

## Self-Service Technologies: Identifying Potential Future Avenues for Indian Service Sector

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### ABSTRACT

In today's world, technology is used almost exclusively. Self-services are one facet of technology advancement that service providers are embracing more and more in an effort to make workers' duties easier, encourage customers to do services on their own, and—most importantly—keep a step ahead of rivals. The growing potential of SSTs makes it more crucial than ever for service providers to take into account how their clients react to these SSTs. The study also attempts to identify gaps in the literature and propose prospective areas for future research in SSTs, specifically in the context of the Indian service sector, by performing an extensive literature review on consumer-related factors of SSTs. Through a comprehensive analysis of prior literature, the author identified areas of SSTs that remain unexplored and hence require additional investigation, particularly in the Indian service industry. Drawing from the insights gained from the literature review, the study presents a model that identifies the primary barriers that customers face when attempting to use SSTs. Additionally, it offers managers specific recommendations for fostering and sustaining a positive customer experience with SST use.

**Keywords:** Self-service technologies, SSTs, services, India, SST Challenges, services marketing

### INTRODUCTION

According to Mazzocchi and Zammit (2006), SSTs are hard technologies or softwares that offer a certain service that depends on the performance of the users. Technology interfaces known as SSTs allow customers to provide services without the need for direct customer interaction with service providers (Meuter et al., 2000). These SSTs can be found, for instance, in ATMs, internet banking, hotel room checkouts, kiosks, and barcode/QR code scanners. The way service providers engage with their clients has drastically changed since the advent of SSTs. Due to this, conventional "high-touch and low-tech" face-to-face interactions have given way to "high-tech and low-touch" digital interfaces (Bitner et al., 2000; Froehle and Roth, 2004). This gives clients a variety of options to choose from when it comes to receiving services (i.e. self-service, personal service, or a combination of the two).

Based on a 2009 poll performed by the Buzz Back Market research organization at NCR, Indian customers scored first in the world in terms of demand for self-service technology (such as ATMs, Kiosks, M-commerce or E-commerce, etc.). This provides an indication of the potential for SSTs in India due to the increased demand. However, analysts surmise that the country's small number of urban customers account for the greatest portion of the demand. SSTs are only used in rural India for mobile phone access to a few government services, internet banking, and booking train tickets.

These could be the main categories of explanations for why the SST penetration might be restricted:

1. Psychological hurdles: These encompass cultural barriers, perceived danger, and modifications to current habits.
2. Personal Barriers: When obtaining services, particularly in India, customers prefer to speak with staff members. This is true whether they are physically checking into an airport, making a bank withdrawal, or shopping.
3. Technological Infrastructure - In addition to the psychological and individual factors, a nation's technological infrastructure serves as a gauge for the penetration of SST. Examples of this include the internet sector, communication networks, electricity, and IT penetration. The disparity between the affluent and impoverished segments of Indian society has widened due to the country's phenomenal advancements in information technology and telecommunication.

In spite of all these obstacles, India is making progress toward the adoption of SSTs in practically every industry. A few instances of this type of usage include the general public's use of ATMs and mobile banking, as well as payment bank apps (such as PayTM), movie booking apps, airport kiosks, etc. The increasing popularity and acceptance of SSTs in India is encouraging researchers to develop models that will help us comprehend the SST situation there better and practitioners to make strategic decisions about reaching out to customers through SSTs and maintaining an advantage over competitors.

## **OBJECTIVES**

SSTs represent an important element in today's retail environment, offering convenience for many customers, along with several long-term benefits for the service providers. At the same time, there could be several problems that could be hindering the value that customers derive from the usage of such SSTs and thus, it becomes extremely crucial for the organization to identify and address those causes. Hence, the purpose of this paper is to gain an in-depth understanding of SSTs by exploring specifically the consumer related variables that have already been studied in the same area. This provides an assessment of the nature of work that has already been done in prior studies in the area of SSTs. Hence, this study aims to act as a point of departure for future researchers to assess the nature of work that has been done in the field of SSTs.

The study also aims to identify gaps in the literature and recognize potential areas for future research in SSTs, specifically in the context of Indian service sector. This serves as a roadmap guiding the managers in India to take decisions regarding venturing into such businesses and also to develop related marketing strategies accordingly. This study is a small attempt in guiding the managers to remain dynamic and to gain an edge over their competitors.

## **METHODOLOGY:**

The descriptive research design of this study is based on secondary data gathered from a variety of secondary sources, including books, websites, e-journals, and other sources. Most importantly, this research paper follows the methodology of an in-depth literature review. The study is performed by doing a thorough and detailed of the SSTs literature in the past, which enlightened the author with an in-depth understanding of SSTs, by throwing light on the crucial concepts, factors, conclusions, and other aspects related to SSTs. This has also helped the author to notice main methodologies and research techniques.

By assessing the current state of research on the topic, the researcher was able to identify the different consumer related variables that have already been studied in the past. By reviewing what has already been written in the past, the author was able to uncover gaps (unresearched areas) in the literature of SSTs that need further exploration, especially in the context of Indian service sector. Based on the understandings from literature review, the study proposes a model by identifying major factors which prevent the customers from using the SSTs, while also proposing certain guidelines which can help in creating and maintaining positive experiences of customers using SSTs.

## **LITERATURE REVIEW**

SSTs is a topic that has received a great deal of attention from academics as well as practitioners, especially in the last two decades. In today's world, technology is used almost exclusively. It has grown to be so significant to companies that it now determines both the profitability and the success of a company in the market. The same can be attributed to a variety of factors, such as improving internal performance and efficiency, using technical advancements to obtain a strong network position or competitive advantage, implementing novel approaches to managing corporate operations, and creating fresh growth strategies. Self-services are one facet of technology advancement that service providers are embracing more and more in an effort to make employees' duties easier, encourage clients to do services on their own, and—most importantly—keep a step ahead of competitors. Self-service technologies (SSTs) are being incorporated into business strategies for three main reasons: internal efficiency improvement, cost reductions that are critical, and the ability to simplify customers' purchasing processes while maintaining a high quality and standard of service (Dabholkar, 1996; Dabholkar & Bagozzi, 2002).

The main reason SSTs have become so popular, particularly in the past 10 years, is that they provide customers with consistent, simple, and effective experiences, which are essential for fostering customer loyalty and happiness. A primary factor contributing to the development of these technologies is the contemporary customer, who demands greater levels of control over the service they receive, autonomy in problem-solving, and availability of necessary resources. As a result, when given SSTs, these clients feel empowered and get advantages from being able to complete tasks quickly and simply without having to rely on staff members to do so. However, the increased accountability for the customer that these SSTs entail also presents the possibility of failures, which might further result in a scenario that could adversely affect customers' assessments of the service provider. Because customers must fill the function of a partial employee in order to complete a service transaction, this risk poses a special challenge for retailers (Collier, J. E., Breazeale, M., & White, A., 2017). Customers have a great deal of responsibility for how they use SSTs and how they perceive their worth, which may have a negative impact on the company's profitability and reputation.

Parasuraman (2000) asserts that when users engage with technology-based systems, their level of frustration increases. For instance, Featherman and Hajli (2016) identified risks, Hanks et al. (2016) identified unwillingness, and Holloway and Beatty (2003) identified service failures as factors that reduce the customer value of SSTs. Customers may have difficulties with the use of SSTs due to a number of additional causes, the most important of which being technological malfunctions, individual shortcomings, or a combination of one or both (Vihtkari & Snellman, 2003). The lack of regular human encounters in SSTs is the primary cause of customers' poor understanding of the services, which is another important factor (Kristensson et al., 2008). According to Reider and Voss (2010), the literature also shows that there are other factors, such as customers' incapacities and lack of technological proficiency, which deter customers from using SSTs and ultimately cost and time service organizations more money. Eventually, customers may start to stop using SSTs or switch to more traditional service options.

Previous research indicates that the main causes of customer SST abandonment are failures that are process- and technical-oriented (Forbes, 2008). Customers who experience such failures are pushed to full-service channels by their embarrassment and dissatisfaction (Forbes, 2008; Zhu et al., 2007, 2013). The potential for SST malfunctions and failures entails a range of risks, including lost sales, deteriorating brand reputation, unfavorable social media reviews, and unsatisfied customers. Prior research also suggests that as consumers become more reliant on SSTs, their past experiences can impact their attitudes and behavior toward SSTs in the future (Wang, C., Harris, J., & Patterson, P.G., 2012). While positive prior experiences may pique the consumer's interest in utilizing other new SSTs, negative past experiences may cause them to never use those SSTs again. Motivating and encouraging customers to recover from the failure (resolve the SST issue) independently and continue using the technology is one strategy that service providers can employ to address SST failure (Holloway and Beatty 2003; Meuter et al. 2000). Three categories of recovery from service failures are identified by earlier research on services: joint recovery by the company and the customer, recovery by the customer, and recovery by the firm (Vargo and O'Brien 2007; Meuter and Bitner 1998; Roggeveen et al., 2011).

The growing potential of SSTs makes it more crucial than ever for service providers to take into account how their customers react to these SSTs. It's mainly because the success or failure of utilizing self-based technologies again can be determined by the consumers' assessment of the overall quality and standard of the service encounter. Customers want high-quality services, and service providers think that providing high-quality services will improve their reputation, boost sales, and increase profitability (Buzzell and Gale, 1987; Berry et al., 1989; Gummesson, 1993). For these reasons, service quality is a crucial concern for both parties. Through an evaluation of the present status of research on SSTs, the researcher identified the several consumer-related characteristics that have already been the subject of prior studies. The author was able to identify gaps (unresearched areas) in the literature on SSTs that require more investigation by reading earlier writings, particularly in the context of the Indian service industry.

The author conducted an in-depth literature review of SSTs and listed the findings of the major papers in Appendix I.

## **DISCUSSION**

This study has both theoretical and managerial contributions which are explained in detail below.

## **THEORETICAL IMPLICATIONS**

The comprehensive analysis of the literature review has enabled us to comprehend which consumer-related variables have been studied in the past in terms of their function and influence on the usage and adoption of SSTs. From there, the author was able to pinpoint new consumer characteristics associated with SSTs that have not yet been thoroughly examined, particularly in the context of India.

There aren't many studies that discuss the Indian setting while examining the SST literature. Additionally, the majority of the extremely few publications that addressed SSTs in India dealt with banking (such as ATMs and internet banking, among other things). Because of this, there is a paucity of literature on the SSTs' adoption, usage, penetration, and constraints in the Indian setting.

Virtual reality (VR) and artificial intelligence (AI) are two of the most cutting-edge technologies that many international businesses are utilizing to fight competition and draw in more customers. For instance, Amazon has developed a new type of convenience store in the US called "Amazon Go," which is located in Downtown Seattle, Washington. This is a "Just Walk Out" shopping experience according to Amazon because, in contrast to regular grocery stores, customers can simply walk in, pick up what they want, and go. There are no checkout lines or registers to wait at. The Amazon Go app is used to operate this, and the store uses computer vision, sensor fusion, and deep learning—technologies also used in self-driving cars. Product movement is tracked in a customer's virtual track using this technology, which recognizes when items are taken off and put back on the shelves. In the end, after buyers check out with the items they've chosen, a charge is made to each recipient's Amazon account and a receipt is issued.

Similarly, Alibaba Group Holding Limited (Alibaba) founder Jack Ma Yun (Jack Ma) introduced the "New Retail" approach in China in 2016. Marketing experts referred to this as "the future of retail." The company's goal was to combine its online and offline channels into a single, seamless shopping experience for its customers. Once more, AI and VR form the basis of this plan. Although there have been other examples of businesses utilizing AI and VR, big advancements in VR technology outside of the gaming sector have not yet occurred in India. These technologies have the potential to revolutionize the way businesses enhance the customer experience, providing them with a competitive advantage over rivals. As purchasing is no longer a purely utilitarian activity, instead becoming an experience, it is imperative that retailers provide consumers with unique opportunities.

Researchers might take this into consideration as a possible field of study in the future given the enormous potential that AI and VR have in Indian businesses. Academicians have the ability to carry out comprehensive research on the possibilities of utilizing these technologies in the development and provision of SSTs, the infrastructure needed, methods of communication with customers utilizing these technologies in SSTs, and the possible advantages and difficulties associated with the same in India. Future research on any of these subjects could yield a thorough understanding of how these technologies are used in SSTs, both theoretically and practically.

## **MANAGERIAL IMPLICATIONS**

Although many consumers already have access to SSTs, many still favor more conventional ways of receiving services or rely on supported support. Customers must first take the initiative to at least try it out in order to learn about the advantages and disadvantages of SSTs. However, there may be a number of reasons why consumers are reluctant to try SSTs, some of which are listed below:

### **A fear of failing**

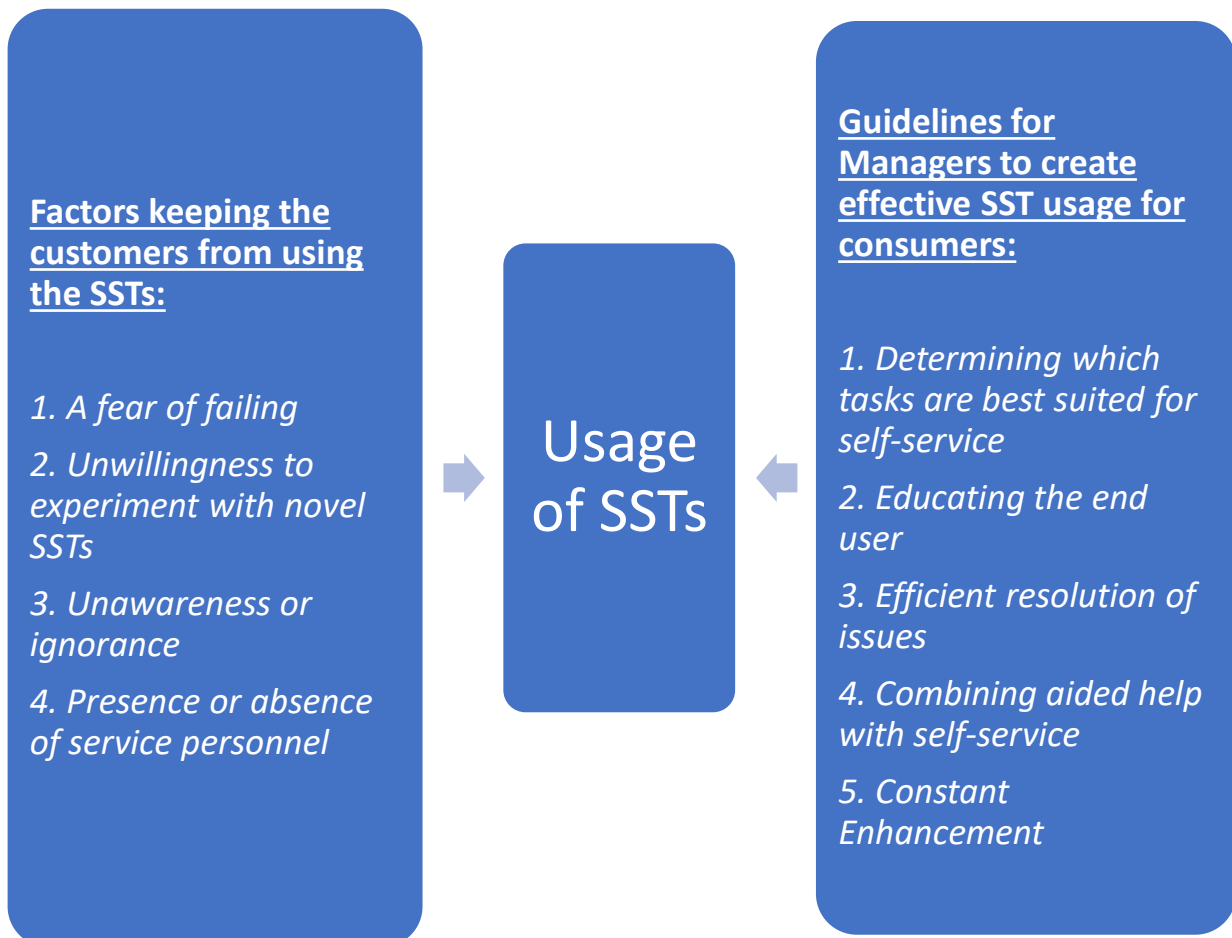
Many customers are hesitant to use SSTs because they fear the worst or are unsure of what to do in the event that something goes wrong. That's why they prefer using the traditional routes to complete the task at hand rather than taking the chance of trying out SSTs due to their apprehension.

### **Unwillingness to experiment with novel SSTs**

Most often, customers simply aren't willing to try out novel ways of receiving services. Customers are reluctant to use SSTs despite their claim to make service delivery less complicated and inconvenient. This is primarily due to their lack

of enthusiasm or desire to explore new technologies, preferring to use the tried-and-true traditional forms of service delivery. To understand why customers act in this way in real life, more research is needed.

**Figure.1 The Two-Ends model of SST Usage**



#### **Unawareness or ignorance**

Customers may occasionally be eager to test out new SSTs but lack the necessary awareness or knowledge to effectively utilize those SSTs. Even in these situations, customers can be hesitant to use SSTs out of concern that, not knowing much about the technology, they might make a mistake that would lead to a botched service procedure and unfavourable outcomes.

#### **Presence or absence of service personnel**

When service support staff members are located close to SSTs, customers frequently have a sense of security because they know that the staff members will assist them with the process of service and will handle their problems should something go wrong. Employees may be reluctant to use SSTs even when they are enthusiastic about doing so if service personnel is not there. Importantly, these are the author's views and ideas, which will need to be validated by future empirical research.

Now that we are aware of a few of the main barriers preventing customers from using SSTs, it is critical that we comprehend how managers may maneuver past these obstacles and enable customers to easily use their SSTs. To mitigate the risk of SSTs not meeting customer needs, service providers should approach and create SSTs strategically and incrementally as customer expectations and needs change. This study makes the following recommendations based on

the review of the literature in order to establish and maintain consistent, smooth, and effective customer experiences when using SSTs:

#### **Determining which tasks are best suited for self-service**

Enabling customers to address complex product and technology-related challenges may not be practical for businesses. Therefore, it would be advantageous for businesses to determine and choose tasks that are simple, as they are deemed most suitable for self-service channels. So, companies should analyse and determine which tasks would be most feasible to be offered as SSTs to the customers.

#### **Educating the end user**

Sometimes, few companies may be working with more complex SSTs. To address this problem, businesses should educate their end users about SSTs. In order to prevent customer annoyance and discontent, self-service knowledge assists users in troubleshooting more complicated problems and in knowing when to ask for assistance from staff members or utilize assisted channels.

#### **Efficient resolution of issues**

A customer's frustration can include not being able to promptly locate information, answers, or assistance when needed. Therefore, information that guides users through the process of resolving any problems they may encounter when utilizing SSTs, or at the at least, equips them with the knowledge necessary to resolve problems through alternative channels of assistance, can help expedite the process. This accelerates and eases the resolution process for customers.

#### **Combining aided help with self-service**

Customers can handle problems with SSTs more effectively by employing aided support to walk them through using it, as opposed to tackling SSTs in isolation. In the end, customers that are self-reliant are typically happy and require less help and servicing from the business. Encouraging customers to finish an SST process increases their self-assurance to the point where they feel competent to handle problems by themselves the next time they arise.

#### **Constant Enhancement**

Preferences for customer service are rapidly evolving. Thus, formulating an SST strategy is a continuous process. Businesses should create SSTs that are adaptable enough to meet the constantly shifting requirements and demands of their clientele. It is therefore important for businesses to adjust to market needs in order to ensure that their KPIs (Key Performance Indicators) for customer care and support are aligned with their company objectives.

Drawing on the aforementioned considerations, this study puts forth a model that integrates elements from the perspectives of managers and customers. In order to achieve this, it makes clear what obstacles customers face while utilizing SSTs (as seen from the perspective of the customer) and what steps managers should take to facilitate customers' usage of SSTs (as seen from the perspective of the management).

#### **LIMITATIONS AND FUTURE SCOPE**

Taking into account previously studied consumer-related variables, this research was able to provide a comprehensive literature review of studies conducted on SSTs. The author has proposed several future research directions on SSTs under the study's theoretical implications. In the paper's practical implications, the author has talked about the suggested model. However, the paper's limitation is that all of the study's implications are derived exclusively from the literature review and the author's judgments. As a result, the study is narrowly focused and has limited generalizability. In order to reach concrete conclusions, it is imperative that the recommendations made, and the model presented in this paper, are empirically tested in future studies.

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**APPENDIX I**

SI No		1
Author & Year		Meuter, M. L., Bitner, M. J., Ostrom, A. L., & Brown, S. W. (2005)
Objective		To understand why customers decide to try SSTs and why some SSTs are more widely accepted than others
Research Type		Empirical: Quantitative
Hypothesis		H1: Role clarity, extrinsic motivation, intrinsic motivation, and ability mediate the relationship (a) between the individual difference variables and the likelihood of trial and (b) between the innovation characteristic variables and the likelihood of trial. H2: The consumer readiness variables are better predictors of trial than are the innovation characteristic or individual difference variables.
Methodology	Sampling	n=828
	Statistical Methods	Logistic regression, t-test
Findings		1. The consumer readiness variables take the central role as key mediators to better understand when and why consumer trial of SSTs occurs 2. Consumer readiness variables are not only additional predictors but also key factors with strong mediating properties 3. Of all the consumer readiness variables, role clarity and extrinsic motivation are the dominant variables in the prediction of trial for this context 4. Increased experience with Internet-based tools not only leads to a greater likelihood of trial but also leads to higher levels of role clarity, motivation (both extrinsic and intrinsic)
Critique		1. The study has used use cross-sectional data rather than a longitudinal study



		2. As the research was conducted within one organizational context, there is limited generalizability to other contexts
<b>SI No</b>		<b>2</b>
<b>Author &amp; Year</b>		<b>Collier, J. E., &amp; Barnes, D. C. (2015)</b>
Objective		To increase the managerial understanding of self-service operations when the focus is on the hedonic value of an experience
Research Type		Empirical: Quantitative
Hypothesis		H1: Task uncertainty will have a negative relationship with customers' perceived control in the service process H2: Task uncertainty will have a positive relationship with customers' perceived time pressure H3: A conducive servicescape will have a positive relationship with customers' perceived control in the service process H4: A conducive servicescape will have a negative relationship with customers' perceived time pressure H5: Customers' perceptions of control will have a positive relationship with the efficiency of a self-service experience H6: Customers' perceptions of control will have a positive relationship with the fun derived from a self-service experience H7: Customers' perceptions of time pressure will have a negative relationship with the efficiency of a self-service transaction H8: Customers' perceptions of time pressure will have a negative relationship with the fun derived from a self-service experience
Methodology	Sampling	Pre-test sample: n=218 Final sample: n=321
	Statistical Methods	Testing conceptual framework by scale development
Findings		1. when task uncertainty increases, customers' level of perceived control decreases and time pressure increases 2. The servicescape in a hedonically-oriented self-serve process also had a positive relationship to perceived control 3. In hedonic-based self-serve environments, the impact of efficiency is muted. That is, it represents a source of value, but is not the lone source
Critique		1. Findings are based on a single setting (yogurt self-service setting); Need for more generalizable results 2. There could be other settings higher on hedonic value and future research could add value by looking at diverse hedonic settings 3. The study customers' perception of time pressure but did not capture if customers' self-service pace was altered with this perceived pressure
<b>SI No</b>		<b>3</b>
<b>Author &amp; Year</b>		<b>Chih-Hung Wang, M. (2012)</b>
Objective		To investigate the antecedents and consequences of consumer satisfaction with the use of self-service technology (SST) in a retail setting
Research Type		Empirical: Quantitative

Hypothesis		<p><b>H1:</b> A consumer's perceived usefulness of SST positively influences his/her perceived control of SST</p> <p><b>H2:</b> A consumer's perceived usefulness of SST positively influences his/her perceived convenience of SST</p> <p><b>H3:</b> A consumer's perceived enjoyment of SST positively influences his/her perceived control of SST</p> <p><b>H4:</b> A consumer's perceived enjoyment of SST positively influences his/her perceived convenience of SST</p>
Methodology	Sampling	n=424
	Statistical Methods	The conceptual model was tested by SEM
Findings		<p>1. Perceived usefulness and perceived enjoyment both, initially, influence perceived control and convenience and then affect consumer satisfaction, which in turn has an impact on consumer continued behaviour intention</p> <p>2. Perceived enjoyment is found to enhance consumer satisfaction, but perceived usefulness is not</p>
Critique		The study proposes a conceptual model to provide a theoretical explanation for consumer satisfaction in the self-service context. But the findings are limited to a single type of SST in a specific industry
SI No		4
Author & Year		Zhu, Z., Nakata, C., Sivakumar, K., & Grewal, D. (2013)
Objective		To determine the process by which customers engage in recovery or switching behaviours in response to SST failures
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> The greater the internal attribution, the higher is the CRE</p> <p><b>H2:</b> The greater the perceived control over SST, the higher is the CRE.</p> <p><b>H3:</b> The greater the SST interactivity, the higher is the CRE.</p> <p><b>H4:</b> The higher the CRE, the greater is the customer-recovery effort.</p> <p><b>H5:</b> The higher the CRE, the greater is the customer-recovery strategy.</p> <p><b>H6:</b> The higher the CRE, the lesser is the likelihood of switching to employee assistance (vs. moving to another SST).</p> <p><b>H7:</b> The positive impact of CRE on customer-recovery effort is stronger (weaker) when the amount of competitive information available is lesser (greater).</p> <p><b>H8:</b> The positive impact of CRE on customer-recovery strategy is stronger (weaker) when the amount of competitive information available is lesser (greater).</p> <p><b>H9:</b> The greater the customer-recovery effort, the lower is the likelihood of switching to employee assistance (vs. staying in the self-service interface).</p> <p><b>H10:</b> The greater the customer-recovery strategy, the higher is the likelihood of switching to employee assistance (vs. staying in the self-service interface).</p>
Methodology	Sampling	n=250

	Statistical Methods	ANOVA, Multivariate Regression
Findings		<ol style="list-style-type: none"> <li>1. Greater internal attribution, perceived control, and SST interactivity all contribute to higher CRE (Customer-Recovery Expectancy)</li> <li>2. We found that competitive information moderates the impact of CRE on recovery strategy</li> <li>3. Recovery effort inhibits, whereas recovery strategy encourages, switching from SSTs to interpersonal assistance</li> <li>4. Many customers do not acknowledge failure or are reluctant to report a significant problem</li> </ol>
Critique		Though this study assumed that employee assistance was available to customers after an SST failure, future research should focus on alternative situations and paths that customers might take after SST failures
<b>SI No</b>		<b>5</b>
<b>Author &amp; Year</b>		<b>Wang, C., Harris, J., &amp; Patterson, P. G. (2012)</b>
Objective		<ol style="list-style-type: none"> <li>1. To explore situational influences on customers' actual choice between self-service and personal service</li> <li>2. To examine the impact of past experiences on self-service technology (SST) attitudes and behaviour</li> </ol>
Research Type		Exploratory Study: A mixed qualitative research design
Hypothesis		NA
Methodology	Sampling	n=209, 47 interviews
	Statistical Methods	One-on-one interviews and non-participant observations
Findings		<ol style="list-style-type: none"> <li>1. Perceived waiting time, perceived task complexity, and companion influence are the three situational factors that impact on a customer's actual choice between self-service and personal service.</li> <li>2. Past experiences influence SST attitudes and behaviour in a more complex manner than SST characteristics and other individual difference variables</li> </ol>
Critique		The findings highlight the importance of preventing frequent failure and providing speedy recovery in the SST context. But these findings may not be generalizable to internet- or telephone-based SST contexts
<b>SI No</b>		<b>6</b>
<b>Author &amp; Year</b>		<b>Dabholkar, P. A. (1996)</b>
Objective		To propose and test alternative models of service quality for technology- based self-service options by drawing on consumer decision-making research
Research Type		Empirical: Quantitative

Hypothesis		<p>H1: Expected speed of delivery of the technology- based self-service option will have a positive effect on expected service quality</p> <p>H2: Expected ease of using the technology-based self-service option will have a positive effect on expected service quality</p> <p>H3: Expected reliability of the technology-based self-service option will have a positive effect on expected service quality</p> <p>H4: Expected enjoyment from using the technology- based self-service option will have a positive effect on expected service quality</p> <p>H5: Expected control in using the technology-based self-service option will have a positive effect on expected service quality</p> <p>H6: Attitude toward using technological products (in general) will have a positive effect on the expected quality of the technology-based self-service option</p> <p>H7: Need for interaction with the service employee will have a negative effect on the expected quality of the technology-based self-service option</p> <p>H8: Expected service quality of the technology- based self-service option will have a positive influence on intention to use that option</p> <p>H10a: Waiting time will have a negative effect on intention to use the technology-based self-service option.</p> <p>H10b: Waiting time will have a negative effect on expected service quality of the technology based self-service option</p>
Methodology	Sampling	n=505 undergraduate students
	Statistical Methods	ANOVA, Confirmatory Factor Analysis, Regression
Findings		<ol style="list-style-type: none"> <li>1. Feeling in control over the process of service delivery, enhances consumer evaluations of this process and also directly impacts intentions to use</li> <li>2. The option ease of use, was also found to be an important determinant of service quality but only for the high waiting time and control groups</li> <li>3. Speed of delivery and reliability had no effect on service quality in the study</li> <li>4. Evaluations of service quality have a strong positive influence on intended selection of ordering option</li> <li>5. Waiting time as a situational factor influenced intentions to use a technology-based self-service option</li> </ol>
Critique		Only one situational influence, waiting time, was addressed in this study. Also, a student sample does not offer much variance in age, education, and attitude towards using technology
SI No		7
Author & Year		Curran, J. M., & Meuter, M. L. (2005)
Objective		To focus on the examination of factors that influence consumer attitudes toward, and adoption of, self-service technologies (SSTs)
Research Type		Empirical: Quantitative

Hypothesis		<p>H1: Attitudes toward different technologies used for the delivery of the same service will be separate and distinct from one another</p> <p>H1a: Attitude toward a more widely adopted technology will be more positive than those less widely adopted</p> <p>H2: Attitude toward a specific SST will influence a consumer's intentions to use that SST</p> <p>H3a: Perceived ease of use of the technology will be positively related to attitude toward the SST</p> <p>H3b: Perceived usefulness of the technology will be positively related to attitude toward the SST</p> <p>H3c: The need for interaction with employees will be negatively related to attitude toward the SST</p> <p>H3d: The perceived risk of using the SST will be negatively related to attitude toward the SST</p>
Methodology	Sampling	n=628
	Statistical Methods	SEM
Findings		<ol style="list-style-type: none"> <li>1. Different factors influence attitudes toward each of the three technologies used in banking (ATM, bank by phone, online banking) and offers an explanation of the varying degrees of acceptance found among consumers</li> <li>2. Multiple factors need to be considered when introducing technologies into the service encounter and that the salient factors may vary among technologies and their stages in the adoption process</li> </ol>
Critique		<ol style="list-style-type: none"> <li>1. The applications of the study's findings may guide marketers to emphasize issues related to certain critical constructs when utilizing SSTs in their service delivery</li> <li>2. All the three technologies considered in this study were from the banking industry, which limits the generalizability to other industries</li> <li>3. Also, cross-sectional data are used rather than a longitudinal study</li> </ol>
SI No		8
Author & Year		Collier, J. E., Breazeale, M., & White, A. (2017)
Objective		<ol style="list-style-type: none"> <li>1. To examine how the self-monitoring behaviours of customers can influence/change self-service recovery preferences</li> <li>2. To explore employee's role in a self-service failure and also to analyse how the presence of other customers around can impact a customer's evaluation of that role (the provider's recovery approach)</li> </ol>
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> Customers experiencing an SST failure in isolation will be (a) more satisfied with the transaction, (b) less likely to switch to the full-service option on their next visit to the retailer, (c) less likely to spread NWOM about the retailer, (d) less impacted by perceived time pressure, and (e) less embarrassed when an employee takes over and completes the transaction than when the employee merely fixes the problem and allows the customer to complete the transaction</p>

		<b>H2:</b> Customers experiencing SST failure observed by other waiting customers will be (a) more satisfied with the transaction, (b) less likely to switch to the full-service option on their next visit to the retailer, (c) less likely to spread NWOM about the retailer, (d) less impacted by perceived time pressure and (e) less embarrassed when an employee merely fixes the problem and allows the customer to complete the transaction than when the employee completely takes over the transaction after the failure has been resolved.
Methodology	Sampling	n= 158 previous SST kiosk users
	Statistical Methods	2 X 2 MANCOVA
Findings		<p>1. In case of a self-service failure happening in isolation, customers want employees to fully take over a transaction. But, if other customers are waiting in line, then customers prefer the employee to simply correct the problem and then complete the transaction by themselves</p> <p>2. The results of the study also revealed that the servicescape along with the presence of other customers can induce customers' self-monitoring behaviours and thereby alter optimal recovery strategies</p>
Critique		This study explains as to how a service-provider can assist the customers in recovery of a self-service failure. Customers' use of utilitarian-focused SSTs for completion of more highly involved and potentially confidential transactions could lead to additional considerations for employee involvement during a failure.
SI No		<b>9</b>
Author & Year		<b>Forbes, L. P. (2008)</b>
Objective		To focus on non-internet-based self-service technologies through the presentation of failure and recovery strategies employed by service firms using self-service forms of interaction
Research Type		Empirical: Qualitative
Hypothesis		NA
Methodology	Sampling	n=106
	Statistical Methods	Critical Incident Technique
Findings		<p>1. Non-internet self-service technology customers experience different types of service failure relative to traditional retail and e-tail settings</p> <p>2. Non-internet self-service technology firms employ a different series of recovery strategies relative to traditional retail and e-tail settings</p> <p>3. Post-recovery switching by customers can be high even with satisfying experiences</p>
Critique		The findings of this paper strengthen the existing failure and recovery literature by presenting data on the self-service technologies, and especially on the largest sector within self-

		service technologies (non-internet purchases). These findings will hold value to traditional firms looking to expand their channels in addition to firms currently experiencing customer dissatisfaction.
<b>SI No</b>		<b>10</b>
<b>Author &amp; Year</b>		<b>Gelbrich, K., &amp; Sattler, B. (2014)</b>
Objective		To propose and to test a model that illustrates the impact of technology anxiety on the intention to use a self-service technology (SST) in public
Research Type		Empirical: Quantitative
Hypothesis		<p>H1a: The negative effect of technology anxiety on the intention to use is greater when consumers perceive high crowding than when they perceive low crowding</p> <p>H1b: The positive effect of perceived ease of use on the intention to use is smaller when consumers perceive high crowding than when they perceive low crowding</p> <p>H2a: The negative effect of technology anxiety on the intention to use is greater when consumers perceive high time pressure than when they perceive low time pressure</p> <p>H2b: The positive effect of perceived ease of use on the intention to use is smaller when consumers perceive high time pressure than when they perceive low time pressure</p> <p>H3a: There is a three-way interaction effect of perceived crowding and perceived time pressure on the relationship between technology anxiety and intention to use, such that anxiety has a stronger negative effect on intention to use for high as compared to low perceived crowding, particularly when perceived time pressure is high</p> <p>H3b: There is a three-way interaction effect of perceived crowding and perceived time pressure on the relationship between perceived ease of use and intention to use, such that perceived ease of use has a weaker effect on intention to use for high as compared to low perceived crowding, particularly when perceived time pressure is high</p>
Methodology	Sampling	n=272
	Statistical Methods	Chi-Square analysis, Confirmatory Factor Analysis
Findings		<p>1. Technology anxiety has a direct negative effect on intention to use, which is greater than the indirect effect through the reduction of ease of use</p> <p>2. Perceived crowding reinforces the negative effect of technology anxiety</p> <p>3. When perceived crowding coincides with perceived time pressure, technology anxiety almost completely inhibits the intention to use the SST in public</p>
Critique		The approach used in the study highlights the impact of technology anxiety on the acceptance of self-service technologies used in public by considering two context variables that are salient in public settings: perceived crowding and perceived time pressure. But the limitation here being, technology anxiety is examined as the only antecedent of perceived ease of use
<b>SI No</b>		<b>11</b>

<b>Author &amp; Year</b>		<b>Lin, J. S. C., &amp; Hsieh, P. L. (2012)</b>
Objective		To replicate and refine Parasuraman's 36-item technology readiness index (TRI) across contexts and cultures to enhance its applicability and generalizability for both researchers and practitioners
Research Type		Empirical: Quantitative
Hypothesis		NA
Methodology	Sampling	n=991
	Statistical Methods	Exploratory Factor Analyses, Confirmatory Factor Analyses, Chi-Square Analysis
Findings		The four dimensions remain stable across techniques and samples, while the utility of the refined scale increases due to ease of application. Measurement invariance analyses across demographic groups, industries, and cultures provide further support for the superior stability of the refined TRI
Critique		The current study increases the applicability and generalizability of the TRI scale through refinement, replication and validation across several samples, contexts, and cultures. But, this study offers a static view with cross-sectional surveys
<b>SI No</b>		<b>12</b>
<b>Author &amp; Year</b>		<b>Reinders, M. J., Frambach, R., &amp; Kleijnen, M. (2015)</b>
Objective		To investigate the effects of two types of expertise (self-service technology and service type) on the disconfirmation of customers' expectations and the use-related outcomes of technology-based self-service (TBSS)
Research Type		Empirical: Quantitative
Hypothesis		H1: Technology novices will report a more positive disconfirmation of expectations upon mandatory use of a TBSS than technology experts H2a: For technology novices, the disconfirmation of expectations upon forced mandatory use of a TBSS will be more positive for those that are service experts as compared to those that are service novices H2b: For technology experts, the disconfirmation of expectations upon mandatory use of TBSS will be less positive for those that are service experts as compared to those that are service novices H3a: The effect of technology expertise on evaluation upon the mandatory use of a TBSS is mediated by the disconfirmation of expectations H3b: The effect of technology expertise on intention to engage in positive word-of-mouth upon the mandatory use of a TBSS is mediated by the disconfirmation of expectations
Methodology	Sampling	n=267
	Statistical Methods	Chi-square difference tests, Confirmatory Factor Analyses, ANCOVA
Findings		1. Technology experts experienced a less positive disconfirmation of expectations and reported less positive evaluations of the new self-service than technology novices



		<p>2. Technology experts also showed lower intentions to engage in positive word-of-mouth than technology novices</p> <p>3. The evaluation of the self-service by technology novices is more positive for those that are service experts as compared to service novices, while the evaluation by technology experts is more negative for those that are service experts as compared to service novices</p>
Critique		While this study shows promising results with respect to the role of customers' expertise in their assessment of new TBSS, the applicability of the study was restricted to the domain of public transport services within a single country with a relatively small sample size
SI No		13
Author & Year		Schuster, L., Proudfoot, J., & Drennan, J. (2015)
Objective		To use the Model of Goal-Directed Behavior (MGB) to examine the factors affecting consumers' continued use of emerging technology-based self-services (TBSSs) with credence qualities
Research Type		Empirical: Qualitative
Hypothesis		<p>Propositions:</p> <p>P1: Attitude will influence continued use of a TBSS with credence qualities</p> <p>P2: Subjective norms will influence continued use of a TBSS with credence qualities</p> <p>P3: Perceived behavioral control will influence continued use of a TBSS with credence qualities</p> <p>P4: Positive anticipated emotions from deliberating goal achievement will influence continued use of a TBSS with credence qualities.</p> <p>P5: Negative anticipated emotions from deliberating goal failure will influence continued use of a TBSS with credence qualities</p> <p>P7: Past behavior will influence continued use of a TBSS with credence qualities</p> <p>P8: Desire will influence continued use of a TBSS with credence qualities</p>
Methodology	Sampling	n=20
	Statistical Methods	Semi-structured depth interviews
Findings		<p>1. The findings of the study showcase the unique determinants of consumers' continued use of TBSSs with credence qualities relative to the more routine services which have been the focus of extant research</p> <p>2. The findings further provide support for the utility of the MGB in explaining service continuance, although the importance of distinguishing between extrinsic and intrinsic motivational components of behavioral desire and capturing the impact of social influence beyond subjective norms is also highlighted</p>
Critique		This study contributes to recent research examining differences in consumer responses across TBSSs and behavioral loyalty to these services

		It also provides empirical evidence for broadening and deepening the MGB (Model of Goal-Directed Behavior) within this behavioral domain
<b>SI No</b>		<b>14</b>
<b>Author &amp; Year</b>		<b>Ramaseshan, B., Kingshott, R. P., &amp; Stein, A. (2015)</b>
Objective		To present and validate a multidimensional firm SST readiness scal
Research Type		Empirical: Quantitative
Hypothesis		NA
Methodology	Sampling	n=177 (study-2); n=257 (study-3)
	Statistical Methods	Semi-structured interviews with managers and an extensive literature review, EFA, CFA
Findings		<p>1. This study proposes a new multidimensional construct labelled “firm SST readiness”, consisting of four dimensions:</p> <ul style="list-style-type: none"> <li>• managerial acquiescence</li> <li>• customer alignment</li> <li>• employee engagement</li> <li>• channel integration</li> </ul> <p>2. The paper also demonstrates the predictive validity of the new scale on two key firm outcome variables:</p> <ul style="list-style-type: none"> <li>• customer value</li> <li>• firm performance</li> </ul>
Critique		This paper can be considered as the first study to provide a comprehensive, psychometrically sound, and operationally valid measure of firm SST readiness
<b>SI No</b>		<b>15</b>
<b>Author &amp; Year</b>		<b>Kaushik, A. K., &amp; Rahman, Z. (2015)</b>
Objective		To extend and revise the basic technology acceptance model (TAM) by analysing the impact of trust and subjective norm (SN) on consumers’ attitude and behavioural intention toward adopting self-service technologies (SSTs). This study has been done specifically for SSTs in offline retail environments
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> perceived ease of use (PEOU) will have a positive impact on PU of SST</p> <p><b>H2:</b> PEOU will have a positive impact on a consumer attitude toward the adoption of SST</p> <p><b>H3:</b> PU will have a positive impact on a consumer attitude toward the adoption of SST</p> <p><b>H4:</b> PU will have a positive impact on a consumer intention toward the adoption of SST</p> <p><b>H5:</b> A consumers’ attitude will have a positive impact on the intention towards the adoption of SST</p> <p><b>H6:</b> Trust will have a positive impact on consumer attitude toward adoption of SSTs</p> <p><b>H7:</b> Trust will have a positive impact on consumer intention toward adoption of SSTs</p>
Methodology	Sampling	n=651

	Statistical Methods	EFA, Component analysis, Principal component analysis with a varimax rotation, Principal axis analysis with a varimax rotation, SEM
Findings		1. Trust significantly affects both consumers' attitudes and their behavioral intentions 2. On the other hand, subjective norm (SN) also affects intention to adopt
Critique		All the SSTs considered in this study belong to the retail industry, which limit the generalizability of the findings to other industries
SI No		16
Author & Year		Nijssen, E. J., Schepers, J. J., & Belanche, D. (2016)
Objective		To investigate how customers use attributions (that SSTs are introduced by service providers to cut costs rather than extend customer service levels) to adjust their perceptions of relational value
Research Type		Empirical: Quantitative
Hypothesis		<b>H1:</b> Experienced SST performance has (a) a positive relationship with benefit attributions and (b) a negative relationship with cost attributions <b>H2:</b> The level of adoption of the SST has positive relationships with (a) benefit attributions and (b) cost attributions <b>H3:</b> A service provider's benevolence has (a) a positive relationship with benefit attributions and (b) a negative relationship with cost attributions <b>H4a:</b> A benefit attribution has a positive relationship with relational value. <b>H4b:</b> A cost attribution has a negative relationship with relational value <b>H5:</b> Cost attribution negatively moderates the benefit attribution-relational value relationship
Methodology	Sampling	n=110
	Statistical Methods	Descriptive statistics, EFA, Partial least squares (PLS)
Findings		1. Attributions mediate the impact of SST performance on relational value, and this value is highest for customers with high-benefit and low-cost attributions 2. Customers with low-benefit and low-cost attributions exhibit detrimental effects on the exchange relationship with the firm 3. Characterized by low self-efficacy, low education, and low spending, these latter customers appear ambivalent and possibly confused about the provider's motives for introducing SST
Critique		This study focussed on only one type of SST introduced by a single provider, which provides control over various parameters, such as the industry context and service technology variables. Also, the sample size for our study was limited by the labour-intensive consumer interception approach
SI No		17
Author & Year		E. Collier, J., L. Sherrell, D., Babakus, E., & Blakeney Horky, A. (2014)

Objective		1. To explore the potential differences between types of self-service technology 2. The paper explores how the dynamics of public and private self-service technology influence customers' decision to use the technology
Research Type		Empirical: Quantitative
Hypothesis		H1: A customer's perceived control will have a positive relationship to the utilitarian value of an SST H2: A customer's perceived control will have a positive relationship to the hedonic value of an SST H3: Self-service convenience will have a positive relationship to a customer's utilitarian value derived from an SST H4: Self-service convenience will have a positive relationship to a customer's hedonic value derived from an SST H5: Perceived control will have a negative relationship to customers' technical anxiety H6: Self-service convenience will have a negative relationship to customers' technical anxiety H7: Technical anxiety will have a negative relationship to a customer's utilitarian value derived from an SST. H8: Technical anxiety will have a negative relationship to a customer's hedonic value derived from an SST H9: The utilitarian value derived from a self-service experience will have a positive relationship to a customer's attitude toward using a self-service technology H10: The hedonic value derived from a self-service experience will have a positive relationship to a customer's attitude toward using a self-service technology H11: A customer's attitude toward using a self-service technology will have a positive relationship with the intentions of the customer to use the self-service technology
Methodology	Sampling	n= 2235 (For study-1, Private SST) n= 213 (For study-2, Public SST)
	Statistical Methods	CFA, Correlation, Chi-square test, Regression
Findings		1. The analysis reveals that customers' control and convenience perceptions differ across public and private self-service technology 2. Also, customers placed a heavier emphasis on the hedonic or utilitarian evaluation of a service experience based on the type of self-service technology
Critique		This paper provides a clear understanding of the unique dynamics of a public and a private SST experience, which helps the retailers to determine the appropriate strategy for customer adoption based on the utilitarian or hedonic functions of the technology
SI No		<b>18</b>
Author & Year		<b>Köcher, S., &amp; Paluch, S. (2019)</b>
Objective		To explore potential differences in consumers' reactions to service failures across services provided by a service employee (i.e. full-services) and services that require customers' active involvement (i.e. self-services)

Research Type		Empirical: Quantitative
Hypothesis		<b>H1:</b> When compared to full-service contexts, the relationship between service satisfaction and reusage intentions will be attenuated in self-service contexts, such that service reusage intentions are less severely affected by the occurrence of service failures <b>H2:</b> The diverging effects of service failures – as proposed in H1 – can be ascribed to different levels of internal attribution of service outcomes associated with full-service and self-service provision
Methodology	Sampling	n=214
	Statistical Methods	ANOVA, Conditional Process Analysis
Findings		The results of the study revealed that although service failures have a similar negative impact on satisfaction across both full-services and self-services, in the self-service context, the negative effect on the willingness to use the same service delivery mode again is attenuated
Critique		By highlighting the role of customers' active involvement in the service delivery process, the study extends previous knowledge regarding customer response to service failures in different service settings
SI No		<b>19</b>
Author & Year		<b>Gummerus, J., Lipkin, M., Dube, A., &amp; Heinonen, K. (2019)</b>
Objective		To introduce and characterize a specific form of self-service technology (SST), customer self-service devices (SSDs), as well as propose and apply a classification scheme of SSDs to encourage future research on such SSTs
Research Type		Empirical: Qualitative
Hypothesis		NA
Methodology	Sampling	n=6 (six interviews conducted with company representatives from technology industries)
	Statistical Methods	In-depth interviews
Findings		1. This paper introduces SSDs as customer-possessed and controlled smart service devices aiming to solve problems from the customer's perspective, often within completely new, customer-defined service processes and ecosystems 2. SSDs are not confined to the company-controlled service environment, and customers may thus use them wherever and whenever they so wish 3. The study characterizes SSDs based on service and customer use features, as well as on the subject of the service act (self/other vs belongings) and nature of service act (monitoring vs acting)
Critique		This study conceptualizes SSDs as an extension to the traditional SST framework, which contributes to the understanding of how personal handheld devices can contribute to customer experiences
SI No		<b>20</b>
Author & Year		<b>Cunningham, L. F., Young, C. E., &amp; Gerlach, J. (2009)</b>

Objective		To examine how customers perceived traditional services and SSTs on service classifications criteria proposed by Lovelock, Bowen and Bell
Research Type		Empirical: Quantitative
Hypothesis		NA
Methodology	Sampling	n=282 (for study-1 on traditional services) n=180 (for study-2 on SSTs)
	Statistical Methods	Multi-Dimensional Scaling
Findings		<ol style="list-style-type: none"> <li>1. The consumers viewed the classifications of convenience, person/object, and delivery for SSTs differently than that for traditional services</li> <li>2. The classifications of traditional services were represented by two dimensions of customization/ standardization and person/object</li> <li>3. On the other hand, the classifications of SSTs were represented by two dimensions of customization/standardization and separability/inseparability</li> <li>4. Hence, the description of the underlying dimensions of services varied by traditional services or SSTs.</li> </ol>
Critique		As compared to the prior studies which used traditional services and a set of classification, this study used the same set of classifications yet different services. Also, there is a possibility that the results of the MDS were influenced by the use of preset classifications
SI No		<b>21</b>
Author & Year		<b>Robertson, N., McDonald, H., Leckie, C., &amp; McQuilken, L. (2016)</b>
Objective		To examine the influence of different self-service technologies (SSTs) on customer satisfaction with and continued usage of SSTs. The study tries to achieve the purpose specifically by comparing an interactive voice response (IVR) SST and an online SST from the same provider to assess how to manage these parallel SSTs
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> The strength of the positive association between reliability and customer satisfaction will be greater for IVR users than for online users</p> <p><b>H2:</b> The strength of the positive association between ease of use and customer satisfaction will be greater for IVR users than for online users</p> <p><b>H3:</b> The strength of the positive association between enjoyment and customer satisfaction will not be significantly different for IVR users and online users</p> <p><b>H4:</b> The strength of the positive association between perceived control and customer satisfaction will be greater for IVR service users than for online service users</p> <p><b>H5:</b> The strength of the positive association between perceived speed and customer satisfaction will not be significantly different for IVR users and online users</p>

		<p><b>H6:</b> The strength of the positive association between customer satisfaction and trust in the provider will not be significantly different for IVR users and online users</p> <p><b>H7:</b> The strength of the positive association between customer satisfaction and SST reuse intentions will be greater for IVR service users than for online service users</p> <p><b>H8:</b> The strength of the positive association between customer satisfaction and customer positive word-of-mouth intentions will be greater for IVR service users than for online service users</p> <p><b>H9:</b> Customer satisfaction with the SST used will be positively associated with actual reuse of that SST</p>
Methodology	Sampling	n=889
	Statistical Methods	Descriptive Statistics, CFA, General factor covariate technique, Chi-square change test
Findings		<p>1. Although the overall model was found to be valid across both types of SSTs, perceptions of factors including ease of use, perceived control and reliability differed for IVR and online SSTs</p> <p>2. The study also found that satisfaction with SSTs is linked with users' continued use of SSTs, but is not a barrier to users' adoption of newer SST forms</p>
Critique		This study developed a comprehensive model of customer SST satisfaction for comparing two different types of SSTs, which was missing in previous research
SI No		<b>22</b>
Author & Year		<b>Tseng, S. M. (2015)</b>
Objective		To investigate user satisfaction and intention to continue using web-based self-services (WBSS)
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> Users' perceived WBSS quality characteristics have positive influences on the perceived use characteristics</p> <p><b>H2:</b> Users' perceived WBSS use characteristics have a positive influence on user satisfaction</p> <p><b>H3:</b> Users' perceived WBSS quality characteristics have a positive influence on user satisfaction</p> <p><b>H4:</b> Users' perceived WBSS use characteristics have a positive influence on users' continued usage intention</p> <p><b>H5:</b> Users' perceived WBSS quality characteristics have a positive influence on users' continued usage intention</p> <p><b>H6:</b> WBSS satisfaction has a positive influence on users' WBSS continued usage intention</p>
Methodology	Sampling	n=177
	Statistical Methods	Partial Least Squares (PLS), EFA
Findings		<p>1. user's perceived WBSS quality characteristics are an important driver of WBSS perceived usage characteristics, satisfaction and continued usage intentions</p> <p>2. the results show that perceived WBSS usage characteristics have a significant positive influence on continued usage intentions.</p> <p>3. WBSS satisfaction also has a significant, positive influence on continued usage intentions</p>

		4. Also, the greater the level of satisfaction with a WBSS, the more likely users is to both use it again and recommend it to others
Critique		The results of this study can serve as a reference when designing WBSS service interfaces and planning related marketing strategies
SI No		23
Author & Year		Mattila, A. S., & Cho, W. (2011)
Objective		1. To contrast consumers' reactions to human and technology-based service failures and consequent recovery efforts 2. To understand the role of two frequently employed recovery efforts (compensation and apology) on customers' fairness perceptions by comparing SST failures and on-line recoveries with their human counterparts
Research Type		Empirical: Quantitative
Hypothesis		<b>H1:</b> Compensation will have a more positive impact on customers' distributive fairness perceptions when the recovery mode matches the failure type (a human failure followed by a human recovery vs. an SST failure followed by a human recovery) <b>H2:</b> Compensation will have a more positive effect on customer perceptions of interactional fairness when the recovery effort matches the failure type (i.e., a human failure followed by a human recovery as opposed to a mismatch situation) <b>H3:</b> With on-line failures, offering compensation on-line (matching condition) will result in significantly higher perceptions of distributive justice than offering the same compensation off-line (mismatch condition) <b>H4:</b> In the context of on-line failures, off-line recovery (i.e., human interaction) will result in significantly higher perceptions of interactional justice than on-line recovery
Methodology	Sampling	n=248
	Statistical Methods	MANOVA
Findings		1. The study shows that suggest that a human recovery is less efficient in restoring justice following an SST failure than a human failure 2. The studies also suggest that an e-mail recovery might be more effective in enhancing consumers' perceptions of distributive justice when the initial transaction is on-line based 3. Tangible compensation (10% discount) obviously was not sufficient to undo the harm caused by an incorrect catering order 4. Self-service kiosks might not be ideal when recovering from human-based failures
Critique		This study involved a scenario-based methodology, and hence it can be argued that customer reactions might be different in the real world. But, the results of this study offer some preliminary insight into the role of technology in shaping consumers' fairness perceptions with on- and off-line failures and recovery efforts
SI No		24
Author & Year		Lee, H. J., & Yang, K. (2013)



Objective		1. To examine how two components of interactive service quality (interpersonal service quality and self-service technology service quality) are related to retail patronage 2. To identify the moderating effects of individual characteristics
Research Type		Empirical: Quantitative
Hypothesis		<b>H1:</b> Interpersonal service quality is positively related to retail patronage intentions <b>H2:</b> Self-service technology (SST) service quality is positively related to retail patronage intentions <b>H3:</b> Retail patronage intentions are positively related to retail patronage behaviour <b>H4a:</b> The effect of interpersonal service quality on retail patronage intentions will be stronger for consumers who are high in technology anxiety than those who are low in technology anxiety <b>H4b:</b> The effect of self-service technology (SST) service quality on retail patronage intentions will be weaker for consumers who are high in technology anxiety than those who are low in technology anxiety <b>H5a:</b> The effect of interpersonal service quality on retail patronage intentions will be stronger for consumers who are high in need for interaction than those who are low in need for interaction <b>H5b:</b> The effect of self-service technology (SST) service quality on retail patronage intentions will be weaker for consumers who are high in need for interaction than those who are low in need for interaction <b>H6a:</b> The effect of interpersonal service quality on retail patronage intentions will be stronger for old consumers than young consumers <b>H6b:</b> The effect of self-service technology (SST) service quality on retail patronage intentions will be weaker for old consumers than young consumers
Methodology	Sampling	n = 300
	Statistical Methods	SEM, CFA, Chi-square test
Findings		1. The findings of the study identified the significant effect of interpersonal service quality on retail patronage intentions 2. The results also provide strong support for the non-human element of interactive quality since the added explanatory power of SST service quality is found in the development of retail patronage 3. The moderating effects of technology anxiety, need for interaction, and age were also partially supported 4. The relationship between SST service quality and retail patronage intentions was also moderated by age.
Critique		In this study, a limited number of individual characteristics were investigated as moderating variables. But, the results from this study also provide retail managers with a detailed understanding of how individual characteristics influence retail patronage intentions
SI No		25
Author & Year		Curran, J. M., Meuter, M. L., & Surprenant, C. F. (2003)

Objective		To explore some of the critical attitudinal factors influencing customer intentions to use an SST
Research Type		Empirical: Quantitative
Hypothesis		<p><b>H1:</b> Consumers have (a) separate, distinct attitudes toward employees who are involved directly in service delivery and (b) more global attitudes toward the service firm.</p> <p><b>H2:</b> Attitude toward employees will positively influence the more global attitude toward the service firm</p> <p><b>H3:</b> Consumers have separate, distinct (a) attitudes toward specific SSTs and (b) more global attitudes toward service technologies.</p> <p><b>H4:</b> Attitude toward a specific SST will positively influence the more global attitude toward service technologies</p> <p><b>H5:</b> Attitude toward employees will influence the global attitude toward technology</p> <p><b>H6:</b> Attitude toward a specific SST will positively influence the global attitude toward the service firm</p> <p><b>H7:</b> Intentions to use SSTs will be positively influenced by global attitudes toward service technologies and global attitudes toward the service firm, as well as attitudes toward employees and attitudes toward specific SSTs</p>
Methodology	Sampling	n = 628
	Statistical Methods	Chi-square test, e comparative fit index (CFI), Root mean square error of approximation (RMSEA)
Findings		<ol style="list-style-type: none"> <li>1. The study revealed that there are at least two forces that can move people to use a technology in the service encounter, one being the consumer's attitude toward employees (both individual and global attitude toward the service firm) and the second being the attitude toward SSTs</li> <li>2. The tested models demonstrate that people can feel negatively toward service employees, which then negatively influences the more general attitude toward the provider's service</li> <li>3. The results of the study also showed that increased SST usage can be driven by a reduction in the quality of the interpersonal service delivery channels</li> </ol>
Critique		This study proposes an effective strategy to increase SST usage would be to stress the unique advantages of a specific SST to drive favourable attitudes toward the specific SST