

From Full-service to Self-service: The Airline Industry Takes Off

Judith B. Strother

Florida Institute of Technology
strother@fit.edu

Zohra Fazal

Florida Institute of Technology
zfazal@fit.edu

Kay Rettich

Florida Institute of Technology
krettich1995@fit.edu

Abstract

The use of self-service technologies is dramatically increasing across industries; however, especially during the transition from full- to self-service, customers may need help. In the airline industry, many companies position staff beside check-in kiosks to help their passengers. In the current study, our goal was to gain insight into how intensive the assistance is and how successful the transition from full-service to self-service has been for the airlines. Specifically, we conducted direct observations at airports to note the frequency with which airline employees help customers. We found that airline employees are proactively assisting passengers through the kiosk check-in process. Much of the research on self-service focuses on the customer's perspective. The current study is different in that it examined the corporate perspective. Despite the increasing trend toward self-service technologies, organizations must communicate with and provide service to customers through multiple channels (such as e-mail and phone, in addition to self-service) in order to meet customer needs. The role of professional communicators is essential to ensure the smooth transition from full- to self-service. Keywords: self-service technologies, self-service, airline check-in kiosks.

Introduction

Organizations communicate with their customers in a variety of ways. Increasingly, they not only communicate through technology, such as through websites and e-mails, but also through automation and self-service. Many organizations involve the customer physically in the service-delivery process, using customer labor or input to provide faster service or lower prices. Customers often deal with a company's metallic or electronic front line, collectively called self-service technologies (SSTs), rather than with employees. SST usage will continue to grow because it reduces labor costs and increases customer satisfaction following deployment [1].

The airline industry, which is the focus of this study, uses self-service check-in via airline websites, airport kiosks, and mobile technology to meet the growing demand for more self-service options. According to the International Air Transport Association (IATA) 2009 Corporate Air Travel Survey, over 50 percent of worldwide passengers said these options make them feel more empowered and save them time [2].

In a recent airline industry survey, 83.8 percent of passengers used self-service check-in at the Atlanta Hartsfield-Jackson Airport, the world's busiest [3], while worldwide, kiosk use is 30 percent for all passengers [4]. The worldwide installed kiosk base for all applications is forecasted to grow to 1.9 million by the end of 2010 and to 2 million in 2011 [5].

Most airlines are still in a transition period where passengers use multiple media to communicate with an airline system. For example, a passenger may choose a seat online, use a kiosk at the airport to print a boarding pass, but still interact with personnel to check documents, tag luggage, and move through security.

Even though frontline employees may no longer be the first contact for most of the passengers after SST use has been established, implementing self-service does not immediately reduce an organization's dependence on employees. In fact, with the creation of SSTs, organizations are finding an increased need for employees with a broad range of communication and service expertise. For example, the engineers who design the customer service interface not only must think about the technical aspects of the task but must also consider the wants, needs, expectations, and capabilities of the customer to build a successful interface. They must focus on creating user-friendly technology and accessible user interfaces while seeking ways to improve the variety and quality of services being offered. The result is an even greater dependence on human capital to achieve competitive advantage during the developmental and introductory phases [6].

The primary motivation for a company to redesign its service delivery to include SSTs is overall cost savings.

According to IATA, the average cost to process an e-ticket is \$1 versus \$10 for paper tickets, and a SITA report states that traditional in-person airport check-in costs about \$3.62 compared with \$.52 for website check-ins. If the boarding pass is printed before coming to the airport, the cost goes down to \$.16 per transaction [7]. However, as Meuter, Bitner, Ostrum and Brown [8] point out, "Although the potential financial benefits of successful technology incorporation are enticing, the savings cannot be realized unless customers embrace and use the new technologies." They add that customers must understand what is expected of them, be motivated to use the technology, and have the ability to carry out the required tasks. They also note that "considerable hand-holding" should be readily available.

As a result, when SSTs are first introduced, companies usually have to dedicate employees to literally stand beside self-service delivery stations, such as airport kiosks, to help customers become familiar and comfortable with the new technology.

Our goal was to gain insight into how intensive the assistance is, and in general, how successful the transition from full-service to self-service has been for the airlines. Specifically, we conducted direct observations at airports to note the frequency with which airline employees help customers. When reviewing the literature, we found that much of the research on self-service focuses on the customer's perspective. The current study is different in that our research examined the corporate perspective.

Customer perspective

A number of studies have examined the effects of self-service implementation from the customer perspective. For example, Lee and Allaway [9] found that personal control over the SST experience can affect the customer's acceptance of the SST. Curran, Meuter, and Surprenant [10] tested the SST attitude-intention model and found that several additional factors can affect the customer's attitude toward the service delivery process. They summarized these additional factors from other studies: what the customer expects from the company and how the company performs [11], how easily the customers can use the SST [12], whether or not the company keeps its promises [13, 14], and whether or not the customers' individual needs are met [12, 15]. In their own study of 654 interviewees, they found that customers' experiences with different kinds of technologies influenced their attitude toward a specific SST interaction [10].

Dean [16] investigated the effect that the age of the customer has on the use of SSTs in retail establishments. His study confirmed that older people prefer employee contact over using SSTs because of their lower confidence in their ability to use the technology, their preference for human interaction, and their belief that SSTs benefit the company, not the consumer. Chang and Yang [17] also found that demographics such as gender

and age affect customers' impressions and use of self-service airline check-in kiosks.

Despite the variations due to demographics, the 4th annual SITA/Air Transport World Passenger Self-Service (PSS) Survey [18] found that 75% of the 2,193 passengers interviewed at departure gates in six international airports serving over 200 million customers had a very positive attitude toward the future of kiosk check-in systems. The survey showed that self-service check-in options increased by 20% in 2009.

Corporate perspective

Companies are in a constant battle between trying to save money by cutting costs versus strategizing to increase customer loyalty, often perceived as a more expensive activity. Maintaining current customers costs far less than attracting new customers. Therefore, companies must devise ways to maintain relationships with their customers, even through multiple technological media, to prevent customers from switching to competitors.

Previous studies have confirmed that the quality of customers' face-to-face interactions with service providers has significant effects on customer loyalty, often more than other traditional marketing mix variables such as price or place (for an overview, see [6]). In this self-service economy, an equally relevant question is what effect communication through websites and other media has on the customer-company relationship (see, e.g., [19]). According to Meuter and colleagues [20], when customers use a company's self-service technologies to solve a problem and/or save time with satisfactory results, they are more likely to remain loyal to that organization. However, customers' frustrating experiences with technology can cost the company loyal purchasers. In fact, customers are more likely to forgive service providers for poor face-to-face service than they are to excuse poor or problem-ridden automated services [21]. This means that companies must carefully weigh their decisions about investing only in more and more technology rather than in customer service training.

No matter what level of technology a corporation chooses for its service delivery, it will face a number of obstacles. Resistance to change is always an issue when new technology is introduced. While some people are early adopters and thus eager to try any new technology, the majority of people need more time to adapt to and accept anything different. This means that corporations must communicate effectively with their customers about the new technological service. They usually have to provide assistance during the transition period and often include incentives for their customers to try the new technology. Currently, airlines are doing double duty in many cases, where customer service providers are stationed near check-in kiosks to help customers become comfortable with the self-service. This means airlines may not yet be benefitting fully from the anticipated cost-savings of automation.

As more airlines provide the same technological self-service media, each airline will have the continuing struggle to differentiate itself from its competitors. Here again, high-quality customer-oriented communication and exceptional customer service will become marks of excellence for those companies that succeed.

Direct observations

We conducted direct observations of seven major airlines that are currently in the transition phase from full-service to self-service check-in at Orlando International Airport (Florida), Tampa International Airport (Florida), Melbourne International Airport (FL), and Dayton International Airport (Ohio). The goal was to observe any helping behavior of airline employees.

We observed 177 check-in transactions. Of the 177 people we observed, 60% were male, and 40% were female. In our sample, 28.9% were ~20–39 years old, 49.1% were ~40–59 years old, and 22% were ~60 and older. During our observations, we found that 57.2% of the travelers were approached by airline representatives and offered help before they started using the kiosk. Of those who were not offered help, 15.1% sought help from the airline representatives. Interestingly, seniors were offered help much more frequently than the other two groups and asked for help more often, too.

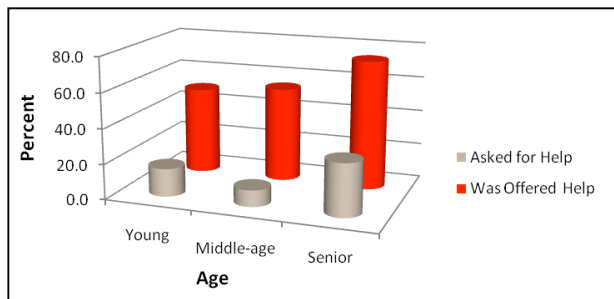


Figure 1. Percentage of passengers who were offered help and who asked for help by age and by gender

These results show that despite the availability of automated check-in kiosks, airline employees are still actively involved in the check-in process. The majority of customers, at least at the airports we observed, are not yet using the technology independently. This is not necessarily because the passengers are not able to use the SSTs on their own but because airline employees are proactively offering help.

Future trends

The current system of airline kiosks and websites has laid the foundation for further cost-saving measures. Future self-help trends will continue to take advantage of kiosk check-ins. According to Summit Research Associate's annual report, passengers will soon be able to check in for flights at any kiosk, regardless of the airline

they are flying [22]. This will allow more convenient placement of kiosks at the airport, as well as placement in hotels and other locations.

According to SITA's 2009 survey [18], 80 percent of surveyed airlines plan to offer mobile check-ins by 2012. Advances in mobile phone technology will make the entire booking and checking-in process more convenient, with mobile technology eventually surpassing airport kiosk use [22].

Improvements will also be made in the process of self-tagging luggage and luggage tracking. Kiosks will be able to scan the boarding pass that was printed at home and print the bag tags [23]. In addition, kiosks will also be used to trace and report missing luggage [2]. SITA is planning to enable a new kiosk that accesses data from the WorldTracer database. When passengers scan their bag tag and enter their contact information, the kiosk generates a claim. The passenger can then use the ID number on the claim to track the status of the lost luggage through a web site or call center [18].

The SITA trends survey showed 66 percent of self-service check-in users would prefer electronic boarding passes over the current paper version [24]. IATA's goal is to have all boarding passes barcoded by the end of 2010 [2]. IATA predicts that, while mobile technologies are the future of airline check-in, airlines will have to continue to provide multiple media during the transition. IATA also predicts that even familiar technologies such as kiosks will be used for additional service deliveries, such as rental car reservations and weather reports for the passengers' destinations [25].

Conclusion

Although our study is a work in progress, we have determined that airlines are being proactive in helping customers use the check-in kiosks. As customers learn to accept and use the kiosks, the airlines will be able to gradually cut back on the dual-service provision and increase their financial gain.

To build on the current study, we plan to continue conducting observations at different airports and for different airlines. Furthermore, we plan to interview airline officials to gain further insight into their perspective of how successful their transition has been from full-to self-service and what they see as future trends for SSTs in the industry.

Research on customer loyalty shows that airlines must provide service through multiple outlets rather than relying exclusively on self-service to ensure customer loyalty. No matter how sophisticated technology becomes, airlines must use communication professionals to ensure that customers are well informed about potential changes and carefully instructed in the use of new SSTs.

References

- [1] Cooper, C. (2009, Dec 22). The self-service industry's best and worst of 2009. Available: <http://www.selfserviceworld.com/article.php?id=23450>.
- [2] Sharma, K. (2009, Dec 16). The Future of Self-Service in the Airline Industry. Available: <http://www.selfserviceworld.com/article.php?id=23422>.
- [3] Cooper, C. (2009, Oct 14). Research: Atlanta Airport Leads World in Self-Service. Available: <http://www.selfserviceworld.com/article.php?id=23112>.
- [4] SITA. (2009, October 1). SITA Survey Finds 20% Growth in Passenger Self-Service Check-in Across Six Major Airport Hubs. Available: <http://www.sita.aero/content/sita-survey-finds-20-growth-passenger-self-service-check-across-six-major-airport-hubs>.
- [5] Summit Research Associate, Inc. (2009). Kiosks and Interactive Technology. Available: <http://www.summit-res.com/kanditreport.html>.
- [6] Grönfeldt, S. and J. B. Strother. *Service Leadership: The Quest for Competitive Advantage*. Sage Publications, Thousand Oaks and London, 2005.
- [7] Croft, J. (2006). The Drive to Self-Handling. Air Transport World. Available: <http://www.atwonline.com/magazine/article.html?articleID=1632>.
- [8] Meuter, M. L., M. J. Bitner, A. L. Ostrom, and S. W. Brown. Choosing Among Alternative Service Delivery Modes: An Investigation of Customer Trial of Self-Service Technologies. *Journal of Marketing*, 69: 61–83, 2005.
- [9] Lee, J., and A. Allaway, Effects of Personal Control on Adoption of Self-Service Technology Innovations. *Journal of Services Marketing*, (16)6: 553–572, 2002.
- [10] Curran, J. M., M. L. Meuter, and C. F. Surprenant. Intentions to Use Self-Service Technologies: A Confluence of Multiple Attitudes. *Journal of Service Research*, (3)5: 209–224, 2003.
- [11] Newell, F. *Loyalty.com: Customer Relationship Management in the New Era of Internet Marketing*. McGraw-Hill, New York, 2000.
- [12] Seybold, P. B. *Customers.com: How to Create a Profitable Business Strategy for the Internet and Beyond*. Crown Business, New York, 1998.
- [13] Tenner, E. *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*. Vintage, New York, 1996.
- [14] Zemke, R. and T. Connellan. *E-service: 24 Ways to Keep Your Customers When the Competition is Just a Click Away*. AMACOM, New York, 2001.
- [15] Sindell, K. *Loyalty Marketing for the Internet Age: How to Identify, Attract, Serve, and Retain Customers in an E-commerce Environment*. Dearborn Financial Publishing, Chicago, 2000.
- [16] Dean, D. H. Shopper Age and the Use of Self-Service Technologies. *Managing Service Quality*, (3)18, 225–238, 2008.
- [17] Chang, H.-L., and C.-H. Yang. Do Airline Self-Service Check-in Kiosks Meet the Needs of Passengers? *Tourism Management*, 29: 980–993, 2008.
- [18] SITA. (2009, Jun 8). SITA Intros Check-in, Baggage-Tracing Kiosks at Annual Airline-Industry Conference. Available: <http://www.selfserviceworld.com/article.php?id=22438>.
- [19] Zeithaml, V., A. Parasuraman, and A. Malhotra. Service Quality Delivery Through Web Sites: A Critical Review of Extant Knowledge. *Journal of the Academy of Marketing Science*, (30)4: 362–365, 2002.
- [20] Meuter, M., A. Ostrom, R. Rountree, and M. J. Bitner. Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters. *Journal of Marketing*, 64: 50–64, July 2000.
- [21] Cassab, H. and D. L. MacLachlan. Interaction Fluency: A Customer Performance Measure of Multichannel Service. *International Journal of Productivity and Performance Management*, (55)7:555–568, 2006.
- [22] Cooper, C. (2009, Sept 23). Research: Kiosk Industry in 'Holding Pattern,' but Growth Will Return in 2010. Available: <http://www.selfserviceworld.com/article.php?id=23029>.
- [23] Falconer, R. (2009, July 10). Commentary: An Airline Self-Service Revolution? Available: <http://www.selfserviceworld.com/article.php?id=22664>.
- [24] Cooper, C. (2009, Oct 9). Commentary: Keeping Kiosks Relevant in a Changing Self-Service Landscape. Available: <http://www.selfserviceworld.com/article.php?id=23097>.
- [25] Léopold, E. The Future of Mobile Check-in. *Airport Management*, (3)3: 215–222, April–June 2009.

About the Authors

Judith Strother, associate member of IEEE, is chair of the graduate program in technical and professional communication, and professor of applied linguistics at Florida Institute of Technology. She is also visiting professor at Technische Universiteit Eindhoven in The Netherlands. Her research interests include intercultural communication, service leadership, and English for aviation professionals.

Zohra Fazal is instructor of humanities and communication at Florida Institute of Technology. She is currently pursuing her PhD in science education. Her research interests include the role of linguistics in the science classroom, interdisciplinary collaboration in writing, and communication in multicultural settings.

Kay Rettich has been a technical writer for 20 years in the computer industry and is pursuing her master's degree in technical and professional communications at Florida Institute of Technology.