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Examining How Wi-Fi Affects Customers Loyalty at Different Restaurants: An Examination from South Korea

Jiyeon Jeon
Florida International University, jjeon005@fiu.edu

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EXAMINING HOW WI-FI AFFECTS CUSTOMERS' LOYALTY AT DIFFERENT

RESTAURANTS: AN EXAMINATION FROM SOUTH KOREA

A thesis submitted in partial fulfillment of the

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by

Jiyeon Jeon

2015

To: Dean Mike Hampton
    School of Hospitality and Tourism Management

This thesis, written by Jiyeon Jeon, and entitled, Examining How Wi-Fi Affects Customers' Loyalty at a Different Restaurant, is referred to you for judgment.

We have read this thesis and recommend that it be approved.

_____
Myongjee Yoo

_____
Miranda Kitterlin

_____
Lusby Carolin, Major Professor

Date of Defense: May 26, 2015

The thesis of Jiyeon Jeon is approved.

_____
Dean Mike Hampton
School of Hospitality and Tourism Management

_____
Dean Lakshmi N. Reddi
University Graduate School

Florida International University, 2015

DEDICATION

It would have been impossible to finish my thesis without my committee members,

friends, and family. I appreciate their support.

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It would have been impossible to complete my thesis if my committee members had not supported me. Dr. Carolin Lusby helped me to process thesis and her guidance touched many facets of my thesis. Not only did Dr. Luisby serve as my committee chair, but also she gave me to adjust to my graduate school life.

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I appreciate my parents' and my older sister's help. My family has always prayed for me and supported me with their best wishes. Finally, I would like to thank God most of all.

ABSTRACT OF THE THESIS

EXAMINING HOW WI-FI AFFECTS CUSTOMERS' LOYALTY AT A DIFFERENT

RESTAURANT

by

Jiyeon Jeon

Florida International University, 2015

Miami, Florida

Professor Lusby Carolin, Major Professor

The main research objective of this study was to determine whether Wi-Fi affects customer's loyalty and how its impact differs depending on the type of restaurants. For the study I designed a primary field survey to collect data and performed multiple linear regression analysis to test the study hypotheses.

Findings show that Wi-Fi service factors turned out to be significant for all types of restaurants for both attitudinal and behavioral loyalty. However, not all of the Wi-Fi usage factors were significant consistently. Findings are expected to assist hospitality marketers to utilize Wi-Fi service as a point of service towards their customers.

Keywords: Attitudinal loyalty, Behavioral loyalty, Customer loyalty, Restaurant industry, Wi-Fi service.

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CHAPTER I

INTRODUCTION

Wireless Fidelity Networks "Wi-Fi" technology is a growing source of revenue in the market today. Wi-Fi is unique in that it constantly offers customers secure, wireless, and mobile access to the internet (Smithers, 2007). Wi-Fi provides access to technology, which has moved from being a customer's luxury to a daily necessity (Berezina, Bilgihan, Cobanoglu, & Nusair, 2012). In general, wireless networks can be used everywhere and any standard Wi-Fi device works anywhere in the world thus its usage has become closely related to our daily lives nowadays (Berezina, et al, 2012; Hassine, 2006).

Restaurant businesses in the hospitality industry have been struggling to improve various types of services or rewards because competition has been constantly increasing. As a result, restaurants attempt to provide a variety of service, such as loyalty programs and mobile applications so they can increase customer's satisfaction and loyalty (Jang & Mattila, 2005). Alongside these various types of service, Wi-Fi service can also be used as tool to compete with others (Yusio & Tiong, 2011).

Due to Wi-Fi's popularity and familiarity with consumers, businesses in the hospitality industry have been opening up to provide Wi-Fi as a new service for customers (Berezina, et al, 2012). Recently, hotels started to provide free Wi-Fi as a value added service for their visitors. By giving free Wi-Fi service without any contract, hotels are enhancing guest experience as customers can be more productive and stay better connected to their friends or family. For example, Hyatt Hotels offer free Wi-Fi service for every guest. They provide premium Wi-Fi service (higher-speed) for all of the

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members of their loyalty program and provide general Wi-Fi service to non-member customers (Danny, 2015).

Generally, hotels are known to have greater quality service and higher standards of customer care compared to restaurants. Compared to previous years, more hotels are offering free Wi-Fi as of 2015. Wi-Fi has been seen as the most essential factor as an amenity when guests stay at hotels. Wi-Fi is also a significant factor that is considered when consumers book hotels. By offering free Wi-Fi service, hotels have been able to increase customers satisfaction levels. As a result, the level of customer loyalty is usually higher in hotels than restaurants (Danny, 2015).

Nowadays, consumers can also use Wi-Fi service on airplanes as a number of airlines are providing Wi-Fi service. Consumers want to use their mobile devices in-flight, and continue using Wi-Fi service for other devices. Thus, airline companies are trying to improve the speed and availability of Wi-Fi in flight because demand is increasing (Rice, 2013).

Likewise, the more variety of services restaurants and coffee shops offer, the stronger loyalty they are able to create (Jang & Mattila, 2005). Offering Wi-Fi has become a means of increasing customer loyalty at restaurants. Specifically, the pressure has trickled down to restaurants as customers' demand Wi-Fi is increasing. Restaurant customers indicated Wi-Fi as an important reason for their repeat visit and purchase intention. For example, all else being equal between two restaurants, if the restaurant provides Wi-Fi service for their visitors, consumers will prefer to revisit the restaurant offering Wi-Fi service. Wi-Fi Internet service can be an advantageous tool for restaurants to attract new consumers and hold customer loyalty (Berezina, et al, 2012).

Additionally, restaurants are more likely to generate higher revenues when customers spend more time at the restaurants. Wi-Fi has been found to act as a tool to encourage consumers to stay longer at restaurants (Natasa, 2014). Thus, it has been suggested that restaurants may build stronger loyalty than before by providing free Wi-Fi service for customers (Berezina, et al, 2012).

Starbucks changed Wi-Fi service to a free model. The Rose Group set up the Wi-Fi service as two hours of free use. Panera provides unlimited free Wi-Fi service for their consumers, although consumers cannot use unlimited free Wi-Fi when they visit during peak lunch hours.

Moreover, Sammy's Wood Fired Pizza also offers limited free Wi-Fi service for one hour to their consumers. Consumers have to pay money if they want to use more Wi-Fi after an hour (Natasa, 2014). Numerous restaurants and coffee shops are offering Wi-Fi service to attract consumers because Wi-Fi is in high demand in restaurants. Furthermore, the cost to offer Wireless Fidelity Networks is not expensive and is easy to set up at any Location. Wi-Fi service availability outweighs other in consumer loyalty (Berezina et al., 2012).

Problem Statement

Technology has become one of the most important competitive advantages for hospitality companies (Buhalis, 1998). Consumers have started to demand Wi-Fi service in restaurants ,many restaurants are already providing Wi-Fi to their guests. In response to the demand, restaurants and cafes have started to consider Wi-Fi service as an essential amenity. Several studies show that tourism destinations can make more revenue by providing Wi-Fi service in public places and tourist attractions for travelers (Berezina et

al., 2012). It has become vital for restaurants to understand the impact of Wi-Fi due to its high demand and outcome.

However, there are a limited number of scientific and empirical studies on examining effect of the availability of Wi-Fi on restaurant customer loyalty. In fact, there is a limited amount of studies that investigate restaurant services related to Wi-Fi as a whole. Additionally, there is a need for research in the international market because restaurant businesses have already become part of the global market. The more restaurants become a market, the more technology such as Wi-Fi becomes demand (Natasa, 2014).

Statement of Purpose

The purpose of this study is to explore the impact of Wi-Fi service on customer's loyalty behavior to a specific restaurant in South Korea. Additionally, this study examined whether Wi-Fi service has an impact on different types of restaurants (coffee shops, fast-food, casual-dining restaurants). Existing research content offers that restaurants can build up stronger loyalty if they provide special service for customers (Berry, Parasuraman, & Zeithaml, 1991; Bowen & Chen 2001). Fast-food and casual-dining restaurant consumers often pursue rewards as an entertainment factor. There are various advantages of wireless connectivity in restaurants. In order to hold current consumers and attract new consumers, it is important to grasp the effect of Wi-Fi service in restaurants on customers' returning (Berezina et al., 2012)

Significance of Study and Justification

This study will be useful in understanding the impact of Wi-Fi service and will shed light on cross cultural statistical impact in customer loyalty.

This study estimated the potential of Wi-Fi service to be an effective tool to build relationships with customers and increase customer loyalty for restaurants. Wi-Fi service has shown to have significant effect on attracting customers to return to restaurants (Berezina et al., 2012). Thus, Wi-Fi service may help restaurant operators establish effective operations and marketing strategies for maximum customers retention. This study expected to provide new insights into customers' value proposition in regards to Wi-Fi for the restaurant industry. It provides significant information that can help restaurants and coffee shops to manage their businesses by effectively utilizing Wi-Fi as a service and understanding how it may affect customer loyalty.

Research Question

The research questions addressed in this study are as follows:

1. Is there an impact of Wi-Fi service on customer loyalty at restaurants in South Korea?

2. Is there a difference in the significance of Wi-Fi service factors among different type of restaurants in South Korea?

Definitions of Terms

Throughout the current study, the following terms are used for the purpose of conceptualizing Wi-Fi and defining customer loyalty.

Secure: It offers data privacy to network users and protects the network against malicious use (Balachandran, Voelker, &Bahl, 2005)

Wi-Fi: Wireless networking technologies.

TAM model: The technology acceptance model is a model for user acceptance of information system (Davis, Bagozzi, &Warshaw, 1989).

Loyalty: A deeply held commitment to revisit or repurchase a preferred product

     (Oliver, 1997).

Loyalty Phases: Loyalty phases include cognitive, affective, conative and action loyalty

     (Oliver, 1999).

Delimitations

Time and location to collect data were delimitations of this study. This study collected data during a one-month period, starting on February 26, 2015, to March 25, 2015, in Busan Korea. The data collection for this study concentrated on three types of restaurants: coffee shops, fast-food restaurants, and casual restaurants. The survey was conducted in Korean. This study used a non-probability convenience sampling method to collect data.

CHAPTER II

LITERATURE REVIEW

Introduction

The objective of this chapter is to better understand the concepts underlying customer loyalty and development of Wi-Fi. The literature review is separated into two different sections. The first section reviews customer loyalty, influential factors on customer loyalty, and measuring customer loyalty. The second section describes the development of Wi-Fi and its utilization. It reviews the development of Wi-Fi, service model of Wi-Fi, Wi-Fi as hotspots, and influential factors of Wi-Fi usage.

Customer Loyalty

Customer Loyalty

Loyalty is a deeply held commitment to revisit or repurchase a preferred product and service in the future despite situational influences. In the past, hospitality firms focused on attracting new customers rather than existing customers. Nevertheless, a lot of companies prefer to hold their existing customers. That is because firms created a number of new customers, it does not necessarily mean that they are able to increase a significant amount of profit and maintain profit from new customers (Bolton, 1998). It is more beneficial to hospitality firms to increase profit. Thus, hospitality firms realized that gaining customers in the current economy will be difficult, so companies have concentrated on keeping those they already have (Bolton, 1998). So as to achieve profitable growth, some companies are continuing to focus on their most profitable customers, channels, and products (Kotler & Keller, 2011). According to Oliver (1997),

consumers often prefer to buy the same-brand or same brand-set purchasing when they become loyal.

Oliver (1999) indicates a four-stage loyalty model composed largely of affect, action, intention, and belief. The first loyalty stage is cognitive loyalty. At this phase, customers make decisions from information, such as price, quality and so on. Cognitive loyalty is the weakest type compared to other stages of loyalty because consumers can easily switch to other alternatives when they offer better prices or benefits. Providing relativity to price is the most important aspect of cognitive loyalty and it is only based on brand belief (Oliver, 1999).

The second loyalty phase relates the favorable behavior to a specific brand and product. For example, customers can build affective loyalty through a satisfying shopping experience. Nevertheless, just because companies build up loyalty for their customers does not necessarily mean that it will be maintained. Consumers are able to change their mind if there are competitive offerings. Affective loyalty is decreased when competitors provide better service for consumers (Oliver, 1999).

Conative loyalty can be created by repeat purchase and positive experiences. Although conative loyalty is much stronger than affective loyalty, it also has a vulnerable point, as it may repeat the same mistakes. The factor in diminishing conative loyalty is that it is not until consumers have developed the decision to avoid factors of alternative offerings that they can be conatively loyal. Hence, it is able to become strong after consumers experience a positive effect towards the brand (Oliver, 1999).

Lastly, the strongest phase of loyalty is action loyalty. It is based on cognitive, affective, and conative loyalty towards the brand, and indicates that consumers will

purchase from the same brand even if other competitors offer better deals (Oliver, 1999).

Just because competitors provide better options for consumers, it does not necessarily

mean that they will think about considering alternatives.

Influential Factors on Customer Loyalty

Restaurants put a premium on customer loyalty to generate profit since loyalty

has become a significant foundation (Han , Back, & Barrett, 2009). Restaurants spend

much more money attracting new customers than retaining existing customers. The total

cost increases five to six times to attract new customers compared to attracting existing

customers (Brodie, Davis, Lindgreen, & Oliver, 2000). There are various kinds of factors

that impact restaurant customers' loyalty. Moreover, influential factors will be different

depending on the type of restaurant (Jang & Mattila, 2005).

According to Oliver (1999), there are two groups to exert strong influence on

loyalty: personal and situational characteristics. Personal characteristics will be general

moderators in the four-stage loyalty model and have an effect on each link in the model

(Evanschitzky & Wunderlich, 2006).

The first personal characteristic is age. Generally, older consumers do not tend to

search for information about new products (Raphaelle, Gilles, & Eric, 2005). Younger

consumers usually prefer to seek alternative information that can influence their loyalty

behavior. Nevertheless, older consumers are more prudent in purchasing, since they rely

more on fewer decision criteria. They are going to rebuy through their personal

experience. Thus, companies are able to build up stronger loyalty between older

consumers compared to younger consumers (Evanschitzky & Wunderlich, 2006).

According to Homburg and Giering (2001), age affects the four loyalty steps not only

because there is a close correlation between satisfaction and loyalty, but also because age has various factors.

Gender has a direct effect on outcome and variables about loyalty (Birgelen, Odekerken, Lemmink, Ruyer, & Wetzels, 2000). Gender plays an important role as a moderator variable in marketing strategies, and as it relates to social behaviors. Typically, males easily tend to switch to an attractive deal more often than females (Gill & Saad, 2000). That is, by changing their satisfaction levels, men do not prefer to remain loyal.

Education is linked stronger to less-educated consumers than well-educated consumers (Evanschitzky & Wunderlich, 2006). In making decisions, people with a higher level of education often try to obtain more information. By coming up with some new information, they feel more comfortable. In comparison with higher levels of education, people who have a lower level of education do not want a lot of information when they buy new products (Homburg & Giering, 2001). The reason for this is that less-educated consumers do not rely on information when buying products, and the satisfaction is more important than gathering good information. Thus, consumers with a higher level of education switch to alternatives easier than those with less-education.

Income is similar to education. Normally, well-educated consumers have more opportunities to earn a higher income than less-educated consumers. Thus, higher income consumers are more likely to seek alternative information and switch if competitors offer attractive deals (Evanschitzky & Wunderlich, 2006). Lower income consumers tend to show stronger loyalty based on the satisfaction from their previous experience and it is harder to change their opinions.

The first situational characteristic is expertise. Expert consumers have extensive knowledge about a product and alternative choices (Busler & Till, 2000). Hence, they will be able to become more susceptible to the competitive offerings than others (Dacin & Mitchell, 1996). On the other hand, less experienced consumers tend to rely on their evaluation that they would build on past experiences.

Price orientation is another form of motivation. Price oriented consumers usually search for better deals, and they are fully aware of offerings with competitors. Just because price oriented consumers have had a pleasurable experience from a specific brand, it does not necessarily mean that they will become loyal. This type of customer feels satisfied by searching for better deals (Arnold & Reynolds, 2003). However, less price-oriented consumers do not like to search for bargains. They usually create loyalty through their past experiences with the service provider.

Critical incident recovery has a close correlation between service and marketing (Birgelen et al., 2001). A critical incident can suddenly occur where the customer says that the service is not good enough and needs to be improved. In order to recover from a negative incident, service providers must make an effort for consumers who had a negative experience to be fully satisfied.

External factors involve many types of facts, such as switching costs and situational factors. The most important things as to external factors are the switching costs because those can present serious risks to companies (Heide & Weiss, 1995). That is, not only can consumers easily switch to other alternatives depending on the costs, but also companies hold their consumers by keeping high switching costs. Higher switching costs of companies to maintain their consumers stronger leads to switching costs of

companies that increase behavioral loyalty (Porter, 1985). In other words, customer

loyalty will be decreased if switching costs are low. For instance, "the costs in time and

effort of changing this casino to another one are high for me. It would be very

inconvenient for me to go to other casinos" (Baloglu, 2002, p. 51).

There are various kinds of situational factors and consumers often tend to

purchase based on situational factors, such as physical, social surroundings, temporal

perspective, task definition, and antecedent states (Belk, 1975). Those five factors play

significant roles when and why consumers make a purchase. Physical surroundings are

the most suitable features of a situation. These surroundings are involved physical

environment characteristics, such as geographical location, interior decoration, sounds,

the beauty of the scenery, lighting, and weather. Customers are usually influenced by

consumer behavior in social surroundings because not only will other consumers be able

to affect a customer's purchasing behavior, but also consumers tend to follow groups that

are relevant to them. Temporal perspective identifies situation from the time of day to

season of the year. Additionally, it can be measured in the past or future event. Task

definition is particularly relevant to obtain information as to products and select shops to

buy specific purchases. Moreover, it may indicate other buyer and user roles as the

individual. The last one is antecedent states. These are involved transient moods, such as

concern, happiness, antagonism, and excitement instead of the chronic feature (Belk,

1975).

Measuring Customer Loyalty

According to Jacoby and Chestnut (1978), there are three types of approaches to

measuring loyalty: the behavioral approach, the attitudinal approach, and the composite

approach. The behavioral approach based on the consumers' actual purchasing behavior. Consumers who are behaviorally loyal usually prefer to buy the same brand and do not choose alternatives. Thus, it is involved with high consumers repurchase intentions. Repurchase intention indicates the consumer's intention to buy the product or service over and over (Petrick, 2005). Additionally, consumers who are behaviorally loyal are likely to pay more for the service or product. Thus, willingness to pay more can be used to measure behavioral loyalty (Wicker, 1969).

Word of mouth refers to the recommendation and it is also known as voluntary partnerships, which are often suggested as behavioral outcomes of loyalty. Word-of-mouth recommendations include promoting the company, making positive comments, and business referrals (Baloglu, 2002). More customers have satisfaction in the restaurants and, restaurants can maintain a strong relationship with their customers (Park & Jang, 2014).

The attitudinal approach measures loyalty based on the favorable attitude towards the brand (Backman, 1988). Attitudinal definitions of consumer loyalty base intensity of loyalty on consumers' preferences, intentions or strength of affection for a brand (Olson & Jacoby, 1971). Attitudinal loyalty is strongly associated with the consumers' satisfaction with products and service (Kumar, Shah, & Venkatesan, 2006). Attitudinal loyalty will not directly create profit because it does not cause customers to make the actual purchase. However, companies are able to build up positive images from attitudinal loyalty (Cheng, 2011). Other important antecedents may include trust, emotional and psychological attachment. Trust is an important factor to measure for attitudinal loyalty because it is involved in building a relationship with the company.

When companies provide consistent service, consumers build trust towards the brand (Morgan & Hunt, 1994). Emotional commitment can create a good brand image because it makes consumers have a sense of belonging to the company. By making consumers feel good and providing hedonic value, companies can build up emotional commitment, and these values can deliver consistent and friendly service (Bolaglu, 2002).

Behavioral measures overestimate true loyalty, as they do not account for consumers that were spuriously loyal (Day, 1969). Moreover, consumers should hold a favorable attitude to the specific brand and products in order for consumer to become truly loyal. Thus, the composite approach is based on integrating the behavioral and attitudinal measures (Baloglu, 2002).

The Development of Wi-Fi and its Utilization

The Development of Wi-Fi

Wireless technologies are not any more likely to have attracting people due to the number of people who are using mobile devices, which is increasing rapidly. Hence, Wi-Fi has been used in many places to provide access to the Internet and is developing from day to day (Ramirez, 2010). Wi-Fi has been developing a model, and there are various wireless communication technologies, such as IEEE 802.11, 803.11, 3G, 4G, 5G and Long Term Evolution (LTE) (Ullah, 2012).

Nowadays, Wi-Fi is not expensive technology and it is easy to set up the Wi-Fi service in the public area because there are a lot of companies that provide Wi-Fi service to cafes, hotels, and public places. Wi-Fi technology can be easily set up in offices, airports, markets and other any locations, and it can provide advantages in mobility, ease of use and low cost. Thus, demand in Wi-Fi has become more important in business and

everyday-life and most people are able to connect to Wi-Fi service at public places, such as shopping malls, hotels, airports and restaurants (Ullah, 2012). Wireless networking technologies (Wi-Fi) can be divided in to three types and one is wired connection to a broadband provider, and access point, and a computer connected by wired and wireless connections (Ullah, 2012).

Service Model of Wi-Fi

Wi-Fi. Wi-Fi technology connects devices together without wires. Wi-Fi technology is based on IEEE 802,11 and has developed as various types of technology, such as IEEE 802.11, IEEE 803.11, 3G,4G, WiMax, LTE, and 5G. Wi-Fi offers different speed and quality depending on types (Bradwell, 2005).

The IEEE 802.11 was the initial model of wireless technology and was developed to IEE 803.11. Next, 3G is third generation mobile communication. It is commonly used as a mobile phone standard for transferring data. It includes different features like transfer of enhanced multimedia, such as voice, videos, data, cellular telephone, web browsing, email and so on (Ullah, 2012).

The fourth generation (4G) mobile communication is a development of the voice and data transfer communication technology approaches and standards from third generation mobile communication. It provides mobile ultra-broadband internet access for mobile devices, such as laptops, smart-phones, and so on. Moreover, 4G supports applications, such as mobile banking, peer to peer networking, usage of internet services, and more. Nowadays, two types of 4G network are commercially deployed, which are WiMax and Long Term Evolution (LTE). WiMax stands for Worldwide Interoperability for Microwave Access. WiMax offers flexibility in terms of deployment options and

services. LTE is long term evolution technology, and it is the newest standard for mobile wireless communications up to date, as of 2015. It offers broadband access for fixed, portable and mobile devices. The benefits of LTE technology include increased capacity, reduced network complexity, latency, improved coverage, lowered deployment and operational cost (Ullah, 2012).

The fifth generation (5G) of mobile communications technology is being proposed as a standard for the next phase of mobile telecommunication. Compared to 4G, 5G can provide higher speed and wider area than 4G. It is the most important benefit of 5G. The 5G technology will be capable of supporting wireless world wide web and will support it by allowing highly flexible networks. In the revolutionary view 5G technology will be able to interconnect with the world without any limits (Ullah, 2012).

Wi-Fi as Hotspots. Hotspots often operate Wi-Fi technology through a router, providing Internet access. Free hotspots usually provide free access to menus or purchase lists through payment systems like PayPal, or credit cards (Ullah, 2012). The disadvantage about Wi-Fi as a hotspot refers to a malicious individual who sniffs the data sent by a user on a free hot spot including deciphering passwords, and login names (Ullah, 2012). There are some safety tips for using public Wi-Fi in secure ways including, using firewall, turning off wireless network when not in use, hiding important files, and not typing credit card numbers, passwords or significant data without proper safety mechanisms on browsers. While using Wi-Fi hotspots people should be sure that sent information must be fully encrypted, and always logout after finishing their work (Ullah, 2012).

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Influential Factors of Wi-Fi usage

There are a number of factors that influence the usage of Wi-Fi service. The technology acceptance model was designed based on users' acceptance behavior towards an information system (Davis, 1989;Davis, 2000). According to Davis (1989;2000), perceived usefulness and perceived ease of use are the two main factors that influence technology acceptance. Davis (1989) defined the meaning of perceived usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance and this follows from the definition of the word useful and capable of being used advantageously"(Davis, 1989, p. 320). By using the TAM system about usefulness, people indicate that it can be helpful to enhance their task or job performance since it can enable people to understand new systems (Davis, 2000). Moreover, not only do people prefer to use an application to do their work effectively, but also it is able to help them perform their job. Perceived usefulness gives some benefits to improve users work performance, so they believe that it can offer great value for their work (Davis, 1989). Perceived usefulness can de described by value, reliability, and continuity (Davis, 1989; Swanson, 1987).

Perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free of effort and this follows from the definition of ease and freedom from difficulty or great effort"(Davis, 1989, p. 320). Perceived ease of use is a basic determinant as to user behavior because it is much more useful to use the easier system if other things are equal (Davis, 2000). Even if the program or technology may improve users' performance, they will not use it if it is difficult to use. Consequently, restaurants should offer Wi-Fi service that their consumers can easily use. Perceived ease

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of use is based on accessibility, convenience, ease of use, and availability (Davis, 1989; Swanson, 1987).

According to the Demarez, Evens, Schnurman and Yerleye (2010), speed and security are also imperative parts of using Wi-Fi service other than accessibility, ease of use, and continuity. Public networks are quite vulnerable and insecure in practical use. In public and crowded places, anyone can steal a password or important information as to personal information, credit cards, and more (Onguardonline, 2011). Thus, to maintain customers' utilization of a location's Wi-Fi, it is crucial that restaurants provide protection against potential security threats before installing Wi-Fi service (Means, 2013). There are numerous types of companies that provide Wi-Fi security programs for restaurants; they can protect any identity of other customers online (Dicenzo, 2012). Thus, restaurants are able to entrust protecting security (Means, 2013). According to Demarez et al., (2010), customers also perceived speed to be a critical factor in using Wi-Fi service. Additionally, Berezina et al. (2012) suggested the importance of cost and safety of using Wi-Fi service.

Summary

This chapter reviewed two important concepts in the study. The first concept is about customer loyalty, influential factors on customer loyalty and measuring customer loyalty. The second concepts are about the development of Wi-Fi, service model of Wi-Fi, Wi-Fi as hotspots and influential factors of Wi-Fi usage.

Customer loyalty is an important point in the hospitality industry because loyalty is a deeply held commitment to repurchase products and services in the future despite situational influences.

CHAPTER III

METHODOLOGY

Introduction

This chapter focuses on the research methods used to test the study hypotheses. The study hypotheses, the measurement method and scales, sample and data collection methods, and the data analysis process are discussed in the following section.

Research Hypotheses and Study Model

The findings of the literature review suggested that there is an impact of Wi-Fi service on customer's return to a restaurant. Thus, this study suggests a positive relationship between Wi-Fi service usage and restaurant loyalty. This study researched loyalty in terms of behavioral loyalty and attitudinal loyalty. Additionally, this study selected three different types of restaurants (coffee shops, fast-food restaurants, casual-dining restaurants) to investigate how the Wi-Fi service differs depending on the operation type. Overall, the following study hypotheses were derived:

H1: Wi-Fi service will have a positive impact on coffee shop loyalty.

H1a: Wi-Fi service will have a positive impact on coffee shop attitudinal loyalty.

H1b: Wi-Fi service will have a positive impact on coffee shop behavioral loyalty.

H2: Wi-Fi service will have a positive impact on fast-food restaurants' loyalty.

H2a: Wi-Fi service will have a positive impact on fast-food restaurants' attitudinal loyalty.

H2b: Wi-Fi service will have a positive impact on fast-food restaurants' behavioral loyalty.

H3: Wi-Fi service will have a positive impact on casual-dining restaurants' loyalty.

H3a: Wi-Fi service will have a positive impact on casual-dining restaurants' attitudinal loyalty.

H3: Wi-Fi service will have a positive impact on casual-dining restaurants' behavioral loyalty.

Instrument and Data Measurement

In order to test the hypotheses, this study designed and conducted a survey. The survey was developed as a self-administered instrument in three sections based on the literature review. The survey was translated in Korean by the researcher, and it was reviewed by two other faculty members to ensure validity. Additionally, a pilot test was conducted among twenty University students in Korea in order to establish content validity. After analyzing the returned questionnaires, minor revisions were made to the questions based on the suggestions from the participants of the pilot test.

Consequently, the survey was designed to measure customers' level of agreement using a seven-point scale, meaning 1 as "extremely low" to 7 as "extremely high". The first two sections were categorized into different types of restaurants: coffee shops, fast-food restaurants, and casual-dining restaurants.

The first section asked questions related to the respondents' opinion on the various aspects of Wi-Fi usage at different types of restaurants. Ten different items were used to measure Wi-Fi usage: "Wi-Fi service available," "Wi-Fi service value," "cost of Wi-Fi," "reliability of Wi-Fi," "speed of Wi-Fi," "safety of Wi-Fi," "accessibility of Wi-Fi," "continuity of Wi-Fi," "ease of using Wi-Fi," "use of encryption while using Wi-Fi"

(Berezina et al., 2012; Davis; 2000, Demarez et al., 2010). The second section asked questions related to attitudinal loyalty and behavioral loyalty. The attitudinal loyalty dimensions included "feel good," "provides hedonic value," "provides consistent service," and "satisfaction". The behavioral loyalty dimensions included "make a purchase," "revisit intention," "willingness to pay more," "recommendation," "maintain a relationship" (Baloglu, 2002; Petrick 2004). Attitudinal and behavioral loyalty was later created into one single variable by computing the mean scores. The last part of the survey consisted of demographic questions, such as age, educational, background, gender, and income.

Data Collection and Sampling

Prior to data collection, a protocol explaining the study was submitted to the Institutional Review Board (IRB) of Florida International University. Approval was granted by the IRB to conduct research involving human subjects. Data was collected from February 26, 2015 through March 25, 2015. This study used a convenience sampling method and distributed the questionnaires through online and offline channels in South Korea. A total number of 250 questionnaires were sent out by e-mails or text messages, embedding a link to the consent form to the potential participants. Another 250 questionnaires were distributed to students at Pohang University, Korea and at the Busan Food and Beverage Association. Overall, a total of 345 questionnaires were collected for this study. After deleting 31 invalid surveys, 314 responses were kept for further analysis.

Data Analysis Method

Data was entered into the Statistical Packages for Social Sciences (SPSS) 22.0 for Windows. Descriptive statistics such as frequencies and percentages were used to

examine the respondents' individual demographic information. Multiple regression analysis was performed to investigate the impact of Wi-Fi service among coffee shops, fast-food restaurants, and casual-dining restaurants.

This study performed multiple regression analysis to indicate how Wi-Fi service affects customer's loyalty at different types of restaurants. Multiple regression is a "method of selecting variables for inclusion in the regression model that starts by selecting the best predictor of the dependent variable" (Hair, Anderon, Tatham & Black, 1998, p. 147).

The assumptions that were needed to be checked before performing regression analysis were the followings: normality, independence of observations, linearity, constant variance, and multicollinearity. All data were screened for outliers and scatter plots were reviewed of nonlinear distributions and relationships (Hair, Anderon, Tatham, & Black, 1998).

Summary

This study designed a questionnaire and conducted a survey to test the hypotheses. Three types of restaurants (coffee shops, fast-food restaurants and casual dining restaurants) were chosen. Wi-Fi service was selected as usage factors, and loyalty was examined from two different perspectives: attitudinal and behavioral. In order to indicate how Wi-Fi service affects customers' loyalty among the different types of restaurants, multiple regression analysis was conducted to test the study hypotheses.

CHAPTER IV

RESULTS

Introduction

This chapter shows the data analysis and the results of this study. The demographic information of the participants is described in the first section. The results of the hypotheses tested used multiple linear regression analysis as the effect of Wi-Fi service on the different types of restaurants.

Sample Profile

A total of 345 questionnaires were collected for this study. After deleting 31invalid surveys, 314 responses were kept for further analysis. Table 1 describes the sample profile for this study. About 42.7% of the respondents were male, and 57.3% were female. Nearly 9% of the participants had completed high school, 26.1% had an associate's degree, 52.2% had a bachelor's degree, 10.2% had earned a master's degree, and 2.2% had earned a doctoral degree. The marital status of the majority of the respondents was either single or married ,and only one was divorced. For example, 69.1 % of the respondents were single, 30.6 % were married and 0.3% was divorced. With regard to annual income, 47.8% of the respondents had an annual income of less than $10,000. Approximately 5.7% had an annual income of $10,000 to $19,999, 22% had between $20,000 and $29,999, 10.8% had between $30,000 and $39,999, 5.4% had between $40,000 and $49,999, and 3.8% had between $50,000 and $60,000. Under 4.5% had an annual income of more than $70,000.

Table 1

Sample Profile

Variables	Frequency	Valid %
Gender		
Male	180	57.3
Female	134	42.7
Education		
High school	29	9.2
Associate's Degree	82	26.1
Bachelor's Degree	164	52.2
Master's Degree	32	10.2
Doctoral Degree	7	2.2
Marital Status		
Married	96	30.6
Separated	1	0.3
Single	213	69.1
Age		
18-24 years	105	33.4
25-34 years	100	31.8
35-44 years	54	17.2
45-54 years	42	13.4
55 or older	13	4.1
Annual Income		
$10,000 or less	150	47.8
$10,000 - $19,999	18	5.7
$20,000 - $29,999	69	22.0
$30,000 - $39,999	34	10.8
$40,000 - $49,999	17	5.4

$50,000 - $60,000	12	3.8
$70,000 and over	14	4.5
Total	**314**	**100.0**

Testing of Hypotheses

This study conducted multiple linear regression analysis to test the study hypotheses. Multiple linear regression analysis was performed with attitudinal loyalty and behavioral loyalty as the dependent variables and the Wi-Fi usage factors as the independent variables. The first hypothesis was formulated to find out the effect of Wi-Fi service on coffee shop restaurant's loyalty as following:

H1: Wi-Fi service will have a positive impact on coffee shop loyalty.

H1a: Wi-Fi service will have a positive impact on coffee shop attitudinal loyalty.

H1b: Wi-Fi service will have a positive impact on coffee shop behavioral loyalty.

As can be seen in table 2, the result for coffee shop attitudinal loyalty was significant since the sig. level is lower than the critical alpha level of 0.05. Thus, H1a was supported and it can be concluded that there is a positive impact of Wi-Fi on coffee shops attitudinal loyalty. Approximately 35.5% of the coffee shop attitudinal loyalty was explained by the Wi-Fi usage factors from the regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 3 shows that the results of each factors related to attitudinal loyalty separately. Only worth paying ($p < 0.05$, $\beta = .148$, $t = 3.44$), safety ($p < 0.05$, $\beta = -.121$, $t = -2.15$), accessibility ($p < 0.05$, $\beta = .133$, $t = 2.02$) and encryption ($p < 0.05$, $\beta = .074$, $t = 2.08$) turned out to be significant.

Table 2

Summary of Regression Analysis for Coffee Shop Attitudinal Loyalty (N=314)

R	R^2	Adjusted R	F	Sig.
0.596	0.355	0.334	16.671	0.00*

Note. $* p < 0.05$.

Table 3

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics
	B	Std. Error	Beta	t	Sig.	VIF
1 (Constant)	2.450	0.243		10.100	0.00	
Availability	0.072	0.052	0.095	1.373	0.171	2.239
Great value	0.094	0.057	0.113	1.641	0.102	2.239
Worth paying	0.148	0.043	0.199	3.448	0.001*	1.570
Reliability	0.006	0.055	0.008	0.109	0.914	2.494
Speed	0.106	0.059	0.141	1.797	0.073	2.881
Safety	-0.121	0.56	-.169	-2.156	0.032*	2.883
Accessibility	0.133	0.065	0.175	2.028	0.043*	3.490
Continuity	0.006	0.077	0.007	0.074	0.941	4.401
Ease of use	0.081	0.065	0.104	1.250	0.212	3.224
Encryption	0.074	0.036	0.107	2.088	0.038*	1.224

Note. $* p < 0.05$.

As can be seen in Table 4, the result for coffee shop behavioral loyalty was significant since the sig. level was lower than the critical alpha level of 0.05. Thus, H1b was supported and it can be concluded that there is a positive impact of Wi-Fi on coffee shop behavioral loyalty. Approximately 39.2% of the coffee shop behavioral loyalty was explained by the Wi-Fi usage factors from the regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 5 shows that the results of each factors related to behavioral loyalty separately. Only worth paying ($p < 0.05$, ß = .312, t =6.45), reliability ($p < 0.05$, ß = .123, t =1.98), safety ($p < 0.05$, ß =.152, t =-2.29), accessibility ($p < 0.05$, ß = .222, t =3.01), and encryption ($p < 0.05$, ß = .135, t =3.37) turned out to be significant.

Table 4

Summary of Regression Analysis for Coffee Shop Behavioral Loyalty (N=314)

R	R^2	Adjusted R	F	Sig.
0.626	0.392	0.372	19.574	0.00*

Note. * $p < 0.05$.

Table 5

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics
	B	Std. Error	Beta	t	Sig.	VIF
1 (Constant)	1.121	0.273		4.113	0.00	
Availability	-0.012	0.059	-0.014	-0.205	0.838	2.239
Great value	0.019	0.064	0.020	0.296	0.768	2.239
Worth paying	0.312	0.048	0.362	6.459	0.000*	1.570
Reliability	0.123	0.062	0.140	1.986	0.048*	2.494
Speed	0.152	0.066	0.174	2.294	0.022*	2.881
Safety	-0.223	0.063	-0.268	-3.527	0.000*	2.883
Accessibility	0.222	0.073	0.252	3.015	0.003*	3.490
Continuity	-0.064	0.087	-0.069	-0.739	0.460	4.401
Ease of use	0.001	0.073	0.001	0.014	0.989	3.224
Encryption	0.135	0.040	0.167	3.376	0.001*	1.224

Note. * $p < 0.05$.

The second hypothesis was formulated to find out the effect of Wi-Fi service on fast-food restaurant's loyalty as following:

H2: Wi-Fi service will have a positive impact on fast-food restaurant's loyalty.

H2a: Wi-Fi service will have a positive impact on fast-food restaurant's attitudinal loyalty.

H2b: Wi-Fi service will have a positive impact on fast-food restaurant's behavioral loyalty.

As can be seen in table 6, the result for fast-food restaurant attitudinal loyalty was significant since the sig. level is lower than the critical alpha level of 0.05. Thus, H2a was supported and it can be concluded that there is a positive impact of Wi-Fi on fast-food restaurant's attitudinal loyalty. Approximately 26.7% of the fast-food attitudinal loyalty was explained by the Wi-Fi usage factors from the regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 7 shows that the results of each factors related to attitudinal loyalty separately. Only Availability ($p < 0.05$, ß = .176, t =3.24) and ease of using ($p < 0.05$, ß = .158, t =2.08) turned out to be significant.

Table 6

Summary of Regression Analysis for Fast-Food Attitudinal Loyalty (N=314)

R	R^2	Adjusted R	F	Sig.
0.517	0.267	0.243	11.044	0.00*

Note. * $p < 0.05$.

Table 7

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics
	B	Std. Error	Beta	t	Sig.	VIF
1 (Constant)	2.532	0.229		11.049	0.00	
Availability	0.176	0.054	0.241	3.244	0.001*	2.284
Great value	-0.056	0.071	-0.069	-0.781	0.436	3.222
Worth paying	0.095	0.056	0.111	1.705	0.089	1.757
Reliability	0.074	0.072	0.090	1.029	0.304	3.191
Speed	-0.024	0.078	-0.029	-0.304	0.761	3.873
Safety	0.024	0.069	0.031	0.345	0.730	3.265
Accessibility	0.074	0.084	0.089	0.892	0.373	4.107
Continuity	-0.031	0.089	-0.038	-0.353	0.725	4.727
Ease of use	0.158	0.076	0.197	2.084	0.038*	3.711
Encryption	0.013	0.042	0.016	0.302	0.763	1.234

Note. * $p < 0.05$.

As can be seen in Table 8, the result for fast-food restaurant behavioral loyalty was significant since the sig. level is lower than the critical alpha level of 0.05. Thus, H2b was supported and it can be concluded that there is a positive impact of Wi-Fi on fast-food restaurant's behavioral loyalty. Approximately 32.1% of the fast-food behavioral loyalty was explained by the Wi-Fi usage factors from the regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 9 shows that the results of each factors related to behavioral loyalty separately. Only worth paying ($p < 0.05$, ß = .249, t =4.67), accessibility ($p < 0.05$, ß = .203, t =2.54), and encryption ($p < 0.05$, ß = .091, t =2.27) turned out to be significant.

Table 8

Summary of Regression Analysis for Fast-Food Behavioral Loyalty (N=314)

R	R^2	Adjusted R	F	Sig.
0.566	0.321	0.298	14.312	0.00*

Note. * $p < 0.05$.

Table 9

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics
	B	Std. Error	Beta	t		VIF
1 (Constant)	1.154	0.219		5.267	0.00	
Availability	0.022	0.052	0.031	0.433	0.666	2.284
Great value	-0.073	0.068	-0.091	-1.070	0.286	3.222
Worth paying	0.249	0.053	0.294	4.677	0.000*	1.757
Reliability	0.030	0.069	0.036	0.427	0.670	3.191
Speed	0.014	0.074	0.018	0.195	0.845	3.873
Safety	-0.040	0.066	-0.052	-0.607	0.544	3.265
Accessibility	0.203	0.080	0.244	2.540	0.012*	4.107
Continuity	0.095	0.085	0.116	1.123	0.263	4.727
Ease of use	-0.006	0.072	-0.007	-0.080	0.936	3.711
Encryption	0.091	0.040	0.119	2.272	0.024*	1.234

Note. * $p < 0.05$

The third hypothesis was formulated to find out the effect of Wi-Fi service on casual-dining restaurant's loyalty as following:

H3 : Wi-Fi service will have a positive impact on casual-dining restaurant's loyalty.

H3a : Wi-Fi service will have a positive impact on casual-dining restaurant's

attitudinal loyalty.

H3b : Wi-Fi service will have a positive impact on casual-dining restaurant's

behavioral loyalty.

As can be seen in Table 10, the result for casual-dining restaurant attitudinal

loyalty was significant since the sig. level was lower than the critical alpha level of 0.05.

Thus, H3a was supported and it can be concluded that there is a positive impact of Wi-Fi

on casual-dining restaurant's attitudinal loyalty. Approximately 35.1% of the casual-

dining restaurant attitudinal loyalty was explained by the Wi-Fi usage factors from the

regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 11

shows that the results of each factors related to attitudinal loyalty separately. Only great

value ($p < 0.05$, $\beta = .154$, $t = 2.18$) and accessibility ($p < 0.05$, $\beta = .253$, $t = 2.76$) turned

out to be significant.

Table 10

Summary of Regression Analysis for Casual-dining Attitudinal Loyalty (N=314)

R	R^2	Adjusted R	F	Sig.
0.593	0.358	0.337	16.889	0.00*

Note. * $p < 0.05$.

Table 11

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics
	B	Std. Error	Beta	t	Sig.	VIF
1 (Constant)	1.990	0.216		9.221	0.00	

Availability	0.047	0.027	0.092	1.721	0.086	1.358
Great value	0.131	0.060	0.154	2.184	0.030*	2.346
Worth paying	0.042	0.054	0.047	0.793	0.429	1.667
Reliability	-0.159	0.087	-0.181	-1.832	0.068	4.582
Speed	0.083	0.077	0.098	1.080	0.281	3.850
Safety	-0.042	0.075	-0.051	-0.553	0.581	4.094
Accessibility	0.220	0.079	0.253	2.766	0.006*	3.944
Continuity	0.159	0.088	0.188	1.810	0.071	5.119
Ease of use	0.037	0.066	0.044	0.559	0.577	2.983
Encryption	0.061	0.040	0.079	1.505	0.133	1.299

Note. * $p < 0.05$.

As can be seen in Table 12, the result for casual-dining restaurant behavioral loyalty was significant ($p < 0.05$). Thus, H3b was supported and it can be concluded that there is a positive impact of Wi-Fi on casual-dining restaurant's behavioral loyalty. Approximately 38% of the casual-dining restaurant behavioral loyalty was explained by the Wi-Fi usage factors from the regression model.

Nevertheless, not all Wi-Fi usage factors turned out to be significant. Table 13 shows that the results of each factors related to behavioral loyalty separately. Only great value ($p < 0.05$, ß = .163, t =2.97), worth paying ($p < 0.05$, ß = .189, t =3.86), accessibility ($p < 0.05$, ß = .197, t =2.71), and encryption ($p < 0.05$, ß = .073, t =1.98) turned out to be significant.

Table 12

Summary of Regression Analysis for Casual-dining Behavioral Loyalty (N=314)

R	R²	Adjusted R	F	Sig.
0.622	0.387	0.367	19.142	0.00*

Note. * $p < 0.05$.

Table 13

Significance of Regression Coefficients (N=314)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics
	B	Std. Error	Beta	t	Sig.	VIF
1 (Constant)	0.811	0.197		4.112	0.00	
Availability	-0.011	0.025	-0.024	-0.460	0.645	1.358
Great value	0.163	0.055	0.205	2.971	0.003*	2.346
Worth paying	0.189	0.049	0.224	3.865	0.000*	1.667
Reliability	-0.029	0.079	-0.035	-0.364	0.716	4.582
Speed	-0.032	0.070	-0.040	-0.454	0.650	3.850
Safety	0.025	0.069	0.033	0.361	0.718	4.094
Accessibility	0.197	0.073	0.243	2.719	0.007*	3.944
Continuity	0.054	0.080	0.068	0.670	0.503	5.119
Ease of use	-0.005	0.061	-0.007	-0.089	0.929	2.983
Encryption	0.073	0.037	0.102	1.984	0.048*	1.297

Note. * $p < .05$.

Summary

Results indicated that Wi-Fi service factors had an impact on both attitudinal and behavioral loyalty for all three types of restaurants. However, Wi-Fi service was much more important for coffee shop loyalty than fast-food restaurants and casual dining restaurants.

CHAPTER V

DISCUSSION

Introduction

This chapter includes discussions about the findings of this study and managerial

implications of the findings. Also, this chapter concludes with limitations and

recommendations for future research.

Discussion of Results

This study attempted to test whether Wi-Fi service has a impact on loyalty

among different types of restaurants: coffee shops, fast-food restaurants and casual-dining

restaurants. Wi-Fi service was categorized into ten usage factors and loyalty was

examined from two different perspectives: attitudinal and behavioral. Furthermore, this

study classified the restaurants into three different types (coffee shops, fast-food

restaurants, and casual-dining restaurants) to see how Wi-Fi service affects customer

loyalty differently. Empirical results from this study offer valuable finding with regards to

Wi-Fi service and returning customers to the restaurant businesses in the hospitality

industry. This study particularly stresses the importance of providing appropriate Wi-Fi

service for customers in order to increase strong loyalty in restaurants businesses and

hospitality industries.

While all of the three study hypotheses were supported, not all of the Wi-Fi

usage factors were significant consistently. First, Wi-Fi service factors turned out to be

significant for coffee shop attitudinal and behavioral loyalty. Worth paying, safety,

accessibility, and encryption were significant for both attitudinal loyalty and behavioral

loyalty. Reliability and the speed of Wi-Fi service would further encourage customers to become behaviorally loyal to coffee shops.

Second, Wi-Fi service factors turned out to be significant for fast-food restaurant attitudinal and behavioral loyalty. Availability and ease of use were significant for attitudinal loyalty, while, worth paying, accessibility, and encryption were significant for behavioral loyalty. Customers preferred fast-food restaurants where Wi-Fi service was available and where Wi-Fi service was easy to use, but this did not necessary indicate that they would be behaviorally loyal to that specific fast-food restaurant brand. If the fast-food restaurant did not provide free Wi-Fi service, customers considered it was worth paying for Wi-Fi service. Additionally, accessibility and encryption of Wi-Fi service were more influential in actually visiting the fast-food restaurant.

Lastly, Wi-Fi service factors turned out to be significant for casual dining restaurant attitudinal and behavioral loyalty. Great value and accessibility were significant for attitudinal loyalty and great value, worth paying, accessibility, and encryption were significant for behavioral loyalty. Customers found great value from casual dining restaurants that provide Wi-Fi service and considered the accessibility of Wi-Fi service most important to become both attitudinally and behaviorally loyal to a casual dining restaurant. Customers believed it was worth paying for Wi-Fi service and considered encryption important when they visit casual dining restaurants. Generally, Wi-Fi service factors were more significant for behavioral loyalty than attitudinal loyalty. Worth paying, accessibility, and encryption were significant for behavioral loyalty across all three different types of restaurants, but there did not exist such uniformity for attitudinal loyalty for both coffee shops and casual dining restaurants. Also, Wi-Fi service

factors were more significant for coffee shop loyalty than fast-food restaurants or casual dining restaurants. It can be assumed that Wi-Fi service plays a more important role for coffee shops than fast-food restaurants and casual dining restaurants. The fact that worth paying was significant for behavioral loyalty for all three restaurants emphasizes that Wi-Fi service plays an important role in increasing restaurant customer loyalty.

Implications for Management

The findings of this study have practical implications that would be able to assist the management for restaurant businesses. Consequently, Wi-Fi service factors were not consistently significant for the three types of restaurants. Thus, each type of restaurant needs to utilize Wi-Fi service differently towards their customers.

Generally, customers use and prefer Wi-Fi service more in coffee shops. People normally go to coffee shops to spend their leisure or spare time with a cup of coffee. It is more a place to hang out and meet people rather than to take care of a meal or eat food. Eating or having a meal is not the primary reason for visiting a coffee shop, thus many people enjoy spending their times on their mobile devices and laptops while drinking their beverages and talking to others. Just because coffee shops provide Wi-Fi service for their customers, it does not necessarily mean that the service is safe. As people spend more time on devices that connect to Wi-Fi in coffee shops, coffee shops need to pay particularly more attention to providing secure Wi-Fi service. Although costs may be more expensive, coffee shops should connect with specific companies that supply high-security Wi-Fi models. It is also highly recommended for coffee shops to include encryption services to improve the quality of Wi-Fi security.

Customers who dine at fast-food restaurants typically spend less time there than in coffee shops or casual dining restaurants. Thus, security is not as essential and just providing Wi-Fi service can be an attractive point for customers. Most customers are not willing to pay for Wi-Fi service at fast-food restaurants. Thus, a paying option should not be considered. Nowadays, most of the major fast-food restaurant chains provide Wi-Fi service for free. They do not offer any encryption for their customers since customers want to use Wi-Fi as easily as they expect. For these reasons, fast-food restaurants do not need to offer high quality Wi-Fi service and do not have to spend more money to improve their Wi-Fi quality, such as reliability speed and safety.

For casual dining restaurants, Wi-Fi service is able to give more value for customers than fast-food restaurants. Customers generally spend more time at casual restaurants due to longer waiting time and eating time. Customers have more time to use Wi-Fi service and find great value when Wi-Fi service is available. Even though customers spend more time at casual dining restaurants, they prefer Wi-Fi service with easy access. Thus, casual dining restaurants should provide the easy accessibility of Wi-Fi service for their customers, such as offering open access Wi-Fi service. Unlike fast-food restaurants, customers are willing to pay for Wi-Fi service at casual dining restaurants. Thus, just by providing Wi-Fi service for their customers, casual dining restaurants are more likely to obtain competitive advantages. Wi-Fi service is more significant for casual dining restaurant customers than fast-food restaurants. Wi-Fi service can become an attractive point for customers at casual dining restaurants if it is convenient to use.

Limitations

As with all research, this study has several limitations. First of all, this study used a non-probability convenience sampling method for data collection, and data was collected only in South Korea. Thus, study findings cannot be generalized. Additionally, using a convenience sampling method may have limited the participants in various demographic groups. More than one-third of the participants of this study were students', so it may be difficult to generalize the results. Study findings cannot be generalized to other types of restaurants, such as fine dining restaurants, luxury, and high-level restaurants as well.

Although it can be assumed from the results of this study that there is a positive relation between Wi-Fi usage factors and a customer's loyalty, R square value of the multiple linear regression performance indicated that a relatively low proportion of variation was explained by the model. The result of the R square value of each multiple linear regression performances ranged between 26.7% and 39.2%. Therefore, a higher value of R square is actually preferable in terms of explaining variability. Customer loyalty is a multifaceted concept where a variety of factors may have an impact on. Thus, there may be additional factors that should have been added to the model that may explain customer loyalty other than the Wi-Fi service factors suggested in this study.

Recommendations for Future Research

Several recommendations for future study can be suggested. Replication of this study is recommended to generalize study findings, as this is one of the very few empirical studies that attempted to identify the Wi-Fi services effect on customer loyalty

at restaurants. Including additional factors that may account for Wi-Fi service is strongly recommended.

Future studies should use a larger sample size using a probability random sampling method, including various demographic groups to support the increasing generalizability of the results. Studies should especially attempt to include a wider range of ages and nationalities and examine whether there are any differences between demographic factors.

This study was conducted based on three types of restaurants. It did not cover upscale restaurants and fine dining restaurants. It would be interesting to examine whether Wi-Fi service may be an influential factor in the upper segments of the restaurant industry as well. It would also be interesting to investigate the Wi-Fi impact on other hospitality business areas, such as hotels, airports, and so on. Finally, it would be interesting to investigate the impact of Wi-Fi service factors between domestic customers and international customers. Travelers are expected to show different consumer behaviors, so results are likely to suggest meaningful findings for restaurant management.

Summary

Consequently, the hypotheses for this study were supported. However, not all of the Wi-Fi factors turned out to have significant impact consistently on customer loyalty for three types of restaurants (coffee shops, fast-food restaurants ,and casual dining restaurants). Replication of this study with a random sample and a bigger sample size is recommended. Future studies should also include other factors that may impact customer loyalty.

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Wi-Fi Service Value Survey

1. Do you currently use Wi-Fi? (If you check yes, start next question.)

□**Yes**   □**No**

2. To what extent do you agree about Wi-Fi in the following?

1	2	3	4	5	6	7
Strongly Disagree	**Disagree**	**Somewhat Disagree**	**Neither Disagree Nor Agree**	**Somewhat Agree**	**Agree**	**Strongly Agree**

	1	2	3	4	5	6	7
Wi-Fi in Coffee Shops I prefer coffee shops where Wi-Fi service is available.							
Wi-Fi provides great value in coffee shops.							
It is worth paying for Wi-Fi access in coffee shops.							
I consider the reliability of Wi-Fi important in coffee shops.							
I consider the speed of Wi-Fi most important in coffee shops.							
I consider the safety of Wi-Fi most important in coffee shops.							
I consider the accessibility of Wi-Fi most important in coffee shops.							
I consider the continuity of Wi-Fi most important in coffee shops.							
I consider the ease of using of Wi-Fi most important in coffee shops							
I use encryption while using Wi-Fi in coffee shops.							
Wi-Fi in Fast-Food Restaurants I prefer fast-food restaurants that provide Wi-Fi service.							
Wi-Fi provides great value in fast-food restaurants.							
It is worth paying for Wi-Fi access in fast-food restaurants.							
I consider the reliability of Wi-Fi important in fast-food							
I consider the speed of Wi-Fi most important in fast-food							
I consider the safety of Wi-Fi most important in fast-food							
I consider the accessibility of Wi-Fi most important in fast-food							
I consider the continuity of Wi-Fi most important in fast-food							
I consider the ease of using of Wi-Fi most important in fast-food							
I use encryption while using Wi-Fi in fast-food restaurants.							
Wi-Fi in Casual Dining Restaurants I prefer casual dining restaurants that provide Wi-Fi service.							
Wi-Fi provides great value in casual dining restaurants.							

It is worth paying for Wi-Fi access in casual dining restaurants.						
I consider the reliability of Wi-Fi important in casual dining						
I consider the speed of Wi-Fi most important in casual dining						
I consider the safety of Wi-Fi most important in casual dining						
I consider the accessibility of Wi-Fi most important in casual						
I consider the continuity of Wi-Fi most important in casual						
I consider the ease of using of Wi-Fi most important in casual						
I use encryption while using Wi-Fi in casual dining restaurants.						

3. To what extent do you agree that Wi-Fi affects your deciding in the following at your favorite coffee shops or restaurants? (Please write down <u>a number from 1 to 7.</u>)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Agree	Strongly Agree

	Coffee Shops	Fast-Food Restaurants	Casual dining Restaurants
Attitudinal loyalty Wi-Fi makes me feel good.			
Wi-Fi provides hedonic value for me.			
Wi-Fi provides very consistent service.			
Wi-Fi gives me satisfaction.			
Behavior loyalty I make purchase because of Wi-Fi.			
I revisit because of Wi-Fi.			
I am willing to spend more because of Wi-Fi.			
I recommend to friends and family because of Wi-Fi.			
I maintain a relationship because of Wi-Fi.			

<u>Demographics Information</u>

4. What is your age?

      □18-24   □25-34   □35-44   □45-54   □55 or older

5. What is your gender?

      □Female   □Male

6. What is the highest level of education you have completed?

      □High school   □College   □Bachelor's degree

      □Master's degree □Doctoral degree □Professional degree   □other

7. Which category best describes your race?

□Asian or Pacific Islander   □Black or African American
□Caucasian or White   □Hispanic or Latino

□American Indian or Alaska Native □Multiracial

□Other:_____

8. What is your current marital status?

□Divorced   □Living with another   □Married   □Separated

□Single

9. What is your occupation? _____

10. Do you currently live in the US? If not indicate.

□Yes   □NO:_____

11. What is your current household income in U.S dollars?

□Under $10,000   □$10,000 - $19,999   □$20,000 - $29,999

□$30,000 – 39,999   □$40,000 - $49,999   □$50,000 -$ 74,999

□$75,000 – 99,999   □Over $ 100,000