

Guopeng Yu

# The Impact of Referral Rewards Systems for Online Content Creation





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Åbo, Finland, 2016

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ISBN 978-952-12-3480-4  
ISBN 978-952-12-3481-1 (digital)

Painosalama Oy – Turku, Finland 2016

*Dedicated to my beloved parents*



## Acknowledgement

Writing this note of appreciation is the finishing touch on this study. Aside from my endeavors, the completion of the thesis depended mainly on the encouragement and guidance of many others. I wish I could take this opportunity to express my gratitude to these remarkable individuals who have been instrumental in the successful completion of my thesis work.

First and foremost, I would like to gratefully acknowledge my doctoral supervisors, **Prof. Christer Carlsson** and **Prof. Pirkko Walden**, for their continued support for my research; for their patience, enthusiasm, and immense knowledge. Their guidance helped me in all the time of my doctoral study as well as writing of the thesis.

My deepest and sincere appreciation extends to my study advisor and lifetime friend, **Prof. Deqiang Zou** at Fudan University, for his generosity, invaluable suggestions, all the useful discussions and brainstorming sessions, especially during the difficult time of my study. His deep insights into electronic word-of-mouth (eWOM) marketing aided me at various stages of my research.

My gratitude goes to the pre-examiners of this thesis, **Prof. Timo Saarinen** at Aalto University and **Prof. Marianna Sigala** at University of South Australia, for their insightful knowledge and constructive comments which helped me out in improving the quality of this study. My sincere appreciation is also reserved for **Prof. Virpi Kristiina Tuunainen** at Aalto University, who has accepted to act as the opponent at my public defense. It is my great honor to have her assess my dissertation.

My gratitude is also offered to **Prof. Anssi Öörni** and research coordinator **Johanna Hedenborg**, for their administrative work, as the thesis cannot be processed efficiently without their efforts.

My heartfelt appreciation goes to my fellow lab-mates and academic friends, **Usman Warraich**, **Xiaoyu Xu**, **Jie Guo**, **Jozsef Mezei**, **Markku Heikkilä**, **Anna Sell**, **Eyal Eshet**, **Shahrokh Nikou**, **Nazrul Islam**, for the good working environment they created which made my doctoral study more joyful.

Additionally, this dissertation would not have been possible without the financial supports that were provided by the **Finnish Cultural Foundation** and **Dagmar och Ferdinand Jacobssons Fond**.

Many thanks to my friends **Yubing Tan**, **Jin Zhang**, **Biao Zhang**, **Hongshun Pan**, **Shupin Li**, **Yanping He**, **Ming Zhan**, **Yi Tai**, **Yan Xing**, **Jia Sun**, when I pursuit the doctoral degree in Finland, for the numerous happy moments that we shared together. My special appreciation goes to **Qian Xu**, who acts as my elder brother and takes care of me and supports me all the time in Finland.

My special thanks also goes to my childhood and lifetime friends, **Wei Ge**, **Liang Wang**, **Guangxi Fu**, **Xiang Li**, **Liu Yang**, **Yulin Hao**, **Yanni Wang**, **Lingling Zhong**, **Xiaoying Song**, **Jun Hou**, **Luying Gao**, **Peng He**, **Bing Leng**, **Chunlin Sui**,

**Xiaoxia Zhang**, for their endless spiritual support throughout writing this thesis and my life in general, which I will forever treasure.

Word cannot express the appreciation that I wish to offer to my parents. I want to thank them for believing in me, even during the time when I did not believe in myself; for their constant and unconditional support –both emotionally and financially; for their enduring love; and for their inspiration which enables me to fulfill my ambition. I would like to dedicate this thesis to them!

Guopeng Yu  
Åbo, November 15, 2016

## Abstract

User-generated content (UGC) has become increasingly important for our everyday life as it can directly reflect our social interactions with other people. This importance is more apparent when travelers and tourists search and produce information about destinations. Previous studies have already found out that UGC plays an important role in consumers' different phases of travel. However, little effort is made to explore what kind of UGC will have an impact on consumers' likelihood to purchase tourism products and services, and their intentions to make recommendations for others, and their attitudes toward destinations. Answers to these questions cannot be more critical to tourism service providers, because their ultimate goal is to generate more revenue by enhancing the online presence of their products and engaging more customers.

On the other hand, more importantly, not all consumers would like to share their feelings and experience of destinations after their trips. This, to a great extent, will create barriers for tourism service providers when they want their product information to be transmitted online.

Consumers' online sharing behavior is driven either by social norms (e.g., altruism) or individual rationality (e.g., to obtain the greatest amount of benefits). The former is an unintentional behavior, whereas the latter is an intentional behavior which can be motivated by extrinsic rewards (e.g., money). In fact, in word-of-mouth (WOM) marketing, pioneering practitioners have already used extrinsic rewards to increase customers' referrals for their products. The systems, which are capable of motivating influential customers to spread positive WOM, are called "referral rewards systems (RRSs)". Given that WOM and UGC are quite similar in nature, we propose that RRSs might also be effective to motivate tourists to create content online.

In the study, three experiments were carried out to examine the impact of RRSs on travelers' and tourists' likelihood to use social media, their behavioral intentions, and their attitudes toward destinations; and then to explore what kind of UGC is influential on tourists' and travelers' likelihood to use social media, their behavioral intentions, and their attitudes toward destinations.

The results show that using RRSs to motivate tourists (sharers) to share will have an impact on their peers' (i.e., tourists' and travelers') use of social media, WOM and purchase intentions, and on their attitudes toward destinations. In particular, it was found that rewarding sharers who attempted to "obtain the maximum number of likes" and sharers "who perceived a large social distance from peers" would help tourism service providers design more cost-effective and efficient RRSs. In addition, using a social mechanism will yield better outcomes than using direct rewards.



Further, the results also demonstrate that *positive emotions* (especially *high-positive emotions*), *interesting*, *credible*, *useful*, and *desirability-concerned* content, and content with *environmental factors* and *price cues* are influential on travelers' and tourists' likelihood to be active on social media, on their purchase and WOM intentions, and on their attitudes toward destinations.

The study contributes to methods and tools developed for the tourism industry by showing service providers how to use RRSs to motivate tourists to share their insight and experience on social media. It also sheds light on how to design successful tourism viral marketing campaigns and how to craft contagious content.

Turku, August 31, 2016

*Guopeng Yu*

## Abstrakt

Innehåll som produceras av användarna (*User-generated content*, UGC) har fått en allt större betydelse i vårt vardagsliv eftersom det direkt kan påverka vår sociala interaktion med andra. Betydelsen blir speciellt märkbar när resenärer och turister söker och skapar innehåll om sina reseplan. Tidigare studier visar att UGC de facto spelar en stor roll under resans olika skeden. Det har inte genomförts speciellt mycket forskning om vilket slags innehåll som är producerat av användare och som också ökar turisternas och resenärernas sannolikhet för att köpa reseprodukter och -tjänster, ökar deras intentioner att skapa rekommendationer så att deras åsikter om reseplan kommer att ha betydelse för andra. Svaren på dessa frågor är kritiska för dem som säljer turisttjänster eftersom deras centrala mål är att öka omsättningen genom att erbjuda en utökad digital närvaro av tjänsterna, vilket i sin tur lockar mera kunder.

Å andra sidan är det till och med viktigare att inse att alla konsumenterna inte nödvändigtvis vill dela med sig av sina uppfattningar och erfarenheter om ett reseplan efter en resa. Detta skapar i sin tur hinder för dem som säljer turisttjänster att digitalt sprida information om tjänsterna.

Konsumenternas digitala beteende drivs antingen av sociala normer (t.ex. altruism) eller individuell rationalitet (t.ex. att erhålla maximal nytta). Det tidigare är ett icke-avsiktligt medan det senare är ett avsiktligt beteende och kan motiveras med yttre belöningar (t.ex. pengar). Pionjärer i person-till-person (*word-of-mouth*, WOM) marknadsföring har de facto använt yttre belöningar för att öka antalet kundrekommendationer för sina produkter. System som kan motivera inflytelserika kunder att sprida positiva budskap kallas för referensbelöningssystem (*referral reward system*, RRS-system). Med beaktande av att UGC och WOM är ganska likadana begrepp föreslår jag att ett RRS kunde effektivt utnyttjas för att motivera turister att skapa digitalt innehåll och hjälpa till att distribuera det över Internet.

I denna studie utförs tre experiment för att studera inverkan av RRS på sannolikheten för turister och resenärer att aktivera sig på sociala media, på deras förväntade beteende och på deras åsikter om reseplan. Dessutom är strävan att undersöka hurdana UGC har effekter på turisternas och resenärernas sannolikhet för att engagera sig på sociala media, på deras förväntade beteende och på deras åsikter om reseplan.

Resultaten visar att användningen av RRS motiverar turister att dela med sig av sina erfarenheter vilket har effekt på andra turisternas aktiviteter i sociala media, på deras WOM och på deras avsikter att köpa, och på deras åsikter om reseplan. Speciellt har vi fått fram i experimenten att om man belönar de konsumenterna som "ville erhålla maximalt antal *likes*" och de som "uppfattade sig som inte lika som andra resekonsumenterna" så hjälper det producenter av turisttjänster att skapa och utveckla mer

kostnadseffektiva och effektiva RRS system. Dessutom fann vi att användningen av sociala mekanismer som metod ger bättre utfall än att använda direkta belöningar.

I de tre experimenten fann vi dessutom att *positiva känslor* (i synnerhet *ytterst positiva känslor*), såsom *intressant, trovärdigt, användbart* och innehåll som *motsvarar turisternas och resenärernas förväntningar*, och innehåll som bygger på *omgivningsbetingade faktorer* och *prispreferenser* är effektiva för att bygga upp i turisters sannolikhet för att aktivera sig på sociala media, för att köpa och för att skapa WOM, samt på deras åsikter om rese mål.

Avhandlingen skapar nytta för turismindustrin, både för utvecklare och säljare av turismtjänster och - produkter, men också för turismforskningen, eftersom resultaten visar till vem belöningar ska riktas, hur belöningar ska delas mellan aktörer och vilka belöningar som skall delas ut för att ge ett bättre utfall med RRS för att få turister att skapa och dela innehåll i sociala media. Avhandlingen diskuterar också hur man ska utforma framgångsrika marknadsföringskampanjer för turister och resenärer, och hur man skall skapa innehåll som fångar deras intresse.

*Guopeng Yu*

Åbo, 31 augusti 2016

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# 1. Introduction

## 1.1. The role of information and communication technologies (ICTs) in travel and tourism industry – an overview of the status and trends

### 1.1.1. Status of applications of ICTs in tourism industry

The appearance of the Internet and the developments of information and communication technologies (ICTs) have revolutionized the way of our communication making the world more connected with each day (Batinic, 2013). This brings about more opportunities for business practitioners and also more choices and information for consumers (Standing et al., 2014).

Travel and tourism industry is considered as one of the first to be influenced by ICTs, whose growth is found closely interrelated with the dynamic growth and development of the industry (Buhalis and Law, 2008). Buhalis (2000) identifies several factors that drive ICTs to be an integral part of tourism industry, including efficiency requirements for global competitions, advancements of technology, improvements of the productivity induced by the performance of ICTs, and customers' expectations of the enhancements of customer services and personalized interactions.

Indeed, the revolution of ICTs affects both tourism organizations and consumers in an innovative manner (Pan, 2008). Poon (1994) states that "ICTs are being rapidly diffused throughout the tourism industry and no player will escape its impact". On one hand, ICTs allow tourism organizations to be present globally and to establish partnerships with each other efficiently and cost-effectively. Hence, the organizations can adjust their price or initiate promotion campaigns flexibly and competitively. In addition, ICTs enable tourism industry to distribute more specialized products to niche markets with less operation and communication costs. This provides organizations with an opportunity to target their market precisely (e.g., target each individual customer) and reduces commissions to intermediaries. More importantly, tourism suppliers could facilitate ICTs to interact constantly with their customers at any time (Buhalis, 2002, pp:78-80).

On the other hand, to a large extent, the penetration of ICTs in tourism industry is customer-driven, because usually customers demand technological innovations and seek electronic interactions with the industry; but only a small number of tourism suppliers introduce the innovated ICTs (Buhalis, 2002, pp:81). Contemporary consumers lead a hectic life, resulting in limited time to travel for relaxation. Therefore, they now have become less tolerant with the delays, and only up-to-date and comprehensive services will meet their needs. (Buhalis and Law, 2008). Compared to the conventional methods (e.g., acquiring information directly from travel

agencies or word-of-mouth of friends), ICTs assist tourists in easily and accurately obtaining information by minimizing costs and inconvenience (O'Connor, 1999). Instead of relying on travel agencies, consumers can search destination information, book air-tickets, make hotel reservations and other online purchases by themselves (Morrisson et al., 2001). In addition, ICTs not only decrease the perceived risks but also increase the quality of travels. For instance, technologies of virtual representations of destinations (e.g., 3D maps) encourage travel consumers to search information about certain destinations and take a trip there in future; online information of destinations enables tourists to personalize travel plans according to their preferences; real-time information during the trips (e.g., mobile applications) allows tourists to explore local events and places of interest that match their expectations. In addition, tourists are also provided with technological solutions (e.g., personal social media) that enable them to share travel experiences after their trips (Balandin and Laizane, 2013; Fodness and Murray, 1997). Moreover, consumers are allowed to interact with tourism suppliers at any time for consulting and complaining (Buhalis and Law, 2008). Eventually, travel consumers<sup>1</sup> become more independent and knowledgeable under the assistance of the applications of ICTs, which include reservation systems (e.g., [www.booking.com](http://www.booking.com)), meta-search engines (e.g., Google), destination management systems (e.g., [www.chinahighlights.com](http://www.chinahighlights.com)), social networking sites (e.g., WeChat and Facebook), and travel Web 2.0 portals (e.g., TripAdvisor), to name a few.

Among all the applications of ICTs, social media are considered as the most influential, because travel consumers now increasingly trust their peers rather than tourism practitioners (Buhalis and Law, 2008). According to the ITB<sup>2</sup> Berlin World Travel Trends Reports (2013 – 2016), in 2015, nearly 70% of the international tourists they investigated stated that their travel decisions were affected by social media, and this was 30% more than in 2012 (see Figure1.). Following social media were the sources directly from travel agencies (around one third) and friends (about one fourth). Social media applications, such as review sites<sup>3</sup>, blogs, forums, personal social networks etc., could impact travel consumers' choices of destinations (40%), accommodations (30%) and even holiday types (20%). In addition, such impact spread all over consumers' travel stages including before, during and after the trips.

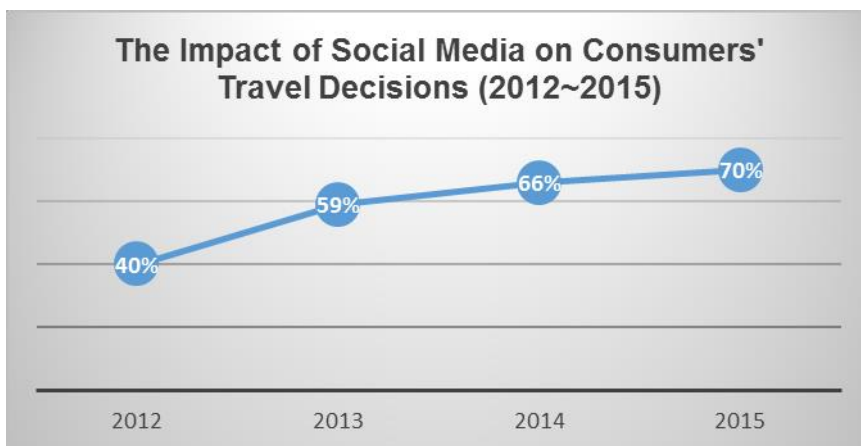
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<sup>1</sup> In this study, the word "sharers" and "tourists" are interchangeable words. In addition, "consumers" and "peers" are also interchangeable words; however, in order to distinguish these consumers (or peers) from many other types of consumers, we use "travel consumers" instead.

<sup>2</sup> The ITB Berlin is short for "Internationale Tourismus- Börse Berlin, which is known as the world's largest tourism trade fair. In recent years, they have been represented as the fair including hotels, tourist boards, tourism suppliers, airlines, and vehicle-rental companies (source: <http://www.itb-berlin.de/en/ITBBerlin/>)

<sup>3</sup> Note that the reports of ITB Berlin strengthened that user review sites covered neutral social media but not online booking platforms that contain peer reviews.

What is more important, social media now are used by all demographic groups of travel consumers, and their applications are much more diverse than the well-known leading platforms such as Facebook or WeChat. This is due to the fact that travel is very complicated, and it is impossible for a consumer to use a single application to cover the whole journey. In addition, although international travelers are inclined to use the most relevant social media applications (e.g., TripAdvisor, travel blogs) for searching for travel information, the general social networking sites also play an important role in helping consumers make travel plans (ITB Berlin World Travel Trends Report, 2015).



(Figure1. The Impact of Social Media on Consumers' Travel Decisions, from 2012 to 2015<sup>4</sup>)

Social media are deemed as one of the “mega trends” (the other is search engines) that have dramatically revolutionized tourism industry; and they are widely adopted by travel consumers in the aspects of searching, organizing, sharing, collecting travel stories and experiences (Leung et al., 2013; Xiang and Gretzel, 2010). In general, the term “social media” contains two terms, “social” and “media”. The term “social” refers to our natural need to interact with others in order to share thoughts and experiences, whereas “media” refers to the communication technologies we use to interact. Therefore, social media are ICTs that we use to connect with others with the intentions to “create a relationship, build trust, and be there when the people in those relationships are ready to purchase our product offering” (Safko and Pierce, 2014: pp. 4).

On the other hand, social media are mainly driven by their users' contributions (Leung et al., 2013). The contributions, which derive from a myriad of sources such as social networking sites like Facebook and Renren,

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<sup>4</sup> The chart was built according to the ITB Berlin World Travel Reports from 2012~2015



microblogs like Twitter and Sina Weibo, mobile sharing sites like Instagram and WeChat, specialized information sharing sites like blogs and forums, video and image sharing platforms like YouTube and Flickr, etc., are known as user-generated content (UGC). UGC is increasingly important and useful in our daily life, as it directly reflects our social interactions with other people (Moens et al., 2014: pp.xvi). Inevitably, travel and tourism industry is found to be influenced by UGC as well. The Report of ITB Berlin World Travel Trends (2014) stated that “in future, content will rule the digital world, especially the online tourism industry”.

#### 1.1.2. The impact of UGC on tourism industry

It is already known that social media not only completely transform the way consumers search and produce information of destinations, but also enable them to participate in all business operations, such as marketing or new service development. Eventually, travel consumers become “co-marketers, co-designers, co-producers, and co-consumers of travel experience” (Christou, 2016). The content that travel consumers share on social media has been found impactful on both peers’ (i.e., consumers’) behavior and tourism business performance (Dellarocas, 2006; Wang and Fesenmaier, 2004).

The influence of UGC on tourism service providers can be understood from three aspects, which include promotion, distribution and communication. **Firstly**, the emerging e-marketing does not allow tourism service providers to depend only on traditional media to promote their products or service (Xiang and Gretzel, 2010). Compared to traditional marketing, using UGC in promotion is more cost-effective (Schmallegger and Carson, 2008). Service providers often have trouble understanding how destinations are perceived by travel consumers, but UGC has the potential to enhance or damage a business or a destination’s reputation (Sparks and Browning, 2011). Some studies (Akehurst, 2009; Pan et al., 2007) already pointed out that UGC could reflect the attitudes and thoughts of tourists toward destinations so that service providers would effectively recognize the unexplored features of destinations before making marketing plans. In addition, UGC increases the traffic to tourism service providers’ websites, and then the sales of the destinations increase as a result (Wyld, 2008). **Secondly**, most UGC websites are taken as a communication platform rather than product distribution channels. However, UGC sites are also found to be capable of directly and indirectly distributing tourism products, which will facilitate providers to generate more revenues. In addition, UGC sites can be exploited to develop and push marketing strategies (Buhalis and Laws, 2001; Noone et al., 2011). **Finally**, UGC provides service providers and travel consumers with an unprecedented opportunity to interact in a more efficient way, which enables providers to convey the value of brands to the mind of consumers (Schmallegger and Carson, 2008). Besides, when problems occur with products or operations, service providers can instantly

offer solutions or compensations to the dissatisfied customers (Huang et al., 2010).

On the other hand, the impact of UGC on travel consumers can be categorized into three stages, namely “pre-trip”, “during-trip” and “post-trip” (Leung et al., 2013).

In the “pre-trip”, travel consumers are inclined to take UGC as their planning sources. Given the increasing popularity of social media, consumers are capable of searching the fundamental information they need before making decisions. Some research (Cox et al., 2009; Tussyadiah and Fesenmaier, 2009) has found that searching for travel information is the most significant determinant that contributes to travel consumers’ use of social media. This is mainly due to two facts: on one hand, the quality and benefits of tourism products cannot be assessed in advance of being consumed. Therefore, consumers collect and review various information to minimize their perceived risk and make better decisions before purchasing tourism products (Jeng and Fesenmaier, 2002; Schmallegger and Carson, 2008). On the other hand, in marketing terms, UGC equals electronic word-of-mouth (eWOM), and consumers consider it more credible than the traditional marketing sources. Travel consumers often treat such sources as the opinions of their friends and peers rather than the commercial advisory (O’Connor and Murphy, 2004). In addition, because UGC is often up to date in a variety of forms including text, images, audio and video etc., consumers can be efficiently equipped with a considerably large volume of novel knowledge on the destinations (Schmallegger and Carson, 2008).

In the “during-trip” mode, UGC plays a critical role in affecting travel consumers’ destination options and purchase decisions (Cox et al., 2009; Fotis et al., 2011; Tussyadiah and Fesenmaier, 2009). Tussyadiah et al. (2011) attribute these effects to two reasons: firstly, UGC is capable of providing consumers with details of a destination, which increases consumers’ likelihood to choose the destination as their preference. Secondly, UGC is similar as stories, which are narrative in nature. It allows the audience to visualize the consumption of experience of a tourism product. Therefore, it should be noted that the use of UGC is associated with narrative reasoning as well as the understanding of consumers.

In the “post-trip”, travel consumers become real tourists after their trips. Some of them sooner or later will share their travel experiences on UGC sites. Parra-López et al. (2011) attribute tourists’ sharing behavior to the social, hedonic and functional benefits that they pursue. However, the results of an international travel investigation (ITB Berlin World Travel Trends Report, 2016) showed that only 50% of the tourists would share their travel experiences online, while the rest were inclined to keep silent.

Further, even though the role of UGC in the travel stages of consumers has been identified, little effort is made to explore what kind of UGC is influential on consumers’ likelihood of purchasing tourism products, intentions of making recommendations for others, and their attitudes

toward destinations. Answers to these questions cannot be more critical to tourism service providers, because their ultimate goal is to generate more revenues through engaging more potential customers and enhancing their online presence (Leung et al., 2013).

On the other hand, like all other consumers, travel consumers' purchase decisions could also be influenced by the information sources derived from service providers and their past beliefs or experiences (ITB Berlin World Travel Trends Report, 2014). However, why is UGC given more importance by travel consumers? Concerning this, a discussion is carried out in the following section.

## 1.2. Problem area: the customers' influence mix and UGC in viral marketing

### 1.2.1. The customers' influence mix

What persuades people to buy? Simonson and Rosen (2014: pp. 205) find out that an individual's decision to buy is often influenced by a mix of three interrelated sources, including his/her prior preferences, beliefs and experiences (P), other customers and information services (O), and marketers (M). For instance, when a customer purchases a tourism product, he/she is affected by his/her prior attitudes toward and pre-stored information about the destination (P), by his/her friends and experts who have been to the destination (O), and also by the tourism product marketers (M).

Then, what are the main characteristics of P-O-M? As Simonson and Rosen (2014: pp.205-208) state, **firstly**, prior preferences (P) embody an individual's pre-stored information, beliefs and attitudes toward something. In most cases, consumers' preferences are blurry, unstable and unlikely to change so that they can be easily affected by the context or opinions that appear by coincidence. **Secondly**, containing all information sources other than P or M, O refers to other people and information services and holds a diversity of sources such as other consumers' reviews, opinions and perspectives of experts, tools for product information comparisons, or burgeoning technologies, to name a few. O is identified as more useful sources than P and M when customers attempt to avoid the perceived risks. Discrepant from the information from M, the information from O is often considered to be more credible. Take choosing a hotel as an example, the reviews of a hotel might be depending on the frequency of different reviewers who have stayed in the hotel, the employees of the hotel who offered the service, and the specific points of view of the reviewers. These reviews provide consumers who plan to stay in the hotel with rich and nuanced information, which simultaneously eases their purchasing anxiety. **Thirdly**, M is the normal suspect. Although the marketers would like their customers to trust them more, it is not the case in practice. The idea of "cannot be trusted" does not derive from the guess that marketers are

dishonest, but from the truth that marketers have different interests. Therefore, it is quite normal that customers search the basic information on the company's website, but when they try to evaluate the product in advance, they will turn to experts or other customers for help rather than marketers.

But how does the "influence mix" affect a consumer's decision? Simonson and Rosen (2014: pp.209) metaphorize the "influence mix" into a zero-sum game for any decisions: when one source is given more weight, the weight of the other sources should be deducted. For instance, when the influence of O on a consumer's purchase of a tourism product increases, the influence of M and/or P must decrease as a result. Simonson and Rosen (2014: pp.211) attribute the results to the fact that these three sources are complementary and together influence consumers' decisions. Hence, one source often comes along with the attenuation (but not elimination) of the significance of another.

In modern tourism industry, it has already been found that O becomes the winner but M becomes the loser. In most circumstances, O replaces M as it provides more abundant and trustworthy information regarding tourism products (Leung et al., 2013). On the other hand, P is often ill-defined as tourism products are difficult to be evaluated before they are consumed (Schmallegger and Carson, 2008). Hence, travel consumers' prior beliefs and perceptions are more likely to be eclipsed by O. In a word, as P is often blurry and unstable, the rest of the two sources will share the contributions of influence on customers' decisions. However, O takes over M in modern tourism marketing, as it is identified as more informative and credible – this is where this research lays its foundation.

However, how is O defined in this research and where does it originate? The details of O are provided in the next section.

#### 1.2.2. O in this research: from word of mouth to UGC in viral marketing

Consumers imitate each other not only by following a social or vicarious learning paradigm but also by talking to each other (Hawkins and Mothersbaugh, 2012; Litvin et al., 2008). Such informal communication is called "word-of-mouth (WOM)", which includes all types of "information communication directed to other consumers about the ownership, usage, or characteristics of particular products, services, or their vendors" (Westbrook, 1987). Being a highly trustworthy and influential source of marketing information, WOM communication has been long known to researchers and practitioners (Hung and Li, 2007; Lee and Youn, 2009). Since the 1960s, a great deal of effort has been devoted to how such informal exchange of information impacted consumers, including how consumers' choices and purchase decisions (Arndt, 1967), expectations (Anderson, 1998), pre-usage attitudes (Herr et al., 1991), and post-usage perceptions of a product or service are influenced (Bone, 1995).

The advent of the Internet has extended traditional WOM communication to electronic media such as online forums, blogs, and social networking sites,

on which every consumer can share opinions and experiences with acquaintances or complete strangers who are socially or geographically dispersed (Duan et al., 2008). This new communicational form, which is considered more critical in shaping consumers' behavior than WOM, is generally known as "electronic word of mouth (eWOM)" (Cheung and Lee, 2012). Henning-Thurau and his colleagues (2004) define eWOM as "any positive and negative statements made by potential, actual or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet". In the light of eWOM's features and roles, Wang and Rodgers (2011) classified it into two categories: informational-oriented and emotional-oriented contexts. The former embody consumers' reviews on online feedback systems, whereas the latter are more in the form of consumers' opinions and comments that are spread among acquaintances on social networking sites. Given that eWOM is ubiquitous and increasingly persuasive, a number of publications have appeared in recent years to explore its effects, which include how it impacts consumers' brand awareness and attitudes (Davis and Khazanchi, 2008; Doh and Hwang, 2009) and purchase intentions (Bickart and Schindler, 2001); how to facilitate it to enhance business sales (Chevalier and Mayzlin, 2006) and to promote revenue growth (Reichheld, 2003), to name a few.

Interrelated with eWOM in the "digital advertising mix"<sup>5</sup> is the concept of "user-generated content (UGC)" or "consumer-generated-content (CGC)", which is the Internet content created by everyday consumers rather than communication professionals (Eastin, 2010: pp.213). Moens et al. (2014) define UGC or GCC as "a rich mix of forms content such as, blogs, wikis, forums, tweets, podcasting, pins, digital images, videos, audio files, and other forms of media that are created by users and are available on social media websites". Note that in this research, UGC refers to the text content created by consumers or the travel consumer-generated content in particular. Drawn from the concepts, eWOM is a particular form of UGC. However, on most occasions, these two terms are interchangeable.

In line with eWOM, UGC is demonstrated to be more cogent and authentic than traditional advertisements from consumers' point of view (Goldsmith and Horowitz, 2006). However, it accentuates the realization that, despite millions of pieces of UGC are created every day, it is unlikely that every piece of them is influential to service consumers. Quite a number of pieces of UGC languish in comparatively obscurity. In contrast, UGC from relatively small and independent sources becomes contagious across the Internet forthwith by briefly capturing an enormous number of consumers convincing them to pass along the content to others. This creates a dynamic marketing that

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<sup>5</sup> "Digital advertising mix" is the "combination of methods that a company or organization adopt to advertise their products or services. For instance, on television or radio, in newspaper or on the Internet". Source: online Cambridge Dictionary: <http://dictionary.cambridge.org/dictionary/english/advertising-mix>

dramatically facilitates the interconnection between companies and consumers (Dobele et al., 2007). Such marketing is called “viral marketing”, the definition of which is “creating messages that contain concepts within them that are absorbed by the people that come into contact with the messages. And making these messages compelling enough so that people pass them on” (Bryce, 2004: pp.9). The idea of viral marketing, on the other hand, was formed in the middle 90s, when Hotmail brought about the idea of tagging an advertisement on every sent email, and later it was sent to millions of people by persuading them to try free email account (Akdeniz, 2015; Bryce, 2004). Though the Internet has been considered as the catalyst for the viral idea, it is the social media that finally set the stage of viral marketing (Akdeniz, 2015).

Scholars and marketing practitioners have taken cognizance of the fact that viral marketing can result in more rapid and cost-effective dissemination of information about a product or service; thereby, they never stop endeavoring to explore the “secret formulas” of how to make online content become viral. Antecedent approaches to this issue can be divided into two folders including 1) UGC characteristics-driven virality and 2) elements of social networks-driven virality. The former states that content characteristics such as interesting, credible, useful etc. enable a certain piece of UGC to be viral (e.g., Berger, 2014; Hennig-Thurau et al., 2004), whereas the latter discusses that it is the elements of social networks such as URLs and hashtags that make the content have virality (e.g., Suh et al., 2010; Szabo and Huberman, 2010).

Although the cited contributions are helpful in exploring and predicting online content virality, they are not complete and orthodox in all situations. As stated earlier, not all tourists (only 50%) would like to share their travel experiences online after their trips (ITB Berlin World Travel Trends Report, 2016). This, to a great extent, will create barriers for tourism service providers. It is natural that the more tourism product information that is present online, the more likely the product will be known by consumers. Hence, what have not been taken into account are the motivations of creating UGC online, and they should be positioned on the top of understanding consumers’ online sharing behavior and content virality.

### 1.3. Problems surfaced: the incentives of consumers’ sharing behavior and the referral reward systems (RRSs) in WOM marketing

In the study conducted by De Bruyn and Lilien (2008), they categorized social transmission into intentional or unintentional modes. To be specific, consumers would not be aware that they are involved in the dissemination process in an unintentional mode. In contrast, the intentional mode occurs when consumers are willing to become promoters of a product or service and share such information with their friends, which shortly after brings

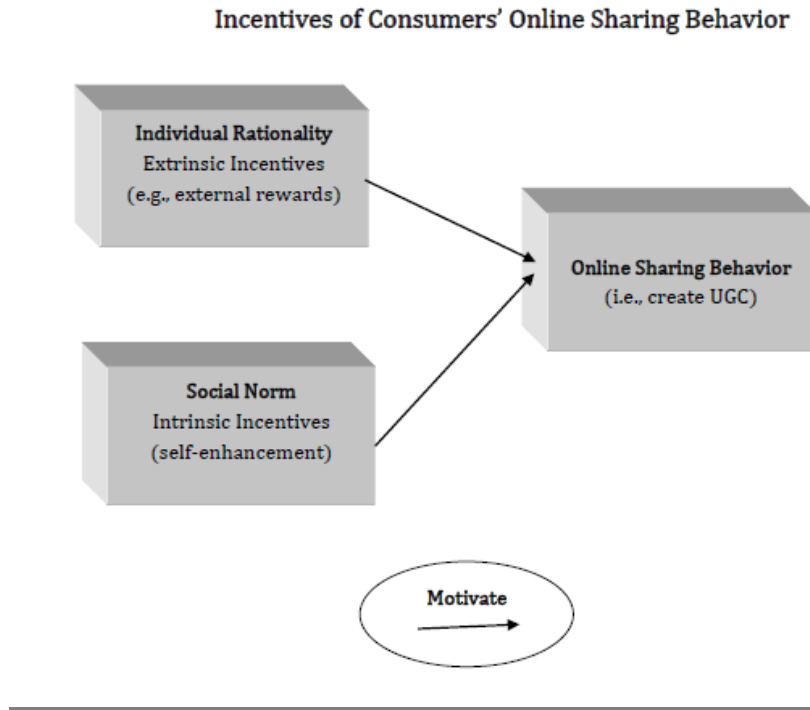
about viral marketing. In addition, consumers who intentionally share are often motivated either by the explicit incentives (e.g., financial rewards) or just by the need to share benefits of the object with friends (e.g., intriguing, valuable). In other words, whether consumers will share on social media is impacted either by individual rationality (e.g., to obtain maximum benefits) or social norms (e.g., altruism) (see Figure 2) (De Bruyn and Lilien, 2008).

However, not every social media user is enthusiastic about sharing online. Existing evidence shows that, in general, not more than 50% of social media users created content online, and the rest just consumed the information shared by others (Yoo and Gretzel, 2008; Walters, 2016). In line with this evidence, Li (2010) states that, although billions of individuals access YouTube on a daily basis, only a small fraction of them make contributions. Since the operation of social media is dependent on the content contributed by their users, an understanding of what motivates them to share is a must.

As discussed earlier, WOM and UGC (in marketing terms, eWOM) is quite similar in nature, which implies that both information senders and receivers are involved in the process of social transmission (Litvin et al., 2008). This fact drives us to consider that what has been done in incentivizing people to make referrals in the WOM marketing<sup>6</sup> might also be suitable in motivating consumers to create content online.

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<sup>6</sup> Word-of-mouth marketing is defined as “marketing techniques that are geared toward encouraging and helping people to talk to each other about products” (Pelet, 2013: pp.218)



(Figure 2. Incentives of Consumers' Online Sharing Behavior)

Previous research (Pongjit and Beise-Zee, 2015) already found out that financial rewards played the role of a controlling mechanism that could motivate people to complete a task that they otherwise might be reluctant to have undertaken. As a matter of fact, in the WOM marketing, pioneering practitioners have already made attempts to provide various forms of rewards (e.g., vouchers, gift cards, coupons) to increase customers' referrals for their products. The systems, which can motivate influential customers to spread positive WOM, are called "referral reward systems (RRSs)" (Jin and Huang, 2014). Given that RRSs are influential on consumers' referral likelihood and satisfaction, and they are capable of attracting new customers in a more cost-effective manner (Mummert, 2000), the research on them has become very popular in recent years.

Previous research on RRSs can be divided into three large folders, including 1) the **virtues** (e.g., RRSs ensure people who actually make referrals are rewarded; RRSs could dominate the direct marketing of business when the referral effectiveness is sufficiently high) and **drawbacks** (e.g., RRSs could be a waste of resource, as some customers will make referrals for the products anyway); 2) **who** should be rewarded (e.g., when practitioners attempt to increase the referral likelihood of weaker brands, rewards should be offered to the WOM senders); 3) **what** should be



rewarded (e.g., symbolic rewards such as shopping vouchers could decrease the negative effects of RRSs; both monetary rewards and in-kind rewards would perform equally well if the reward size was large enough) (e.g., Bialogorsky et al. 2001; Berman, 2016; Helm, 2003; Ryu and Feick, 2007; Xiao et al., 2011; Jin and Huang, 2014; Shi and Wojnicki, 2007). However, most of these studies were conducted in the context of WOM, how to design RRSs has seldom been explored from the point of view of UGC. What should be rewarded to online sharers? On what conditions (how) should online sharers be rewarded? From what psychological distance should online sharers be rewarded? These answers cannot be more important to marketing practitioners, because UGC has become a more influential source of consumers' behavior than the consumers' pre-stored beliefs and the marketers' information (Simonson and Rosen, 2014: pp.205).

#### 1.4. Research subjects, objectives, questions.

This study takes tourists (i.e., sharers of UGC, eWOM senders) and travel consumers (i.e., peers, eWOM receivers) as **research subjects**. To formulate research objectives and questions, all the problems need to be summarized according to the findings in the previous sections at first.

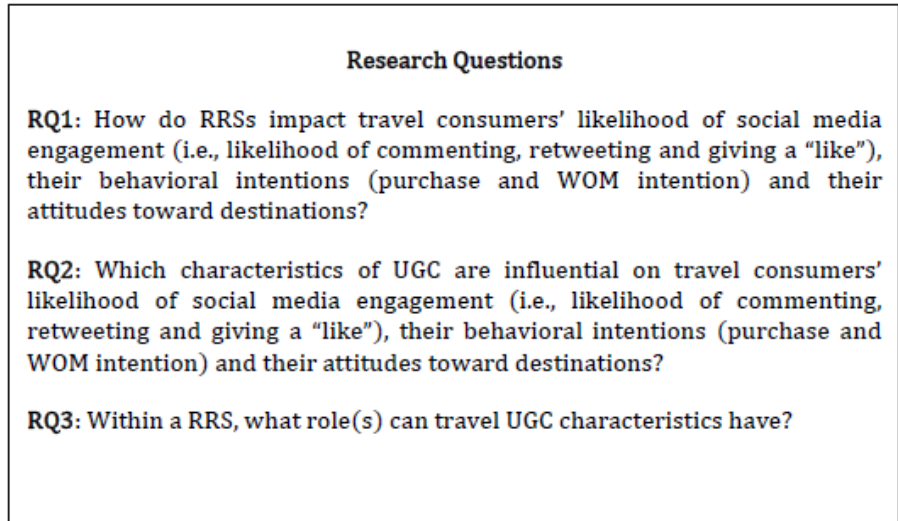
On one hand, even though UGC has been found increasingly important for consumers' travel decisions, only half of the tourists (ITB Berlin World Travel Trends Report, 2016) would like to share travel experiences online after their trips, but the rest of them prefer keeping silent. This will create barriers for tourism service providers, because the more tourists share online, the more likely the tourism product information would be spread. In addition, it has been shown that RRSs could motivate WOM senders to make referrals, and WOM and UGC (eWOM) are similar in nature, thereby employing RRSs may incentivize tourists to share online. On the other hand, despite the role of UGC that has been identified in consumers' travel stages, it still lacks of evidence on what kind of UGC is influential on travel consumers' purchase and WOM intentions, their attitudes toward destinations, and their likelihood of social media engagement (i.e., likelihood of commenting on, retweeting, and giving "likes" to the travel postings).

Based on these problems, the objectives of this research are: **1)** to examine the impact of referral rewards systems (RRSs) on travel consumers' likelihood of (a) social media engagement (i.e., the likelihood of commenting on, retweeting, and giving "likes" to the postings), (b) their behavioral intentions (i.e., purchase and WOM intentions<sup>7</sup>), and (c) their attitudes toward destinations; **2)** to explore the characteristics of travel UGC with the attempts to find out what kind of UGC is influential on travel consumers' likelihood of (a) social media engagement, (b) behavioral

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<sup>7</sup> In other words, travel consumers' purchase intention means they are likely to go to the destination in the future, whereas the WOM intention means they are likely to recommend the destination to others.

intentions, and (c) their attitudes toward destinations. To achieve the objectives, the research questions<sup>8</sup> are set as follows:



(Figure 3. Research Questions)

### 1.5. Research approach

To explore the research questions, we start with a review of the conceptual background by focusing on three areas: what drove online content virality, the incentives of consumers' online sharing behavior, and previous RRSs studies. **Firstly**, both UGC characteristics (e.g., positive emotions) and elements of social networks (e.g., hashtags, age of the user account) were found to be capable of driving content to become viral (e.g., Berger, 2014; Berger and Milkman, 2012; Wojnicki and Godes, 2008; Phelps et al. 2004; Hung et al., 2011; Szabo and Huberman 2010). However, it has been found that consumers prefer consuming information to contributing online (Yoo and Gretzel, 2008; Walters, 2016). **Secondly**, we explored the incentives of consumers' sharing behavior to identify what could motivate consumers to share online. We found that consumers' sharing behavior is associated with their perceived costs (e.g., too much effort needed to understand their peers, have work constraints) and benefits (e.g., self-expression, external rewards, enjoyment) (e.g., Munar and Jacobsen, 2014; Nonnecke and Preece, 2001). Hence, the Social Exchange Theory (SET) was introduced to explain this phenomenon (Blau, 1964; Emerson, 1976). **Thirdly**, given that RRSs were found to be capable of motivating consumers to make referrals, a literature

review was made to find out what has been done. In general, previous studies concerning RRSs were mostly conducted in the context of the WOM marketing by focusing on what and who should be rewarded (e.g., Tuk et al., 2009; Kornish and Li, 2010). However, little effort has been made to understand the use of RRSs in the context of UGC. After associating these problems with travel UGC creation, we put forward proposals accordingly.

Three experiments were conducted on whom should be rewarded, and how and what rewards should be given. Each of the experiments consists of three steps: incentivizing tourists to create travel UGC (**Step1**), inviting consumers to rate the travel UGC (**Step2**), and inviting coders to code travel UGC characteristics (**Step3**).

To be specific, in **Experiment 1**, reward conditions (obtaining the maximum number of comments, retweets, and “likes”) were manipulated to explore how sharers should be rewarded. The manipulation was based on the grounds that consumers’ social media engagement is influential on their behavioral intentions and attitudes toward brands (Hollebeek et al., 2014; Malthouse et al., 2013; Men and Tsai, 2014). Therefore, we proposed that the rewards should be given to sharers who obtain the maximum social media engagement (i.e., obtain the maximum number of comments, retweets and “likes”) among the peers. In the experiment, 68 pieces of valid travel UGC were obtained in Step1, and in the next step 268 consumers rated them based on their perceptions. The results showed that RRSs were influential on consumers’ purchase and WOM intentions, and likelihood of giving “likes” to the travel postings. In addition, the postings, which were created under the “obtaining the maximum number of likes” reward condition, were more influential on consumers’ purchase and WOM intentions, and their attitudes toward destinations than those created under the remaining conditions (i.e., “obtaining the maximum number of comments” and “obtaining the maximum number of retweets”). These postings were more likely to attract consumers to give them a “like”. In **Experiment 2**, both reward conditions (obtain the largest volume of comments, retweets and likes) and reward types (direct rewards: a sharer receives rewards directly vs. a social mechanism: rewards to anyone that a sharer designates) were manipulated simultaneously. The manipulation of reward types was built on the findings of Main et.al (2013) that the outcomes of social mechanisms are superior to those of direct rewards. Therefore, it was proposed that, when using a social mechanism and direct rewards to incentivize tourists to create UGC to obtain the largest volume of consumers’ social media engagement, the social mechanism was more efficient than the direct rewards. In the first step of the experiment, 173 valid postings were obtained, and in the following step 485 consumers rated them according to their perceptions. The findings indicated that RRSs had no effect on consumers’ behavioral intentions and social media engagement while such reward types and conditions were simultaneously employed. In **Experiment 3**, both reward types (direct rewards vs. social mechanism) and sharers’ social distance from peers (a

small distance: the posting will be published on sharers' personal social networking sites vs. a large distance: the posting will be published on a travel agency's social networking sites<sup>9</sup>) were manipulated at the same time. The idea of the manipulation of social distance was built on the Construal Level Theory (CLT) (Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010), which states that people are more likely to make referrals to those who have a small distance from them, as they share similar interests or experiences. Given that the direct rewards would drive sharers to perceive themselves as "greedy" but the social mechanism would enhance sharers' self-image in front of their peers, it is proposed that offering a social mechanism should be more efficient than the direct rewards (Zhao and Xie, 2011). In this experiment, 125 travel postings were obtained in Step 1, and then 389 consumers rated these postings by their perceptions in the following step. The results indicated that RRSs had a strongly significant influence on consumers' purchase and WOM intentions, attitudes toward destinations, and likelihood of offering "likes". In particular, on one hand, to build more efficient RRSs, both the social mechanisms and the direct rewards should be offered to sharers who perceived a large social distance from peers. On the other hand, the social mechanism was more efficient than the direct rewards. These results contribute to the answers of **RQ1**, and they allowed us to understand the variations of the impact of reward conditions, reward types and psychological distances on the travel consumers' social media engagement, behavioral intentions and their attitudes toward destinations.

On the other hand, in addition to the UGC characteristics (*interesting, credible, useful*) that have been rated by peers, to explore the answers to **RQ2** and **RQ3**, coders<sup>10</sup> were recruited in **Step3** of each of the three experiments to code all the characteristics of the postings. The coders were advised to review each of the posting at least twice and to find out the UGC characteristics according to a classification scheme that was prepared in advance. The classification scheme included positive emotions (Berger and Milkman, 2012); desirability and feasibility concerns (based on Construal Level Theory, Liberman and Trope, 1998; Stephan et al., 2011); and travel concerns (e.g., service quality, price cues, environmental concerns, etc.) (Butler, 2006; Sirgy and Su, 2000). In general, the results showed that positive emotions; credible, useful, and interesting content; desirability concerns; price concerns; and environmental factors were influential on consumers' purchase and WOM intentions, and their attitudes toward

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<sup>9</sup> It is natural that the followers of ones' personal social networking sites are more likely to be his/her "friends", whereas on travel agency's social networking sites, people are more likely to be strangers to each other.

<sup>10</sup> About the coders: to ensure the validity of the outcomes of the coding, the coders we invited were different in each of the experiments. In addition, all coders hold a bachelor's degree and have no problem in understanding the classification scheme we provided for coding the UGC characteristics.

destinations and likelihood of social media engagement on varying measures. Besides, these UGC characteristics play a role as mediators between the incentives that the sharers received and consumers' likelihood of social media engagement, or behavioral intentions.

## 1.6. Structure of the thesis

The thesis consists of two parts: a summary and the original research articles. The summary includes 5 chapters:

**Chapter 1** starts with the introduction of the trend of ICT applications in tourism industry, the roles of travel UGC, and problem area. It then presents the research objectives, questions, and approach. In addition, the layout of the research is provided.

**Chapter 2** discusses the conceptual background, which includes UGC characteristics and elements of social networks-driven virality, motivations of consumers' sharing behavior, and previous studies of RRSs; and the research proposals were put forward accordingly.

**Chapter 3** first offers an overview of experimental research in the Information Systems domain, and then it describes experimental methodology in a general form. After that, a discussion is carried out about why experimental research is employed in this study, and what its strengths and weaknesses are.

**Chapter 4** presents the procedures of the experiments and the results in detail. For each one of the experiment, a short summary is provided.

**Chapter 5** finalizes the thesis with a general discussion of the practical implications of the study. In addition, it discusses the limitations of the study and possible avenues for future studies.

In addition, five research papers are enclosed after the summary, which include:

**Paper 1:** Yu, G., Carlsson, C., Zou, D., 2014. Exploring the Influence of User-Generated Content Factors on the Behavioral Intentions of Travel Consumers. *Proceedings of the 25<sup>th</sup> Australasian Conference on Information Systems*, 8<sup>th</sup>-10<sup>th</sup> December, 2014, Auckland, New Zealand, ISBN: 978-1-927184-26-4. This paper challenges the findings of previous studies, in which scholars associate travel consumers' behavioral intentions only with their functional, social-psychological and hedonic needs. The results of this paper showed that both credible and interesting UGC was influential on travel consumers' purchase and WOM intentions, and their likelihood of social media engagement. Additionally, compared to the credible content, interesting content has more positive outcomes.

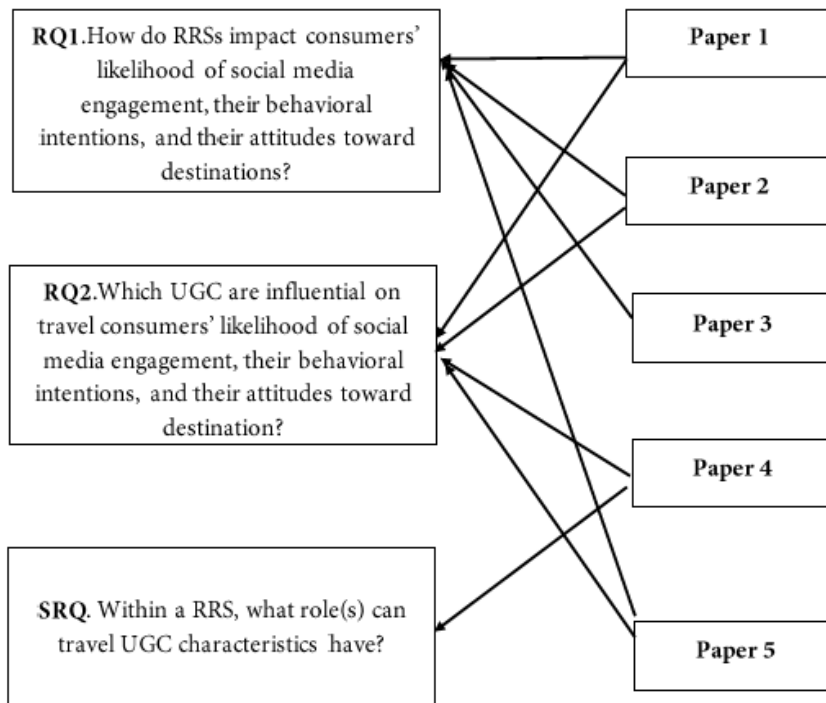
**Paper 2:** Yu, G., Zou, D., 2015. Which User-generated Content Should Be Appreciated More? - A Study on UGC Features, Consumers' Behavioral Intentions and Social Media Engagement. *The 23<sup>rd</sup> European Conference on Information Systems*, Münster, Germany, ISBN 978-3-00-050284-2. This paper is a follow-up study of **Paper 1**. Given that the reward conditions (obtaining the maximum number of comments, retweets, and "likes") were

manipulated, we found that postings created under the condition of “obtaining the maximum number of comments” were capable of yielding more interesting and credible content than the other conditions.

**Paper 3:** Yu, G., Zou, D., 2015. A Referral Rewards Incentive Design on Travel Consumer-Generated Content, *Proceedings of the 15<sup>th</sup> International Conference on Electronic Business*. Hong Kong, China, December 6-10, 2015. ISSN: 1683-0040. This paper strengthens the importance of RRSs and examines their impact on travel consumers’ behavioral intentions, likelihood of social media engagement and their attitudes toward destinations. We found that RRSs had significant impact on travel consumers’ UGC perception (“credible” and “interesting”), purchase and WOM intentions, and their likelihood of giving “likes”.

**Paper 4:** Yu, G., Zou, D., 2016. How Referral Rewards Systems Shape What Tourists Share on Social Media. *Proceedings of the 26<sup>th</sup> International Conference on Information Systems Development*. Katowice, Poland, August 24-26, 2016, ISBN 978-83-7875-307-0. This paper explores the travel UGC characteristics by coding the postings we obtained in Experiment 1. Under the RRSs, characteristics such as positive emotions, utilitarian and desirability concerns were found to be impactful on consumers’ purchase and WOM intentions, attitudes toward destinations and their likelihood of social media engagement on varying degrees.

**Paper 5:** Yu, G. 2016. Let’s Motivate Tourists to Share Online. *International Journal of Electronic Business*. Under review. By manipulating rewards types and conditions (**Experiment 2**), and tourists’ psychological distance (**Experiment 3**) from peers, the paper further explores the influence of RRSs on travel consumers. The findings show that RRSs had a significant impact on consumers’ purchase and WOM intentions, attitudes toward destinations, and likelihood of offering “likes”. In addition, to build more efficient RRSs, both social mechanisms and direct rewards should be offered to sharers who perceived a large social distance from their peers. Moreover, the outcomes of social mechanisms were found better than those of direct rewards.



(Figure 4: Linkages Between Research Questions and Research Papers)

Note: the research papers (1-4) were mainly based on the outcomes of **Experiment 1** (outcomes contribute to Chapter section 1.1; 1.2; 1.5; 2; 4.1), whereas the research paper 5 relied on the results of **Experiments 2 & 3** (outcomes contribute to Chapter section 1.1; 1.2; 1.5; 2; 4.2; 4.3). Due to the research funding and time constraints, most of the outcomes of **Experiments 2 & 3** had to be presented only in this summary.

## 2. Research Background and Conceptual Framework

What motivates travelers and tourists to share their insight and experience online, and what drives content virality, are complex issues and are linked to multiple bodies of knowledge that belong to different disciplines. This is why this study identified and used previous knowledge from multiple disciplines, such as content virality (marketing research), barriers and benefits of travelers' and tourists' online sharing behavior (tourism research), and referral reward systems (marketing and information systems research). The multidisciplinary approach helps us to redefine problems outside of normal boundaries and to find research solutions based on a new and better understanding of the situation that we faced (Jabareen, 2009).

### 2.1. Content virality

In the digital age, countless news, articles, videos, images and tweets are published on the Internet every minute, but only a few of them become viral online, which means that people will immediately share them with their families and friends through the Internet (Alvin, 2013, pp.38). Therefore, what can drive content virality has drawn attention from scholars and marketing practitioners. To our best knowledge, previous studies concerning content virality can be divided into two folders, including UGC characteristics-driven virality and elements of social networks-driven virality, the discussion of which is carried out as follows:

#### 2.1.1. UGC characteristics-driven virality

People are fond of being perceived as positive, special and professional (Berger, 2014; Hennig-Thurau et al., 2004). Milkman and Berger (2014) found two main reasons that could incentivize people to share online: to fulfill self-enhancement and to produce desired impressions. Given this orientation, people prefer to share surprising, interesting, entertaining, useful, credible, or positive and negative information, as these kinds of information can make their content more influential. The discussion below is built on the existing knowledge regarding how these characteristics drive content virality.

**Surprise.** Lindgreen and Vanhamme (2005) claim that surprise is a disruptive emotion that induces consumers' social sharing behavior, which can lead to viral marketing. This is simply because such emotion draws forth substantial cognitive burdens that include casual search, attribution and schema updating, which consequently evoke more interactions among people and provide assistance to them to ease their psychological anxiety. The findings of their work demonstrated that, compared to the non-surprised consumers, the surprised consumers created considerably larger social networks. Based on the social sharing theory proposed by Rimé et al. (1992), Dobeles et al. (2007) examined the interdependency between six



primary emotions in eWOM (i.e., surprise, joy, sadness, anger, fear, disgust) and consumers. According to the theory, the performance of emotions in viral marketing is related to the phenomenon of social sharing of emotions. That is to say, in a socially shared language, the arousal of emotions can be raised by the social sharing of emotions. The results of their study showed that surprise was the most critical emotion that caused content virality, but it needed to be associated with other emotions to maximize the effects. Likewise, Berger and Milkman (2012) found that surprising e-articles were easy to pass along.

**Interesting.** Compared to the continuous channel, the discontinuous channels (i.e., social media) enable people to have ampler time to select and craft what they desire to talk about. Hence, people can obtain more opportunities to come up with a smart or an interesting response. Correspondingly, they are more likely to share something they consider interesting (Berger and Iyengar, 2012). The research done by Rieh (2001) indicated that the topical interest played the most significant role in attracting the audiences (N.B., among all participants, over 40% online users rated “interesting” as a priority). Indeed, the interesting products (e.g. iPads pro) would gain more eWOM than the mediocre products (e.g. toasters) (Berger and Iyengar, 2012); the interesting and surprising articles of the *New York Times* were on the top of the emailed list (Berger and Milkman, 2012); the interesting urban legends were more likely to be transmitted (Heath et al., 2001); and the more interesting advertisements could gain larger audiences and immediately affected their viewing time (Olney et al., 1991). Huang et al. (2011) stated that, besides quality, authenticity and authority, “interesting” could also impact the eWOM receivers’ acceptance of the content online. Sernovitz et al. (2015, pp.6) underscored “interesting” as a comparatively important element for creating viral content, because consumers do not appreciate boring organizations, products or advertisement, and they will voluntarily transmit or retweet the content when they consider it fun or intriguing (Dobele et al., 2005; Naveed et al., 2011). In addition, Phelps et al. (2004) proposed that marketing practitioners should pay more attention to the content that induces strong emotions (e.g., humor, fear, sadness or inspiration), as such emotions are the cause of viral marketing.

**Utilitarian.** Berger (2014) stated that the utilitarian content was shared more as it made sharers look intelligent and helpful. To give a brief example, travel tips on social media assist consumers in saving their time and planning their trips better. The reasons why people love sharing the utilitarian content, according to the scholars’ findings (Berger and Milkman, 2012; Homans, 1958; Wojnicki and Godes, 2008), are related to the motivations such as they desire to be perceived as altruistic; they want to self-enhance and to acquire the value that is embedded in the content. The research done by Heath (2001) further showed the importance of the utilitarian content by demonstrating that the useful and practical

information was more transmitted, because the consumers consider that the utilitarian content would increase their social interactions with others. Likewise, the useful tips and articles were found to be widely spread among the receivers and audiences (Berger and Milkman, 2012; Phelps et al., 2004). Furthermore, the utilitarian information is identified as the most significant dimension for predicting the consumers' acceptance of eWOM (Hung et al., 2011)

**Positive and Negative Valence.** With the attempts to make their experiences plausible, to reduce dissonance or to reinforce social connections with others, consumers sometimes intentionally share positive or negative content (Berger and Milkman, 2012). Some scholars (Berger and Milkman, 2012; Wojnicki and Godes, 2008) already found that the positive content was more likely to be transmitted, as it not only reflected the positive and expert aspects of the sharers but also fulfilled their self-enhancement and verified their identity. More importantly, the positive content helped the sharers resonate with the receivers. In line with the above findings, the study results provided by Chevalier and Mayzlin (2006) showed that the positive eWOM would lead to a higher sale after it was overwhelmingly shared. In addition, Berger and Milkman (2012) pointed out that the positive news was more spread than the negative news.

However, Sweeney et al. (2007) argued that the negative eWOM was more impactful on consumers' opinion, as it could help the sharers acquire a desired impression and make them look smart, efficient, professional and have a discriminating taste (Amabile, 1983; Berger, 2014). In the research results presented by East et al. (2007), the quantity of the negative eWOM spread was equivalent to that of the positive eWOM, though whether transmitting the positive or negative eWOM was moderated by the sharers' focus. The sharers prefer to spread the positive eWOM of their own experiences, because such information makes them look good; whereas they share the negative eWOM when it refers to others' experiences, as this will make them look relatively better (Angelis et al., 2012; Kamins et al., 1997).

Furthermore, Berger and Milkman (2012) stated that it was not enough to explore consumers' sharing behavior only from emotional valences (i.e., positive and negative) but one also needed to take into account the psychological arousal that the emotional valences activate. To be specific, the arousal is conceptualized as the "state of mobilization", and it can be categorized into high arousal and low arousal. The high arousal or activation is featured by activity (e.g., a state of anger or anxiety), whereas the low arousal or deactivation is featured by relaxation (e.g., a state of sadness) (Salloway and Malloy, 1997, pp133). Since the behavior of sharing demands action, the high arousal would affect consumers' behavior and increase their likelihood of sharing. The findings of the study done by Berger and Milkman (2012) indicated that both the high arousal positive (awe) and the negative (anger or anxiety) content was more viral than the low arousal content.

**Credible.** The credibility in the context of eWOM is defined as “the degree to which an individual perceives a referral as believable, true or factual” (Cheung et al., 2009). Prior research (Lis, 2013; Reichelt et al., 2014) demonstrated that the credibility of eWOM was associated with both the senders’ trustworthiness and expertise and the receivers’ ratings. In most instances, the credibility in eWOM is deemed as the most significant dimension that can influence consumers’ attitudes and opinions. When consumers make purchase decisions, they would become more confident after they perceive the content as credible (Cheung et al., 2008; Park, 2011). Likewise, some studies (Dong-Gil Ko, 2005; Wu et al., 2010) already showed that the credible content was related to the positive eWOM. Since the positive eWOM is perceived as reliable and utilitarian and implies better brand images, consumers are more willing to transmit them. On the other hand, compared to the practitioner-created advertisements, the consumer-created advertisements were perceived as more credible, and the peers are more likely to rate, comment and transmit them (Hansen et al., 2014).

Some insights drawn from other literature are supplemented with the content characteristics that were discussed above. Though not being widely investigated, we consider them as equally critical for this study. For instance, some studies (Cvijikj and Michahelles, 2013; Dolan et al., 2016; Lee et al., 2010) showed that informational, entertaining, remunerative content would influence consumers’ social media engagement, and the reasons are as follows: **first**, consumers who are engaged in social media are often driven by their informational needs. However, compared with the emotional and the philanthropic content, the informational content has less effect on consumers’ engagement in the form of likes and comments. Such phenomenon is linked to the fact that the informational content often has too much brand-concerning information so that it is only perceived as specific, thereby losing its significance. **Second**, the entertaining content is considered as a critical factor for enhancing consumers’ social media engagement. Such content is usually found in a banter or small talk, and consumers use it to evoke others’ emotions. **Third**, content that contains economic or remunerative information, including product, price, deals or promotions is presented to have a negative impact on consumers’ likelihood of commenting, for the same reason as the informational content. **Fourth**, Guerini and Staiano (2015) argued that emotions of individuals might not directly determine content virality. On the contrary, where consumers’ emotions fall within the Valence-Arousal-Dominance (VAD) model should be paid attention to by the practitioners. In the VAD model, the valence refers to both negative (e.g., fear) and positive (e.g., happiness) emotions; the arousal ranges from excitement to relaxation and includes high (e.g., anger) and low (e.g., sadness) arousal; the dominance ranges from submission to feeling in control and contains the low (e.g., fear) and high (e.g., admiration) dominance. The proposers of the model found that the particular VAD configurations could consistently impact the virality of certain content. Last

but not least, by examining a random sample of articles from the most popular news website in Germany, Heimbach et al. (2015) found that the emotionality has a negative impact on content virality. However, an interesting or provoking content would induce more social transmission.

<i>CONTENT CHARACTERISTICS</i>	<i>EXPLANATIONS VS. IMPACTS</i>	<i>REPRESENTATIVE STUDIES</i>
<i><b>SURPRISE</b></i>	A disruptive emotion that induces consumers' likelihood of sharing; surprise draws forth consumers' substantial cognitive burdens; surprise needs to work with other emotions to make content go viral; the surprising content is easy to pass along.	Lindgreen and Vanhamme (2005); Dobeles et al. (2007); Berger and Milkman (2012)
<i><b>INTERESTING</b></i>	Discontinuous channels make consumers have ampler time to craft something interesting; the interesting product information, articles, stories and ads are transmitted more; "interesting" is a comparatively important element that drives online virality.	Berger and Iyengar (2012); Berger and Milkman (2012); Heath et al. (2001); Olney et al. (1991); Sernovitz et al. (2015, pp.6); Dobeles et al. (2005); Naveed et al. (2011)
<i><b>UTILITARIAN</b></i>	Sharing utilitarian content makes people look intelligent and helpful; the utilitarian content is associated with the motivations that people desire to be altruistic, to self-enhance, and to gain value of the content; the useful tips, articles, news, and information are widely spread online; "utilitarian" is the most significant factor for predicting the receivers' eWOM acceptance.	Berger (2014); Berger and Milkman, (2012); Wojnicki and Godes (2008); Berger and Milkman (2012); Phelps et al. (2004); Hung et al. (2011)

***POSITIVE AND  
NEGATIVE VALENCE***

Consumers share positive and negative content to make their experiences plausible, to reduce dissonance and bond socially; both the positive and the negative content is widely shared but it depends on the sharers' focus; in addition to the valences, the psychological arousal should be taken into account; the high arousal content is more transmitted than the low arousal content.

Berger and Milkman (2012); Wojnicki and Godes (2008); Chevalier and Mayzlin (2006); Sweeney et al. (2007); Berger (2014); Angelis et al. (2012); Kamins et al. (1997)

***CREDIBLE***

The degree to which an individual perceives a referral as believable, true or factual; it can influence consumers' attitudes, opinions and purchase intentions; the credible content is connected with the positive eWOM; consumers trust the consumer-created content more than the practitioner-created content.

Cheung et al. (2009); Lis (2013); Reichelt et al. (2014); Cheung et al. (2008); Park, (2011); Dong-Gil Ko (2005); Wu et al. (2010); Hansen et al. (2014)

***OTHERS***

The informational, entertaining, remunerative content can influence consumers' social media engagement; the Valence-Arousal-Dominance (VAD) configurations could affect content virality; "anger" could also contribute to content virality

Cvijikj and Michahelles (2013); Dolan et al. (2016); Lee et al.(2010); Guerini and Staiano (2015); (Heimbach et al., 2015)

(Table 1. Summary of Literature on Content Characteristics-Driven Virality)

2.1.2. Elements of social networks-driven virality

In addition to the contributions toward UGC characteristics-driven virality, some researchers also found that the elements of social networks (e.g., hashtags, URLs, age of the user accounts) could make content go viral.

Scholars and marketing practitioners consider that predicting virality is vital to them, as such knowledge could support and drive both the design

and the management of their services (Lerman and Hogg, 2010). Suh et al. (2010) built a predictive retweet model to explore why certain tweets were spread more widely than others. Their results demonstrated that, in addition to the quantity of followers and followees<sup>11</sup> and the age of the account, the URLs and hashtags of the content were also significantly associated with the retweetability of content. To predict the long-term popularity of online content, Szabo and Huberman (2010) offered a solution by modelling the accrual of votes and views of the content of two prominent social media portals (i.e., Digg and YouTube). They found that the time scales of the predictions of content virality should vary according to how the content was consumed. In social media with a relatively larger user base, the prediction of virality should depend on observing early time series, whereas the semantic analysis of content was more practical when no early click-through information was available. Lee et al. (2010) made a novel approach toward predicting the content virality. By utilizing the biology-inspired survival analysis for two data sets (i.e., *dpreview.com*; *myspace.com*), they modelled two different virality metrics, the lifetime of thread and the quantity of comments, and they found out that such solutions were validated. In the study conducted by Hong et al. (2011), predicting the virality of content was treated as a classification work. After formulating classifiers based on a wide spectrum of features, they proposed that the topical information, users' graph structural properties, temporal dynamics of retweet chains and users' meta-information should be treated as predictors of viral tweets.

In addition, by using a prediction model, Naveed et al. (2011) deduced the influential content features that contributed to the users' likelihood of retweeting from the parameters learnt. In their model, both low-level content features (e.g., presence of URLs, hashtags, usernames, question and exclamation marks, emoticons, positive and negative words) and high-level features (e.g., sentiments and latent topics) were taken into consideration during the training. The findings showed that the viral content was inclined to be general or public themed rather than narrow or personal themed. Along similar lines, Bandari et al. (2012) constructed a multi-dimensional feature space derived from the properties of online content, and then they evaluated the efficacy of these features to predict the content virality. The findings showed that the source and category of the content, the subjectivity in the languages, and the named entities mentioned were effective predictors that contributed to the content virality. Guerini et al. (2012) examined a corpus of online scientific articles and forms of reaction (i.e., article downloads, citations, bookmarks). By adopting a class-based psycholinguistic analysis and readability indices tests, the authors found that certain stylistic and readability features of the articles significantly

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<sup>11</sup> Followee: a followee is an individual who is being followed on a social media application  
Source: <http://www.oxforddictionaries.com/definition/english/followee>

concurrent in determining content virality. To predict the likelihood of responding or retweeting on “*Tweeter.com*”, Artzi et al. (2012) proposed a discriminative model for the solution. Among all the six features they used, including historical features (e.g., reply), social features (e.g., number of followers), aggregate lexical features (e.g., hashtags), local content features (e.g., percentage of English words), positing features (e.g., posting times), and sentiment features (e.g., positive and negative sentiment words), the historical, social and aggregate lexical features were found to be the most prominent determinants that triggered users’ responses and retweets. By training a Bayesian model, Zaman et al. (2014) showed that the time-series path of a tweet’s retweets (i.e., when people forward the tweet to their peers) could contribute to the evolution and virality of content. In addition, Junus et al. (2015) took advantage of an awareness of community structure in social media and proposed an iterative and self-corrective algorithm. The results indicated that this algorithm could predict content virality with fewer errors than the prior algorithms.

### **Elements of social networks that drive content virality**

- Quality of followers and followees, age of the user account, URLs, and hashtags (Suh et al. , 2010)
- Time scales of how the content was consumed (Szabo and Huberman ,2010)
- Lifetime of a thread and the quality of comments (Lee et al. , 2010)
- Users’ graph structural properties, temporal dynamics of retweet chains, and users’ meta-information (Hong et al., 2011)
- Usernames, question and exclamation marks, emoticons, positive and negative words, sentiments and latent topics (Naveed et al. , 2011; Artzi et al. 2012)
- Source and category of the content, the subjectivity in the languages, and the named entities mentioned (Bandari et al., 2012)
- Stylistic and readability features of the content. (Guerini et al., 2012)
- Time-series path (i.e., when people forward the content to their peers) (While Zaman et al. 2014)

(Table 2: Summary of Elements of Social Networks that Drive Content Virality)

Although the studies of UGC characteristics and elements of social networks-driven content virality were ample in explaining how to make content viral online, little attention has been paid to the motivations of people’s online sharing behavior, and this should be positioned at the top of understanding content virality, as 1) understanding content virality should start with the appearance of UGC; 2) people prefer consuming than sharing

content (Walters, 2016). Therefore, in the following section, the motivations of individuals' online sharing behavior will be discussed.

## 2.2. Social exchange theory, consumers' perceived benefits and costs in the course of sharing online

### 2.2.1. The social exchange theory

Since being developed in the 1950s, the social exchange theory (SET) has been treated as the foundation of interpreting human behavior and relationships in all types of social exchanges. During the process of an exchange, one party does another a favor with a general expectation that, to some extent, such a favor would be returned, although there is no specific expectation about what the future return is (Blau, 1964; Kankanhalli et al., 2005). According to this contention, the social exchanges among people have an impact on their long-term relationships, which are distinct from one-off exchanges that are on relatively short-term basis (Emerson, 1976).

The tangible and intangible resources are treated as the currency of social exchanges. In the course of exchanges, the negative outcomes or rendered-away resources are considered as costs, whereas the positive outcomes or resources are considered as benefits. In most instances, the benefits, which act as a role of incentives of consumers' behavior, are extrinsic or intrinsic in nature. The extrinsic benefits are explored as means to ends desired by consumers (e.g., rewards by service providers), and the intrinsic benefits are pursued as end states desired by the consumers themselves (e.g., self-enhancement). In contrast, the costs of social exchanges are divided into opportunity costs and actual loss of resources (Constant et al., 1996; Kankanhalli et al., 2005; Molm, 1997; Vallerand, 1997). All social behavior depends on each actor's subjective appraisal of the benefit-cost that he/she receives in the exchange, and that is why the model of the social exchange theory underscores that consumers often interact to maximize their benefits and minimize their costs (Molm, 1997). The applications of the social exchange theory are across different areas, such as sales performance (Pappas and Flaherty, 2008), adoption decisions (Hsu and Lin, 2008), business commitment (Fu et al., 2009), and employee volunteerism (Peloza et al., 2008), to name a few.

On the other hand, Bock and Kim (2002) found that consumers' attitudes toward knowledge sharing depended on their expectation (e.g., social associations, contributions) and contemplation (e.g., extrinsic rewards, reciprocal relationships) incentives, which were also recognized as egoistic and altruistic modes (Deci et al., 2001). The former was established on the economic and social exchange theories, which indicated that consumers' behavior was incentivized by the financial rewards, whereas the latter stressed that consumers would do others a favor without expecting any returns. In the context of social media, consumers who exchange information, share or interact with others often believe they will benefit



from such behavior (Hsu and Lin, 2008). In other words, their sharing behavior is influenced by the perceived benefits and costs of social transmission.

#### 2.2.2. Incentives and perceived benefits of sharing online

As stated earlier, the incentives of peoples' sharing behavior online could be divided into the intrinsic and extrinsic forms. Hence, we propose that both intrinsic and extrinsic incentives are associated with peoples' perceived benefits of sharing online.

**Intrinsic incentives and benefits of sharing online.** Some marketing reports (Lowery, 2011; Pinch and Kesler, 2011) already showed that a large fraction of content-generators on social media narrated for enjoyments, self-expression or personal rewards, which were rooted in their beliefs. Further, the incentive benefits such as developing writing skills, enhancing understanding ability, and fulfilling responsibility were also ranked as the top incentives of sharing among other benefits. This is because consumers believed that generating content would reward them with status recognition, self-fulfillment and satisfaction. Daugherty et al. (2008) identified the incentive benefits of sharing through the functional theory, in which the incentive source (i.e., attitude) was underlined. They found that what consumers shared on social media is primarily for their personal benefit, which included that sharing would help them understand the topic at hand and relate self-concept values; provide them with a feel of intrinsic wisdom and belonging to a social group; and minimize the self-doubts and guilt for not contributing as a member. Yoo and Gretzel (2008) highlighted the findings from a web-based survey that, compared to the intentions of venting the passive feelings through sharing online, travel consumers' sharing behavior is more driven by their concerns for peers, needs of self-enhancement and personal enjoyment.

A deeper understanding of the benefits of sharing were supplemented by Yap et al. (2013) and Munar and Jacobsen (2014) according to the research findings provided by Hennig-Thurau et al. (2004). To be specific, these scholars considered that consumers sharing online would: **1)** assist peers in their purchasing behavior or preventing them from a lousy experience, for the reasons of altruism and prosocial behavior; **2)** return the favor of "wonderful experiences" offered by service providers, for the reason of satisfaction that is supported by the equity theory; **3)** provide them with social benefits as a member, for the reasons of identification and social integration; **4)** provide them with power over service providers in case there occurs a consumption problem; **5)** meet their expectations of being viewed as expert or intelligent consumers, for the reason of the positive self-enhancement; **6)** support them to solve the problems and make the complaining process efficient; **7)** allow them to ease psychological tensions by expressing the positive emotions; **8)** help them lessen frustration and

reduce anxiety by venting the negative feelings about the dissatisfying experiences.

Along similar lines, some other incentives regarding the benefits of sharing online are also considered critical in this study, and they include, **1)** consumers' need for obtaining online community citizenship, which is treated as a foundation of the knowledge-based trust; **2)** need for acquiring information, which is used for minimizing the perceived risk and uncertainty; **3)** need for returning the favor they once received from other members (Ardichvili et al., 2003; Chung and Buhalis, 2008). Besides, Tang et al. (2012) found that, in addition to appearing in public, sharing revenues and gaining a reputation are also important incentives that can lead consumers to generate content.

**Extrinsic incentives and benefits.** Some scholars (Hennig-Thurau et al., 2004; Kollock and Smith, 2002; McLure Wasko and Faraj, 2000) also found that sharing online could be incentivized by the commensurate benefits, such as gifts or rewards given by the service providers with the aim of compensating sharers' perceived costs. Indeed, the economic rewards, which are treated as a sign of appreciation by eWOM senders, have long been deemed as a significant incentive for human behavior (Hennig-Thurau et al., 2004). In marketing practice, consumers take knowledge as a private good, which is possessed either by the organizations or the individuals. Therefore, sharing on social media can also be viewed as a knowledge exchange, which depends on consumers' perceptions of benefits – sharing happens when the benefits they receive can compensate their costs (McLure Wasko and Faraj, 2000; Pillutla and Chen, 1999)

#### 2.2.3. Barriers and perceived costs of sharing online

It has been found that sharing online also generates costs, which would impede consumers' online sharing behavior. Prior studies (Nonnecke and Preece, 2001; Preece et al., 2004) stated that, while engaging in social media, consumers preferred lurking to sharing. According to the results presented by these scholars, four perceived costs are identified to be associated with this phenomenon, which include that consumers 1) need to make too much effort in advance to understand their peers; 2) prefer to remain anonymous, because of privacy issues; 3) have work constraints; 4) are shy in public.

Aside from the above reasons, Ardichvili et al. (2003) found that many consumers were shy to share online because they fear receiving public criticism or misleading peers, as they are not confident that their contributions were important, accurate and relevant. Further, a couple of studies (Chalkiti and Sigala, 2008; Gretzel et al., 2007) also demonstrated that time constraints were the most significant barrier that could prevent travel consumers from sharing on social media, and such costs usually are not fairly compensated in most cases. Additionally, Baldwin (2016) found three primary costs of sharing on Facebook, including privacy invasion, which might lead sharers to believe that everyone could be a victim of social

media stalking, and sharing online will trigger personal damages; too much commercial ads, which are absurdly time-consuming; and sharing could raise the thoughts of futilitarianism<sup>12</sup>, which drives sharers to consider that their content would never be read.

It is natural that social media are heavily dependent on users' contributions (e.g., product experiences, reviews, music, pictures, videos, other knowledge) to be dynamic. Hence, it cannot be more critical for marketing practitioners to encourage users to share on social media, and this is why we highlight the importance of referral rewards systems (RRSs) and propose that they will influence peers' behavior, and then this will result in viral marketing.

Incentives and Perceived Benefits of Sharing Online	Barriers and Perceived Costs of Sharing Online
<p data-bbox="178 639 552 668"><i>Intrinsic Incentives and Benefits</i></p> <ul data-bbox="131 700 599 1582" style="list-style-type: none"> <li>● enjoyment</li> <li>● self-expression or personal rewards</li> <li>● to develop writing skills</li> <li>● to enhance understanding ability and responsibility</li> <li>● to understand the topic at hand</li> <li>● to relate self-concept value</li> <li>● to feel intrinsic wisdom and belonging to a social group</li> <li>● to minimize self-doubts and guilt</li> <li>● to self-enhance</li> <li>● to assist peer consumers</li> <li>● to return the favor of "wonderful experiences"</li> <li>● to have power over service providers</li> <li>● to meet expectations of being viewed as expert or intelligent people</li> <li>● to support problem-solving process and make the complaining process efficient</li> <li>● to ease psychological tension</li> <li>● to lessen frustration and reduce anxiety</li> <li>● to obtain online community citizenship</li> </ul>	<ul data-bbox="628 639 1096 1172" style="list-style-type: none"> <li>● need too much effort to understand peers</li> <li>● privacy issues</li> <li>● have work constraints</li> <li>● have to conquer shyness over appearance in public</li> <li>● might receive public criticism</li> <li>● might mislead peers</li> <li>● not confident that the contributions are important, accurate and relevant</li> <li>● fear being a victim of social media stalking that can trigger personal damages</li> <li>● too much commercial ads, which is absurdly time consuming</li> <li>● futilitarianism</li> </ul>

<sup>12</sup> Futilitarianism: "a belief (or believing) that human hopes are vain, and human strivings unjustified". Source: <http://www.dictionary.com/browse/futilitarian>

<ul style="list-style-type: none"> <li>● to share revenues</li> <li>● to gain a reputation</li> </ul>	
<p><i>Extrinsic Incentives and Benefits</i></p> <ul style="list-style-type: none"> <li>● economic rewards given by service providers</li> </ul>	

(Table 3. Summary of the Incentives, Benefits and Costs in the Course of Sharing Online)

### 2.3. Referral rewards systems (RRSs): a review of relevant studies

Based on the cognitive evaluation theory (CET), using rewards to incentivize individuals to accomplish a task would result in the influence on their perceptions of competence and self-determination. As discussed in the CET, a reward could be either informational or controlling. The former enhances an individual's self-determined competence and promotes the intrinsic incentive, whereas the latter induces his/her behavior through external causality rather than personal motivations (Deci et al., 2001; Deci and Ryan, 1981). Pongjit and Beise-Zee (2015) proposed that the economic rewards should be viewed as a controlling mechanism, which could incentivize individuals to complete a task that they may otherwise not have undertaken.

Employing economic rewards to boost consumers' referral likelihood is not a new norm in the marketing practice. Pioneering companies use various forms of rewards, including vouchers, gifts, and free minutes to incentivize their influential customers (i.e., opinion leaders), who would generate the positive WOM for a product or service. Such incentive systems are generally known as referral rewards systems (RRSs), which are monitored by the service companies with the purpose of acquiring new customers and increasing the retention rates of existing customers (Jin and Huang, 2014; Ryu and Feick, 2007; Schmitt et al., 2011).

Since RRSs have been identified as more cost-effective than the traditional promotion tools (Mummert, 2000), it cannot be more critical for scholars and practitioners to explore how to design successful RRSs that are both effective and efficient. Existing literature on RRSs shows a variety of approaches, including roles, virtues and drawbacks, who and what were rewarded within the systems.

**What are the roles, virtues and drawbacks of RRSs?** Biyalogorsky et al. (2001) compared RRSs to the incentive of lowing-price in their study. Their findings showed that, although the incentive of lowing-price could impact consumers' initial purchase behavior and referral likelihood, it also caused the problem that customers became reluctant to make referrals once they received the benefits of lower price. RRSs decreased the negative effects, as only actual referral would be rewarded. However, RRSs could also be a waste of business resources, because some consumers would make referrals anyway. Xiao et al. (2011) found that, when the senders' referral effectiveness was sufficiently high, RRSs could dominate the direct marketing of a business. Berman (2016) summarized the virtues and drawbacks to remind the practitioners who plan to employ RRSs in practice. The virtues include, 1) referrals could become more valuable than the paid ads; 2) RRSs could reach niche customers that the traditional marketing could not reach; 3) once a product or service is desired by the WOM senders, the WOM receivers are likely to enjoy the product or service as well, which yields more revenue at lower costs for the companies; 4) compared to the traditional ads, RRSs are a better way to influence customers' satisfaction.

On the other hand, the drawbacks of RRSs include, 1) the senders' reputation is at risk if what they recommend performs poorly; 2) rewards to the senders might not be truly impartial after their referrals successfully induce more customers for the companies; 3) RRSs can be abused by the opportunistic referrers. Further, Pongjit and Beise-Zee (2015) suggested that companies should use RRSs with caution, as RRSs harm the receivers' attitudes toward brands. For instance, some potential customers' attitudes toward brands might be tainted by the impression that the senders exploited their relationships for profit, and the monetary rewards just make this worse.

**Who were rewarded in RRSs?** Helm (2003) argued that RRSs would lead the WOM senders to be perceived as less trustworthy. Nevertheless, such

consequences would not negatively affect the potential consumers' purchase intentions unless the reward size was large. Ryu and Feick (2007) found that, although RRSs were very effective in increasing consumers' likelihood of referral to weaker ties and weaker brands, it was more critical to identify who should receive rewards. Based on the results of four experiments, they showed that rewards should be provided to the WOM senders when the practitioners intended to increase the referral likelihood of weaker ties and weaker brands, whereas some of the rewards should be provided to the WOM receivers to enhance the effectiveness of RRSs. Considering that little effort had been put on the receivers' reaction to RRSs, Tuk et al. (2009) conducted a pilot study and found that rewards to the senders might decrease the receivers' likelihood of purchasing, as RRSs lessen the senders' sincerity. However, they proposed that both the presence of the financial incentives and the activation of a marketing pricing norm should mitigate such negative effects. Xiao et al. (2011) stated that the WOM receivers would question the senders' credibility in RRSs; thereby, practitioners should reward the receivers more but the sender less. Through controlled lab experiments and field experiments with an online ticketing company, Shi et al. (2012) examined the impact of social distance, social norms, and split of money reward between a sender and a receiver on the performance of RRSs. The results demonstrated that, from a small social distance, consumers' referral behavior was more induced by social norms than the monetary incentive; from a large social distance, the success of the referral was more driven by the split of monetary rewards. By conducting a large-scale experiment with the members online, Ahrens et al. (2013) found that the magnitude of the financial incentives for both the senders and the receivers would increase the referral rates, and this later could attract more new members to sign-up. Such an increase would be more significant when the financial incentives were provided to the senders. In addition, Wirtz et al. (2013) showed that the likelihood of referral was induced by the senders' perception of how they would be viewed by the receivers (meta-perception) and increased in accordance with the senders' satisfaction. Further, they showed that the satisfaction with RRSs together with the meta-perception could mediate the effects of incentives and tie strengths on the likelihood of referrals. Using experiments and a survey, Verlegh et al. (2013) found that RRSs were effective on the unsolicited and weak ties. In addition, to eliminate the negative sides of RRSs, they suggested that the marketing practitioners should reward both the senders and the receivers.

**What were rewarded in RRSs?** Shi and Wojnicki (2007) explored the influence of various incentive tactics (e.g. tangible or intangible; selfish or altruistic) on online referral rates. The findings indicated that, compared to the psychological benefits, consumers were more likely to be incentivized by the monetary rewards to make referrals. In addition, when the monetary rewards were offered to the "selfish tactics", they would induce more referrals than when offered to the "altruistic tactics". However, the monetary

rewards were less effective for the female targets than the male targets. Kornish and Li (2010) associated the likelihood of consumers' recommendation with the outcomes of the recipients and developed an analytical optimum design of bonus programs. Their findings stressed that, if companies could not incentivize consumers to make referrals with a lower price, the greater the concern for the outcomes that the recipients showed, the higher the bonus the companies should offer. In addition, Verlegh et al. (2013) found that the symbolic rewards (e.g., shopping vouchers) could decrease the negative effects of RRSs. However, Jin and Huang (2014) questioned the influence of the monetary rewards. They argued that the monetary rewards were inferior to the in-kind rewards, because the social costs associated with the monetary rewards would weaken the benefits that the senders received. Their research results indicated that the monetary rewards resulted in less referral likelihood, especially when they were linked to the weak bands and weak ties. Nevertheless, both the monetary rewards and the in-kind rewards would perform equally well as long as the reward size was large enough, and they would perform even better if both the senders and the receivers were rewarded.

The advent of social networking tools arms RRSs with more power. In social media, RRSs can help companies invite networked consumers directly to register on product or service websites, and then they can induce the consumers to purchase the products (Shi et al., 2012). For instance, some scholars (Aoki, 2014; Tang et al., 2012) noted that the social networking websites such as YouTube paid their users in the form of "advertising-revenue sharing schemes" for their content contributions. Besides, after adopting the monetary incentives, COOKPAD (one of the leading social media websites in Japan) gained more UGC contributions from consumers. In China, after introducing an "ad-revenue-sharing" program (RRSs), the viral content was found to increase by 13% on Sina Blog. In addition, by studying the application and impact of gamification theory<sup>13</sup> in a tourism context (Sigala, 2015), Sigala found that funware, which employs game mechanics such as points, badges, levels, etc., could result in behavioral changes in user outcomes. In particular, according to her findings, TripAdvisor users' trip planning processes and travel experience were affected by the funware.

All the evidence shows the increasing adoption of RRSs in social media. Unfortunately, little attention has been devoted to the impact of RRSs in the context of online tourism industry, and how to successfully implement them in practice. The present research proposes that, to efficiently and effectively adopt RRSs to incentivize tourists to create travel UGC, we should work out who should be rewarded, what rewards should be given and how the

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<sup>13</sup> Gamification: "a process of enhancing services with (motivational) affordances in order to invoke gameful experiences and further behavioral outcomes" (Sigala, 2015)

rewards should be given. A summary of the literature review is presented as follows (see Table 4.):

Rewards Concerning	Key Findings and Representative Papers	Mediators/Moderators Studied
<b>Who</b>	<p>Rewards to the senders could make them less trustworthy, but it will not affect the potential customers' purchase intentions (Helm, 2003); for weaker ties and weaker brands, the senders should receive rewards; to enhance the effectiveness of RRSs, the receivers should be rewarded as well (Ryu and Feick, 2007); the senders' sincerity can be lessened after receiving rewards (Tuk et al., 2009); reward the receivers more but the senders less (Xiao et al., 2011); rewards should be provided to the senders and receivers who have a large social distance (Shi et al., 2012); large rewards for both the receivers and the senders will increase referral rates, especially for the senders (Ahrens et al., 2013); RRSs with the meta-perception mediate the effects of incentives (Wirtz et al., 2013); to eliminate the negative sides of RRSs, both the senders and the receivers need to be rewarded (Verlegh et al., 2013).</p>	<p>Reward size; trust; social ties (weak vs. strong); brand valence (weak vs. strong); social distance (large vs. small); meta-perception, satisfaction,</p>
<b>What</b>	<p>Compared to the psychological benefits, consumers were more likely to be incentivized by the monetary rewards (Shi and Wojnicki, 2007); the bonus of the reward should be in accordance with the perceived outcomes of receivers – the better outcome, the more rewards bonus should be offered to the senders (Kornish and Li, 2010); the monetary</p>	<p>Reward size, social costs and benefits, social ties (weak vs. strong); psychological benefits, genders</p>



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rewards are inferior to the in-kind rewards, as they can weaken the benefits that the senders receive; but both of them perform equally well if the reward size is large (Jin and Huang, 2014).

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(Table 4. Summary of the Literature on Previous Studies of RRSs)

## 2.4. Employing RRSs in social media to induce sharing behavior and content virality

### 2.4.1. How should the rewards be given? -The importance of the maximization of consumers' social media engagement

Mills et al. (2015) define social media as online tools that are designed to facilitate social transmission among individuals, groups and organizations by using web-based technologies. Social media promote the transformation of broadcast monologues (one to many) into social dialogues (many to many). Social media engagement, on the other hand, is defined as the "state of cognitive and emotional assimilation after using social media tools" (Smith and Gallicano, 2015).

Prior studies have made different attempts to understand social media engagement, which can be categorized into three folders: **1)** from an experiential perspective, engagement is the aggregation of experiences that contain social media users' beliefs of how social media sites suite their lives. Such kind of engagement roots in social facilitation, civic mindedness and inspiration. It also can be treated as the process, from which individuals physically interact through the interface to be cognitively absorbed in the content and then voluntarily transmit the outcomes of the involvement (Calder et al., 2009; O'Brien and Toms, 2008; Paek et al., 2013); **2)** from a psychological perspective, engagement is a psychologically affective state that brings about an individual's additional actions. That is to say, engagement can be understood as the perceptions of the consumers toward online content, and then how they will deal with it. Such kind of engagement contains commenting on, giving "likes" and sharing the content; and it can be used by an individual to express and define himself/herself online (Hargittai and Hsieh, 2010; Kang, 2014; Nichols et al., 2006). Additionally, it demonstrates "the feelings of persistence, vigor, energy, dedication, absorption, and enthusiasm" (Macey and Schneider, 2008); **3)** from a social perspective, social media engagement is built on people's mutual trust and interactions, through which an individual can socialize with others to fulfill his/her social needs (Hung et al., 2011). To explore the potential influence of social media engagement, Jiang et al. (2015) develop a 4-I-dimensional

engagement model with both tangible and intangible factors, including **1)** involvement (i.e., awareness and pressure), which refers to web analytics such as site traffic, page views, etc.; **2)** interaction (i.e., dialogic actions), which contains dynamic actions such as purchasing behavior, posting and commenting on the content; **3)** intimacy (i.e., sentiment, affinity, and tonality), which refers to the emotional component that individuals exhibit in conversations or behavior; for instance, the meaning behind a posting; **4)** influence, which is the public's likelihood of transmission of the content, or to make purchase recommendations to people whom they are networked with.

Dolan et al. (2016) identify seven types of behavior that consumers would exhibit when they engage in social media: co-creation (i.e., publishing brand-related content); positive contributions (i.e., rate, comment, share, or 'like' brand-related content); consumption (i.e., view product-related content), dormancy (i.e., consumers are reluctant to the content that is delivered by the companies); detachment (i.e., 'unfollow' a brand on social media); negative contributions (i.e., rate products and brands negatively) and co-destruction (i.e., create negative content for a brand). Among these behaviors, the co-creation, the positive and negative contribution, and the co-destruction represent active engagement, which potentially impacts peers; whereas the consumption, the dormancy and the detachment are passive forms of engagement.

On the other hand, consumers' engagement in social media has been found to influence their behavioral intentions. Malthouse et al. (2013) studied consumers' engagement with the Air Miles Facebook page, and they found that the posters who elaborated more would spend more. The research done by Men and Tsai (2014) on the corporate social media sites and consumers showed that those who were more deeply engaged in corporate social media sites were inclined to be more confident of, more content with, and more committed to the company. More importantly, they were more likely to become advocates, who would support and defend the company and recommend its products or service to people whom they are networked with. From the customers' perspectives, their social media engagement implied their positive attitudes toward brands (Hollebeek et al., 2014).

Hence, on logical grounds, we propose that, within RRSs, referral rewards should be given to sharers (i.e., tourists) who obtain the maximum social media engagement (i.e., the maximum number of comments, retweets and "likes") among peers (i.e., travel consumers). In addition, by employing this reward mechanism, we propose that **1)** the peers' (i.e., travel consumers') likelihood of social media engagement will increase; **2)** the more consumers engage in social media, the more likely they will purchase the travel products or service, make recommendations to their friends. Accordingly, their attitudes toward destinations are also influenced.

#### 2.4.2. What should be the rewards? – Comparisons among monetary rewards, in-kind rewards and social mechanisms

Folkes (1988) discussed that whether individuals' actions were affected by the external factors or their feelings was determined by the level of the incentives they received. On some occasions, RRSs result in the perception that the senders' actions are manipulated by the external causes (e.g. monetary rewards). When the tangible rewards (especially money) are promised, the recommendations are hardly to be perceived as an altruistic gesture, which is evoked by one's intrinsic motivation such as social commitment – and this is one of the drawbacks of RRSs that we discussed earlier (Matos and Rossi, 2008; Song, 2015).

Even though money has been identified as an inferior motivator to induce actions, it has been demonstrated to be a fairly good deterrent against the unethical behavior. Mazar et al. (2008) showed that, compared to hard cash, the non-monetary rewards were more likely to urge consumers to engage in dishonest behavior. In line with this finding, Verlegh et al. (2013) compared the “monetary rewards” with the “donation of the same amount to a charity” and the “no reward” conditions while employing RRSs to motivate their customers to make referrals. The results showed that the monetary rewards were the major driver of consumers' referral behavior. In addition, compared to the “no reward” condition, the “donation to a charity” drove the senders to be perceived as “holding ulterior motives”.

However, employing the monetary rewards for consumers' referral decision often backfires, and the social relationships between the senders and the receivers might not recover due to the introduction of money (Burgoyne and Routh, 1991). Some scholars (Heyman and Ariely, 2004; Steed, 2013) stressed that the monetary rewards triggered market-pricing norms in that the level of consumers' efforts would be directly determined by the amount of compensation. Simultaneously, such incentive mechanisms might erode consumers' intrinsic motivations, and reinforce the circumstances in which they act to meet their self-interest. On the contrary, if the monetary rewards broke away from the compensation, a social norm would be evoked – consumers' efforts on making referrals would be shaped by altruism. In summary, the monetary rewards prime individuals for business interactions rather than social relationships, as money activates less coadjutant, communal and altruistic behavior (Jin and Huang, 2014; Vohs et al., 2006). The role of the monetary rewards in RRSs were rebutted in the study done by Jin and Huang (2014). In the study, they showed that giving the in-kind rewards to the WOM senders resulted in a higher referral likelihood for weak brands and weak ties than what the monetary rewards could bring about. This is because the senders considered the monetary rewards would generate higher social costs than the in-kind rewards (e.g., the damage of self-image).

On the other hand, there seems to be no compelling reasons to argue that human behavior is mostly caused by the pursuit of curiosity, interest or enjoyment. However, most other social behavior (e.g., helping the old cross the road) is at least partially determined by motivations derived from our own beliefs and values. Such behavior is widely known as moral behavior, as it is motivated by our moral obligations (i.e., internalized values) rather than external rewards. In some situations, we perceive that we must act by the motivation of personal norms; otherwise, we will be tortured by a sense of guilt as being selfish. In addition, engaging in moral behavior (e.g., unselfishly help others) makes us feel we possess internalized values and we are altruistic individuals. However, if engaging in the moral behavior is induced by external pressure (e.g., rewards), we will attribute our behavior to such pressure rather than the intrinsic incentives. Accordingly, we will fail in delivering our values in the behavior (Kunda and Schwartz, 1983; Schwartz and Howard, 1984). Hence, we argue that, in RRSs, although referral rewards are provided with good intentions, the moral behavior of reward receivers might be undermined by the external rewards. In addition, the external rewards will bring about social costs to reward receivers (e.g., their social relationships with others will be damaged), and they might consider that taking rewards for referrals is against their self-presentation. According to the theory of self-presentation, we frequently make attempts to control our self-image in front of real or imagined others. Therefore, we prefer generating desired images that will impact how others perceive and treat us. In most cases, we are inclined to present ourselves in socially desirable ways, such as competent, attractive, honest, to name a few (Hogan, 1982; Schlenker and Leary, 1982). It is natural that the good self-image we maintain in public will have a positive influence on others' attitudes toward us (Kunda and Schwartz, 1983).

We introduce social mechanisms (e.g., rewards to anyone that a sharer designates) to our research. Mani et al. (2013) found that such mechanisms were associated with social influence (i.e., peer pressure), and they could promote individuals' cooperative behavior. The idea of using social mechanisms in their research was to motivate an individual's peers to exert positive or negative pressure on the individual to induce the positive or negative outcomes. After comparing the social mechanisms with the direct rewards, the scholars showed that the budget of the direct rewards was more than twice of that of social mechanisms. Under the "low-cost" condition, the outcomes of the social mechanisms were superior to that of the direct rewards. Therefore, within RRSs, we propose that the social mechanisms are more efficient than the direct rewards, and they can deduct the social costs of sharers.

#### 2.4.3. Who should be rewarded? – Providing rewards according to the sharers' psychological distance

**The Conceptualization of Construal Level Theory.** Our behavior in social media always contains some variability. Whom do we choose to trust? What information is utilitarian to us? Sometimes these answers cannot be directly perceived but need a mental construct to be manifested in our mental system (Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010). According to the construal level theory (CLT), the objects which cannot be perceived directly by us are considered as psychologically distant, and they can be constructed (i.e., predicted, deliberated and memorized) by the individuals. The theory indicates that the psychological distance is naturally associated with the individuals' mental construals, which include high-level and low-level construals. The former are decontextualized manifestations that distill the leitmotiv from the available information, whereas the latter are more contextualized manifestations that embrace subordinate and incidental features of the objects. Hence, the low-level manifestations of objects are ample in detail, a part of which might be incidental or peripheral; whereas the high-level manifestations of the same objects focus the abstraction and ignore the subordinate and incidental features. As examples, the low-level construal action (e.g., travel) interprets how an individual would perform the action (e.g., take passport, bring luggage), whereas the high-level construal of the same action explains why the individual would perform the action (e.g., for relaxation, business). In addition, the level of construals not only impacts the psychological distance but is also impacted by the psychological distance (Liberman and Trope, 2008, 1998; Liviatan et al., 2008).

**Four dimensions of psychological distance in the CLT.** Prior studies (Fujita et al., 2006; Liberman and Trope, 2008; Liviatan et al., 2008; Wakslak et al., 2006) propose four types of dimensions regarding the interactions of the psychological distance and construal levels, which include temporal distance (e.g., distant activities are considered as more abstract), spatial distance (e.g., distant social interactions are identified as more abstract), hypothetical distance (e.g., less probable events are deemed as more abstract), and social distance (e.g., actions from similar others are depicted in low-level terms).

**Consumers' decisions and the CLT.** Trope and Liberman (2010) stated that the CLT was developed on two premises. On one hand, compared to the low-level terms, individuals were inclined to construct the objects with high-level terms according to the psychological distance they perceived. On the other hand, the individuals' evaluations and decisions were made based on the construals of variations of the decisions. This indicates that the psychological distance impacts how people make decisions. While making purchase decisions, consumers mainly care about the benefits of the product (e.g., efficiency of the new iPad pro) and the information of how to purchase it (e.g., payment plan, location of Apple Seller). The former type of

information shows consumers' high-level and desirability concerns, which include the value of the end state of the behavior (i.e., "why" aspects of purchasing), whereas the latter type of information indicates consumers' low-level and feasibility concerns, which contain the means to achieve the end state (i.e., "how" aspects of purchasing). Based on the CLT, when both the desirability and the feasibility of a product is perceived by consumers, they will value the desirability more than the feasibility of the product when the distance increases.

Given the importance of the CLT to consumers' behavior, we propose that, within RRSs, the rewards should be offered to the sharers according to their psychological distance from peers. The arguments will be elaborated as follows:

**Who should be rewarded is determined by consumers' perceived social distance.** Different social relationships imply different social distance – the close social relationships imply a small social distance, whereas the distant social relationships imply a large social distance (Shi et al., 2012). Bogardus (1938) defines social distance as "a function of affective distance between the members of two groups, and an essential measure of how much or little sympathy the members of one group feel for the other". Indeed, how close we perceive others is a critical determinant of our daily social interactions. How close we perceive a colleague might determine whether we ask him for a favor (e.g. to give us a lift after a late-night dinner party), or whether we share with him important information or resources (e.g. a restaurant serves the best buffet in town and you can use my voucher for a better price).

On the other hand, according to the CTL, we are more likely to address high-level judgements on socially distant others but lower-level judgements on socially close others. That is to say, when both of the information from the similar and the dissimilar others is available, we are likely to have low-level construals for the similar others but high-level construals for the dissimilar others. Accordingly, we are inclined to give more value to the similar others than the dissimilar others in the course of information evaluation (Liviatan et al., 2008). Therefore, when the same information is from people with a small and large social distance from us, we are more likely to transmit the information from people who have a small social distance from us, because we consider them to share similar interests, knowledge and experience with us (Tesser and Paulhus, 1983)

On the other hand, social relationships have been demonstrated as one of the determinants of consumers' sharing behavior on social media (Liang et al., 2011). A study done by Zhao and Xie (2011) demonstrated that the recommendations from the close others were more transmitted than the distant others. On the other hand, from a large social distance, the individuals are inclined to care less about social relationships, and the economic incentives would dominate the sharers' behavior. However, as discussed earlier, the sharers still desire their actions to be perceived as moral rather than selfish behavior in public. Therefore, within RRSs, social

mechanisms (i.e., rewards to anyone that a sharer designates) is likely to be superior to the direct rewards (i.e., rewards to a sharer directly), as they will compensate the sharers' perceived costs (e.g., their social relationships will be damaged). Further, from a small social distance, the sharers will perceive themselves as "greedy" if they receive rewards for their own interest, but social mechanisms will allay such perceptions and make the sharers feel that they make double contributions (i.e., not only contribute to consumers but also make a certain people benefit). Accordingly, they will feel that their self-image is enhanced, because they exhibit more moral behavior.

Hence, we propose that, within RRSs, the social mechanisms (i.e., rewards to anyone that a sharer designates) are more efficient than the direct rewards (i.e., a sharer receives rewards) for the sharers' who perceive either a small or a large social distance from their peers.

**The temporal distance and consumers' behavior.** We do like planning, as it makes things more organized and our actions more efficient. This becomes more convincing in the context of tourism, in which consumers' purchase decisions usually do not need immediate consumption. According to a marketing report (Grigolon, 2013), 80% of the travel plans were made one year in advance, 12% were from one to two years, and 8% were from two to five years. However, some of the plans resulted in subsequent travel behavior, whereas the remaining plans changed over time and were eventually left behind. This phenomenon can be explained by the CLT of temporal distance – people's attitudinal change is based on the length of time intervals between the intention and the actual behavior, as there would be more variations when people are exposed to new information. The inconsistency of "intention-behavior" happens because people usually have too many expectations of engaging in a certain behavior. (Ajzen and Driver, 1992; Cote Jr. and Wong, 1985; Fishbein and Jaccard, 1973).

The temporal distance is defined as "the distance from the time of the formation of intention to the time of actual behavior" (Kah et al., 2016). According to the discussion carried out by Liberman and Trope (1998), construals of a distant future event were more abstract and had features that were the theme of the event, whereas the construals of a near future event were more concrete and had incident features. The CLT indicates that the concrete features are more likely to drive individuals to consider the near future events, but the abstract features are more likely to drive individuals to think about the distant future events. Further, both the low-level and the high-level features hold a positive and negative value. As the distant future events are construed with a higher value than the near future events, the value of high-level features should be higher in the distant future construals, but the value of low-level features should be lower in the distant future construals. Given this contention, the value of the low-level construals would decrease over time, whereas the value of the high-level construals would increase over time. Moreover, regarding making decisions and plans, the scholars (Castaño et al., 2007; Liberman et al., 2007; Eyal, Chaiken et al.,

2009) found that the decisions of the distant future activities were affected more by the desirability of the end state than the feasibility of achieving the end state, and the distant plans were associated with the desirability rather than the feasibility of the activities.

Considering the importance of the temporal construal theory, a number of prior studies made approaches toward its validation. For instance, Chintagunta and Lee (2011) showed that the temporal distance was positively related to consumers' travel intentions, and the consumers' intentions formed for a distant future reflected a stronger preference for tourism products than for a near future. Basoglu and Yoo (2015) examined whether a consumer's travel decision for hedonic and utilitarian purposes varied according to the temporal distance. The findings of their research demonstrated that the temporal distance had a more significant impact on consumers' hedonic decisions than utilitarian decisions.

Thus, we propose that, compared to the content with the near future construals, the content with distant future construals is more likely to impact travel consumers' likelihood of social media engagement, purchase and WOM intentions, and their attitudes toward destinations.

## 2.5. Chapter Summary

In this chapter, we discussed what could drive content virality, the incentives of sharing behavior, prior studies of RRSs, and put forward proposals accordingly. The conceptual framework was motivated by the fact that understanding content virality should start with the appearance of the content. However, not every consumer would like to contribute online. Previous findings showed that people's sharing behavior was associated with the extrinsic and intrinsic incentives, which were also known as the benefits of sharing. Hence, a discussion was carried out concerning the benefits and costs of sharing. Given that RRSs were found to be effective for inducing consumers to make referrals, we proposed that RRSs should be impactful on travel consumers' behavioral intentions, their likelihood of social media engagement, and their attitudes toward destinations.



### 3. Research Methodology

#### 3.1. The significance of experimental research in the information system research paradigm

The importance of the qualitative method in social, behavioral and organizational research has drawn a great deal of attention among scholars (Boundless, 2016). In most circumstances, scholars tend to explore social reality and interrelations of subjects to understand what is important to the subjects. Although information systems have a strong tie with behavioral and organizational research, the applications of the qualitative research are not as visible as they are in other research fields (Kaplan and Duchon, 1988). Instead, laboratory-based experiments and field surveys have traditionally been the most dominant techniques, as 50 % of the IS research effort has been made to them (Myers and Avison, 2002).

The dominant approach to information technology research has been found to depend on experimental studies, which implies that scholars are inclined to use this approach to explore the effects of one or more variables on another (Kaplan and Duchon, 1988). In addition, as the continued legitimacy of the positive research paradigm of IS research and the availability of technical foundations for conducting experiments, a great amount of published research in the IS domain is built on the experimental studies (Introna and Whitely, 2000). For instance, Dickson et al., (1977) conducted several experiments (also known as “the Minnesota Experiments”) to examine the relationships between the structure of information of decision-making and the effectiveness of decisions in computer-based information-decision systems. The results of their study showed that experimental research was significantly useful for the information system designers in the aspect of enhancing the acceptance of IS. Adler and McNally (1994) found that a laboratory experiment with real-time interactive stimulation was important for the service providers to understand the advanced traveler information systems. Fjermestad and Hiltz (1998) conducted a literature review of the controlled experiments based on more than 200 published papers from journals and conference proceedings. In the study, they defined controlled experiment as “two or more conditions that were thoughtfully created and contrasted, and other variables were manipulated similarly; and there was at least one independent and dependent variable that could be measured and statistically analyzed”. Their findings showed that most of these experiments (90%) used students as the subjects, which might cause problems for the managers, as these systems were about to be employed for commercial needs. Based on the work done by Fjermestad and Hiltz (1998), Introna and Whitely (2000) conducted a

thought experiment<sup>14</sup> to provide a critical review of the role of the laboratory experiments in IS research. According to their argument, it is unlikely for both the observers and the subjects to know if the styles they present in the experiments could cope with the real world. Therefore, experimental research in IS has no internal or external validity and should be discouraged. However, experimental research has also been identified as the most appropriate method for understanding the behavior of particular groups (Asgari and Baptista Nunes, 2011).

### 3.2. Experimental research – the definition and types

Researchers prefer exploring the most appropriate methods for examining the causal effect and the cause of a phenomenon. In most situations, they start with observing the surrounding environment of the phenomenon, and then they develop hypotheses which will facilitate them to understand the impact of specific variables on one another. Such research methodology is known as experimental research, which derives from the context of the natural science and continues in the medical research (Asgari and Baptista Nunes, 2011; Savolainen, 2012: pp.97; Glenn, 2010, pp.43).

The word “experiment” is widely used in the English language as a noun or verb to describe an investigation of a problem or an action to conduct an investigation to explore the problem. However, in scientific inquiry, “experiment” is referred as a method that scholars and practitioners adopt to explore causal relationships among variables with the purpose of solving practical problems or negating theoretical hypotheses. In fact, most of us already had the experience of conducting experiments by the early days of high school. In some chemistry classes, we were asked to mix one chemical with another in order to examine the effects between them (Glenn, 2010, pp.43; Boundless, 2016).

Experimental research has a long history in psychology and education. Its record can be traced back to when psychology emerged as an infant science during the 1900s, and the laws and regulations of psychology were formulated based on experiments. Then, in the first half of the last century, behavioral approaches to sociology and psychology strengthened experimental research as “one of the few methods that directly concerns itself with the question of causality” (Asgari and Baptista Nunes, 2011; Blakstad 2008). In addition, the adoption of experimental research has been affected by the development of theory and research practices. In the 20<sup>th</sup> century, using experimental methods to explore questions concerning human behavior was deemed as one of the most significant scientific advances. To be specific, experimental research is employed to examine

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<sup>14</sup> A thought experiment is “a coherent narrative of an unrealizable experimental situation, commensurate with the current paradigm, that is explicitly constructed in order to destroy or challenge the current paradigmatic position, or to support an emerging paradigmatic position” (Source: Introna and Whitely, 2000)

product composition and performance, promotion alternatives, effectiveness of different placements of products, to name a few (Odle and Mayer, 2009; Ross and Morrison, 2003). Indeed, compared to other research methods, experimental research has two outstanding features: **1)** it can explore causal relationships among variables; **2)** it can control key components of a research project. These two features are interrelated and enable the scholars to examine the causal relationships between variables and carry out research under control (Glenn, 2010; Patzer, 1996). As causal relationships are the spirit of experimental research, a brief introduction to causality is offered as follows.

In experimental research, a **causality** refers to a relationship in which the change of one variable (independent variable) leads to the change in or influence of another variable (dependent variable) (Glenn, 2010). For instance, investigating the effect on consumers' social media engagement ("Y") that is caused by a change in the credibility of content ("X") is not nearly as straightforward as it can be assumed.

In most instances, such a relationship can be described as "X" causes "Y", or a cause-and-effect relationship, or a causality, and these expressions are interchangeable in practice. However, in most scientific research (e.g., finance, business, social sciences, biological), we are more inclined to refer to probable causation than deterministic causation. Therefore, the expression that "X" causes "Y" also implies: **1)** in some cases, not only one "X" causes "Y", but many determinants cause the outcome; **2)** the appearance of "X" probably will increase the likelihood of "Y"; however, it does not mean that "Y" will definitely occur; **3)** it will not be any absolute certainty that "X" causes "Y", but only a reasonable certainty when there is evidence to support. When scholars intend to make conclusions of a causality, there must be evidence of variation (i.e., concomitant variation – the degree to which a cause and effect are present or vary together); appropriate timing (i.e., making a legitimate conclusion when there is causality); and elimination of alternative explanations (i.e., while a legitimate conclusion is made to declare the existence of causality, the alternative explanations of what may cause an effect must be omitted) (Glenn, 2010; Patzer, 1996).

On the other hand, in experimental research, the interest of the experimenters in the influence of environmental variations is known as **treatments**. Generally speaking, the experimenters adopt standardized procedures to hold all conditions constant except the independent variables (i.e., factors that the experimenters control and manipulate). This will guarantee high internal validity when the experimenters compare an experimental group to a control group on the dependent variables (i.e., outcomes). When the internal validity is significantly high, the difference between the groups is considered being caused by treatments; thereby, the scholars can eliminate the rival assumptions that the difference is caused by the external factors (Boundless, 2016; Ross and Morrison, 2003). Further, in

contrast with a survey study, people who are investigated in an experiment are called **subjects** rather than respondents (Glenn, 2010: pp.43). Moreover, in experimental research, the scholars usually use **randomization** to allocate subjects to groups. The randomization guarantees a great likelihood of equivalence among all participants, who would have an equal chance to be assigned to an experiment (Glenn, 2010: pp.55)

As stated earlier, experimental research is widely used in social and natural sciences, and it has been considered as the cornerstone of the empirical approach that can assist scholars and practitioners in solving practical problems. According to prior studies (Glenn, 2010; McBurney and White, 2009; Patzer, 1996), experimental research can be divided into four types, namely controlled experiments, natural experiments (quasi-experiments), observation studies and field experiment-settings, the definitions and examples of which are provided as follows.

<i><b>Experiment Types</b></i>	<i><b>Definition</b></i>	<i><b>Examples</b></i>
<i><b>Controlled Experiments</b></i>	Controlled experiments can tell the differences between an experimental sample and a control sample. The controlled sample usually resembles the experimental sample but its effect will be tested. The control consists of the positive and negative control.	To verify that the proposed effects of a drug are produced only by the drug itself, two identical groups are compared, one receives the drug and one receives a placebo.
<i><b>Natural Experiments (Quasi-experiment)</b></i>	Also known as “quasi-experiments”. Such experiments only depend on the observations of the systems but not the manipulations of the variables as in the controlled experiments. The contributions from all variables can be determined, whereas the variation of certain variables need to stay constant. Accordingly, the effects of other variables can be recognized.	From June 2002 to December 2002, people in Helena, Montana were banned from smoking in any public spaces. Helena was geographically isolated, and there was only one hospital that could serve people. The results of this experiment showed that the rate of heart attacks decreased dramatically.
	They are like the controlled experiments but have no similarities between groups. Such	A medical scientist could not give non-smokers cigarettes to compare them with a control group

<i>Observational Studies</i>	studies usually occur in the medical areas, where it is unlikely to create a truly controlled group. The goal of the studies is to determine the effects of the factors.	to examine if smoking is related with lung cancer, as this is extremely unethical. However, he can start with the known cases.
<i>Field Experiment-settings</i>	Such experiments use the scientific method to experimentally explore an intervention in practice rather than in the laboratory. In the experiments, subjects are randomized into treatment and control groups and the outcomes can be compared.	Bertrand and Mullainathan (2004) conducted a study on labor market discrimination. A help-ad was published in both a Boston and a Chicago newspaper, and African-American- or White-sounding names are manipulated as perceived race and then are randomly assigned. White names received half more calls than the African-American group.

(Table 5. Types of Experimental Research and Examples)

The basic steps of experimental design, according to the summary made by Boundless, (2016) are: 1) identify the problem and conduct an fundamental study to examine what has already been found; 2) formulate hypotheses accordingly; 3) find out and determine what are the independent (“X”) and dependent variables (“Y”); 4) manipulate the variables; 5) interpret the data and make conclusions based on the findings.

### 3.3. Motivations for using experimental research in the study of RRSs for online content creation

This study uses the experimental method for practical and academic purposes. **Firstly**, the main purpose of this research is to examine the impact of RRSs on travel consumers’ behavioral intentions, likelihood of social media engagement, and attitudes toward destinations. To employ RRSs in WOM, scholars already (see Table 6) identified what and whom should be rewarded within the systems. This, on the other hand, indicates that efficient and cost-effective RRSs can only be designed by taking various conditions (i.e., who, when, how, what) into consideration. Given this contention, experimental research is the most suitable method, as it allows us to manipulate different conditions to examine the causal effects between dependent and independent variables. In addition, using the same method

as previous studies allows us to understand the advantages and disadvantages of RRSs better and to make contributions accordingly. **Secondly**, compared to other methods, experimental research enables us to randomly assign the treatments to the subjects, which means all the participants are exposed to an equal possibility of being impacted by RRSs. **Thirdly**, previous IS research already showed that experimental research was important for IS designers to help them enhance the performance of information systems (Dickson et al., 1977). Thus, by using this method, we will obtain help to design more efficient RRSs.

<i>Examples of previous RRSs studies that use experimental research</i>			
Studies	Subjects	Main Treatments	Outcomes
Ryu and Feick (2007)	WOM senders and receivers	Weak vs. strong brands; weak vs. strong ties	Weak brands and weaker ties should be rewarded; the WOM receivers should receive reward
Tuk et al. (2009)	WOM senders	Disclosure vs. no disclosure; cognitive capacity (impaired vs. not impaired)	Senders' sincerity could be lessened once they receive rewards
Shi et al. (2012)	eWOM senders	Social distance: small vs. large	Rewards should be provided to senders and receivers from a large social distance
Ahrens et al. (2013)	eWOM senders and receivers	Incentive offers (equal vs. higher vs. lower offers)	Large rewards to both receivers and senders will increase referral rates, especially for the senders
Jin and Huang, (2014)	WOM senders and receivers	Reward types: monetary vs. in-kind	Monetary rewards are inferior to in-kind rewards, as they can weaken the benefits that senders receive; but both of them

				perform equally well if the reward size is large
<b><i>Current study of using RRSs for online content creation<sup>15</sup></i></b>				
<b>Experiment 1</b>	Online consumers	travel	Reward condition: (obtain the maximum number of comments vs. retweets vs. likes)	Tourists who obtained the maximum number of “likes” among peers should be rewarded
<b>Experiment 2</b>	Online consumers	travel	Reward type (a social mechanism vs. direct rewards) x Reward condition: (obtain the maximum number of comments vs. retweets vs. likes)	Such designs will not create efficient RRSs
<b>Experiment 3</b>	Online consumers	travel	Reward type (a social mechanism vs. direct rewards) x social distance (small vs. large)	Social mechanisms and direct rewards should be offered to the sharers who perceived large social distance from their peers; the social mechanism is more impactful than the direct rewards.

<sup>15</sup> Both Experiment 1 and Experiment 3 provide answers to the research question 1, 2, and 3. However, given that the outcomes of Experiment 2 showed that RRSs did not have an impact on consumers’ social media engagement, their behavioral intentions, and their attitudes toward destinations, the role of UGC characteristics could not be examined. Therefore, Experiment 2 only provided answers to research question 1 and 2.

### 3.4. Strengths and weaknesses of using experimental research in the study of RRSs

Using experimental research in this study has strengths and weaknesses. **Firstly**, experimental research is identified as the most suitable method for making causal conclusions about instructional interventions (Odle and Mayer, 2009). It allows us to observe how RRSs will perform under different conditions (when and how the rewards will be given, and whom the rewards should be given to). **Secondly**, from a scientific perspective, experimental research, which is also known as random assignments or causal studies, is efficient in helping scholars explore whether one or more variables are capable of causing the change in the outcomes. In addition, it also allows scholars to make fair comparisons among the outcomes (Towne and Shavelson, 2002). For instance, in this study, by carrying out experimental research, we were able to find out that, in addition to travel consumers' social media engagement, their UGC perceptions (interesting, credible, and useful) also contribute to the change of their purchase and WOM intentions. Besides, this method allows us to compare the outcomes under different conditions. **Thirdly**, as discussed earlier, experimental research enables us to allocate our participants evenly and to make them equally exposed to one reward condition or another.

However, using experimental research in this study also comes with weaknesses. The main weakness lies in the control of the temporal distance that travel consumers perceived (we asked them to think that they would travel for Christmas or the next summer). To some extent, consumers might be reluctant to travel at that time or at any time. Hence, a tradeoff would occur in real practice. We believe that a survey study on consumers' future travel behavior will complete the research.

### 3.5. Chapter summary

This chapter first states the importance of experimental research in IS research by pointing out that experimental research is efficient for IS designers. Then it presents the definition and types of experimental research. According to the findings, four types of experiments are included in experimental research, namely, controlled experiments, natural experiments, observational studies and field experiment-settings. Following that, we list our motivations for using experimental research, and what have been done concerning the use of such a method in the studies of RRSs. Finally, we discuss the strengths and weaknesses of using experimental research in our study.



## 4. Procedures of the Experiments and Empirical Results

This chapter offers an overview of all experiments by presenting our proposals, the procedures in detail, and the empirical results. Most of the outcomes of **Experiments 2 & 3** are only showed in this summary, whereas the outcomes of **Experiment 1** are used as a base for the original articles. Following this chapter, a general discussion of the results will be carried out.

To attain the objectives and to answer the research questions, three experiments were conducted on who should be rewarded, how the rewards should be given, and what rewards should be given. Each experiment consists of three steps, which include 1) motivate sharers (i.e., tourists) to create travel postings (i.e., UGC); 2) invite consumers to rate these postings based on their perceptions; and 3) invite coders<sup>16</sup> to code the UGC characteristics.

### 4.1. Experiment 1: reward conditions<sup>17</sup>

This experiment was built on the evidence that consumers' social media engagement is found to be related to their behavioral intentions and attitudes toward brands (Hollebeek et al., 2014; Malthouse et al., 2013; Men and Tsai, 2014). In the experiment, we propose that the rewards should be given to the sharers (i.e., tourists)<sup>18</sup> who will obtain the maximum social media engagement (i.e., the maximum number of comments, retweets and likes) among peers, and their postings should be influential on travel consumers' purchase and WOM intentions, likelihood of social media engagement, and their attitudes toward destinations.

#### Step 1: Motivate sharers to create travel postings

**Data.** Sixty-five participants (60% MBA students) took part in the experiment. Upon arrival, each of them was randomly assigned to one of the reward conditions: to obtain the maximum number of comments vs. retweets vs. likes. In the first place, all participants were asked about the most impressive destination they traveled to in the last 12 months and the duration of the stay. To have a better understanding of their travel experience, we then asked participants to report their trips on a series of

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<sup>16</sup> About the coders: to ensure the validity of the outcomes of the coding, the coders we invited were different in each of the experiments. In addition, every coder holds a bachelor's degree and has no trouble understanding the classification scheme we provided for coding the UGC characteristics.

<sup>17</sup> The results of **Experiment 1** contributed to the research articles 1~4, the sources of which can be found in the references section.

<sup>18</sup> In all the experiments of this study, the word "sharers" and "tourists" are interchangeable words. In addition, "consumers" and "peers" are also interchangeable words; however, in order to distinguish these consumers (or peers) from many other types of consumers, we use "travel consumers" instead.

questions on a 100-point scale. The questions were modified from the study of Weaver et al. (2007) on individuals' travel evaluations, and these questions included "Were you happy with the trip?"; "Did you consider that the trip is good value for money?"; "Were you satisfied with the trip; and "How much would you like to recommend this destination to your friends?" (anchors: "not at all"; "very much"); "How will you rank this destination among all the past destinations you traveled to?" (anchors: "lowest"; "highest"); and "Do you consider yourself a green hand or an expert in terms of travel?" (anchors: "totally a green hand"; "totally an expert").

Then the participants read a scenario that describes an upcoming tourism marketing campaign: "a travel agency is planning to exploit social media marketing to attract more consumers to travel to the destination (the one you reported as "the most impressive"), and you are invited together with other tourists who have been to the destination to join the campaign. To be specific, the agency expects you to create a travel posting that concerns your experience and feelings during the stay of the destination. The content you create will be published on one of the Chinese social networking sites (e.g. WeChat, microblogs, travel BBS). The agency will offer a reward (2011 Chateau Fleur Cardinale, value approx. 30 €) to you if your posting can get the maximum number of comments (or retweets; or likes) among the peers". In the last step, we tested the participants' self-perceived influence on their postings. The participants were asked: "Do you think that your travel postings can get many comments (or retweets; or likes) after it is published on social media?" (0 = "not at all"; 100 = "definitely will").

**Results.** The participants' staying period varies from the minimum half a day to the maximum forty days (62% travelled domestic, and the rest travelled abroad). Based on the postings they created, all of them deployed throughout the world in search of experiences such as holiday, recreation, religion, health, etc. These activities cope with the core spirit of tourist definitions made by MacCannell (1976) and Cohen (1984) and verify all these participants as tourists. In addition, we learnt that these tourists showed a high degree of happiness ( $M = 87.09$ ) and satisfaction ( $M = 87.26$ ) toward the destinations. Most of them considered that their travel was good value for money ( $M = 85.82$ ) and they would like to recommend the destinations to their friends. Moreover, more than half of them (60.41%) considered themselves as travel experts, and their postings were influential (61.13%) enough to receive many comments (or retweets; or likes) among the peers. In addition, their average ranking of destinations was 38 (out of 100) among the destinations they travelled to in the past.

### **Step 2: Consumers rate the travel postings**

**Data.** The travel postings created in **Step 1** now become essential in **Step 2**. We invited 278 Chinese consumers to rate these travel postings through

Qualtrics<sup>19</sup>. All the participants were told that they would read six different travel postings from random and real tourists on Chinese social media, and what they need to do is just reading and rating these postings based on their perceptions.

Then, the 65 postings were randomly allocated to these raters. Such arrangements were made to ensure that each posting has an equal probability to be exposed to each rater. At the outset, to test these consumers' familiarity with the destinations, under each posting, we asked if he/she has been to the destination mentioned in the posting before. Following that, the consumers were asked to rate each of the postings they read on a variety of dimensions on a 100-point scale: "How credible do you think this posting is?"; "How interesting do you think this posting is?" (anchors: "not at all"; "very much"); "How likely will you retweet this posting?"; "How likely will you comment on this posting?"; "How likely will you give this posting a like?" (0 = "not likely at all"; 100 = "very likely"); "Will you seriously take this destination as an alternative of your future trip?"; "Will you recommend this destination to your friends if they have no idea where to travel to?" (anchors: "definitely will not"; "definitely will"). To analyze their attitudes toward a certain destination, the consumers were also asked on a 7-point scale: "The place is an ideal destination for travel" (1 = "totally disagree"; 7 = "totally agree").

We obtained 1668 groups of ratings on the 65 postings, which means that each posting was rated at least 20 times. In addition, we learnt that only 17.57% of the raters have once lived in or travelled to the destinations mentioned in the postings, and this indicates that their social media engagement, behavioral intentions, and attitudes toward a destination were more likely to be influenced by the travel UGC than their past experience in the destinations.

## Empirical Results

**(a). The impact of RRSs on travel consumers' UGC perceptions, behavioral intentions, likelihood of social media engagement, and attitudes toward destinations.** We ran one-way ANOVAs to compare the variations of ratings of each dimension to access the impact of the three reward conditions.

- Consumers' UGC perceptions. RRSs are found to have a significant impact on consumers' UGC perceptions, namely, the credibility of postings ( $F(1665, 2) = 3.627, p < .05$ ) and the interest of postings ( $F(1665, 2) = 4.727, p < .01$ ). Specifically, under the three reward conditions, reward condition that "get the maximum number of likes" leads to the highest mean value of credibility ( $M = 61.45$ ), and interest ( $M = 48.91$ ) among all three conditions.

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<sup>19</sup> Qualtrics is an industry-provider of Online Survey Software and Insight Platform, source: [www.qualtrics.com](http://www.qualtrics.com)

- Consumers' behavioral intentions and attitudes toward destinations. The results show that RRSs significantly affect consumers' purchase ( $F(1665, 2) = 3.117, p < .05$ ) and WOM intentions ( $F(1665, 2) = 4.176, p < .05$ ). However, they do not have any effect on consumers' attitudes toward destinations. To be specific, the consumers do not consider these destinations as ideal travel destinations. The reward condition that "get the maximum number of likes" achieves a higher mean value of purchase ( $M = 50.70$ ) and WOM ( $M = 49.75$ ) intentions than the other two conditions.
  - Consumers' social media engagement. Although the results indicate that RRSs have an impact on consumers' likelihood of giving "likes" to the postings ( $F(1665, 2) = 3.730, p < .05$ ), they fail to influence consumers' likelihood of commenting on and retweeting the postings ( $p > .05$ ). In addition, the reward condition that "get the maximum likes" yields a higher mean value of likelihood of giving "likes" ( $M = 45.56$ ) than of the remaining conditions.
- (b). The interactions among consumers' social media engagement, behavioral intentions, attitudes toward destinations and UGC characteristics.** We employed multi-linear regression models to predict the interactions among audiences' social media engagement, behavioral intentions, attitude toward destinations and UGC characteristics.
- The impact of UGC characteristics on consumers' social media engagement. In general, the fraction of the explained variance in the consumers' likelihood of retweets, comments, and likes by the "credibility" and "interest" of all the postings is 44.9%, 44.9% and 52.5% respectively. However, the results indicate that the credibility of the postings fails to affect ( $p > .05$ ) consumers' likelihood of retweets and comments but succeed in impacting their likelihood of giving "likes" ( $\beta = .078, p < .001$ ). What should be highlighted here is the fact that, according to the results, the interest of postings positively influences consumers' likelihood of retweeting ( $\beta = .686, p < .001$ ), commenting on ( $\beta = .664, p < .001$ ) and giving a "like" ( $\beta = .067, p < .001$ ) to the postings. This reflects that the more interesting the postings are, the more likely that consumers' social media engagement will be aroused.
  - The impact of UGC characteristics on consumers' behavioral intentions and attitudes toward destinations. The results point out that both interesting and credible postings have positive effects on consumers' purchase intentions ( $\beta_{\text{credible}} = .323, p < .001$ ;  $\beta_{\text{interesting}} = .426, p < .001$ ), WOM intentions ( $\beta_{\text{credible}} = .278, p < .001$ ;  $\beta_{\text{interesting}} = .494, p < .001$ ) and their attitudes toward destinations ( $\beta_{\text{credible}} = .305, p < .001$ ;  $\beta_{\text{interesting}} = .223, p < .001$ ). This shows that, the more interesting and credible the postings are, the more likely the consumers would take the destinations as their future travel alternatives, tell their friends about the destinations, and consider these destinations as ideal resorts.

- The impact of consumers' social media engagement on their behavioral intentions and attitudes toward destinations. Generally speaking, the results show that the consumers' social media engagement has positive effects on their purchase intentions ( $\beta_{\text{likelihood of retweet}} = .163, p < .001$ ;  $\beta_{\text{likelihood of comment}} = .122, p < .01$ ;  $\beta_{\text{likelihood of like}} = .362, p < .001$ ) and WOM intentions ( $\beta_{\text{likelihood of retweet}} = .163, p < .001$ ;  $\beta_{\text{likelihood of comment}} = .219, p < .001$ ;  $\beta_{\text{likelihood of like}} = .347, p < .001$ ). This implies that, the more consumers engage in social media, the more likely they will take the destinations as their future travel alternatives, and tell their friends about the destinations. However, only the consumers' likelihood of giving "likes" ( $\beta_{\text{likelihood of like}} = .329, p < .001$ ) has an impact on their attitudes toward destinations.

### Step 3: Coding UGC characteristics

**Data.** The above results showed that RRSs could impact the peers' social media engagement and behavioral intentions. However, we are aware that it is the content created in RRSs that shaped all the effects. Therefore, in **Step 3**, in addition to "interesting" and "credible" which were rated by peers, we invite four coders to code the UGC characteristics. Each of the coders reviewed every travel posting at least twice and rated it on various dimensions based on a classification scheme that we prepared beforehand. With the attempt to reserve variations of individuals, coders were not aware of our proposals. In addition, they were not allowed to interact or consult with each other to arrive at a consensus. We created dummy variables to control the characteristics (i.e., "there is such a characteristic" = 1; "there is no such a characteristic" = 0).

The classification scheme includes **(1) positive emotions** (e.g., joy, contentment, pride, love, etc.). Such emotions induce people to engage in the environment and take part in social transmission (Berger and Milkman, 2012); **(2) utilitarian**. This kind of characteristic will be spread more as it makes the sharers look intelligent and helpful (Berger and Milkman, 2012); **(3) desirability and feasibility**. These kinds of characteristics were based on the Construal Level Theory (CLT) (Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010). In our case, the "desirability" brings about the concerns of why travel, whereas the "feasibility" focuses on how to travel; **(4) travel concerns**. They include service quality (e.g., ambiance of the resort, quality of food and accommodation), price cues (e.g., the cost of hotels, restaurants, foods); environmental factor concerns (e.g., land scarcity, water and air quality); and cost-effectiveness concerns (i.e., the destination's value for money) (Butler, 2006; Sirgy and Su, 2000). In addition, we captured the pronouns in the postings to check the tourists' sharing focus. The use of singular pronouns (i.e., I, my, mine) means that they are focusing more on themselves; whereas the use of the second pronouns (e.g., you, your) demonstrates that the sharers are focusing more on others (Davis and Brock,

1975; Wanke, 2008). People tend to focus on themselves but care less for others, because it is difficult for them to talk from others' perspectives and the self-concerning information is more accessible (Berger and Milkman, 2012).

## Empirical Results

**(a). The impact of UGC characteristics on consumers' behavioral intentions and attitudes toward destinations.** Independent samples *t*-tests were carried out to explore the impact. The results show that positive emotions, utilitarian and high-level construal content, and price cues are impactful on consumers' social media engagement and behavioral intentions on varying measures, and the environmental factors will impact consumers' attitudes toward destinations. (Note that the number showed in the box is *t* value; N.S.=not significant;  $p < .05$  \*,  $p < .01$  \*\*,  $p < .001$  \*\*\*)

	Retweet	Comment	Like	Purchase	WOM	Attitude
<b>Positive</b>	2.04*	N.S.	N.S.	N.S.	N.S.	2.62**
<b>Utilitarian</b>	2.37*	4.34***	4.56***	N.S.	2.78**	N.S.
<b>Desirability</b>	3.02**	2.10*	2.97**	N.S.	N.S.	N.S.
<b>Feasibility</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Self-Focus</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Others-focus</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Service</b>	N.S.	N.S.	N.S.	N.S.	2.03*	N.S.
<b>Environmental</b>	N.S.	N.S.	N.S.	N.S.	N.S.	2.23*
<b>Price</b>	2.92**	3.78***	3.22**	2.87**	4.60***	N.S.
<b>Cost Benefit</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.

(Table 7. The Impact of UGC Characteristics on Consumers' Social Media Engagement, Behavioral Intentions, and Attitudes Toward Destinations)

**(b). The roles of UGC characteristics within the design of RRSs.** To explore the roles of UGC characteristics in the design of RRSs, we tested their mediation effects based on the study of Baron and Kenny (1986). The findings demonstrate that, first, the reward condition of "obtaining the maximum number of comments" lead sharers to create more credible, interesting, utilitarian content and also price concerns, which increase consumers' likelihood of recommending the destinations to their friends. On the other hand, the reward condition of "obtaining the maximum number of likes" drive sharers to create more interesting, credible, high-level construal content and also content with price cues, which make consumers take these destinations as back-ups for future travel plans (N.B.  $p < .05$  \*,  $p < .01$  \*,  $p < .001$  \*\*\*, the *a path* means  $X \rightarrow M$ ; *b path* means  $M \rightarrow Y$ ; *c* is the direct effect that *X* has on *Y*).

Mediators	<i>a</i> path	<i>b</i> path	<i>c</i> direct effects	<i>c'</i> Indirect effects
<b>X=treatment of “maximization of comments”; Y=WOM intentions</b>				
<b>Credible</b>	3.57	.204	.061*	.053*
<b>Interesting</b>	4.54	.255	.061*	.053*
<b>Price cues</b>	.870	.065	.061*	.041*
<b>Utilitarian</b>	1.06	.111	.061*	.036*
<b>X=treatment of “maximization of likes”; Y=purchase intentions</b>				
<b>Credible</b>	3.57	.251	.048*	.029*
<b>Interesting</b>	2.02	.184	.048*	.065*
<b>Price cues</b>	.963	.021	.048*	.087*
<b>Utilitarian</b>	1.06	.014	.048*	.035***
<b>Desirability</b>	3.00	.009	.048*	.002*

(Table 8. Role of UGC Characteristics in the Design of RRSs)

**A short summary.** The results of Experiment 1 support our proposals. **Firstly**, in the incentive design (i.e., reward conditions: obtaining the maximum number of retweets vs. comments vs. likes among peers), consumers’ purchase and WOM intentions, and the likelihood of giving “likes” were impacted. **Secondly**, consumers’ social media engagement was found to be linked to their purchase and WOM intentions. **Thirdly**, positive emotions, utilitarian content, content with the deferability concerns and price cues were found to be influential on consumers’ social media engagement, behavioral intentions and their attitudes toward destinations on varying measures. The results also contribute to our conceptual framework in the section of 2.1.1, 2.2, 2.3 and 2.4.1.

#### 4.2. Experiment 2: reward conditions vs. reward types

**Experiment 2** further examined how the rewards should be given, and what should be rewarded in RRSs. Unlike **Experiment 1**, we manipulated both reward conditions and reward types simultaneously. Given that the outcomes of social mechanisms were found to be superior to that of the direct rewards, and social mechanisms could promote individuals’ cooperative behavior (Main et.al, 2013), we propose that, compared to the direct rewards, the social mechanisms can generate more efficient outcomes (i.e., consumers’ behavioral intentions, likelihood of social media engagement, and attitudes toward destinations can be impacted).

##### **Step 1: Motivate tourists to share on social media**

**Data.** One hundred and seventy-three participants (they were recruited from the Amazon Mechanical Turk<sup>20</sup>) were randomly assigned to a condition in a 3 (reward conditions: obtain the largest volume of retweets vs. comments vs. likes) x 2 (reward types: direct rewards vs. a social mechanism) design.

At first, the participants were asked to recall all the travels they have ever had. Then, they were asked to report the most impressive destination among all the destinations they have ever been to, and the number of days they stayed at this destination.

With the attempts to obtain better travel content and to assist these participants, we asked them to report their travel experience on a 100-point scale, of which questions were modified from the research done by Weaver et al. (2007) on destination evaluation. To be more specific, “Were you satisfied with the trip?”; “Given all the efforts you made, did you consider this destination was good value for money?” (0= not at all; 100=extremely); “How likely will you travel there again in the future?” (0= not likely at all; 100=very likely).

Following this, we manipulated the reward conditions and reward types simultaneously. The participants were given a scenario that “a travel agency recently plans to attract more consumers to travel to the destination that you just reported. Because you and many other tourists have been there before, the agency now invites all of you to take part in this marketing campaign. What you need to do is just creating a posting to describe your travel experience and feelings about the destination. The post will be published on one of the social networking sites (e.g., Facebook, Twitter, Microblogs, TripAdvisor). If your travel postings can achieve the top performance on social networking sites (i.e., obtain the largest volume of retweets/comments/likes among the peers), we will award you 20 euros (or we will award anyone you assign 20 euros)”.

Given that the sharers now were aware that they should create the content to receive the reward, we asked questions on a 7-point scale to check their attitudes toward RRSs concerning the aspects of social benefit and social cost: “After reading your travel posting, the peer will think that you are helping him/her.”; “After reading your travel posting, the peer will think he/she is being taken advantage of by you.” (1= strongly disagree; 7=strongly agree). In addition, for those who were allocated to the groups of “will receive a social mechanism as rewards”, we asked each one of them to fill out the relationship to whom he/she wants to assign the reward, which provided us with an opportunity to find out the social distance between the sharers and the reward recipients.

Finally, we asked all of the participants, “Given the volume of social media engagements (i.e., retweets, comments, likes) that your posting will receive, what is the ranking you think it will be among all the other travel postings”

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<sup>20</sup> Amazon Mechanical Turk (MTurk) is a crowdsourcing Internet marketplace which allows individuals and business to exploit human intelligence for different tasks that computers cannot perform. Source: [https://en.wikipedia.org/wiki/Amazon\\_Mechanical\\_Turk](https://en.wikipedia.org/wiki/Amazon_Mechanical_Turk)



on a 100-point scale (1=Top 1%, 100=bottom of the ranking) to explore the sharer's self-influence on his/her peers' social media engagement.

**Results.** We obtained 173 valid postings. By observing their descriptions, we found that these participants mostly stayed in nice hotels or resorts, explored relaxation or experienced local tourist attractions (McGuigan, 2013). Hence, they were identified as "leisure tourists". In general, their duration of stay was from the minimum 1 day to the maximum 30 days. They were extremely satisfied with the trip ( $M=89.95$ ); they considered the destinations were very valuable for money ( $M=87.75$ ); and they were very likely to travel to the destination again in the future ( $M=85.41$ ). On the other hand, as participants were divided into two large groups based on the reward types, we found that the participants who were allocated to the "will receive a social mechanism as rewards" condition perceived less social cost ( $M=4$ ) than the participants who received the direct rewards ( $M=6$ ). Most of these participants (94%), according to their reports, would assign the rewards to people who are close to them (e.g., spouse, kid, parent). Meanwhile, all the groups considered what they shared would help their peers ( $M=6$ ).

## Step 2. Invite consumers to rate

In this step, we manipulated the temporal distance of when consumers would travel. The findings of the previous research show that consumers' travel intentions can be affected by the temporal distance they perceive, and consumers will form more preferences for the distant future tourism products than the near future ones (Chintagunta and Lee, 2011). Given this contention, we propose that, compared to the consumers who will travel in the near future, those who will travel in the distant future are more likely to engage in social media. Accordingly, their behavioral intentions and attitudes toward destinations are more likely to be influenced.

Four hundred and eighty-five participants (they were recruited from the Amazon Mechanical Turk) took part in Step 2. Upon arrival, they were randomly assigned to one of the conditions: plan to travel for this Christmas (i.e., the near future) vs. plan to travel for the next summer (i.e., the distant future).

First, we asked participants to imagine that "you are about to travel for this Christmas (or for the next summer) for holidays, but now you still have no idea where to travel to". Then we told these participants that they would read five postings from random and real tourists on social media that described their past travel experiences and feelings. What they needed to do was just rating them based on their perceptions.

To test our proposals and assist the participants' evaluation, we asked them to report on a 100-point scale: "Do you think the content is credible?"; "Do you think the description of the destination is interesting?"; "Do you think this posting is useful for your future travel?" (0=not at all;

100=extremely); “If you read this posting on social media, how likely will you retweet it?”; “If you read this posting on social media, how likely will you comment on it?”; “If you read this posting on social media, how likely will you give it a like?” (0=not likely at all; 100= very likely); “If you have no idea where to travel for holidays, would you like to take this destination seriously as your back-up option?”; “If your friends are planning to travel for holidays, would you like to recommend this destination to your friends?” (0= not at all; 100=very much).

Finally, we examined these consumers’ attitudes toward destinations by asking them to report on a 7-point scale: “In your opinion, you think this destination is an ideal destination for holidays” (1=strongly disagree; 7=strongly agree).

We obtained 2424 sets of ratings on the 173 travel postings that we obtained in Step 1. Given that the postings have been equally exposed to the consumers in Step 2 for rating, we learnt that each of the 173 postings were rated at least 15 times.

## Empirical Results

**\*Note that one-way ANOVAs were used for exploring the answers to (a) & (b)**

**(a). The impact of RRSs on consumers’ UGC perceptions.** The results show that RRSs affect consumers’ perceptions, namely, *credible*, *interesting*, and *useful* of the travel content. In particular, the postings, which were created by the sharers who could assign the rewards to anyone and with attempts to obtain the largest volume of likes, are considered to be most *credible*, *interesting*, and *useful* among all the groups. Note that the outcomes of giving a social mechanism as rewards were better than those of giving the direct rewards.

Treatments <sup>21</sup>	Credible	Interesting	Useful
<b>R x D</b>	64.78	57.20	52.96
<b>C x D</b>	67.36	61.04	57.53
<b>L x D</b>	66.13	57.65	54.10
<b>R x S</b>	66.57	57.35	54.66
<b>C x S</b>	67.57	59.93	56.46
<b>L x S</b>	<b>71.63</b>	<b>63.80</b>	<b>60.63</b>
<b>Total</b>	67.22	59.83	55.94
<b>F (2417, 5)</b>	2.97	2.90	3.03
<b>p</b>	<.05	<.05	<.01

(Table 9. The Impact of RRSs on Consumers’ UGC Perceptions)

<sup>21</sup> R=obtain the largest volume of retweets; C= obtain the largest volume of comments; L= obtain the largest volume of likes; D=direct rewards; S=social mechanisms

(b). The impact of RRSs on consumers' likelihood of social media engagement, behavioral intentions, and attitudes toward destinations. The results demonstrate that RRSs have no influence on consumers' behavioral intentions, likelihood of social media engagement, and their attitudes toward destinations ( $p > .05$ ).

<i>The impact of RRSs on Consumers' social media engagement</i>			
Treatments	Retweets	Comments	Likes
R x D	34.02	37.89	44.22
C x D	34.60	39.41	48.98
L x D	34.22	37.39	46.32
R x S	34.03	39.13	47.41
C x S	34.88	39.50	47.13
L x S	39.47	43.35	51.92
Total	35.09	39.35	47.54
F (2417, 5)	1.41	1.40	2.06
<i>p</i>	N.S.	N.S.	N.S.
<i>The impact of RRSs on Consumers' behavioral intentions and attitudes</i>			
Treatments	Purchase	WOM	Attitudes
R x D	50.76	48.39	4.64
C x D	55.97	52.50	4.94
L x D	52.63	49.54	4.74
R x S	52.51	49.53	4.79
C x S	54.10	51.63	4.86
L x S	55.47	53.58	4.93
Total	53.52	50.79	4.81
F (2417, 5)	1.60	1.52	2.04
<i>p</i>	N.S.	N.S.	N.S.

(Table 10. The Impact of RRSs on Consumers' Likelihood of Social Media Engagement, Purchase and WOM Intentions, and Their Attitudes Toward Destinations)

\*Note that linear regression models were used for exploring the answers to (c) & (d) & (e) & (f) & (g).

(c). The impact of sharers' self-perceived influence on consumers' social media engagement. The results show that the sharers' self-perceived influence has a significant impact on the peers' likelihood of retweeting and giving a "like". This indicates that the more the sharers consider their postings to be influential, the more likely their postings will obtain the retweets and likes among the peers.

	Retweet	Comment	Likes
$\beta$	.078	.042	.064
$R^2$	.002	.001	.003
$p$	<.05	N.S.	<.01

(Table 11. The Impact of Sharers' Self-Perceived Influence)

(d). **The impact of UGC characteristics on consumers' likelihood of social media engagement.** Although the results suggest that consumers' social media engagement is significantly related to the UGC characteristics (the more the UGC is credible, interesting, and useful, the more likely consumers would engage in social media), the credibility of the UGC does not have any effect on consumers' likelihood of giving a "like". The UGC characteristics are found to have a more significant impact on consumers' likelihood of giving a "like" (except credible content).

Engagement	Credible	Interesting	Useful
Retweet ( $\beta$ )	.078	.258	.503
$R^2$	.39	.39	.39
$p$	<.05	<.001	<.001
Comment ( $\beta$ )	.075	.250	.524
$R^2$	.41	.41	.41
$p$	<.01	<.001	<.001
Like ( $\beta$ )	.037	.348	.517
$R^2$	.55	.55	.55
$p$	N.S.	<.001	<.001

(Table 12. The Impact of UGC Characteristics on Consumers' Social Media Engagement)

(e). **The impact of UGC characteristics on consumers' behavioral intentions and attitudes' toward destinations.** The results show that consumers' behavioral intentions were related to the UGC characteristics. The increase of credibility, interest and usefulness of content will increase consumers' intentions to purchase, to tell others, or to consider the destination as an ideal destination. Note that consumers' purchase intentions receive more impact from the UGC characteristics than their WOM intentions and their attitudes toward destinations receive.

Behaviors	Credible	Interesting	Useful
Purchase ( $\beta$ )	.092	.261	.505
$R^2$	.60	.60	.60
$p$	<.001	<.001	<.001
WOM ( $\beta$ )	.020	.254	.504

<b>R<sup>2</sup></b>	.50	.50	.50
<b><i>p</i></b>	N.S.	<.001	<.001
<b>Attitudes (<math>\beta</math>)</b>	.004	.015	.019
<b>R<sup>2</sup></b>	.43	.43	.43
<b><i>p</i></b>	<.01	<.001	<.001

(Table 13. The Impact of UGC Characteristics on Consumers' Behavioral Intentions and Attitudes' toward Destinations)

**(f). The impact of consumers' social media engagement on behavioral intentions and attitudes toward destinations.** The results show that the consumers' social media engagement is significantly linked to the consumers' behavioral intentions and their attitudes toward destinations. That is to say, the increase of consumers' social media engagement will lead them to take these destinations as back-ups for future travel, tell their friends about the destinations, or take these destinations as ideal places for travel.

<b>Behaviors</b>	<b>Retweet</b>	<b>Comment</b>	<b>Like</b>
<b>Purchase (<math>\beta</math>)</b>	.148	.065	.462
<b>R<sup>2</sup></b>	.50	.50	.50
<b><i>p</i></b>	<.001	<.05	<.001
<b>WOM (<math>\beta</math>)</b>	.215	.092	.406
<b>R<sup>2</sup></b>	.52	.52	.52
<b><i>p</i></b>	<.001	<.001	<.001
<b>Attitudes (<math>\beta</math>)</b>	.006	.002	.022
<b>R<sup>2</sup></b>	.35	.35	.35
<b><i>p</i></b>	<.001	N.S.	<.001

(Table 14. The Impact of Consumers' Social Media Engagement on Behavioral Intentions and Attitudes toward Destinations)

**(g). The impact of temporal distance on consumers' social media engagement, behavioral intentions and attitudes toward destinations.** Given that the consumers in Step 2 were equally allocated to the "near future" and the "distant future" conditions, we used independent-samples *t*-test to compare the differences between them. The results show that the temporal distance does not have any influence on consumers' social media engagement ( $p > .05$ ). However, there are significant differences between the outcomes of "consumers who plan to travel for the next summer" and the outcomes of "consumers who plan to travel for Christmas" concerning the aspects of their behavior intentions and their attitudes toward destinations. Specifically, the results suggest that when consumers plan to travel for the next summer, they are more likely to take the destinations as back-ups, to

recommend them to their friends, and to consider these destinations as ideal places.

	Purchase (M)	WOM (M)	Attitudes (M)
Near future	51.80	48.48	4.68
Distant Future	54.81	52.54	4.91
<i>t</i> (2421)	2.32	3.05	3.40
<i>p</i>	<.05	<.01	<.001

(Table 15. The Impact of Temporal Distance on Consumers' Behavioral Intentions and Attitude Toward Destinations, \* please note M= mean value)

### Step 3. Coding the travel content

The results above showed that RRSs did not affect consumers' social media engagement, behavioral intentions and their attitudes toward destinations. However, it is still important for us to understand what characteristics of UGC will influence consumers' social media engagement, behavioral intentions, and attitudes toward destinations.

As statistical software would not identify the emotionality and other words regarding travel concerns, we recruited three human coders to code the characteristics of the content according to a classification scheme that we prepared in advance. Each coder was required to review all the content at least twice and they were not allowed to consult with each other to make conclusions. More importantly, the coders did not know our research questions and proposals.

To be specific, the classification scheme includes (1) high-arousal positive emotions (e.g., excited, astonished, delighted, happy, pleased) and low-arousal positive emotions (e.g., content, calm, relaxed), which were based on the findings of Berger and Milkman (2012) that the high-arousal positive content was more viral than the low-arousal positive content<sup>22</sup>; (2) desirability and feasibility, which were derived from the Construal Level Theory (CLT) (Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010). In our case, the desirability represents the concerns of why travel, whereas the feasibility represents how to travel; (3) travel concerns, which contain price cues (e.g., the cost of hotels, restaurants, foods); environmental factor concerns (e.g., land scarcity, water and air quality) and food cultures (e.g., taste, restaurant brands) (Butler, 2006; Sirgy and Su, 2000). In addition, we captured the participants' use of pronouns to check their sharing focuses. The use of singular pronouns (i.e., I, my, mine) shows that they are focusing more on themselves in the course of

<sup>22</sup> Note that, according to the results of Step 1, tourists showed a high degree of happiness toward the travel, which is why the high-arousal negative (anger) and negative content was unlikely to appear.

spreading information, whereas the use of second pronouns (e.g., you, your) demonstrates that they are focusing more on others (Davis and Brock, 1975; Wanke, 2008). The reasons were the same as those we explained in **Experiment 1**.

### Empirical Results

We depended on the independent-samples *t*-tests for analysis. The results show that, except the feasibility concerns (low-level construals) and self-focused content, all the other characteristics yield impact on consumers' social media engagement, behavioral intentions and their attitudes toward destinations on varying measures. (Note that the number showed in the box is *t*value; N.S.=not significant;  $p < .05$  \*;  $p < .01$  \*\*;  $p < .001$  \*\*\*)

	Retweet	Comment	Like	Purchase	WOM	Attitudes
<b>High-arousal</b>	N.S.	N.S.	2.26*	N.S.	N.S.	N.S.
<b>Low-arousal</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Desirability</b>	2.75**	2.51*	3.63***	4.18**	2.94*	2.63**
<b>Feasibility</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Self-Focus</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Others-focus</b>	2.20*	3.45***	3.63***	4.17***	3.65**	3.33**
<b>Environmental</b>	3.67***	4.05***	5.13***	3.54***	2.71**	2.68**
<b>Price</b>	N.S.	2.42*	2.27*	2.55*	2.47*	2.37*
<b>Food</b>	N.S.	N.S.	N.S.	2.67**	2.17*	3.12**

(Table 16. The Impact of UGC Characteristics on Consumers' Social Media Engagement, Behavioral Intentions and Attitudes toward Destinations)

**A short summary.** The results fail to support some of our proposals. The incentive design (reward types x reward conditions) does not have any effect on consumers' social media engagement, behavioral intentions and their attitudes toward destinations. However, the results show that consumers' social media engagement is linked to their behavioral intentions and attitudes toward destinations. In addition, the content which is "*other-focused*" and with *high-arousal positive emotions, desirability concerns, environmental factors, price cues, and food cultures* are found to be impactful on consumers' social media engagement, behavioral intentions and their attitudes toward destinations on varying measures. Moreover, the results contribute to our conceptual framework in the section of 2.1.1, 2.2, 2.3, 2.4.1, 2.4.2.

#### 4.3. Experiment 3: social distance vs. reward types

**Experiment 3** further examines to whom the rewards should be given, and what rewards should be given in RRSs. This time both the sharers' social

distance from their peers and the referral types were manipulated simultaneously. The manipulation of social distance was based on the prior findings that, from a large social distance, individuals would care less about their social relationships with others, and the economic incentive would dominate the sharers' behavior ( Zhao and Xie, 2011; Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010). Hence, we propose that the rewards should be given to the sharers who perceive a large social distance from their peers, and the outcomes of the social mechanisms should be more efficient than those of the direct rewards (for the same reason we discuss in **Experiment 2**). Accordingly, we propose that there should exist interactions among the UGC characteristics, consumers' social media engagement, behavioral intentions, and their attitudes toward destinations.

### **Step 1: Motivate tourists to share online**

**Data.** One hundred and twenty-five participants (they were recruited from the Amazon Mechanical Turk) were randomly assigned to a condition in a 2 (social distance: large vs. small) x 2 (reward types: direct rewards vs. a social mechanism) design.

Once arrived, participants were asked to report the most frequent social networking site<sup>23</sup> they have been using – the purpose was to help us find the most popular social networking site among participants. Then, the participants were asked to recall all the travels they have ever had and to choose the one they consider as the most impressive, and to fill out the destination as well as the duration of stay. With the purpose of understanding the participants' travel behavior and assisting them in creating travel content, we asked them to report their travel experience at the destination on a 100-point scale by using the questions modified from the study of Weaver et al. (2007) on travel evaluation. These questions included: "How satisfied were you with the trip?"; "How much did you think this destination is good value for money?" (0= "not at all"; 100= "very much"); "Will you travel there again in the future?" (0= "definitely not"; 100= "definitely will")

After that, the participants were provided with a scenario which described that "the local travel agency of the destination (the one you reported as the most impressive) plans to attract more consumers to travel there. Because you and many other tourists have been there before, they now invite all of you to create a posting to describe your travel experience and feelings about the destination to help them understand their customers better. Assuming this post will be published on your most frequently-used

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<sup>23</sup> Note that the social networking site participants intended to provide could be anyone as long as they use it on a daily basis, and this social networking site also helped us in creating the scenario.



social networking site so that your peers will be your followers<sup>24</sup> (or the post will be published on the travel agency's official social networking sites, so that the peers are more likely to be the people you have never known). The posting will be evaluated later, and if your travel posting can achieve the top performance on social media (i.e., get the largest volume of retweets, comments, and likes among the peers), we will award you 20 euros (or we will award anyone you assign 20 euros)".

The sharers understood that they were rewarded to create travel postings. Then, on a 7-point scale, we asked the sharers to report their perceived social benefit and social cost of being motivated by the rewards to share online: "After reading your travel posting, your peer will think that you are helping him/her."; "After reading your travel posting, the audience will think he/she is being taken advantage of by you." (1= "strongly disagree"; 7= "strongly agree").

Moreover, for those who were allocated to the "social mechanism" conditions, we asked each of them to fill out the relationship to whom he/she wants to assign the rewards, and this provided us with an opportunity to understand the social distance between the sharers and the recipients if we use social mechanisms as rewards.

Finally, we asked participants, "Regarding the volume of the social media engagement (i.e., retweets, comments, likes) that your posting will receive, what ranking do you think it will be among all the postings?" on a 100-point scale (1=Top 1%, 100=bottom of the ranking) to examine sharers' self-perceived influence on the peers' social media engagement.

**Results.** We obtained 125 valid postings. **Firstly**, Facebook is still the most used social networking site by these participants (98%). Based on the overview of the postings, we found that all the participants attempted to enjoy relaxation or to experience local tourist attractions (McGuigan, 2013). Hence, they could be defined as "leisure tourists". In addition, the duration of their staying varied from 1 day to 30 days. **Secondly**, the results of their reports of travel experience pointed out that these participants were extremely satisfied with the travel ( $M=91.74$ ); they considered the destinations were very valuable for money ( $M=90.65$ ); and they were very likely to travel to the destination again in the future ( $M=87.76$ ). **Thirdly**, both of the "direct rewards" and the "social mechanisms" groups agreed that they thought sharing would help others ( $M=6$ ). However, the results indicated that using a social mechanism as rewards did reduce sharers' perceived costs ( $M=4$ ) in contrast with using the direct rewards ( $M=5$ ). **Finally**, most of the participants (88%) in the "social mechanisms" groups would like to assign the rewards to the people who have a close relationship with them (e.g., parent, spouse, kid).

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<sup>24</sup> Followers of the personal social media are considered as having a small social distance from the sharers, whereas the followers of the travel agency's official social media are treated as those who have a large social distance from their sharers.

## Step 2. Invite consumers to rate

Three hundred and eighty-nine participants (recruited from the Amazon Mechanical Turk) took part in Step 2. At the beginning, each of the participants was told that he/she was about to read five different postings from random and real tourists on social media. These postings were about some tourists' past travel experiences at certain destinations, and he/she just needed to rate each of the postings based on his/her perceptions. Then, the postings we collected in Step 1 were randomly and equally allocated to every participant.

In order to examine our proposal and assist the participants in evaluating the postings, we asked them to answer the following questions on a 100-point scale: "Is this travel posting credible?"; "Is this travel posting interesting?"; "Is this travel posting useful for your future travel?"; (0 = "not at all"; 100 = "extremely"); "How likely will you retweet this travel posting?"; "How likely will you comment on this travel posting?"; "How likely will you give a "like" to this travel posting?"; "Will you take this destination seriously as a back-up for your future travel?"; "Will you recommend this destination to your friends if they have no idea where to travel for holidays?" (0 = "definitely not"; 100 = "definitely will"). In addition, we examined consumers' attitudes toward destinations by asking them to report on a 7-point scale: "This destination is an ideal destination for holidays." (1=strongly disagree; 7= strongly agree).

Finally, we asked the participants on a 100-point scale that "In terms of travel, do you think that you have the same opinions as this tourist?" (0= not same at all; 100= very much the same) to explore if the participants' similarity with the sharers is associated with their social media engagement, behavioral intentions and attitudes toward destinations (Liviatan et al. 2008),

We obtained 1946 sets of ratings on the 125 travel postings. This, on the other hand, indicates that each of the postings is rated about 15 times.

## Empirical Results

**\*Note that one-way ANOVAs were used for exploring the answers to (a) & (b) & (c).**

**(a). The impact of RRSs on consumers' UGC perceptions.** The results show that RRSs significantly affect consumers' UGC perceptions, including *credible*, *interesting* and *useful*. Among all the groups, postings from the sharers who were allocated to the "social mechanism" conditions and perceived a large social distance from the peers yield the most significant effects. Note that the groups from the rewards (both types) to sharers who perceived a large social distance from the peers generate more influence than those who perceived a small social distance from the peers.

Treatments <sup>25</sup>	Credible	Interesting	Useful
D x S	64.36	54.47	50.87
D x L	65.75	58.14	55.02
S.M. x S	65.38	55.41	52.01
<b>S.M x L</b>	<b>69.05</b>	<b>61.34</b>	<b>57.69</b>
<b>Total</b>	66.14	57.86	53.93
<b>F (1941, 3)</b>	3.00	3.62	4.68
<b>p</b>	<.05	<.05	<.01

(Table 17. The Impact of RRSs on Consumers' UGC Perceptions)

**(b). The impact of RRSs on consumers' social media engagement.** The results show that RRSs only affect consumers' likelihood of giving a "like" but fail to influence consumers' likelihood of retweeting and commenting on the content ( $p>.05$ ). Still, the groups from the rewards (both types) to sharers who perceived a large social distance from the peers generate more impact than those who perceived a small distance.

Treatments	Retweet	Comment	Like
D x S	31.43	36.46	44.57
D x L	34.83	39.52	49.60
S.M x S	35.00	39.84	47.30
<b>S.M x L</b>	35.34	41.71	<b>52.69</b>
<b>Total</b>	34.18	39.41	48.58
<b>F (1941, 3)</b>	1.46	2.03	4.67
<b>p</b>	N.S.	N.S.	<.01

(Table 18. The Impact of RRSs on Consumers' Social Media Engagement)

**(c). The impact of RRSs on consumers' behavioral intentions and attitudes toward destinations.** The results demonstrate that RRSs have a strongly significant impact on consumers' purchase and WOM intentions, and attitudes toward destinations. Using a social mechanism as rewards to sharers who perceived a large social distance from the peers yields the most significant influence. Again, the postings from the groups of the rewards (both types) to sharers who perceived a large social distance from the peers generate more influence than those who perceived a small social distance.

Treatments	Purchase	WOM	Attitude
D x S	46.99	44.97	4.53
D x L	52.53	50.75	4.82

<sup>25</sup> D=Direct Rewards; S.M.= Social Mechanisms; L=Large Social Distance; S=Small Social Distance

<b>S.M. x S</b>	49.80	48.38	4.59
<b>S.M. x L</b>	<b>54.32</b>	<b>52.46</b>	<b>4.96</b>
<b>Total</b>	50.96	49.19	4.73
<b>F (1941, 3)</b>	4.74	4.87	6.90
<b><i>p</i></b>	<.01	<.01	<.001

(Table 19. The Impact of RRSs on Consumers' Behavioral Intentions and Attitudes toward Destinations)

**\*Note that Linear regression models were used for exploring the answers to (d) & (e) & (f) & (g) & (h).**

**(d). The impact of sharers' self-perceived influence on consumers' likelihood of social media engagement.** The results point out that the sharers' self-perceived influence will only affect consumers' likelihood of likes. That is to say, the more they consider their posting will receive "likes", the more "likes" they will receive.

	<b>Retweet</b>	<b>Comment</b>	<b>Likes</b>
<b><math>\beta</math></b>	.015	.047	.064
<b>R<sup>2</sup></b>	.000	.002	.003
<b><i>p</i></b>	N.S.	N.S.	<.01

(Table 20. The Impact of Sharers' Self-Perceived Influence on Consumers' Likelihood of Social Media Engagement)

**(e). The impact of UGC characteristics on consumers' likelihood of social media engagement.** The results show that the UGC characteristics are linked to consumers' likelihood of social media engagement. The more *credible*, *interesting*, and *useful* the content is, the more likely the consumers will engage in social media. Note that, compared with the likelihood of commenting on and retweeting the content, the UGC characteristics are more significantly influencing their likelihood of giving a "like" to the content.

<b>Engagement</b>	<b>Credible</b>	<b>Interesting</b>	<b>Useful</b>
<b>Retweet (<math>\beta</math>)</b>	.162	.231	.595
<b>R<sup>2</sup></b>	.45	.45	.45
<b><i>p</i></b>	<.001	<.001	<.001
<b>Comment (<math>\beta</math>)</b>	.100	.312	.522
<b>R<sup>2</sup></b>	.48	.48	.48
<b><i>p</i></b>	<.001	<.001	<.001
<b>Like (<math>\beta</math>)</b>	<b>.080</b>	<b>.424</b>	<b>.439</b>
<b>R<sup>2</sup></b>	<b>.60</b>	<b>.60</b>	<b>.60</b>

<i>p</i>	<.001	<.001	<.001
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(Table 21. The Impact of UGC Characteristics on Consumers' Social Media Engagement)

**(f). The impact of UGC characteristics on consumers' behavioral intentions and attitudes toward destinations.** The results demonstrate that both the interesting and useful content has an impact on consumers' purchase and WOM intentions, as well as their attitudes toward destinations. Although the *credible* content has an impact on consumers' attitudes toward destinations, it fails to have any effect on consumers' purchase and WOM intentions. Compared with "taking the destination as a back-up option" and "considering the destination as an ideal one", consumers are more likely to recommend the destinations to their friends when the content is *interesting* and *useful*.

Behaviors	Credible	Interesting	Useful
Purchase ( $\beta$ )	.026	.224	.621
R <sup>2</sup>	.61	.61	.61
<i>p</i>	N.S.	<.001	<.001
WOM ( $\beta$ )	.007	.290	.568
R <sup>2</sup>	.63	.63	.63
<i>p</i>	N.S.	<.001	<.001
Attitudes ( $\beta$ )	.004	.014	.022
R <sup>2</sup>	.49	.49	.49
<i>p</i>	<.05	<.001	<.001

(Table 22. The Impact of UGC Characteristics on Consumers' Behavioral Intentions and Attitudes' toward Destinations)

**(g). The impact of consumers' social media engagement on behavioral intentions and attitudes toward destinations.** The results point out that consumers' social media engagement is significantly linked to their behavioral intentions and attitudes toward destinations. That is to say, the more they engage in social media, the more likely they will take the destinations as future back-ups, recommend them to their friends and consider these destinations as ideal destinations. Again, compared to the consumers' purchase intentions and attitudes toward destinations, their WOM intentions are more significantly affected.

Behaviors	Retweet	Comment	Like
Purchase ( $\beta$ )	.207	.134	.442
R <sup>2</sup>	.59	.59	.59

<i>p</i>	<.001	<.001	<.001
<b>WOM (<math>\beta</math>)</b>	.295	.088	.432
<b>R<sup>2</sup></b>	.64	.64	.64
<i>p</i>	<.001	<.001	<.001
<b>Attitudes (<math>\beta</math>)</b>	.007	.002	.025
<b>R<sup>2</sup></b>	.44	.44	.44
<i>p</i>	<.001	N.S.	<.001

(Table 23. The Impact of Consumers' Social Media Engagement on Behavioral Intentions and Attitudes toward Destinations)

(h). **The impact of similarity on consumers' likelihood of social media engagement.** The results show that consumers' perceived similarity with the sharers only affected their likelihood of giving likes but not their likelihood of retweeting and commenting on the postings.

	<b>Retweet</b>	<b>Comment</b>	<b>Likes</b>
$\beta$	.41	.21	.13
<b>R<sup>2</sup></b>	.01	.01	.15
<i>p</i>	N.S.	N.S.	<.01

(Table 24. The Impact of Similarity on Consumers' Likelihood of Social Media Engagement)

### Step 3: Coding travel content

Here we followed exactly the same coding procedures and the classification scheme as Step 3 in **Experiment 2**. Given that the statistical software is not capable of recognizing the emotionality of consumers and various words about consumers' travel concerns, we recruited three human coders to code the content characteristics based on a classification scheme that was prepared beforehand. All the coders were asked to read the content no less than twice, and they were told not to consult with each other. Besides, to obtain better results, all our research questions and proposals were not exposed to these coders.

In general, the classification scheme was created on several dimensions: 1) high-arousal positive emotions (e.g., excited, astonished, delighted, happy, pleased) and low-arousal positive emotions (e.g., content, calm, relaxed). High-arousal emotions are found to be more viral than the low-arousal emotions (Berger and Milkman, 2012); 2) desirability and feasibility concerns. The former describes why the tourists travelled (e.g., relaxation), whereas the latter represents how the tourists travelled (e.g., the description of how they went to the destination) (Liberman and Trope, 2008; Stephan et al., 2011; Trope and Liberman, 2010); 3) travel concerns, such as price cues (e.g., the description of how much the food and restaurants cost),

environmental factors (e.g., the description of how the water and air quality is), food cultures (e.g., the description of food brands and taste) (Butler, 2006; Sirgy and Su, 2000). Additionally, in order to examine the sharing focus of the postings, we captured the use of pronouns in the postings. The use of singular pronouns (i.e., I, my, mine) and second pronouns (e.g., you, your) shows different sharing focuses of the tourists: the singular pronouns indicate that they focus on themselves, whereas the second pronouns demonstrate that they focus on others (Davis and Brock, 1975; Wanke, 2008).

## Empirical Results

**(a). The impact of UGC characteristics on consumers' social media engagement, behavioral intentions and attitudes toward destinations.** Independent-samples *t*-test was carried out to compare "characteristics" and "no characteristics" conditions. The results show that when the content has high arousal positive emotions, desirability (high-level) and environmental concerns, the consumers' likelihood of social media engagement and behavioral intentions will increase, and their attitudes toward destinations will be influenced. On the other hand, consumers' social media engagement and behavioral intentions are less likely to be influenced by the low-arousal positive emotions, the low-level and the self-focused content (Note that the number showed in the box is *t* value; N.S.=not significant;  $p < .05$  \*;  $p < .01$  \*\*;  $p < .001$  \*\*\*)

	Retweet	Comment	Like	Purchase	WOM	Attitude
<b>High-arousal</b>	3.32***	2.97**	3.47***	2.49*	2.66**	2.78**
<b>Low-arousal</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Desirability</b>	2.53**	3.53***	3.84***	3.31***	3.45**	3.22**
<b>Feasibility</b>	2.32*	N.S.	2.9*	N.S.	N.S.	2.07
<b>Self-Focus</b>	N.S.	N.S.	N.S.	N.S.	N.S.	-2.01*
<b>Others-focus</b>	3.08***	4.07***	4.92***	4.76***	3.65**	3.33**
<b>Environmental</b>	3.25***	3.52***	5.13***	3.53***	3.80***	3.73***
<b>Price</b>	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
<b>Food</b>	N.S.	N.S.	2.36**	N.S.	N.S.	N.S.

(Table 25. The Impact of UGC characteristics on Consumers' Social Media Engagement, Behavioral Intentions and attitudes toward destinations)

**(b). The role of UGC characteristics in the RRSs design.** We carried out a mediation analysis based on the study of Baron and Kenny (1986). **Firstly**, the incentive design "direct rewards x a large social distance" drives sharers to create more credible, interesting, useful, high-arousal positive content, as well as environmental concerns, which increase consumers' likelihood of taking the destinations as back-ups. **Secondly**, the incentive design "a social

mechanism x a large social distance” leads sharers to create more credible, interesting, useful, high-arousal positive content, and environmental concerns, which increase consumers’ likelihood of taking the destinations as back-ups. **Thirdly**, the incentive design “direct rewards x a large social distance” drives sharers to create more credible, interesting, useful, high-arousal positive content, which increase consumers’ likelihood of recommending the destinations to others (N.B.  $p < .05$  \*;  $p < .01$  \*;  $p < .001$  \*\*, *a path* means  $X \rightarrow M$ ; *b path* means  $M \rightarrow Y$ ; *c* is the direct effect that  $X$  on  $Y$ ).

Mediators	<i>a path</i>	<i>b path</i>	<i>c</i> direct effect	<i>c'</i> Indirect effects
<b>X=treatment of “direct rewards x a large social distance”; Y=purchase intentions</b>				
Credible	4.11	.108	.051*	.018*
Interesting	3.21	.001	.051*	.001*
Useful	4.13	.027	.051*	.021*
High-arousal	1.21	.001	.051*	.004*
Environmental	1.06	.017	.051*	.036*
<b>X=treatment of “a social mechanism x a large social distance”; Y=purchase intentions</b>				
Credible	1.64	.056	.065**	.001*
Interesting	7.89	.037	.065**	.009**
Useful	5.63	.055	.065**	.003*
High-arousal	1.87	.020	.065**	.014***
Desirability	3.02	.110	.065**	.006*
<b>X=treatment of “a social mechanism x a large social distance”; Y=WOM intentions</b>				
Credible	6.29	.009	.063**	.007*
Interesting	6.95	.058	.063**	.049*
Useful	1.89	.054	.063**	.001*
High-arousal	9.51	.038	.063**	.004*

(Table 26. The Role of UGC Characteristics in RRSs design)

**A short discussion.** The results support our proposals and underscore the efficiency of using social mechanisms in RRSs. The results show that when both reward types were allocated to tourists who perceive a large social distance from the peers, the outcomes of the social mechanism are more efficient than those of the direct rewards. In addition, consumers’ social media engagement is found to be influential on their behavioral intentions and attitudes toward destinations. Moreover, the content which is “others-focused”, or with *high-arousal positive emotions, desirability concerns, environmental factors* could impact consumers’ likelihood of social media engagement, behavioral intentions, and their attitudes toward destinations on varying measures. These results contribute to the conceptual framework in the section of 2.1.1, 2.2, 2.3 and 2.4.



## 5. Discussion and Conclusions

In this chapter, the focus is on giving an overview of the main research findings, and their relations to the research questions formulated in the Introduction. Three experiments were conducted to explore how to use IT-enabled referral reward systems (RRSs) to motivate tourists to share online. The outcomes are rich but need to be organized. Therefore, we begin by highlighting the core findings and answers to the research questions, which continues by presenting the contributions to the theory and implications for practice. Finally, the limitations of this study and suggestions for future studies are discussed.

### 5.1. Main findings

The research starts with the fact that, in the digital age, the travel UGC has been considered to be more important than the source of consumers' prior experience and the information of marketers. However, little evidence has been shown on what kind of travel content is influential on consumers' behavior. On the other hand, not all tourists would like to share their travel stories online due to the social costs of sharing (e.g., have to overcome shyness in public) they perceived. In previous research, RRSs are already found to be capable of motivating consumers to spread positive WOM of companies. Given that UGC is the electronic form of WOM, we are motivated to use RRSs for online travel content creation.

As stated in the first chapter, this research has two objectives: 1) to examine the impact of RRSs on consumers' likelihood of social media engagement (i.e., likelihood of retweeting, commenting on, or giving a "like" to the postings), behavioral intentions (i.e., purchase and WOM intentions) and their attitudes toward destinations; and 2) to explore the UGC characteristics to find out what kind of content is influential on travel consumers' likelihood of social media engagement, behavioral intentions, and their attitudes toward destinations. Based on these objectives, three research questions were formulated. Then, three experiments were conducted to find the answers to these questions. Now the answers are presented as follows:

**RQ1:** How do referral rewards systems affect travel consumers' social media engagement (i.e., likelihood of commenting, retweeting, and giving a "like"), behavioral intentions (purchase and word-of-mouth intention), and their attitudes toward destinations?

**Firstly**, in **Experiment 1**, we changed the reward conditions (obtain the maximum number of comments vs. retweets vs. likes) and proposed that the rewards should be given to the tourists who would obtain the maximum social media engagement among the peers. The results showed that the

rewards to the tourists who attempted to obtain the maximum number of “likes” would generate the most impact on travel consumers’ UGC perceptions (interesting and credible), purchase and WOM intentions, and likelihood of giving “likes” to the postings. In addition, the results demonstrated that consumers’ social media engagement explained their behavioral intentions and attitudes toward destinations. The more they engaged in social media, the more likely their behavioral intentions and attitudes toward destinations would be affected. These findings were in concert with the results presented in previous studies (Malthouse et al. 2013; Berger 2014; Men and Tsai 2014; Hollebeek et al., 2014) that consumers’ social media engagement shows that they trust the content, have positive attitudes toward the brands, and would like to spend more on the brands. On the other hand, however, we noticed that, compared to retweeting and commenting, travel consumers preferred giving “likes” to the content. This could be explained by the fact that, compared to “comment” and “retweet”, “like” is a much quicker and easier way to give positive feedback (e.g., yes, agree, “me too”) about the things that consumers care about (Buffer Social, 2015).

**Secondly**, in **Experiment 2**, we changed both the reward conditions (achieve the top performance of social media engagement – obtain the largest volume of retweets vs. comments vs. likes) and reward types (direct rewards vs. a social mechanism) simultaneously. The results showed that RRSs failed to influence consumers’ social media engagement and behavioral intentions. However, some other findings are worth discussing here: **1)** RRSs were found to be influential on travel consumers’ UGC perceptions (interesting, credible, and useful). Among all tourists in the incentive designs, we found that the tourists who “attempted to obtain the largest volume of likes and could assign reward to anyone” created the most influential postings. That is to say, their postings were more credible, interesting, and useful to travel consumers. More importantly, we found that the outcomes of a social mechanism are superior to those of the direct rewards when the “social mechanism” is combined with any of the reward conditions. This, to some extent, validated our proposal that the outcomes of the social mechanisms were superior to those of the direct rewards (Mani et al., 2013); **2)** the tourists’ self-perceived influence was found to be associated with consumers’ likelihood of retweeting and giving a “like”. This can be explained by the self-enhancement theory that people like to be perceived as positive and professional in the course of communication (Berger, 2014). The engagement of peers, on the other hand, showed that they appreciated the tourists’ opinions. Accordingly, to get their peers’ attention of their postings and to enhance their self-images, tourists would create content that they considered influential; **3)** again, consumers’ behavioral intentions and attitudes toward destinations were found to be related with their social media engagement; **4)** consumers’ behavioral intentions and attitudes toward destinations could be affected by the

temporal distance they perceived. Compared to the consumers who “plan to travel in the near future”, consumers who “plan to travel in the distant future” were more likely to be influenced by the postings. This can be explained by the Construal Level Theory (CLT) that consumers might consider that the future events contain abstract features and higher values than the near future events. Therefore, their decisions toward future events are more likely to be influenced (Castaño et al., 2007; Liberman et al., 2007; Eyal, Chaiken et al., 2009).

**Thirdly**, in **Experiment 3**, we changed the social distance (a small social distance vs. a large social distance) that sharers perceived and reward types (a social mechanism vs. direct rewards) at the same time. We found that, **1)** no matter when the sharers perceived a large or a small social distance from their peers, the outcomes of rewarding them with the social mechanism were more efficient than rewarding them with the direct rewards. This finding challenges previous studies (e.g., Mazar et al. 2008; Verlegh et al. 2013; Jin and Hung, 2014 ), in which scholars point out that using the monetary and the in-kind rewards directly is effective in motivating consumers to spread WOM; **2)** again, RRSs had an impact on consumers’ UGC perceptions (credible, interesting, and useful), purchase and WOM intentions, and their attitudes toward destinations; **3)** consumers’ social media engagement could impact their WOM and purchase intentions, and attitudes toward destinations (except that consumers “commenting on the postings” did not affect their attitudes toward destinations); **4)** the sharers’ self-perceived influence only had an impact on consumers’ likelihood of giving a “like”; **5)** the similarity that consumers perceived with the sharers only influenced their likelihood of giving a “like”. This, to some extent, supports the previous study (Tesser and Paulhus, 1983) that similarity indicates that people share similar interest and knowledge, and giving a “like” showed consumers’ positive feedback (“yes”; “me too”) (Buffer Social, 2015).

**RQ2:** Which characteristics of UGC are influential on travel consumers’ likelihood of social media engagement (i.e., likelihood of commenting, retweeting, and giving a “like”), behavioral intentions (purchase and word-of-mouth intention), and their attitudes toward destinations?

In general, **firstly**, the results showed that consumers’ purchase and WOM intentions, and likelihood of social media engagement were related to the *interesting, credible, and useful* content (in **Experiment 1 & 2 & 3**). This is because the *interesting, credible* and *useful* content can make the sharers look interesting, funny, smart and helpful (Berger, 2014); and when consumers comment on, retweet, or give a “like” to such content, it shows that they want their peers to perceive them in the same way – this is a basic motivation of people that they like to be perceived as good, which makes them have a tendency to self-enhance (Cheung and Lee, 2012). **Secondly**,

compared to the feasibility concerns, consumers' likelihood of social media engagement, behavioral intentions, and their attitudes toward destinations were more likely to be affected by their desirability concerns (**in Experiments 1 & 2 & 3**). As discussed earlier, this was because the desirability concerns of the tourism products show consumers' desired end-states; therefore, they perceive them as more valuable than the feasibility concerns of the tourism products (Trope and Liberman, 2010). **Thirdly**, the results showed that the increase of the use of second pronouns (e.g., you and your) would increase consumers' purchase and WOM intentions, likelihood of social media engagement, and impact their attitudes toward destinations (**in Experiments 2 & 3**). This is against previous findings (Berger and Milkman, 2012; Jensen Schau et al., 2003) that people often use first pronouns in social media to brand themselves and increase their self-presentational concerns. However, our findings suggest that RRSs shift people away from their default tendency to focus on the self. **Fourthly**, price cues (**in Experiments 1 & 2**), environmental concerns (**in Experiments 2 & 3**), and food culture (**in Experiments 2 & 3**) were found impactful on consumers' likelihood of social media engagement, behavioral intentions, and their attitudes toward destinations on varying measures. According to the overview of postings **in Experiment 1 & 2**, the Chinese tourists seemed more concerned with the environmental situation in the destinations. **Finally**, positive emotions, especially high-arousal positive emotions (**in Experiments 1 & 2 & 3**) were found to be influential on consumers' likelihood of social media engagement, behavioral intentions, and attitudes toward destinations. This could be explained by the fact that high-arousal emotions are a state of mobilization that will increase people's actions (Berger, 2014; Berger and Iyengar, 2012, 2013).

**RQ3:** Within a RRS, what role(s) can the travel UGC characteristics have?

The findings pointed out that **(1)** in the design of reward conditions, *credible, interesting, useful, price cues and high-level construals* played the role of mediators. The incentive designs of "obtaining the maximum number of likes" and "obtaining the maximum number of comments" drove tourists to share these UGC characteristics more, and these characteristics could impact consumers' purchase and WOM intentions; **(2)** in the incentive designs "direct rewards x a large social distance", "a social mechanism x a large social distance", and "a social mechanism x a small social distance", the UGC characteristics *credible, useful, high-arousal positive emotions, environmental concerns, and high-level construals* played the role of mediators. These incentive designs drove tourists to share these UGC characteristics more, and then the characteristics increased consumers' likelihood to take the evaluated destinations as their future back-ups, and to recommend them to their friends.

## 5.2. Contributions to theory

**First and at the most basic level**, the study broadens the scope of social exchange theory from a focus on exchange between two parties to the exploration of complex relationships in social media (Emerson, 1976). We believe that our findings show the utility of applying exchange theory to understand eWOM (UGC) transmission. The use of extrinsic rewards to motivate tourists to share online leads to an increase of travel consumers' social media engagement and behavioral intentions. However, instead of using the direct rewards to motivate sharers, we use social mechanisms in **Experiments 2 & 3**. The outcomes contribute to the theory of social influence, which underscores that peer pressure will promote cooperative behavior (Mani et al., 2013).

**Second**, the research links psychological and sociological approaches to the study of social transmission. Previous studies (Malthouse et al. 2013; Berger 2014; Men and Tsai 2014; Hollebeek et al., 2014) find that consumers' social media engagement can shape their behavior. However, the macro-level outcomes (such as consumers' purchase of tourism products) often depend on the micro-level of tourists' decisions on what to share. Berger (2014) states that an individual's psychological processes also contribute to his/her social transmission. Along this line, we found that positive emotions, especially high arousal emotions, will increase consumers' social engagement and behavioral intentions.

**Third**, our findings also point out that tourists shared more *interesting*, *credible* and *useful* content and it yields effects on their peers' social media engagement and behavioral intentions. These effects are all consistent with the self-enhancement theory, which states that people prefer to be perceived as positively, special and good in public (Berger, 2014).

**Finally**, this study also validates and broadens the Construal Level Theory (CLT) (Liberman et al., 2007) from different perspectives, which include that the high-level construals were found more valuable for consumers' social media engagement and behavioral intentions; the similarity of social distance made consumers engage more in social media, as they considered the tourists had the same opinions as them in terms of travelling. In addition, consumers who thought about travelling in the distant future perceived these postings as having a higher value than those who planned to travel in the near future, and they were more likely to engage in social media and selected the destinations as back-up choices. Moreover, for the first time, the high-level construals (desirability) and the low-level construals (feasibility) were understood as UGC characteristics. The findings were consistent with the CLT that consumers perceived desirability-concerned content as more valuable than the feasibility-concerned content.

### 5.3. Implications for practice

On one hand, this study shows that RRSs have impacts on travel consumers' likelihood of social media engagement, WOM and purchase intentions, and their attitudes toward destinations. These results suggest that tourism service providers need to calibrate to whom the rewards should be given, how the rewards should be given, and what rewards should be given, and compare that with the cost of alternative RRSs. The results of **Experiment 1** showed that rewarding sharers who "aim to obtain the maximum number of likes" increased consumers' UGC perception (credible and interesting), WOM and purchase intentions, and attitudes toward destinations. The results of the **Experiment 2** showed that, compared to using the direct rewards, using a social mechanism was more efficient for driving the sharers to create more *interesting*, *credible*, and *useful* content. In addition, travel consumers were more easily affected by the travel postings when they planned to travel in the distant future than in the near future. Tourism marketers should target special groups when they market the destinations on social media. The results of **Experiment 3** demonstrated that a social mechanism was more effective than the direct rewards for all consumers, from whom the sharers perceived that they have a small or large social distance.

The results create a challenge for tourism service providers. **Firstly**, RRSs tend to target the sharers who aim to "obtain the maximum number of likes" rather than the sharers who aim to "obtain the maximum number of comments or retweets". It might be because, in social media when sharers intend to make their postings liked by their peers, they often share what others may feel lukewarm about, fond of, or what is practical; therefore, their postings will easily arouse the peers' emotions. Consequently, their peers' behavior will be affected (Rosen, 2012). A solution could be to use allocation scheme. **Secondly**, tourism marketers are advised to use social mechanisms in designing RRSs, as such reward types will induce sharers' cooperative behavior (Main et.al, 2013). It is suggested that service providers should try different types of social mechanisms in practice to design more effective RRSs (e.g. when travel experience is shared online, a sharer can earn an all-expense-paid trip for a disabled individual if his/her posting obtains the maximum social media engagement among the peers). **Thirdly**, given that we used cash as rewards, it is important that practitioners should also be aware of the ethical issues evoked by RRSs no matter how they are designed (Verlegh et al., 2013)

On the other hand, the findings of this study also shed light on how to design successful tourism viral marketing campaigns and craft contagious content. This study suggests that positive emotions (especially the high-positive emotions), interesting, credible and useful content, desirability-concerned-content, and content with environmental factors and price cues will be influential on travel consumers' likelihood of social media

engagement, purchase and WOM intentions, and their attitudes toward destinations. Hence, these kinds of UGC characteristics should be more stressed because they are more likely to be spread and to affect peers' behavior. In addition, content with the use of more second pronouns is more impactful on consumers' behavior, because this makes the peers feel that they are addressed and the advice is for their welfare.

#### 5.4. Limitations and future research

Despite the implications of our findings, we realize that the present study has certain limitations that need to be addressed. **Firstly**, we use experimental research as our methodology. This causes inevitable problems, for instance, the way we manipulated consumers' perceived temporal distance for traveling. As in the real case, these participants might not want to travel neither in the distant future nor in the near future. Therefore, there will occur a tradeoff in real practice. We suggest that a survey study of consumers' future travel behavior before conducting the experiments will complete the research of RRSs.

**Secondly**, in all experiments, for the convenience of manipulations, we did not specify exactly on what social networking site(s) the positing will be published. However, travel consumers' social media engagement will be influenced by the types of social networking sites (Xiang and Gretzel, 2010). For instance, if a tourist publishes the same travel story on both TripAdvisor and Facebook, the same groups of peers may perceive this posting as more credible when it is published on Facebook, because they will think they are "friends" of the tourist, and it is unlikely he/she makes the story up. In addition, it has been found that consumers will use multiple social media applications at different stages of their trips; thus, it is quite difficult for us to tell which social networking site will generate the most impact. Hence, it is suggested that in a future study of RRSs, scholars should take the types of social networking sites into consideration.

**Thirdly**, in Experiment 1, all our participants are Chinese, whereas in Experiments 2 & 3 participants were from various ethnic groups. Hence, the role of the cultural differences should be considered, as people from different cultures have different self-construals<sup>26</sup> (e.g., Asians have an interdependent self-construal, whereas Westerners have an independent self-construal), and the self-construals can impact an individual's evaluation of the importance of the self and others. Accordingly, consumers' sharing behavior will be influenced. Hence, a cross-cultural comparison, or a design incorporating a manipulation of self-construals can examine the impact of self-construals in the study of RRSs.

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<sup>26</sup> Self-construal is a term that originates from an individual's perceived cultural differences in the self. It is the degree "to which self is defined independently of others or interdependently with others". Source: <http://www.oxfordbibliographies.com/view/document/obo-9780199828340/obo-9780199828340-0051.xml>

**Fourthly**, for some reasons, all the sharers understood the most “impressive” destination as a “positive” setting. However, in real practice, the most impressive experience can also be the lousiest trip that a tourist has ever had. Given this consideration, RRSs can also be designed in a completely different way. For instance, using RRSs to motivate travelers who have a lousy experience about some destinations will enable tourism service providers to make new marketing strategies accordingly. In addition, scholars should note that the high-arousal negative emotions are found to be more viral than the low-arousal negative emotions (Berger and Milkman, 2012).

**Fifthly**, the study did not have any chance to measure the length of the content, the genders and educational levels of the sharers and travel consumers. However, this does not mean that they are not critical to RRSs designs (BuzzSumo, 2014). Future studies can examine these factors to explore how they moderate the effects on consumers’ social media engagement and behavioral intentions, as previous research found that shorter sentences would receive more active engagement of social media users than longer sentences (Buff Social, 2014).

**Last but not least**, this study broadens the research of viral marketing. As stated earlier, previous research only focused on the exiting postings online and explored their influential characteristics but ignored the fact that the difference in motivations for sharing could bring about variations in the postings. Therefore, the findings of this study also raise broader questions, such as how intentional sharers differentiate from unintentional sharers on impacting consumers’ behavioral intentions. Scholars can take advantage of this gap and conduct studies to compare the performance of postings between “social norms” and “individual rationality” conditions.



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