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Technology Base Self Service in Hospitality Industry

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TECHNOLOGY BASED SELF SERVICE IN HOSPITALITY INDUSTRY

by

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August 12, 2011
Abstract

Technology Base Self Service in Hospitality Industry

There are more and more technology based self service (TBSS) encountering people’s daily life, even hospitality industry, where people pay to get service, has began to add TBSS as part of their service. Some people believe this TBSS is the trend for the future, but some others who have experienced this service believe that traditional human touch service (THTS) will be remain as the main service providing channel. While people are wondering what kind of service to provide as they want to get a high return on their investment, they need to have a better understanding on self service technology.

In order to understand the values and differences between TBSS and THTS, this paper focused on distinguishing the strengths and weaknesses in both services and comparing these services from the service quality perspective. Through the SWOT analysis and the news and articles reviews, some suggestions had been drawn to improve the service quality and customer satisfaction in the service providing channel in hospitality industry.
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Part One

Introduction

Overview

Advances technology and expensive labor cost has made the service providers to develop and investigate the self service delivery option (Shamdasani, Mukherjee, & Malhotra, 2008). Today, using technologies based on self service (TBSS) to replace traditional human-touch service (THTS) has become a trend. “This evolution of services is somewhat similar to the past experience in the agricultural and manufacturing industry where human labor has been relentlessly replaced by automation” (Ong, 2010, p. 8).

Self service technologies have changed the way people live their lives. Before, people get the tickets (train tickets, airfares, movie tickets, concert tickets, discount coupons, etc.) from the human agents; now, most people get those tickets on line or through self service kiosks. Before, when a customer called a company, he or she can talk to human service agents directly; now, people might have to go through automatic phone service before they can talk to a human official. There are many other self service technologies encountering people’s daily life, such as ATM and online banking system for bank service, self service kiosk at library, driver license renewal kiosks at DMV, price scanners and self check out kiosks at the grocery store, self check-in kiosks in the airport, self check out or automatic check out system in the hotel, and the on-line reservation system for various activities, etc.

Today, some people have become more open-minded toward the TBSS as they get more familiar to these kinds of service. Customers’ perceiving risk toward the self service technology has decreased, as the security system and privacy law improves. For some people, TBSS is a more preferable option than THTS. Comparing interpersonal service with TBSS, TBSS’
relatively advantages in usage, involvement confidence, speed, time and location flexibility, and price are the largest satisfaction factors from consumers’ perspective (Sur, 2008). Some people believe the sense of control (Shamdasani et al., 2008) in the TBSS is another reason that makes customers prefer the TBSS.

However, is TBSS the future of service industry? Is there any problem with this trend or is there anything we need to be caution on?

Purpose

The purpose of this paper is to understand the trend of TBSS replacing THTS. Look into the strengths, weaknesses, opportunities and threats in both kinds of service, and analyze how each kind of service affects customer’s satisfaction. Compare and contrast TBSS and THTS, and predict the future service trend in the hospitality industry. “Will TBSS eventually replace all the THTS in hotel industry?”

The objective is to understand whether the TBSS trend is a forward or backward practice in the hospitality industry and whether it generates higher or lower customer satisfaction.

Justifications

In spite of the benefits that TBSS has brought to people’s life, some people lose their jobs (or at least, their jobs are re-organized into different areas) due to this trend. For example, in hotel industry, there are online reservation systems that are taking over the concierges’ duties. In addition to that, self-check-in service by mobile device and self-check-out or automatic check-out service on hotel television that is taking place of front desk services. Moreover, there is the mini bar service that is taking place of some room service jobs. According to one of the news in 2004, U.S. customers spent $128 billion at self service kiosk in 2003, which is 80% more than the 2002 (Lema, 2009). In 2008, the transaction at North American self service kiosks
reached more than $607 billion, and the number was predicted to be more than $1.7 trillion by 2012. (Kinard, Caplla, & Kinard, 2009). It is obvious that more and more people will encounter TBSS, and more positions or duties will be taken over by the self service technologies.

However, there are some other questions that hoteliers might need to think about toward this trend. Do people like TBSS in the hospitality industry - a service oriented industry? People come into service industry expected to be served, but the hotelier provide the self service technologies and ask the customers to serve themselves; thus, using TBSS might lower the service quality and directly affect the customer satisfaction and customer loyalty level. In addition, do hoteliers provide different service alternatives to the customers or are they forcing the customers to adapt this trend? If the hoteliers are forcing the customers to use TBSS, they might need to reconsider on their practice. According to a research, the consequence of forcing customers to use TBSS is a negative attitude toward the service and the service providers; furthermore, result some adverse effects on behavior intensions (Reinder, Dabholkar, & Frambach, 2008).

In addition, although technologies can remember, record and perform various service functions with the time and location flexibility, there are some limitations on what it was designed to do. For example, when people make a dinner reservation with a concierge, they can also make special requests for special food ingredients or additional facilities, such as a high chair for kid or wheel chair for disability. However, they might not able to make those requests if book with the TBSS. On the other hand, although a human service may not be able to remember as much information as a technology and do not have as much flexibility to work any time and any place, he or she has the ability to make instance action and provide more flexibility on service he or she could offer.
Although TBSS is an unavoidable trend and has widely adapted by various hotels, motels and resorts, there are many experts still believed there is value in THTS. According to Beatson, Coote, and Rudd (2007), personal service remains very important part of customers satisfaction and it also affect customers’ intention to develop and maintain a stable long term relationship and a over long term term commitment in hotel industry. Sometimes, people would choose one property rather than another because of the staffs in the property. Some consumers would feel more comfortable and attach to a surrounding with familiar environment and employees. In addition, from service quality perspective, empathy is the most important element that customers used to evaluate the service quality (Yilmaz, 2009). Since it is hard for TBSS to express empathy in today’s technology, consumers would still prefer to complain to an employee than a machine. Human employees can have a better understanding on another’s feeling, such as anger frustration, sadness, happiness, excitement, etc. On the other hand, technology not only has the problem to understand people’s feeling but also has problem to express its feeling. If a technology tries to express the empathy in words, customer may not feel the same as it is express by a human. For example, people feel differently when they see “sorry for your convenience” on the self service kiosk’s screen than actually hear people saying this. Verbal communication is important; however, nonverbal communication is more powerful when expressing empathy.

What will be the future trend in the hotel industry? Will TBSS be a continuing and growing trend? Will it go back to the THTS? Can both of those exist at the same time to improve service quality?
Part Two

Literature Review

Introduction

TBSS replacing THTS has become a trend in hospitality industry. There are many reasons that lead to this trend; however, there are values in THTS that are irreplaceable by the TBSS. Those values might not be expressed clearly through numbers, such as return on investment or productivity; they are still very important to generate customer satisfaction and customer loyalty. In fact, “there seems to be a positive relationship between customer satisfaction and customer loyalty, and there also seems to be a positive relationship between customer loyalty and customer profitability” (Helgesen, 2006, p. 261). Therefore, THTS can still be very profitable. While hoteliers try to keep up with the TBSS trend, they must understand its effect on customers and the industry. In addition, hoteliers must not forget the benefits of THTS, especially those unique elements that cannot be replaced by the technologies.

This part will contain the SWOT analysis in both TBSS and THTS, and then compare and contrast the strengths and weaknesses in both kinds of services. In addition, it will talk about their effects in hospitality industry and their performance from the view of service quality.

Technology Based Self Service

TBSS is a form of service that delivers by the customers to themselves through an interaction with technological systems or devices (Beatson, Coote, & Rudd, 2006). Although sometime customers might still consult employees for the use of the self service systems or devices, self service technology has helped to reduce the amount of employees used in the hospitality industry. According to Shaw (2004), in 1996, while people are not familiar to this kind of service, some pioneering hotels had already implemented the self check in kiosks to test
the customers’ reaction. Technologies helped to share the front desks’ workload and speeded up the service; thus, hoteliers wished to add more service to the kiosks. However, there was a concern that too many service options might increase the time people stand in front of the kiosks and indirectly lead to long line in front of the kiosks, lengthen the service process and time.

Today, more hotels have joined this practice but the service options in self service kiosks around front desks remain very simple. However, there are more self service technologies in the hotel industry, such as self reservation systems and self check out system on hotel television, self serving in room mini bar, room service ordering system, boarding pass printing and flight check-in kiosks, etc.

**Technology based self service SWOT analysis.**

In order to have a better understanding of the TBSS, this part will be presenting the strengths, weaknesses, opportunities, and threats of the TBSS.

**Strengths.**

There are many reasons lead to the popularity of the TBSS. According to Meuter, Ostrom, Roundtree, and Bitner (2000), among those people who prefers TBSS, 30% of people like about its speed of the service, which is also the most notable reason people choice TBSS. Then comes to the job it done which is 21%. Consumers want and expect the employees to do their job; however, for some reasons they fail to perform its job occasionally due to the time constraint, inferior training, and so on, which might disappoint the customers. Thus, perform its job become the second important reason people choose to use TBSS. The third incident is that it is easiness to use – 16%, solve the instance need – 11%, time flexibility – 8%, location flexibility – 6%, cost effective – 6%, and avoiding service personal also has – 3% (Meuter et al., 2000).
Other strength includes the sense of control. According to Oyedele and Simpson (2007), people have a high need for control and individual achievement. TBSS put control in consumers’ hands rather the employees’. Moreover, some people can book various services from a single self service technology system or device. This kind of technology can offer customers one stop shopping, which help them to save more time and make their life easier. For the hoteliers, this is another channel of up selling its service in the hotel. In the long run, it can help hoteliers to save more labor cost, including employee salaries, training, benefits, etc. It also avoids the service inconsistent and litigation due to human mistake.

In summary, the strengths of TBSS include, but not limited to its speed of service, service done, easiness to use, instance solution, time flexibility, location flexibility, cost effective, and service personal avoidance, as well as its sense of control, one stop shopping, advertising opportunity, etc.

**Weaknesses.**

Despite all the benefits from the TBSS, there are also several weaknesses in this kind of service. First, it requires higher sunk cost to purchase the equipments or systems, and it also require ongoing maintain fee. Secondly, this kind of service heavily depends on the design of the machines or systems, the easiness to use, the service selection, language selection, etc. A self service technology system or device may be able to help the customers to perform various services; however, if the service list is too long, then people may not easily find what they need (Shaw, 2004). Also, if the process is difficult or troublesome, consumers might also feel irritate or annoy by the self service. In addition, if the there is malfunction in the technology, it may create inconvenience to the guests and lead to customer dissatisfaction. For example, if there is a malfunction on the machine’s touch screen then people cannot make any action on the device or
when the machine fail to give consumers’ player’s card or credit card back then it could create a more serious customer dissatisfaction. A hotel could lose customers or businesses if the guests experience the dissatisfaction.

According to Meuter et al (2000), some of the most common dissatisfy incidents related to the TBSS is technology failure, poor design, process failure and customer-driver failure. Technology failure include malfunction of the self service devices or break down of the self service system. Poor design includes technology design problem and service design problem; technology design problem is like having a confusing system, for example, people might book the same reservation twice due to the confusing of the system; and service design problem is coming from other aspect of the service, for example, the system might only allow the key-holder or card-holder to book the service under his or her name but not other people who live in the same room. Process failure could be losing customers’ order and customer-driven failure might come from customer miss-type the information.

To conclude, the weakness of the TBSS are high sunk cost and its service quality heavily depend on the design of the technology and the system.

**Opportunities.**

The opportunity of this kind of service is unlimited, as the technology getting advanced. Biometric technology, smart phone and radio-frequency identification (RFID) chip can help the machines or employees recognize and identify the customers and provide access to certain area or service. Biometric technologies are systems designed to recognize and identify an individual through computer-automated matching one’s biometrics (such as fingerprint, face image, signature pattern, gait, etc.) algorithm (Morosan & Cristian, 2011). Radio frequency identification (RFID) is a form of auto-identification technology (AIT) designed to recognize and
identify an object through the radio waves which automatically transmit data (Davis, Samanlioglu, Jiang, Mota, & Stanfield, 2012). Both technologies can help customer check in faster even without other people’s assistant, and it can even increase the security of the stay. For example, 24 Hour Fitness use the card-less check-in fingerprint scanner system (Goldman & Stuart, 2011), to save the membership card issuing, limit the access to not nonmembers and improve the security. If some large hotel chains also implement this kind of practice then it will be easier for the loyalty program to record customers’ information. They can also be used to make personal profile and further to offer or suggest personal services. It can also prevent fraud or false reservation.

In addition, self service technology may also offer 3D hologram for the customers. Holography is a technique that reproduces a 3-D image of an object through memorizing the light reflection from the original object (Coholan, 2010). This technology can help the customers making a better purchase decision, for example, the hotel can provide the golf courses hologram, which the guests may book into, or hologram of the meal they could order or reserve at the restaurant, etc.

Moreover, there are hopes for the future growth of TBSS besides working with these technologies advancement. A report has shown that the 18 to 34-year-old consumer groups are very technology savvy and they are very likely to use and adapt this TBSS in their daily lives. With these people’s adaptability and acceptance toward TBSS, there is a more steady growing foundation for the TBSS development (Hospitality Technology, 2011).

In conclusion, the opportunities of the TBSS is mainly focusing on combining various kind of advance technologies and some common devices that are owned by most customers, such as smart phones, biometric technologies, RFID chips, 3D hologram, etc. In addition, a growing
group of technology supporters and adapters can establish as a firmer foundation for TBSS to develop and grow.

**Threats.**

Nevertheless, there are some threats in TBSS. If customers are not familiar with the self-service technology or the idea of the self-service, they might not want to use it because some people are afraid of the unknown and need control of their lives (Oyedele & Simpson, 2007). Technology anxiety, the fear, apprehension, and hope toward general technology device or system, has negative effects toward customer satisfaction and customer behavioral intention (Meuter, Ostrom, Bitner, & Roundtree, 2003). In addition, technology anxiety and the difficulty to use perception are two common threats that stop people from using self-service technology (Zhao, Mattila, & Tao, 2008).

However, it is hard for the customers to get familiar with all kinds of technologies, since the technology changes so fast. Different hotels might use different versions of the technologies or different kinds of technologies. Also, some people do not travel often enough to get familiar with the technology. Managers and employees from the service providing companies might work with those self-service technologies almost every day, but some travelers might only travel once or twice a year. Thus, it could be hard for them to learn or adapt the technologies in a fast pace. Customers’ adaptability becomes a crucial factor.

Moreover, not all people have the equipment that is needed for technology self-service. For example, not everyone has a smartphone and can use it to check in a hotel or flight. Even if people have it, they might not want to use it while they are traveling to a foreign country, due to expansive roaming fees. Furthermore, computer or technology systems can only function in certain ways. It can only offer as much services as the designer designed it to do, thus, it does not have
much flexibility. If customers want to make additional requests or ask the technology to make service recovery it may not able to accomplish those missions. Finally, if the hotel become over dependent on the technology, they might need a complete back up plan in case the systems, devices or even power are down, since they will not have enough staffs at the stations to offer help to the guests.

To conclude, the threats in TBSS are customers’ technology anxiety and adaptability, self service technologies’ design flexibility and service recovery capability. The fast pace of technology development and the availability of self service technology equipments are also threats in TBSS development. Employees’ availability during emergency or system breaks down are also things need to be considered by the hoteliers.

**Traditional Human-Touch Service**

THTS is the kind of service that most people are familiar with, which is the service that are provided by the front line employees to the customers (Bitner, 1990). Front line employees interact with customers to learn about customer’s requests, problems and other information then deliver the requested service to the guests. Now a day, some services providers will ask their employees to go above and beyond to surprise or wow their customers. They will try to do more than the guests have asked and expected, thus, to increase customer satisfaction. For example, recognize guests’ name and their preference, or provide map and coupons when guests ask for the direction of a shopping area, etc. According to research, “people factor” can be the most crucial factor that affect overall customers’ satisfaction and repurchase intention (Ganesh, Arnold, & Reynolds, 2000).
Traditional human-touch service SWOT analysis.

In order to have a better understanding of the THTS, this part will be presenting the strengths, weaknesses, opportunities, and threats of the THTS.

**Strengths.**

There are many benefits in THTS. People build trust and interpersonal relationship through the interactions. According to the research, the closeness of interpersonal relationship, in term of trusting, liking and knowing each other, may serve as a shield against other competitors, via holding up no less than a short term continuity business relationship (Chao, Fu, & Lu, 2007). Another research had found that the interpersonal relationships between consumer and front-line employees are very significant factor that can positively affect customer satisfaction and loyalty towards the firm, at the same time act as a powerful tool for reducing the risk of customers’ switching behaviors when other customers leave the firm (Guenzi & Pelloni, 2004).

Customer loyalty is consumers’ commitment to repurchase a same brand product or service, despite the situational influences and marketing efforts; thus, loyal customers would repurchase from the brand whenever possible and would continuously recommend or maintain a positive attitude toward the service provider; in addition, loyal customers are more price tolerant (Marković, Raspor, & Šegarić, 2010). Moreover, the interactions between customers and front line employees are key aspects affecting consumers’ commitment and satisfaction (Beatson et al., 2006).

A smile or a positive commend can bring positive emotion to the customer, which can indirectly affect customers’ service experience. Also, eye contact and friendly greeting can make customers feel they were recognized, respected and cared by the employees or the company. Today, consumers want the employees to know their value, and they do not want to be treated as
another number, thus, the loyalty program exit to help employees to learn consumers’ purchase preference (Stuart, 2010). In addition, comparing to alternative, THTS will have enough employees during emergency.

To conclude, the strengths of THTS is its capability of building interpersonal relationship, which generate higher customer satisfaction, commitment and loyalty. It gives employees and hotel a chance to positively affect customers’ emotion and express their welcome, recognition and respect.

Weaknesses.

There are problems in THTS. Since the quality of the interpersonal interaction in THTS can affect customer satisfaction (Bitner, Booms, & Mohr, 1994), it can have not only positive effect but also negative effect. If the employees do not use proper language or attitude to serve the customers, there might be customer dissatisfaction.

In addition, THTS is a service that is provided by human, and all the humans are different, the service quality they provide would be varying too. Even with the same person, the service he or she provided is not likely to be the same at different time with different customers. Even the customers are the same; the service encounter could still be different due to the different moods the employees and the guests are in at the time the service is provided and consume. Other differences may come from different skill levels, new employees might not be as skillful as experience employees, personal characteristic and interpersonal skill may vary from one person to another, and attitude can be different, too. Inconsistent training may also lead to service inconsistent. These might lower customers’ satisfaction and their willingness to revisit, since people want things to be in control and want things to be match or better than what they expected.
Some other weaknesses of the THTS are personal mistake, such as mistype guests’ name or card number, or give away the wrong type of the room or wrong room key. Some of these mistakes can create serious inconvenience to the customers and other serious mistakes can even lead to litigations and cost the companies’ fame and business (Barth, 2002).

To summary, the weaknesses in THTS are inferior interpersonal interaction, inconsistent service quality, employee mistake, etc.

**Opportunities.**

There is potential growth for the human service, too. With advance technology, employee can serve the customers more efficiently. Since the time needed to run through a service process is the same, if the employees have more experience with the equipment or the system, they can work faster than the comparably inexperience customers. Since the staffs would know what information is needed for this service, and where to look into and book into for certain services, they could work more efficiency than the consumers who may not know how the systems are functioning.

They can also recognize the guest in an easier way through biometric technology’s face recognition function (Morosan & Cristian, 2011) and RFID chips (Davis et al., 2011), and the employees can call guest by name, provide personal service, or use guests’ language to communicate with the guests. In addition, use customers’ preference information to offer up sale opportunity. With some empowerment, it can extend human services’ flexibility and even provide instance service recovery at the most proper time to prevent the leave of customers. According to a research, a higher level of empowerment is likely to generate a higher level of service quality to some degree (Ueno, 2008). Hotels can also increase the employee to guest’s ratio to ensure all the people are being taking care of. Furthermore, hotel can also try to provide
one stop shopping for the guests. Hotel can offer a station, such as concierge, to help the customers for all their need, because some customers do not like to be transferred around different departments.

To sum up, the opportunity of THTS could be the combination of technology with experience front line employees working together to generate higher efficiency and higher customer satisfaction. In addition, hotel can give away more authority to its employees and give them more control on handling customer issue.

**Threats.**

There are some threats in THTS. An interaction between an employee and a customer can win or lose the customers’ lifetime loyalty; regardless the employees’ position (Caulfield, 2004). Having a positive interaction between employees and customers can add value to customers’ service experience; however, a negative interaction can result a business lost for a company.

Since human is an unpredictable element, there might be some issues that are unforeseeable and could cost the company’s business. For example, if the employees or customers’ has latent mental illness, illusion or is alcohol intoxication; this can lead to serious accident or deaths while they cannot handle their emotion well. While in TBSS, it heavily reduces the use of employees, and customer only has contact with the kiosk, so even if they lost the control the harm will be comparably eased.

In short, the threats of the THTS are mostly come from the human element.

**Technology Based Self Service vs. Traditional Human-Touch Service**

The following chart is the summary of the SWOT analysis of TBSS and THTS. It includes many opinions from different experts, and the ideas that were present in the previous part of this paper.
Table 1. SWOT Analysis of TBSS and THTS

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Technology Base Self Service</th>
<th>Traditional Human Touch Service</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Speed of service</td>
<td>Interpersonal relationship</td>
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<tr>
<td></td>
<td>Instance solution</td>
<td>Customer satisfaction</td>
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<tr>
<td></td>
<td>Time flexibility</td>
<td>Customer commitment</td>
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<tr>
<td></td>
<td>Location flexibility</td>
<td>Customer loyalty</td>
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<tr>
<td></td>
<td>Cost effective</td>
<td>Sense of control</td>
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<tr>
<td></td>
<td>Service personal avoidance</td>
<td>Service flexibility (service options)</td>
</tr>
<tr>
<td></td>
<td>Sense of control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One stop shopping</td>
<td></td>
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<tr>
<td></td>
<td>Advertising opportunity</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>High sunk cost</th>
<th>Service inconsistent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No service flexibility</td>
<td>Employees’ mistake</td>
</tr>
<tr>
<td></td>
<td>Heavily rely on the design</td>
<td>Heavily rely on training</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Combine advance technologies with some common devices (smart phones, biometric technologies, RFID chips, 3D hologram, etc.)</th>
<th>Up sale opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growing groups of technology savvy customers</td>
<td>Recognition of guests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal preference record</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threats</th>
<th>Technology anxiety</th>
<th>Employees’ attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Customers’ acceptance</td>
<td>Employees’ mistake</td>
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<tr>
<td></td>
<td>Customers’ adaptability</td>
<td>Employees and customers’ hidden illnesses</td>
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<td></td>
<td>Design flexibility</td>
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<td></td>
<td>Service recovery capability</td>
<td></td>
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<tr>
<td></td>
<td>Fast pace of technology development</td>
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<td></td>
<td>Availability of self service technology</td>
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<td></td>
<td>Emergency plan</td>
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</table>

Comparing those two kinds of services, TBSS’s strengths are more focusing on physical convenience, such as service speed, time flexibility, location flexibility, etc. THTS’s strengths are more focusing on customers’ psychological states, such as interpersonal relationship, customer satisfaction, customer commitment, loyalty, etc. If both kinds of services are using the same technology, the service speed will not be an obvious difference. In fact, employees can be more efficiency since they will be working with these technologies all the time.
Moreover, hoteliers can add more employees and service stations to make up THTS’s insufficient in time and location flexibility; however, no matter how much self service kiosks they add, it will not cover THTS’s interpersonal relation ability. In addition, when there is an emergency, such as fire or earthquake, employees become an important element to make sure consumers are safe, comfort and organize. They can offer direction to escape, carry customers when there is a need and provide comfort to those anxious customers; these are things that cannot be replaced by TBSS.

However, self service can eliminate the contact with employees if the guests wish to have more privacy and do not want other people to bother them during the service processes. This is impossible in THTS, since the basic idea of THTS is using employees to serve customers.

There is a service evolution that is happening in the hospitality industry. Although more and more people are accepting TBSS replacing THTS, there is not a hotel only use TBSS and without using a staff. This mean there is a value in human service in the hospitality industry that cannot replace by the technology. There are several reasons that make human service irreplaceable.

**TBSS and THTS in Hospitality Industry**

In the hospitality industry, including lodgings, restaurants, theme parks, entertainments, transportations, and other tourism related industry, customers purchase service, experience and expected to be served. These industries’ successes heavily depend on people’s disposable income and customer’s satisfaction. According to Caulfield (2004), each company will lose, in average, one third of its customers per year, and it takes five times more resources to replace them with new customers than to keep them in the company. In order to hold them in the company, the company needs to know what customers want. The customers are looking for respect,
Technology Base Self Service in Hospitality Industry

recognition and special treatment, and these are also the reason different kinds of loyal programs exist. People are looking for services, they want to relax and be served. If service providers keep asking the customers to serve themselves, it is not a service industry.

In THTS, while plan for a trip, consumers will call to a hotel and book for a stay through phone with a service employee. When they arrive to the destiny, bell boy will open the door for them and lead them to the lobby to check in with the front desk staffs. Front desk employee will help them check in and possibly ask them if they want some upgrade; at the end of the check in, the staff will give the customers their room key and ask them to enjoy their stay. During their stay they might talk to a concierge to book for some activities, such as dinning, golfing, spa, show appreciating, etc. At the end of their stay, they will check out at the lobby, the employee will say good bye to them and wish them a good day.

In TBSS era, consumers will book their accommodation online by themselves, at the same time they might as well book the dinning reservation, golfing or purchasing show tickets on line. When they arrive to the hotel, they will walk through an automatic door to a self check in kiosk; they might be able to check in with their cell phone, credit card or even fingerprint. During their stay, they might book everything they need through the room television’s reservation system, if they have not yet book the reservation on line. At the end of their stay, they do not need to go check out at the lobby with the front desk employee, but check out through the television in their room.

Although people might argue the service providers has provide an easier way for guests to suit themselves, this is still not a good service. It is like people go to restaurant for food, and the chef give the customers all the ingredients and a microwave to serve themselves. If all the hotels ask their guests to serve themselves, then what it left to distinguish itself from other would
be its building and its furniture. When services disappear; service quality disappears; hospitality industry disappears. Some hotels found difficult hard to keep up the service quality while installing all kinds of self service technologies, since the human interaction disappears (Armstrong, Mok, Go, & Chan 1997).

Recently Sullivan (2011) just wrote an article from a service perspective. He said implementing self service in the business was to give consumer no reason to complain, since they are the one provide the service. However, he believed that people are forgetting the important of customer service and customer relationship in the hospitality industry. It could be possible that people are falling into a TBSS myth, and believed that TBSS provide better service since there are less people complaining about the service provided by themselves.

Besides Sullivan, there are other people and businesses begin to rethink about self service. A recent news just states that many retailers begin to rethink about self service check out, it was about various market begin to replace the self check out kiosks back to real people register. The article says that although the machine is faster, but when people standing in front of kiosks and does not know how it works, that make people frustrated. Other retailers says the machine cannot offer the customer service level they want that why they eliminate the self service kiosk (Albright, 2011). According to a supermarket spokesman, his supermarket also decided to remove some of it self service lanes as those kiosks reach their 10 years functional life, since there are 4 self service lanes out of 12 to 14 lanes in the supermarket chains, they only run through 20 percent of its check out. In addition, he also point out some people would prefer to go to cashier rather than the self check out kiosk when they are checking out a lot of products (Pursell, 2011). If the retailers begin to think about it, then the hospitality industry, the service providing industry, should be more caution about this TBSS trend.
In fact, in 1996 kiosks were built into Cendant Corp.’s Wingate Inn; however, the kiosks were eliminating in May 2003 because usage level did not warrant their continuation as a brand standard (Shaw, 2004). If there is an approximately 10 years life cycle in a self service machine, in order to make a better return on investment, the company who install it at the first place will not easily replace it back to THTS in a short period. It is obvious that a business would want to get the most out from its investment. However, how many years does a business have and how many years can a hospitality entity used to try the new service technology? In hospitality industry, where service experience is very important, if people do not get the kind of service they expect they are not likely to come back and the company might just lost that customers forever.

In addition, according to another research on travel booking, customers would book the travel online if they want a lower price, and when they prefer more service, such as travel arrangement, they would normally go to offline agent (Lee & Cheng, 2009). Booking online is like using TBSS, one provides service for him or herself; and the offline agent is similar THTS, the service is provided by the employees to the guests. In the hotel industry, if people want more service, they are more likely to go for THTS rather than TBSS. For the consumers in the upscale hotel, they are looking for service rather than financial saving, thus, they might not like about the idea that service providers asking them to serve themselves.

**Special issue of TBSS & THTS of hospitality industry of service quality.**

An important factor for a hospitality success is service quality. There are several important elements to determine the service quality. There are tangibility, reliability, assurance, responsiveness and empathy in SERVQUA (Parasuraman, Zeithaml, & Berry, 1985), and Grönroos (1988) later came out the six elements of recovery.
Tangibility is the ability to encounter with the physical facilities, staff appearance, etc., which both TBSS and THTS met the requirement. Reliability is the ability to perform accurate service, which both TBSS and THTS can normally achieve, as long as the technology is not malfunctioning and the employee has gone through proper training. Responsiveness is the willingness to respond customers’ request; although both can be available for guests in the lobby, TBSS’s service availability very depend on its service option it was designed to perform and THTS’s service availability is depend on its position’s authority. Assurance is the ability to gain trust from the consumers, which can be normally accomplish by both TBSS and THTS by providing a confirmation number or simply let the guests know their requests have been taking care of. Empathy is the ability to care about an individual, although both human and technology can express empathy, consumer may not feel as much sympathy from the self service technology. Nevertheless, hearing actual human tell you “we are sorry,” is totally different from hearing or reading from a machine. In fact, it is hard to feel a good faith from a machine since they are just some formulas and programs.

Recovery is the ability to turn frustrated customers into loyal customers. THTS can provide instant and proper recovery, if the hotels provide professional training and with enough empowerment. However, it would be hard for TBSS, if there is no program for recovery the system can hardly make it, and even if there is such program there is a limitation of what it can do, such as printing coupon. Nevertheless, hoteliers would not want to give out compensation randomly, they don’t want to give out over due compensation for a small incident, thus it is a more difficult task to accomplish. There is a question that whether the self service technology has the ability to determine how much to compensate. In addition, according to a research complaining customers are looking for justice, well-being and security, and they want the
employees’ authenticity, competence and active listening skills (Gruber, 2011). Since the recovery process often involve listening to guests’ complaint, understanding the complaint, making responsible actions, following up the recovery and ensuring the guests’ happiness.

However, these standards are for THTS, while TBSS becomes more common, Dobholkar (1996) has come out a list to evaluate TBSS. These elements include expected speed of delivery, use, reliability, enjoyment and control. However, these lists can also be accomplished properly by the human service. With the proper technology employees can also perform the service in a short amount of time, and since consumer do not need to do much work in the THTS, this make the usage very simple and easy. If the employees has a sense of humor or being nice and talkative, consumer can also feel enjoyment during the service is perform. Lastly, if the employees report back to the consumer at the end of the service or even provide the confirmation code, customer can feel they have the control of the service.

To conclude, both TBSS and THTS are capable to provide quality service from the view of tangibility, reliability and assurance. Responsiveness, speed of delivery and enjoyment are depending on the availability of employees and the self service technology. THTS has more power on providing quality service from the empathy, recovery and easiness to use perspective. TBSS give more control and involvement during the service process. Despite the service quality evaluate components are for THTS or TBSS, they are all very important to generate a quality service. These are the elements that customers are expected in their service.

**Summary**

There is a TBSS movement in many service proving industries, and there are many service providers now offer TBSS instead of THTS. In fact TBSS is now ubiquitous and is very common to most people. While the life style has been changing, people are more familiar with TBSS and
are holding more open mind toward TBSS. While some organizations are moving toward TBSS, some companies begin to remove the self service technology away from their businesses. After these years, recently, people begin to miss the service that is provided by human employees.

TBSS and THTS have their own strengths and weaknesses that cannot be ignored. TBSS can generate higher productivity and lower the expenditure on human capital. THTS can establish closer interpersonal relationship and keep consumers back to visit. These are important elements for a business’ success.

In the hospitality industry, although more people are getting familiar with TBSS, not everyone is willing to pay a service fee and then provide service to him or herself. In addition, high technology does not necessary equal to high service quality, customer satisfaction, or high customer loyalty. More importantly, there are things that cannot be achieved by the machine or system but the human employees. Hoteliers must remember the capability or potential of traditional labors.

Therefore, while hoteliers wish to follow into the TBSS movement, they might want to stop and think about the customers and the industry. Compare the strengths and weaknesses of TBSS and THTS and see which kind of service is more suitable for their business. TBSS might be a forward movement is some industries but it can also be a backward movement in others?
Part Three

Conclusion

Introduction

Recently, in hospitality industry, hoteliers use self service technology replacing traditional labors. Buyers now a day are more familiar with this kind of service and are holding more open minded to this kind of service. However, while this practice has become more and more common to most people, one can still see people standing in front of the kiosk waiting for the help from employees. Moreover, it looks like there is always a longer lane in front of the human register than a self service kiosk. This make people question whether TBSS is a better and faster way of service. According to the literature review, regardless of all the benefits from the self service technology, self service technology does not yet capable to provide the matching level of customer satisfaction that human employees are capable to provide. Thus, some consumers still favor in personal service over than the technology base self service and some companies move back to human register. TBSS is a popular trend in the industry now, it create a high tech and fashion image for the company; however, the TBSS does not yet have a matching service quality as THTS, what should hoteliers do?

Results

Combining experts’ opinion, each service has its unique benefits that other cannot replace. Strengths in TBSS include service speed, cost, time flexibility, location flexibility, service quality consistency, sense of control, and service personal avoidance. Strengths in THTS include service recovery, service options flexibility, interpersonal relationship which leads to higher customer satisfaction, customer commitment, customer loyalty, and repeat businesses. Weaknesses in TBSS include service limitation, service recovery (include listening to the guests,
expressing empathy and providing instant compensation), and heavily depend on the design of the technology. Weaknesses in THTS include inconsistence service quality, personal mistake, heavily depend on employee training.

TBSS can provide quantify benefits, such as time and cost saving, however, unlike THTS, it cannot provide the personal touch or build relationship between people. Thus, although there is trend of replacing THTS with TBSS, recently, some people begin to miss about the THTS. Some retailers even begin to move backward of trend, by eliminating the self service technology and go back to human register.

In addition, experts have noted that customers’ expectation has effects on customers’ satisfaction, thus, customers’ expectation toward hospitality industry could affect customers’ satisfaction level toward the service industry. While customers expect to be served in the service industry, the hoteliers ask them to do it themselves; this can lower the service quality and customers’ satisfaction level.

What would hoteliers do to keep their customers? What can they do to generate more revenue and customer satisfaction? What will be the trend in the future?

**Conclusion**

Through the literature reviews, it is clear that both TBSS and THTS have their own group of supporting customers. From the strengths of both services, hoteliers can have a better understanding of what customers are looking for. Thus, combining the strengths from both services hoteliers can easily understand what customers are look for. Consumers are looking for the flexibility in time, location and service options, more efficiency (fast and accurate) service encounter, interpersonal relationship (respect, welcome, recognition, trust, reliability, and assurance) and service recovery (empathy and compensation) when it is needed.
Also in order to provide quality service, hotelier must not forget the service quality evaluating components. These components are tangibility, reliability, responsiveness, assurance, empathy, recovery, service speed, user friendly, enjoyment and control. While providing service to their customers, despite TBSS or THTS, hoteliers must ensure these components are contain in the service provided.

Service encounter can affect consumers’ purchase or stay experience in hospitality industry, and it is affect by both consumers and the service providers. While employees can be trained and self service can be designed to work in certain way, buyers are harder to control, especially buyers’ emotions, because everyone would run into good or bad day. In THTS, employees can still use greeting, smiling, or praising to provide positively effect on consumers’ emotion. In TBSS, hoteliers have more control on the service provided, and they limit the service that customer can use, and offer some specific services base on most customers’ request or preferences. Thus, THTS or TBSS is depending on what dose hoteliers want to control during the service encounter.

**Recommendation**

The objective of this paper is to understand the TBSS movement to learn whether TBSS is a forward or backward practice in the hospitality industry and whether it generates higher or lower customer satisfaction.

Both TBSS and THTS have their own group of fans. While people often get higher satisfaction when they get what they want, hoteliers could make both kinds of services and allow the customers to make their own choice. However, since the customers in upscale hotels do not have as much concern on financial limitation, they might wish to get a more personal service,
such as butler or personal host. Thus, in upscale hotels, hoteliers could have more focus on THTS.

However, the customers still value their time during their stay and do not wish to spend too much time during the service encounter but enjoy their vacation or work on the business during their business trip. Hoteliers might as well train employees to work more efficient and try to reduce the length of the waiting lane to generate higher customer satisfaction. In addition, hoteliers might try to increase the service stations to increase the accessibility of the service. Moreover, since there are limit high end customers in the market, hoteliers might as well encourage the employees to build interpersonal relationship with their guests to ensure their stay and loyalty remain in the hotel.

In addition, although the customers in limit service hotel might prefer the financial saving over the service, customer service still remains very important. The customer service can affect customer satisfaction and indirectly affect customer loyalty. Nevertheless, it requires five times more to get a new customer than to keep a previous one. Thus, even in the limit service hotel, hoteliers still need to ensure the service quality fit with consumers’ expectation.

Moreover, since the groups of customers, whose age are between 18 to 34, are very technology savvy, most of them know, accept and adapt TBSS very well. Hotel operators or service providers who wish to target this group of customer can focus on TBSS; however, the customer service, customer relationship and consumer emotion attachment remain very important. Otherwise the consumers will view the hotel or the service provider as another option to get a service and will not remain loyal to the brand or company.

To conclude, although there are more and more business entities moving from THTS toward TBSS and many companies stay with TBSS after they implement self service technology,
there are some businesses moving back to THTS from TBSS. It is hard to say whether TBSS is a forward or backward trend, but it is obvious that there are some irreplaceable factors in THTS that make some corporations cannot afford to get rid of it. In addition, from service quality perspective, THTS can achieve more service quality evaluation components than TBSS, and this can lead to a conclusion that THTS is more capable to provide quality service than TBSS. Using TBSS in hospitality industry can add convenience to the guests experience; however, when it comes to service and relationship THTS is a better choice.

This information can help hoteliers to understand the trend of TBSS, and other’s opinions, both positive and negative comments, on the TBSS. There are reasons that people go for TBSS and reasons people get rids of TBSS and back THTS. Experts and users’ opinion with the TBSS and THTS’ SWOT analysis, theses information can help the hoteliers to make an easier decision on what type of service they want to provide.
Reference


