Model of attractiveness: How physical, vocal and social attractiveness leads to parasocial interaction and purchase intention

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Abstract

Despite the global trend of product review videos that are shared online, limited studies have examined the strategies to maximise the effectiveness of product review videos targeting on customers from different culture. This study aims to examine the effect of attractiveness (physical, vocal, and social) on Parasocial Interaction (PSI), customers' attitudes towards product review videos, brand attitudes, and purchase intention in the case of Hong Kong and Australia. In order to do so, a 2 x 2 x 2 between-subject factorial experimental design was adopted. An Australian model was employed to take four different product review videos featuring a new perfume. Parasocial Interaction refers to a seeming face-to-face relationship between product reviewers and the presenter. Physical attractiveness is determined in terms of make-up, and vocal attractiveness is distinguished in the form of breathy and nasal voices. Data was collected through a web-based survey by asking participants to complete a set of questions related to attractiveness, PSI, attitude towards the product review videos, brand attitude and purchase intention. 202 participants participated in this study.

After the data collection, data was analysed using various quantitative methods including uni-dimensional testing, manipulation checks, correlation analysis causal modelling, ANOVA tests and independent t-tests. The result shows that physical attractiveness, vocal attractiveness and social attractiveness can impose a positive impact on PSI. A causal relationship between PSI, attitude towards the video, brand attitude and purchase intention is also confirmed, stating that PSI can impose a positive effect on media users' attitude towards the product review which, in turn, affects its brand attitude and purchase intention in a positive way. Cultural difference is revealed in this study, participants from Hong Kong are found more persuaded by the product review video. The combination of breathy voice with no make-up was found promoting purchase intention for the Hong Kong participants. On the contrary, the combination of make-up application and voice quality has no effects on purchase intention for the Australian. The research provides a managerial implication to marketers on the cultural difference on the perception of attractiveness and the effects that it has on purchase intention. This study also

reveals how PSI affects attitudes formed towards product review videos followed by brand attitude and purchase intention.

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Chapter 1: Introduction

1.1 Emergence of product reviews

The popularity of product reviews has increased in the past few decades. Product reviews emerged as a form of marketing strategy in the 1970s, aimed at addressing the problem of information asymmetry, which refers to the situation when companies and customers do not share the same amount of information about products (Akerlof 1970). Online customers can use these reviews to learn about products and reduce transaction costs in order to bridge the potential problem of information asymmetry (Hu, Liu & Zhang 2008). Product reviews act as a third-party source in providing additional information on products or services that a company provides to its customers (Chen & Xie 2005). Product reviews are distributed in various forms, such as texts and videos; reviewers provide a description of product attributes and their personal opinion about the products that they have selected for reviewing (Moon & Kamakura 2017). Providing this additional product information to customers helps increase customers' knowledge, allowing them to make the best choice.

1.2 Different forms of product review

Product reviews have become more popular and can be seen from different media platforms. Over the years, product reviews have grown across different media, from the traditional ones including newspaper (Reddy, Swaminathan & Motley

1998) and magazines (Chen & Xie 2005) to the new ones such as online product reviews, which are currently trending globally. This study investigated the online product review video platform in response to the current market trend of product review videos shown online. According to Google (2016) there is a 50% year-over-year increase in product review videos shown on YouTube. Product review videos on YouTube have social and interactive elements such that viewers can 'like,' 'comment,' and 'share' the product reviews conducted by the vloggers (Turban et al. 2015). As a result, individuals can experience interaction with the media figure which helps establish trust between the media figure and the media users. To maximise the effectiveness of the use of product review videos as a form of marketing strategy, one of many ways is to promote relationship building between the media users and the media figure, which can be achieved by promoting parasocial interaction between the media user and the media figure.

1.3 Importance of attractiveness on parasocial interactions and attitude formation towards products

Parasocial interaction (PSI) is defined as the 'interpersonal involvement of the media user with what he or she consumes' (Rubin, Perse & Powell 1985, p.156). It is a form of emotion aroused by a media viewer based on information provided by a media persona (Schramm & Wirth 2010; Spangardt, Ruth & Schramm 2016), and is regarded as an important factor in attracting viewers' attention. Getting

customers to subscribe is always treated as the first step towards the success of

online video reviews and this can be achieved through building relationships with

viewers. Previous literature has taken into account the concept of parasocial

interaction when examining the relationships between vloggers and viewers and

the importance between the two is highlighted (Stever & Lawson 2013;

Labrecque 2014; Lee & Watkins 2016). It is observed that potential buyers are

more likely to spend time interacting with an endorser who is attractive

(Praxmarer 2011). Moreover, a recent study also found that an intention for

media users to undertake further interactions with the media figure is mediated

by affective PSI (Giles 2002). From this, the importance of attractiveness on

parasocial interaction can be shown.

This study focused on the three forms of attractiveness namely physical

attractiveness, social attractiveness and vocal attractiveness.

1.3.1 Physical attractiveness

Physical attractiveness is a significant predictor in determining attractiveness. It

refers to the perceived attractiveness of an individual's physical appearance

(Guan et al. 2015). Face is perceived as an important factor when judging one's

attractiveness (Gonçalves et al. 2010). Specifically, bigger eye size is observed to

have positive effect on attractiveness (Pettijohn & Tesser 2005). Presenters with a

pleasant appearance help promote products to potential buyers. Greenwood,

Pietromonaco, and Long (2008), Rumpf (2012), Lee and Watkins (2016) also show a positive relationship between perceived physical attractiveness and parasocial interaction – the more attractive a media figure is perceived to be, the more individuals want to engage in parasocial interactions with them. Hoffner (1996) has examined the effect of physical attractiveness on parasocial interaction among primary school female students and observed that strength, humor, and intelligence are the three crucial factors in determining attractiveness. Interacting with physically attractive media figure promotes happiness in audiences and liking of the media figure, which makes the media users want to interact with the media figure more frequently (Rumpf 2012). Physical attractiveness plays an important role in online product review video platforms as media users can see the physical appearance of endorsers. Moreover, it is observed that physical attractive individuals are observed to be more socially skilled and confident (Goldman & Lewis 1977). As a result, it helps promote parasocial interaction.

1.3.2 Vocal attractiveness

Vocal attractiveness has a profound influence on listeners of product review videos. Vocal attractiveness refers to perceived attractiveness of voice quality (Babel, McGuire & King 2014). Since impressions depend not only on visual but also auditory cues, it is possible that the attractiveness stereotype is not only confined to the visual but also involves a vocal aspect (Zuckerman & Driver 1989).

Therefore, vocal attractiveness is vital in online product review platforms as presenters promote the product with the help of audio. Moreover, it is observed that individuals do make personality judgments based on a person's voice. Various personality characteristics are often judged solely based on voices (Aronovitch 1976; Sanford 1942). Individuals are likely to assess one's personality traits from vocal cues (Kramer 1964). Therefore, the importance of vocal attractiveness should be addressed.

1.3.3 Social attractiveness

Apart from physical attractiveness, social attractiveness is also vital when it comes to parasocial interaction. Social attractiveness refers to different personal factors (e.g. beliefs, attitudes) that an individual has in attracting others to be friends with him or her (Auter & Palmgreen 2000). It is vital in the form of product review videos as media figure on social media platform was found not only introducing products to the media users, but also sharing their personal life with the media users (Wang 2015). Rumpf (2012) found social attractiveness a significant predictor of parasocial interaction. Schiappa, Allen and Gregg (2007) supported this idea and found social attractiveness is a major aspect. Furthermore, other research has shown that social attractiveness plays an even stronger role than physical attractiveness in contributing to parasocial interaction (Rubin & McHugh 1987; Arda 2006). According to Stephens, Hill &

Bergman (1996), creating an image that is similar to target customers helps

trigger repeated purchases of the product.

1.4 The effect of parasocial interaction and brand attitude on customer purchase

intentions

Parasocial interaction and brand attitude are regarded as factors influencing

online purchase intentions. It is observed that presenters' delivery style can affect

information richness, which ultimately influences customers' purchase intentions

(Chu, Choi & Song 2005). Oh et al. (2009) supported this, stating that parasocial

interaction can affect the amount of product information absorbed by media

users which, in turn, affects their brand purchase intentions. From this, the

relationship between parasocial interaction, brand attitude and purchase

intention is an important aspect that should be addressed.

Parasocial interaction can affect information richness which ultimately influences

customer purchase intentions. Information richness refers to the amount of

information that can be delivered by presenters to potential buyers (Purdy & Nye

2000). Information richness can be achieved in the form of parasocial interaction

which can eventually influence purchase intentions for media users.

Brand attitude plays a vital role in affecting purchase intention. This idea is

supported by Burt and Davies (2010) who claim that brand management is an important factor in determining the success of the e-commerce environment. It is an important factor to influence consumer decisions (Macdonald & Sharp 2000). Positive brand attitude can help reduce the uncertainty of potential buyers which facilitates the establishment of initial trust (McKnight, Choudhury & Kacmar 2002). Positive brand attitudes can improve brand credibility which attracts purchase intentions (Nedungadi 1990). Therefore, a close relationship between brand attitude and purchase intention can be established.

1.5 Perfume and attractiveness

Attractiveness helps enhance parasocial interaction and perfume is known as one way to increase attractiveness. Guerlain once said, "Perfume is the most intense form of memory" (Akou 2007, p. 417). Over years, the popularity of perfume has experienced tremendous growth around the world. The reason is that companies focus not only on creating new scents, but also investigating new and innovative product design, such as the rollerballs, in order to attract customers. New scents and product design from companies around the world contributed to the global perfume market with a value of more than US \$35 billion and the compound annual growth rate of the global perfume market is expected to be 5.9% from 2016 to 2026 (FMI 2016). From this, it can be seen that perfume is getting more and more popular.

1.6 The perfume market in Hong Kong and Australia

A high sales volume of perfume is observed in Hong Kong and Australia. In Hong Kong, no tariff is imposed on imported skincare products, cosmetics and toiletries, which attracts companies around the world to enter the Hong Kong market (U.S. Commercial Service 2015). Moreover, the vast varieties of perfume also attract tourists from Mainland China to purchase perfume in Hong Kong for personal use or as a gift for friends, especially the luxury ones, as Chinese consumers perceive perfume from the luxury brands as a symbol of status (Asian Consumer Intelligence 2015).

Perfume sales are also experiencing growth in the Australian market. According to Roy Morgan (2016), 1,509,000 consumers, including female and male, aged 14 and above purchase women's perfume once a month on average, which accounts a 32% increase from 2013 to 2015. Female consumers that purchase female perfume also experience a percentage increase of 26% from 2013 to 2015. From this, it can be seen that there is an increasing demand for perfume in the Hong Kong and Australian markets. Nevertheless, it is expected to see that consumers with two different culture namely in Hong Kong and Australia would respond different from the same Australian vlogger due to cultural similarity. Therefore, this study is going to examine if cultural similarity explains product reviewers' behaviour.

1.7 Literature gap

Although there are studies looking at how the relationship between attractiveness and parasocial interaction affect attitude formed towards social media (Rumpf 2012), which in turn impacts the formation of brand attitude and purchase intention, several gaps are found from the previous literature. Despite the growth of the perfume market across the globe, little focus has been put on online product review videos of perfume and the cultural difference on the perception of attractiveness between Hong Kong and Australia. In spite of the fact that previous literature showed a positive relationship between physical attractiveness and parasocial interaction (Greenwood, Pietromonaco, & Long 2008; Rumpf 2012; Lee & Watkins 2016), it failed to consider the effect of make-up application and cultural difference on perception on physical attractiveness in affecting the perception of physical attractiveness and parasocial interaction.

Contradict findings in prior literature on the perception on the attractiveness of different type of voices, include breathy voice and nasal voice(Sanford 1942; Zuckerman & Driver 1989). Therefore, this study is trying to examine if different type of voices play an important factor in affecting perceived attractiveness of voice quality.

When it comes to the relationship between social attractiveness and parasocial interaction, although Rumpf (2012), Frederick et al. (2012), Lee and Watkins (2016) found positive relationship between social attractiveness and parasocial interaction, Schroath (2016) found no relationships between the two. Therefore, this study aims at examining which approach is appropriate in the context of Australia and Hong Kong.

In the area of study on attractiveness and parasocial interaction, it is observed that a majority of studies on attractiveness and parasocial interaction often employ celebrity or known YouTube vloggers. It would be of interest to examine the effects of attractiveness and parasocial interaction when an unknown media figure was shown to the media users in order to eliminate the celebrity effect. Therefore, this study aims at filling the gap by investigating the role of individual attractiveness in promoting perfume in product review videos using a media figure that is unfamiliar to the media users.

To examine the effect of different types of attractiveness, namely physical attractiveness, vocal attractiveness and social attractiveness in product review videos, this thesis has two aims. Firstly, it examines how the three types of attractiveness have an impact on parasocial interaction. Secondly, it examines how parasocial interaction affects customers' attitudes towards product review videos which, in turn, affect brand attitude and purchase intentions. The focus

group in this study is females in Australia and Hong Kong and the research question (RQ) is:

RQ: What are the effects that physical attractiveness, vocal attractiveness, and social attractiveness have in promoting parasocial interaction and eventually purchase intention?

In order to enhance the comprehensiveness of the study, the following sub-questions will be examined:

i) To what extent does physical attractiveness, vocal attractiveness and social attractiveness affect parasocial interaction?

ii) To what extent does parasocial interaction affect attitudes towards product reviews?

iii) To what extent do attitudes towards product reviews affect brand attitude and purchase intention?

1.8 Thesis structure

In order to address the research question in a systematic way, the thesis is structured as follows. Chapter 2 presents a literature review on the relationship

between different types of attractiveness and parasocial interaction, and the linkage between parasocial interaction, attitude towards product reviews, brand attitude and purchase intention. Chapter 3 details the method that will be employed in addressing the issue of how attractiveness affects parasocial interaction and purchase intention eventually. Results are displayed in Chapter 4 followed by discussions in Chapter 5 and concluding remarks are given in Chapter 6.

1.9 Chapter conclusion

Due to technological advancements, the emergence of online social media platforms is allowing potential buyers to acquire product information in different ways. Product review videos are one of the ways to promote luxury products such as perfume. Perfume is a product that helps improve one's attractiveness and its popularity has increased in Hong Kong and Australia. Although samples are often provided in stores, online product reviews are becoming more popular. Nevertheless, limited attention has been given to examining how reviewers can be attracted to subscribe to reviews and ultimately consider buying the product. Therefore, this study aims to address this issue by examining how physical, vocal and social attractiveness promote parasocial interaction leading to attitudes formed towards product review videos which, in turn, affects brand attitude and eventually purchase intention.

Chapter 2: Literature review

2.1 Importance of social media platforms in promoting parasocial interaction

Due to technological advancements, social media has changed the ways people communicate. Its significance is also recognised by Hennig-Thurau et al. (2010), who claim that social media helps connect customers. Social media provides a direct interaction platform for marketers to introduce a product to potential buyers, and para-social interaction is formed (Scarpi 2010).

The concept of parasocial interaction (PSI) was first introduced by Horton and Wohl (1956) to describe a seeming face-to-face relationship between audiences and performers. It is often formed by the interaction between media users and presenters. This idea is often employed to examine how media users make connections and form relationships with a media figure. In this study, it is referred as a seeming face-to-face relationship established by online product reviewe video viewers with presenters and it is limited to the duration of the product review video. Although the media users do not know the figure in person, a reciprocal, friendship-like relationship is formed in different ways such as interacting with the media figure through commenting on the posts on the media figure's social media accounts (Labrecque 2014). As a result, a communication of

'one to many' is achieved (Sun et al. 2006) and the idea of information interchange is enhanced.

The relationship formed between the media figure and viewers is important in promoting the effectiveness of the social media platform. Caughey (1984) suggests that parasocial relationships can continue to develop once the interaction has ended. Product reviewers may continue to think about information expressed by the vlogger at other points throughout the day, which in turn will affect their purchase intention. These parasocial relationships are common occurrences in our mediated society (Levy 1979).

Having a solid relationship helps lower the perceived uncertainty on the product introduced in the video as trust has been built between a media figure and media users (Labrecque 2014). Furthermore, PSI relationships can also develop at a stage where product viewers treat a mediated other as 'real friends' (Stern, Russell & Russell 2007), thus enhancing the effectiveness of marketing.

2.2 Physical attractiveness and its relationship with parasocial interaction

Physical attractiveness plays a vital role in promoting parasocial interaction between a media figure and media users. It is observed that individuals are willing to communicate with a person who is attractive (McCroskey & McCain 1974). Recent studies have discovered a positive relationship between physical

attractiveness and parasocial interaction in the sense that good looking media figure are likely to gain popularity and success (Rumpf 2012; Lee & Watkins 2016). This corresponds to the *source attractive model* concept stating that the level of attractiveness of the media source affects the effect of media communication (McGuire 1985). Advertisements with physically attractive individuals are also found to gain more attention within a shorter period when compared to those using average-looking ones (Praxmarer & Rossiter 2009). Physical attractiveness is particularly vital when attractiveness-related products are advertised such as perfume (Koernig & Page 2002). This finding is consistent with the match-up hypothesis postulating the image of the spokesperson and the product must match for physical attractive presenters to play a role (Parekh & Kenekar 1994). Therefore, physical attractiveness of marketers is important in attracting individuals' attention at first sight.

It is evidenced that cultural differences on perception of physical attractiveness is now heavily influenced by beauty standards from the West. This concept is supported by Murray and Price (2011), who suggest that customers from Hong Kong are more interested in interacting with attractive presenters even if they are not very interested in the product per se but Australians do not show the same pattern. A previous study has been undertaken to examine the perceived attractiveness of females in China, which discovered there are cultural stereotypes that favour Caucasian models over Asian ones due to the

globalisation effect (Jankowiak, Gray & Hattman 2008). The heavy influence of Western beauty standards can also be found in Korea, where a huge amount of money is spent on skin whitening (Murray & Price 2011). This highlights that many Asian countries have moderated their beauty standards towards Western ones.

Although it is often argued that a universal standard of attractiveness is present, it can be moderated by cultural differences. This concept is supported by Mooij and Hofstede (2011) who examined cross-cultural consumer behaviour across the globe, including China, Japan, US, Canada, UK, Italy, France, the Netherlands, Portugal, Brazil and Argentina, claiming that perceptions of physical attractiveness vary across cultures, especially between the East and the West. Swami et al. (2008) have undertaken a study of beauty judgement involving Austria, Britain, Cyprus, Poland, Ukraine, Barbados, China and Pakistan. They found that beauty standards vary across different countries in a way that China and British are the only two samples that perceived black hair color as more attractive than blondes. From this, it can be seen that physical attractiveness is a subjective issue that varies across individuals with different cultural backgrounds.

After reviewing previous literature looking at the relationship between physical attractiveness and parasocial interaction, limitations of the research on this issue are found. Firstly, the effectiveness of make-up on physical attractiveness is not addressed in depth. Although the effect of physical attractiveness on parasocial interaction has been widely documented, limited research has taken into account the effect of make-up in affecting physical attractiveness. Therefore, this research aims to fill the gap by examining the effectiveness of make-up on physical attractiveness.

Secondly, different views are presented on the relationship between cultural differences and beauty standards. Universal beauty standards are shown in previous research (Buss & Schmitt 1993). However, it is found that cultural differences actually play a role (Kramer 2003). Therefore, this research aims to examine which belief prevails in the case of Hong Kong and Australia.

Accordingly, the following hypothesis is formed in relation to physical attractiveness and parasocial interaction:

H1: The physical attractiveness of a media figure is positively related to parasocial interaction.

2.3 Relationships between vocal attractiveness and parasocial interaction

Recent literature found a positive relationship between voice quality and parasocial interaction. Voice attributes plays a key role in listeners' experience of a presenter and the speech content (Warhurst et al. 2013). Personality characteristics namely trustworthiness are often inferred based on vocal quality (Anderson et al. 2014). It is observed that personality traits of an individual can be inferred from the voice which will ultimately affect parasocial interaction (Scherer 1972). Voice attractiveness can impose a favourable effect on audience impressions of a speaker's personality (Savage & Spence 2014). Therefore, it is proposed that presenters may modify their voice with reference to the target audience in order to promote parasocial interaction (Warhurst et al. 2013). From this, it can be seen that vocal attractiveness also plays a role in parasocial interaction.

Different voice quality is produced by different states of the glottis, which is the space between the two vocal cords. A normal voice is delivered when "approximately equal duration of vocal fold adduction and abduction happens during successive cycles of phonation with intermediate vocal fold impact stress" (Grillo, Abbott & Lee 2010, p. 852). A breathy voice is produced when the vocal cords vibrate in a loose manner, and it requires a comparatively high rate of flow of air from the lung to produce the breathy voice (Gordon & Ladefoged 2001, p.385). A nasal voice is produced by keeping the soft palate lowered when

talking (Laver & Trudgill 1979). Therefore, various types of voice can be formed.

Empirical studies have rarely worked on different voice attributes affect one's attractiveness levels. Xu et al. (2013) conducted an experimental study looking at individual opinions towards three voice qualities: normal, breathy and nasal and observed that a breathy voice is regarded as the most attractive. This concept is supported by Babel, McGuire, and King (2014) who tested a range of voice qualities from normal to breathy and showed a positive relationship between voice breathiness and perceived vocal attractiveness. A breathy voice was also perceived as cheerful which can eventually give rise to parasocial interaction (Xu et al. 2013). However, a breathy voice has not always been found to be attractive. Lukkarila, Laukkanen & Palo (2012) have undertaken research by inviting five Finnish-speaking females to record a text passage using different vocal qualities – forward placement which refers to a sense of the sound resonating forward into the front of the face, backward placement which refers to a sense of the sound resonating forward into the back of the face, tense phonation, breathy voice, creaky voice, nasal voice and denasal voice and it was discovered that only 17.9% of female participants perceived a breathy voice as attractive. This indicates a breathy voice is not commonly accepted as attractive.

Past research has also looked at the attractiveness of a nasal voice. Lukkarila, Laukkanen & Palo (2012) found that this voice type was perceived as

unattractive and unpleasant. However, a different view is shown in other

literature. Zuckerman and Miyake (1993) found a positive relationship between

a nasal voice and vocal attractiveness. Therefore, this study will examine which

types of voice, breathy or nasal voice, is considered as more vocal attractive

Australia and Hong Kong.

Moreover, previous literature has rarely examined whether there is a positive

relationship between vocal attractiveness and parasocial interaction. They are

mainly focus on how vocal attractiveness affects parasocial interaction in the

context of radio rather than product review video in the sense that breathy voice

is considered as more attractive than nasal voice (Rubin & Step 2000; Quintero

Johnson & Patnoe-Woodley 2016). Therefore, this study aims to fill the gap by

examining the effect of vocal attractiveness parasocial interaction in the context

of product review videos and the following hypothesis is formed:

H2: Vocal attractiveness is positively related to parasocial interaction.

2.4 Social attractiveness and its relationship with parasocial interaction

Apart from physical attractiveness, social attractiveness also plays a role in

parasocial interaction. When looking at the aspect of social attractiveness, it is

often attributed to the term 'attitude homophily'. It is defined as the perception

of sharing similar beliefs and attitudes with the persona shown in the media

(Lazarsfeld & Merton 1954). By sharing similar perspectives, media users perceived the persona shown in media as likable and considered them as friends (Frederick et al. 2012). As a result, individuals are more willing to accept the information conveyed by presenters who share similar beliefs with them.

Extended research has been undertaken to uncover the relationship between social attractiveness and parasocial interaction. One of the causes can be explained by uncertainty reduction which refers to changes in perceived uncertainty towards the persona shown in media due to knowledge gained about the persona. Uncertainty reduction is vital in promoting interpersonal communication especially for the first interaction (Berger & Calabrese 1975). Relationship uncertainty can be eliminated when an individual has more information about another (Kellermann & Reynolds 1990). Presenters' personality is important in the issue of social attraction as it affects the likability of a persona (McCroskey & McCain 1974). From this, the importance of social attractiveness in parasocial interaction is highlighted.

Previous research has found a positive relationship between social attractiveness and parasocial interaction (Frederick et al. 2012; Rumpf 2012; Lee & Watkins 2016). It is discovered that communication can become more effective when two individuals share the same perspective during the communication process (McCroskey, Daly & Richmond 1975). Rumpf (2012) supported this idea

and claimed that perceived similarities between media users and a media figure helps achieve positive affirmation between the two parties. Establishing homophily relationships helps promote parasocial interaction in a way that social verification can be achieved during conversation, thus promoting parasocial interaction (Bandura 2001). As a result, audiences are more attracted to the product due to enjoyment gained from the interaction.

Cultural difference is also taken into account when examining the importance of social attractiveness. It is observed that people with the same cultural background tend to share similar attitude, preferences and opinions (Byrne 1961). Individuals tend to perceived those who belong to socio-economic class as socially attractive (Francis 1991). This idea is supported empirically in the study of deep sea diving. A deep sea diver is more capable of persuading audience who shares similar background with him compare to the one who do not (Burnstein et al. 1961). Therefore, in the online product review video context, cultural differences can be expected to have an impact on judgements of perceived similarity which, in turn, affects the extent of parasocial interaction.

Extensive research has looked at the relationship between attitude homophily and parasocial interaction, but different studies have different views. Some argue that attitude homophily is associated with parasocial interaction (Frederick, Lim, Clavio & Walsh 2012; Rumpf 2012; Lee & Watkins 2016). Ding, Qiu and Li (2012)

supported this, saying that there is a positive relationship between perceptions of parasocial interaction and social attractiveness of celebrities. However, Schroath (2016) opposed this, stating that there is a weak relationship between the two. Therefore, this study will examine this relationship and see whose view is applicable to customers with cultural backgrounds of Australia and Hong Kong. Since prior research, in most cases, suggests a positive relationship, a third hypothesis is proposed:

H3: Social attractiveness of media figure is positively related to parasocial interaction.

2.5 The relationship between PSI and attitudes towards product review videos

Previous literature showed a positive relationship between parasocial interaction (PSI) and attitudes towards product review videos. Engaging in product review videos is regarded as a form of social communication activity (Wang 2015). Individuals involved in this type of activity show their desire for social interaction (Hennig-Thurau et al. 2004). During this one-sided and friend-like relationship, parasocial interaction is formed (Cortese & Rubin 2010). This form of relationship becomes more solid when interpersonal trust is built. The more frequently media users watch vlogs, the stronger parasocial interactions are developed with their favorite vlogger (Wang 2015). This is particularly relevant to female viewers. It is observed that women who have formed prarosocial relationships with a presenter also would like to look like

them (Greenwood, Pietromonaco & Long 2008). From this, it can be inferred that
parasocial interaction can form positive attitudes towards product review
videos.

Parasocial interaction plays an important role in forming attitude towards
product review videos. Different forms of parasocial interaction undertaken in
product review videos help establish interpersonal relationships as human
-to-human interactivity can shape the attitudes towards product review video
(Ko, Cho & Roberts 2005). Parasocial interaction can be established via
self-disclosure, emotional expression and perceived intimacy. Self-disclosure can
get viewers to know more about the presenters which facilitates the
establishment of a friend-like relationship. Wang (2015) found that YouTube
vloggers disclosure of their personal lives, such as their family and financial
situation, helps promote parasocial interaction.

Furthermore, emotional expression during parasocial interaction also plays a
part. Previous research has discovered that facial expressions of presenters are
likely to evoke expressive responses from audiences (Lafrance, Hecht & Paluck
2003). It is observed that emotion is contagious and viewers are often influenced
by emotions delivered by presenters (Gelder 2006). From this, it can be inferred

that viewers can easily be influenced by the positive feedback given by product reviewers.

Finally, perceived intimacy also plays a significant role in promoting parasocial interaction. Technological advancement encourages interaction between viewers and media figures. Product review videos promote instructiveness between viewers and presenters which helps create a great sense of immediacy connection (Hayward 2008). Viewers are generally very active when interacting with media figures which facilitates the process of parasocial interaction through perceived intimacy (Kassing & Sanderson 2009). This greatly promotes parasocial interaction on social media.

Research in parasocial interaction has been conducted and is found related to the concept of interactivity (Auter & Palmgreen 2000; Auter 1992). This idea is supported by Beniger (1987) who suggested that designing mass mediated communications that promote interpersonal communication may increase the credibility and persuasiveness of the message. Research on word-of-mouth suggests that interpersonal networks are sometimes powerful sources of influence (Brooks 1957). Rubin (2002) proposed that parasocial interaction can affect attitudes and behaviours as it requires active involvement in media usage. Thus, in relation to product review videos, increased levels of parasocial

interaction may enhance presenters' ability to influence viewers' attitudes towards product review video. Another study proposed that media messages can exhibit varying degree of parasocial interaction depending on the degree of closeness established between presenter and viewers (Auter 1992).

Although extensive research has looked at how parasocial interaction promotes interaction in the area of television, radio and websites (Rubin & Mchugh 1987; Hoerner 1999), limited research, to the author's knowledge, has narrowed the scope and looked at the effect of parasocial interaction on product review videos. Therefore, this study aims at filling the gap by examining if parasocial interaction affects attitude formed towards product review videos and this leads to the fourth hypothesis:

H4: Parasocial interaction positively affects media users' attitude towards product review videos.

2.6 The relationship between attitudes towards product review videos, brand attitude and purchase intention

Attitude towards product reviews plays an important role in the formation of brand attitude and eventually purchase intention. It is observed that consumer-generated information is highly valued by online consumers compared to that generated by marketers. It is because consumers tend to

provide more objective opinions towards products (Bickart & Schindler 2001).

As a result, the nature of product reviews makes it very useful in establishing

purchase intention. It allows customers to share their opinions and product

evaluations on the internet publicly based on their personal use experiences

(Chatterjee 2001). Consumers can make purchase decision based on feedback

from experienced peer consumers (Sen & Lerman 2007). Therefore, the image of

a company from its brand and products could be affected positively and

negatively under the product reviews platform in an uncontrollable way (Craig,

Greene & Versaci 2015).

Attitudes towards product reviews, brand attitude and purchase intention can be

attributed to social identity and social distance. Social identity plays an

important role towards product review videos, brand attitude and purchase

intention. Social identity theory states that individuals tend to view themselves

as members of selected groups in order to differentiate themselves from others

(Tajfel & Turner 2004). It is observed that individuals tend to accept opinions of

their in-group members instead of others (Platow, Mills & Morrison 2000).

Cultural background is also closely related to social identity. It is often believed

that individuals perceive presenters with the same ethnic background as more

trustworthy. Jeong et al. (2014) have undertaken a study looking at how the race

of athlete spokespersons influences consumer attitudes towards advertisements

in Korea and the result has found that participants impose more favourable attitudes toward a model who shares their own ethnic background. This idea is supported by Martin et al. (2004) who observed that individuals tend to think presenters who share the same cultural background are more credible. Other studies also show that customers are more effective in influencing product attitude and purchase intention within the same cultural group than models with different backgrounds (Cano & Ortinau 2012; Sierra, Hyman & Heiser 2012). Social identity is an important factor as it provides managerial implications to marketers on what type of models they should employ based on different target groups. Therefore, this study aims to investigate if Hong Kong and Australian audiences feel more credible if presenters share the same cultural background with them.

Apart from social identity, social distance has also played an important role. Social distance is defined as the level of acceptance individuals feel toward others with different ethnic backgrounds (Bogardus 1925). It is suggested that perceptions about racial and ethnic groups could be influenced by factors such as personal familiarity and interaction experience with individuals in their groups (Allport 1954). Empirical studies that examined the social distance between ethnic groups found that individuals prefer interacting with their group peers instead of others (Hagendoorn 1995; Parrillo & Donoghue 2013; Randall & Delbridge 2005). Randall and Delbridge (2005) have undertaken research

examining the social distance of races from the perspectives of Latinos, African-Americans and whites residing in a suburban North Carolina county and found out that white Americans accept white Americans the most, compared to other ethnic backgrounds and countries of origin. This idea is supported by Jerabek and de Man (1994) stating that Canadian Caucasians have lower levels of acceptance towards other ethnic groups. From this, it can be seen that individuals tend to have higher levels of acceptance for those who belong to the same ethnic group.

Moreover, social closeness also plays an important role in explaining perceived interpersonal similarity. It is observed that social distance can affect how individuals perceive interpersonal similarity according to demographics and personality traits (Liviatan, Trope & Liberman 2008). Wathen and Burkell (2002) support this and claim that perceived similarity between presenter and receivers helps build trust on the Internet. It is observed that perceived similarity between a media figure and an audience from the same ethnic group leads to positive product attitudes and purchase intentions (Elias, Appiah & Gong 2011).

Delivering information about a product to consumers with an aim of promoting positive perceptions may lead to attitudinal change (Ko, Cho & Roberts 2005). The attitude generated could then link to brand attitude indirectly or directly (Wang & Sun 2010). The ultimate goal of product review videos is to bring out a

positive reaction from consumers and facilitate purchase (Mackenzie, Lutz & Belch 1986). The effectiveness of advertising depends on how well an advertisement induces consumers' purchase intention, which is widely known to have a close relationship with ensuring purchase behavior (Ajzen 2002).

Past researchers have found support for the relationship between attitude toward advertising and purchase intention. For example, Kim, Haley, and Koo (2009) examined how involvement with various products, corporations and advertisements influenced consumers' attitude toward advertising and attitude toward the brand, which, in turn, affected their purchase intention, and found a positive association between attitude toward advertising and purchase intention. Goldsmith et al. (2000) also found a positive association between attitude toward advertising and purchase intention in their study of the effects of corporate and celebrity credibility on consumer reactions to advertising. In summary, because attitude toward advertising has been found to be a key variable affecting purchase intention, I proposed the following hypothesis:

H5: Positive attitudes formed towards product review videos leads to positive brand attitude

It is further argued that the effect of attitudes towards product review videos on brand attitude might be different for positive and negative reviews (Bone 1995). Ahluwavua and Gurcham-Canli (2000) discovered that the relationship between

attitudes towards product reviews and brand attitude is particularly significant when negative information is conveyed in the review. The result is supported by Skowronski and Carlston (1989) who found that individuals tend to focus more on negative information when forming an overall evaluation. This can be explained by the fact that individuals expect most life outcomes to be moderately positive (Chiou & Cheng 2003). Therefore, it is reasonable to place more weight on negative information when forming brand attitude.

Brand attitude can serve as a criterion for consumers to select particular brand. It has a direct effect on consumer purchase intention when the endorser serves as a peripheral cue of the product (Goldsmith, Lafferty & Newell 2000; Spears & Singh 2004). Ko et al. (2005) supported and found that consumers' attitude toward a brand raised from corporate credibility positively influenced their purchase intention. In their study of the psychometric properties of attitude toward the brand, Spears and Singh (2004) also found that there is a direct relationship between attitude toward the brand and purchase intention indicating that consumers' evaluation on product review videos is an antecedent of their summary judgments of the brand. Hayes and Carr (2015) have found the importance of perceived credibility and perceived expertise of the media figure in promoting positive attitude towards brand attitude and purchase intentions. Brand attitude was also found positively related to purchase intention (Lin & Xu 2017). Therefore, it can be suggested that attitude toward the brand predicts

purchase intention, as proposed in the following hypothesis:

H6: Positive brand attitude formed in product review videos leads to purchase intention

Credibility of endorsers is regarded as an important factor in companies' marketing communications strategies. Previous research found that more credible sources have a positive effect on the formation of brand attitude and purchase intentions (Craig & Mccann 1978). Therefore, selecting appropriate presenters is an important step for companies to maximise the effectiveness of their advertising message (Ohanian 1990).

Extensive research has assessed the role of credibility on brand attitude and purchase intention. It is observed that credibility of presenters can affect the perceived reputation of the company that produces the product, which is known as brand attitude (Goldberg & Hartwick 1990). Previous studies support this, illustrating that customers' brand attitude and purchase intentions highly depend on the trustworthiness established between presenters and potential buyers (Wu & Shaffer 1987; Moore, Hausknecht & Thamodaran 1986). Therefore, credibility established during parasocial interaction can affect the formation of attitudes towards product review videos, which can ultimately affect brand attitude and purchase intention.

2.7 Choice of media persona

The choice of media persona is vital in examining the effectiveness of attractiveness on parasocial interaction, attitude towards product review videos, brand attitude and purchase intention. A majority of studies on attractiveness and PSI often employ celebrities or known YouTube vloggers (Rumpf 2012; Schroath 2016; Ding, Qiu & Li 2012). However, this approach has always been questioned. It is argued that the reason why celebrities always have significant effects on parasocial interaction is due to frequent and consistent exposure and attractiveness itself plays a limited role under this context (Horton & Wohl 1956). Therefore, using celebrities as presenters in videos is likely to create a biased result when examining the relationship between different types of attractiveness and parasocial interaction. In order to provide a better understanding of the relationship between attractiveness and parasocial interaction, non-celebrities are employed in the product review videos in this study.

2.8 Research model

Based on the above literature review, the following research model,

incorporating all the proposed hypotheses, has been developed:
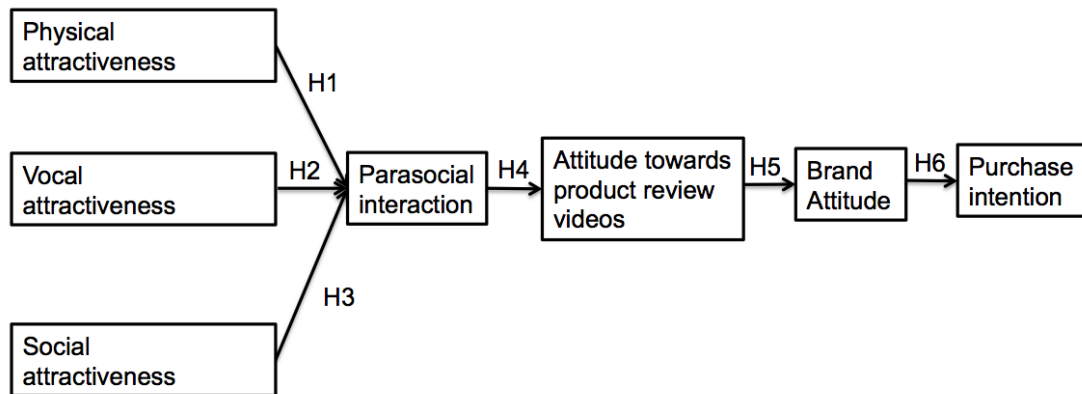
Physical attractiveness, vocal attractiveness, and social attractiveness are the

three factors that are proposed to be the antecedents of parasocial interaction in

this thesis.

The relationship between attractiveness, parasocial interaction and purchase

intention can be explained in the following ways. Parasocial interaction between

the media user and the media figure is proposed to change one's attitude

towards the product review videos. The attitude formed in the product review

videos would affect one's perceived attitude towards the brand, and positive

brand attitude would lead to purchase intention.

2.9 Chapter conclusion

This chapter provides a literature review on the relationship between attractiveness and parasocial interaction. Attractiveness is categorised into three aspects: physical attractiveness, vocal attractiveness and social attractiveness. The relationships between attractiveness and parasocial interaction, attitude towards product reviews, brand attitude and purchase intention are widely documented but share different views. Therefore, this study will fill the gap by examining if physical attractiveness, vocal attractiveness and social attractiveness play a positive role in parasocial interaction which, in turn, affects attitudes towards product review videos, brand attitude and ultimately purchase intention. This research will also examine the cultural differences between Australia and Hong Kong in these areas.

Chapter 3: Methodology

3.1 Introduction

This research aims to examine the effects of makeup and voice quality in relation to consumers' perceptions towards a persona shown in a product review video. In order to further investigate the effects of the same media figure to different consumers, this study will also look at the effects of cultural differences, by studying both Australian and Hong Kong consumers.

3.2 Model specification

Empirical studies of product review videos look at the effect of physical attractiveness and social attractiveness, but neglect the effects of different levels of makeup and voice quality. Therefore, a new model is created in this research by adding a vocal attractiveness construct into the model.

The newly developed model aims to investigate:

i) the effects of physical attractiveness, vocal attractiveness, and social attractiveness in promoting media users' parasocial interaction with a media figure,

ii) how parasocial interaction affects media users' attitudes towards product review videos,

iii) how attitudes towards product review videos change media users' attitudes

towards the brand, and ultimately lead to purchase intention.

3.3 Survey design

This study adopts a quantitative research approach to investigate the effects of attractiveness (physical, vocal, social) on parasocial interaction, attitude change towards product review videos and brand, and purchase intention. A questionnaire is generated to investigate the perceptions that media users have in relation to the level of attractiveness (physical, vocal, social) of the media figure, and their perceptions towards the reviewed product.

This research uses a 2 x 2 x 2 between-subject factorial experimental design. The two levels within each factor are: visual attractiveness (makeup versus no makeup), vocal attractiveness (breathy voice versus nasal voice) and social attractiveness (Australia versus Hong Kong) (see the table below).

Australian sample

	No make-up	Make-up
Breathy voice	26	24
Nasal voice	25	25

Hong Kong sample

	No make-up	Make-up
Breathy voice	26	25
Nasal voice	26	25

3.4 Participants involved

This study targeted female respondents aged 18 to 40 years old. A total of 238 questionnaires were collected and 202 (100 Australian women and 102 Hong Kong women) were found to be usable, with a minimum of 24 respondents in each experimental cell. Participation is voluntary. Only women aged between 18 to 40 years who have spent most of their time Australia and Hong Kong are selected in this research. As it is a review of a woman's perfume, a female Australian Caucasian is employed. Only female respondents are recruited to control any confounding effect of gender. Respondents are recruited from both Australia and Hong Kong so as to measure the cultural differences in perceptions of attractiveness.

3.5 Stimulus

Four different 60 second product review videos have been created featuring a new perfume. Perfume is chosen for the study based on prior research looking at the effectiveness between attractive endorsers and beauty products. The use of attractive endorsers was found to be more effective when promoting products that enhance one's attractiveness compared to average-looking endorsers (Roozen & Claeys 2010; Leonard 2014). The same female model, perfume and script (see Appendix A for the script of the video) are used in all four recordings. The model was trained to speak in a breathy and nasal manner. In the non-attractive condition, no makeup was used while makeup was applied in the attractive

condition.

3.6 Procedure

Data is collected through a web-based survey and recruitment of participants is via a snowballing technique. In other words, participants are recruited via asking friends and friends-of-friends to complete the study. Participants are randomly assigned to watch one of four product reviews via email using a unique link for each of the experimental conditions. First, they are shown a perfume review video created by an Australian Caucasian. After watching the product reviews participants are asked to complete a series of questions about the video. Their answers are recorded using Qualtrics software. The whole experiment takes about 10 minutes to finish.

An online survey helps improve the effectiveness of the data collection process. As there are four conditions designed in this study, and the research design involved both Australian and Hong Kong respondents, the use of an online survey eliminates transcriber error and allows results to be correctly grouped into the correct conditions (McCoy & Marks 2001). As participants were asked to watch an online video before answering the questions in the questionnaire, the use of an online survey is also ideal in this research as an online questionnaire allows the video link to be added into the questionnaire (Rogers, Sharp & Preece 2002). As a result, it is more convenient for the participants to fill in.

Using online survey is a common practice for studies involving predefined groups.

It is observed that research studies that have a research design of specific

predefined groups of target population often use online questionnaire to collect

data (Yun & Trumbo 2000). Since targeting groups of this research are

respondents who grew up in Australia or Hong Kong, it is believed that the use of

an online questionnaire is an ideal choice for data collection.

3.7 Structure of questionnaire and measurement scale

Participants are required to answer a list of questions after watching the product

review video (see Appendix B). The questionnaire consisted of five components:

1) attractiveness

2) parasocial interaction

3) attitude towards product review videos

4) brand attitude

5) purchase intention

Participants were asked to express their impressions of the model shown in the

video, how much they liked the video, their impressions of the reviewed perfume,

and whether they might purchase the perfume. Questions for each variable were

generated based on measurements shown to have high reliabilities in prior

literature (e.g. Lee & Watkins 2016), key concepts, and are modified for the

current study.

The independent variables in this research are physical attractiveness (full makeup, no makeup), social attractiveness, and vocal attractiveness (breathy voice, nasal voice), whereas the dependent variables are parasocial interaction, attitude towards product review videos, brand attitude, and purchase intention.

(1) Attractiveness

The question on physical attractiveness is adopted by DeShields, Kara and Kaynak (1996). Respondents are asked to show to what extent they think the media figure is considered physically attractive, using a 7-point bipolar scale, which -3 represents 'extremely unattractive', 0 represents 'neither attractive nor unattractive', and 3 represents 'extremely attractive'.

The question on vocal attractiveness is adopted from Wiener and Chartrand (2014). Respondents are asked to evaluate how much they like the voice of the media figure, by using a 7-point bipolar scale, which -3 represents 'extremely dislike', 0 represents 'neither like nor dislike', and 3 represents 'extremely like'.

The question on social attractiveness is adopted from McCroskey, Daly and Richmond (1975), in which participants are asked to what extent they think the media figure is similar to them.

(2) Parasocial interaction

The questions on parasocial interaction are modified from a prior study

conducted by Rubin and Perse (1987). This research used four items to measure

parasocial interaction with the aim of creating a unique measurement specifically

for the study. This study aimed at measuring parasocial interaction specifically on

the aspects of respondents' evaluation of whether the media figure reminds them

of an old friend, and whether the respondents want to form a friendship with the

media figure. Participants are asked to rate each item from a 7-point unipolar

scale, which 1 represents 'not at all likely', and 7 represents 'extremely likely'.

Those items include how well viewers feel they know the endorser; how likely

viewers think an endorser is talking to them like a friend; how likely viewers

would like to form a friendship with an endorser and how likely viewers feel an

endorser is like an old friend of them.

(3) Attitude towards product review video

The question on attitude towards the product review video is modified from Kahle

and Homer (1985). Participants are asked to demonstrate their liking of the

product review video, using a 7-point bipolar scale, which -3 represents 'extremely

dislike', 0 represents 'neither like nor dislike', and 3 represents 'extremely like'.

(4) Brand attitude

The question on brand attitude is derived from Till and Busler (2000), with the emphasis on participants' evaluation of the quality of the reviewed product. Participants are asked to evaluate how good or bad do you think the perfume would be by rating the item on a 7-point bipolar scale, which -3 represents 'extremely bad', 0 represents 'neither good nor bad', and 3 represents 'extremely good'.

(5) Purchase intention

The question on purchase intention was modified from Mortazavi, Rahim Esfidani and Shaemi Barzoki (2014). Participants are asked how likely it is that they will purchase the perfume after watching the video. Participants are asked to rate the item using a 7-point unipolar scale, which 1 represents 'not at all likely', and 7 represents 'extremely likely'.

Since all the constructs besides PSI are singularly concrete in that it possess a single meaning and refers to one object, only one item is used per those construct (Bergkvist & Rossiter 2007; Ang & Eisend 2017). The questionnaire uses 7-point scales for all the questions. 7-point scales were used to increase the reliability and validity in this study. Previous stimulation studies and empirical studies were found to be more reliable and valid when 5-point to 7-point scales were used

compared to scales with fewer scale points, but scales with 8-point or more were found to have no further effects on improving reliability and validity (Dawes 2008). Therefore, a 7-point scale is chosen in the study to maximise the validity of the result.

3.8 Statistical method of analysis

In order to examine the relationship between attractiveness and parasocial interaction, a bivariate correlation analysis is undertaken. This approach can show a simple relationship from one variable to another, namely the relationship between physical attractiveness and parasocial interaction; vocal attractiveness and parasocial interaction and social attractiveness and parasocial interaction.

Causal modelling is adopted to examine the relationship between parasocial interaction, attitude formed towards the product review videos, brand attitude and purchase intention. This approach is used for testing hypothesised theoretical relationships among variables. It is particularly useful in examining the relationship of a set of independent variables on a particular dependent variable (Molane 1988). Therefore, it is useful to see if there is any causal relationship between parasocial interaction and media users' attitude towards the product review video; attitude formed towards the product review videos and brand attitude and brand attitude and purchase intention.

To examine the effects of makeup application, voice quality, and places where

participants grew up in, Analysis of Variance (ANOVA) was conducted. ANOVA is used for hypothesis testing when there are than two groups measured on an interval scale (Malhotra 2007). In addition, bivariate correlation, regression analyses and causal modelling are used to test the relationship between constructs.

An independent sample t-test is also used to examine the effects of attractiveness, including physical, social and vocal, on parasocial interaction, attitude towards product review videos, brand attitude, and purchase intention. Independent t-tests are often used in marketing studies (e.g. Liu, Hu & Grimm 2010; Nayeem 2012). Independent t-tests are often employed to compare the means between two unrelated groups which have the same continuous, dependent variable (Li 2012).

3.9 Chapter conclusion

This study is conducted using a 2 x 2 x 2 between-subject factorial experimental design which involves 100 Australian and 102 Hong Kong female participants aged between 18 and 40 years old. A female Australian is employed to make four perfume review videos. In those videos, the model, perfume and script are identical. Data is collected using a web-based survey. Participants are randomly assigned a video and required to answer a set of questions related to attractiveness, parasocial interaction, attitude towards product review videos,

brand attitude and purchase intention after watching it. 7-point scales are used in the questions. After the data collection, various statistical methods of analysis are undertaken including bivariate correlation analysis, causal modelling, ANOVA and independent sample t-tests.

Chapter 4: Results

4.0 Introduction

This chapter aims at presenting results of analysis outlined in the earlier chapter using the software namely SPSS due to its user-friendliness.

4.1 Testing for the unidimensionality of parasocial interaction (PSI)

Before testing the hypotheses, the 4 measures of PSI (Q4 to Q7) were tested for unidimensionality in order to keep it simple for an online surevey. With reference to factor analysis, only Q5 to Q7 loads .70 and above while Q4 loads only at .59. Hence Q4 was dropped. A principal component analysis with varimax rotation was carried out with Table 1 showing the results. These three items load on one dimension which accounts for 76.5% of the variance of this construct.

Q5. How likely do you think this person is talking to you like a friend?	.839
Q6. How likely would you like to form a friendship with this person?	.867
Q7. How likely do you feel this person is like an old friend of yours?	.917

Table 1: Factor loadings of the three measures of PSI

An index of PSI is then created by averaging these 3 items as follows:

$$PSI = \frac{(Score\ in\ Q5 + Score\ in\ Q6 + Score\ in\ Q7)}{3}$$

4.2 Manipulation Checks

Manipulation checks were conducted prior to the start of the study to confirm that the manipulation of physical and vocal attractiveness were successful. Two manipulations were carried out in this study: physical attractiveness (using makeup versus no makeup) and vocal attractiveness (nasal versus breathy voice).

My justification is grounded in the logic that, if individuals perceive that presenter with make-up is more attractive than with no make-up, then I can conclude that the manipulation was successful. With reference to the result, the makeup condition is rated to be significantly more attractive ($M_{attract} = 0.10$) than the no makeup condition ($M_{unattract} = 0.48$) ($t = 2.03$, $p<.05$). Therefore, it confirmed that the manipulation was a success.

For vocal attractiveness, my justification is grounded in the logic that, if individuals perceive that presenter with breathy voice is more attractive than with nasal voice, than I can conclude that the manipulation was successful. According to the result, there was no significant main effect, although there is a trend showing the

breathy voice ($M_{breathy}$ = 3.05) to be slightly more likeable than the nasal voice (M_{nasal} = 2.74) (p>.05). However, this trend is qualified by a very marginal country interaction ($F_{(1,200)}$ = 2.78, p = 0.09), where Hong Kong respondents equally liked both types of voice in contrast to Australians who preferred the breathy voice (see Figure 2 below), which confirmed that the manipulation check was a success.
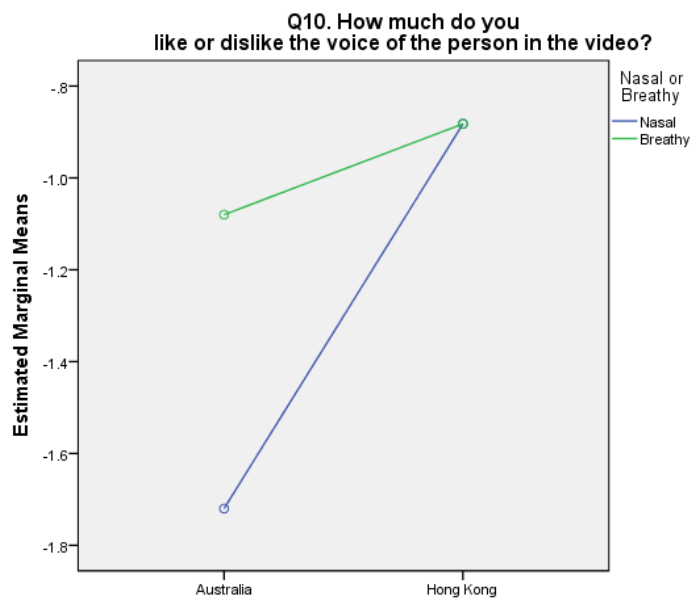
Figure 2: Country by type of voice interaction

Although social attractiveness was not manipulated, the media figure used was an Australian-Caucasian; as such we would expect Australian respondents to say they feel more similar than the HK respondents. However, a t-test revealed no significant difference between these two groups on this measure (p>.05). There were also no significant two- or three-way interactions (p>.05) with country or

voice quality.

In summary, both physical attractiveness (i.e., makeup versus no makeup) and vocal attractiveness (i.e., breathy versus nasal voice) were correctly manipulated, the latter qualified by country interactions. Surprisingly, social attractiveness, although not manipulated did not differ by country, possibly because there is no opportunity for the respondents to get to know the media figure better.

4.3 Physical, vocal and social attractiveness and parasocial interaction (PSI)

H1: Physical attractiveness of the media figure is positively related to PSI

H2: Vocal attractiveness of the media figure is positively related to PSI

H3: Social attractiveness of the media figure is positively related to PSI

		PSI	Q9. How physically attractive do you think the person is?	Q10. How much do you like or dislike the voice of the person in the video?	Q12. How similar or dissimilar are you to the person in the video?
PSI	Pearson Correlation	1	.205**	.456**	.484**
	Sig. (2-tailed)		.003	.000	.000
	N		202	202	202
Q9. How physically attractive do you think the person is?	Pearson Correlation	.205**	1	.318**	.227**
	Sig. (2-tailed)	.003		.000	.001
	N	202	202	202	202
Q10. How much do you like or dislike the voice of the person in the video?	Pearson Correlation	.456**	.318**	1	.454**
	Sig. (2-tailed)	.000	.000		.000
	N	202	202	202	202
Q12. How similar or dissimilar are you to the person in the video?	Pearson Correlation	.484**	.227**	.454**	1
	Sig. (2-tailed)	.000	.001	.000	
	N	202	202	202	202

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3: Correlations of physical, vocal and social attractiveness on PSI (total

sample)

To test H1, H2 and H3 a bivariate correlation was run between PSI and measurements of physical (Q9), vocal (Q10) and social attractiveness (Q12). The results show that there is a low but positive relationship between PSI and physical attractiveness (r=.21, p<.05). PSI is moderately correlated with vocal attractiveness (r=.46, p<.05) and social attractiveness (r=.48, p<.05). Thus H1, H2 and H3 are supported.

Although not hypothesised, physical attractiveness is also correlated with both vocal and social attractiveness (r =.32, and .23 p<.05 respectively). This means that three kinds of attractiveness share common variances. To examine the unique contribution of the different types of attractiveness on PSI, a multiple regression was carried out with PSI as the dependent variable. Only vocal (β = .29) and social attractiveness (β = .35) contributed to PSI [$F_{(3, 198)}$ = 29; p<.05; adjusted r-square = 30%].

Model	Unstandardised Coefficients		Standardised Coefficients		
	B	Std. Error	Beta	T	Sig.
Q9. How physically attractive do you think the person is?	.027	.048	.035	.552	.581
Q10. How much do you like or dislike the voice of the person in the video?	.216	.051	.288	4.199	.000
Q12. How similar or dissimilar are you to the person in the video?	.267	.052	.345	5.168	.000

Table 4: Regression of physical, vocal and social attractiveness on PSI (total sample)

4.4 Relationship between Parasocial Interaction (PSI), attitude towards the video,

brand attitude and purchase intention

H4: PSI positively affects media users' attitude towards the product review video

H5: Positive attitude formed towards the product review videos leads to positive

brand attitude

H6: Positive brand attitude formed in the product review videos leads to purchase

intention

A correlation was performed to identify the relationship between PSI, media

users' attitude towards the product review video, brand attitude and purchase

intention. In support of H4, PSI is moderately associated with attitude towards the

product review video (Q3) (r= .41).

	PSI	Q1. After viewing this video, how likely would you be to buy the perfume? *(Purchase intention)*	Q2. After watching this video, how good or bad do you think the perfume would be? *(Brand attitude)*	Q3. How much do you like or dislike the product review video you just saw? *(Attitude towards product review video)*
PSI	1	.446**	169*	.407**
Q1. After viewing this video, how likely would you be to buy the perfume? *(Purchase intention)*	.446**	1	.409**	.470**
Q2. After watching this video, how good or bad do you think the perfume would be? *(Brand attitude)*	.169*	.409**	1	.477**
Q3. How much do you like or dislike the product review video you just saw? *(Attitude towards product review video)*	.407**	.470**	.477**	1

Table 5: Correlation between PSI, attitude towards product review video, brand attitude and purchase intention

4.5 Best predictors of purchase intention

Before directly testing H5 and H6 using causal modelling, some preliminary

analyses were carried out to yield a better understanding of variables.

Table 4 shows that PSI is moderately associated with purchase intention (Q1)

($r=.45$) ($p<.001$). But its association with brand attitude (Q2) is low ($r=.17$)

($p<.05$). Instead, brand attitude (Q2) had the highest correlation with attitude

towards the product review video (Q3) ($r=.48$) ($p<.01$). This implies that attitude

towards the product review video is more likely to influence brand attitude; while

itself being influenced by PSI.

From these preliminary analyses, it appears that PSI has a direct influence on

purchase intentions, as well as an indirect effect via attitude towards the video.

4.6 Causal Modelling

H4: PSI positively affects media users' attitude towards the product review video

H5: Positive attitude formed towards the product review videos leads to positive

brand attitude

H6: Positive brand attitude formed in the product review video leads to purchase

intention

To test H4, H5 and H6, causal modeling using partial least square (smartPLS) was used.
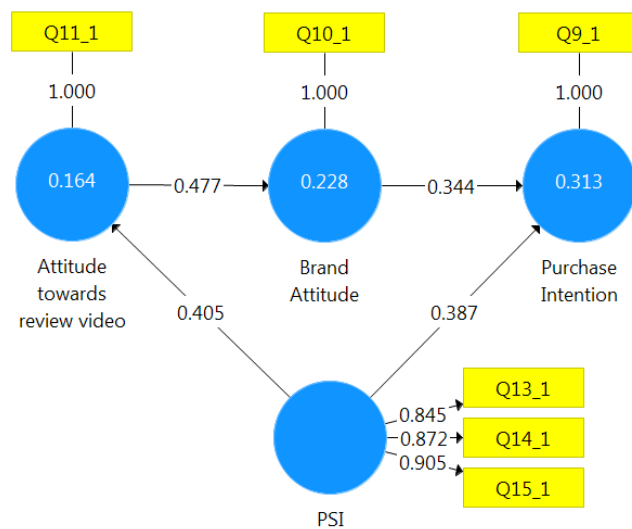

Figure 6: Causal modelling of PSI, brand attitude and attitude towards video on purchase intention (total sample)

Figure 6 shows the path coefficients of the major constructs of attitude towards the product review video, brand attitude and PSI to purchase intention. All the paths were significant ($p<.05$; see table 7) and the model contributes to 31% of the variance of purchase intention. H5 and H6 are thus supported. Since this model shows that there is a significant path between PSI and the attitude towards the product review video ($\beta = .41$), it lends further support for H4.

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Attitude towards review video -> Brand Attitude	0.477	0.475	0.064	7.461	0.000
Brand Attitude -> Purchase Intention	0.344	0.339	0.057	6.049	0.000
PSI -> Attitude towards review video	0.405	0.408	0.055	7.366	0.000
PSI -> Purchase Intention	0.387	0.395	0.062	6.238	0.000

Table 7: Significance test of model based with bootstrapping

Finally, a full model was run by including all three antecedents of PSI, physical attractiveness, social and vocal attractiveness. As expected, physical attractiveness had no effect on PSI, which lends support to earlier analyses and was thus dropped from the model. The full model with the two antecedents of social and vocal attractiveness is shown in Figure 8 and the significance test in Table 9. These two factors contribute to 31% of the variance of PSI.
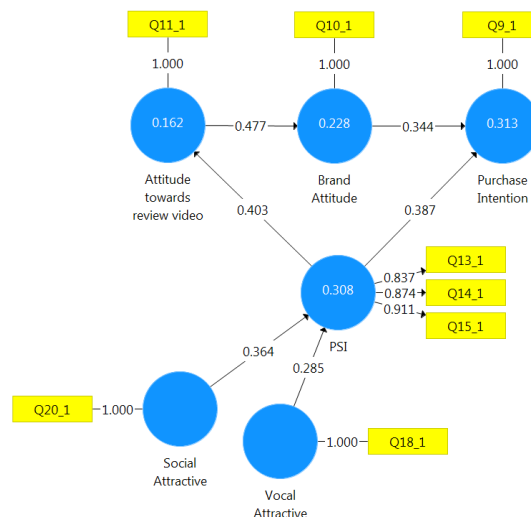

Figure 8: Full causal model of PSI, brand attitude and attitude towards video and on purchase intention (total sample)

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Attitude towards review video -> Brand Attitude	0.477	0.475	0.060	7.987	0.000
Brand Attitude -> Purchase Intention	0.344	0.340	0.055	6.228	0.000
PSI -> Attitude towards review video	0.403	0.403	0.052	7.696	0.000
PSI -> Purchase Intention	0.387	0.393	0.060	6.483	0.000
Social Attractive -> PSI	0.364	0.363	0.069	5.284	0.000
Vocal Attractive -> PSI	0.285	0.283	0.065	4.377	0.000

Table 9: Significance test of full model based with bootstrapping

4.7 Relationship between make-up, voice quality, and purchase intention on cultural differences

To further understand the effects of makeup and voice quality on purchase intention, an ANOVA test has been conducted. There was a significant main effect ($p < .05$) for country of origin. The city or country that the participants grew up in affected their intention to purchase the perfume, $F(1, 194) = 7.56$. There was also a significant interaction effect ($p < .05$) for voice quality, when level of makeup is taken into account, $F(1, 194) = 4.00$ (see Table 10).

Dependent Variable: Q1. After viewing this video, how likely would you be to buy the perfume?

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26[a]	7	3.74	2.32	.027
Intercept	878	1	878	546	.000
Voice Quality	.653	1	.653	.405	.525
Make Up	.551	1	.551	.342	.559
Country	12.2	1	12.2	7.56	.007
Voice Quality. * Make Up	6.43	1	6.43	4.00	.047
Voice Quality. * Country	1.87	1	1.87	1.16	.283
Make Up * Country	4.17	1	4.17	2.59	.109
Voice Quality. * Make Up * Country	.043	1	.043	.027	.871
Error	312	194	1.61		
Total	1220	202			
Corrected Total	338	201			

a. R Squared = .077 (Adjusted R Squared = .044)

Table 10: Test of between-subjects effects on voice quality, make-up condition, country, and purchase intention

Independent t-tests were also conducted to examine the effects of voice quality and country on purchase intention. There was a main effect for country where HK respondents (M_{HK} = 2.23) were generally more persuaded by the product review video than Australians (M_{Aust} = 1.84) (t (200) = 2.72, p<.007).

To better illustrate the interaction effects between voice quality and makeup on purchase intention, the means are plotted in Figure 11. When makeup was applied, the quality of the voice makes no difference to purchase intentions. There was no significant difference between breathy ($M_{breathy}$ = 2.02) and nasal (M_{nasal} = 2.06) voice (t (97) = 0.97, p>.05). However, when there was no make-up, the use of breathy voice was more persuasive. The mean of breathy voice ($M_{breathy}$ = 2.27) was marginally higher than that of nasal (M_{nasal} = 2.08) (t (101) = 1.86, p<.05).
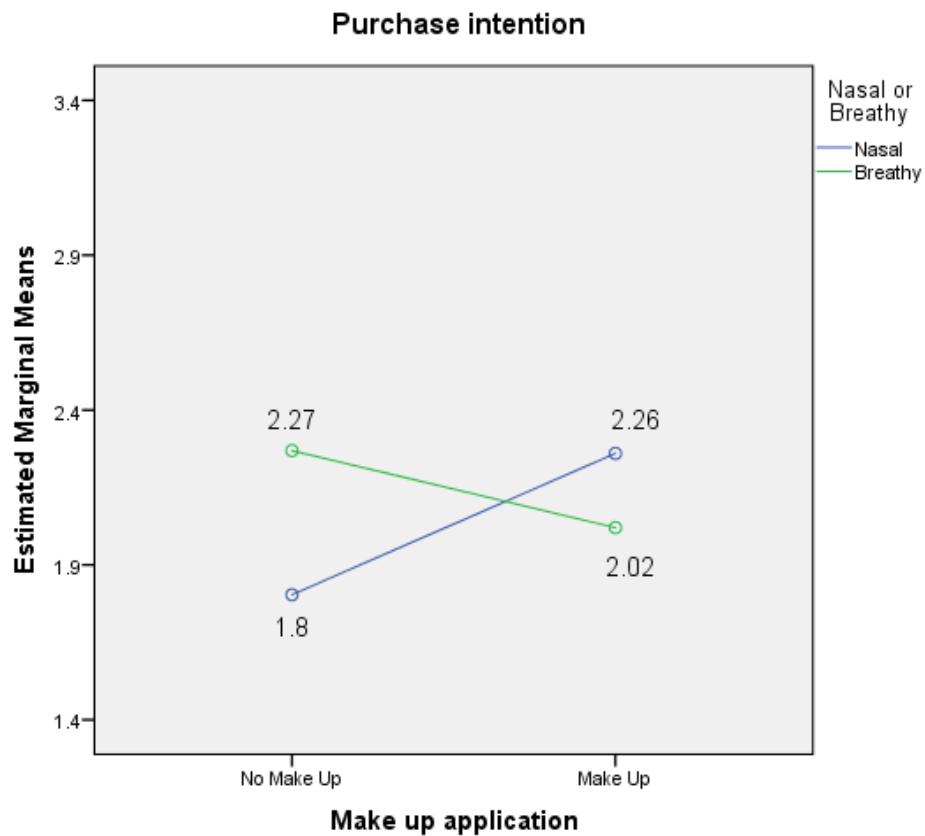
Figure 11: Level of make-up, voice quality on purchase intention (total sample)

Further analyses revealed that the source of this interaction can be traced to the HK respondents (see Figure 12). The quality of the voice is only important when there was no makeup. Under such circumstance, breathy voice ($M_{HKbreathy}$ = 2.77) is significantly more persuasive than nasal voice ($M_{HKnasal}$ = 2.08) (t(48) = 1.99, p<.05).

For the Australian sample on the other hand, the combination of makeup and voice quality made no difference to persuasion (p>.05) (see Figure 13).
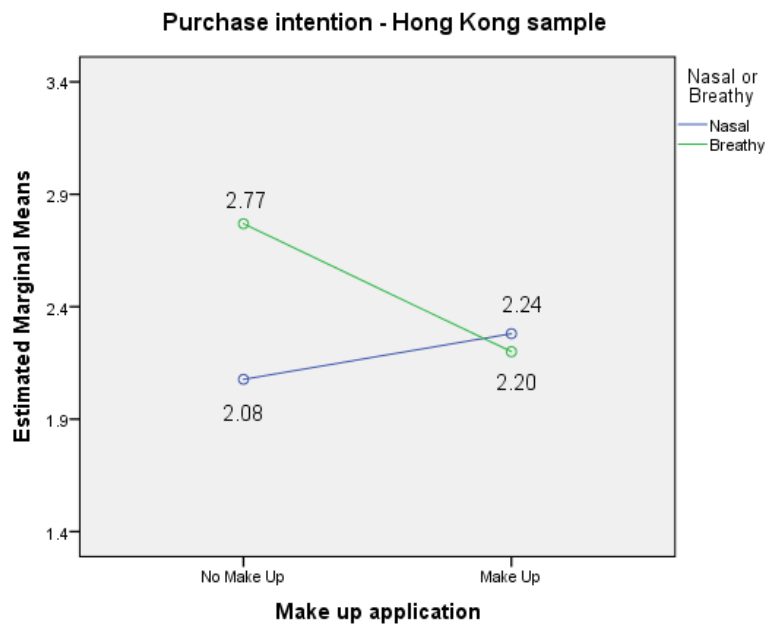
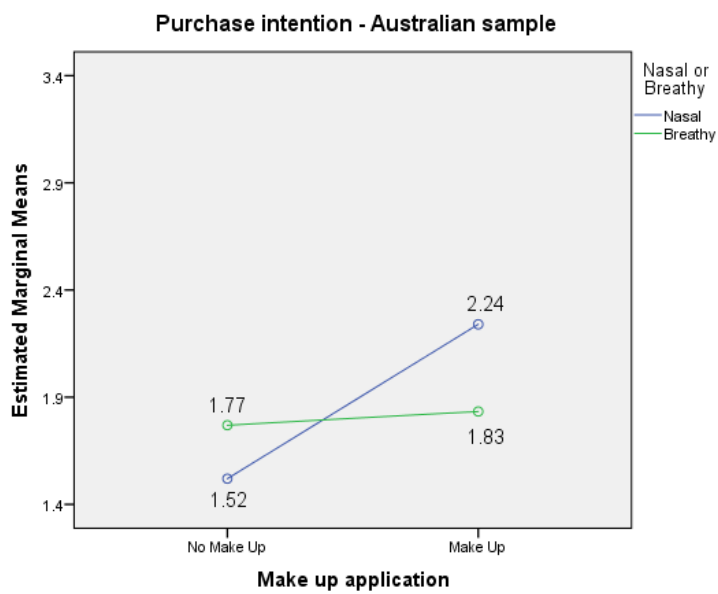Figure 12: Level of makeup, voice quality on purchase intention – Hong Kong sample

Figure 13: Level of makeup, voice quality on purchase intention – Australian

4.8 Chapter conclusion

This chapter has tested the six hypotheses proposed in the literature review. Before, the formal hypothesis testing, 4 measures of PSI (Q4-Q7) were tested for unidimentionality and Q4 was dropped accordingly. After that, manipulation checks were carried out and the results showed that physical attractiveness and vocal attractiveness are correctly manipulated.

When it comes to the hypothesis testing for H1, H2 and H3, a bivariate correlation was adopted and all the three hypotheses are supported. Correlation analysis was carried out to test for H4 and it is supported.Preliminary analyses were carried out before the testing of H5 and H6 and the result shows that PSI has a direct influence on purchase intentions, as well as an indirect effect via attitude towards the video. Causal modeling using partial least square was used in testing H4, H5 and H6 and it supports all hypotheses.

Chapter 5: Discussion, limitations and conclusion

5.1 Discussion

The aim of this study is to identify the linkage between attractiveness, attitude towards product review videos, brand attitude, and purchase intention. This chapter provides interpretation and insights to answer the following research questions in this study:

RQ: What are the effects that physical attractiveness, vocal attractiveness, and social attractiveness have in promoting parasocial interaction and purchase intention?

In order to enhance the comprehensiveness of the study, the following sub questions are examined:

i)   To what extent does physical attractiveness, vocal attractiveness and social attractiveness affect parasocial interaction?

ii) To what extent does parasocial interaction affect attitude towards product reviews?

iii) To what extent does attitude towards product reviews affect brand attitude and purchase intention?

Hypothesis	Findings
H1: Physical attractiveness of a media figure is positively related to parasocial interaction.	Supported
H2: Social attractiveness of a media figure is positively related to parasocial interaction.	Supported
H3: Vocal attractiveness is positively related to parasocial interaction.	Supported
H4: Parasocial interaction positively affects media users' attitude towards the product review video.	Supported
H5: Positive attitude formed towards the product review videos leads to positive brand attitude.	Supported
H6: Positive brand attitude formed in the product review video leads to purchase intention.	Supported

Table 14: Summary of all findings of the hypotheses

All findings of the hypotheses are summarised in table 14 and detailed discussions are provided as follows:

Physical attractiveness and parasocial interaction

Physical attractiveness showed a positive and significant effect on parasocial interaction which is consistent with what Rumpf (2012) and Lee and Watkins (2016) found. The positive relationship between physical attractiveness and parasocial interaction might due to different reasons. A possible explanation of this result may be due to individuals' preference of communicating with physical attractive media figure (McCroskey & McCain 1974). The result is also consistent with the match-up hypothesis illustrating that physical attractive endorsers are important when engaging in attractiveness-related service (Koernig & Page 2002).

Vocal attractiveness and parasocial interaction

With reference to the previous section on literature review, it proposed that different levels of vocal attractiveness can provide different impression of personality. As a result, individuals may be credited with attributes that are based on stereotype held by observers. This notion received strong empirical support. Participants agreed that breathy voice is regarded as more vocally attractive compared to nasal voice. It might be argued that the association between judgments of vocal attractiveness and personality ratings is correlated in nature (Zuckerman & Driver 1989). More specifically, breathy voice often represents the

establishment of closeness relationship between presenter and viewers which explains why breathy voice helps promote parasocial interaction (PäiviLukkarila, Laukkanen & Palo 2012).

Both the Australian and Hong Kong sample showed a moderate and positive relationship between vocal attractiveness and parasocial interaction, this phenomenon can be explained by the fact that customers who are attracted by the presenter's voice are more likely to interact with the presenter as they would like to hear their voice again, thus facilitating the promotion of parasocial interaction (Murray & Price 2011).

Social attractiveness and parasocial interaction
Prior literature shows that when individuals found similarities between the media figure and themselves, it is more likely the media users will form parasocial interactions with the media figure. With reference to what Horton and Wohl (1956) hypothesized, parasocial interaction is similar to the establishment of social relationship with others. The results of this study also confirm the importance of social attractiveness on parasocial interaction. It is observed that socially attractive endorsers create the context for interaction which ultimately facilitates parasocial interaction (Rubin & Mchugh 1987). Apart from that, the finding can also be explained by an uncertainty reduction theory suggesting social attractive endorsers can reduce uncertainty level formed by viewers (Kellermann

& Reynolds 1990). When similarities were formed between media figure and media users, it facilitate communication (McCroskey, Richmond & Daly 1975), as positive affirmation will be formed between the media users and the media figure (Rumpf 2012), which eventually facilitates the development of a long-term relationship between the media figure and the media users (Berry 1995). From this, it can be seen that parasocial relationship is influenced by perceptions of interactivity.

*The relationship of PSI and attitude to*wards product revie*w video,*

The results in the previous chapter showed that parasocial interaction affects media users' attitude towards the product review video. Formation of parasocial relationship is influenced by perceptions of interactivity. By providing an opportunity for media users to share their thoughts and opinion on the product review videos, the relationship between perceived interactivity is established and mediated by parasocial interaction. Therefore, a positive relationship between parasocial interaction and attitude towards product review video can form.

Effects of attitude towards product review video on brand attitude

It is found that attitude towards product review video had a significant effect on brand attitude, which is consistent with previous finding (Kim & Kim 2004). As expected, this association was strong in perfume product review videos context, indicating that consumers' evaluation of product review videos will affect their

summary judgements of a perfume brand. Therefore, in order to improve consumers' attitude in regard to a perfume brand, companies should try to establish a positive consumer attitude toward product review videos which will eventually affect customers' evaluation on the brand and its products.

Moreover, the result reaffirms what Keller (2003) suggests. An attitude formed towards a product review video can help customers identify the retailers' credibility which helps establish brand attitude.

Effects of brand attitude on purchase intention

The current results indicate that brand attitude was related to purchase intention, which supports the results of previous researchers (Lafferty & Goldsmith 1996; Oh et al. 2009; Spears & Singh 2004). In other words, a positive consumer attitude towards the brand of perfumes should be established beforehand in order to promote consumers' purchase intention toward a perfume that introduces in a product review video. Perfumes are getting more popular as a way to promote attractiveness. However, it is common for perfumes users to suffer from health risks namely skin allergies as a result of excessive application. As such, I suggest that marketers can provide some tips of using perfumes for vloggers to present in product review videos in order to maximise the benefits of using perfumes.

5.2 Limitations

This study has the following limitations: First, there is only one item on each

measurement of attractiveness, and on attitude towards the product review video. Therefore, it remains unclear on what particular features that participants look at when they evaluate the media figure.

Secondly, the findings of this study provide new insights to current literature but the generalizability of the result is limited. It is an exploratory study on the cultural differences examining different perception of attractiveness and its effects on parasocial interaction. This study chose respondents from Hong Kong and Australia with an aim to examine the cultural differences between Asian and Western consumers. Although Hong Kong is a metropolitan city in Asia, Hong Kong was once colonised by the UK for a long period of time, so their perceptions on attractiveness may also be influenced by Western culture to some extent. Therefore, the results that are obtained in this study might not be well generalised to other Asian countries.

5.3 Conclusion

The purpose of this study was to examine the effect of attractiveness (physical, vocal, social) in parasocial interaction, attitude towards product review videos, brand attitude, and purchase intention in the case of Hong Kong and Australia. The results and discussion sections have outlined the findings in this study and answered the research questions.

In order to do so, this study has introduced the model of attractiveness, which extends previous research on attractiveness and parasocial interaction by inserting a new component, namely voice quality, to examine the effects of attractiveness on parasocial interaction, attitudes towards product review videos, brand attitude, and purchase intention. Accordingly, six hypotheses are proposed as follows:

H1: Physical attractiveness of a media figure is positively related to parasocial interaction.

H2: Social attractiveness of a media figure is positively related to parasocial interaction.

H3: Vocal attractiveness is positively related to parasocial interaction.

H4: Parasocial interaction positively affects media users' attitude towards the product review video.

H5: Positive attitude formed towards the product review videos leads to positive brand attitude.

H6: Positive brand attitude formed in the product review video leads to purchase intention.

All hypotheses are supported as shown in the analysis of the result. From this, it can be seen that different forms of attractiveness can impose a positive effect on parasocial interaction, media users' attitude towards the product review video, purchase intention and brand attitude.

5.4 Implications for academic theory

In this study, a new model of attractiveness is introduced to extent the model suggested by Lee and Watkins (2016) from different perspectives.

Firstly, physical attractiveness is manipulated on no make-up and make-up conditions to examine the relationship between physical attractiveness and parasocial interaction. With reference to prior literature looking at the relationship between physical attractiveness and parasocial interaction, the factors leading to an improvement on physical attractiveness is unclear (Praxmarer & Rossiter 2009; Rumpf 2012; Lee & Watkins 2016). This research fills this gap by showing that make-up can treat as one of the ways to improve physical attractiveness which can eventually promote parasocial interaction.

Secondly, this study introduced the new component of 'vocal attractiveness' in the attractiveness model by incorporating nasal and breathy voice for analysis. This study extends previous study on the perception on the attractiveness of breathy voice (Xu et al. 2013; Lukkarila, Laukkanen & Palo 2012) and nasal voice (Zuckerman & Miyake 1993; Xu et al. 2013 ; Lukkarila, Laukkanen & Palo 2012), and the relationship between vocal attractiveness and parasocial interaction (Scherer 1972; Savage & Spence 2014).

Prior literature showed that personality traits of an individual can be inferred from the voice which will ultimately affect parasocial interaction (Scherer 1972; Savage & Spence 2014). This study extends this notion by examining how the perceptions on the liking of breathy voice and nasal voice differ between individuals from Hong Kong and Australian impact parasocial interaction.

This study also extents prior study on social attractiveness and parasocial interaction (Frederick et al. 2012; Rumpf 2012; Lee & Watkins 2016), in examining the perception difference on social attractiveness between the east and the west when a product review video is presented by a western endorser.

Parasocial interaction proved to be an importance variable in this study as it helps change attitudes formed towards product review videos. It seems likely that parasocial interaction may play an important role in the psychological process

through which interactivity affects attitudes (Thorson & Rodgers 2006). In this study, it is believed that providing an opportunity to interact with the vlogger encouraged a sense of closeness between viewers and presenter, which can encourage positive evaluations of product review videos.

Overall, the results that were found in this research support previous research on attractiveness and parasocial interaction. This study extended current study on attractiveness and parasocial interaction by creating a new model of attractiveness. The newly created model reveals the role of attractiveness and parasocial interaction in affecting consumers' attitude towards product review video, and how the attitude formed in the product review video affects brand attitude and purchase intention.

5.5 Implications for practice

This research has managerial implications for marketers on the required characteristics of models for product review videos as it can promote parasocial interaction which affects the attitudes formed towards products. This can ultimately affect brand attitude and purchase intention.

The current study provides an opportunity for marketer in Hong Kong and Australia to understand how level of make-up application and voice quality can promote parasocial interaction between media users and media figure. Although

product review videos are becoming more popular in providing product information to consumers, little literature has focused on the relationship between attractiveness and parasocial interaction, in response to the global trend of product review videos provided to consumers as a third-party source (Google 2016), this study provides evidence that vocal attractiveness plays a significant role in promoting parasocial interaction and purchase intention. This research has managerial implications for marketers on the required characteristics of models for product review videos as it can promote parasocial interaction which affects the attitudes formed towards products. This can ultimately affect brand attitude and purchase intention.

With reference to the conflicting findings in perceived attractiveness on voice quality, this study provides insight of the perceived attractiveness on breathy voice and nasal voice (Zuckerman & Miyake 1993; Xu et al. 2013; Babel, McGuire & King 2014; Lukkarila, Laukkanen & Palo 2012). Although it is found that consumers in Hong Kong equally like breathy voice and nasal voice, to maximise the effectiveness of product review video in promoting purchase intention in Hong Kong consumers, marketers are best using individuals with no make-up and speak in a breathy voice to promote the products. Although the combination of make-up and voice quality makes no difference on purchase intention in Australian consumers, they prefer breathy voice to nasal voice, which indicates that marketers that targeted to the Australian consumers can choose individuals

who speak in breathy voice to promote the product. This research has managerial implications for marketers on the required characteristics of models for product review videos as it can promote parasocial interaction which affects the attitudes formed towards products. This can ultimately affect brand attitude and purchase intention.

The findings of this study by selecting a Caucasian model are also applicable in the Chinese market even though this study focuses specifically on individuals from Hong Kong and Australia. It is because Chinese females favor Caucasian models over Asian models (Jankowiak, Gray & Hattman 2008). Therefore, the positive effects between physical attractiveness and parasocial interaction that were found from the Hong Kong consumers in this study might also apply to the Chinese consumers.

Apart from physical and vocal attractiveness, social attractiveness is also regarded as one of the important factors in affecting parasocial interaction. A presenter who is viewed as similar to the viewer is more likely to lead to PSI. Therefore, brand managers who would like to incorporate vloggers into their branding strategy should consider the values and beliefs of the target audience when selecting a vlogger to be a brand ambassador.

Finding from this study suggest that product review videos, which provide an opportunity for interaction with the presenter, can encourage an increased sense of closeness with the vlogger. The findings of this study are also applicable outside the domain of product review videos. Both advertisers and companies engaging in the e-commerce industry have been interested in the persuasive effects of interactivity. Many Internet advertises have recently begun to explore ways to encourage relationship building with their consumers through different social media platform. The results of this research provide foundations for encouraging this effort. Increased interactivity in the user-user domain may encourage consumers to build new kinds of relationship with the presenters. With reference to the result, it seems likely that providing customers with the ability to share opinions and information through a product review video can affect company image in the form of spreading opinions about the company and impacting the relationship between the brand and the individual who perceives the website as interactive in a positive way.

5.6 Further research

In this research, it is shown that make-up can significantly increase one's attractiveness. As this research did not any provide explanations on the reasons for the perception of physical attractiveness, future studies can examine how facial characteristics, namely eye size, can have impact on physical attractiveness. For instance, women with big eyes are considered as more attractive (Gonçalves,

et al. 2015). Therefore, it would be of interest to examine the effects of big eyes in relation to physical attractiveness and parasocial interaction.

Although this research provides insight to marketers in Australia and Hong Kong, the scope of my study is of one time exposure, it is limited to voice quality and specifically to breathy voice and nasal voice and in the context of product review videos. Therefore, future studies can look at how other types of voice quality or pitch of voice in affecting parasocial interaction.

Apart from that, future studies can also take a longitudinal approach and look at how the different perceptions on attractiveness and parasocial interaction change from first exposure to repeat exposure from time to time. As Chinese consumers favour Caucasian models over the Asian ones (Jankowiak, Gray & Hattman 2008), future studies could extend current study in examining how the use of Caucasian models affects Chinese consumers' perception on the different types of attractiveness, how the perceptions on the different types of attractiveness affects parasocial interaction, brand attitude, and purchase intention.

Moreover, future research can extend on this by incorporating more types of voice when examining the effect of vocal attractiveness on parasocial interaction, media users' attitude towards the product review video, purchase intention and brand attitude. In this case, it can provide a better view on what kind of voice is

treated as most efficient in promoting parasocial interaction.

Furthermore, future study can be undertaken to test different vlogger's ethnicity on consumers' responses from different cultural background. Since this study only looks at how viewers from Australia and Hong Kong respond to Australian vlogger, future research can look at if viewers from other cultural background react in the same way as those from Australia and Hong Kong.

References

Ahluwalia, R & Gurhan-Canli, Z 2000, 'The effects of extensions on the family brand name: An

accessibility-diagnosticity perspective', *Journal of Consumer Research*, vol. 27, no. 3, pp.

371–381.

Ajzen, I 2002, 'Perceived behavioral control, self-efficacy, locus of control, and the theory of

planned behavior', *Journal of Applied Social Psychology*, vol. 32, no. 4, pp. 665–683.

Akerlof, GA 1970, 'The market for "lemons" quality uncertainty and the market mechanism', *The

Quarterly Journal of Economics*, vol. 84, no. 3, pp. 488–500.

Akou, HM 2007, 'Building a new "World Fashion": Islamic dress in the Twenty-first century',

Fashion Theory, vol. 11, no. 4, pp. 403–421.

Allport, GW 1954, *The nature of prejudice*, Cambridge, Mass.: Addison-Wesley Pub. Co.

Anderson, RC, Klofstad, CA, Mayew, WM & Venkatachalam, M 2014, 'Voacal fry may undermine

the success of young women in the labor market', *PLoS One*, vol. 9, no. 5, pp. e97506.

Ang, L & Eisend, M (2017), 'Single versus multiple measurement of attitudes. A meta-analysis of

advertising studies validates the single-item measure approach', *Journal of Advertising Research*,

vol. 57, no. 3, pp. 1-10.

Arda, S 2006, 'Predictors of parasocial interaction with the favourite and the least desirable

characters portrayed in TV serials', *Middle East Technical University, Turkey.*

Aronovitch, C 1976, 'The voice of personality: Stereotyped judgments and their relation to voice

quality and sex of speaker', *Journal of Social Psychology*, vol. 99, pp. 207–220.

Asian Consumer Intelligence 2015, 'Fragrance trends in Asian personal care', *Asian Consumer Intelligence, Singapore*.

Auter, PJ 1992, 'Psychometric: TV that talks back: An experimental validation of a parasocial interaction scal', *Journal of Broadcasting & Electronic Media*, vol. 36, no. 2, pp. 173–181.

Auter, P & Palmgreen, P 2000, 'Development and validation of a parasocial interaction measure: the audience-persona interaction scale', *Communication Research Reports*, vol. 17, no. 1, pp. 79–89.

Babel, M, McGuire, G & King, J 2014, 'Towards a more nuanced view of vocal attractiveness', *PloS One*, vol. 9, no. 2, pp. e88616.

Bandura, A 2001, 'Social cognitive theory of mass communication', *Media Psychology*, vol. 3, no. 3, pp. 265–299.

Berger, CR & Calabrese, RJ 1975, 'Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication', *Human Communication Research*, vol. 1, no. 2, pp. 99–112.

Berry, LL 1995, 'Relationship marketing of services—growing interest, emerging perspectives', *Journal of the Academy of Marketing Science*, vol. 23, no. 4, pp. 236–245.

Bergkvist, L & Rossiter, JR (2007), 'The predictive validity of multiple-item versus single-item measures of the same constructs,' *Journal of Marketing Research*, vol.44, no. 2, pp.175–184.

Bickart, B & Schindler, RM 2001, 'Internet forums as influential sources of consumer information', *Journal of Interactive Marketing*, vol. 15, no. 3, pp. 31–40, accessed from <http://dx.doi.org/10.1002/dir.1014>.

Bogardus, E 1925, 'Measuring social distance', *Journal of Applied Sociology*, vol. 9, no. 2, pp. 299–308.

Bone, PF 1995, 'Word-of-mouth effects on short-term and long-term product judgments', *Journal of Business Research*, vol. 32, no. 3, pp. 213–223.

Burt, S & Davies, K 2010, 'From the retail brand to the retail-er as a brand: themes and issues in retail branding research', *International Journal of Retail & Distribution Management*, vol. 38, no. 11/12, pp. 865–878.

Burnstein, E, Stotland, E & Zander, A 1961, 'Similarity to a model and self-evaluation', *Journal of Abnormal and Social Psychology,* vol. 62, no. 2, pp.257.

Buss, DM & Schmitt, DP 1993, 'Sexual strategies theory : An evolutionary perspective on human mating', *Psychological Review*, vol. 100, no. 2, pp. 204–232.

Brooks, R 1957, '"Word-of-Mouth" advertising in selling new products', *The Journal of Marketing*, pp. 154–161.

Byrne, D 1961, 'Interpersonal attraction and attitude similarity', *Journal of Abnormal and Social Psychology,* vol*.* 62, no. 3, pp. 713-715.

Cano, CR & Ortinau, DJ 2012, 'Digging for "Spanish Gold": How to connect with Hispanic consumers', *Journal of Advertising Research*, vol. 52, no. 3, pp. 322–332.

Caughey, JL 1984, 'Imaginary social worlds: A cultural approach', Lincoln: University of Nebraska Press.

Chatterjee, P 2001, 'Online reviews: do consumers use them?', in MGilly & JMyers-Levy (eds), *Advances in Consumer Research*, Association for Consumer Research, Provo, UT, pp. 129–133.

Chen, Y & Xie, J 2005, 'Third-party product review and firm marketing strategy', *Marketing Science*, vol. 24, no. 2, pp. 218–240.

Chiou, J & Cheng, C 2003, 'Should a company have message boards on its web sites?', *Journal of Interactive Marketing*, vol. 17, no. 3, pp. 50–61, accessed from <http://dx.doi.org/10.1002/dir.10059>.

Chu, W, Choi, B & Song, MR 2005, 'Language and organization', *Journal of Electronic Commerce*, vol. 9, no. 3, pp. 115–127.

Cortese, J & Rubin, AM 2010, 'Uses and gratifications of television home shopping', *Atlantic Journal of Communication*, vol. 18, no. 2, pp. 89–109.

Craig, CS, Greene, WH & Versaci, A 2015, 'E-word of mouth: Early predictor of audience engagement: How pre-release "E-Wom" drives box-office outcomes of movies', *Journal of Advertising Research*, vol. 55, no. 1, pp. 1–27.

Craig, CS & Mccann, JM 1978, 'Assessing communication effects on energy conservation', *Journal of Consumer Research*, vol. 5, no. 2, pp. 82–88.

DeShields, O, Kara, A & Kaynak, E 1996, 'Source effects in purchase decisions: The impact of physical attractiveness and accent of salesperson', *International Journal of Research in Marketing*, vol. 13, no. 1, pp. 89–101.

Ding, Y, Qiu, L & Li, D 2012, 'Celebrity-following and social capital : A study of user behavior in microblogging', in *PACIS*, p. 157.

Elias, T, Appiah, O & Gong, L 2011, 'Effects of strength of ethnic identity and product presenter race on Black consumer attitudes', *Journal of Interactive Advertising*, vol. 11, no. 2, pp. 13–29.

FMI 2016, 'Perfumes market: global industry analysis and opportunity assessment, 2016-2026',

    PR Newswire.

Francis, JNP 1991, 'When in Rome? The effects of cultural adaptation on intercultural business

    negotiations', *Journal of International Business Studies,* pp. 403-428.

Frederick, EL, Lim, CH, Clavio, G & Walsh, P 2012, 'Why we follow: An examination of parasocial

    interaction and fan motivations for following athlete archetypes on Twitter', *Journal of*

    Sport Communication, vol. 5, pp. 481–502.

De Gelder, B 2006, 'Towards the neurobiology of emotional body language', *Nature Reviews*

    Neuroscience, vol. 7, no. 3, pp. 242–249.

Giles, DC 2002, 'Parasocial interaction : A review of the literature and a model for future research',

    Media Psychology, vol. 4, no. 3, pp. 279–305.

Goldberg, ME & Hartwick, J 1990, 'The effects of advertiser reputation and extremity of

    advertising claim on advertising effectiveness', *Journal of Consumer Research*, vol. 17, pp.

    172–179.

Goldman, W & Lewis, P 1977, 'Beautiful is good: Evidence that the physically attractive are more

    socially skillful', *Journal of Experimental Social Psychology,* vol. 13, pp.125-130.

Goldsmith, RE, Lafferty, BA & Newell, SJ 2000, 'The impact of corporate credibility and celebrity

    credibility on consumer reaction to advertisements and brands', *Journal of Advertising*, vol.

    29, no. 3, pp. 43–54.

Gonçalves, G, Gomes, A, Ferrão, MC, Parreira, T, Dos Santos, JV, Giger, JC & Martins, AT 2015, 'Once

    upon a face: the effect of eye size, observer and stimulus gender on impression

    formation', *Current Psychology*, vol. 34, no. 1, pp. 112-120.

Google 2016, 'The rise of comparison shopping on mobile: Which-one's-best moments'.

Gordon, M & Ladefoged, P 2001, 'Phonation types: a cross-linguistic overview', *Journal of Phonetics*, vol. 29, pp. 383–406.

Greenwood, DN, Pietromonaco, PR & Long, CR 2008, 'Young women's attachment style and interpersonal engagement with female TV stars', *Journal of Social and Personal Relationships*, vol. 25, no. 3, pp. 387–407.

Grillo, E, Abbott, K & Lee, T 2010, 'Effects of masking noise on laryngeal resistance for breathy, normal, and pressed voice.', *Journal of Speech, Language, and Hearing Research*, vol. 53, no. 4, pp. 850–861.

Guan, SSA, Subrahmanyam, K, Linares, K & Cheng, R 2015, 'Beauty in the eye of the beholder? Attractiveness in a virtual world', *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, vol. 9, no. 2.

Hagendoorn, L 1995, 'Intergroup biases in multiple group systems: The perception of ethnic hierarchies', *European review of social psychology*, vol. 6, no. 1, pp. 199–228.

Hayes, RA & Carr, CT 2015, 'Does being social matter? Effects of enabled commenting on credibility and brand attitude in social media', *Journal of Promotion Management*, vol. 21, pp. 371–390.

Hayward, S 2008, 'Beyond desire? Star bodies and sensation', *Communication, Culture & Critique*, vol. 1, no. 3, pp. 253–267.

Hennig-Thurau, T, Malthouse, EC, Friege, C, Gensler, S, Lobschat, L, Rangaswamy, A & Skiera, B 2010, 'The impact of new media on customer relationships', *Journal of Service Research*, vol. 13, no. 3, pp. 311–330.

Hennig-Thurau, T, Gwinner, KP, Walsh, G & Gremler, DD 2004, 'Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet?', *Journal of Interactive Marketing*, vol. 18, no. 1, pp. 38–52, accessed from <http://dx.doi.org/10.1002/dir.10073>.

Hoffner, C 1996, 'Children's wishful identification and parasocial interaction with favorite television characters', *Journal of Broadcasting & Electronic Media*, vol. 40, no. 3, pp. 389–402.

Hoerner, J 1999, 'Scaling the web: a parasocial interaction scale for world wide web sites', *Advertising and the world wide web*, vol. 99, pp. 135–147.

Horton, D & Wohl, RR 1956, 'Mass communication and para-social interaction', *Psychiatry*, vol. 19, no. 3, pp. 215–229.

Hu, N, Liu, L & Zhang, JJ 2008, 'Do online reviews affect product sales? The role of reviewer characteristics and temporal effects', *Inf Technol Manage*, vol. 9, pp. 201–214.

Jankowiak, W, Gray, PB & Hattman, K 2008, 'Globalizing evolution: Female choice, nationality, and perception of sexual beauty in China', *Cross-Cultural Research*, vol. 42, no. 3, pp. 248–269.

Jeong, H, Cho, S, Lee, M & Sputra, E 2014, 'Race of athlete-spokesperson and implicit and explicit responses to advertising', *Social Behavior and Personality*, vol. 42, no. 4, pp. 655–672.

Jerabek, I & DeMan, A 1994, 'Social distance among Caucasin-Canadians and Asian, Latin-American and Eastern European immigratns in Quebec: A two-part study', *Social Behavior and Personality*, vol. 22, no. 3, pp. 297–303.

Kahle, L & Homer, P 1985, 'Physical attractiveness of the celebrity endorser: A social adaptation

perspective', *Journal of Consumer Research*, vol. 11, no. 4, pp. 954–961.

Kassing, JW & Sanderson, J 2009, '"You're the kind of guy that we all want for a drinking buddy":

Expressions of parasocial interaction on floydlandis.com', *Western Journal of*

Communication, vol. 73, no. 2, pp. 182–203.

Keller, K 2003, *Strategic brand management: Building, measuring and managing brand equity*,

Pearson, Upper Saddle River, NJ.

Kellermann, K & Reynolds, R 1990, 'When ignorance is bliss: The role of motivation to reduce

uncertainty in uncertainty reduction theory', *Human Communication Research*, vol. 17, pp.

5–75.

Kim, EY & Kim, YK 2004, 'Predicting online purchase intentions for clothing products', *European*

Journal of Marketing, vol. 38, no. 7, pp. 883–897.

Kim, S, Haley, E & Koo, G 2009, 'Comparison of the paths from consumer involvement types to ad

responses between corporate advertising and product advertising', *Journal of Advertising*,

vol. 38, no. 3, pp. 67–80.

Ko, H, Cho, C & Roberts, MS 2005, 'Internet uses and gratifications : A structural equation model

of interactive advertising', *Journal of Advertising*, vol. 34, no. 2, pp. 57–70.

Koernig, SK & Page, AL 2002, 'What if your dentist looked like Tom Cruise ? Applying the

match-up hypothesis to a service encounter', *Psychology & Marketing*, vol. 19, no. 1, pp.

91–110.

Kramer, E 1964, 'Personality stereotypes in voice: A reconsideration of the data', *The Journal of*

Social Psychology, vol. 62, pp. 247–251.

Kramer, E (ed.) 2003, *The emerging monoculture: Assimilation and the 'model Minority'*,

Greenwood Publishing Group.

Labrecque, LI 2014, 'Fostering consumer - Brand relationships in social media environments:

The role of parasocial interaction', *Journal of Interactive Marketing*, vol. 28, pp. 134–148,

accessed from <http://dx.doi.org/10.1016/j.intmar.2013.12.003>.

Lafferty, BA & Goldsmith, RE 1999, 'Corporate credibility's role in consumers' attitudes and

purchase intentions when a high versus a low credibility endorser is used in the ad', *Journal*

of Business Research , vol. 44, no. 2, pp. 109-116.

Lafrance, M, Hecht, MA & Paluck, EL 2003, 'The contingent smile : A meta-analysis of sex

differences in smiling', *Psychological Bulletin*, vol. 129, no. 2, pp. 305–334.

Laver, J & Trudgill, P 1979, 'Phonetic and linguistic markers in speech', in *Social Markers in*

Speech, Cambridge University Press, Cambridge, pp. 1–32.

Lazarsfeld, P & Merton, R 1954, 'Friendship as a social process: A substantive and methodological

analysis', *Freedom and Control in Modern Society*, vol. 18, no. 1, pp. 18–66.

Lee, JE & Watkins, B 2016, 'YouTube vloggers' influence on consumer luxury brand perceptions

and intentions', *Journal of Business Research*, vol. 69, no. 12, pp. 5753–5760, accessed from

<http://dx.doi.org/10.1016/j.jbusres.2016.04.171>.

Leonard, BL 2014, 'Stereotype transfer in advertising: Process and moderators', (Doctoral

dissertation, University of Colorado at Boulder).

Levy, MR 1979, 'Watching TV news as parasocial interaction', *Journal of Broadcasting,* vol. 23,

pp.69-80.

Li, G 2012, 'Statistical testing techniques', in LDwyer, AGill, & NSeetaram (eds), *Handbook of*

Research Methods in Tourism: Quantitative and Qualitative Approaches, Edward Elgar

Publishing Limited, Chelteham, pp. 13–30.

Lin, CA & Xu, X 2017, 'Effectiveness of online consumer reviews: The influence of valence, reviewer ethnicity, social distance and source trustworthiness', *Internet Research*, vol. 27, no. 2, pp. 362–380.

Liu, X, Hu, M & Grimm, P 2010, 'Affect transfer in brand extensions: the role of expectancy and relevancy', *Journal of Product & Brand Management*, vol. 19, no. 5, pp. 317–326.

Liviatan, I, Trope, Y & Liberman, N 2008, 'Interpersonal similarity as a social distance dimension: Implications for percepton of others' actions', *Journal of Experimental Social Psychology*, vol. 44, pp. 1256–1269.

Lukkarila, P, Laukkanen, A & Palo, P 2012, 'Influence of the intentional voice quality on the impression of female speaker', *Logopedics Phoniatrics Vocology*, vol. 37, no. 4, pp. 158–166.

Macdonald, EK & Sharp, BM 2000, 'Brand awareness effects on consumer decision making for a common, repeat purchase product: A replication', *Journal of business research*, vol. 48, no. 1, pp. 5–15.

Mackenzie, SB, Lutz, RJ & Belch, GE 1986, 'The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations', *Journal of marketing research*, pp. 130–143.

Malhotra, N 2007, *Marketing Research An Applied Orientation*, Prentice-Hall Of India Pvt. Limited, Delhi.

Martin, BAS, Pro-, UOOIAA, Kwai-Choi Lee, C & Se-, UOAIA 2004, 'The influence of ad model ethnicity and self-referencing on attitudes: Evidence from New Zealand', *Journal of Advertising*, vol. 33, no. 4, pp. 27–37.

McCoy, S & Marks, P 2001, 'Using electronic surveys to collect data: Experiences from the field', in AMCIS 2001 Proceedings, Boston.

McCroskey, JC, Richmond, VP & Daly, JA 1975, 'The development of a measure of perceived homophily in interpersonal communication', *Human Communication Research*, vol. 1, no. 4, pp. 323–332.

McCroskey, JC & McCain, TA 1974, 'The measurement of interpersonal attraction', *Speech Monographs*, vol. 41, no. 3, pp. 261–266.

McGuire, W 1985, 'Attitudes and attitude change', in GLindzey &EAronson (eds), *Handbook of Social Psychology*, Random House, New York, pp. 233–346.

McKnight, DH, Choudhury, V & Kacmar, C 2002, 'The impact of initial consumer trust on intentions to transact with a web site: a trust building model', *The Journal of Strategic Information*, vol. 11, no. 3, pp. 297–323.

Molane, AE 1988, 'Causal modeling for institutional researchers', *New Directions for Institutional Research*, vol. 1988, no. 58, pp. 61–76.

De Mooij, M & Hofstede, G 2011, 'Cross-cultural consumer behavior : A review of research findings', *Journal of Interanation Concsumer Marketing*, vol. 23, no. 3–4, pp. 181–192.

Moon, S & Kamakura, W 2017, 'A picture is worth a thousand words: Translating product reviews into a product positioning map', *International Journal of Research in Marketing*, vol. 34, no. 1, pp. 265–285.

Moore, DL, Hausknecht, D & Thamodaran, K 1986, 'Time compression, response opportunity, and persuasion', *Journal of Consumer Research*, vol. 13, no. 1, pp. 85–99.

Morgan, R 2016, 'Feeling fragrant: Australia's perfume and aftershave buyers', *Roy Morgan,*

Melbourne.

Mortazavi, M, Rahim Esfidani, M & Shaemi Barzoki, A 2014, 'Influencing VSN users' purchase

intentions: The roles of flow, trust and eWOM', *Journal of Research in Interactive Marketing*,

vol. 8, no. 2, pp. 102–123.

Murray, D & Price, B 2011, 'The globalisation of beauty – Aspiration or threat ? A comparison of

the effect of Western beauty types on Asian and Western females attitudes and purchase

intentions', *International Journal of Business Research*, vol. 11, no. 2, pp. 146–155.

Nayeem, T 2012, 'Cultural influences on consumer behaviour', *International Journal of Business*

and Management, vol. 7, no. 21, pp. 78–91.

Nedungadi, P 1990, 'Recall and consumer consideration sets: Influencing choice without altering

brand evaluations', *Journal of Consumer Research*, vol. 17, no. 3, pp. 263–276.

Oh, SH, Kim, YM, Park, MS, Lee, CW, Shim, GY & Jung, HS 2009, 'Consumer adoption of virtual

stores in Korea : Focusing on the role of trust and playfulness', *Psychological Review*, vol. 26,

no. 7, pp. 652–668.

Ohanian, R 1990, 'Construction and validation of a scale to measure celebrity endorsers'

perceived expertise, trustworthiness, and attractiveness', *Journal of Advertising*, vol. 19, no.

3, pp. 39–52.

Parekh, H & Kenekar, S 1994, 'The physical attractiveness stereotype in a consumer-related

situation', *The Journal of Social Psychology*, vol. 134, no. 3, pp. 297–300.

Parrillo, V & Donoghue, C 2013, 'The national social distance study: Ten years later', *Sociological*

Forum, vol. 28, no. 3, pp. 597–614.

Pettijohn, TF & Tesser, A 2005, 'Threat and social choice: When eye sizematters', *The Journal of*

Social Psychology, vol. 145, no. 5, pp. 547–570.

Platow, MJ, Mills, D & Morrison, D 2000, 'The effects of social context, source fairness, and

perceived self-source similarity on social influence: a self-categorisation analysis', *European

Journal of Social Psychology*, vol. 30, pp. 69–81.

Praxmarer, S 2011, 'How a presenter's perceived attractiveness affects persuasion for

attractiveness-unrelated products', *International Journal of Advertising*, vol. 30, no. 5, pp.

839–865.

Praxmarer, S & Rossiter, J 2009, 'Physically attractive presenters and persuasion: an

experimental investigation of alternative explanations for the "Patzer effect', in *8th

International Conference on Research in Advertising (ICORIA)*, European Advertising

Academy, The Netherlands, pp. 1–7.

Purdy, JM & Nye, P 2000, 'The impact of communication media on negotiation outcomes',

International Journal of Conflict Management, vol. 11, no. 2, pp. 162–187.

Quintero Johnson, JM & Patnoe-Woodley, PD 2016, 'Exploring the influence of parasocial

relationships and experiences on radio listeners' consumer behavior', *Communication

Research Reports,* vol. 33, no. 1, pp.40-66.

Randall, NH & Delbridge, S 2005, 'Perceptions of social distance in an ethnically fluid community',

Sociological Spectrum, vol. 25, no. 1, pp. 103–122.

Reddy, SK, Swaminathan, V & Motley, CM 1998, 'Exploring the determinants of Broadway show

success', *Journal of Marketing Research*, pp. 370–383.

Rogers, Y, Sharp, H & Preece, J 2002, 'Special section: interface design,

2002-interviews-perspectives on Interaction design', *Interactions-New York*, vol. 9, no. 2, pp.

119–122.

Roozen, I & Claeys, C 2010, 'The relative effectiveness of celebrity endorsement for print advertisement', *Review of Business and Economics*, vol. LV, no. 1, pp. 76–90.

Rubin, AM 2002, *The uses-and-gratifications perspectives of media effects*, i Bryant, J. og Zillmann, D.(red.) Media effects. Advances in theory and research.

Rubin, AM, Perse, EM & Powell, RA 1985, 'Loneliness, parasocial interaction, and local television news viewing', *Human Communication Research*, vol. 12, no. 2, pp. 155–180.

Rubin, A & Perse, E 1987, 'Audience activity and soap opera involvement a uses and effects investigation', *Human Communication Research*, vol. 14, no. 2, pp. 246–268.

Rubin, RB & Mchugh, MP 1987, 'Development of parasocial interaction relationships', *Journal of Broadcasting and Electronic Media*, vol. 31, no. 3, pp. 279–292.

Rubin, AM & Step, MM 2000, 'Impact of motivation, attraction, and parasocial interaction on talk radio listening', *Journal of Broadcasting and Electronic Media,* vol. 44, no. 4, pp. 635-654.

Rumpf, R 2012, 'The predictors of parasocial interaction and their effects on perceived persuasiveness', (Doctoral dissertation, San Diego State University).

Sanford, FH 1942, 'Speech and personality', *Psychological Bulletin*, vol. 39, no. 10, pp. 811–845.

Savage, ME & Spence, PR 2014, 'Will you listen? An examination of parasocial interaction ad credibility in radio', *Journal of Radio & Audio Media*, vol. 21, no. 1, pp. 3–19.

Scarpi, D 2010, 'Does size matter ? An examination of small and large web-based brand communities', *Journal of Interactive Marketing*, vol. 24, pp. 14–21, accessed from <http://dx.doi.org/10.1016/j.intmar.2009.10.002>.

Scherer, KR 1972, 'Judging personality from voice: A cross-cultural approach to an old issue in

interpersonal perception', *Journal of Personality*, vol. 40, no. 2, pp. 191–210.

Schiappa, E, Allen, M & Gregg, P 2007, 'Parasocial relationships and television: a meta analysis of the effects', in RPreiss, BGayle, NBurrell, MAllen, & JBryant (eds), *Mass media research: advances through meta-analysis*, Routledge, pp. 309–314.

Schramm, H & Wirth, W 2010, 'Testing a universal tool for measuring parasocial interactions across different situations and media: Findings from three studies', *Journal of Media Psychology: Theories, Methods, and Applications*, vol. 22, no. 1, p. 26.

Schroath, K 2016, 'Parasocial interaction: Celebrity endorsements', (Doctoral dissertation, Kent State University).

Sen, S & Lerman, D 2007, 'Why are you telling me this? An examination into negative consumer reviews on the web', *Journal of Interactive Marketing*, vol. 21, no. 4, pp. 76–94, accessed from <http://dx.doi.org/10.1002/dir.20090>.

Sierra, JJ, Hyman, MR & Heiser, RS 2012, 'Ethnic identity in advertising: A review and meta-analysis', *Journal of Promotion Management*, vol. 18, no. 4, pp. 489–513.

Skowronski, JJ & Carlston, DE 1989, 'Negativity and extremity biases in impression formation : A review of explanations', *Psychological Bulletin*, vol. 105, no. 1, pp. 131–142.

Spangardt, B, Ruth, N & Schramm, H 2016, 'And please visit our Facebook page, too! How radio presenter personalities influence listeners', *Journal of Radio & Audio Media*, vol. 23, no. 1, pp. 68–94.

Spears, N & Singh, S 2004, 'Measuring attitude toward the brand and purchase intentions', *Journal of Current Issues & Research in Advertising*, vol. 26, no. 2, pp. 53–66.

Stephens, D, Hill, R & Bergman, K 1996, 'Enhancing the consumer-product relationship: lessons

from the QVC home shopping channel', *Journal of Business Research*, vol. 37, no. 3, pp. 193–200.

Stern, BB, Russell, CA & Russell, DW 2007, 'Hidden persuasions in soap operas : damaged heroines and negative consumer effects', *Internal Journal of Advertising*, vol. 26, no. 1, pp. 9–36.

Stever, GS & Lawson, K 2013, 'Twitter as a way for celebrities to communicate with fans: Implications for the study of parasocial interaction', *North American Journal of Psychology*, vol. 15, no. 2, p. 339.

Sun, T, Youn, S, Wu, G & Kuntaraporn, M 2006, 'Online word-of-mouth (or mouse): An exploration of its antecedents and consequences', *Journal of Computer-Meediated Communication*, vol. 11, no. 4, pp. 1104–1127.

Swami, V, Rozmus-Wrzesinska, M, Voracek, M, Haubner, T, Danel, D, Pawlowski, B, Stanistreet, D, Chaplin, F, Chaudhri, J, Pinal, S, Shostak, A, Zhang, EX & Furham, A 2008, 'The influence of skin tone, body weight, and hair colour on perceptions of women's attractiveness and health: A cross-cultural investigation', *Journal of Evolutionary Psychology*, vol. 6, no. 4, p. 321-341.

Tajfel, H & Turner, JC 2004, The social identity theory of intergroup behavior.

Thorson, KS & Rodgers, S 2006, 'Relationships between blogs as EWOM and interactivity, perceived interactivity, and parasocial interaction', *Journal of Interactive Advertising*, vol. 6, no. 2, pp. 5–44.

Till, B & Busler, M 2000, 'The match-up hypothesis: Physical attractiveness, expertise, and the role of fit on brand attitude, purchase intent and brand beliefs', *Journal of advertising*, vol.

29, no. 3, pp. 1–13.

Turban, E, King, D, Lee, JK, Liang, TP & Turban, DC 2015, *Electronic commerce: A managerial and social networks perspective*, Springer.

U.S. Commercial Service 2015, 'Cosmetics and Toiletries Market Overviews 2015', *U.S. Commercial Service, Hong Kong*.

Wang, C 2015, 'Do people purchase what they viewed from Youtube? The influence of attitude and perceived credibility of user-generated content on purchase intention', (Doctoral dissertation, The Florida State University).

Wang, L 2015, 'An exploratory thematic analysis on viewers' involvement with haul video personaes - Taking Bethany Mota as a case study', (Doctoral dissertation, Wake Forest University).

Wang, Y & Sun, S 2010, 'Examining the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania', *International Marketing Review*, vol. 27, no. 1, pp. 87–107.

Warhurst, S, McCabe, P & Madill, C 2013, 'What makes a good voice for radio: Perceptions of radio employers and educators', *Journal of Voice,* vol. 27, no.2, pp. 217-224.

Wathen, CN & Burkell, J 2002, 'Believe it or not: Factors influencing credibility on the Web', *Journal of the American Society for Information Science and Technology*, vol. 53, no. 2, pp. 134–144.

Wiener, H & Chartrand, T 2014, 'The effect of voice quality on ad efficacy', *Psychology & Marketing*, vol. 31, no. 7, pp. 509–517.

Wu, C & Shaffer, DR 1987, 'Susceptibility to persuasive appeals as a function of source credibility

and prior experience with the attitude object', *Journal of personality and social psychology*,

vol. 52, no. 4, pp. 677–688.

Xu, Y, Lee, A, Wu, W, Liu, X & Birkholz, P 2013, 'Human vocal attractiveness as signaled by body

size projection', *PLoS One*, vol. 8, no. 4, pp. 1–9.

Yun, GW & Trumbo, CW 2000, 'Comparative response to a survey executed by post, e-mal & web

form', *Journal of Computer-Mediated Communication*, vol. 6, no. 1.

Zuckerman, M & Driver, RE 1989, 'What sounds beautiful is good: The vocal attractiveness

stereotype', *Journal of Nonverbal behavior*, vol. 13, no. 2, pp. 67–82.

Zuckerman, M & Miyake, K 1993, 'The attractive voice: What makes it so?', *Journal of Nonverbal

behavior*, vol. 17, no. 2, pp. 119–135.

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Appendix A

Charmaine is a new perfume by Isabel Carrington recently launched in Australia. It is a gorgeous combination of soft amber with smoky vanilla with a hint of cinnamon spice and musk. Now, it is a perfume that is very sensual, a little sweet.

Now when Charmaine kicks off on your skin, there will be a little citrus lightness. This is a bit deceptive but it goes away quickly. But if you pay attention you will smell lemon, orange peel and a little tartness. And this smooths out pretty quickly, zipping quite quickly over some floral notes like rose and iris.

But Charmaine is not about flowers. Not at all. It does not say, "I am a pretty flower". Instead it gets down quickly to notes of incense and smoky vanilla.

I sprayed this about an hour ago; it has become a gorgeously vanilla-leather like scent on my skin.

Now, some people may find this a little strange, because the vanilla scent is not like that of a cupcake, but more of the European style like burnt sugar or a crème brulee.

But the great thing about Charmaine is that it really blends with your skin and

develops a velvety quality. If velvet had a smell, it would smell like Charmaine!

It is a gorgeous perfume. Let it do all the work for you.

I am Simone LeClair – see you next time.

Appendix B

Questionnaire

Q1. What is your age?

○ Below 18

○ 18 - 23

○ 24 - 29

○ 30 - 35

○ 36 - 40

○ Over 40

Q2. What is your gender?

○ Male

○ Female

Q3. Do you understand spoken English well?

○ Yes

○ No

Q4. Where did you live for the majority of time between the ages of 0 to 20?

○ Australia

○ Hong Kong

○ Others (please specify): _____

Q5. Where do you live?

○ Australia

○ Hong Kong

○ Others (please specify): _____

Please right-click the following link and to select 'display in a new window' to view

the video.   <Each survey contained the link for the specific condition>

Q6. After viewing this video, how likely would you be to buy the perfume?

	Not at all likely	A little likely	Slightly likely	Moderately likely	Fairly likely	Very likely	Extremely likely
Please indicate your answer.	○	○	○	○	○	○	○

Q7. After watching this video, how good or bad do you think the perfume would

be?

	Extremely bad	Moderately bad	Slightly bad	Neither good nor bad	Slightly good	Moderately good	Extremely good
Please indicate your answer.	○	○	○	○	○	○	○

Q8. How much do you like or dislike the product review video you just saw?

	Extremely dislike	Moderately dislike	Slightly dislike	Neither like nor dislike	Slightly like	Moderately like	Extremely like
Please indicate your answer.	○	○	○	○	○	○	○

Q9. After watching this video, how well do you feel that you know this person?

	Not well at all	A bit well	Slightly well	Moderately well	Fairly well	Very well	Extremely well
Please indicate your answer.	❍	❍	❍	❍	❍	❍	❍

Q10. How likely do you think this person is talking to you like a friend?

	Not at all likely	A little likely	Slightly likely	Moderately likely	Fairly likely	Very likely	Extremely likely
Please indicate your answer.	❍	❍	❍	❍	❍	❍	❍

Q11. How likely would you like to form a friendship with this person?

	Not at all likely	A little likely	Slightly likely	Moderately likely	Fairly likely	Very likely	Extremely likely
Please indicate your answer.	○	○	○	○	○	○	○

Q12. How likely do you feel this person is like an old friend of yours?

	Not at all likely	A little likely	Slightly likely	Moderately likely	Fairly likely	Very likely	Extremely likely
Please indicate your answer.	○	○	○	○	○	○	○

Q13. How likely would you be subscribing to this person's product review

channel?

	Not at all likely	A little likely	Slightly likely	Moderately likely	Fairly likely	Very likely	Extremely likely
Please indicate your answer.	○	○	○	○	○	○	○

Q14. How physically attractive do you think the person is?

	Extremely unattractive	Moderately unattractive	Slightly unattractive	Neither attractive nor unattractive	Slightly attractive	Moderately attractive	Extremely attractive
Please indicate your answer.	○	○	○	○	○	○	○

Q15. How much do you like or dislike the voice of the person in the video?

	Extremely dislike	Moderately dislike	Slightly dislike	Neither like nor dislike	Slightly like	Moderately like	Extremely like
Please indicate your answer.	○	○	○	○	○	○	○

Q16. How easy or difficult is it for you to understand this person in the video?

	Extremely difficult	Moderately difficult	Slightly difficult	Neither easy nor difficult	Slightly easy	Moderately easy	Extremely easy
Please indicate your answer.	○	○	○	○	○	○	○

Q17. How similar or dissimilar are you to the person in the video?

	Extremely dissimilar	Moderately dissimilar	Slightly dissimilar	Neither similar nor dissimilar	Slightly similar	Moderately similar	Extremely similar
Please indicate your answer.	○	○	○	○	○	○	○

Q18. How often do you watch product review videos?

○ Not at all

○ Once a week

○ Twice a week

○ Three times a week

○ Four times a week

○ Five times a week

○ More than five times a week