The Effect of Zomato Online Reviews on Customers' Dining Intentions: The Moderating Role of Gender Difference

A dissertation submitted to

Auckland University of Technology

in partial fulfilment of the requirements

for the degree of

Master of International Hospitality Management (MIHM)

Student: Zhuoyi (Theresa) Xian

Primary supervisor: Associate Professor Peter Kim

Secondary supervisor: Dr Chloe Kim

2019

School of Hospitality and Tourism

ABSTRACT

With the popularity of Web 2.0 technologies and mobile applications, consumers are becoming increasingly socially interactive and media-oriented, relying on online reviews to help them with decision-making before an actual purchase. They do this to avoid the risk of buying the wrong products and making poor choices. In the hospitality context, online restaurant recommendation applications such as Zomato and Yelp are commonly used to review online reviews to help customers make decisions on where to dine. This is because consumers may consider online reviews generated by experienced customers credible, helping them evaluate a dining experience. Therefore, the credibility of online reviews and different levels of emotion are likely to affect dining intention.

The main purpose of this research is to examine the impact of review credibility and review valence on consumers' dining intention, and further investigate the moderating effect of gender difference on the impact. The research contributes to the current online review literature in terms unique effects of review valence and review credibility considering gender difference.

This research was conducted using an experimental design in terms of the research methodology. An online questionnaire was developed on employing an online survey software, Qualtrics, and distributed to online panel respondents from Amazon Mturk to collect data. A total of 250 responses are collected from adult consumers in the United States of America (USA). Confirmatory factor analysis, descriptive statistics, correlations, and multiple regression analyses were conducted using SPSS to test the research hypotheses.

The results of this research reveal that review credibility affects consumers' dining intention. Specifically, in positive online reviews, a positive impact of review credibility can be found on dining intention, and a negative impact can be found in negative reviews. The moderating role of gender difference is also found. The influence of review valence on dining intention is greater for females than males. Moreover, in negative online reviews, the negative influence of review credibility on dining intention is stronger for females than males. The findings of this research contribute to the restaurant review literature and help restauranteurs better understand customers' needs and expectations of the dining experience and improve communication effectiveness in their online marketing strategies.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed _____

Date _____13-12-2019_____

ACKNOWLEDGEMENTS

Chapter 1 INTRODUCTION

1.1 Background

Technological advances and new tools of communication are changing marketing practices, while the application of Web 2.0 technologies is empowering consumers to become more media-oriented and digitally demanding (Kotler, Bowen, & Maken, 2017). Social interaction enables information to become more and more collaborative and users of the Internet are shifting their roles from readers to creators and sharers of user experience and product information (Lo & Yao, 2019). Content generated by users is called user-generated content (UGC), which is considered an electronic form of word-of-mouth (eWOM) in the marketing context (Lo & Yao, 2019). With the introduction of smartphones, online reviews are thought to be the dominant form of UGC that allows users to communicate and interact with others on social media (Kim & Law, 2015).

Online reviews play an important role in the hospitality industry. Customers particularly rely on online reviews with shared opinions and attitudes from experienced customers to help new customers select options and reduce risk while making decisions. This need is largely owing to the high-risk nature of purchases and intangibility of hospitality products (Ladhari & Michaud, 2015). In the food and beverage sector, online reviews show a powerful influence on the dining intention of customers (Gan, Ferns, Yu, & Jin, 2017). Customers can evaluate and imagine their dining experiences on restaurant recommendation platforms (e.g., Yelp, Zomato, Eating table), using textual comments or images to reflect their satisfaction with service, food, and ambience, ultimately influencing patronage decisions (Gan et al., 2017).

Online reviews provide diagnostic value in relation to the process of purchase intention and help with need recognition, information searching, and evaluation of alternative options (Mudambi & Schuff, 2010). This helps potential customers make better decisions by providing them with credible information (Mudambi & Schuff, 2010). The credibility of information determines how much potential customers believe in the viewpoint of the information they receive, which could be different between positive reviews and negative reviews (Filieri, 2016; Luo, Wu, Shi, & Xu, 2014). The significant influence of review valence (e.g., positive reviews or negative reviews) on perceived credibility and its effect on customer attitudes and perceptions has been well researched in current literature (Rose & Blodgett, 2016). In the hospitality context, negative online reviews seem to be more convincing than either positive or neutral online reviews. This is because negative reviews tend to be considered more credible and diagnostic, as they enable customers to know about the drawbacks of a product and reasons why other customers did not purchase it (Filieri, 2016; Kuan, Hui, Prasarnphanich, & Lai, 2015).

1.2 Problem Statement and Objectives

Although the hospitality literature has investigated the role of online reviews and their effects on the decision-making of customers, few studies have investigated this relationship in the restaurant context and how gender differences may influence the relationship. This topic is of importance as restaurants could improve their promotion by understanding how males and females make visiting decisions after reading online reviews. Moreover, studies on gender difference have found that males and females process information differently (Kim, Mattila, & Baloglu, 2011); for example, females seem to process information on risk reduction in a more effortful way than do males (Kim et al., 2011). Therefore, gender differences are likely to influence how online reviews impact on review credibility. Hence, this study investigates the influence of review valence, especially its credibility on dining intention considering the moderating role of gender difference.

Mobile technologies have become an essential part of people's daily lives, which leads to the increasing growth of mobile applications and online marketing channels such as social media (Kim & Law, 2015). The rapid growth of mobile communication and promotion allows customers to interact with businesses and other customers through online platforms (Kim & Law, 2015). The popularity of online platforms enables customers to access and share information and experiences, which significantly influences marketing management as the online reviews written by other customers or travellers are considered to be more credible than that presented by commercial sources (Filieri, 2016; Gretzel & Yoo, 2008). Therefore, it is important to understand the nature of review credibility from the perspective of customers in order to enhance the communication effectiveness of marketing activities.

Today, the Internet and different online review platforms are the main ways for customers to search for information, and review credibility is thought to be the major factor when customers review online reviews (Filieri, 2016). This may be because at times online reviews contain false information written by other customers for the purposes of promoting businesses (Filieri, 2016). This has caused customers to increasingly question the credibility of online reviews, so examining how this impacts customers in relation to dining intentions is important. Therefore, this study attempts to answer the following research questions:

1) Why and how does review credibility significantly impact customers' dining intentions?
2) How and why do gender differences affect the relationship between review credibility and dining intention in both positive and negative reviews?

Online reviews have been widely studied in the hospitality context in the aspects of both sender (the person who is posting the review) and receiver (the person who is reading the review) regarding effects on purchase intention, customer satisfaction, and the role of reviews (Leung,

Law, Van Hoof, & Buhalis, 2013; Xiang, Du, Ma, & Fan, 2017). Previous studies have primarily focused on the tourism and accommodation sectors while the context of food and beverage or restaurants has been under-investigated (Schucket et al., 2015). Furthermore, many studies have explored the relationships between review credibility, review valence, and purchase intention (King, Racherla, & Bush, 2014), yet few investigations have incorporated the aspect of gender difference and its moderating role in the restaurant context by way of experimental design. To fill the gap in literature, this study explores the relationship between review credibility, review valence, and the moderating role of genders in the context of restaurants. In particular the study investigates the effect of review valence and its credibility on customer's dining intentions, as well as the moderating effect of gender difference.

Accordingly, the objectives of the research are as follows:

1) To examine the influence of review credibility on the dining intention of customers in both positive and negative reviews.
2) To investigate the differences between females and males that may exist regarding perceived credibility in positive and negative reviews.
3) To investigate the relationships between review valence, review credibility, and gender difference.

1.3   Contribution

This study extends the current literature of online reviews in the hospitality industry, particularly on online restaurant decision-making processes. In the academic field, this study also adds the moderating role of gender difference to test the effect of review valence and review credibility on dining intention, which has not been investigated in the literature. Thus, the results of the study enrich the theory of gender difference, namely the selectivity hypothesis and the theory of review valence regarding the positivity and negativity effect (Darley & Smith, 1995; Meyers-Levy & Loken, 2015; Tsao, Hsieh, Shih, & Lin, 2015). Practically, this study improves communication effectiveness by informing restaurant owners and managers how to manage positive and negative online reviews better, depending on the different needs and expectations of female and male customers. The study also provides online review platforms such as Zomato or Yelp with a better understanding of customers' expectations and needs, by providing insights into how to improve service recovery, and increase customers' dining intentions.

1.4   Overview of the Dissertation

The dissertation includes five chapters. Chapter 1 introduces the topic and the background of the study, identifies the literature gap and the objectives of the study, and the research contributions.

Chapter 2 presents the literature review of the research model in terms of the main concepts and its development. Firstly, the topic of online reviews is discussed, followed by four main concepts of the research model: review valence, review credibility, gender difference, and dining intention. Hypotheses of the research model are developed and presented at the end of this chapter.

Chapter 3 explains the methodology of the study. The online questionnaire adopted to collect data and the instruments' design, measurement of the constructs, data collection, and data analysis are all explained.

Chapter 4 presents the results of the study. This chapter outlines the descriptive statistics, followed by a confirmatory factor analysis. Correlation and multiple regression analyses are presented to test the hypotheses.

Chapter 5 summarises the key findings of the study, providing theoretical and practical implications based on the results. The limitations of the study and suggestions for future studies are also provided. Finally, the overall conclusions of the research are given at the end of the chapter.

Chapter 2 LITERATURE REVIEW

This chapter reviews the literature of online reviews in terms of review valence regarding positivity and negativity effect, followed by the concept of review credibility. Lastly, the research model and developed hypotheses for the moderating role of gender difference are provided.

2.1   Online Reviews

Online reviews are defined as a kind of product information created by former, actual, or potential users based on their usage experiences of the Internet (Chen & Xie, 2008; Kwok et al., 2017; Mishra & Satish, 2016). Online reviews are one of the most accessible forms of electronic word-of-mouth (eWOM) communication, which serves two main purposes in terms of providing product information and making recommendations. Online reviews are published on an online platform, which provides a convenient and low-cost method of sharing consumers' opinions and experiences to the global community (Kwork et al., 2017).

In the hospitality industry, online reviews have been recognised as a valuable asset influencing the process of decision-making for consumers (Liu, Zhang, Law, & Zhang, 2019). This results from the fact that it is difficult for customers to judge a product's cost and value before purchase, so online reviews appear to play a critical role in decreasing the asymmetry of information and assisting customers to make decisions (Liu et al., 2019). Therefore, many organisations have increased budgets for online marketing to meet the rapid change in customers' information searching processes (Liu et al., 2019). In terms of hospitality products, consumers can easily find online reviews on hospitality products on platforms such as online travel agents (OTAs) or hotel review websites (e.g., Expedia and Booking.com), social media websites such as Facebook (e.g., fan pages for organisations), as well as restaurant search applications (e.g., Zomato and Yelp) (Kwok et al., 2017). Although the styles of online reviews on different platforms are different, the key elements tend to be similar (Kwok et al., 2017). Specifically, they have three main features: evaluation features such as the rating or valence of reviews, reputation features, which refer to demographic information about reviewers, and social features such as voting on levels of helpfulness (Kwok et al., 2017).

In the hospitality literature, previous studies have contributed to understanding the attributes of the role of online reviews, the impact of online reviews and the motivations and reasons for interacting with online reviews (e.g. Amatulli, De Angelis, & Stoppani, 2019; Kwok et al., 2017; Mishra & Satish, 2016). Studies have investigated the influence of review ratings on hotels in terms of the decision-making processes of consumers (e.g. Sparks & Browning, 2011; Zhao, Wang, Guo, & Law, 2015), while other studies have pointed out the effects of hotel guest experiences and reviews on customer satisfaction (e.g. Liu, Law, Rong, Li, & Hall, 2013; Xiang, Schwartz, Gerdes, & Uysal, 2015). Filieri, Alguezaui, and McLeay (2015) examined how factors

such as information quality, website quality, source credibility, user experience, and customer satisfaction contribute to trust of online reviews. Some studies have demonstrated that the adoption of online reviews tends to be determined by specific factors such as the content itself and review valence (e.g. Liu et al., 2019; Ukpabi & Karjaluoto, 2018). Over 60% of the online review literature has focused on the accommodation sectors, but only 18% has contributed to the foodservice or restaurant sectors (Schuckert, Liu, & Law, 2015); this shows that there is more to be learnt in terms of the impact of review valence for restaurants.

While such previous studies have encompassed the methodologies of empirical data analytics (e.g. Xiang et al., 2015), survey studies (e.g. Liu et al., 2013), and conceptual work (e.g. Schuckert et al., 2015), few studies contribute to experimental design. Book, Tanford, Montgomery, and Love (2018) investigated the interaction effect of review valence, information unanimity, and product price by using multiple factors experimental design. Lo and Yao (2019) explored the relationship between review valence, rating consistency, and reviewer expertise. It seems that online valence is given more attention in the literature, because negative online reviews tend to be more diagnostic and credible than positive online reviews of hospitality products. This allows consumers to easily evaluate user experience in this information-overloaded age (Filieri, Raguseo, & Vitari, 2019). To fill the existing literature gap, this study investigates the influence of review valence and review credibility as well as the moderating role of gender difference.

2.2 Review Valence

Review valence is the positive or negative degree or nature of an information statement (Buttle, 1998; Tsao, Hsieh, Shih, & Lin, 2015). Online review valence is reflected in the star rating of the review or content sentiment (Fong, Lei, & Law, 2017). For example, an "excellent" rating on TripAdvisor is likely to be seen as an extremely positive review with positive descriptions of the product, and "terrible" is likely to be an extremely negative review with negative features (Fong et al., 2017). Therefore, review valence is an extrinsic cue which shows customer satisfaction of a product, significantly affecting consumers' evaluations before purchasing products or services (Nieto-García, Muñoz-Gallego, & González-Benito, 2017). In a marketing context, positive reviews are good comments or testimonials desired by organisations, while negative reviews are thought to be a mirror image, reflecting the disadvantages of products (Buttle, 1998). Sparks and Browning (2011) also suggested that online reviews vary in polarity as positive reviews tend to demonstrate a vivid and pleasant experience, yet, negative comments appear to contain unpleasant descriptions or complaints. Some reviews could be neutrally valenced, but this may lead to disconfirmation of the product and the expectations of consumers (Sparks & Browning, 2011). However, Mauri and Minazzi (2013) suggested that reviews that include both positive and negative aspects, provide more detail for consumers to make judgments. These types of reviews seem to be more credible, as each product can have advantages and disadvantages. It is interesting

to note that a review may be seen as negative from the viewpoint of an organisation, but could be extremely positive for consumers, because negative reviews are considered a critical information resource when evaluating a product (Buttle, 1998; Tsao et al., 2015).

2.2.1 Positive versus negative online reviews

The hospitality literature has recognised the influence of review valence on decision-making processes and purchase intentions. Many studies have confirmed that favourable or positive reviews tend to improve the likelihood of accommodation reservation and room sales while unfavourable or negative reviews tend to negatively impact booking intention (Duverger, 2013; Mauri & Minazzi, 2013; Ye, Law, Gu, & Chen, 2011). Tsao et al. (2015) and Nieto-García et al. (2017) agreed that positive online reviews affect consumer behaviour and willingness to pay. However, some studies have argued that negative reviews have a stronger impact on purchase intention. Lee and Ro (2016) noted that customers seem to give more credence to negative reviews than positive reviews when they are evaluating information, because negative food reviews decrease consumers' positive attitudes to a restaurant. Similarly, Wu (2013) found that negative reviews are likely to have a stronger impact on the change of consumers' attitudes than do positive reviews. Filieri (2016) concluded that negative reviews appear to be more diagnostic and credible than positive or neutral reviews, after examining the impact of review length on review helpfulness. However, Tanford and Kim (2019) argued that negative reviews significantly affect utilitarian products such as computers, while positive reviews significantly affect hedonic products such as hotel rooms or travel tours. Therefore, positive and negative online reviews may have different characteristics, which leads to various perceived attitudes towards the reviews and consumers' purchase intentions of hospitality products.

2.2.2 Positive online reviews

Empirical studies have looked at the effect of positive reviews and related to this research topic is the theory of the positivity and negativity effect. Specifically, the unequal effect of information or the bias of extreme comments is seen as information asymmetry, which is a psychological principle (Wu, 2013; Skowronski & Carlston, 1989). The bias of positive reviews can be called the "positivity effect", which is the tendency to consider positive comments or ratings as more diagnostic than are negative ones (Chu, Roh, & Park, 2015). According to the framework of the diagnosticity of information, positive cues are seen as more diagnostic than negative cues (Skowronski & Carlston, 1989), as positive reviews are generated only when consumers' intended opinions match the product, while negative reviews occur when the product does not match the ideal opinions or experiences (Chu et al., 2015; Wu, 2013). This is called "preference heterogeneity" and it has greater influence for hedonic products than for utilitarian products (Chu et al., 2015). Therefore, when consumers evaluate online reviews of hospitality products, they tend to prefer positive reviews, as positive information is closer to their expectations, enabling

them to adopt the information as a useful and ideal comment (Chu et al., 2015; Tanford and Kim, 2019).

2.2.3 Negative online reviews

The bias of negative reviews is called the "negativity effect", which implies that the harmful effect of negative stimuli is greater than the beneficial effect of positive stimuli (Floh, Koller, & Zauner, 2013; Kahneman & Tversky, 1979). Different arguments have been developed to demonstrate the negativity effect. The one most widely studied is the prospect theory. Specifically, consumers are more sensitive to a loss option than they are to a gain option (Kahneman & Tversky, 1979). If people are asked to make a decision between a 100% gain option and an option with a 50% opportunity to lose, people are likely to choose the gain option. However, if people need to make a decision between a 100% loss option and a 50% loss option, they tend to choose the latter option (Floh et al., 2013; Fong et al., 2017). For this reason, people do not want to lose, and try to avoid taking risks, therefore, a decision tends to driven by the greater value of loss than of gain, and people pay more attention to negative information (Fong et al., 2017; Kahneman & Tversky, 1979).

Another important theory has been used to explain the negativity effect regarding human evolution. As humans try to survive, missing any negative information may result in death, so they naturally pay more attention to negative events and avoid negative consequences (Fiske, 1980; Floh et al., 2013; Fong et al., 2017). Thus, negative reviews have a stronger effect on purchase decision making, as consumers are seeking rewards when they are reviewing online reviews, and they seem to be more alert to negative online reviews sol they can reduce risks (Floh et al., 2013). To summarise, the hospitality literature confirms that review valence has a significant impact on purchase intention, but this relationship has not been investigated well within the restaurant sector. Therefore, it is believed that the relationship between review valence and purchase intention can be examined in a restaurant context.

2.2.4 The impact of review valence on dining intention

The literature discussed in Section 2.2.3, concludes that review valence significantly influences consumer behaviour such as booking intention of hotel rooms or restaurants. Therefore, dining intention is thought to be an important outcome variable, as behavioural intention is usually adopted as a dependent variable in service literature. Dining intention is a consumer's behavioural intention, which is a subjective judgment showing future behaviour with favourable or unfavourable attitudes towards a restaurant (Fakih, Assaker, Assaf, & Hallak, 2016).

Dining intention can be found in three kinds of applications: visiting a restaurant, recommending a restaurant, and sharing positive things about a restaurant (Fakih et al., 2016). Kim, Ham, Yang, and Choi (2013) noted that a positive or negative attitude towards a review significantly impacts

on behavioural intention. Therefore, it is suggested that dining intention tends to be influenced by the factors of customer satisfaction and attitude (Fakih et al., 2016). Owing to the popularity of smartphone and mobile applications, dining intention is becoming increasingly important for restaurants. For example, consumers tend to view restaurant recommendation websites such as Zomato and Yelp before visiting a restaurant or placing an order, to learn more about the dining experience through the attributes of the online restaurant reviews (i.e. service quality, food quality, and physical environment) (Canny, 2014). Furthermore, different types of information of online reviews (e.g., image vs. text) may influence customers' dining intention as information types have different characteristics which may influence diners' attitudes toward online reviews and restaurants (Kim & Lennon, 2008; Otterbring, Shams, Wästlund, & Gustafsson, 2013).

In addition, some restaurants tend to promote their businesses by offering a discount for customers who post positive reviews online such as delicate food pictures (Raman, 2018). However, when consumers find misleading or incorrect information in online restaurant reviews, they are likely to consider that it is contradictory to their expectations, significantly reducing their intention to visit the restaurant (Fakih et al., 2016). Therefore, the credibility of review content is a key factor which influences consumers to make decisions about whether to visit a restaurant or not, when they are reading an online review. However, review valence literature regarding credibility is more common in the accommodation literature than in the restaurant literature. Hence, this study aims to fill the gap in the restaurant literature and explore the relationship between review valence, review credibility, and dining intention.

2.3   Review Credibility

Credibility is defined as "the extent to which a communicator is perceived to be a source of valid assertion" (Hovland, Janis, & Kelley, 1953, p. 21), which reflects how much a receiver would consider information to be believable (Lo & Yao, 2019). Credibility plays a fundamental role in the decision-making process which affects the overall attitude and behavioural intention of consumers (Ayeh, Au, & Law, 2013). For online reviews, perceived credibility seems to significantly affect consumers' adoption of reviews, as the factors of the information source such as message structure, user profile, source credibility, reviewer characteristics, and the degree of informative sufficiency may influence perceptions of review credibility (Lo & Yao, 2019). Studies have defined the criteria for evaluating review credibility as trustworthiness, accuracy, unbiasedness, validity, and the reflection of reality (e.g Ayeh et al.,2013; Lo & Yao, 2019; Xu, 2014). Lim and Van Der Heide (2014) suggested that trustworthiness, reputation, caring, and competence are considered as dimensions of restaurant review credibility.

Review credibility is perceived by the receiver of a message who has the potential to adopt the information given the information characteristics of the message (Lim & Van Der Heide, 2014). Lo and Yao (2019) adopted a heuristic approach to demonstrate how people evaluate credibility.

They noted that when people need to process uncertain and complex information, they tend to use simple cues to make decisions, and these cues can stimulate heuristics to help with evaluating credibility (Lo & Yao, 2019). Heuristic cues refer to peripheral cues (routes for information processing) and were developed by the theory of the Elaboration Likelihood Model (ELM) (Cheung, Sia, & Kuan, 2012). There are five types of strategies of heuristic approach including cognitive heuristics (e.g., mentally providing short cuts), reputation heuristics (e.g., making decision based on experts' opinions), endorsement heuristics (e.g., perceiving credibility by peers' endorsement), bandwagon heuristics (e.g., assuming that it is credible if other people think so), and consistency heuristics (e.g., checking information consistency from various sources) (Lo & Yao, 2019; Sundar, 2008). Consumers appear to evaluate review credibility based on other experienced or expert customers' attitudes and opinions.

Many studies have confirmed that two main dimensions determine perceived review credibility in terms of expertness and trustworthiness (e.g. Ayeh et al., 2013; Fan, Shen, Wu, Mattila, & Bilgihan, 2018; Salehi-Esfahani, Ravichandran, Israeli, & Bolden III, 2016). Expertness is defined as the degree to which a consumer considers a review to contain valid assertions, and trustworthiness is how confident a consumer considers that a review is providing honest and objective information (Hovland et al., 1953). Expertness appears to positively influence behavioural intentions of consumers, and the more experience the review writer has, the more credibility the consumer perceives (Salehi-Esfahani et al., 2016). Consumers rely on expertness maybe because they tend to follow the behaviour or opinion of the majority of people in the online context and are willing to believe in experienced users and collective wisdom (Fan et al., 2018). Therefore, the information in review websites such as Yelp and Zomato are considered credible, as the information is generated by a large number of experienced customers with collective intelligence (Fan et al., 2018). However, some customers may be encouraged by businesses to post positive reviews for rewarding benefits such as monthly fees on TripAdvisor (Assaker, 2019). Thus, review credibility plays a critical role in the hospitality industry because of the intangible characteristic of experience products which consumers cannot experience before their actual purchase. Furthermore, dishonest reviews written for the promotion of businesses means that perceived credibility assists consumers with making a good choice of products (Assaker, 2019).

Previous studies have investigated the significant influence of review credibility on behavioural intention of consumers. Park, Xiang, Josiam, and Kim (2014) found that trustworthiness positively affects trip planning and behaviours of travellers because of perceptions about review websites and reviewers' characteristics. Xie, Miao, Kuo, and Lee (2011) noted that information identifying a user may influence consumers' perceived review credibility and booking intentions for hotel rooms. Wang (2015) argued that review credibility tends to have a positive impact on the recommendation intention of tourists. Salehi-Esfahani et al. (2016) found that the source

credibility of online reviews has a positive influence on information adoption in restaurant review websites. Therefore, it is believed that review credibility has a significant effect on the behavioural intention of consumers in a restaurant context. Based on the literature, the following hypothesis is proposed:

H1: Credibility has a significant impact on dining intention.

Review valence is also likely to affect review credibility. Lee and Koo (2012) found that online review valence significantly influences review credibility which has an impact on information adoption. Jalilvand, Samiei, Dini, and Manzari (2012) found that if travellers have positive impressions of a particular destination, they are likely to post online reviews and recommend it to other people. Zhao et al. (2015) confirmed that the expertise of reviewers has a positive impact on online hotel bookings; positive reviews have a positive effect on hotel bookings, while negative reviews negatively impact on hotel bookings. Similarly, Lim and Van Der Heide (2014) noted that review valence has a positive relationship with credibility. Their study found that when consumers review online comments posted by strangers, they may not have particular attitudes towards the information source, but tend to have an attitude towards the context of the review, such as what and how the person describes the product (Lim & Van Der Heide, 2014). When a person discusses an unfavourable experience or dissatisfaction with a restaurant, consumers tend to form their impression of the restaurant from this review, which is likely to influence their intention to either visit the restaurant or not (Lim & Van Der Heide, 2014). Therefore, the following hypotheses are proposed:

H1a: In a positive online review, credibility has a positive impact on dining intention.
H1b: In a negative online review, credibility has a negative impact on dining intention.

2.4 Gender Difference

It is suggested that trustworthiness and review credibility tend to have a significant influence on consumer's behavioural intentions, which appear to be subjective, and depending on demographic characteristics such as age and gender (Park et al., 2014). Gender difference is an important demographic variable in the marketing literature because of its moderating role on different consumer behaviours. It has been shown that males and females tend to have different ways of information processing when developing their judgment of products (Jeong & Jang, 2015). In the hospitality context, the effect of gender difference has been examined across different domains in the literature including dining behaviour (Ma, Qu, & Eliwa, 2014), promotions of a restaurant's healthy menu (Jeong & Jang, 2015), information searching behaviour in tourism settings (Ramkissoon & Nunkoo, 2012), and information adoption on hotel reviews (Kim, Mattila, & Baloglu, 2011).

Regarding the role of gender in information processing, it is noted that males tend to process information in analytical and logical ways while females appear to have an illogical and subjective way to process information (Jeong & Jang, 2015). This difference has contributed in the online context in terms of the perceived attitudes to online reviews. For example, compared to males, females tend to have lower tolerance and perceptions of taking risks when making decisions in unfamiliar situations (Abubakar, Ilkan, Al-Tal, & Eluwole, 2017). This may be because females tend to have more concerns about privacy and security when they are shopping online, and they try to rely on other people's opinions and recommendations to help them make decisions (Bae & Lee, 2011). Therefore, the impact of online reviews on buying intention seems to be more influential for females than for males (Bae & Lee, 2011). This gender gap could be explained by theories on gender difference.

It is suggested that gender difference in terms of information processing could be explained by the theory of the selectivity hypothesis (Meyers-Levy & Loken, 2015). This theory suggests that males appear to process information using a selective way to use particular information depending on their goals; this is because males seem to engage less in comprehensive and detailed information and use heuristic cues for reducing effort and time (Jeong & Jang, 2015). On the other hand, females tend to process information by employing comprehensive information which means using all of the available information for systematic and effortful decision-making (Jeong & Jang, 2015). Similarly, the theory regarding social roles (Eagly & Wood, 1991) argues that males seem to be goal-oriented and self-centered, and pay more attention to concrete or physical features that have a direct effect on them (Jeong & Jang, 2015). However, females tend to be driven by affiliation, focusing on people's feelings and relationships in a community, so they tend to care about both individual opinions and information from communities (Bae & Lee, 2011). In summary, it is believed that females are more likely to be connected in society and active participators of eWOM communications such as online customer reviews (Bae & Lee, 2011).

In addition, gender difference can also be explained in biological terms. Because males and females have different levels of hormones, they are likely to have different personalities and moods. For example, females tend to be more emotional and dependent than are males, and females may have more responses to the emotional aspects of a brand or a product (Jeong & Jang, 2015). Bae and Lee (2011) noted a relationship between the gender role and the emotional degree of online reviews, which is consistent with the review valence theory discussed in the previous section. Specifically, positive online reviews may have a greater positive impact on females than on males, and negative online reviews may have a greater negative impact on females than on males, based on the negativity effect of information (Bae & Lee, 2011). This is because females seem to be involved more in prosocial behaviours and impacted by others' recommendations than are males, so it is believed that online reviews regarding review valence have a stronger influence on females than on males (Bae & Lee, 2011). Furthermore, Hwang and Han (2016) found that

females seemed to express more positive feelings than did males when they experienced less negative feelings in a study of casinos. Hence, it is claimed that the influence of negative word-of-mouth communication is stronger on females than on males, whereas the impact of positive word-of-mouth communication shows no difference between females and males (Hwang & Han, 2016). Therefore, it is believed that gender difference is likely to moderate the relationship between review valence and behavioural intention regarding restaurants. Following the literature, the hypothesis is proposed:

H2: The impact of review valence on dining intention is stronger for females than for males.

Moreover, it is argued that gender difference also has a moderating effect on the relationship between review credibility and behavioural intentions of customers. Escobar-Rodríguez, Grávalos-Gastaminza, and Pérez-Calañas (2017) noted that the impact of trustworthiness in the buying intention of tourism products on Facebook is greater on females than on males. Abubakar et al. (2017) for example, found that females may pay more attention to the trustworthiness of eWOM than do males, regarding medical tourism products. This is because females may have lower risk perception than do males, and females tend to rely on higher levels of expertise and experience to help them take less risks and make better decisions (Abubakar et al., 2017). Similarly, Meyers-Levy and Loken (2015) demonstrated that when females are engaged in online relationships regarding trust issues, her brain will be more activated than a male's brain would, showing that females tend to extensively process information regarding trustworthiness. Furthermore, Bae and Lee (2011) argued that negative online reviews tend to be more influential for females than for males, because of the negativity bias, so females are likely to process negative information as a credible source. Based on the review valence and review credibility literature, it is believed that gender difference has a moderating effect on the relationship between review credibility, review valence, and behavioural intentions of customers. Thus, the following hypotheses are proposed:

H3: Gender difference moderates the impact of credibility on dining intention.

H3a: In a positive online review, the positive impact of credibility on dining intention is stronger for females than for males.

H3b: In a negative online review, the negative impact of credibility on dining intention is stronger for females than for males.

2.5 The Research Model

The research model (**Figure 1**) summarises the hypothesised relationships based on the foregoing section. Review credibility has a positive effect on dining intention (H1) and gender difference moderates this relationship (H3). Specifically, positive review credibility has a positive impact

on dining intention (H1a), which is moderated by gender difference (H3a). Negative review credibility has a negative impact on dining intention (H1b), which is moderated by gender difference (H3b). Review valence is positively related to dining intention, which is moderated by gender difference (H2).
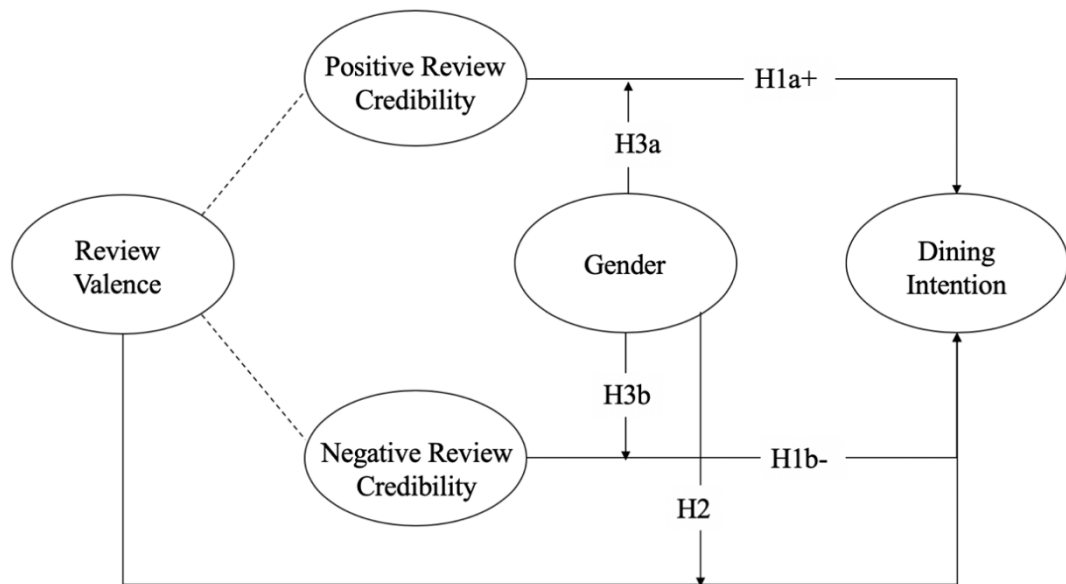

Figure 1: The research model

Chapter 3 METHODOLOGY

3.1 Research Methodology

There are three kinds of philosophies in social research methods in terms of ontology, paradigms, and epistemology, which influences researchers' understanding of the literature and affects the type of methodology adopted in their study (Grey, 2004). In this study, a positivist paradigm was adopted with an objectivist epistemology and ontological realism.

Firstly, ontology is defined as beliefs about the nature of reality, and ontological realism emphasises that the world is not influenced by subjective reasons, but the truth in this world is objective (Grey, 2004). In this research, it is viewed that online reviews exist and are generated by online users to be viewed on different online platforms. When consumers review online comments, they may have different opinions and attitudes towards the reviews, however the reviews will contain an account of the real-life experiences of the consumers. The researcher's own opinions or attitude do not affect how consumers interpret or feel about the online reviews. Thus, the ontology of this study is realism. Secondly, epistemology refers to the question about "how we know what we know", and objective epistemology argues that the truth of the world exists independently (Grey, 2004). This study used an online questionnaire for data collection, which means that the researcher did not approach participants and therefore the results were not be influenced by the perceptions of the researcher. Lastly, the positivist paradigm focuses on external and objective factors, arguing that reality should be known by systematic observation and facts (Grey, 2004). Research questions are likely to measure causal relationships between constructs by experiments or surveys (Grey, 2004). Therefore, this research applied the research methodology of experimental design which employed a positivist perspective, and an online questionnaire was adopted to collect responses for the study.

3.2 Instrument Development

An online questionnaire was employed as the instrument of this research to collect data. The questionnaire included three parts (See Appendix B). Firstly, two screening questions were provided to help the researcher filter out appropriate participants who were unsuitable for the research. Participants were screened according their age to ensure they were 18 or over and had previous experience using restaurant recommendation applications such as Zomato or Yelp, etc.

In the second part, participants were asked questions based on the research model for testing the research constructs. Specifically, two manipulation check questions of the assigned reviews were applied to help the researcher evaluate whether the experimental design was successful and effective. Then, questions regarding participants' attitudes towards the credibility of assigned restaurant reviews and the dining intention in relation to the restaurant were asked, to test the

research model. Thirdly, demographic questions such as gender, age, ethnicity, education level, and dining frequency were asked to examine the potential influences on perceived attitudes to review credibility and dining intention of the participants.

3.3 Stimuli Design and Measures

The objective of this research was to examine the influence of review credibility and review valence on dining intention as well as the moderating effect of gender difference. The research constructs were manipulated in two perspectives: information types and review valence. According to the theory of information processing, text and images have different characteristics, which tends to influence perceived attitudes towards online reviews, and affect the dining intentions of customers (Kim & Lennon, 2008; Otterbring et al., 2013). Specifically, pictorial information is likely to generate imagery information processing of affective factors and stimulate emotional experiences, while textual information seems to produce discursive information processing which summarises the implicit content of brand attributes (Kim & Lennon, 2008; Otterbring et al., 2013). In such ways, different types of information may lead to different levels of review credibility for potential customers during the decision-making process. However, some studies proposed that the combination of text and images has a stronger effect on cognitive and affective attitudes towards products, and that people appear to learn more deeply from this combination than text-only options in some circumstances (Lee & Tussyadiah, 2010; Mayer, 2005). Thus, providing textual information with pictorial information appears to be perceived as more credible than text-only information.

There were four conditions in the present study. Participants were randomly assigned to one of two information types (text with pictures or text-only, by two review valences: positive reviews vs. negative reviews) in an experimental design (See Appendix B). After answering the screening questions, participants were asked to carefully read the general instructions and the information on the review they had been assigned to. Four online reviews were manipulated differently according to the attributes of the online restaurant reviews (i.e. service quality, food quality, and physical environment). These three dining experience attributes were considered key attributes which have a significant impact on the behavioural intentions of customers dining in casual restaurants (Canny, 2014). For the text with pictures condition review (See Appendix B), dining attributes regarding food, service, and environment were described in general with words and short sentences. In the text-only condition (See Appendix B), the same dining attributes were provided but in a more specific and detailed way. Furthermore, two different pictures of the food matching the assigned reviews were provided separately with positive and negative text for the two pictures conditions. The layout of the reviews' designs was based on the online reviews of Zomato (See Appendix B), as well as user profile attributes such as post time, follower numbers, likes, and comment options.

After being exposed to the information in their assigned review, participants were asked to evaluate their perception of review credibility and dining intention. Firstly, participants were asked to rate responses to review credibility on four items ("I think that the review is based on the customer's true experience"; "I think that the review is trustworthy"; "In general, I think that the review is persuasive to me"; and "In general, I think that the review is reliable") using a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree) (see Jensen, Averbeck, Zhang, & Wright, 2013; Li, Huang, Tan, & Wei, 2013; Pentina, Bailey, & Zhang, 2018).

Secondly, participants were asked to rate their attitudes to dining intention with three items ("After reading the review, I am willing to visit the restaurant"; "After reading the review, I would bring my friends or family to visit restaurant"; and "After reading the review, I would recommend to other people to visit this restaurant") on a seven-point Likert scale, (1 = strongly disagree; 7 = strongly agree) (see Canny, 2014; Pentina et al., 2018). Lastly, participants completed a section on general information, which included some demographic questions.

3.4 Data Collection and Analysis

The online questionnaire was designed on Qualtrics com. The respondent information sheet (See Appendix A) explained the time required for completing the questionnaire, a brief introduction to the research, and the contact details of the researcher and supervisors. Before collecting the data, a pilot test of 20 participants was conducted with students at Auckland University of Technology (AUT). The pilot test revealed that the average time spent on completion of the online questionnaire was eight minutes, and the layout and wording of the online questionnaire were acceptable. Therefore, the online questionnaire was verified.

This study employed the data collection strategy of panel data. The survey link and invitation letter for the online questionnaire were distributed to members of Amazon Mturk, which is an online market research service company. The data collection was carried out during October, 2019. A total of 303 participants in the USA took part in the online questionnaire and 250 participants were retained as trustworthy responses.

The data analysis was mainly conducted using SPSS 25th and LISREL 9.1. Descriptive statistics were conducted to explore participants' characteristics and carry out the manipulation check. Confirmatory factor analysis was conducted to analyse construct validity and reliability of the study. Pearson correlation coefficients were employed to explore the relationships between various variables. Multiple regression analysis was conducted to test the hypothesised relationships amongst review valence, review credibility, dining intention, and gender difference.

Chapter 4 RESULTS

This chapter presents the results of the data analysis. Firstly, a table of the respondent profile is presented to provide an overview of the demographic information of participants. Based on the descriptive statistics of study variables, confirmatory factor analysis is conducted to test construct validity and reliability. Finally, the correlation between different variables is discussed and the hypothetical relationships tested using multiple regression analysis.

4.1   Respondent Profile

The data were collected through an online questionnaire. A total number of 250 participants accessed the distribution and completed the online questionnaire.

Table 1 provides details of the respondent profile. There were 129 male and 121 female participants. The age range of the participants was from 20 to 76 years old. Of all participants (N = 100) 40% were aged between 27 and 37 and the second largest age group were between 38 and 48 (N = 61, 24.4%). A minority of participants were aged over 60 (N = 19, 7.6%). Most participants were European (N = 184, 73.6%), and there were equal numbers of African and Hispanic and Latino participants (N = 20, 8.0%); only nine participants were Asian (3.6%). In terms of education, over half (53.6%) the participants were undergraduate students (N = 134), 27.2% had finished high school (N = 68) and 19.2% had a postgraduate qualification (including doctorates) (N = 48). When participants were asked about the frequency of dining-out each week, over 45% of participants (N = 114) responded that they dined in a restaurant once to twice a week, 28.8% of participants (N = 72) dined out less than once a week and only 7.2% of participants (N = 28) visited a restaurant more than four times a week.

Table 1. Respondent profile

Characteristic	Frequency (N)	Percentage (%)
Gender (*N* = 250)		
Male	129	51.6
Female	121	48.4
Age (*N* = 250)		
16 – 26	29	11.6
27 – 37	100	40.0
38 – 48	61	24.4
49 – 59	41	16.4
>= 60	19	7.6
Ethnicity (*N* = 250)		
European	184	73.6
African	20	8.0
Asian	9	3.6
Hispanic and Latino	20	8.0
Other	17	6.8
Education level (*N* = 250)		
High school	68	27.2
Undergraduate	134	53.6
Postgraduate (inc PhD)	48	19.2
Dining-out frequency (*N* = 250)		
< 1 time a week	72	28.8
1 – 2 times a week	114	45.6
2 – 3 times a week	46	18.4
4 – 5 times a week	14	5.6
Almost every day	4	1.6

Note: *N* = 250

4.2 Descriptive Statistics

Table 2 presents the descriptive statistics of study's variables in four different conditions, in terms of the amount of the participants, maximum and minimum values, as well as mean and standard deviation values.

Table 2. Descriptive statistics between information type groups

Constructs		N	Minimum	Maximum	Mean	SD
SUFF	Pos P&T	62	2	7	5.71	.948
	Pos T	64	3	7	5.64	.897
	Neg P&T	59	2	7	5.54	1.039
	Neg T	65	3	7	5.66	.989
	Total	250	2	7	5.64	.964
POS	Pos P&T	62	4	7	6.47	.762
	Pos T	64	5	7	6.42	.686
	Neg P&T	59	1	7	2.27	1.955
	Neg T	65	1	7	2.45	1.794
	Total	250	1	7	4.42	2.483
CRED	Pos P&T	62	1.00	7.00	5.61	1.131
	Pos T	64	1.50	7.00	5.58	1.149
	Neg P&T	59	3.25	7.00	5.65	.809
	Neg T	65	1.75	7.00	5.61	1.101
	Total	250	1.00	7.00	5.61	1.054

Note: SUFF = Information sufficiency; POS = Positivity; CRED = Credibility; Pos P&T = Positive review with pictures and text; Pos T = Positive review with text only; Neg P&T = Negative review with pictures and text; Neg T = Negative review with text only

As there were no significant difference (F (3, 246) = .318, p = .813) between information type (i.e., text-only vs. text with pictures) in sufficiency evaluation, information type was not further considered, and therefore, the study differentiated data based on valence alone (i.e., positive review vs. negative review). The manipulation check for review valence was successful, and "positive review" had a significantly higher positivity score M = 6.44 than "negative review" M = 2.36, (F(1, 248) = 49.560, p = .000). The following analyses of correlation and regression were performed separately on the positive review group and the negative review group.

4.3 Factor Analysis

A confirmatory factor analysis (CFA) was performed to test the research model in terms of convergent validity, discriminant validity, and measurement reliability. The maximum likelihood estimation of LISREL 9.1 was assessed to fit the model.

The research model was found to be a good fit with the data (Table 3). The model chi-square (χ^2) was 30.193 with df = 13 (p = .004), RMSEA was .0726 with a 90% confidence interval at (0.0387; 0.107), the Comparative Fit Index (CFI) was calculated at 0.988, and Goodness of Fit Index (GFI) was calculated at .968. The indices close to the criteria based on the suggestions of Kline (2005), Hair, Black, Babin, and Anderson (2010), and Bentler (1990) indicated a reasonably good fit.

Construct validity evaluates whether the scales of measurement perform like the items being measured, which is assessed by convergent validity and discriminant validity (Bacharach, 1989). Convergent validity can be evaluated by the factor loadings of the measures and the Average Variance Extracted (AVE) values (Fornell & Larcker, 1981; Sanchez-Franco, 2006). The item loadings of the research model were greater than 0.70, achieving the criteria recommended by Carmines and Zeller (1979), representing good convergent validity of the measures. In addition, the AVE values were greater than 0.50, meeting the recommended level suggested by Fornell and Larcker (1981). Therefore, the research model indicated satisfactory convergent validity.

Discriminant validity can be examined by comparing the square root of the AVE value of each construct to its corresponding correlations (Fornell & Larcker, 1981). Review credibility and dining intention showed discrimination from each other and indicated appropriate discriminant validity in the research model (See Table 5 and Table 6). Discriminant validity exists when AVE values are greater than 0.50 and the square roots of the AVE values are greater than their inter-correlations (Fornell & Larcker, 1981; Goh & Sun, 2014).

Construct reliability was assessed using Cronbach's alpha and Composite Construct Reliabilities (CCR) (Goh & Sun, 2014). Both research constructs' credibility and dining intention achieved satisfactory reliability values, with Cronbach's α higher than .80 and CCR above .70 (see Hair et al., 2010). Thus, the study constructs showed strong internal reliability, and considered suitable for further analysis.

Table 3. Confirmatory factor analysis

Constructs and Indicators	Item loading	t-value	Cronbach's α	CCR	AVE
Credibility-CRED			0.904	0.906	0.708
CRED1	0.823				
CRED2	0.918	17.632			
CRED3	0.754	13.500			
CRED4	0.862	16.327			
Intention-INT			0.955	0.956	0.878
INT1	0.951				
INT2	0.969	34.069			
INT3	0.889	25.263			

Note. Fit indices: Chi-square (13) = 30.196, p = .004); Goodness of Fit Index (GFI) = .968; Adjusted Goodness of Fit Index (AGFI) = 0.931; Comparative Fit Index (CFI) = 0.988; Root Mean Square Residual (RMR) = .086; Root Mean Square Error of Approximation (RMSEA) = .0726

4.4 Correlations

Pearson correlation coefficients were conducted to find the relationship between various variables in terms of the direction and strength of the relationship. Table 4 reveals the correlation among all data. The gender of the participants negatively related to review credibility at a significant level ($r = -.13$, $p < .05$). However, there were no significant correlations between dining intention and other variables. Therefore, further analysis was presented based on the positive review group and the negative review group.

Table 4. Correlation, mean, SD for all data

	Mean	S.D.	Age	Frequency	Gender	Credibility	Intention
Age	39.49	12.39					
Frequency	2.53	1.76	.08				
Gender	1.52	.50	-.12	-.08			
Credibility	5.61	1.05	-.08	-.04	-.13[*]	**0.841**	
Intention	3.99	2.03	-.11	.06	.02	.10	**0.937**

Note: $N = 250$; *$p < .05$, **$p < .01$; the square root of AVE is in diagonal in bold.

As could be found in the positive review group (Table 5), the dependent variable (dining intention) had a positive relationship with dining frequency and review credibility but a negative relationship with age and gender. Specifically, review credibility ($M = 5.60$, $SD = 1.14$) had the strongest correlation with dining intention ($M = 5.47$, $SD = .98$), and was positively related to dining intention at a significant level ($r = .76$, $p < .01$). The gender of the participants was negatively related to dining intention, also at a significant level ($r = -.22$, $p < .05$).

Table 5. Correlation, mean, SD for positive review group

	Mean	S.D.	Age	Frequency	Gender	Credibility	Intention
Age	39.55	27.48					
Frequency	2.65	1.80	-.01				
Gender	1.51	.50	.01	-.13			
Credibility	5.60	1.14	-.04	.04	-.17	**0.841**	
Intention	5.47	.98	-.12	.03	-.22*	.76**	**0.937**

Note: $N = 126$; *$p < .05$, **$p < .01$; the square root of AVEs appear on the diagonal in bold.

However, the negative review group (Table 6) shows that dining intention had a negative correlation with the age of participants, dining frequency, and review credibility, while the gender of participants had a positive correlation with dining intention. Specifically, review credibility ($M = 5.63$, $SD = .97$) was negatively related to dining intention at a significant level ($M = 2.48$, $SD = 1.67$) ($r = -.22$, $p < .05$). Gender ($r = .21$, $p < .05$) and the age ($r = -.21$, $p < .05$) of participants were significantly related to dining intention.

Table 6. Correlation, mean, SD for negative review group

	Mean	S.D.	Age	Frequency	Gender	Credibility	Intention
Age	39.44	27.36					
Frequency	2.40	1.72	.18*				
Gender	1.52	.50	-.25**	-.03			
Credibility	5.63	.97	-.12	-.12	-.10	**0.841**	
Intention	2.48	1.67	-.21*	-.00	.21*	-.22*	**0.937**

Note: $N = 124$; *$p < .05$, **$p < .01$; the square root of AVE appears on the diagonal in bold

4.5 Hypotheses Testing

Multiple regression analysis was conducted to test the hypothesised relationships, and to find out how well the variables of review valence, review credibility, and gender difference were able to predict the outcome variable of dining intention. As shown in the research model (**Figure 1**), hierarchical multiple regression was employed to access the standardised regression coefficients and provide their essential values for indicating dining intention.

4.5.1 Multiple regression analysis for review valence

Table 7 shows the results after testing the relationship among the research constructs in terms of gender difference, review valence, and dining intention.

Table 7. Multiple regression for all data

		INT	
Step	**1**	**2**	**3**
Beta			
Age	-.115†	-.112**	-.095*
Frequency	.070	.019	.011
Gender		.021	-.106†
Valence		-.739**	-1.130**
Gender X Valence			.433**
R²	.017	.560	.576
Δ R²	.017	.543	.016
Δ F	2.111	150.999**	9.354**
Df	249	247	245

Note: N = 250; †p < .10. *p < .05. **p < .01, pairwise, Δ R² = R-squared change, Δ F = F change; INT = Dining intention

Step 1 indicates that the age of the participants and dining frequency were entered, explaining 1.7% of the variance in dining intention. After adding gender difference and review valence as independent variables in Step 2, 56% of total variance of dining intention was explained, meaning that there was an additional 54.3% of the variance in dining intention when the effects of the age and dining frequency were controlled ($\Delta R^2 = .543$, $\Delta F = (2, 245) = 150.999$, $p < .01$). Age and review valence were statistically significant while review valence had the higher beta value ($\beta = -.739$, $p = .000$). In Step 3, the total variance increased by 1.6%, making the total variance of Step 3, 57.6% of the variance in dining intention ($\Delta F = (1, 244) = 9.354$, $p < .01$). Age, review valence, and the moderating effect of gender difference made a statistically significant contribution to predicting dining intention. Review valence ($\beta = -1.130$, $p = .000$) had the highest beta value, followed by the interactive effect between gender and review valence ($\beta = .433$, $p = .002$) and gender difference ($\beta = -.106$, $p = .074$). Categorical variables of review valence and gender were dummy coded using 0 and 1, where review valence was recoded as 0 = Positive, 1 = Negative, and gender as 0 = Female, 1 = Male. Step 3 shows the interaction between valence and gender was significant, meaning gender successfully moderated the effects of valence on dining intention ($\beta = .433$, $p < .01$). Beta coefficient for valence was strengthened in Step 3 ($\beta = -1.130$, $p < .01$) compared with in step 2 ($\beta = -.730$, $p < .01$), where female customers were more strongly influenced by valence ($\beta = -.106$, $p < .10$). Thus, **H2** was supported.

4.5.2 Multiple regression analysis for review credibility

The same procedure was used to find out how well review credibility was able to predict dining intention based on the positive review group (see Table 8) and the negative review group (see Table 9). The value of review credibility in both positive review group and negative review group was mean-centred.

In the positive review group (Table 8), Step 1 indicates 1.5% of the variance in dining intention. Step 2 showed an additional 57.5% of the variance in dining intention after adding gender difference, review credibility and controlling variables of age and dining frequency, accounting for 59% of the total variance ($\Delta F = (2, 121) = 84.803, p < .01$). Review credibility had the highest beta value and significantly contributed to predicting dining intention ($\beta = .736, p = .000$).

Table 8. Multiple regression for positive review group

	INT		
Step	**1**	**2**	**3**
Beta			
Age	-.117	-.085	-.086
Frequency	.033	-.008	-.009
Gender		-.102†	-.102†
Credibility		.736**	.768**
Gender X Credibility			-.033
R^2	.015	.590	.590
Δ R^2	.015	.575	.000
Δ F	.927	84.803**	.024
Df	125	123	121

Note: $N = 126$; $^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$, pairwise, $\Delta R^2 = $ R-squared change, $\Delta F = F$ change; INT = Dining intention

For the negative review group (Table 9), Step 1 explained that R-squared was calculated at .044 which means that 4.4% of the variance in dining intention. In Step 2, R-squared increased by .077, leading the R-squared of Step 2 .121, indicating that 12.1% of the total variance explained (($\Delta F = (2, 119) = 5.183, p < .01$). The highest beta value could be found in review credibility which significantly contributed to predict dining intention ($\beta = -.226, p = .011$). Therefore, review credibility was an effective predictor of dining intention, meaning that review credibility has a significant impact on dining intention. More specifically, in a positive online review, review credibility ($\beta = .736, p = .000$) had a positive impact on dining intention; in a negative online review, review credibility had a negative impact on dining intention ($\beta = -.226, p = .011$). Thus, *H1, H1a, H1b* were supported.

Table 9. Multiple regression for negative review group

Step	INT		
	1	**2**	**3**
Beta			
Age	-.214*	-.202*	-.213*
Frequency	.037	.011	.030
Gender		.141	.144†
Credibility		-.226*	-.968**
Gender X Credibility			.788**
R^2	.044	.121	.188
ΔR^2	.044	.077	.068
ΔF	2.801†	5.183**	9.814**
Df	123	121	119

Note: $N = 124$; $^†p < .10$. $^*p < .05$. $^{**}p < .01$, pairwise, ΔR^2 = R-squared change, $\Delta F = F$ change; INT = Dining intention

4.5.3 Multiple regression analysis for gender difference

Step 3 in the positive review group (Table 8) indicates that R-squared did not change after adding the moderating effect of gender difference as predictors, giving rise to the R-squared of .590 (($\Delta F = (1, 120) = .024$, $p > .10$). As mentioned above, review credibility significantly contributed to predicting dining intention. However, the moderator of gender difference did not significantly predict dining intention ($\beta = -.033$, $p = .878$), meaning that gender difference did not moderate the relationship between the positive impact of credibility and dining intention in a positive online review. Therefore, *H3a* was not supported. In the negative review group (Table 9), Step 3 caused R-squared to increase by .068, making the R-squared of the new step .188 ($\Delta F = (1, 118) = 9.814$, $p < .01$), indicating 18.8% of the variance in dining intention after adding the moderator and controlling the remainder of the independent variables. The moderator, gender difference, significantly contributed to predicting dining intention, which means that gender difference moderated the impact of review credibility on dining intention ($\beta = .788$, $p = .002$). Therefore, *H3* was supported. Specifically, in a negative review, the negative impact of review credibility on dining intention was stronger for females. Therefore, *H3b* was supported.

Chapter 5 DISCUSSION

5.1   Summary of Key Findings

This study attempted to close the gap in the current literature on online restaurant reviews regarding review credibility, review valence, and gender difference. To test the hypothesised relationships of the research, an experimental design was conducted.

The results of the hypothesis testing showed a significant impact of review credibility on dining intention, specifically, credibility was found to have a significant influence on dining intention. When participants reviewed the positive condition reviews, regardless of the review type (text-only or text with pictures), participants tended to have positive attitudes to the credibility of the review. Participants in the positive condition were more willing to visit the restaurant than participants assigned to negative reviews. On the other hand, when participants reviewed the negative review, they were more likely to have a lower level of perceived credibility and dining intention. Thus, *H1, H1a,* and *H1b* were supported.

Furthermore, the results implied that the influence of review valence was greater among female participants than male participants. This verified the moderating role of gender difference, meaning that regardless of whether the review is positive or negative, females tend to pay more attention to processing the emotional content of an online review when they are making a decision to dine. Thus, *H2* was supported.

Moreover, the moderating effect of gender difference could also be found in the impact of review credibility on dining intention. In positive online reviews, it was noted that the higher review credibility was, the stronger dining intention the participants would have, but this relationship was not different for females and males. Thus, *H3a* was not supported. However, in the case of negative online reviews, when there was less perceived review credibility, participants' dining intentions were weaker. Furthermore, this impact was more significant for females than males. Thus, *H3* and *H3b* were supported.

5.2   Research Implications

There are several theoretical implications that contribute to the extant hospitality literature. Firstly, the results of the study extend the current studies of online reviews regarding restaurant context by providing insights into potential customers' attitudes towards review credibility and review valence. The main objective of this research was to examine the influence of review valence and review credibility on dining intention as well as the moderating effect of gender difference. It attempted to provide the theoretical and practical explanation of review valence and review credibility, and how they influence the intention of potential customers to dine out in restaurants. Therefore, a key contribution of this research was to understand review valence and

credibility context from the perspective of the customer. In the hospitality literature, there is some consistency regarding review credibility. Park et al. (2014) found that trustworthiness, a key attribute of review credibility, has a positive relationship with trip planning and traveller's behaviour, as tourists may consider that the online reviews posted by experienced travellers are trustworthy and credible. This would in turn enable them to rely on an online review to avoid the risks of intangible products and make a better decision. Similarly, Xie et al. (2011) found the same relationship in the accommodation context, showing that the higher credibility the customers perceived in an online review, the greater their intention was to book a hotel room. Thus, the findings of this study have discovered the same effect to be true in the restaurant context, implying that the more credibility customers perceive in Zomato reviews, the higher intention they would have to visit or recommend the restaurant. This might provide a useful finding to add to the online restaurant reviews literature, extending the understanding of review credibility in a food and beverage context and filling the gap between online reviews and dining intention.

Secondly, the positive relationship between review credibility, review valence, and dining intention was tested using an experimental design, which has not been undertaken in prior studies. Previous studies have noted that review valence has a significant impact on review credibility, leading to customers' attitudes toward behavioural intention. For example, after reading a positive review, customers were found to have a higher level of review credibility, leading to a greater level of booking intention for a hotel room. On the other hand, after reading a negative review, customers were found to have a lower level of review credibility, leading to a weaker level of booking intention (Lim & Van Der Heide, 2014; Zhao et al., 2015). Thus, this research proposed and discovered this phenomenon in online restaurant reviews. The study therefore contributes to understandings of review valence and psychological factors such as the positivity and negativity effect in the context of online restaurant reviews. Future studies could explore the relationship among review credibility, review valence, and dining intention in different restaurants and examine the differences between fine dining and casual dining.

Lastly, this research also explored the moderating role of gender difference in the relationships between review credibility, review valence, and dining intention. Previous studies have investigated the area of information processing and online reviews in the accommodation and tourism context (e.g. Abubakar et al., 2017; Escobar-Rodríguez et al., 2017), whereas this research focused on the restaurant context. This research investigated the theory of the selectivity hypothesis (Meyers-Levy & Loken, 2015), which suggests that females may be more emotional and likely to be driven by social connection more than are males. Accordingly, other studies found that females tend to pay more attention to negative reviews due to the perception that negative reviews have a higher level of credibility than do positive reviews. This may be due to concerns with security and desires to avoid risk, which are stronger for females in their online purchase intentions (Bae & Lee, 2011). Thus, this study confirmed the gender role and the examined

relationship tended to be more influential for females, adding empirical findings to the gender literature in a hospitality context. However, no difference could be found in positive reviews, between females and males. The findings of this research are consistent with those in previous studies (e.g. Abubakar et al., 2017; Escobar-Rodríguez et al., 2017; Hwang & Han, 2016), showing that the effect of review valence on dining intention is stronger for females than for males. Furthermore, in this study, the moderating effect of gender difference was verified. In a negative online review, the negative impact of credibility on dining intention was stronger for females than for males. However, in positive reviews, there was no difference between females and males in terms of the positive influence of credibility on dining intentions. This may provide an interesting finding for future studies, which could explore the similarity of perceived credibility between females and males regarding online restaurant positive reviews, enriching the gender difference literature.

5.3 Practical Implications

The results of this research also provide some practical implications for restaurant owners and managers and users of restaurant recommendation platforms. Firstly, this study helps restaurant managers have a better understanding of customers' attitudes toward the valence and credibility of online restaurant reviews. Restaurant managers can gain a deeper understanding of potential customers' needs and their expectations of a dining experience. For example, if a restaurant aims to increase female customers, it could encourage customers to post online reviews with detailed comments or specific descriptions, as this study found that females tend to process information more comprehensively and carefully than do males.

Secondly, other studies have also suggested that customers could be sensitive to the emotional content of an online review, and females in particular tend to be more susceptible to negative reviews during their decision-making processes. Studies that suggest response protocols are effective when they are empathetic in manner (Casalo, Flavian, Guinaliu, & Ekinci, 2015), answering negative reviews and service failure recovery methods, which may increase the revisit intention of customers. When a negative review is left by a customer, managers should respond in a timely manner and with detailed comments on how they propose to make up for the service failure or appease the dissatisfied customer (Tsao et al., 2015). This would help reduce the chances of losing potential customers who are impacted more by negative reviews. For both negative and positive review instances, it is suggested that managerial responses should be personalised and interactions with customers should be carried out in a way that expresses empathy in order to increase favourable attitudes towards the restaurant (Fong et al., 2017).

Thirdly, the identification information of the person posting the online review seems to affect the perceived trustworthiness and the level of review credibility. Therefore, it is suggested that users of the restaurant recommendation platforms such as Zomato provide their real names and profile

photos when they post reviews, increasing perceived credibility when consumers read the reviews. Also, to increase the level of expertise of reviews, the restaurant recommendation platforms should add filters to help customers distinguish whether the users are regular or new, which enables prospective customers evaluate the review credibility.

Lastly, information types such as text and pictures and the number of pictures in the reviews are likely to influence the perceived credibility of online reviews. Hence, it is suggested that restaurant managers should ensure that pictures are kept up-to-date on Zomato or other platforms which can be viewed when customers use such mobile applications to access reviews. This may help potential customers learn more about a restaurant regarding food quality, service quality, and environment in the review, increasing their intention to visit the restaurant.

5.4 Limitations and Future Research

Some limitations could be found in this research and suggestions are given for future studies. Firstly, this research manipulated information types such as text and pictures in the methodology, however, only one picture was used in both the assigned positive and negative reviews. The numbers and quality of the pictures may have a bias which affects the level of perceived credibility of the assigned reviews. Future studies could employ three pictures and conduct a pilot test with a larger sample size to increase generalisability.

Secondly, the content of the assigned reviews in the experimental design was manipulated based on the reviews of a Korean restaurant in Zomato. This may influence the perceived attitudes toward dining intention because the data were collected in the USA and most of the participants were European, so may not have been familiar with Asian food or interested in it. Future studies could manipulate online reviews based on other cuisines.

Lastly, future studies may add review helpfulness as an independent variable as the level of helpfulness and credibility are likely to be subjective, according to gender. Also, it is suggested to collect data in different locations and increase the sample size of the study to improve the generalisability of the results.

5.5 Conclusion

This research investigated the influence of review valence and review credibility on consumers' dining intention considering the moderating role of gender difference in the influence. To answer the research questions, this study took a deductive research approach. An experimental design with an online questionnaire was developed in the research methodology to collect data from the members of Amazon Mturk in the USA. The research found that review credibility successfully predicts consumers' dining intention, which could be found to have a positive impact in positive online reviews and a negative impact in negative online reviews. The causal links amongst review

credibility, review valence, dining intention, and the moderator of gender difference were validated by multiple regression analyses. The findings of the study contribute to extending theory, specifically the theory of positivity and negativity effect, and the selectivity hypothesis. Furthermore, the findings of the research provide practical implications for restaurant owners and managers to assist in improving their online marketing strategies. Providing credible and trustworthy online reviews and managing both positive and negative online reviews are important for increasing the perceived review credibility, which assists customers to reduce the purchase risk and better evaluate the dining experience.

REFERENCES

Abubakar, A. M., Ilkan, M., Al-Tal, R. M., & Eluwole, K. K. (2017). eWOM, revisit intention, destination trust and gender. *Journal of Hospitality and Tourism Management*, *31*, 220-227. https://doi.org/10.1016/j.jhtm.2016.12.005

Amatulli, C., De Angelis, M., & Stoppani, A. (2019). Analyzing online reviews in hospitality: Data-driven opportunities for predicting the sharing of negative emotional content. *Current Issues in Tourism*, 1-14. https://doi.org/10.1080/13683500.2019.1594723

Assaker, G. (2019). Age and gender differences in online travel reviews and user-generated -content (UGC) adoption: Extending the technology acceptance model (TAM) with credibility theory. *Journal of Hospitality Marketing & Management*, 1-22. https://doi.org/10.1080/19368623.2019.1653807

Ayeh, J. K., Au, N., & Law, R. (2013). "Do we believe in TripAdvisor?" Examining credibility perceptions and online travelers' attitude toward using user-generated content. *Journal of Travel Research*, *52*(4), 437-452. https://doi.org/10.1177/0047287512475217

Bacharach, S. B. (1989). Organizational theories: Some criteria for evaluation. *Academy of Management Review*, *14*(4), 496-515.

Bae, S., & Lee, T. (2011). Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research*, *11*(2), 201-214. https://doi.org/10.1007/s10660-010-9072-y

Bentler, PM. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238–246.

Book, L. A., Tanford, S., Montgomery, R., & Love, C. (2018). Online traveler reviews as social influence: Price is no longer king. *Journal of Hospitality & Tourism Research*, *42*(3), 445-475. https://doi.org/10.1177/1096348015597029

Buttle, F. A. (1998). Word of mouth: Understanding and managing referral marketing. *Journal of Strategic Marketing*, *6*(3), 241-254. https://doi.org/10.1080/096525498346658

Canny, I. U. (2014). Measuring the mediating role of dining experience attributes on customer satisfaction and its impact on behavioral intentions of casual dining restaurant in Jakarta. *International Journal of Innovation, Management and Technology*, *5*(1), 25-29. https://doi.org/10.7763/IJIMT.2014.V5.480

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment.* Beverly Hills, CA: Sage Publications.

Casalo, L. V., Flavian, C., Guinaliu, M., & Ekinci, Y. (2015). Do online hotel rating schemes influence booking behaviors? *International Journal of Hospitality Management*, *49*, 28-36. https://doi.org/10.1016/j.ijhm.2015.05.005

Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. *Management Science*, *54*(3), 477-491. https://doi.org/10.1287/mnsc.1070.0810

Cheung, C. M. Y., Sia, C. L., & Kuan, K. K. (2012). Is this review believable? A study of factors affecting the credibility of online consumer reviews from an ELM perspective. *Journal of the Association for Information Systems*, *13*(8), 618-635.

Chu, W., Roh, M., & Park, K. (2015). The effect of the dispersion of review ratings on evaluations of hedonic versus utilitarian products. *International Journal of Electronic Commerce*, *19*(2), 95-125. https://doi.org/10.1080/10864415.2015.979482

Darley, W. K., & Smith, R. E. (1995). Gender differences in information processing strategies: An empirical test of the selectivity model in advertising response. *Journal of Advertising*, *24*(1), 41-56. https://dou.org/10.1080/00913367.1995.10673467

Duverger, P. (2013). Curvilinear effects of user-generated content on hotels' market share: A dynamic panel-data analysis. *Journal of Travel Research*, *52*(4), 465-478. https://doi.org/10.1177/0047287513478498

Eagly, A. H., & Wood, W. (1991). Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin*, *17*(3), 306-315. https://doi.org/10.1177/0146167291173011

Escobar-Rodríguez, T., Grávalos-Gastaminza, M. A., & Pérez-Calañas, C. (2017). Facebook and the intention of purchasing tourism products: Moderating effects of gender, age and marital status. *Scandinavian Journal of Hospitality and Tourism*, *17*(2), 129-144. https://doi.org/10.1080/15022250.2015.1137784

Fan, A., Shen, H., Wu, L., Mattila, A. S., & Bilgihan, A. (2018). Whom do we trust? Cultural differences in consumer responses to online recommendations. *International Journal of Contemporary Hospitality Management*, *30*(3), 1508-1525. https://doi.org/10.1108/IJCHM-01-2017-0050

Fakih, K., Assaker, G., Assaf, A. G., & Hallak, R. (2016). Does restaurant menu information affect customer attitudes and behavioral intentions? A cross-segment empirical analysis using PLS-SEM. *International Journal of Hospitality Management*, *57*, 71-83. https://doi.org/10.1016/j.ijhm.2016.06.002

Filieri, R. (2016). What makes an online consumer review trustworthy? *Annals of Tourism Research*, *58*, 46-64. https://doi.org/10.1016/j.annals.2015.12.019

Filieri, R., Alguezaui, S., & McLeay, F. (2015). Why do travelers trust TripAdvisor? Antecedents of trust towards consumer-generated media and its influence on recommendation adoption and word of mouth. *Tourism Management*, *51*, 174-185. https://doi.org/10.1016/j.tourman.2015.05.007

Filieri, R., Raguseo, E., & Vitari, C. (2019). What moderates the influence of extremely negative ratings? The role of review and reviewer characteristics. *International Journal of Hospitality Management*, *77*, 333-341. https://doi.org/10.1016/j.ijhm.2018.07.013

Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, *38*(6), 889–906. https://doi.org/10.1037/0022-3514.38.6.889

Floh, A., Koller, M., & Zauner, A. (2013). Taking a deeper look at online reviews: The asymmetric effect of valence intensity on shopping behaviour. *Journal of Marketing Management*, *29*(5-6), 646-670. https://doi.org/10.1080/0267257X.2013.776620

Fong, L. H. N., Lei, S. S. I., & Law, R. (2017). Asymmetry of hotel ratings on TripAdvisor: Evidence from single-versus dual-valence reviews. *Journal of Hospitality Marketing & Management*, *26*(1), 67-82. https://doi.org/10.1080/19368623.2016.1178619

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312.

Gan, Q., Ferns, B. H., Yu, Y., & Jin, L. (2017). A text mining and multidimensional sentiment analysis of online restaurant reviews. *Journal of Quality Assurance in Hospitality & Tourism*, *18*(4), 465-492. https://doi.org/10.1080/1528008X.2016.1250243

Goh, T. T., & Sun, S. (2014). Exploring gender differences in Islamic mobile banking acceptance. *Electronic Commerce Research*, *14*(4), 435-458. https://doi.org/10.1007/s10660-014-9150-7

Gray, D. E. (2004). *Doing research in the real world*. Los Angeles, CA: Sage.

Gretzel, U., & Yoo, K. H. (2008). Use and impact of online travel reviews. *Information and Communication Technologies in Tourism 2008*, 35-46. https://doi.org/10.1007/978-3-211-77280-5_4

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice hall.

Hovland, C.I., Janis, I.L. and Kelley, H.H. (1953). *Communication and Persuasion: Psychological Studies of Opinion Change.* New Haven, CT: Yale University Press.

Hwang, J., & Han, H. (2017). Are other customer perceptions important at casino table games? Their impact on emotional responses and word-of-mouth by gender. *Journal of Travel & Tourism Marketing*, *34*(4), 544-555. https://doi.org/10.1080/10548408.2016.1208788

Jalilvand, M. R., Samiei, N., Dini, B., & Manzari, P. Y. (2012). Examining the structural relationships of electronic word of mouth, destination image, tourist attitude toward destination and travel intention: An integrated approach. *Journal of Destination Marketing & Management*, *1*(1-2), 134-143. https://doi.org/10.1016/j.jdmm.2012.10.001

Jensen, M. L., Averbeck, J. M., Zhang, Z., & Wright, K. B. (2013). Credibility of anonymous online product reviews: A language expectancy perspective. *Journal of Management Information Systems*, *30*(1), 293-324. https://doi.org/10.2753/MIS0742-1222300109

Jeong, E., & Jang, S. S. (2015). Healthy menu promotions: a match between dining value and temporal distance. *International Journal of Hospitality Management*, *45*, 1-13. https://doi.org/10.1016/j.ijhm.2014.11.001

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–292. https://doi.org/10.2307/1914185

Kim, E., Ham, S., Yang, I. S., & Choi, J. G. (2013). The roles of attitude, subjective norm, and perceived behavioral control in the formation of consumers' behavioral intentions to read menu labels in the restaurant industry. *International Journal of Hospitality Management*, *35*, 203-213. https://doi.org/10.1016/j.ijhm.2013.06.008

Kim, H. H., & Law, R. (2015). Smartphones in tourism and hospitality marketing: A literature review. *Journal of Travel & Tourism Marketing*, *32*(6), 692-711. https://doi.org/10.1080/10548408.2014.943458

Kim, M., & Lennon, S. (2008). The effects of visual and verbal information on attitudes and purchase intentions in internet shopping. *Psychology & Marketing*, *25*(2), 146-178. https://doi.org/10.1002/mar.20204

Kim, E. E. K., Mattila, A. S., & Baloglu, S. (2011). Effects of gender and expertise on consumers' motivation to read online hotel reviews. *Cornell Hospitality Quarterly*, *52*(4), 399-406. https://doi.org/10.1177/1938965510394357

King, R. A., Racherla, P., & Bush, V. D. (2014). What we know and don't know about online word-of-mouth: A review and synthesis of the literature. *Journal of Interactive Marketing*, *28*(3), 167-183. https://doi.org/10.1016/j.intmar.2014.02.001

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.

Kotler, P., Bowen, J. T., Makens, J. C., & Baloglu, S. (2017). *Marketing for hospitality and tourism* (7th ed.). Boston, MA: Pearson Educational.

Kuan, K. K., Hui, K. L., Prasarnphanich, P., & Lai, H. Y. (2015). What makes a review voted? An empirical investigation of review voting in online review systems. *Journal of the Association for Information Systems*, *16*(1), 48-71.

Kwok, L., Xie, K. L., & Richards, T. (2017). Thematic framework of online review research: A systematic analysis of contemporary literature on seven major hospitality and tourism journals. *International Journal of Contemporary Hospitality Management*, *29*(1), 307-354. https://doi.org/10.1108/IJCHM-11-2015-0664

Ladhari, R., & Michaud, M. (2015). eWOM effects on hotel booking intentions, attitudes, trust, and website perceptions. *International Journal of Hospitality Management*, *46*, 36-45. https://doi.org/10.1016/j.ijhm.2015.01.010

Lee, K. T., & Koo, D. M. (2012). Effects of attribute and valence of e-WOM on message adoption: Moderating roles of subjective knowledge and regulatory focus. *Computers in Human Behavior*, *28*(5), 1974-1984. https://doi.org/10.1016/j.chb.2012.05.018

Lee, S., & Ro, H. (2016). The impact of online reviews on attitude changes: The differential effects of review attributes and consumer knowledge. *International Journal of Hospitality Management*, *56*, 1-9. https://doi.org/10.1016/j.ijhm.2016.04.004

Lee, G., & Tussyadiah, I. P. (2010). Textual and visual information in eWOM: A gap between preferences in information search and diffusion. *Information Technology & Tourism*, *12*(4), 351-361. https://doi.org/10.3727/109830511X13049763022014

Leung, D., Law, R., Van Hoof, H., & Buhalis, D. (2013). Social media in tourism and hospitality: A literature review. *Journal of Travel & Tourism Marketing*, *30*(1-2), 3-22. https://doi.org/10.1080/10548408.2013.750919

Li, M., Huang, L., Tan, C. H., & Wei, K. K. (2013). Helpfulness of online product reviews as seen by consumers: Source and content features. *International Journal of Electronic Commerce*, *17*(4), 101-136. https://doi.org/10.2753/JEC1086-4415170404

Lim, Y. S., & Van Der Heide, B. (2014). Evaluating the wisdom of strangers: The perceived credibility of online consumer reviews on Yelp. *Journal of Computer-Mediated Communication*, *20*(1), 67-82. https://doi.org/10.1111/jcc4.12093

Liu, S., Law, R., Rong, J., Li, G., & Hall, J. (2013). Analyzing changes in hotel customers' expectations by trip mode. *International Journal of Hospitality Management*, *34*, 359-371. https://doi.org/10.1016/j.ijhm.2012.11.011

Liu, X., Zhang, Z., Law, R., & Zhang, Z. (2019). Posting reviews on OTAs: Motives, rewards and effort. *Tourism Management*, *70*, 230-237. https://doi.org/10.1016/j.tourman.2018.08.013

Lo, A. S., & Yao, S. S. (2019). What makes hotel online reviews credible? An investigation of the roles of reviewer expertise, review rating consistency and review valence. *International Journal of Contemporary Hospitality Management*, *31*(1), 41-60. https://doi.org/10.1108/IJCHM-10-2017-0671

Luo, C., Wu, J., Shi, Y., & Xu, Y. (2014). The effects of individualism–collectivism cultural orientation on eWOM information. *International Journal of Information Management*, *34*(4), 446-456. https://doi.org/10.1016/j.ijinfomgt.2014.04.001

Ma, E., Qu, H., & Eliwa, R. A. (2014). Customer loyalty with fine dining: The moderating role of gender. *Journal of Hospitality Marketing & Management*, *23*(5), 513-535. https://doi.org/10.1080/19368623.2013.835250

Mayer, R. E. (2005). *The Cambridge handbook of multimedia learning.* Cambridge, UK: Cambridge University Press.

Mauri, A. G., & Minazzi, R. (2013). Web reviews influence on expectations and purchasing intentions of hotel potential customers. *International Journal of Hospitality Management*, *34*, 99-107. https://doi.org/10.1016/j.ijhm.2013.02.012

Meyers-Levy, J., & Loken, B. (2015). Revisiting gender differences: What we know and what lies ahead. *Journal of Consumer Psychology*, *25*(1), 129-149. https://doi.org/10.1016/j.jcps.2014.06.003

Mudambi, S. M., & Schuff, D. (2010). What makes a helpful review? A study of customer reviews on Amazon. com. *MIS quarterly*, *34*(1), 185-200.

Mishra, A., & Satish, S. M. (2016). eWOM: Extant research review and future research avenues. *Vikalpa*, *41*(3), 222-233. https://doi.org/10.1177/0256090916650952

Nieto-García, M., Muñoz-Gallego, P. A., & González-Benito, Ó. (2017). Tourists' willingness to pay for an accommodation: The effect of eWOM and internal reference price. *International Journal of Hospitality Management*, *62*, 67-77. https://doi.org/10.1016/j.ijhm.2016.12.006

Otterbring, T., Shams, P., Wästlund, E., & Gustafsson, A. (2013). Left isn't always right: Placement of pictorial and textual package elements. *British Food Journal*, *115*(8), 1211-1225. https://doi.org/10.1108/BFJ-08-2011-0208

Park, H., Xiang, Z., Josiam, B., & Kim, H. (2014). Personal profile information as cues of credibility in online travel reviews. *Anatolia*, *25*(1), 13-23. https://doi.org/10.1080/13032917.2013.820203

Pentina, I., Bailey, A. A., & Zhang, L. (2018). Exploring effects of source similarity, message valence, and receiver regulatory focus on yelp review persuasiveness and purchase intentions. *Journal of Marketing Communications*, *24*(2), 125-145. https://doi.org/10.1080/13527266.2015.1005115

Raman, P. (2018). Zomato: a shining armour in the foodtech sector. *Journal of Information Technology Case and Application Research*, *20*(3-4), 130-150. https://doi.org/10.1080/15228053.2018.1552396

Ramkissoon, H., & Nunkoo, R. (2012). More than just biological sex differences: Examining the structural relationship between gender identity and information search behavior. *Journal of Hospitality & Tourism Research*, *36*(2), 191-215. https://doi.org/10.1177/1096348010388662

Rose, M., & Blodgett, J. G. (2016). Should hotels respond to negative online reviews? *Cornell Hospitality Quarterly*, *57*(4), 396-410. https://doi.org/10.1177/1938965516632610

Salehi-Esfahani, S., Ravichandran, S., Israeli, A., & Bolden III, E. (2016). Investigating information adoption tendencies based on restaurants' user-generated content utilizing a modified information adoption model. *Journal of Hospitality Marketing & Management*, *25*(8), 925-953. https://doi/org/10.1080/19368623.2016.1171190

Sanchez-Franco, M. J. (2006). Exploring the influence of gender on the web usage via partial least squares. *Behaviour & Information Technology*, *25*(1), 19–36. https://doi.org/10.1080/01449290500124536.

Schuckert, M., Liu, X., & Law, R. (2015). Hospitality and tourism online reviews: Recent trends and future directions. *Journal of Travel & Tourism Marketing*, *32*(5), 608-621. https://doi.org/10.1080/10548408.2014.933154

Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin*, *105*(1), 131-142.

Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*, *32*(6), 1310-1323. https://doi.org/10.1016/j.tourman.2010.12.011

Sundar, S. S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. *Digital Media, Youth, and Credibility*, 73-100. https://doi/org/10.1162/dmal.9780262562324.073

Tanford, S., & Kim, E. L. (2019). Risk versus reward: When will travelers go the distance? *Journal of Travel Research*, *58*(5), 745-759. https://doi.org/10.1177/0047287518773910

Tsao, W. C., Hsieh, M. T., Shih, L. W., & Lin, T. M. (2015). Compliance with eWOM: The influence of hotel reviews on booking intention from the perspective of consumer conformity. *International Journal of Hospitality Management*, *46*, 99-111. http://dx.doi.org/10.1016/j.ijhm.2015.01.008

Ukpabi, D. C., & Karjaluoto, H. (2018). What drives travelers' adoption of user-generated content? A literature review. *Tourism Management Perspectives*, *28*, 251-273. https://doi.org/10.1016/j.tmp.2018.03.006

Wang, P. (2015). Exploring the influence of electronic word-of-mouth on tourists' visit intention: A dual process approach. *Journal of Systems and Information Technology*, *17*(4), 381-395. https://doi.org/ 10.1108/JSIT-04-2015-0027

Wu, P. F. (2013). In search of negativity bias: An empirical study of perceived helpfulness of online reviews. *Psychology & Marketing*, *30*(11), 971-984. https://doi.org/10.1002/mar.20660

Xiang, Z., Du, Q., Ma, Y., & Fan, W. (2017). A comparative analysis of major online review platforms: Implications for social media analytics in hospitality and tourism. *Tourism Management*, *58*, 51-65. https://doi.org/10.1016/j.tourman.2016.10.001

Xiang, Z., Schwartz, Z., Gerdes Jr, J. H., & Uysal, M. (2015). What can big data and text analytics tell us about hotel guest experience and satisfaction? *International Journal of Hospitality Management*, *44*, 120-130. https://doi.org/10.1016/j.ijhm.2014.10.013

Xie, H. J., Miao, L., Kuo, P. J., & Lee, B. Y. (2011). Consumers' responses to ambivalent online hotel reviews: The role of perceived source credibility and pre-decisional disposition. *International Journal of Hospitality Management*, *30*(1), 178-183. https://doi.org 10.1016/j.ijhm.2010.04.008

Xu, Q. (2014). Should I trust him? The effects of reviewer profile characteristics on eWOM credibility. *Computers in Human Behavior*, *33*, 136-144. https://doi.org/10.1016/j.chb.2014.01.027

Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, *27*(2), 634-639. https://doi.org/10.1016/j.chb.2010.04.014

Zhao, X., Wang, L., Guo, X., & Law, R. (2015). The influence of online reviews to online hotel booking intentions. *International Journal of Contemporary Hospitality Management*, *27*(6), 1343-1364. https://doi.org/10.1108/IJCHM-12-2013-0542

APPENDIX A: PARTICIPANT INFORMATION SHEET

Participant Information Sheet

28 August 2019

Dear participant,

My name is Zhuoyi (Theresa) Xian. I am a Master's student, studying postgraduate International Hospitality Management at Auckland University of Technology (AUT) in New Zealand. I am currently undertaking a research project about customers' perceptions of review credibility in Zomato. The project is a part of my dissertation, which I need to complete for my qualification.

The research aims to find out how credible Zomato online reviews are, and how online reviews influence customers' attitudes on review credibility. The research results will contribute to a better understanding of the adoption of online reviews and provide the food and beverage sector with insights into how to improve communication effectiveness.

I cordially invite you to participate in this **9-10 minute** questionnaire. Thank you for your understanding and support for my study.

Completion of the questionnaire indicates your consent to participate. Your participation in this study is **voluntary** and **anonymous**. I will not be able to identify you in any way because no personal identifiable information will be collected. If you feel uncomfortable with any question, you can skip the question or withdraw from the questionnaire at any stage. Once you submit the questionnaire, your data cannot be withdrawn however. All data collected are confidential and used for this project only. The research outcomes will be available on the website of the New Zealand Tourism Research Institute http://www.nztri.org by December 2019. You are welcome to visit the website and view the research findings.

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Peter Kim, *pkim@aut.ac.nz*; Tel: +64 921 9999 ext 6105. Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz*, Tel: +64 921 9999 ext 6038.

For any further information about this project, please feel free to contact the researcher: Zhuoyi (Theresa) Xian, ckj4400@aut.ac.nz. Primary supervisor: Associate Professor Peter Kim, *pkim@aut.ac.nz*.

If you are willing to be a part of the study, please complete the online questionnaire within seven working days. Thank you for your support.

Approved by the Auckland University of Technology Ethics Committee on 6 September 2019, AUTEC Reference number 19/319

APPENDIX B: QUESTIONNAIRE

Dear participant,

This anonymous survey is about how credible Zomato online reviews are. By completing the survey you are giving consent to participate in the research, which is part of my Master project. The survey will take you about 8 minutes. Thank you for your time.

For detailed information about this survey please click on the below link.

Participant information sheet.pdf

Screening questions

Are you aged 18 or over?

- Yes

- No

Have you had experience with using restaurant recommendation applications such as *Zomato*, *Yelp*, or *OpenTable*?

- Yes

- No

Please take at least 2-3 minutes to read the online review information on the following page before providing your answer.

(Note: Respondents are randomly shown one of the four reviews below)

Review 1

4 days ago

Follow

The best place to eat for casual dining! The food is absolutely excellent and this restaurant has the most friendly and most hardworking staff. Insanely good portions & prices – large variety of food and great to eat with a group of friends. My favorite dish is the fried rice! The location is very convenient for university students and love the background music. Would highly recommend this place for any time or occasion!

♡ Like   ○ Comment   ⤴ Share

Review 2

4 days ago

Follow

This place is perfect when you are looking for some decent cuisine! Close to the heart of the city and a short walk for the university facilities. The service is very friendly and genuine, the waiters and waitresses come quickly after you ring the bell on the tables. The atmosphere is cozy and warm, great to eat during winter!

The main dishes here are amazing and the side dishes are just marvellous! The sizzling fried chicken are delicious, tender, and moist, very well cooked! Normally sizzling chicken in other restaurants would be dry and full of vegetables but not here, the flavours are spot on and so much chicken on the plates! Cannot wait to come back and try other dishes!

♡ Like   ○ Comment   ⤴ Share

43

Review 3

The server ignored us and walked right past our table, and he seemed almost bored whilst getting our order.

The spicy beef soup tasted like shin ramen but watered down. No variety of vege inside the soup either. Beef bone soup only had 4 pieces of meat and tasted like salt water. The rice was definitely old as it felt like rubber. Don't waste your time coming here as you will regret it.

4 days ago

Follow

♡ Like   ⊙ Comment   ⟋ Share

Review 4

The menu clearly stated the Spicy Chicken Sizzling comes with rice and miso, but it only arrived with rice. The server did not mention anything and he was chattering away with the kitchen staff.

When I called him, he simply said: "oh, we don't do them anymore." He should have mentioned that when we first ordered. The least he could have done was to apologise for the confusion, but he just shrugged and left. What kind of service is that?

The side dishes were either lacking taste completely, or salty beyond my imagination. The cabbage tasted like wet tissue, and other side dishes were just a mass of salt. Not impressed. I don't think it is worth traveling all the way from west to try their food.

4 days ago

Follow

♡ Like   ⊙ Comment   ⟋ Share

44

Please answer the following questions based on your perception of the online review and the information given above.

1. Does the review provide sufficient information for you to make a decision to dine at

   the restaurant?

Extremely insufficient	Insufficient	Somewhat insufficient	Neither insufficient nor sufficient	Somewhat sufficient	Sufficient	Extreme sufficient
○	○	○	○	○	○	○

2. How positive do you feel the above online review is?

Extremely negative	Negative	Somewhat negative	Neutral	Somewhat positive	Positive	Extremely positive
○	○	○	○	○	○	○

45

Please select the extent of your agreement regarding the credibility of the online review using the following statement based on your perception of the online review and the information given above.

1. I think that the review is based on the customer's true experience

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

2. I think that the review is trustworthy.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

3. In general, I think that the review is persuasive to me.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

4. In general, I think that the review is reliable.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

46

Please select the extent of your agreement regarding the dining intention of the restaurant you have just reviewed, using the following statement.

1. After reading the review, I am willing to visit this restaurant.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

2. After reading the review, I would bring my friends or family to visit this restaurant.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

3. After reading the review, I would recommend to other people to visit this restaurant.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
○	○	○	○	○	○	○

General information

1. What is your gender

   ○ Female
   ○ Male
   ○ Diverse genders
   ○ Do not want to answer

2. What is your age?

3. What is your national identity (ethnicity)?

   ○ European African
   ○ Asian
   ○ Hispanic and Latino
   ○ Others

4. Please state your highest-level qualification.

   ○ High school
   ○ Undergraduate
   ○ Postgraduate or PhD

5. Please state your frequency of dining out per week.

   ○ Less than once a week
   ○ 1-2 times a week
   ○ 2-3 times a week
   ○ 4-5 times week
   ○ Almost everyday