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A CONCEPT OF LOCATION-BASED SOCIAL NETWORK MARKETING

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ABSTRACT. A stimulus-response model of location-based social network marketing is conceptualized based on an exploratory investigation. Location-based social network applications are capable of generating marketing stimuli from merchant, competition-based, and connection-based rewards resulted from relevance and connectivity. Depending on consumption situations, consumer characteristics, and social network structure, these rewards lead to actual behavior that manifests in variety behavior (i.e., patronage to new places) and loyalty behavior (i.e., increased frequency of patronage to familiar places). This behavior implies changes in patterns of mobility, making this marketing approach particularly relevant for tourism and hospitality businesses. Managerial implications and recommendations for further studies are provided.

KEYWORDS. Social gaming, social network, location-based marketing

INTRODUCTION

Social media and mobile technology have become important platforms for people's daily experiences. As people are ever more mobile for work and leisure, they increasingly share information and connect with their social network using mobile devices. Social media facilitate the processes of communication and group formation in various social contexts. Mobile technology enables these connected experiences to be pervasive and immediate. In addition, the development in geographic information systems allows social network platform on mobile devices to become context-aware, making it possible to obtain and share real-time, contextual information for various decision-making processes associated with social and general consumption experiences. Most recently, mobile phone applications integrating social gaming and location-based technology—such as *Foursquare*, *Gowalla*, and *SCVNGR*—have emerged. These applications encourage the consumption of places (e.g., dining at local restaurants, shopping at local stores, visiting local salons) by broadcasting relevant social and expert recommendations and offering special rewards for certain accomplishments and/or task fulfillment.

This development has led to the growing interest in location-based social network (LSN) marketing and the recognition of its importance for local businesses, particularly in tourism and hospitality. Tourism destinations and hospitality firms have started leveraging such media for their promotion. For example, the City of Chicago (i.e., *ExploreChicago*) and the State of Pennsylvania (i.e., *VisitPA*) in the United States

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are partnering with *Foursquare*, encouraging visitors to uncover the history and culture of the areas and unlock special badges associated with the city and state's lifestyle (Van Grove, 2010a, 2010b). Disney Parks teams up with *Gowalla* to create a branded destination for park-goers to explore Walt Disney World and Disneyland Resorts (Rao, 2010). These marketing initiatives were developed based on the idea that location-based social network applications enable tourism destinations to capitalize on the coupling of travelers' motivation and their enthusiasm for participating in the game to suggest and encourage consumption behavior. Further, the use of such applications also allows tourism destinations to continuously monitor and dynamically respond to visitors' behavior with customized services and offerings.

As this approach to tourism marketing is considered new and considering the investment needed for these initiatives, the issue of assessing the effectiveness of this marketing approach becomes important to explore. To date, despite the surge of interest on how to measure the results of social media marketing, studies on this particular area are still scant (see Parent, Plangger, & Bal, 2011). The concepts of willingness-to-participate (in place of willingness-to-pay) and return-on-engagement (as opposed to return-on-investment) are proposed as the new measures of success for social media marketing (Frick, 2010; Parent et al., 2011). More recently, for LSN marketing in particular, companies such as *Fourscore* analyze the competitiveness of local businesses by calculating the number of *check-in* (i.e., patronage) and *mayorship* turnovers of *Foursquare* users in the establishments. However, a deeper understanding of the patterns of use of LSN applications and how it influences consumer behavior is necessary in order to further strategize such marketing initiatives. Therefore, the goal of this study is to explore the use of LSN applications on mobile phones for place consumption and how the use of these applications influence spatiotemporal mobility and the overall patterns of consumption experiences. The purposes of this study are threefold: (a) to review existing knowledge regarding marketing approaches using the location-aware technologies, (b) to report insights from an exploratory research on the use of LSN applications, and (c) to develop and conceptualize a model of LSN marketing and propositions for further research.

LITERATURE REVIEW

Spatiotemporal Mobility and Location-Based Marketing

Tourism is highly associated with spatiotemporal movement; tourists' experiences can be interpreted chronologically from their movement from one place to another (i.e., from origin to destination or between and within destinations) during a certain time interval (Xia, Ciesielski, & Arrowsmith, 2005). In an attempt to integrate tourism with other forms of mobility, Hall (2003, 2004) represents tourism as a leisure component of the mobility continuum that stretches between commuting and migrating (Hall, 2004). Hence, tourism is seen as a form of temporary mobility characterized by social encounters and patterns of consumption of the attributable components of tourism destinations. Most studies on tourists' spatiotemporal movements focus their attention on tourism itinerary models (Lue, Crompton, & Fesenmaier, 1993; Mings & McHugh, 1992; Oppermann, 1995), proposing different patterns of touring in relation to travel routes or paths, as well as number and ordering of stops along the paths. These models imply two components, destination and transit components, that make up the total attractiveness of a tourist destination for destination choice consideration. Consequently, destination marketing communication mainly focuses on conveying the totality of destination attractiveness to potential tourists (i.e., why a destination is worth visiting) compared to its competitive sets. While this is important, it is argued that marketing initiatives that direct persuasive recommendations leading to new, creative encounters with the physical and sociocultural characteristics of the destination that enrich the overall tourism experiences (i.e., how to get more out of a visit) can be more powerful in influencing tourist behavior on site.

Today, voluminous information tied to geographic locations is becoming more and more accessible. Using this information, destination marketers are able to tap into micro-segments of tourists' consumption and activities by offering recommendations relevant to space and time that might shape, change, or alter tourists' spatiotemporal movement at the destination (i.e., en route and on site travel decisions). The advancement in mobile technology since the last decade, specifically in mobile data networks and global positioning system (GPS), makes it possible to extract knowledge from an expert system to generate ubiquitous recommendations for tourists on the move (see Gretzel, 2011; Kabassi, 2010; Martin, Alzua, & Lamsfus, 2011), which typically include selection of attractions, restaurants, and other activities.

In marketing and management, context has been understood as an important aspect influencing consumers' decisions. In tourism, for example, the same traveler may adopt different strategies and choose different destinations, accommodations, and activities when facing different travel contexts (e.g., traveling with or without children, familiar or unfamiliar with the destination, etc.). Therefore, the capability of mobile recommender systems to integrate the spatiotemporal information in the recommendation generation process is critical to tourism marketing. Within the area of mobile context-aware systems (a class of mobile systems that is capable of sensing their physical environment and adapting their behavior accordingly), contextual information is often defined as the location of the user, the identity of people near the user, the objects around, and the changes in these elements (Ward, Jones, & Hopper, 1997). Other characteristics have been added to this definition. Some of these characterize the users (e.g., seasons, temperature, level of interest, emotional state, etc.; Brown, Bovey, & Chen, 1997; Dey, Abowd, & Salber, 2001; Ryan, Pascoe, & Morse, 1997) and the others point toward the interaction between the users and the applications (Rodden, Cheverest, Davies, & Dix, 1998). Drawing upon the work of Prahalad (2004), Adomavicius & Tuzhilin (2011) identify three dimensions of contextual information necessary to deliver consumer experiences in marketing and management: spatial (where), temporal (when), and technological (how). These dimensions of contextual information are utilized within the LSN platform on mobile phones to suggest context-relevant consumption that shapes mobility.

Social Network Marketing

The role of social interactions in influencing individual decision making is a topic of interest for travel decision literature in recent years (Wilton, Páez, & Scott, 2011). Hill, Rand, Nowak, and Christakis (2010) affirm that social networks determine interactions and influence the spread of diseases, ideas, and behavior. At the micro-level, Leenders (2002) argues that people are appropriately taking into account the opinions and behaviors displayed by significant others, combined with the considerations of other constraints and opportunities, to establish their own opinion and behavior. He labeled this process "contagion" (Leenders, 2002) or social influence. In fact, subjective norms is believed to be an important construct that influences people's intention to adopt a behavior in the widely applied theory of reasoned action (TRA; Fishbein & Ajzen, 1975) and its extension, theory of planned behavior (TPB; Ajzen, 1991). Analyzing the behavior of telecommuting, Wilton et al. (2011) identify that when presented with a choice, people refer to the experiences of others to make informed decisions. This process is typically a result of individual-to-individual relationships.

Further, at a more macro level, the structure of social channels and networks determine how people interact and influence one another (Lee, Cotte, & Noseworthy, 2010). According to the social network theory (i.e., the study of how the social structure of relationships around a person or organization affects behavior; Granovetter, 1973; Borgatti & Lopez-Kidwell, 2011), a communication network consists of interconnected individuals who are linked by patterned communication flow (Roger, 1986). Indeed, Yang (2009) suggests that social networks systematically "capture the connectedness and opinion formation in the complex web of interpersonal influences" (p. 257). This emphasizes

that social networks can be powerful media of interconnected social influencers.

Recent development in social network platform on the Internet brings a tremendous impact to the facilitation of global social interconnections. People share information, exchange opinions, and display certain consumption behavior on blogs, online review sites, social networking sites, and electronic communities, disseminating positive and negative word-of-mouth on various products and services (De Bruyn & Lilien, 2008), influencing the behavior of many others. Hence, the social media have the ability to significantly impact a firm's reputation, sales, and even survival (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Marketers respond to this development by applying electronic word-of-mouth (eWOM), relationship marketing, and viral marketing (De Bruyn & Lilien, 2008). The approach of viral marketing suggests that marketers can leverage the power of interpersonal networks to promote their products and services, transforming the communication networks into influence networks.

The sociological research on social influence identifies two distinct processes that lead to contagion: (a) *communication*, when people use others with whom they are directly tied as their frame of reference, and (b) *comparison*, when people use others they feel similar to as their frame of reference (Leenders, 2002). Communication implies direct contacts between people and their influencers. Indeed, network research suggests that consumers with equivalent positions in social networks typically have similar brand preferences (Lee et al., 2010; Reingen, Foster, Brown, & Seidman, 1984; Sirsi, Ward, & Reingen, 1996). On the other hand, according to Burt (1987), comparison is triggered when people are in competition with one another. Framing their research on destination marketing using consumer narratives, Tussyadiah, Park, & Fesenmaier (2011) also identify that people tend to follow marketing recommendations from other consumers they can identify with (i.e., a-person-like-me or a-person-in-a-position-like-mine). Therefore, the key to viral marketing using social media is to create a platform of influence enablers where members can influence each other through the processes of communication and comparison. It is suggested that the LSN platform on mobile phones facilitate these interaction processes, which makes it an enabler of social influence.

Social Gaming

Along with the exponential growth of membership in online social network, social games (i.e., games created to be playable as a way of social interaction) have multiplied on social networking sites. Using the same principle, LSN applications on mobile phones allow people to play asynchronously to collect points and unlock badges, competing with others (i.e., friends and users in the same localities) in the social networks. Marketers have used gaming as an avenue for advertising. In fact, the term advergaming was coined to refer to the use of games to advertise products and services. Recently, through mobile advergames, companies and tourism destinations are promoting their brands by combining advertisement, online games, and mobile phones. Examples are location-based games that allow users to explore cities such as "*Get Lost in Rotterdam*" (Rotterdam, The Netherlands) and "*Malmö's Mobile Treasure Hunt*" (Malmö, Sweden).

Based on content and SWOT analyses on mobile advergaming for city marketing, Çeltek (2010) identifies that advergaming is successful in branding and integrating cities into the games. However, it is ineffective for viral marketing due to the high equipment cost. Additionally, a recent study on social network games applying TRA reveals that people play social games because social gaming is viewed as a hedonic system that offers entertaining and playful services (Shin & Shin, 2011). Hence, personal enjoyment and playfulness of gaming are perceived to be of important values to users, aside from the utilitarian values of the technology applications. In the context of advergaming, it is the hedonic value of playing the games that represents an added value to using them as marketing tools.

Additionally, playing social games (i.e., competing with others in the social network) entitles the achievement of social recognition. Literature

in marketing and consumer behavior suggests social recognition as customers' desired consequence of consumption (see Gutman, 1982; Gutman & Vinson, 1979; Kamakura & Novak, 1992; Rokeach, 1973). The theory of self-concept (Grubb & Grathwohl, 1967), which is stated to be the result of consumers' interactions with their peers, indicates that consumers value consumption that results in recognition and reinforces reactions from the social network so as to strengthen the conception about themselves. Mobile social network allows immediate interactions, which enables the sharing of consumption decisions to generate immediate social reactions and, consequently, to gain social recognition. To sum up, a social network represents not only a network of interconnected influencers sharing recommendations; it also represents interconnected conformers seeking recognition from each other. With social games, consumption leads to the achievement of "social status" and bonus points. Thus, the introduction of social network gaming into the consumption setting reinforces the process of competition, which leads to comparison and social contagion that may influence behavior.

EXPLORATORY INVESTIGATION

Existing literature explain how each of the three different technologies (i.e., context-based recommender systems, social influence, and social gaming), on their own, drives different marketing approaches and strategies. However, how the combination of these technologies in one application, LSN, works together to change and shape consumer behavior has yet to be determined. Therefore, a study was designed to examine the use of LSN applications and how it influences users' behavior to set a foundation to strategize the LSN marketing approach. Specifically, the goal of this study is to gain valuable insights into the following inquiries:

- "How and to what extent does the use of LSN applications influence spatiotemporal mobility?"
- "How users perceive the power of context awareness, social influence, and social gaming in influencing their spatiotemporal mobility?"
- "Based on users' perspective, can a model of LSN marketing approach be conceptualized?"

These research questions informed the design of an exploratory qualitative study to arrive at a better understanding of the use of LSN applications for spatiotemporal experiences in everyday and travel contexts. Data were gathered using semi-structured group interviews, by way of focus group discussions, to solicit opinion, attitude, and behavior (i.e., individual responses) as well as possible group consensus and/or disagreement (i.e., collective responses; Crabtree & Miller, 1999; Frey & Fontana, 1993; Lunt, 1996) regarding the use of LSN applications. It is argued that interviews with groups of users will provide insightful findings and interpretation (Lunt, 1996) of the social context of LSN applications. Five moderated focus group discussions, each with six participants, were conducted from October 2010 to February 2011. Following the principle of data saturation (Creswell, 1998), no further data gathering was deemed necessary because new information were no longer identified during the fourth and fifth discussions. A metropolitan area in the eastern coast of the United States was chosen for the focus group discussions considering the fact that LSN applications were targeted for use in urban areas where a large number of venues enable users to trace their spatiotemporal mobility from recorded *check-ins* on a daily basis. Invitations to join the focus group discussions were posted on a *Facebook* group page that was left open to all viewers. Additionally, announcements were posted in tourism destination mailing lists. Interested participants were screened to ensure that they were users of at least one of the LSN applications. All participants identified themselves as avid users of LSN applications (i.e., all of them use *Foursquare* on a daily basis).

Marketing researchers suggest focus group discussions to be composed of homogeneous respondents (Bellenger, Berhardt, & Goldstucker, 1976; Liebes & Katz, 1990) for a shared perspective to emerge (i.e., group

consensus). However, Calder (1977) and Merton (1987) also suggest that heterogeneous respondents (relative strangers of diverse sociodemographic categories) may yield rich information for exploratory marketing research (see also Frey & Fontana, 1993). Therefore, considering the exploratory nature of this investigation, the first focus group discussion was composed of heterogeneous respondents (i.e., consisting of male and female, students and working professionals, between ages of 24 and 36) to obtain rich information from diverse user experiences. To further gain new ideas and confirm the collected information, homogenous respondents were allocated for the remaining discussions. Based on their occupations, which were the key differentiating factor among the pool of interested participants (i.e., those who responded to the invitation to the focus group discussions), two focus group discussions were composed of only students and the other two of only working professionals, each in similar age groups (student groups were in their 20s and professional groups were in their 30s) to identify possible differences in collective responses between these two groups. All respondents received a $25 dining certificate upon completion of the discussion.

To determine the boundary of this investigation, spatiotemporal mobility is defined as how users move from one place to another during a period of time, characterized by the consumption of places, which is the essence of tourism. Applications such as *Foursquare* and *Facebook Places* allow different types of businesses to register their venues, ranging from restaurants and bars to beauty salons and yoga parlors to law offices and medical centers. For the purposes of this study, tourism and hospitality venues (e.g., restaurants, attractions, shops, movie theaters, etc.) were highly emphasized in the discussions. The scope of spatiotemporal mobility in this study includes users' visitation to local establishments at home (i.e., daily experiences) and those visited at tourism destinations while traveling (i.e., travel experiences).

The discussions were recorded into sound files and later transcribed into textual data. According to Poland (1995), there is a potential complication in the creation of transcription whereby aspects of emotional context expressed during discussions are not easily transformed into the written record. Hence, to maintain the rigor of this qualitative study, sound files were always consulted during the analysis to check for intonation of voice, pauses, sighs, laughter, overlapping speech, etc. Following Strauss and Corbin (1990) and Creswell (1998), open coding (i.e., identifying, naming, categorizing, and describing phenomena found in the text) was performed as an initial abstraction of the textual data. Labels and codes from sentences and quotes were then organized into general categories or conceptual themes. Later, axial coding (i.e., the process of making connections between codes to reorganize the data) was performed to identify the conditions, context, strategies, and consequences (Strauss & Corbin, 1990), which influence users' behavior while using LSN applications. The categories identified from the open coding were compared and combined in new ways so a model (or a "big picture") from the investigated phenomenon can be developed. In this investigation, a stimulus-response model of LSN marketing was conceptualized from the causal relationships between these critical themes. To ensure the credibility and dependability of the study (Lincoln & Guba, 1985), triangulation of theory (i.e., context-awareness, social comparison, and social recognition) and "member checks" were performed by providing a portion of raw data to select participants in order to corroborate the study findings.

INSIGHTS FROM FOCUS GROUP DISCUSSIONS

Based on the results of axial coding, the focus group discussions provide insights into the users' strategies of using LSN applications, which were manifested in spatiotemporal mobility, and the consequences of these strategies. No differences in collective responses (i.e., group disagreement and/or consensus) were found among all discussions, including the ones with homogeneous respondents. However, differences were found among individual responses in all discussions,

which will be discussed in the following sections.

Users' Strategies—Spatiotemporal Behavior

The shared ideas emerged from the discussions confirmed that participants recognized the change in their spatiotemporal mobility due to the use of LSN applications. Two patterns of behavior were identified during the discussions, both led to the expansion of spatial boundaries of experiences. *First*, the use of LSN applications encourages visitation to new venues, which is relevant in both daily experiences (i.e., first-time visit to local businesses in the city they live) and touristic experiences (i.e., first-time visit to local businesses at tourism destinations while traveling). This is referred to in this study as variety behavior (Excerpt 1). *Second*, the use of these applications also encourages users to visit local businesses more often (i.e., referred to in this study as loyalty behavior), which is particularly relevant for consumption of hospitality businesses on a regular basis (e.g., visiting cafés and restaurants; Excerpt 2). *Lastly*, the increased number of visited venues and the increased frequency of visits allow people to expand the spatial boundaries of their daily experiences indicating a change in their mobility. For example, a participant in this study visited less popular areas at tourism destinations where she could *check-in* and obtain a *mayorship* status easily than in more popular areas (users obtain a *mayorship* status when they visit a venue more frequent than anybody else in the system). Another participant chose to walk two blocks farther than usually for a coffee where he could get bonus points from the applications. In other words, LSN applications have the ability to convince users to go the distances to experience more places.

Excerpt 1. Users' Strategy: Variety Behavior

> [Using the application] makes me think about different things to do in the city . . . where to go . . . what yet to be discovered. It forces me to check out other places I've never been to . . . check out things larger than your own places. (Female, Professional)
>
> [When traveling] It's used to be very easy to become a *Mayor* in [pause] remote areas, where not so many people use *Foursquare*. . .. So, I would make sure to drive farther from the city to check-in at random places and try to become a *Mayor*. (Female, Professional)

Excerpt 2. Users' Strategy: Loyalty Behavior

> I'm the *Mayor* of a couple of places around where I work, mostly coffee places, lunch places . . . if I'm the *Mayor* and I haven't been there for a while I definitely want to go there just because I don't want to lose my *Mayorship*. So I make sure to go there to check-in and maintain my *Mayorship*. (Male, Professional)
>
> . . . I would go to regular places more often to become a *Mayor*. (Female, Student)

Consequences of Users' Strategies—Rewards

It was identified from the discussions that the changes in spatiotemporal mobility were resulted from users' reward-seeking behavior made possible by LSN applications. Two types of rewards were identified from the discussions: (a) system rewards and (b) social rewards. System rewards consist of application rewards (e.g., points to collect, badges to unlock, statuses to obtain, etc.; see Excerpt 3) and merchant rewards (e.g., specials; see Excerpt 4) for recommended behavior. For example, *Foursquare* awards its user 5 points for first-time *check-ins* (application reward) and *Starbucks* rewards customers who *checked-in* at five different branches with a free coffee (merchant reward). Consumer deal-seeking behavior associated with merchant rewards (i.e., monetary and non-monetary promotional tools) has been extensively discussed in the marketing literature as consumers' value maximization strategy (Bawa & Shoemaker,

1987; Blattberg, Buesing, Peacock, & Sen, 1978; Campbell & Diamond, 1990; Laroche, Pons, Zgolli, Cervellon, & Kim, 2003; Ong, Ho, & Tripp, 1997; Talukdar, Gauri, & Grewal, 2010). The application rewards, on the other hand, are the motivating factors that contribute to the personal enjoyment from using LSN applications, which characterizes the social gaming feature of the applications. Application rewards are always tied to certain tasks that, to some degree, allow users to enjoy being mobile. *Foursquare* rewards its users with extra points when they visit a new venue, a new type of venue (e.g., the first Korean restaurant visited), a new state, revisit a venue after a while, etc. Even though all participants in the discussions did not perceive the use of LSN applications as "playing games" per se, they agreed that using them makes their daily and touristic experiences more playful and fun.

Excerpt 3. Consequences: Application Rewards

> Just today, I walked back from a client office and it was lunch time, so I was thinking what to get for lunch and I walked by [Restaurant Name] . . . and I was thinking: you know what, I don't think I've checked-in yet in [Restaurant Name], so will get bonus points if I go there and check-in . . . so I don't think it made want to go there . . . but by realizing that I would get bonus points I was . . . oh, yeah I'll definitely go there now. . . . (Male, Professional)

> I left a tip for [Food Truck Name] and I got a badge. . . . Oh! I was so excited!! I was wondering if I could get a badge every time I leave a tip, so I left a tip somewhere else but I didn't get it [laugh] . . . then I tried to search online how to unlock badges and found out it's impossible to know . . . but every time I got badges I was so excited and very happy. (Female, Student)

Excerpt 4. Consequences: Merchant Rewards

> For me [using the application] is a way to pass the time. It's not necessarily a game . . . it's just something I do when I walk down the streets . . . but then you get some stuff back. Because I checked-in, it shows me there's a special over here . . . or if I checked-in 10 times I can unlock a coupon somewhere. . . . (Male, Professional)

> I use it to see new deals and specials around. . . . I used to play a lot at the beginning [of using *Foursquare*], but now I only play to find out new deals or specials, which was useful. (Female, Professional)

Social rewards, as a social network effect, were more complex to conceptualize as they range from selfish to altruistic motivations. It was identified from the discussions that participants did certain activities because they sought the satisfaction from being on top of the *leaderboard* (i.e., a feature that ranks users among their friends based on the points collected over a period of time) or being a *mayor* of their favorite places. This reward-seeking behavior was rooted in a motivation to compete with others, whether they were the peers in the social network, people with common interests in a close proximity (e.g., patrons of the same establishment), or the general users in their city (see Excerpt 5). The competition-based social rewards are made possible by the application rewards (e.g., *Foursquare* grants bonus points when a user checks-in to a place before any of his/her friends or be at the same venue at the same time with a *mayor*). More importantly, for these participants, the competition-based social rewards signify the power of the application rewards in influencing consumption and mobility. The fact that collecting more points will place them in a prominent position on top of the others, and the immediate social reactions and recognition resulting from this, would make them more inclined to visit a certain venue. Again, this behavior is highly associated with

the enjoyment and playfulness aspect of LSN applications.

Excerpt 5. Consequences: Competition-Based Rewards

> . . . it's a way of being interactive with the world. To show all my friends that I am building a history . . . that I am a cool person, you know . . . and it becomes a competition too because it's rewarding. (Female, Professional)

> . . . it became more about competitions. That's when the *Mayor* thing starts coming into play. If I keep on checking-in, in 5 days I can become a *Mayor*, so I want to check-in 5 days in a row . . . especially in places like [Bar Name] where they show the *Mayor* on the JukeBox. (Male, Professional)

Participants also pointed out a different type of perceived social rewards from using LSN applications to experience places. These rewards were based on users' desire to connect with others (see Excerpt 6). Some participants used the LSN applications because they felt the need to provide or follow recommendations for and from their peers. Participants with a strong need for social connection perceived the system rewards as an added bonus to the things "they would do anyway" and had less influence in determining their behavior compared to the satisfaction they would get from establishing and reinforcing connection with their friends. Many participants perceived that the most important rewards from using LSN applications were to be able to share their experiences with others and to know what their peers were up to (i.e., sharing and staying well-connected). They visited new restaurants or attractions because they knew that their friends were there before, regardless of the rewards they would get from the LSN applications. Some participants also mentioned that *checking-in* to places they like means, to some degree, portraying their self-image to like others, which may lead to more or better social connections (i.e., LSN applications as a platform to broaden social network).

Excerpt 6. Consequences: Connection-Based Rewards

> Today I checked-in at a food truck on campus, there were a bunch of people checking in there and I saw that it has a *Mayor*. I [be]friended the *Mayor* and he accepted [my friend request] and I was very happy. [Laugh]. To be friends you need to have something in common. Even though I know nothing about this person, at least I know that we share the same taste. . .. (Female, Student)

> I am not from around here, my family and close friends are somewhere else. I have to show them all the exciting things that I do here. . . . (Male, Student)

Hence, it can be suggested that the connection-based social rewards influence behavior regardless of the system rewards. Additionally, connection-based social rewards explain the underlying processes of word-of-mouth recommendation as a result of interaction and communication within the social network reinforced by the context-aware system. Indeed, to some users LSN applications are the new platform to disseminate information and influences to their social network. The relevance of information and recommendation resulted from connection-seeking behavior led to the phenomenon of social influence or social contagion, where members of a social network continue to recommend each other to visit different venues.

From a marketing and sales perspective, the new dimension of using system and social rewards as promotional tools lies in the immediacy of these rewards made available for consumers. Once people *checked-in* at a restaurant using *Foursquare*, they would immediately get points (which could place them in a new position on the *leaderboard*) and gain access to the restaurant's specials. Their friends

would instantly know where they were and what they were doing, and would be able to react to it. The ability to provide rewards without delay encourages consumers to make instant strategic decisions. Even for idiosyncratic decision making such as selecting a restaurant for lunch, consumers are faced with alternatives that come with different reward options.

Context—Consumption Situation

The focus group discussions were centered on the use of LSN applications for place experiences in two different contexts: daily and travel experiences. It was identified that the effect of these rewards to stimulate consumers' responses differs according to these consumption situations (see Excerpt 7). For example, when selecting a venue during traveling, participants described the tendency to place the importance of connection-based rewards higher than competition-based ones. Because of the context-aware technology feature, users of LSN applications enter a different competition zone (i.e., with a different set of social network, different *leaderboard*, different badges offered, etc.) when they travel. In this case, achieving competition-based rewards becomes more complex and, for some participants, less of a priority. As a result, for on-site decisions in unfamiliar places, most participants rely on LSN applications to retrieve recommendations enabled by the context-aware system and social network (i.e., LSN as a recommender system and electronic word-of-mouth platform). As the system allows users to view the profiles of people who *checked-in* at venues nearby, some participants also use LSN applications to screen the social environment of a certain establishment at a tourism destination as one of the criteria for decision making. In terms of system rewards, participants found application rewards based on task fulfillment, such as badges to unlock with a visit to a bundle of venues, as well as merchant rewards to be more influential than point-related rewards for spatiotemporal mobility during traveling.

Excerpt 7. Consumption Situation: Everyday Versus Traveling

> I pay more attention to places when I'm traveling. I rely more on *Foursquare*. . . . I use it more often to search for places to go, but when I'm here . . . it's more the playing aspect. (Female, Student)

> If I travel, I use *Foursquare* to see who are the people at the restaurant . . . you know, the social group . . . by looking at their photos I would identify if I could be a part of that group . . . so I would go [to the restaurant]. (Female, Student)

> [Would *Foursquare* change my experience?] I would say . . . to this city, no. To other cities that I travel to, yes! Because here . . . I know the city, if I want to go somewhere, I go there. It's rare if there are sections of the city or something very major that I haven't heard of from friends or the news or something like that . . . but if I'm in another city, so . . . for example, I was in [City Name] lately . . . so there I was paying more attention [to *Foursquare*] . . . what is around here, I had no idea . . . so basically it was like a word-of-mouth thing. . . . (Male, Professional)

On the other hand, a familiar (geographic and social) environment seemed to offer a perfect setting for the achievement of competition-based social rewards. From the discussions, it was identified that LSN applications were used to establish and represent an "experience territory." Many participants visit multiple places around their home or work place regularly (in some intense competition cases multiple times a day) as they compete with their friends and/or co-workers to "claim" their territory. For example, a participant explained how he would not miss a regular social gathering with his friends that takes place at a particular bar to avoid being ousted as a *mayor*. In summary, consumption situations (e.g., prior knowledge and familiarity with places) control the effects of different rewards toward consumption and mobility.

Competition-based rewards might have a higher effect on consumption in a familiar place such as home and work place environment than in a less familiar tourism destination.

Context—Consumer and Network Characteristics

Another factor that determined how the rewards would result in consumption behavior is the consumer characteristics. There was no behavioral difference found from the four focus group discussions composed of homogeneous respondents and the one with heterogeneous respondents. However, it was identified that the difference in attitude toward social recognition plays an important role in controlling how participants respond to certain rewards. Participants who identified themselves as less competitive (regardless of their age and occupation) emphasized the importance of merchant rewards and connection-based social rewards in influencing their behavior (see Excerpt 8). The ones who identified themselves as competitive perceived the importance of being a leader (competition-based social rewards) by *checking-in* to more places and collecting more points (application rewards). Importantly, akin to the theory of self-concept (Grubb & Grathwohl, 1967), it was confirmed from the investigation that participants valued competition-based social rewards from being recognized by their peers, often represented by the immediate social reactions in the system.

Excerpt 8. Consumer Characteristics

> I'm into competition. . . . Once your friends are following, you got to compete . . . who got more points and who got more *Mayorships*. (Female, Professional)

> I think it's my personality. In real life, I don't really like competition. I'm not really that kind of person . . . in whatever game, I don't want to compete . . . I'd rather lose . . . [Laugh]. So, I don't pay attention to other people's points or . . . the *leaderboard*. I just want to know where they are. . . . (Female, Student)

Finally, it was identified that the effects of different rewards varied across different characteristics of social interactions. Participants having a large network on LSN applications with intense interpersonal communication perceived the enjoyment of achieving competition-based social rewards through the accomplishment of application rewards (Excerpt 9). On the other hand, a few participants who were new to LSN applications and had only a few friends in their system did not feel the same urge to compete and "play." In terms of connection-based rewards, social network structure influences the patterns of direct and indirect interaction among network members that may nurture the sharing of information and recommendation and foster social connections. This confirms the idea of the social processes that lead to social contagion (Leenders, 2002). Therefore, it can be suggested that the characteristics of social network control how the different rewards from place consumption while using LSN applications were transformed into behavior.

Excerpt 9. Context—Peer Characteristics

> My competitions are international . . . with people who play *Foursquare* in Germany et cetera . . . and really crazy about it. . . . (Female, Professional)

> I'm new to *Foursquare*. I don't have a lot of friends [on *Foursquare*]. So I don't do a lot of things [with it]. (Female, Student)

A MODEL OF LSN MARKETING

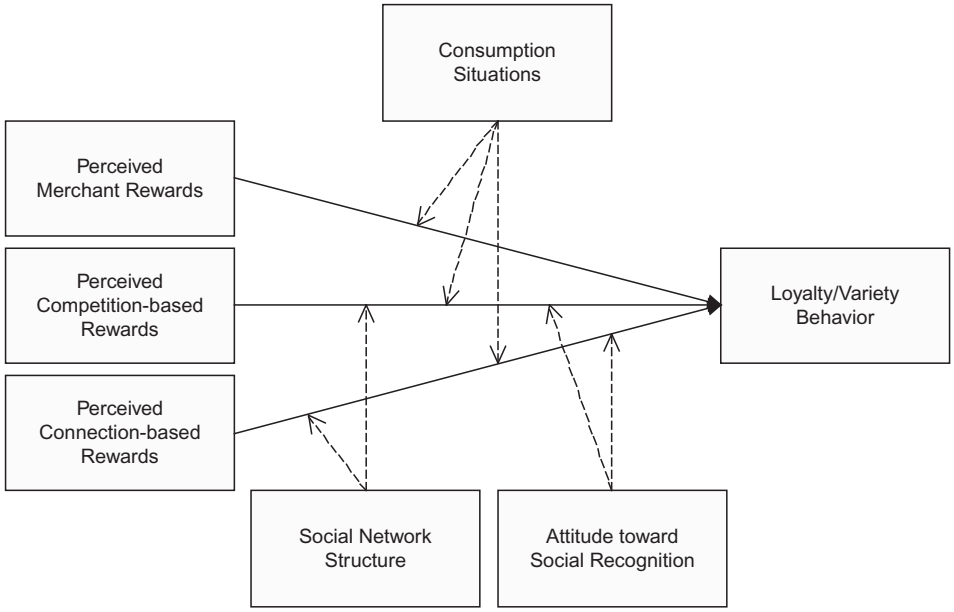
A model of LSN marketing is conceptualized based on the insights from the focus group discussions. It is understood from the investigation that when facing a decision at a point of time and in a specific geographic area, consumers are exposed to marketing stimuli that include the venue characteristics, system rewards, competition-based social rewards, and connection-based social rewards. The consumption situations, consumer characteristics, and social network characteristics shape consumers' perceptions of the stimuli, which would lead

to a behavioral response (i.e., venue selection). At large, the scope of LSN marketing approach includes consumers' decisions and mobility that spans over time and cover different geographic areas. In a travel context, for example, travelers face a series of decision-making processes that entail a combination of different venues (e.g., attractions and services) in different areas of the destination throughout the duration of the trip. Thus, LSN marketing for a tourism destination requires providing a combination of marketing stimuli that can be transformed into value maximizing strategies within space and over time (which can manifest in attraction selection and bundling, timing and duration, etc.). Likewise, the general users of LSN applications face similar decisions on a daily basis. *Foursquare* refresh the *leaderboard* every week, allowing users to re-strategize their competition and connection with others through consumption of places over time. These strategies may include an increase in overall patronage, which, as identified from the focus group discussions, can lead to loyalty and/or variety behavior.

The model of LSN marketing is represented in Figure 1. As consumers are exposed to the marketing stimuli of various venues in relevant areas through LSN applications (i.e., seen as desired consequences of strategies), they develop certain perceptions toward merchant rewards, competition-based rewards (which include application rewards and competition-based social rewards), and connection-based rewards. Merchant reward typically includes a variety of monetary (e.g., price discount) and non-monetary (e.g., extra product) promotions at a venue that can be redeemed with a completion of certain tasks. Competition-based reward can be defined as the state of being recognized as the leader by members of consumers' social network based on the accomplishment of application rewards. Connection-based reward is defined as the state of being well-connected with members of consumers' social network as a result of interaction and communication. The higher the consumers perceive the rewards, the higher the tendency of actual behavior that may manifest in spatiotemporal strategies in the forms of loyalty behavior and/or variety behavior.

The relationships between the perceived rewards and the loyalty and/or variety behavior depend on different consumption situations. Depending on the consumption settings that

FIGURE 1. A Stimulus-Response Model of LSN Marketing



imply different constraints, merchant rewards might have different effects on consumer behavior. In a more flexible, less constrained situation, the effect of perceived competition-based rewards might be stronger on loyalty and/or variety behavior; vice versa for perceived connection-based rewards. It is important to note that the actual behavior in LSN marketing, whether it is loyalty or variety behavior, represents consumers' mobility that encapsulates their movements within space across time. This confirms the importance and relevance of adopting this marketing approach for tourism destinations and hospitality businesses.

Lastly, the intensity of communication and competition as well as consumers' attitude toward social recognition influence the relationships between both the perceived competition-based and connection-based rewards and actual behavior. Social network structure on LSN applications can be represented by measures of social network such as cohesion (i.e., the degree to which members are directly connected to each other) and/or density (i.e., the proportion of actual ties within a network relative to the total possible ties). The more cohesive and/or the denser the social network where consumers belong to, the more likely the perceived competition-based rewards (as well connection-based rewards) lead to actual behavior. It is noteworthy to emphasize that the social network serves as an environment for members to interact and connect with each other, directly and indirectly, causing social contagion to flourish. Additionally, individual's attitude toward social recognition and status influences the relationships between the two perceived rewards and actual behavior. For consumers who exhibit a strong attitude toward social recognition, the more likely the perceived competitive-based rewards will lead to actual behavior, but the less likely the perceived connection-based rewards will.

CONCLUSION AND IMPLICATION

As LSN applications on mobile phones become the new norm for people to experience what cities have to offer, it is of a great importance to understand how to embrace the technology trend for marketing purposes, particularly in the context of tourism and hospitality businesses. The qualitative investigation utilizing focus group method identified valuable insights from users' experiences, which were conceptualized into a stimulus-response model of LSN marketing. The key to LSN marketing is combining relevance and playfulness into a persuasive package that stimulates consumers' loyalty and variety behavior and, in turn, shapes their mobility within the cities. The marketing stimuli identified in this investigation are the ability of the system to provide immediate rewards enabled by the technology features of LSN applications: context-awareness, social network, and social gaming. One of the perceived effective stimuli to change consumers' behavior and mobility is the location-relevant merchant rewards made possible by the context-aware system. Merchant rewards, which may include monetary and non-monetary promotions, are believed to be one of the driving forces of patronage behavior due to consumers' value maximizing strategy. Competition-based rewards are the unique marketing stimuli facilitated by the combination of all three technology features of LSN applications. Using LSN applications, consumers gain personal enjoyment from receiving application rewards upon completion of certain tasks that allow them to compete with others in the social network. The playfulness of collecting points or unlocking badges by *checking-in* to local establishment is magnified by the status recognition from consumers' social network. Competition-based rewards influence consumers to transform real life into a game, making mobility and experiences more playful and fun. The last marketing stimuli made available by LSN applications are the connection-based rewards, which are born from the combination of context-aware and social network features of the applications. LSN marketing persuades consumers to stay connected and broaden their social network by nurturing communication and interaction among members of the social network through instant updates and relevant recommendations.

These different rewards stimulate consumers to fulfill certain tasks that lead not only to

venue selection (i.e., patronage), but also to the processes of interaction, direct and indirect communication, and social referencing, making the applications a platform of social connection and competition. The marketing stimuli encourage consumers' responses in the form of variety behavior (i.e., consumers are challenged to try new things and visit new places yet to be discovered) and loyalty behavior (i.e., consumers are encouraged to visit certain establishments more often). The loyalty and variety behavior will eventually promote the establishment of consumers' experience territory and, as they continue playing along, expand the spatial boundaries of their territory to experience more places over time.

The ability of each reward to stimulate consumers' actual behavior depends on three variables: the consumption situations, consumers' characteristics (especially their attitude toward social recognition), and the structure of social network. The consumption situations, such as flexibility or familiarity with the tourism destinations, influence the ways consumers perceive the different rewards, which may or may not lead to actual behavior. The consumers and social network characteristics influence consumers' perception of competition-based and connection-based rewards. In summary, the different marketing stimuli may work differently for consumers in different social network structures, with different attitude toward competition, and in different consumption situations.

These findings have direct implications for marketing, both for individual hospitality businesses and tourism destinations. As playfulness and connectivity are key persuasive elements of LSN marketing, it is important for tourism and hospitality businesses to concentrate on nurturing the social connection and fostering competition among customers. Hospitality businesses such as restaurants, cafés, and nightlife establishments should strategize their stimuli to target different consumers' behavior. For example, merchants targeting tourists should focus on encouraging variety behavior. Thus, the merchant rewards offered should be based on first time *check-ins* (e.g., price discount for first drinks or appetizers). On the other hand, merchants targeting locals should emphasize on loyalty behavior by encouraging repeat visitation through status recognition of loyal customers (e.g., rewards for *mayor*, badges to unlock after a number of visits, etc.).

For tourism destinations, as users rely on LSN applications for recommendations, it is important to emphasize on stimulating the bundling of attractions and services. For instance, offering themed badges to unlock upon visitation to a number of attractions with the same themes (e.g., historic, movie, or TV scenes, etc.) will encourage tourists with different travel motivations, preferences and styles to experience the destinations in a playful and fun way. Also, since tourists are in a different social competition zone while traveling, it is important to provide opportunities that foster competition among tourists. Tourism destinations can create additional rewards and recognition for tourists upon collecting a certain number of *check-ins* and for writing a number of recommendations. That way, tourism destinations not only facilitate tourists to enjoy the city by competing with other tourists, but also encourage them to spread the information and recommendation to others.

This exploratory study identified important information from consumers and users of LSN applications to conceptualize the approach to LSN marketing. The findings of this study serve as a basic concept to inform further studies to develop and test a measurement model of LSN marketing. Based on the stimulus-response model conceptualized in this study, measurement items for variables of perceived rewards and actual behavior should be developed and tested. Variables representing consumption situations, attitude toward social recognition and network structure can be adapted from previous studies in marketing and consumer behavior. For example, attitude toward social recognition could be adapted from the altruism scale (Sawyer, 1966) to measure consumers' interpersonal orientation. Other variables may be adapted from previous studies on the influence of consumption situations on purchase decision (Aqueveque, 2006; Lai, 1991) and measures of online social network (e.g., Lee et al., 2010; Mislove, Marcon, Gummadi, Druschel, & Bhattacharjee, 2007). Further, the causal relationships among these variables should be tested to measure the effectiveness of such marketing strategy.

REFERENCES

Adomavicius, G., and Tuzhilin, A. (2011). Context-Aware Recommender Systems. In F. Ricci, L. Rokach, B. Shapira, & P. Kantor (Eds.), *Recommender systems handbook* (pp. 217–256). Berlin, Germany: Springer Verlag.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179–211.

Aqueveque, C. (2006). Extrinsic cues and perceived risk: The influence of consumption situation. *Journal of Consumer Marketing*, *23*, 237–247.

Bawa, K., & Shoemaker, R. W. (1987). The effects of a direct mail coupon on brand choice behavior. *Journal of Marketing Research*, *24*, 370–376.

Bellenger, D. N., Bernhardt, K. L., & Goldstucker, J. L. (1976). Qualitative marketing research. Chicago, IL: American Marketing Association.

Blattberg, R. C., Buesing, T., Peacock, P., & Sen, S. (1978). Identifying the deal prone segment. *Journal of Marketing Research*, *15*, 369–377.

Borgatti, S., & Lopez-Kidwell, V. (2011). Network theory. In P. Carrington & J. Scott (Eds.), *Handbook of social network analysis*. London, United Kingdom: Sage.

Brown, P. J., Bovey, J. D., & Chen, X. (1997). Context-aware applications: From the laboratory to the marketplace. *IEEE Personal Communications*, *4*, 58–64.

Burt, R. S. (1987). Social contagion and innovation: Cohesion versus structural equivalence. *American Journal of Sociology*, *92*, 1287–1335.

Calder, B. J. (1977). Focus groups and the nature of qualitative marketing research. *Journal of Marketing Research*, *14*, 353–364.

Campbell, L., & Diamond, W. D. (1990). Framing and sales promotion: The characteristics of good deal. *Journal of Consumer Marketing*, *7*, 25–31.

Çeltek, E. (2010). Mobile advergaming in tourism marketing. *Journal of Vacation Marketing*, *16*, 267–281.

Crabtree, B. F., & Miller, W. L. (1999). *Doing qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.

De Bruyn, A., & Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing*, *25*, 151–163.

Dey, A. K., Abowd, G. D., & Salber, D. (2001). A conceptual framework and a toolkit for supporting the rapid prototyping of context-aware applications. *Human-Computer Interaction*, *16*, 97–166.

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

Frey, J. H., & Fontana, A. (1993). The group interview in social research. In D. L. Morgan (Ed.), *Successful focus groups* (pp. 20–34). Newbury Park, CA: Sage.

Frick, T. (2010). *Return on engagement: Content, strategy, and design techniques for digital marketing*. Burlington, MA: Focal Press.

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, *78*, 1360–1380.

Gretzel, U. (2011). Intelligent systems in tourism: A social science perspective. *Annals of Tourism Research*, *38*(3), 757–779.

Grubb, E. L., & Grathwohl, H. L. (1967). Consumer self-concept, symbolism and market behaviour: A theoretical approach. *Journal of Marketing 31*(4), 22–27.

Gutman, J. (1982). A means-end chain model based on consumer categorization process. *Journal of Marketing, 1*, 23–43.

Gutman, J., & Vinson, D. E. (1979). Value structures and consumer behavior. In *Advances in consumer research*, *association for consumer research* (pp. 335–339). Chicago, IL., pp. 335–9.

Hall, C. M. (2003, June). *Tourism and temporary mobility: Circulation, diaspora, migration, nomadism, sojourning, travel, transport and home*. Paper presented at International Academy for the Study of Tourism Conference, Savonlinna, Finland.

Hall, C. M. (2004). *Tourism*. Harlow, United Kingdom: Prentice-Hall.

Hill, A. L., Rand, D. G., Nowak, M. A., & Christakis, N. A. (2010). Emotions as infectious diseases in a large social network: The SISa model. *Proceedings of the Royal Society B*, *277*, 3827–3835.

Kabassi, K. (2010). Personalizing recommendations for tourists. *Telematics and Informatics*, *27*(1), 51–66.

Kamakura, W. A., & Novak, T. P. (1992). Value-system segmentation: Exploring the meaning of LOV. *Journal of Consumer Research*, *19*, 119–132.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, *54*, 241–251.

Lai, A. W. (1991). Consumption situation and product knowledge in the adoption of a new product. *European Journal of Marketing*, *25*, 55–67.

Laroche, M., Pons, F., Zgolli, N., Cervellon, M.-C., & Kim, C. (2003). A model of consumer response to two retail sales promotion techniques. *Journal of Business Research*, *56*(7), 513–522.

Lee, S. H. M., Cotte, J., & Noseworthy, T. J. (2010). The role of network centrality in the flow of consumer influence. *Journal of Consumer Psychology*, *20*, 66–77.

Leenders, R. T. A. J. (2002). Modeling social influence through network autocorrelation: Constructing the weight matrix. *Social Networks*, *24*, 21–47.

Liebes, T., & Katz, E. (1990). *The export of meaning*. Oxford, United Kingdom: Oxford University Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lue, C. C., Crompton, J. L., & Fesenmaier, D. R. (1993). Conceptualization of multi-destination pleasure trip decisions. *Annals of Tourism Research*, *20*, 289–301.

Lunt, P. (1996). Rethinking focus group in media and communication research. *Journal of Communication*, *46*(2), 79–98.

Martin, D., Alzua, A., & Lamsfus, C. (2011). A contextual geofencing mobile tourism service. In R. Law, M. Fuchs, & F. Ricci (Eds.), *Information and communication technologies in tourism 2011* (pp. 191–202), Vienna, Austria: Springer Verlag.

Merton, R. (1987). The focussed interview and focus group: Continuities and discontinuities. *Public Opinion Quarterly*, *51*, 550–556.

Mings, R. C., & McHugh, K. E. (1992). The spatial configuration of travel to Yellowstone National Park. *Journal of Travel Research*, *30*, 38–46.

Mislove, A., Marcon, M., Gummadi, K. P., Druschel, P., & Bhattacharjee, B. (2007). Measurement and analysis of online social networks. *Proceedings of the 5th ACM/USENIX Internet Measurement Conference (IMC'07)*. Retrieved from http://conferences.sigcomm.org/imc/2007/papers/imc170.pdf

Ong, B. S., Ho, F. N., & Tripp, C. (1997). Consumer perceptions of bonus packs: An exploratory analysis. *Journal of Consumer Marketing*, *14*, 102–112.

Oppermann, M. (1995). A model of travel itineraries. *Journal of Travel Research*, *33*, 57–61.

Parent, M., Plangger, K., & Bal, A. (2011). The new WTP: Willingness to participate. *Business Horizons*, *54*, 219–229.

Poland, B. D. (1995). Transcription quality as an aspect of rigor in qualitative research. *Qualitative Inquiry*, *1*(3), 290–310.

Prahalad, C. K. (2004). *Beyond CRM: C.K. Prahalad predicts customer context is the next big thing*. MwWorld/American Management Association.

Rao, L. (2010). *Welcome to the magic: Gowalla lands location deal with Disney Parks*. Retrieved from http://techcrunch.com/2010/11/18/welcome-to-the-magic-gowalla-lands-location-deal-with-disney-parks/

Reingen, P., Foster, B., Brown, J. J., & Seidman, S. (1984). Brand congruence in interpersonal relations: A social network analysis. *Journal of Consumer Research*, *11*, 1–26.

Rodden, T., Cheverst, K., Davies, K., & Dix, A. (1998). Exploiting context in HCI design for mobile systems. *Proceedings of the First Workshop on Human Computer Interaction with Mobile Devices*. Retrieved from http://www.dcs.gla.ac.uk/~johnson/papers/mobile/HCIMD1.html

Rogers, E. M. (1986). *Communication technology: The new media in society*. New York, NY: Free Press.

Rokeach, M. J. (1973). The nature of human values. New York, NY: Free Press.

Ryan, N., Pascoe, J., & Morse, D. (1997). Enhanced reality fieldwork: The context-aware archaeological assistant. In V. Gaffney, M. van Leusen, & S. Exxon (Eds.), *Computer applications in archaeology*. Oxford, United Kingdom: British Archaeological Reports.

Sawyer, J. (1966). The altruism scale: A measure of co-operative, individualistic, and competitive interpersonal orientation. *American Journal of Sociology*, *71*, 407–416.

Shin, D.-H., & Shin, Y.-J. (2011). Why do people play social network games? *Computers in Human Behavior*, *27*, 852–861.

Sirsi, A., Ward, J., & Reingen, P. (1996). Microcultural analysis of variation in sharing of causal reasoning about behavior. *Journal of Consumer Research*, *22*, 345–372.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.

Talukdar, D., Gauri, D. K., & Grewal, D. (2010). An empirical analysis of the extreme cherry picking behavior of consumer in frequently purchased goods market. *Journal of Retailing*, *86*(4), 336–354.

Tussyadiah, I. P., Park, S., & Fesenmaier, D. R. (2011). Assessing the effectiveness of consumer narratives for destination marketing. *Journal of Hospitality & Tourism Research*, *35*, 64–77.

Van Grove, J. (2010a). *How 5 brands are mastering the game of Foursquare*. Retrieved from http://mashable.com/2010/04/02/foursquare-brands/

Van Grove, J. (2010b). *Pennsylvania partners with Foursquare to inspire state tourism*. Retrieved from http://mashable.com/2010/05/26/pennsylvania-foursquare/

Ward, A., Jones, A., & Hopper, A. (1997). A new location technique for the active office. *IEEE Personal Communications*, *4*, 42–47.

Wilton, R. D., Páez, A., & Scott, D. M. (2011). Why do you care what other people think? A qualitative investigation of social contact and telecommuting. *Transportation Research Part A: Policy and Practice*, *45*, 269–282.

Xia, J., Ciesielski, V., & Arrowsmith, C. (2005). Data mining of tourists spatio-temporal movement patterns: A case study on Phillip Island. In Y. Xie & D. Brown (Eds.), *Proceedings of the Eighth International Conference on Geo-Computation* (pp.1–15). Ann Arbor: University of Michigan.

Yang, J.-H. S. (2009). Social network influence and market instability. *Journal of Mathematical Economics*, *45*, 257–276.

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