image alone presentation.
• Text only presentation was found most effective in aiding user understanding.
• Image alone presentation was not very significant in aiding user understanding or affecting purchase decision.
• Text and Image presentations had a more significant impact on increasing product likeness but did not influence purchase decision.
• Video presentation was found to be the most significant factor in positively affecting purchase decision.
• Majority respondents find current online virtual assistance process inconvenient and dissatisfying.
• Lack of security perception affects current user satisfaction, which can be dealt with by avoiding gaining unnecessary personal information prior to providing online assistance which can then lead to overall user satisfaction on the online domain.
• Emoticons and reactions on online presentation on social media platforms can influence in creating product image in the mind of users about the product advertised.

Table 10: Key findings summary table

Chapter 5 Empirically Derived Guidelines and Conclusion

5.1 Introduction

This Chapter presents the key findings and conclusions of this thesis. Empirically driven guidelines of multimodal metaphors on online social media platform are also discussed. These guidelines contribute to (a) the literature in the subject area of business and management, multimodality, social media and consumer behaviour and (b) can be practically used by digital marketers, designers and businesses for the effective development of their product presentation on the online social media domain. Furthermore, this Chapter also reflects on the limitations and lessons learnt from this investigation as well as highlights for future work for the continuation of research in this direction of study.

5.2 Critical Review of Data

This section offers a critical review of the empirical work conducted for the purpose of this study. The key methods, design and approaches adopted are also discussed alongside with the main findings which were derived from each survey study are also reflected upon.

5.2.1 Stage 1: Combined and Individual Multimodal Effect

The stage I survey in chapter 3 was designed to understand the overall user comprehension on the use and lack of multimodality. This stage was developed to understand whether users appreciate the presence of multimodal metaphors used on social media platforms and to gather the user's viewpoint in regard to the overall

effectiveness of the social media platform in comparison to the conventional shopping experience. Another aim of this stage was to reflect on, whether multimodal metaphors used on social media platforms to advertise products, only act as informant tools or have any impact on the final purchase decision. Findings illustrated in figure 7, suggest that users found social media marketing to be more information rich and influencing in comparison to the conventional marketing. An important insight which was drawn from these findings, was that users, although, found social media marketing more influential and information rich as compared to conventional marketing, but they felt that the information presented on social media platforms when advertising a product was more complex. Also, most of the users found social media to be more effective marketing platform due to it providing an open system and means for two-way communication, shown in figure 9.

Advertisements on the social media platforms make use of various multimodal metaphors, which help communicate the product through different cues such as audio, video, graphical and others. These multimodal metaphors, including text, image, audio and video are used on the digital domain to enhance the user's understanding of the product or service advertised. Users were asked to identify which metaphor they found to be most effective in helping enhance their understanding. Results in chapter 3 highlighted in figures 10and 12 demonstrate that the users appreciated the presence of all four multimodal metaphors and found them all to be effective but felt that video was the most significant metaphor in aiding their product understanding. Further findings suggested that interactive features are not only important in aiding user understanding but also influence the purchase decision. The study also wanted to understand whether the absence of human warmth, (lack of human presence), on the online domain had any impact on the user's purchase decision. As illustrated in figure

12, results demonstrate that although majority of the users do not feel that the absence affects their purchase decision, but female users felt that the absence of human sales assistant on these platforms can affect their purchase decision. This points towards the differences in shopping preferences and buying behaviour between genders. Furthermore, majority of the users felt that adverts on social media platforms are more efficient and effective, hence positively influencing purchase decision. The findings from this survey has led to the development of a conceptual framework and a set of hypotheses which were tested through Stage II survey.

5.2.2. Stage II Survey - Validation

The stage II validation was designed to test the conceptual framework and hypotheses which were developed as a result of findings from the preliminary stage. The aim of this stage was to understand in greater detail the impact and role of specific multimodal metaphors, including, Text, Image, Text+Image and video, when used on social media platform to present a product online. The impact of these multimodal metaphors was tested against product likeness, product understanding, and purchase intention. It aimed to then establish whether these metaphors played any role in contributing towards the overall effectiveness of the social media platform. Another important element of this stage was to investigate the factor of stimulated human presence with the use of online virtual assistants, on the overall user satisfaction and consumer decision-making. This helps reflect greater insights on the current online virtual assistants and their role in increasing user satisfaction on the online domain which in turn affects the purchase decision.

Users on the social media platforms share their views and thoughts about the products advertised with use of emoji, emoticons and reactions. With the growing use of these

emoji's and emoticons on the social media platforms, it was imperative to understand whether these have any significant impact towards shaping the product image in the minds of potential customers. Prior to the users being exposed to the presentations, which were designed to test the impact of four different multimodal metaphors on their product understanding, product likeness and purchase decision, their viewpoint in regards to online adverts was gathered. Results indicated that majority of the respondents from all four groups found online adverts to lead to impulse buying and also felt that the more time a user views an online advert, the more likely they are to purchase that product. Possible explanation driven out of this is that the more times a potential consumer views an advert the more likely it is to feed the consumer with the product information, creating product desireness and eventually leading to purchase decision. Despite majority of the respondents feeling this way, it is important not to overlook a decent number of respondents who felt otherwise. This difference in opinion stresses on the complex nature of consumer behaviour and the challenges associated with it to fully understand it along with the importance of ongoing research in this area to try and understand this ever- changing social behaviour which is vital to the success of any businesses. After exposing respondents to four different multimodal presentations, their product likeness and product understanding was tested. Results illustrated in figure 26 indicate majority users found video presentations to enhance their product likeness the most, followed by combination image and text presentation. Further results indicated that text when used alone in a presentation, was most effective in aiding user understanding about the product advertised, as shown in figure 28 and 29. Image alone was not very significant in aiding user understanding, and when used alone only enhanced product likeness to some extent. Interestingly, when text and image were used in combination, they had a more significant impact on

175

increasing product likeness but did not have any influence over purchase decision. In the presentation, which used a combination of both text+image, majority respondents felt that the product was well presented as compared to text only and image only presentation. One explanation behind the combination metaphor of text+Image leading to increased product likeness could be due to the detailed features provided in form of text along with the visual image might meet user's aesthetic needs of the product. The fourth metaphor, video was found to be the most significant metaphor in positively affecting purchase decision. All four metaphors were found to increase the overall effectiveness of the presentation on the social media platform, that could potentially lead to a positive purchase decision. ==However, as demonstrated in figure 29 and 30,== video was found to have the most significant impact on increasing the effectiveness of an online presentation when used to present a product.

Creating brand awareness on the online domain is yet another challenge faced by many businesses. It is extremely important for the presentations on the social media platform to effectively communicate the product and its brand name. Respondents who were exposed to all four presentations found each presentation to have a significant impact on communicating the brand name clearly, however, text only presentation had the minimal affect and video presentation had the most impact on effectively communicating the brand name. Where ensuring that the brand name is communicated effectively and well -presented, yet another extremely important element of online presentations it to positively impact the purchase intention of the potential customers. Further questions were posed in order to determine the impact of four different presentations on purchase intention of the users. Results demonstrate that out of all the four different presentations, text only presentation and image only presentation had minimal impact on purchase intention, however, when these

multimodal metaphors were used in combination, the results indicated that together these had a much more significant impact on the purchase intention of the respondents. However, it is important to note that when used in combination these metaphors are effective as compared to being used single but not sufficient. Video presentation had the most significant impact out of all in affecting the purchase intention.

This stage also aimed at establishing the impact of current online virtual assistants and its role in providing user satisfaction. In order to tackle the absence of human warmth, i.e lack of human presence on the online social platforms, increasingly organisations have started to rely on online virtual assistants to provide users with a fulfilling and satisfying shopping experience. With the growing use of these virtual assistants, which now prevail on majority of the online platforms, it was imperative to establish an understanding of their role and their overall effectiveness in providing user satisfaction on the online domain. Respondents were led through a similar shopping experience where they were presented with a simulation replicating their real time shopping experience when making an online enquiry about an item and being directed to an online virtual assistant for help. As a part of their enquiry to be made and for them to receive help for a virtual assistant they were first asked to provide some personal details such as name and e-mail address, which majority of respondents were not comfortable with. Once the details were provided, they were then placed in an online queue before being assisted by a virtual assistant. Again, majority of the respondents found this inconvenient and dissatisfying, as most individuals associate online shopping experience with convenience and speed. Lastly, when the enquiry was dealt with and response provided, user satisfaction was tested where majority of the respondents were not satisfied with the way their enquiry was dealt with and with

the overall experience of online virtual assistance. These raise concerns for the current virtual online assistants in place highlighting their weakness in effectively providing user satisfaction on the online domain. The findings and results attained through stage II helped empirically support the conceptual framework and develop empirically driven guidelines discussed below.

5.3 Empirically Derived Framework and Guidelines

This work enabled the development of a set of empirically driven guidelines and a framework which can be used by digital marketers and designers for the purpose of designing multimodal online social media adverts in order to enhance overall effectiveness of the online presentation and overall shopping experience, thus positively affecting consumer purchase decision. These guidelines can not only be used to inform multimodal designers but can also be used in academia to develop a more detailed understanding of the consumer buying behaviour on the online domain. These guidelines act as broad guidance and must be read alongside with the limitations of this study.

This study has established and supports the use of multimodal metaphors and their individual roles when used alone or in combination on the social media platforms to increase the effectiveness of the online presentation. These guidelines are related to the effect of multimodal metaphors used on social media platforms and their impact on consumer buying decision.

5.3.1 Effectiveness of Presentations on Social Media Platforms

The study has observed that the when a product is presented on the social media platform, in order to trigger a purchase decision from that presentation, it has to be

effective. To ensure that effectiveness is achieved through an online product presentation, the presentation must create product likeness, sufficient product understanding and purchase intention, as these three factors are imperative to make a presentation effective, hence leading to a positive purchase decision. The design of product presentations must ensure that it enables to achieve all these three factors if the aim is to influence the purchase decision making of the consumer. If an online presentation creates product likeness but does not provide sufficient information that might not provide overall effectiveness and hence would not necessarily lead to a purchase decision. Likewise, if a presentation provides sufficient product information but does not create product likeness or purchase intention, it would again not lead to a purchase decision. Hence it is important for presentation designers to bear in mind when designing a presentation online, that if the intent is only to create product likeness or feed consumers with product information, then absence of one of the other factor would not impinge the effectiveness of the presentation, however if the intent is to create a positive purchase decision, then the presentation must compromise of all three factors to ensure the effectiveness of the presentation leading to purchase decision. It is also important to note that video is the most effective metaphor which positively influences purchase decision.

5.3.2. Multimodal Presentations on Social Media for Product Likeness

In order to achieve product likeness through a product presentation on the social media platform image can be used alone or the combination of text+image can also be used which helps achieve product likeness. However, image presentation is found to help achieve product likeness most, which in turn can have a positive effect towards the purchase decision. Consumers who might not be aware of a particular product, or

with the need of the product, if product likeness can be developed, there are chances this might lead to a purchase decision, hence creating product likeness on the online domain is of vital importance.

5.3.3 Multimodal Presentations on Social Media to aid Product Understanding

Creating product likeness is necessary but not sufficient and in order to influence the purchase decision of a consumer it is important to provide them with sufficient information about the product advertised. Consumers have found presentations on social media to be mostly complex and overloaded with information. This study, based on the statistical tests suggests that when textual descriptions are used alone in a product presentation on the social media platform, it significantly helps aid user with product information and decreases the overall complexity of the presentation. Designers should not undermine the significance of textual presentations, which only rely on text to present a product on the social media platform. As social media platform serves multiple distractions for the user, hence a textual presentation helps them aid themselves with product information without overloading themselves, which can hinder their decision-making process. With sufficient information gained through a textual presentation the consumer can come to an informed decision about the product.

5.3.4 Multimodal Presentations on Social Media to influence Purchase Decision

The second stage investigated the impact of four multimodal metaphors on the purchase decision of users. Results indicate that although all four metaphors are extremely important to increase the effectiveness of the online presentation, but video was found to be the most effective in positively influencing purchase decision. Users who were exposed to video presentation decided to purchase the products being

advertised, whereas other group users who were advertised with the same products but with the use of different multimodal presentations, felt they developed liking for the product but not necessarily wanted to purchase it. Designers need to be aware that on the social media platform, if the aim of the product presentation is to influence the purchase decision then out of the multimodal metaphors being tested, video presentation would stand to be the most effective. Video allows an increased interactivity and hence is the most significant multimodal metaphor which helps increase the overall effectiveness of the online presentation leading to a positive purchase decision.
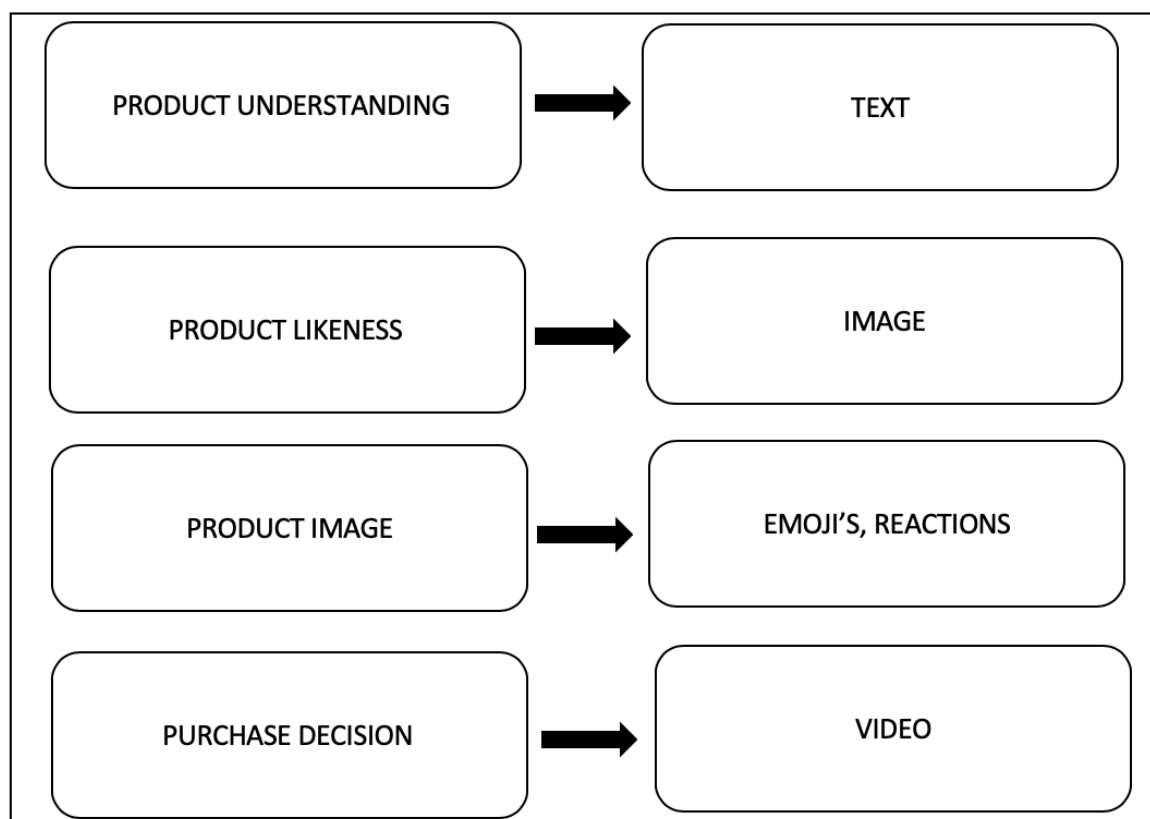
Figure 38: Multimodal Framework.

Multimodal Metaphor	Variable achieved	Guidelines
Text	Product understanding	Textual descriptions helps aid user with product information and decreases overall complexity of the presentation. Designers should not undermine the significance of textual presentations. It provides product information without overloading user with product information, which can hinder decision-making process.
Image alone and text+image	Product likeness	Image alone and text+image when used in combination helps achieve product likeness of the online presentation.
Emojis, Reactions	Product Image	Emojis and reactions help develop a product image in users mind, which can in turn have an influence on their purchase decision.
Video	Purchase decision, Likeness, understanding, purchase intention and overall effectiveness	Although all four metaphors which were tested were found to be extremely important in increasing the effectiveness of the online presentation. However, video was found to be the most effective in positively influencing purchase decision. Video allows increased interactivity and hence in the mist significant metaphor.

Table 39: Multimodal properties table

5.3.5 Online User Satisfaction to Influence Purchase Decision

The second stage investigated the current user satisfaction on the online domain and its effect on the purchase decision. Results support that user satisfaction on the online domain can lead to a positive purchase decision but also highlighted the current limitations hindering achieving complete user satisfaction. Study supports that online

virtual assistant, a secure platform and overall useful experience helps attain user satisfaction, which in turn positively affects the purchase decision. This study has explored the existing online virtual assistant which attempts to offer as close as real human interaction experience. The study has determined that request of personal information prior to being served by a virtual sales assistant makes majority of the users sceptical and uncomfortable, hindering their satisfaction. The limitations raised as a result of this study can be considered by e-commerce websites and presentation designers to ensure as smooth and satisfying online shopping experience as possible. The current process of VSA can be made simpler by not requesting personal details from the user. Furthermore, as majority of the users associate online shopping experience with convenience, speed and ease, when placed in an online queue find themselves disappointed, which in turn negatively affects their satisfaction. Hence, the VSA must enable avoiding online queues to offer a amore satisfying and speedy shopping experience for consumers. Stage 1 helped reflect on the importance of security perception and perceived usefulness in the minds of users, which in turn helps achieve user satisfaction on the online domain leading to a positive purchase decision. Perceived usefulness, in this instance, can be achieved through minimising online queues and avoiding gaining any unnecessary personal information from the users, which can save both time and avoid leading to dissatisfied or unhappy customers, ensuring a more fulfilling and satisfying experience.

5.3.6 Emoji's, Emoticons and Reactions and Product Image

The second stage also investigated the impact of Emoji's, emoticons and reactions, which are used on the online social media platforms as a form of E-Wom. The study has helped understand that when users come in contact with these emojis and

reactions on a product presentation, and if they have not used that particular product before, it helps them develop a product image in their mind, which can in turn have an influence on their purchase decision. Designers can take advantage of making use of specific emoji's and reactions, which communicate largely a positive message about the product when developing online presentations in order to positively influence the product image in the mind of potential customers

5.4 Limitations

This section addresses the main limitations of this study.

5.4.1 Product Selection and choice of presentation

The four different types of product presentations used for this study only presented the users with two types of electronic products, Kokoon Headphones and HP Laptop. The presentations did not deploy a mix of different product types to observe the change, if any, in the respondents reactions towards the product likeness, understanding and purchase decision. However, the focus of the study was not product types, rather the presentations and how a product can be presented in an effective manner. Furthermore, the presentations used for the purpose of this study were existing presentations as creating them was beyond the scope and skills of the researcher.

5.4.2 Multimodal metaphors Implementation

The multimodal metaphors tested on this platform were Text, Image, Text+Image, and Video. Audio alone had not been chosen as a multimodal metaphor to investigate its impact. Emoji's, emoticons and reactions were also tested to determine their impact on the product image in the minds of respondents to underpin if they help shape

symbolic interactionism, but again the impact of these on the final purchase decision has not been tested in this study.

5.4.3   User Sample

Opportunistic sampling technique was used to gather data for both the surveys in this study. Data was gathered in a class lab in the university where all the respondents were exposed to the presentations followed by data gathering. The measurements of the data analysis could have been changed if the data would have been collected from the same group users repeatedly with different product types. Also, limited number of sample has been used due to the access issues.

5.5 Future Work

This section presents future direction for research in light of the limitations and conclusion of the current study. It directs the future work that can contribute to this research area.

For the purpose of this study, mainly four multimodal metaphors have been tested in influencing product likeness, product understanding and purchase decision, increasing the overall effectiveness of the online presentation. However, only two types of products have been used in the product presentations, both electronic. Future research can deploy different product presentations, which can test if changing the product leads to any different results affecting the overall effectiveness and hence purchase decision of the users. Current study made use of existing presentations, as creating one was beyond the scope and capability of the researcher, however, future research could focus on creating unique presentations, which will allow them greater control over the content of the presentation. As video was found to be the most

effective metaphor, in future different video types, specifically animation videos could be tested in relation to overall effectiveness and their impact on product likeness understanding and purchase decision. Another direction for future research would be in relation to the online virtual assistant. For future studies, researchers could consider taking into account different personality based online assistants where the users have the liberty to choose their personal personality based online assistant and then with their experience user satisfaction could be tested. Also, as this study only tested the impact of emojis, emoticons and reactions towards framing product image in the minds of its users, future studies could consider testing their impact on the overall effectiveness of the online presentation and final purchase decision. Also, the current sample was made of all university students but future work could incorporate a more diverse sample to establish if ethnically and geographically diverse sample leads to any new insights. Also, the sample could have difference demographics factors such as occupation and disposal income to observe if these have any changes on the current findings. Furthermore, the future work can investigate the impact of a wider range of individual and combination multimodal metaphors on creating product likeness, understanding and purchase decision.

5.6 Epilogue

This research has investigated the overall user comprehension on the use or lack of multimodal metaphors and investigated the impact of single and combination multimodal metaphors used on the online domain to present products and their impact towards product likeness, product understanding and purchase decision. The aim of the research was to determine the effectiveness and user satisfaction of the online

social media domain to positively influence purchase decision of its users. The research further wanted to establish an understanding of the stimulated human presence with the use of online virtual assistant and its impact towards user satisfaction on the online domain. The results obtained from the empirical surveys indicated that all four multimodal metaphors including text, image, text+image and video have different roles in increasing the effectiveness of the online presentation but when used in isolation video is found to be the most significant metaphor in increasing overall presentation effectiveness and positively influencing purchase decision of the users. The study has also found that emoji's, emoticons and reactions when used on an advert on social media platform can influence the process of symbolic interactionism and hence impact the formation of product image in the minds of the users. Furthermore, empirical data from the study suggest that current online virtual assistants do not help achieve complete user satisfaction and majority users deemed the experience as inconvenient and complex which points towards the need of simplifying the current online shopping experience and ensuring that the unnecessary stages could be omitted on the online platform offering high user satisfaction, which in turn leads to a positive purchase decision. The findings of this study, along with the guidelines can help develop a more user friendly, simple, satisfying online shopping experience and develop presentations which can be focused on creating product likeness, aiding users with sufficient product information and positively influencing their purchase decision. The findings, guidelines and limitations of this study provide contribution towards the existing literature of social media, multimodality and consumer buying behaviour. Furthermore, the future work directions point towards the future areas of research which can help develop on the existing understanding and knowledge of the multimodal social media and consumer buying behaviour.

References

Ahlqvist, Toni, Back, A., Halonen, M., Heinonen, S. (2008) Social media road maps exploring the futures triggered by social media.

Ainscough, T., & Luckett, M. (1996) The Internet for the rest of us: Marketing on the World Wide Web. Journal of Consumer Marketing, 13(2), 36—47.

Ajzen, I., (1985). From intentions to actions: a theory of planned behavior. In: J. KUHL AND J. BECKMAN, eds. Action-control: From Cognition to Behaviour. Heidelberg: Springer, 11-39.

Ajzen, I., (1991). The theory of planned behaviour. Organizational behavior and human deci sion making, 50, 179-211.

Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., et al. (1997) Interactive home shopping: Consumer, retailer, and manufac- turer incentives to participate in electronic marketplaces. Journal of Marketing, 61(3), 38–53.

Alijani, G.S., Mancuso, L.C., Kwun, O. and Omar, A. (2010) 'Effectiveness of online advertisement factors in recalling a product', Academy of Marketing Studies Journal, Vol. 14, No. 1, pp. 1-10.

Allen, Mike, Raymond W. Preiss, Barbara Mae Gayle, and Nancy A. Burrell (2002), Interpersonal Communication Research: Advances Through Meta-Analysis. Mahwah, NJ: Lawrence Erl- baum Associates.

Alseid, M. and Rigas, D., (2011), 'An Empirical Investigation into the Use of Multimodal E-Learning Interfaces'. Journal of Human - Computer Interaction.

Bagozzi, R., et al., (2002) The Social Psychology of Consumer Behaviour. Buckingham: Open University Press.

Bagozzi, Richard P., Utpal, M., Dholakia, and Suman Basuroy (2003), "How effortful decisions get enacted: The motivating role of deicision processes, desires and anticipated emotions," Journal of Behavioural Decision Making, 16, 273-95

Bahorsky, R., Jeffrey, G., and Mason, S,. (1988), Official Internet Dictionary: A Comprehensive Reference for Profes- sionals Reviews. Portland: ABS Consulting.

Barlow, Alexis, K.J., Noreen, Q., Siddiqui, and Mannion, M., (2004), "Development in Information and Communication Technologies for Retail Marketing Channels," International Journal of Retail and Distribution Management, 157–63.

Bayo-Moriones, A., & Lera-Lo´pez, F. (2007). A firm-level analysis of determinants of ICT adoption in Spain. Technovation, 27(6/7), 352—366

Berthon, P.R., Pitt, L.F., Plangger, K., Shapiro, D. (2012) Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. Business Horizons 55 (3), pp. 261–271.

Bloch, P.H., Sherrell, D.L. and Ridgeway, N.M. (1986) Consumer search: an extended framework. Journal of Consumer Research, 13, 119-126.

Brezen, T.A., Block, M.P. and Schultz, D.E. (1987) Consumers perceptions of direct marketing techniques. Journal of Direct Marketing, 38–49.

Budden, C.B., Anthony, J.F. Budden, M.C.M.A. Jones. (2011) Managing the evolution of a revolution: Marketing implications of Internet media usage among college students. College Teaching Methods and Styles Journal, 3 (3), pp. 5–10

Bunt, H., Beun, R. J., Borghuis, T., (1998) Multimodal human-computer communication systems, techniques and experience.

Chiu, Y., Lin, C., Tang, L., (2005) "Gender differs: assessing a model of online purchase intentions in e‑tail service", International Journal of Service Industry Management, Vol. 16 Iss: 5, pp.416‑435.

Choi, S.Y., Choi, B., Lee, H., (2006) Categorizing commercial products for customer oriented online retailing, Computers & Industrial Engineering 51, 90–101.

Cunningham, Isabella, C., Cunningham, William, H., (1973), "The Urban In-homeShopper: Socio-economic and Attitudinal Characteristics", Journal of Retailing, vol.49, no.3 (Fall), pp.42-50.

Danaher, P.J. and Mullarkey, G.W., (2003). Factors affecting online advertising recall: A study of students. Journal of Advertising Research, 43: 252-267.

De Figueiredo, J.M., (2000) Finding sustainable profitability in electronic commerce, Sloan Management Review, 41–54.

Dix, A., Abowd, G., Finlay, J. and Beale, R., (2004). Human- Computer Interaction (3rd Edition). Prentice Hall.

Dreze, X. and Hussherr, F.X., (2003). Internet advertising: Is anybody watching? Journal of Interactive Marketing, 17: 8-23.

Edmond, William H. (2002), "The Potential Impact of Artificial Shopping Agents in E-Commerce Markets," Journal of Inter- active Marketing,56–66.

Eid, R., & El-Gohary, H. (2011). The impact of e-marketing use on small business enterprises' marketing success. The Service Industries Journal, 33(1), 31—50.

Elihu, K., and Paul, F., Lazarsfeld (1955), Personal Influence. New York: The Free Press.

Engel, J.F. Blackwell, D.R., Kollat, D.T. (1978) Consumer Behaviour (3nd Ed.) U.K: The Dryden Press.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. Journal of Finance, 25(2), 383—417.

Fishbein, M., & Ajzen, I., (1975) Belief , attitude, intention and behavior : An introduction to theory and research. Reading, MA: Addison-Wesley.

Fisher, T. (2009). ROI in social media: A look at the arguments. Journal of Database Marketing and Customer Strategy Management, 16(3), 189—195.

Fortin, DR., & Dholakia, RR., (2005), 'Interactivity and vividness effects on social presence and involvement with a web-based advertisement', Journal of Business Research, vol. 58, no. 3, pp. 387-396.

Fulk, J., Schmitz, J., and Power, G.J., (1987) A Social Information Processing Model of Media Use in Organizations, Communication Research, 14, 5, 520- 552.

Gefen, D., Straub, D.W., (2003). Managing user trust in B2C e-Services. e- Service Journal 2 (2), 7–24.

Gong, W., and Maddox, L.M., (2003). Measuring web advertising effectiveness in China. Journal of Advertising Research, 43: 34-49.

Grace T.R., Lin, Chia-Chi Sun, (2009) "Factors influencing satisfaction and loyalty in online shopping: an integrated model", Online Information Review, Vol. 33 Iss: 3, pp.458 – 475.

Ha, H.Y. (2006), "An integrative model of consumer satisfaction in the context of e-service", International Journal of Consumer Studies, Vol. 30 No. 2, pp. 137‐49.

Halfhill, Tom, R., (1996), "Agents and Avatars," Byte, 21, 69–72.

Hanna, R., Rohm, A. & Crittenden, V., (2011). We're all connected: The power of the social media ecosystem, Business Horizons, 54, 265-273.

Hanna, R., Rohm, A., & Crittenden, V. (2011). "We are All Connected: The power of social media ecosystem". Kelly school of business, Indiana University.

Hassanein, K., & 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, PsycINFO, EBSCOhost, viewed 3 June 2015

Hoffman, D. L., & Fodor, M., (2010). Can you measure the ROI of your social media marketing? MIT Sloan Management Review, 52(1), 41—49.

Homer, J.E., Engel, J.F., and Blackwell, R., (1970). "Perceived Risk in Mail-Order and Retail Store Buying." Journal of Marketing Research:364-69.

Horton, Donald and Richard R. Wohl (1956), "Mass Communication and Para-Social Interaction," Psychiatry, 215–29.

Huang, E. (2008). Use and gratification in e-consumers. Internet Research, 18(4), 405-426.

Ilyas, S.: An integrative framework for consumer behavior: evidence from Pakistan. Int. J. Bus. Manage. 6(4), 120.

Ioanas, E., (2012). Price fairness perception on Asiatic markets, International Conference on Social Responsibility, Ethics and Sustainable Business – ICSR, 1, ISSN: 2285-7222, Bucharest.

Jahng, J., Jain, H., Ramamurthy, K., (2000) Effective design of electronic commerce environments: a proposed theory of congruence and an illustration, Systems, Man and Cybernetics, Part A, IEEE Transactions on 30, 456–471.

Jewitt, C. (2009). An introduction to multimodality. In C. Jewitt (Ed.), The Routledge handbook of multimodal analysis (pp. 14-27). New York, NY: Routledge.

John, M., Hadyn, K., and Clifford, I., (1999), "Effects of Humor in Task-Oriented Human-Computer Interaction and Computer-Mediated Communication: A Direct Test of SRCT Theory," Human-Computer Interaction, 14 (4b), 395–435.

Kaplan, A. M., & Haenlein, M. (2009a). Consumer use and business potential of virtual worlds: The case of Second Life. The International Journal on Media Management 11(3).

Kaplan, A. M., & Haenlein, M. (2009b). Consumers, companies, and virtual social worlds: A qualitative analysis of Second Life. Advances in Consumer Research, 36(1), 873—874.

Kaplan, A. M., & Haenlein, M. (2009c). The fairyland of Second Life: About virtual social worlds and how to use them. Business Horizons, 52(6), 563—572.

Kaplan, A., and Haenlein M., (2010) Users of the world unite! The challenges and opportunities of social media, Business Horizons, 53, 59-68.

Katona, Z., and Sarvary M., (2014) Maersk Line, B2B Social Media, "Its communication not marketing" University of California, Berkeley. Vol56, No.3.

Khan, F.R., Hatami, Y.J., Sasidharan, A., & Al-Roshdi, S.A.A. (2017b). Investigative Study of Preferred Social Media Marketing in Safeer Mall, Sohar, Oman. Humanities & Social Science Reviews, 5(1), 53-63. doi: https://doi.org/10.18510/hssr.2017.515.

Kotler, P., & Keller, K. L. (2016). Marketing Management, (15th ed.), New Delhi, India: Pearson India Education Services Pvt. Ltd., 269-279.

Kozinets, R.V., Valck K., Wojnicki A.C., & Wilner S. J.S., (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities, Journal of Marketing, 74(2), 71–89.

Kress, G., (2009) Multimodality: A Social Semiotic Approach to Contemporary Communication. London: Routledge.

Kucuk. S. Umit and Sandeep Krishnamurthy (2007), "An Analysis of Consumer Power on theInternet" Technovation, 27 (1/2), 47-56.

Loos, P., (2003), "Avatar," in Lexikon Electronic Business, Thomas Schildhauer, ed. Munich: Oldenbourg, 16–19.

Mangold, W.G., Faulds D.J., (2009). Social media: The new hybrid element of the promotion mix.Business Horizons, 52 (4), pp. 357–365.

Mavrck, (2014). Who Are Influencers? [Online] http://www.mavrck.co/who-are-influencers-and-why-should-you-care/ [Online] Accessed January 11th, 2017.

Mersey R., Davis, Malthouse E. & Calder B., (2010). Engagement with Media, Journal of Media Business Studies, 7(2), 39 -56.

Miller, D., (2000). Qualitative Research Course Packet. University of Nebraska – Lincoln.

Moon, Youngme (2000), "Intimate Exchanges: Using Computers to Elicit Self-Disclosure from Consumers," Journal of Con- sumer Research, 323–39.

Murray, L.C., (2013) ed. "Composing Multimodality". Multimodal Composition: A Critical Sourcebook.

Nass, Clifford, I., Lombard, M., Henriksen, L., and Steur, J.S., (1995a), "Anthropocentrism and Computers," Behaviour and Information Technology, 14 (4), 229–38.

Nelson, P., (1974) Advertising as information, Journal of Political Economy 82, 729.

Norton, S.W., Norton Jr., W., (1988) An economic perspective on the information content of magazine advertisements, International Journal of Advertising 7 138–148.

Office for National Statistics (2014), Consumer trends of United Kingdom for 2014 [Online] Avaliable from www.ons.gov.uk [Accessed 24 December 2015].

Palanisamy, R., (2004). Impact of gender differences on online consumer characteristics on web-based banner advertising effectiveness. Journal of Services Research, 4: 45-74.

Palmer, A., (1996). Integrating Brand Development and Relationship Marketing, Journal of Retailing and Consumer Services, 3, 251–257.

Peterson, R.A., Balasubramanian, S., Bronnenberg, B.J., (1997) Exploring the implications of the internet for consumer marketing, Journal of the Academy of Marketing Science 25, 329–346.

Pookulangaran, S., and Koesler, K., (2011), Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions, Journal of Retailing and Consumer Services, 18, 348–354.

Prasad, V. Kanti. (1975). "Socioeconomic Product Risk and Patronage Preference of Retail Shoppers."Journal of Marketing: 42-47.

Rhee, H.S., Riggins, Frederick, J., Kim, Cheongtag, (2009): The Impact of Product Type and Perceived Characteristics of the Web on Multifaceted Online. In Journal of Organizational Computing and Electronic Commerce, 19 (1) pp. 1-29.

Rigas, D. I., and Memery, D., (2002) "Utilising audio-visual stimuli in interactive information systems: a two-domain investigation on auditory metaphors," Proceedings of the International Conference on Information Technology: Coding and Computing.

Rigas, D.I., & Almutairi, B., (2013), An Empirical Investigation into the Role of Avatars in Multimodal E-government Interfaces. Journal of Socio-Technology and Knowledge Development.

Rigas, D.I., & Almutairi, B., (2014) The Role of Avatars in e-Government Interfaces, Design, User Experience and Usability. Notes in Computer Science Volume 8518, pp28-37.

Rigas, D.I., and Alty, J.L., (1998) Using sound to communicate program execution. Proceedings of the 24th EUROMICRO Conference. 2: p. 625–632.

Rosen, K.T., Howard, A.I., (2000) E-retail: gold rush or fool's gold? California Management Review 42, 72–100.

Rubin, Alan, M., Perse, E., and Powell, R.A., (1985), "Loneliness, Parasocial Interaction, and Local Television News Viewing," Human Communication Research, 12, 155–80.

Sarki, I.H., Bhutto, N.A., Arshad, I., & Khuhro, R.A. (2012) Impact of Pakistani University Student'sCultural Values and Lifestyles on Meaning of Brands. Interdisciplinary Journal of Contemporary Research in Business, 39(9), 643-654.

Sarter, N.B. (2006). "Multimodal information presentation: Design guidance and research challenges." International Journal of Industrial Ergonomics 36(5): 439-445.

 Sarter, N.B., (2006) "Multimodal information presentation: Design guidance and research challenges. International Journal of Industrial Ergonomics".

Schlosser, A.E., (2005), Posting versus Lurking: Communicating in a Multiple Audience Context, Journal of Consumer Research, 32(2), 260–5.

Schultz, J., (2006). Vehicle of the self: The social and cultural work of the H2 Hummer. Journal of Consumer Culture, 6, (3) 57-86.

Seybert, H., (2012). Internet use in households and by individuals 2012. [Online]. Retrieved July, 2015, from http://epp.eurostat. ec.europa.eu

Shaw, G., and Marlow, N., (1999) "the role of student learning styles, gender, attitudes and perceptions on information and communication technology assisted learning"

Sheth, J., and Parvatiyar, A., (1994) Relationship Marketing: Theory, Methods and Applications. Center for Relationship Marketing, Emory University, Atlanta.

Shin, S., (2008), Understanding purchasing behaviors in a virtual economy: Consumer behavior involving virtual currency in Web 2.0 communities, Interacting with Computers, 20, 433–446.

Short, J., Williams, E., & Christie, B., (1976). The social psychology of telecommunications, Wiley London.

Smithee, B., (2011), "How social media is expanding the definitions of MR, and as leaders why it is largely your responsibility", Vol. 51 No. 3.

Sofres, T.N., (2002), "Global E-commerce Report 2002." [Online] http://www.tns-nipo.com/pages/persvannipo/pdf/rapport_ger2002.pdf Accessed 15 April 2019.

Solomon, M. (2006), Consumer behaviour: a European perspective, 3rd edn, Prentice Hall Financial Times, Harlow.

Solomon, M., Bamossy, G., & Askegaard, S., (1999), Consumer Behvaiour: A European Perspective. London: Pearson Education, p.8.

Solomon, M.R., (2013), Marketing, Second Europeanition. edn, Pearson Education, Harlow, England.

Spence, H. E., Engel, J.F., and Blackwell, R.D., (1970) Perceived risk in mail-order and retail store buying. Journal of Marketing Research, 7, 364-369.

Stutely, M. (2003), Numbers Guide: The Essentials of Business Numeracy. London: Bloomberg Press.

Tiago, M., & Veríssimo, J., (2014), 'Digital marketing and social media: Why bother?', Business Horizons, 57, 6, pp. 703-708.

Turk, M., (2014), 'Multimodal interaction: A review', Pattern Recognition Letters, 36, pp. 189-195, Academic Search Elite, EBSCOhost.

Utpal, M.D., Pearob, B., & Klein, L., (2004), A social influence model of consumer participation in network- and small-group-based virtual communities, International Journal of Research in Marketing, 21, 241 – 263.

Ward, J.C., & Ostrom, A.L., (2006). Complaining to the masses: The role of protest framing in customer-created complaint web sites. Journal of Consumer Research, 33(2), 220—230.

Warshaw, P.R., (1980). Predicting Purchase and other behaviors from generally and contextually specific intentions. Journal of Marketing, 17, 26-33.

Wassenhove, V., Grant, K.W., Poeppel, D., (2005). Visual speech speeds up the neural processing of auditory speech. Proc. Natl. Acad. Sci. U.S.A. 102, 1181–1186 10.1073.

Webster, F., and Wind, Y., (1972); Organizational Buyer Behaviour; Prentice-Hall.

Webster, Frederick E., (1968), "Interpersonal Communication and Salesman Effectiveness," Journal of Marketing,7–13.

Weinberg, B.D., Pehlivan, E., (2011). Social Spending: Managing the Social Media Mix. Business Horizons 54(1), pp. 275-282.

Weitz, B.A., Sujan, H., and Sujan, M., (1986), "Knowledge, Motivation, and Adaptive Behavior: A Framework for Improving Selling Effectiveness," Journal of Marketing, 174–91.

Weizenbaum, J., (1976), Computer Power and Human Rea- son. From Judgment to Calculation. New York: Penguin.

What's in a Retail email? (2009). Retrieved from World Wide Web Accessed 14 May 2015, from http://www.emarketer.com/Article/Whats-Retail-E-Mail/1007294.

Whitla, P., (2009). Crowdsourcing and its application in marketing activities. Contemporary Management Research, 5(1), 15—28.

Williams, E., (1977), "Experimental Comparisons of Face-to- Face and Mediated Communications," Psychological Bulletin, 84, 963–76.

Williams, R.L., and Cothrell, J., (2000), Four smart ways to run online communities, Sloan Management Review, 41, 81-91.

Williams, T., and Williams, R., (2008). Adopting social media: Are we leaders, managers or followers? Communication World, 25(4), 34-37.

Wright, A.A., Lynch Jr,. (1995). Communication effects of advertising versus direct experience when both search and experience attributes are present, Journal of Consumer Research 21, 708.

Xiao, T., (2010) "A cross‑national investigation of an extended technology acceptance model in the online shopping context", International Journal of Retail & Distribution Management, Vol. 38 Iss: 10, pp.742‑759.

Yang, Z., and Fang, X., (2004), "Online service quality dimensions and their relationships with satisfaction: a content analysis of customer reviews of securities brokerage services", International Journal of Service Industry Management, Vol. 15 Nos 3/4, pp. 302‑26.

Yoo, Y., Alavi, M., (2001). Media and group cohesion: relative influences presence, Task participation, and group consensus.

Zatalini, M.A., & Pamungkas, T.N., (2017). Exploring the Success Factors of E-CRM Implementation On B2C E-Commerce: Satisfaction and Loyalty A Conceptual Framework, JurnalEkonomiBisnis, 22(2), 94-106, retrieved from http://ejournal.gunadarma.ac.id/index.php/ekbis/article/view/1620.

Zhang, X., Prybutok, V., and Huang, A. (2006), "An empirical study of factors affecting e‑service satisfaction", Human Systems Management, Vol. 25 No. 4, pp. 279‑91.

Zhao, L., & Zhu, J.S., (2010). Internet marketing budget allocation: From practitioner's perspective. International Journal of Information Technology and Decision Making, 9(5), 779—797.

Appendix A

Questionnaire Stage I Survey

Please spare few moments of your valuable time to fill out this questionnaire. This questionnaire is designed to identify the effects of multimodal metaphors on social media platforms & their impact on consumer purchase decisions. This questionnaire is carried out as per the 'Research Ethics Code of Practice' published by the University of West London 2009/10.

[http://www.uwl.ac.uk/sites/default/files/Departments/Research/Web/PDF/research_ethics _codes_of_practice.pdf](http://www.uwl.ac.uk/sites/default/files/Departments/Research/Web/PDF/research_ethics_codes_of_practice.pdf)

The data obtained from this survey is solely for the use of this project only. None of the data and information would be sold/passed/shared to any third-party.

Thank You for your cooperation.

1) Which age group do you belong to?

- 18-20
- 21-25
- 26-30
- 31-35

2) What is your Gender?

- Female
- Male

3) What is the highest level of Education or Qualification you have attained or achieved?

o GCSE or Equivalent (Matriculation)
o A-Levels or Equivalent (Intermediate)
o Degree, Diploma or Equivalent
o Postgraduate (Masters, PhD, etc)
o Professional Qualification (Accountant. Legal, Medical, etc)
o Skilled Professional (Plumber, Hairdresser etc)

4) Which of the following devices do you most prefer using internet on

o Desktop

o Personal digital assistant

o Laptop

o Tablet

o Smart phone

o Other (please specify)

5) In routine, for what reason do you use internet the most for?

o Work

o Browsing

o Personal reasons

o Shopping

o Other (please specify)

_____

6) How often do you shop online?

o Daily

o Weekly

o   Monthly

o   Once in 3 months

o   Once in 6 months

o   Other (please specify)

---

7) What products do you buy online?

o   Apparel

o   Fashion

o   Regular use products

o   Books

o   Electronics

o   Household items

o   Luxury items

o   Others (please specify)

_____

8) Where do you usually carry out your online product search/product information?

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o **Retailer website**	O	O	O	O	O

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
○ Social media platforms	O	O	O	O	O
○ Blogs	O	O	O	O	O
○ User generated reviews	O	O	O	O	O
○ Other (please specify)					

9) Which mode of advertisement do you find most convincing

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
○ TV	O	O	O	O	O
○ Radio	O	O	O	O	O
○ Social media	O	O	O	O	O
○ Magazine	O	O	O	O	O
○ Blog	O	O	O	O	O

10) In online advertisement which of the following help develop more clear understanding of the product advertised, if any

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o **Text**	O	O	O	O	O
o **Illustrations**	O	O	O	O	O
o **Audio**	O	O	O	O	O
o **Video**	O	O	O	O	O
o **Combination of above modes (please specify)**					

11) If any of the above selected modes were absent from the advertisement, would that affect your final purchase decision?

o Yes

o No

Please explain (why & how)

12) Does the presentation of the product has an influence on your purchase decision? (on the scale 1 to 10, 1 being **most influenced**, 10 being **least influenced** rate your level of influence)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
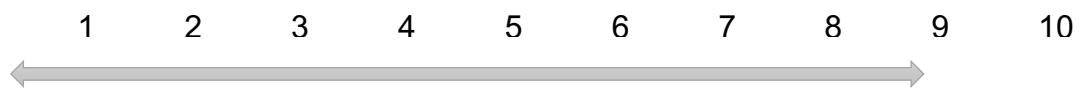
Most Influenced   Least

Please explain: _____

13) Does the absence of human (sales assistance) affect your purchase decision or product understanding?

o   Yes

o   No

Please explain

_____

14) Do interactive features (audio, video, text, illustrations, avatar, 3-D) make you confident about product knowledge gained?

o Yes

o No

15) Which advertisement context is most likely to positively impact your purchase decision?

		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o	**Advertisement with text only**	O	O	O	O	O
o	**Advertisement with illustrations and text**	O	O	O	O	O
o	**Advertisement with audio only**	O	O	O	O	O
o	**Advertisement with illustrations and audio**	O	O	O	O	O
o	**Advertisement with video only**	O	O	O	O	O
o	**Advertisement with video and text**	O	O	O	O	O
o	**Other (please specify)**					

16) When comparing IPhone 6 and Samsung, which source/platform would you prefer?

o   You tube - Video plus audio

o   Online blog – Text only

o   Other website – Text and illustrations

o   In person at retail shop

17) Where do you usually shop from?

o   In store

o   On-line

Why, please explain

_____

18) Which ones are applicable for Social Media Marketing (Please tick the boxes you agree with)

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o **Open system**	O	O	O	O	O
o **Transparent**	O	O	O	O	O

○ **Two-way conversation**	O	O	O	O	O
○ **About YOU**	O	O	O	O	O
○ **Authentic content**	O	O	O	O	O
○ **Influencing**	O	O	O	O	O
○ **Real-time creation**	O	O	O	O	O
○ **Community DM**	O	O	O	O	O
○ **Informal language**	O	O	O	O	O
○ **Active involvement**	O	O	O	O	O
○ **Actors-Users & Influencers**	O	O	O	O	O
○ **User generated content**	O	O	O	O	O

19) Conventional marketing compromises of (Please tick the boxes you agree with)

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o Closed system	O	O	O	O	O
o One-way conversation	O	O	O	O	O
o Opaque	O	O	O	O	O
o Published content	O	O	O	O	O
o Pre-produced	O	O	O	O	O
o Economic-DM	O	O	O	O	O
o Formal language	O	O	O	O	O
o Passive involvement	O	O	O	O	O

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o **Actors-celebrities**	O	O	O	O	O
o **Professional content**	O	O	O	O	O

20) Which marketing do you find more influential? Why?

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Social Media marketing	O	O	O	O	O
Conventional marketing	O	O	O	O	O

Why?

_____

_____

21) Which mode of marketing do you find to be more information rich?

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree

Social Media marketing	O	O	O	O	O
Conventional marketing	O	O	O	O	O

Please explain

_____

_____

22) Product information on social media platforms is sufficient (enough) to make your final purchase decision

Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

23) Do you feel existing social media marketing lacks any element, if yes please state?

o   Yes

o   No

_____

_____

24) Advertisement on social media is more entertaining

Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

25) Advertisement on social media is more information rich

  Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

26) Advertisement on social media are more interactive as compared to conventional marketing

  Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

27) Advertisements via conventional marketing are more influential

  Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

28) Advertisement on social media are more efficient (faster)

  Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

29) Advertisement on social media are more effective (successful in leading to positive purchase decision)

Strongly disagree   Disagree   Neither Agree or Disagree   Agree   Strongly Agree

Why?

_____

30) Which advertisement context do you find more complex, why?

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Social Media marketing	O	O	O	O	O
Conventional marketing	O	O	O	O	O

Why?

_____

31) How would you like your online shopping experience to improve?

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
o **High human presence**	O	O	O	O	O
o **Secure payments**	O	O	O	O	O
o **Clear refund ex. policy**	O	O	O	O	O
o **High human contact**	O	O	O	O	O

Any other:

_____

32) Do you consider social media marketing to be Ethical?

o Yes

o No

Please explain

Appendix B

Questionnaire Stage II Survey

Determining Likeness, Understanding, Effectiveness, User Satisfaction and Final Decision

Please spare few moments of your valuable time to fill out this questionnaire. This questionnaire is designed to identify the effects of multimodal metaphors on social media platforms & their impact on consumer purchase decisions. This questionnaire is carried out as per the 'Research Ethics Code of Practice' published by the University

of West London 2009/10. http://www.uwl.ac.uk/sites/default/files/Departments/Research/Web/PDF/research_ethic_codes_of_practice.pdfThe data obtained from this survey is solely for the use of this project only. None of the data and information would be sold/passed/shared to any third-party.

Thank You for your cooperation.

* Required

1. Which age group do you belong to?

Mark only one oval.

- o 18 - 20
- o 21-25
- o 26 - 30
- o 31 - 35
- o 36 or above

2. What is your Gender?

Mark only one oval.

- o Male
- o Female

3. What is the highest level of Education or Qualification you have attained or achieved?

Mark only one oval.

- o GCSE or Equivalent (Matriculation)
- o A-Levels or Equivalent (Intermediate)
- o Degree, Diploma or Equivalent
- o Postgraduate (Masters, PhD, etc)
- o Professional Qualification (Accountant. Legal, Medical, etc)
- o Skilled Professional (Plumber, Hairdresser etc)
- o Other: _____

4. In routine, for what reason do you use internet the most for?

216

Mark only one oval.

- o Work
- o Browsing
- o Personal reasons
- o Shopping
- o Other: _____

5. How often do you shop online?
Mark only one oval.
- o Daily
- o Weekly
- o Monthly
- o Once in 3 months
- o Once in 6 months
- o Other:_____

6. Does the presentation of the product has an influence on your purchase decision?

On the scale 1 to 5, 1 being most influenced and 5 being least influenced rate your

level of

Influence by ticking the appropriate box

Most Influenced 1	2	3	4	Least Influenced 5

7. What products do you buy online?
Check all that apply.
- o Apparel
- o Fashion
- o Regular use products
- o Books
- o Electronics
- o Household items

- ○ Luxury items
- ○ Other: _____

Pre-Presentation Questions

8. What proportion of the products you buy have been influenced by online advertisements

Mark only one oval.

- ○ All products
- ○ Many products
- ○ Some products
- ○ Few products
- ○ No products

9. Consumers are often influenced by advertisements to impulse buying (to what extent

do you agree with this statement)?

Mark only one oval.

- ○ Strongly disagree
- ○ Disagree
- ○ Agree
- ○ Strongly agree

10. The more times the consumer views the advertisement, the more likely the consumer is to

purchase the product (to what extent do you agree with this statement)?

Mark only one oval.

- ○ Strongly disagree
- ○ Disagree
- ○ Agree
- ○ Strongly agree

11. What do you mainly focus on in a product advertisement

Check all that apply.

- o Information
- o Price
- o Discounts or promotions
- o Brand I trust
- o Creativity of presentation
- o Humour/Fun
- o Identifying/or relating to the product
- o Other: _____

12. Which online advertising method you find most influential on your buying behaviour

Tick only one box per row.

Type of Advertising method	Most Influential	Least Influential
Twitter Adverts		
Facebook Adverts		
YouTube Adverts		
Tumblr Adverts		
Banner Adverts		
Flash Adverts		
Mobile Adverts		

13. An Effective Social Media online platform leads to positive Purchase Decision?

Mark only one oval

- o Yes
- o No

Post Presentation Questions

Questions to address Likeness, Understanding, Effectiveness, User Satisfaction and Final Decision

Likeness

14. Is the product appealing?

Mark only one oval.

o Yes

o No

15. On the scale of 1 to 5, where would you rate your likeness for the product

Tick only one box.

Most Liked 1	2	3	4	Least Liked 5

16. What do you like most about the product

Mark only one oval.

o Design

o Features

o Price

o Other: _____

17. What do you like most about the presentation

Mark only one oval.

o Information

o Style

o Other: _____

Understanding

18. The product was well communicated/well presented

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

19. The brand name was communicated clearly

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

20. The ad has had an impact on my purchase intention

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

21. The ad gains attentions of target audience

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

22. This ad is shareable

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

23. This as has given me sufficient information about the product

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

24. Did the presentation aid your understanding about the product

Tick only one box.

Strongly Agree 1	2	3	4	Strongly Disagree 5

25. User Satisfaction achieved on social media online platform positively affects purchase decision?

Mark only one oval.

o Yes

o No

26. Was the presentation informative

Mark only one oval.

o Yes

o No

Effectiveness

27. Did the presentation persuade you to buy this product?

Mark only one oval.

o Yes

o No

28. Indicate the likelihood of buying the product

Tick only one box per row.

	Most Definitely	Definitely	Least Definitely	Definitely not
Product 1				
Product 2				

29. The presentation was effective because it provides consumer with important information about the product.

Mark only one oval.

o Strongly disagree

- o Disagree
- o Agree
- o Strongly agree

30. The presentation was effective because it provides consumer with sufficient information about

the product

Mark only one oval.

- o Strongly disagree
- o Disagree
- o Agree
- o Strongly agree

Final Decision

31. Would you buy this product

Circle only one box per row.

Product 1	Yes	No
Product 2	Yes	No

32. Overall impression of the presentation in regards to being 'informative' *

Tick only one box per row

	All features	Half features	Third features	None features
Product 1				
Product 2				

33. If you have selected half or third of the features please identify which features you

have understood?

34. Overall impression of the presentation in regards to being 'visually pleasing/appealing"

Tick only one box per row

	All features	Half features	Third features	None features

Product 1				
Product 2				

35. If you have selected half or third of the features please identify which features you have found visually pleasing/appealing?

_____

36. Overall impression of the presentation in regards to being 'effective'

Tick only one box per row

	All features	Half features	Third features	None features
Product 1				
Product 2				

37. If you have selected half or third of the features please identify which features you have found effective?

_____

Elements of Improvement

37. Current virtual assistance offered on online social media helps achieve user satisfaction?

Mark only one oval.

o Yes

o No

Recall questions

39. What was the unique feature of the product?

40. What was the price of the product?

Recognition questions

41. Were you able to recognise the brand by looking at the product

Mark only one oval.

o   Yes

o   No

42. If the product was not shown, would you recognise the brand by the advert alone?

Mark only one oval.

o   Yes

o   No

Multimodal impact on product image and virtual assistance Emoticon impact

Kokoon
Sponsored • Newsfeed • ⊘

Get a good night's rest with these groundbreaking headphones, with EEG brainwave sensing technology.

Sleep Better With Kokoon Sleep Sensing Headphones
Smart headphones that learn your sleeping pattern while you sleep so that you can escape, switch off and relax.

😮 53 😆 41 • Ad seen 1 times • Last seen 84 days ago

43. Do the above emoticons highlighted in red have any impact on your product image?

Mark only one oval.

o   Yes

o   No

44. Please explain your answer to the above question

ReinventObsession
Sponsored · Newsfeed · 🌐

Its flawlessly crafted design is nothing short of breathtaking.

The HP Spectre Laptop
Powered by Intel Core i5

FACEBOOK.COM   Shop Now

👍 12 ❤️ 1 · Seen 256 days ago

45. Do the above reactions highlighted in red have any impact on your product image?

Mark only one oval.

o   Yes

o   No

46. Please explain your answer to the above question

Virtual assistance

47. Are you happy to provide such details prior to getting any virtual assistance about a

    product online?

    Mark only one oval.

    o Yes

    o No

48. Please explain why?

Online Queue

You're currently in the queue to speak to one of our
team. You'll be connected as soon as possible.

49. What reaction would you have if you are asked to be waited online to speak to an

assistant.

Would this waiting discourage you from purchasing online? please explain

---

Online assistance

ROCHELLE
04:39

Received

hello?

Received

Just looking into this for you now
Monica

We're not able to say whether
the Dress is coming back, but we
do sometimes restock items so
it's a good idea to keep an eye
on our Back In Stock page - just
click http://bit.ly/2aOUwPl.

SEND
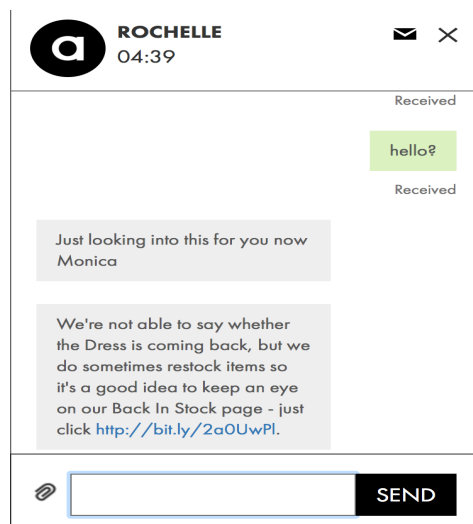
50. Would you be satisfied if your query was dealt in such manner?

Mark only one oval.

o Yes

o No

51. Please explain why?

User Satisfaction, Security and Perceived Usefulness

52. Poor perception of security on online platform hinders achieving user satisfaction?

Mark only one oval.

o Yes

o No

53. Do you find current online platform secure enough to share your personal details?

Mark only one oval.

o Yes

o No

54. Perceived usefulness on online social media platforms leads to increased user satisfaction?

Mark only one oval.

o Yes

o No

55. Visual appeal and likeness of a product presented on social media leads to effectiveness of that   platform?

Mark only one oval.

o   Yes

o   No

56. Increased Product understanding enhances effectiveness of social media online platform?

Mark only one oval.

o   Yes

o   No

57. Advertisement on social media platform positively affects purchase intention?

Mark only one oval.

o   Yes

o   No

Appendix C

Stage I Survey Statistics

		Count
Which age group do you belong to?	18-20	5%
	21-25	20%
	26-30	22%
	31-35	11%
What is your Gender?	Female	29%
	Male	29%
What is the highest level of Education or Qualification you have attained or achieved?	A-Levels or Equivalent (Intermediate)	11%
	Degree, Diploma or Equivalent	24%

	GCSE or Equivalent (Matriculation)	3%
	Postgraduate (Masters, PhD, etc)	20%
Which of the following devices do you most prefer using internet on?	Desktop	7%
	Laptop	22%
	Smart phone	25%
	Tablet	4%
In routine, for what reason do you use internet the most for?	Browsing	24%
	coursework	1%
	Gaming	1%
	Personal reasons	11%
	Reading business related articles	1%
	Shopping	6%
	Work	14%
How often do you shop online?		3%
	Dont shop online	1%
	I dont shop online	2%
	Monthly	18%
	Never	1%
	Once in 3 months	15%
	Once in 6 months	10%
	Weekly	8%
Where do you usually carry out your online product search/product information? [Retailer Website]		6%
	Agree	28%
	Disagree	5%
	Neither Agree or Disagree	2%
	Strongly Agree	13%
	Strongly Disagree	4%
Where do you usually carry out your online product search/product information? [Social Media platforms]		11%
	Agree	20%
	Disagree	10%
	Neither Agree or Disagree	4%
	Strongly Agree	4%
	Strongly Disagree	9%
		13%

Where do you usually carry out your online product search/product information? [Blogs]	Agree	9%
	Disagree	12%
	Neither Agree or Disagree	9%
	Strongly Agree	1%
	Strongly Disagree	14%
Where do you usually carry out your online product search/product information? [User generated reviews]		8%
	Agree	20%
	Disagree	10%
	Neither Agree or Disagree	2%
	Strongly Agree	12%
	Strongly Disagree	6%
Where do you usually carry out your online product search/product information? [Other]		26%
	Agree	11%
	Disagree	9%
	Neither Agree or Disagree	4%
	Strongly Agree	1%
	Strongly Disagree	7%
Which mode of advertisement do you find most convincing? [TV]		7%
	Agree	18%
	Disagree	5%
	Neither Agree or Disagree	7%
	Strongly Agree	15%
	Strongly Disagree	6%
Which mode of advertisement do you find most convincing? [Radio]		12%
	Agree	7%
	Disagree	14%
	Neither Agree or Disagree	16%
	Strongly Disagree	9%
Which mode of advertisement do you find most convincing? [Social Media]		6%
	Agree	22%
	Disagree	5%
	Neither Agree or Disagree	1%
	Strongly Agree	18%
	Strongly Disagree	6%
Which mode of advertisement do you find most convincing? [Magazine]		13%
	Agree	19%

	Disagree	7%
	Neither Agree or Disagree	9%
	Strongly Agree	6%
	Strongly Disagree	4%
Which mode of advertisement do you find most convincing? [Blog]		13%
	Agree	17%
	Disagree	5%
	Neither Agree or Disagree	9%
	Strongly Agree	7%
	Strongly Disagree	7%
In online advertisement which of the following help develop more clear understanding of the product advertised, if any [Text]		10%
	Agree	20%
	Disagree	5%
	Neither Agree or Disagree	7%
	Strongly Agree	9%
	Strongly Disagree	7%
In online advertisement which of the following help develop more clear understanding of the product advertised, if any [Illustrations]		9%
	Agree	19%
	Disagree	4%
	Neither Agree or Disagree	4%
	Strongly Agree	17%
	Strongly Disagree	5%
In online advertisement which of the following help develop more clear understanding of the product advertised, if any [Audio]		12%
	Agree	16%
	Disagree	6%
	Neither Agree or Disagree	14%
	Strongly Agree	4%
	Strongly Disagree	6%
In online advertisement which of the following help develop more clear understanding of the product advertised, if any [Video]		5%
	Agree	15%
	Disagree	3%
	Neither Agree or Disagree	2%
	Strongly Agree	28%
	Strongly Disagree	5%
If any of the above selected modes were absent from the advertisement, would that affect your final purchase decision?	may be	1%
	No	14%

	Yes	43%
Does the presentation of the product has an influence on your purchase decision?	1	23
	2	13
	3	12
	4	9
	5	1
Does the absence of human (sales assistant) affect your purchase decision or product understanding?		1%
	No	29%
	Yes	28%
Do interactive features make you confident about product knowledge gained?	No	5%
	Yes	53%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with text only]		13%
	Agree	14%
	Disagree	9%
	Neither Agree or Disagree	14%
	Strongly Agree	1%
	Strongly Disagree	7%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with illustrations and text]		11%
	Agree	25%
	Disagree	2%
	Neither Agree or Disagree	6%
	Strongly Agree	9%
	Strongly Disagree	5%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with audio only]		14%
	Agree	12%
	Disagree	9%
	Neither Agree or Disagree	17%
	Strongly Disagree	6%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with illustrations and audio]		13%
	Agree	15%
	Disagree	4%
	Neither Agree or Disagree	6%
	Strongly Agree	13%
	Strongly Disagree	7%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with video only]		12%
	Agree	18%

	Disagree	7%
	Neither Agree or Disagree	10%
	Strongly Agree	8%
	Strongly Disagree	3%
Which advertisement context is most likely to positively impact your purchase decision? [Advertisement with video and text]		9%
	Agree	13%
	Disagree	1%
	Neither Agree or Disagree	6%
	Strongly Agree	26%
	Strongly Disagree	3%
	Reviews.	1%
Where do you usually shop from?		2%
	In store	37%
	Online	19%
Which ones are applicable for Social Media Marketing [Open system]		12%
	Agree	23%
	Neither Agree or Disagree	10%
	Strongly Agree	10%
	Strongly Disagree	3%
Which ones are applicable for Social Media Marketing [Two-way conversation]		12%
	Agree	22%
	Disagree	2%
	Neither Agree or Disagree	12%
	Strongly Agree	7%
	Strongly Disagree	3%
Which ones are applicable for Social Media Marketing [Authentic content]		11%
	Agree	22%
	Disagree	3%
	Neither Agree or Disagree	9%
	Strongly Agree	10%
	Strongly Disagree	3%
Which ones are applicable for Social Media Marketing [Influencing]		14%
	Agree	21%
	Disagree	4%
	Neither Agree or Disagree	9%
	Strongly Agree	9%

	Strongly Disagree	1%
Which ones are applicable for Social Media Marketing [Real-time creation]		14%
	Agree	17%
	Disagree	3%
	Neither Agree or Disagree	13%
	Strongly Agree	9%
	Strongly Disagree	2%
Which ones are applicable for Social Media Marketing [Community Decision Making]		15%
	Agree	17%
	Disagree	4%
	Neither Agree or Disagree	17%
	Strongly Agree	4%
	Strongly Disagree	1%
Which ones are applicable for Social Media Marketing [Informal language]		14%
	Agree	12%
	Disagree	10%
	Neither Agree or Disagree	15%
	Strongly Agree	3%
	Strongly Disagree	4%
Which ones are applicable for Social Media Marketing [Active involvement]		12%
	Agree	22%
	Disagree	5%
	Neither Agree or Disagree	12%
	Strongly Agree	6%
	Strongly Disagree	1%
Which ones are applicable for Social Media Marketing [Actors-Users & Influencers]		13%
	Agree	14%
	Disagree	9%
	Neither Agree or Disagree	14%
	Strongly Agree	5%
	Strongly Disagree	3%
Which ones are applicable for Social Media Marketing [User generated content]		11%
	Agree	20%
	Disagree	3%
	Neither Agree or Disagree	14%
	Strongly Agree	9%

	Strongly Disagree	1%
Conventional marketing compromises of [Closed system]		14%
	Agree	14%
	Disagree	6%
	Neither Agree or Disagree	16%
	Strongly Agree	7%
	Strongly Disagree	1%
Conventional marketing compromises of [One-way conversation]		11%
	Agree	25%
	Disagree	5%
	Neither Agree or Disagree	10%
	Strongly Agree	6%
	Strongly Disagree	1%
Conventional marketing compromises of [Opaque]		14%
	Agree	19%
	Disagree	2%
	Neither Agree or Disagree	16%
	Strongly Agree	4%
	Strongly Disagree	3%
Conventional marketing compromises of [Published content]		13%
	Agree	22%
	Disagree	2%
	Neither Agree or Disagree	16%
	Strongly Agree	3%
	Strongly Disagree	2%
Conventional marketing compromises of [Pre-produced]		15%
	Agree	23%
	Disagree	2%
	Neither Agree or Disagree	14%
	Strongly Agree	3%
	Strongly Disagree	1%
Conventional marketing compromises of [Economic-Decision making]		13%
	Agree	25%
	Disagree	2%
	Neither Agree or Disagree	11%
	Strongly Agree	6%

		Strongly Disagree	1%
Conventional marketing compromises of [Formal language]			14%
		Agree	18%
		Disagree	5%
		Neither Agree or Disagree	10%
		Strongly Agree	9%
		Strongly Disagree	2%
Conventional marketing compromises of [Passive involvement]			15%
		Agree	23%
		Disagree	7%
		Neither Agree or Disagree	9%
		Strongly Agree	3%
		Strongly Disagree	1%
Conventional marketing compromises of [Actors- celebrities]			16%
		Agree	17%
		Disagree	2%
		Neither Agree or Disagree	14%
		Strongly Agree	7%
		Strongly Disagree	2%
Conventional marketing compromises of [Professional content]			13%
		Agree	22%
		Disagree	2%
		Neither Agree or Disagree	10%
		Strongly Agree	10%
		Strongly Disagree	1%
Which marketing do you find more influential? [Social Media Marketing]			8%
		Agree	13%
		Disagree	5%
		Neither Agree or Disagree	3%
		Strongly Agree	24%
		Strongly Disagree	5%
Which marketing do you find more influential? [Conventional Marketing]			7%
		Agree	20%
		Disagree	4%
		Neither Agree or Disagree	11%
		Strongly Agree	9%

	Strongly Disagree	7%
Which mode of marketing do you find to be more information rich? [Social Media Marketing]		4%
	Agree	21%
	Disagree	5%
	Neither Agree or Disagree	4%
	Strongly Agree	19%
	Strongly Disagree	5%
Which mode of marketing do you find to be more information rich? [Conventional Marketing]		11%
	Agree	20%
	Disagree	6%
	Neither Agree or Disagree	10%
	Strongly Agree	8%
	Strongly Disagree	3%
Product information on social media platforms is sufficient (enough) to make your final purchase decision		2%
	Agree	21%
	Disagree	10%
	Neither Agree or Disagree	16%
	Strongly Agree	7%
	Strongly Disagree	2%
Do you feel existing social media marketing lacks any element, if yes please state?		4%
	No	35%
	Yes	19%
Advertisement on social media is more entertaining		2%
	Agree	20%
	Disagree	9%
	Neither Agree or Disagree	14%
	Strongly Agree	12%
	Strongly Disagree	1%
Advertisement on social media is more information rich		4%
	Agree	21%
	Disagree	9%
	Neither Agree or Disagree	14%
	Strongly Agree	7%
	Strongly Disagree	3%
		3%

Advertisement on social media are more interactive as compared to conventional marketing	Agree	26%
	Disagree	9%
	Neither Agree or Disagree	8%
	Strongly Agree	11%
	Strongly Disagree	1%
Advertisements via conventional marketing are more influential		4%
	Agree	16%
	Disagree	12%
	Neither Agree or Disagree	20%
	Strongly Agree	6%
Advertisement on social media are more efficient (faster)		3%
	Agree	27%
	Disagree	8%
	Neither Agree or Disagree	8%
	Strongly Agree	10%
	Strongly Disagree	2%
Advertisement on social media are more effective (successful in leading to positive purchase decision)		4%
	Agree	21%
	Disagree	10%
	Neither Agree or Disagree	13%
	Strongly Agree	9%
	Strongly Disagree	1%
Which advertisement context do you find more complex? [Social Media Marketing]		12%
	Agree	14%
	Disagree	7%
	Neither Agree or Disagree	9%
	Strongly Agree	11%
	Strongly Disagree	5%
Which advertisement context do you find more complex? [Conventional Marketing]		10%
	Agree	20%
	Disagree	10%
	Neither Agree or Disagree	11%
	Strongly Agree	3%
	Strongly Disagree	4%
How would you like your online shopping experience to improve? [High human presence]		13%
	Agree	13%

	Disagree	6%
	Neither Agree or Disagree	10%
	Strongly Agree	10%
	Strongly Disagree	6%
How would you like your online shopping experience to improve? [Secure payments]		10%
	Agree	12%
	Disagree	1%
	Neither Agree or Disagree	1%
	Strongly Agree	29%
	Strongly Disagree	5%
How would you like your online shopping experience to improve? [Clear refund exchange policy]		6%
	Agree	16%
	Neither Agree or Disagree	1%
	Strongly Agree	30%
	Strongly Disagree	5%
How would you like your online shopping experience to improve? [High human contact]		13%
	Agree	11%
	Disagree	2%
	Neither Agree or Disagree	11%
	Strongly Agree	17%
	Strongly Disagree	4%
Do you consider social media marketing to be Ethical?		4%
	No	12%
	Yes	42%

Appendix D

Stage II Survey Statistics Group 1

		Count
Q1.Which Age Group Do You Belong To	18 - 20	4
	21-25	5
	26 - 30	8
	31 - 35	6
	36 or above	2
Q2.What Is Your Gender	Male	12
	Female	12
Q3. Highest Level Of Education	GCSE or Equivalent (Matriculation)	4
	A-Levels or Equivalent (Intermediate)	4
	Degree, Diploma or Equivalent	8
	Postgraduate (Masters, PhD, etc)	6
	Professional Qualification (Accountant. Legal, Medical, etc)	2
	Skilled Professional (Plumber, Hairdresser etc)	1
Q4. For What Reasons Do You Use Internet Most For	Work	4
	Browsing	10
	Personal reasons	3
	Shopping	5
	Social Media	3
Q5 How Often Do You Shop Online	Daily	0
	Weekly	4
	Monthly	9
	Once in 3 months	7
	Once in 6 months	5
Q6. Product Presentation Influence Purchase decision	Highly influenced	8
	Influenced	8
	Dont know	8

	Not Influenced	1
	Least Influenced	0
Q8. Proportion of products bought influenced by Online Advert	All products	0
	Many products	13
	Some products	5
	Few products	6
	No products	1
Q9. Influenced By Online Adverts To Impulse Buying	Strongly disagree	0
	Disagree	1
	Agree	20
	Strongly agree	4
Q10. More Adverts Views leads to product Purchase	Strongly disagree	0
	Disagree	5
	Agree	14
	Strongly agree	6
Q12. Twitter Adverts	Most Influential	3
	Least influential	13
Q13.Facebook Adverts		6
	Most Influential	12
	Least influential	7
Q14.Youtube Adverts	0	0
	0	0
	Most Influential	15
	Least Influential	3
Q15.Tumblr Adverts		14
	Most Influential	0
	Least influential	11
Q16.Banner Adverts	0	0
	0	0
	Most Influential	0
	Least Influential	13
Q17.Flash Adverts		0
		11
	1	2
	2	12
Q18.Mobile Adverts	Most Influential	3
	Least influential	10
Q19.Other Adverts		0
		13
	1	8

	2	4
Q20.Any.Method.makes.you.less.Motivated.to.buy	Yes	5
	No	20
Q21. Is the Product Appealing	Yes	11
	No	14
Q22. Rate your Liking	Least liked	5
	Disliked	9
	Dont Know	4
	Liked	7
	Most liked	0
Q23. What Do you Like Most About The product	Design	0
	Features	20
	Price	1
	Nothing	3
	Other	1
Q24. What Do You Like Most About the Presentation	Information	19
	Style	4
	Other	1
	4	1
Q25. Product Was Well Communicated	Strongly Disagree	7
	Disagree	5
	Neither Agree nor Disagree	5
	Agree	8
	Strongly Agree	0
Q26. Brand Name Was Clearly Communicated	Strongly Disagree	3
	Disagree	2
	Neither Agree nor Disagree	4
	Agree	14
	Strongly Agree	2
Q27. Ad had Impact On Purchase Intention	Strongly Disagree	9
	Disagree	6
	Neither Agree nor Disagree	5
	Agree	4
	Strongly Agree	1
Q28. Ad gains Attention of target audience	Strongly Disagree	10
	Disagree	6
	Neither Agree nor Disagree	3
	Agree	6
	Strongly Agree	0
Q29. Ad is Shareable	Strongly Disagree	9

	Disagree	7
	Neither Agree nor Disagree	3
	Agree	6
	Strongly Agree	0
Q30. Ad Gives Sufficent Information about product	Strongly Disagree	3
	Disagree	4
	Neither Agree nor Disagree	6
	Agree	11
	Strongly Agree	1
Q31. Presentation aided Your product understanding	Yes	20
	No	5
Q32. What Information was missing	Image	14
	everything	1
Q33. Was the Presentation Informative	Yes	20
	No	5
Q34. Did It Persuade You to buy this Product	Yes	4
	No	21
Q35. Likelihood of buying Product 1	Most definitely	2
	Definitely	4
	Least definitely	9
	Definitely not	10
Q36. Likelihood of buying Product 2	Most definitely	3
	Definitely	4
	Least definitely	9
	Definitely not	9
Q37. Presentation gave Important Information	Strongly disagree	1
	Disagree	3
	Agree	19
	Strongly agree	1
Q38. Presentation gave Sufficient Information	Strongly disagree	1
	Disagree	13
	Agree	10
	Strongly agree	1
Q39. Would You buy product 1	Yes	2
	No	23
Q40 Would you Buy Product 2	Yes	5
	No	20
Q41 Overall presentation Informative Product 1	All of the features	14
	Half of the features	7
	Third of the features	0

	None of the features	4
Q42 Overall Presentation Informative product 2	All of the features	17
	Half of the features	6
	Third of the features	0
	None of the features	2
Q43 Features You Have understood		23
	price, dimensions, key features, battery life	1
	price, weight, key features like battery life. storage capacity	1
Q44 Overall Visually Pleasing Product 1	All of the features	1
	Half of the features	3
	Third of the features	3
	None of the features	18
Q45 Overall Visually Pleasing product 2	All of the features	3
	Half of the features	3
	Third of the features	4
	None of the features	14
Q46 Features Visually Pleasing		24
	images are required for that	1
Q47 Overall Presentation being effective Product 1	All of the features	3
	Half of the features	9
	Third of the features	2
	None of the features	11
Q48 Overall Presentation being effective product 2	All of the features	6
	Half of the features	8
	Third of the features	2
	None of the features	9
Q49 Effective Features		24
	"Thinnest Laptop"	1
Q53. Did You recognize the brand looking at the ad	Yes	8
	No	15
Q55.Do Emoticons Have impact on product Image	Yes	18
	No	7
Q57.Do Reactions to Ad Have Impact On product Image	Yes	14
	No	11
Q59.Okay to Share Personal Details prior to virtual assistance	Yes	12
	No	13
Q62.Is response Satisfying	Yes	7
	No	18

Q64.Poor Security Perceptions Affects User Satisfaction	Yes	19
	No	6
Q65.Online Platform Secure to share Personal Info	Yes	5
	No	20
Q66.Usefulness Leads to SM User Satisfaction	Yes	23
	No	2
Q67.Visual Appeal Likeness of Product Leads to Effectiveness	Yes	20
	No	5
Q68.Product understanding enhances effectiveness	Yes	18
	No	7
Q69.SM Ad Effects Purchase Intention	Yes	24
	No	1

Appendix E

Survey Statistics Group 2

		Count
Q1. Age group	18 - 20	10
	21-25	5
	26 - 30	4
	31 - 35	6
	36 or above	0
Q2. Gender	Male	13
	Female	12
Q3. Highest Level Of Education	GCSE or Equivalent (Matriculation)	5
	A-Levels or Equivalent (Intermediate)	9
	Degree, Diploma or Equivalent	5
	Postgraduate (Masters, PhD, etc)	3
	Professional Qualification (Accountant. Legal, Medical, etc)	2
	Skilled Professional (Plumber, Hairdresser etc)	1
Q4. Reasons Use Internet Most for	Work	5
	Browsing	11
	Personal reasons	4
	Shopping	2
	Social Media	2
	Everything	1
Q5. How often You Shop Online	Daily	0
	Weekly	7
	Monthly	9
	Once in 3 months	4
	Once in 6 months	3
	Never	1
Q6. Does Product Presentation Influence Purchase Decision	Most influenced	4

	Influenced	10
	Dont Know	4
	Not Influenced	5
	Least Infleunced	2
Q8. Proportion Of Product Bought Influenced By Online Advert	All products	1
	Many products	6
	Some products	10
	Few products	8
	No products	0
Q9. Cosumers Are Influenced By Ad To Impulse Buying	Strongly disagree	1
	Disagree	1
	Agree	18
	Strongly agree	5
Q10. More Consumer Views Ad More Likely To Buy	Strongly disagree	0
	Disagree	4
	Agree	17
	Strongly agree	4
Q12. Twitter Adverts		4
	Most Influential	6
	Least influential	15
Q13. Facebook Adverts	0	0
	0	0
	Most Influential	16
	Least influential	2
Q14.Youtube Adverts	0	0
	0	0
	Most Influential	9
	Least influential	4
Q15. Tumblr Adverts		14
	Most Influential	1
	Least influential	10
Q16. Banner Adverts		14
	Most Influential	1
	Least influential	10
Q17. Flash Adverts		18
	Most Influential	0
	Least influential	7
Q18. Mobile Adverts	0	0
	0	0
	Most Influential	2

	Least influential	8
Q19. Other Adverts		23
	Most Influential	2
	Least influential	0
Q20. Any method Makes you Feel less motivated to buy	Yes	1
	No	24
Q21. Is The Product Appealing	Yes	13
	No	12
Q22. Rate Your Likeness For The Product	Least Liked	5
	Disliked	6
	Dont Know	7
	Liked	6
	Most Liked	1
Q23. What Do You Like most About the Product	Design	19
	Features	3
	Price	0
	Nothing	3
Q24. What Do You Like Most About The Presentation	Information	1
	Style	14
	Nothing	5
	Images	3
	Neat	1
Q25. Product Was Well Communicated	Strongly disagree	5
	Diasgree	5
	Neither Agree or Disagree	8
	Agree	7
	Strongly agree	0
Q26. Brand Name Was Communicated Clearly	Strongly disagree	1
	Diasgree	3
	Neither Agree or Disagree	5
	Agree	11
	Strongly agree	5
Q27. Ad Has An impact On My Purchase Intention	Strongly disagree	7
	Diasgree	5
	Neither Agree or Disagree	11
	Agree	1
	Strongly agree	1
Q28. Ad gains Attention Of target Audience	Strongly disagree	5
	Diasgree	5
	Neither Agree or Disagree	9

		Agree	6
		Strongly agree	0
Q29. This Ad Is Shareable		Strongly disagree	4
		Diasgree	9
		Neither Agree or Disagree	9
		Agree	2
		Strongly agree	1
Q30. Ad has given Sufficient Information About Product		Strongly disagree	10
		Diasgree	9
		Neither Agree or Disagree	3
		Agree	1
		Strongly agree	1
Q31. Did The Presentation Aid Your Product Understanding		Yes	10
		No	15
Q32. What Information Was Missing		Price	6
		Details	13
		Features	3
		Information	2
Q33. Was The Presentation Informative		Yes	2
		No	23
Q34. Did the Presentation Persuade You To Buy This Product		Yes	3
		No	22
Q35. Likelihood Of Buying Product 1		Most definitely	3
		Definitely	2
		Least definitely	13
		Definitely not	7
Q36. Likelihood Of Buying Product 2		Most definitely	0
		Definitely	2
		Least definitely	12
		Definitely not	11
Q37. Effective Presentation And Provides Important information		Strongly disagree	6
		Disagree	15
		Agree	2
		Strongly agree	2
Q38. Effective Presentation Provides Sufficient Information		Strongly disagree	7
		Disagree	16
		Agree	2
		Strongly agree	0
Q39. Would You Buy Product 1		Yes	8
		No	17

Q40. Would You Buy Product 2	Yes	1
	No	24
Q41. Overall Was Product 1 Presentation Informative	All of the features	2
	Half of the features	6
	Third of the features	4
	None of the features	13
Q42 Overall was Product 2 Presentation Informative	All of the features	0
	Half of the features	4
	Third of the features	6
	None of the features	15
Q43. Which features You Understood		23
	color. style. design	1
	usb ports	1
Q44. Overall Was Product 1 Presentation Appealing	All of the features	8
	Half of the features	7
	Third of the features	7
	None of the features	3
Q45. Overall Was Product 2 Presentation Appealing	All of the features	7
	Half of the features	8
	Third of the features	6
	None of the features	4
Q46. Which Features You Found Appealing		21
	color, and style	1
	color. style	1
	design	1
	picture of the products	1
Q47. Overall Was Product 1 Presentation Effective	All of the features	6
	Half of the features	8
	Third of the features	6
	None of the features	5
Q48. Overall Was Product 2 Presentation Effective	All of the features	3
	Half of the features	6
	Third of the features	8
	None of the features	8
Q49. Which Features You Found Effective		22
	images	1
	just the image	1
	style	1
Q51.Unique Feature of Product	couldn't guess	1
	design	4

	dont know	1
	innovative products, sleek and wireless	1
	none	2
	not given	1
	not sure	1
	nothing	2
	sleek laptop	2
	style	6
	style and color of laptop	1
	style maybe	1
	style of laptop	1
	style/design	1
Q52.Price of The Product		10
	don't know	3
	dont know	1
	n/a	1
	none	1
	not given	6
	not sure	3
Q53.Could You Recognize the Brand by Looking At the Product	Yes	19
	No	5
Q54.If Product Not Shown Would You recognize Brand	Yes	1
	No	23
55.Do Emoticons Have impact on product Image	Yes	14
	No	11
Q57.Do Reactions to Ad Have Impact On product Image	Yes	16
	No	9
Q59.Okay to Share Personal Details prior to virtual assistance	Yes	10
	No	15
Q62.Is response Satisfying	Yes	6
	No	19
Q64.Poor Security Perceptions Affects User Satisfaction	Yes	21
	No	4
Q65.Online Platform Secure to share Personal Info	Yes	9
	No	16
Q66.Usefulness Leads to SM User Satisfaction	Yes	13
	No	12
Q67.Visual Appeal Likeness of Product Leads to Effectiveness	Yes	22
	No	3

Q68.Product understanding enhances effectiveness	Yes	19
	No	6
Q69.SM Ad Effects Purchase Intention	Yes	21
	No	4

Appendix F

Survey Statistics Group 3

		Count
Q1 Age group	18 - 20	1
	21-25	12
	26 - 30	6
	31 - 35	4
	36 or above	2
Q2 Gender	Male	12
	Female	13
Q3.Highest Level Of Education	GCSE or Equivalent (Matriculation)	0
	A-Levels or Equivalent (Intermediate)	10
	Degree, Diploma or Equivalent	11
	Postgraduate (Masters, PhD, etc)	1
	Professional Qualification (Accountant. Legal, Medical, etc)	1
	Skilled Professional (Plumber, Hairdresser etc)	0
	HND diploma	1
	other	1
Q4.Reasons Use Internet Most for	Work	3
	Browsing	13
	Personal reasons	5
	Shopping	4

Q5.How Often You Shop Online	Daily	1
	Weekly	7
	Monthly	9
	Once in 3 months	2
	Once in 6 months	5
	When needed	1
Q6.Does Product Presentation Influence Purchase Decision	Most influenced	6
	Influenced	7
	Dont Know	6
	Not Influenced	5
	Least Influenced	1
Q8.Proportion Of Product Bought Influenced By Online Advert	All products	1
	Many products	6
	Some products	10
	Few products	8
	No products	0
Q9.Cosumers Are Influenced By Ad To Impulse Buying	Strongly disagree	3
	Disagree	1
	Agree	13
	Strongly agree	8
Q10.More Consumer Views Ad More Likely To Buy	Strongly disagree	1
	Disagree	4
	Agree	13
	Strongly agree	7
Q12.Twitter Adverts	Most Influential	9
	Least influential	11
Q13.Facebook Adverts		0
		8
	1	13
	2	4
Q14.Youtube Adverts		0
		8
	1	10
	2	7
Q15.Tumblr Adverts		0
		16
	1	1
	2	8
Q16.Banner Adverts		0
		12

	1	8
	2	5
Q17.Flash Adverts		0
		16
	1	3
	2	6
Q18.Mobile Adverts	Most Influential	4
	Least influential	5
Q19.Other Adverts		0
		23
	1	1
	2	1
Q20.Effective SM Platform Leads To Purchase Decision	Yes	23
	No	2
Q21.Is The Product Appealing	Yes	17
	No	8
Q22.Rate Your Likeness For The Product	Least liked	1
	Disliked	4
	Dont Know	8
	Liked	9
	Most Liked	3
Q23.What Do You Like most About the Product	Design	14
	Features	10
	Price	0
	All	1
Q24.What Do You Like Most About The Presentation	Information	12
	Style	13
Q25.Product was Well Communicated	Strongly disagree	1
	Disagree	3
	Neither Agree or Disagree	8
	Agree	11
	Strongly agree	2
Q26.Brand Name Was Communicated Clearly	Strongly disagree	0
	Disagree	3
	Neither Agree or Disagree	7
	Agree	7
	Strongly agree	8
Q27.Ad Has An impact On My Purchase Intention	Strongly disagree	4
	Disagree	4
	Neither Agree or Disagree	7

		Agree	9
		Strongly agree	1
Q28.Ad gains Attention Of target Audience		Strongly disagree	1
		Disagree	1
		Neither Agree or Disagree	12
		Agree	9
		Strongly agree	2
Q29.This Ad Is Shareable		Strongly disagree	2
		Disagree	3
		Neither Agree or Disagree	11
		Agree	7
		Strongly agree	2
Q30.Ad has given Sufficient Information About Product		Strongly disagree	1
		Disagree	4
		Neither Agree or Disagree	10
		Agree	9
		Strongly agree	1
Q31.Did The Presentation Aid Your Product Understanding		Yes	19
		No	6
Q32.SM User Satsifaction affects Purchase Decision		Yes	17
		No	8
Q33.Was The Presentation Informative		Yes	21
		No	4
Q34.Did the Presentation Persuade You To Buy This Product		Yes	11
		No	14
Q35.Likelihood Of Buying Product 1		Most definitely	2
		Definitely	8
		Least definitely	8
		Definitely not	7
Q36.Likelihood Of Buying Product 2		Most definitely	2
		Definitely	10
		Least definitely	9
		Definitely not	4
Q37.Effective Presentation And Provides Important information		Strongly disagree	0
		Disagree	4
		Agree	15
		Strongly agree	6
Q38.Effective Presentation Provides Sufficient information		Strongly disagree	0
		Disagree	4
		Agree	16

	Strongly agree	5
Q39.Would You Buy Product 1	Yes	10
	No	15
Q40.Would You Buy Product2	Yes	11
	No	14
Q41.Overall Was Product 1 Presentation Informative	All of the features	9
	Half of the features	11
	Third of the features	3
	None of the features	2
Q42.Overall was Product 2 Presentation Informative	All of the features	9
	Half of the features	9
	Third of the features	7
	None of the features	0
Q44.Overall Was Product 1 Presentation Appealing	All of the features	17
	Half of the features	5
	Third of the features	1
	None of the features	2
Q45.Overall Was Product 2 Presentation Appealing	All of the features	17
	Half of the features	5
	Third of the features	0
	None of the features	3
Q46.Which Features You Found Appealing		22
	presentation	1
	product 1 (laptop) could be more fashionable, smaller size	1
	size and product being thin	1
Q47.Overall Was Product 1 Presentation Effective	All of the features	14
	Half of the features	4
	Third of the features	6
	None of the features	1
Q48.Overall Was Product 2 Presentation Effective	All of the features	12
	Half of the features	7
	Third of the features	3
	None of the features	3
Q49.Which Features You Found Effective		20
	cost, presentation etc	1
	presentation of the design	1
	price	1
	product image	1

		text could be bigger . sound and music could help	1
Q50.Virtual Assistance on SM helps in User Satisfaction		Yes	7
		No	18
Q51.Unique Feature of Product		battery	1
		battery/i7	1
		clear sound of headphones	1
		design	4
		high technology	1
		laptops thinness	1
		new brand, not very known as apple or Samsung	1
		not sure	2
		p1-wireless p2- very thin	1
		presentation of product/advert	1
		shape of headphones	1
		shape pf headphones	1
		size	1
		size and storage	1
		style	2
		style.	1
		style. design	1
		thin laptop.	1
		thin style	1
		wireless headphones	1
Q52.Price of The Product			
Q53.Could You Recognize the Brand by Looking At the Product		Yes	15
		No	10
Q54.If Product Not Shown Would You recognize Brand		Yes	6
		No	19
Q55.Do Emoticons Have impact on product Image		Yes	16
		No	9
Q57.Do Reactions to Ad Have Impact On product Image		Yes	15
		No	10
Q59.Okay to Share Personal Details prior to virtual assistance		Yes	11
		No	14
Q62.Is response Satisfying		Yes	9
		No	16
Q63.Please Explain			4

	after all the waiting no certain answer given, its frustrating	1
	after the information given there isn't much that can be done	1
	atleast should be able to stay if item will return back in stock or not	1
	because i would expect them to give a specific answer	1
	because the message received doesn't inform me whether the item will be back in stock or not. i would rather be offered alternate product and a apology, that would encourage me to buy something	1
	does not seem to be a reliable service	1
	i can keep an eye on their website, its not a problem.	1
	i would expect more accurate information, specially after all the waiting	1
	i would expect them to sen me an e-mail etc if the dress would be back in stock in the future	1
	it is informative, provides further details on where the customer could check	1
	it is not a clear answer, specially after all the waiting	1
	long waiting time	1
	maybe ild hope for a better answer but overall good	1
	most of the time its uncertain to have some product	1
	moving towards advance tech	1

	not a very helpful advice since i would keep having to check	1
	should give definite answers, otherwise what was the wait worth for	1
	tell me how i can find out when the item is in stock	1
	the answer is friendly but professional	1
	the assistant should know whether item will be back in stock or not, not worth the wait	1
	wait not worth if definite answers are not given	1
Q64.Poor Security Perceptions Affects User Satisfaction	Yes	20
	No	5
Q65.Online Platform Secure to share Personal Info	Yes	3
	No	22
Q66.Usefulness Leads to SM User Satisfaction	Yes	21
	No	4
Q67.Visual Appeal Likeness of Product Leads to Effectiveness	Yes	20
	No	5
Q68.Product understanding enhances effectiveness	Yes	23
	No	2
Q69.SM Ad Effects Purchase Intention	Yes	21
	No	4

Appendix G

Survey Statistics Group 4

		Count
Q1.Age.group	18 - 20	1
	21-25	10
	26 - 30	5
	31 - 35	5

	36 or above	4
Q2.Gender	Male	13
	Female	12
Q3.Highest.Level.Of.Education	GCSE or Equivalent (Matriculation)	0
	A-Levels or Equivalent (Intermediate)	6
	Degree, Diploma or Equivalent	10
	Postgraduate (Masters, PhD, etc)	3
	Professional Qualification (Accountant. Legal, Medical, etc)	4
	Skilled Professional (Plumber, Hairdresser etc)	1
	Other	1
Q4.Reasons.Use.Internet.Most.for	Work	4
	Browsing	13
	Personal reasons	2
	Shopping	4
	Social Media	2
Q5.How.Often.You.Shop.Online	Daily	1
	Weekly	3
	Monthly	13
	Once in 3 months	5
	Once in 6 months	2
	As and when needed	1
Q6.Does.Product.Presentation.Influence.Purchase.Decision	Most influenced	8
	Influenced	8
	Dont Know	4
	Not Influenced	3
	Least Influenced	2
Q8.Proportion.Of.Product.Bought.Influenced.By.Online.Advert	All products	0
	Many products	9
	Some products	13
	products	2
	No products	1
Q9.Cosumers.Are.Influenced.By.Ad.To.Impulse.Buying	Strongly disagree	2
	Disagree	2

	Agree	17
	Strongly agree	4
Q10.More.Consumer.Views.Ad.More.Likely.To.Buy	Strongly disagree	1
	Disagree	7
	Agree	13
	Strongly agree	4
Q12.Twitter.Adverts	Most Influential	7
	Least influential	12
Q13.Facebook.Adverts		0
		8
	1	11
	2	6
Q14.Youtube.Adverts	Most Influential	11
	Least influential	6
Q15.Tumblr.Adverts	Least influential	14
	Most Influential	1
	Least Infleuntial	10
Q16.Banner.Adverts	Least influential	15
	Most Infleuntial	6
	Least influential	4
Q17.Flash.Adverts		0
		15
	1	3
	2	7
Q18.Mobile.Adverts	Least influential	14
	Most Influential	7
	Least Infleuntial	4
Q19.Other.Adverts	Least influential	20
	Most Infleuntial	4
	Least Infleuntial	1
Q20.Any.method.Makes.you.Feel.less.motivated.to.buy		1
	Yes	0
	No	24
Q21.Is.The.Product.Appealing	0	0
	0	0
	Yes	23
	No	2
Q22.Rate.Your.Likeness.For.The.Product	Least liked	0
	Disliked	1
	Dont Know	4

	Liked	13
	Most liked	7
Q23.What.Do.You.Like.most.About.the.Product	Design	8
	Features	17
	Price	0
Q24.What.Do.You.Like.Most.About.The.Presentation	Information	8
	Style	16
	product details	1
Q25.Product.Was.Well.Communicated	Strongly disagree	0
	Disagree	2
	Neither agree or disagree	4
	Agree	10
	Strongly agree	9
Q26.Brand.Name.Was.Communicated.Clearly	Strongly disagree	0
	Disagree	0
	Neither agree or disagree	3
	Agree	8
	Strongly agree	14
Q27.Ad.Has.An.impact.On.My.Purchase.Intention	Strongly disagree	1
	Disagree	3
	Neither agree or disagree	4
	Agree	11
	Strongly agree	6
Q28.Ad.gains.Attention.Of.target.Audience	Strongly disagree	0
	Disagree	2
	Neither agree or disagree	6
	Agree	10
	Strongly agree	7
Q29.This.Ad.Is.Shareable	Strongly disagree	0
	Disagree	3
	Neither agree or disagree	7
	Agree	8
	Strongly agree	7
Q30.Ad.has.given.Sufficient.Information.About.Product	Strongly disagree	0
	Disagree	0
	Neither agree or disagree	5
	Agree	13
	Strongly agree	7
Q31.Did.The.Presentation.Aid.Your.Product.Understanding	0	0
	0	0

	Yes	25
	No	0
Q33.Was.The.Presentation.Informative	Yes	24
	No	1
Q34.Did.the.Presentation.Pesuade.You.To.Buy.This.Product	Yes	18
	No	7
Q35.Likelihood.Of.Buying.Product.1	Most definitely	5
	Definitely	11
	Least definitely	7
	Definitely not	2
Q36.Likelihood.Of.Buying.Product.2	Most definitely	8
	Definitely	10
	Least definitely	5
	Definitely not	2
Q37.Effective.Presentation.And.Provides.Important.information	Strongly disagree	0
	Disagree	1
	Agree	14
	Strongly agree	10
Q38.Effective.Presentation.Provides.Sufficient.Information	Strongly disagree	0
	Disagree	0
	Agree	15
	Strongly agree	10
Q39.Would.You.Buy.Product.1	Yes	15
	No	10
Q40.Would.You.Buy.Product.2	Yes	20
	No	5
Q41.Overall.Was.Product.1.Presentation.Informative	All of the features	12
	Half of the features	2
	Third of the features	10
	None of the features	1
Q42.Overall.was.Product.2.Presentation.Informative	All of the features	20
	Half of the features	5
	Third of the features	0
	None of the features	0
Q44.Overall.Was.Product.1.Presentation.Appealing	All of the features	17
	Half of the features	6
	Third of the features	2
	None of the features	0
Q45.Overall.Was.Product.2.Presentation.Appealing	All of the features	20
	Half of the features	3

	Third of the features	1
	None of the features	1
Q47.Overall.Was.Product.1.Presentation.Effective	All of the features	16
	Half of the features	3
	Third of the features	3
	None of the features	3
Q48.Overall.Was.Product.2.Presentation.Effective	All of the features	21
	Half of the features	3
	Third of the features	1
	None of the features	0
Q53.Could.You.Recognize.the.Brand.by.Looking.At.the.Product	Yes	19
	No	6
Q54.If.Product.Not.Shown.Would.You.recognize.Brand	Yes	7
	No	18
Q55.Do Emoticons Have impact on product Image	Yes	16
	No	9
Q57.Do Reactions to Ad Have Impact On product Image	Yes	15
	No	10
Q59.Okay to Share Personal Details prior to virtual assistance	Yes	8
	No	17
Q62.Is response Satisfying	Yes	5
	No	20
Q64.Poor Security Perceptions Affects User Satisfaction	Yes	17
	No	8
Q65.Online Platform Secure to share Personal Info	Yes	6
	No	19
Q66.Usefulness Leads to SM User Satisfaction	Yes	14
	No	11
Q67.Visual Appeal Likeness of Product Leads to Effectiveness	Yes	19
	No	6
Q68.Product understanding enhances effectiveness	Yes	20
	No	5
Q69.SM Ad Effects Purchase Intention	Yes	23
	No	2

Appendix H

Statistical Tests used Justification

S/N	Hypothesis	Statistical Test Applied	Justification
1	H1a	Chi square test of association	The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the two questions makes chi square test of association appropriate.
	H1b		The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the two questions makes chi square test of association appropriate.
	H1c		The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the two questions makes chi square test of association appropriate.
2	H2a	Chi square test of association	The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the

			two questions makes chi square test of association appropriate.
	H2b		The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the two questions makes chi square test of association appropriate.
	H2c		The questions in consideration is measured on nominal scale (Yes or No). Checking for association between the two questions makes chi square test of association appropriate.

S/N	Hypothesis	Statistical Test Applied	Justification
3	H3a		The dependent variables in consideration are measured on nominal i.e. Is the Product Appealing which has Yes/No Response and ordinal i.e. Rate your Liking which is ordinal variable (Least liked/Disliked/Don't Know/Liked/Most liked), level of measurement
	H3b		
	H3c		
	H3d		
	H3e	Chi square test of association, chi-square goodness of fit test and spearman rho's correlation coefficient.	Having our dependent variables measured at nominal and ordinal scale makes two statistical test appropriate for testing the hypothesis.
	H3f		
	H3g		
	H3h		
	H3i		
	H3j		
	H3k		Chi square test of association was used for questions related to "Is the Product Appealing" while both chi square test of association and spearman rho's correlation coefficient was used on questions related to

			"Rate your Liking" depending on the level of measurement of the independent variable(s).
4	H4a H4b H4c H4d	Chi square goodness of fit test.	The variables in consideration are all categorical for hypothesis 4 and to test them, Chi square goodness of fit test will be adequate as it help to check significant difference in the frequency of the responses.
	H5	Chi square goodness of fit test	Because we are only considering one single variable (Do Emoticons Have impact on product Image) which is measured on nominal scale with only two (2) options (Yes, No). Chi square goodness of fit test will help to check significant difference in the frequency of the responses hence chi square goodness of fit test.
	H6	Chi square goodness of fit test	Because we are only considering one single variable (Do Reactions to Ad Have Impact On Product Image) which is measured on nominal scale with only two (2) options (Yes, No). Chi square goodness of fit test will help to check significant difference in the frequency of the responses hence chi square goodness of fit test.

Appendix I

One way Anova for four Groups

One way anova for Group 1

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q25.Product.Was.Well.Com municated	Between Groups	1.500	1	1.500	1.015	.325
	Within Groups	32.500	22	1.477		
	Total	34.000	23			
Q31.Presentation.aided.Your. product.understanding	Between Groups	.042	1	.042	.234	.633
	Within Groups	3.917	22	.178		
	Total	3.958	23			
Q33.Was.the.Presentation.Inf ormative	Between Groups	.042	1	.042	.234	.633
	Within Groups	3.917	22	.178		
	Total	3.958	23			
Q37.Presentation.gave.Impor tant.Information	Between Groups	.759	1	.759	2.435	.134
	Within Groups	6.545	21	.312		
	Total	7.304	22			
	Between Groups	.000	1	.000	.000	1.000

		Sum of Squares	df	Mean Square	F	Sig.
Q41.Overall.presentation.Informative.Product.1	Within Groups	28.500	22	1.295		
	Total	28.500	23			
Q42.Overall.Presentation.Informative.product.2	Between Groups	2.042	1	2.042	2.822	.107
	Within Groups	15.917	22	.723		
	Total	17.958	23			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q21.Is.the.Product.Appealing	Between Groups	.000	1	.000	.000	1.000
	Within Groups	5.833	22	.265		
	Total	5.833	23			
Q22.Rate.your.Liking	Between Groups	.042	1	.042	.033	.858
	Within Groups	27.917	22	1.269		
	Total	27.958	23			
Q44.Overall.Visually.Pleasing.Product.1	Between Groups	1.042	1	1.042	1.355	.257
	Within Groups	16.917	22	.769		
	Total	17.958	23			
Q45.Overall.Visually.Pleasing.product.2	Between Groups	7.118	1	7.118	7.188	.014
	Within Groups	20.795	21	.990		
	Total	27.913	22			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	2.667	1	2.667	1.734	.201

272

		Sum of Squares	df	Mean Square	F	Sig.
Q27. Ad.had.Impact.On.Purchase.Intention	Within Groups	33.833	22	1.538		
	Total	36.500	23			
Q34.Did.It.Persuade.You.to.buy.this.Product	Between Groups	.000	1	.000	.000	1.000
	Within Groups	3.333	22	.152		
	Total	3.333	23			
Q47.Overall.Presentation.being.effective.Product.1	Between Groups	.167	1	.167	.133	.719
	Within Groups	27.667	22	1.258		
	Total	27.833	23			
Q48.Overall.Presentation.being.effective.product.2	Between Groups	3.375	1	3.375	2.455	.131
	Within Groups	30.250	22	1.375		
	Total	33.625	23			

One way anova for Group 2

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q25.Product.Was.Well.Communicated	Between Groups	1.293	1	1.293	1.056	.315
	Within Groups	28.147	23	1.224		
	Total	29.440	24			
Q31.Did.The.Presentation.Aid.Your.Product.Understanding	Between Groups	.103	1	.103	.400	.533
	Within Groups	5.897	23	.256		
	Total	6.000	24			
Q33.Was.The.Presentation.Informative	Between Groups	.148	1	.148	2.007	.170
	Within Groups	1.692	23	.074		
	Total	1.840	24			
	Between Groups	.160	1	.160	.233	.634
	Within Groups	15.840	23	.689		

		Sum of Squares	df	Mean Square	F	Sig.
Q37.Effective.Presentation.And.Provides.Important.information	Total	16.000	24			
Q41.Overall.Was.Product.1.Presentation.Informative	Between Groups	1.896	1	1.896	1.763	.197
	Within Groups	24.744	23	1.076		
	Total	26.640	24			
Q42.Overall.was.Product.2.Presentation.Informative	Between Groups	.833	1	.833	1.438	.243
	Within Groups	13.327	23	.579		
	Total	14.160	24			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q21.Is.The.Product.Appealing	Between Groups	.093	1	.093	.346	.562
	Within Groups	6.147	23	.267		
	Total	6.240	24			
Q22.Rate.Your.Likeness.For.The.Product	Between Groups	1.293	1	1.293	.925	.346
	Within Groups	32.147	23	1.398		
	Total	33.440	24			
Q44.Overall.Was.Product.1.Presentation.Appealing	Between Groups	.923	1	.923	.847	.367
	Within Groups	25.077	23	1.090		
	Total	26.000	24			
Q45.Overall.Was.Product.2.Presentation.Appealing	Between Groups	.296	1	.296	.255	.618
	Within Groups	26.744	23	1.163		
	Total	27.040	24			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	.074	1	.074	.062	.806

		Sum of Squares	df	Mean Square	F	Sig.
Q27.Ad.Has.An.impact.On.My.Purchase.Intention	Within Groups	27.686	23	1.204		
	Total	27.760	24			
Q34.Did.the.Presentation.Pesuade.You.To.Buy.This.Product	Between Groups	.031	1	.031	.274	.606
	Within Groups	2.609	23	.113		
	Total	2.640	24			
Q47.Overall.Was.Product.1.Presentation.Effective	Between Groups	2.314	1	2.314	2.072	.163
	Within Groups	25.686	23	1.117		
	Total	28.000	24			
Q48.Overall.Was.Product.2.Presentation.Effective	Between Groups	.187	1	.187	.171	.683
	Within Groups	25.173	23	1.094		
	Total	25.360	24			

One way Anova Group 3

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q25.Product.Was.Well.Communicated	Between Groups	1.256	1	1.256	1.393	.250
	Within Groups	20.744	23	.902		
	Total	22.000	24			
Q31.Did.The.Presentation.Aid.Your.Product.Understanding	Between Groups	.201	1	.201	1.061	.314
	Within Groups	4.359	23	.190		
	Total	4.560	24			
Q33.Was.The.Presentation.Informative	Between Groups	.001	1	.001	.007	.934
	Within Groups	3.359	23	.146		
	Total	3.360	24			
	Between Groups	.148	1	.148	.350	.560
	Within Groups	9.692	23	.421		

		Sum of Squares	df	Mean Square	F	Sig.
Q37.Effective.Presentation.And.Provides.Important.information	Total	9.840	24			
Q41.Overall.Was.Product.1.Presentation.Informative	Between Groups	.000	1	.000	.000	.986
	Within Groups	19.840	23	.863		
	Total	19.840	24			
Q42.Overall.was.Product.2.Presentation.Informative	Between Groups	.148	1	.148	.216	.646
	Within Groups	15.692	23	.682		
	Total	15.840	24			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q21.Is.The.Product.Appealing	Between Groups	.216	1	.216	.949	.340
	Within Groups	5.224	23	.227		
	Total	5.440	24			
Q22.Rate.Your.Likeness.For.The.Product	Between Groups	.279	1	.279	.252	.620
	Within Groups	25.481	23	1.108		
	Total	25.760	24			
Q44.Overall.Was.Product.1.Presentation.Appealing	Between Groups	1.221	1	1.221	1.476	.237
	Within Groups	19.019	23	.827		
	Total	20.240	24			
Q45.Overall.Was.Product.2.Presentation.Appealing	Between Groups	.474	1	.474	.460	.504
	Within Groups	23.686	23	1.030		
	Total	24.160	24			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q27.Ad.Has.An.impact.On.My.Purchase.Intention	Between Groups	.043	1	.043	.030	.863
	Within Groups	32.917	23	1.431		
	Total	32.960	24			
Q34.Did.the.Presentation.Persuade.You.To.Buy.This.Product	Between Groups	.013	1	.013	.047	.830
	Within Groups	6.147	23	.267		
	Total	6.160	24			
Q47.Overall.Was.Product.1.Presentation.Effective	Between Groups	.566	1	.566	.592	.449
	Within Groups	21.994	23	.956		
	Total	22.560	24			
Q48.Overall.Was.Product.2.Presentation.Effective	Between Groups	.390	1	.390	.342	.565
	Within Groups	26.250	23	1.141		
	Total	26.640	24			

One way anova Group 4

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q25.Product.Was.Well.Communicated	Between Groups	1.986	1	1.986	2.407	.134
	Within Groups	18.974	23	.825		
	Total	20.960	24			
Q31.Did.The.Presentation.Aid.Your.Product.Understanding	Between Groups	.000	1	.000	.	.
	Within Groups	.000	23	.000		
	Total	.000	24			

		Sum of Squares	df	Mean Square	F	Sig.
Q33.Was.The.Presentation.Informative	Between Groups	.037	1	.037	.920	.347
	Within Groups	.923	23	.040		
	Total	.960	24			
Q37.Effective.Presentation.And.Provides.Important.information	Between Groups	.074	1	.074	.222	.642
	Within Groups	7.686	23	.334		
	Total	7.760	24			
Q41.Overall.Was.Product.1.Presentation.Informative	Between Groups	.160	1	.160	.143	.709
	Within Groups	25.840	23	1.123		
	Total	26.000	24			
Q42.Overall.was.Product.2.Presentation.Informative	Between Groups	.026	1	.026	.148	.704
	Within Groups	3.974	23	.173		
	Total	4.000	24			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q21.Is.The.Product.Appealing	Between Groups	.148	1	.148	2.007	.170
	Within Groups	1.692	23	.074		
	Total	1.840	24			
Q22.Rate.Your.Likeness.For.The.Product	Between Groups	1.986	1	1.986	3.520	.073
	Within Groups	12.974	23	.564		
	Total	14.960	24			
Q44.Overall.Was.Product.1.Presentation.Appealing	Between Groups	.231	1	.231	.543	.469
	Within Groups	9.769	23	.425		
	Total	10.000	24			
Q45.Overall.Was.Product.2.Presentation.Appealing	Between Groups	1.600	1	1.600	3.109	.091
	Within Groups	11.840	23	.515		

| | | Total | 13.440 | 24 | | | |

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Q27.Ad.Has.An.impact.On.My.Purchase.Intention	Between Groups	3.046	1	3.046	2.696	.114
	Within Groups	25.994	23	1.130		
	Total	29.040	24			
Q34.Did.the.Presentation.Pesuade.You.To.Buy.This.Product	Between Groups	.296	1	.296	1.437	.243
	Within Groups	4.744	23	.206		
	Total	5.040	24			
Q47.Overall.Was.Product.1.Presentation.Effective	Between Groups	.066	1	.066	.052	.821
	Within Groups	28.974	23	1.260		
	Total	29.040	24			
Q48.Overall.Was.Product.2.Presentation.Effective	Between Groups	.410	1	.410	1.688	.207
	Within Groups	5.590	23	.243		
	Total	6.000	24			