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# High Tech vs. High Touch in Resort Operations: How Do Customers Adopt Self-Service Technology?

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## Problem

Lodging and resort companies are motivated to adopt SST primarily to enhance customer service, achieve operational efficiency by cutting costs, differentiate from competitors by early adoption, and generate additional revenue. In the center of managerial concerns about SST-based customer service is the unproven widespread belief that SST will satisfy customers by shortening service lines, promoting customers' independence, enhancing order accuracies, and allowing control over the service process. In balance, however, we must consider, from the customer's perspective, potential threats of blindly adopting SST such as the customer's indifference, skepticism, and discomfort, especially in favor of human-based customer service

## Objectives

The goal of our research project was to develop a conceptual and measurement model to address the critical concerns and issues of resort operators in adopting and deploying SST in their operations. In particular, we aimed to build the model from the perspective of resort customers who would be the end users of SST. As a result, we aimed to address the following specific questions: 1) Is Technology Acceptance Model (TAM) alone sufficient to explain the process of resort customers' SST adoption?, 2) Besides ease of use and usefulness of SST, what other factors determine or influence resort customers' SST adoption?, and 3) Is the resort-specific model sound enough to predict the resort customer's SST adoption?

## Methodology

We used a mixed method of both qualitative and quantitative studies to build a technology acceptance model that could explain the customer's perspective of adopting SST in the resort environment. A series of preliminary qualitative studies were conducted to identify and define critical model variables and to generate potential measurement items. Then, a national electronic survey was employed to assess the reliability of the measurement model. The survey included 60 different versions covering our proposed 60 experimental conditions in a between-subject factorial design. All survey questions remained the same, but the survey condition was varied according to our theoretical interests. The variables defining the survey conditions were as follows:

- **Type of resorts (5)**: beach, casino, golf, ski, vs. theme park
- **Level of quality or service by star rating (2):** 3 star vs. 5 star
- **Level of price (2):** medium vs. high
- **Level of service congestion by length of waiting line (3):** low vs. medium vs. high

These manipulation conditions required 60 versions (5 x 2 x 2 x 3) of the questionnaire. A total of 1,690 customers responded to the survey within the two-week fixed study period.

**Results**

Approximately 92% of the respondents were using the Internet and 95% email on a daily basis. Mobile phone was used by about 73% and iPod/MP3 player by 24% on a daily basis. More than 82% have ever used self-service technology at grocery or retail stores, and 30% of them were occasional users. Eighty percent of the respondents have never used self-service technology at resort hotels. More than 83% of those who have ever used self-service technology at resort hotels were either satisfied or very satisfied with the technology.

- Type of resort (i.e., beach, casino, golf, ski, or theme park), daily room rates charges (i.e., reasonable vs. pricy), and star rating of the resort (i.e., 3-star vs. 5-star) did not influence the resort customer's:
  - Intention to adopt self-service technology for a check-in transaction at a resort;
  - Perceptions of ease of use and usefulness of self-service technology for a check-in transaction or service;
  - Needs for security, autonomy, efficiency, and effectiveness; and
  - Desire for human interaction avoiding use of self-service technology.
- Length of waiting line for a check-in service significantly affected the customer's choice between self-service technology and staff-based services.
  - When there were four or more customers waiting to check in, the respondent was more significantly encouraged to choose self-service technology than human-based services.
  - Likewise, when there were four or more customers in the waiting line, the respondent tended to perceive self-service technology to be easier to use and be more useful.
  - The respondent's needs for security and efficiency remained constant regardless of the length of waiting line. That is, the respondent still wanted strong security (or privacy) and fast check-in services even when there was no one in the waiting line.
  - When there were four or more customers waiting, the respondent wanted to handle his check-in on his own by using self-service technology rather than wait to check in through a service staff.
  - The respondent's need for complete transaction satisfaction tended to be lowered when there were eight customers waiting than when there were four or fewer customers waiting.
  - When there were four or more customers waiting in line, the respondent tended to desire less for human interaction with the staff than when there was no one in line.
- The conceptual and measurement model of self-service technology adoption in resort operations was found to be valid and reliable.
  - Ease of use, needs for autonomy, and needs for efficiency tended to make self-service technology look useful. On the other hand, they tended to discourage the respondent to desire for interaction with the service staff.

- Needs for a complete transaction tended to undermine perceived usefulness of self-service technology, while they strongly encouraged the respondent to desire interacting with the service staff.
- Perceived usefulness of self-service technology was a strong determinant of self-service technology adoption, whereas desires for human interaction tended to discourage adopting self-service technology.

**Managerial Implications**

The proposed model suggests that the customers desire interacting with the service staff and actively seek such opportunities during service encounters. This rather emotional need or motivation is not well explained in TAM. TAM focuses mainly on the features of the target SST system such as perceived ease of use and perceived usefulness. Managers facing a SST deployment decision need to understand that some customers desire interaction with the service provider and that such desire may vary in strength dependent upon transaction situations. In addition, desire for human interaction often is a critical reason for loyalty to a company.

This study offers an important message to designers of SSTs. Considering the resort customer's non-technology related concerns and motivations (e.g., autonomy, privacy, and effectiveness) will help produce more useful SSTs and address the system buyer's concerns about service quality/image and customer relations. The model and data suggest that customers' non-technology desires may counteract deployment of SSTs in service operations. Designers of SSTs need to make conscious efforts to address both managers' and customers' concerns in their system design. A hybrid service system design may be the best way to address business and customer needs. The service system design must coordinate both SSTs and staff as intricate players of service deliveries—achieving the traveler's transaction needs and goals. Of course, fully functioning SSTs likely requires a much smaller number of service staff, thereby satisfying the investment motives of the service companies in the tourism industry.