CHAPTER 9

SERVICES MARKETING STRATEGIES

Selen OZTURK*

*Assistant Professor, Istanbul University, School of Business, Department of Marketing, Istanbul, Turkey
e-mail: selenoz@istanbul.edu.tr

DOI: 10.26650/B/SS05.2020.002.05

Abstract

Today, service sectors hold for a major part of nations' economies worldwide in general. Developments and rapid innovations in information and communications technologies, the rise of the digital age, and changing consumption habits helped or forced companies in generating new services and also helped individuals to make better choices. The main purpose of the study is to present up-to-date issues related to services marketing in theory and practice. With the help of the findings from previous studies and examples from several service sectors, the potential of the services marketing, in general, is examined theoretically. The chapter mainly discusses the integration of new technologies (digitalized services, mobile services, self-service technologies, robots, and so on) to the services marketing ecosystems regarding related benefits and drawbacks. These technologies are supposed to change the ecosystems to some degree, since especially in some service sectors service providers may need to go back to basics and start the process design from zero by embracing these new service models, channels, tools, etc. This changing services marketing environment should be the concern of both businesses and marketing scholars. To be able to provide more superior value and to create a competitive advantage, services should be designed and delivered in this manner. Besides discussing what is new for today, the chapter includes a projection and discussion of the future of services marketing.

Keywords: Service Economy, Service Convenience, Self-Service Technologies (SSTs), Mobile, Service Innovation, Digital, Service Ecosystems.

1. Introduction

As an evolving sector and a research discipline, services marketing continues to change also by broadening its' scope. In terms of newly added dimensions and concepts, there is an ongoing progression (Gilmore, 2003), especially over the past few decades. There are new business models offering tailored services. There are new servicescapes and unusual ways of technology intervention in the services and service delivery processes today. Globalization is partly responsible for the increase in human interaction both face-to-face and in cyberspace, and all-inclusive and complex marketplaces (Sharma, Tam, & Wu, 2018), while technological advancements take the lead and shape people's expectations and behaviors.

Services are more sophisticated in some service sectors, such as for financial services, travel and accommodation services, professional services (where the benefits delivered are mostly arisen from information and expertise) or not-for-profit organizations. In such services, there are fresh ways to deliver services by close interaction with (Gilmore, 2003) or even by participation of consumers. The internet also itself appeared as a new channel for marketers with a diverse collection of purposes. Thus these developments have changed the industry and the way organizations are managed eventually. The inevitable encounter of technology, internet, and information systems has led to advancements for service businesses, such as online and mobile services, self-service models, service robots, etc.

Because people consume different kinds of services each day, services marketing comprise a basis for contemporary marketing activities. In this context, the importance and future of services are worth explaining.

The main aim of this chapter is to provide a comprehensive conceptual framework to reflect the current issues, by referring relevant findings from the literature on new tools and new services mostly regarding digitalization and self-service technologies (SSTs). The chapter is expected to guide future research on this topic of blooming importance.

The first section of this chapter includes a discussion on the background of services marketing. Current state, importance and extended scope of services marketing, and the service marketing mix are discussed shortly. In the second section, a strategic look is taken into the past and future of the services industry. The following third section represents a discussion on the practices of service marketers versus today's consumers and technology. This part is the backbone of the study. E-services and digitalization of servicescapes, SSTs use in physical and online servicescapes and, integration of mobile technologies in service delivery and consumption processes are the themes that have been examined. These themes

are explained with examples from previous research on different sectors such as finance, healthcare, transportation, accommodation and food, etc. Their advantages/disadvantages, and role on consumer preferences, perceived service quality, adoption, satisfaction, loyalty or switching behavior are also discussed. SSTs (interactive kiosks, telephone-voice response, etc.) are explained as opposed to the traditional (interpersonal) way of delivering services. Mobile technologies (devices, applications, social media, etc.) continue to grow and now is part of almost all service industries. The fourth section comprises a projection into the near and distant future of services. Companies have new options to deliver service experiences, and gathering and managing customer data is another trend and also a must for service marketers to gain insight. This section includes a discussion on what is new for service marketers; such as innovation in services, service robots, new customer roles (customers as productive resources), new processes, bundled services, and customized services. Use of artificial intelligence (AI) and big data are among new trends. Sharing economy is not a new term for service marketers, but also is quite popular in industries such as tourism, transportation, etc. In conclusion, a summary is presented including a closing discussion on todays' service ecosystems and service consumers.

2. Services Marketing Background

The term "*service*" has been described by Berry (1980) as a "*deed, act or performance*" (Lovelock, 1983, p. 10). Based on this simple description, Wilson, Zeithaml, Bitner and Gremler (2018, p. 4) gave a broader definition for the term in their book as: "*services are deeds, processes, and performances provided, co-produced, or co-created by one entity or person for and/or with another entity or person*." Thus, "*service business*" (Gilmore, 2003) is where the perceived value of the market offerings comes from the delivered service rather than the actual product, in case there is one.

Services can be defined with the specific characteristics and may be separated from goods in this manner. Since the early era in services marketing literature, the most referred distinction comes from the issue of tangibility. This characteristic makes it harder to evaluate and manage by organizations. Intangible nature of services is the most important thing to look upon when considering strategic marketing actions such as for branding, promotional strategies and materials, decisions on service outlets, etc. (Lovelock & Wirtz, 2011). Other than intangibility, services are characterized by heterogeneity (while goods can be homogeneous and standardized as opposed to services), inseparability and simultaneity of production, delivery and consumption (the characteristic which constitutes a base for customer participation in service encounters); perishability (meaning that service offerings cannot be stored for later

use); and non-ownership at last. Services are mostly rented or borrowed (Gummesson, 2010). Indeed, there are points of convergence between the goods and services industries (Palmer, 2003) including these characteristics (see Lovelock & Gummesson (2004) for a detailed discussion on the service characteristics, and Lovelock (1983) for different service classifications in terms of the nature of the service act and relationship with customers). This interpretation also led to a classification of products as search, experience, or credence goods/services (Girard & Dion, 2010), based on uncertainty and risk perceptions in consideration and customer costs in evaluating the product/service related information. Today, with the help of technology and heightened competition globally, organizations need to be more aware of this distinction when creating bonds with customers (Hsieh, Chiu, & Chiang, 2005) since experience and credence products need higher customization and participation. Branding is an important tool for service marketers to create and maintain strong relations with customers. For services, branding tends to influence customers more because of the services' intangible nature. However, the brand itself is not the only thing when considering a poor customer experience (Berry, 2016) which may create an unloyal customer base (Keaveney & Parthasarathy, 2001). Improving the value delivered in encounters will eventually help to develop long-term relations (Akaka & Vargo, 2015), leading to more profit, and also referrals and positive word of mouth. The delivery of high-quality service is important in the sustainability of firm performance (Myrden & Kelloway, 2015). To provide the aforementioned issues and overcome the limitations of the so-long credited marketing mix (4Ps), the extended mix for services marketing strategies (7Ps) has been introduced, including three extra elements: people, physical evidence (also referred to as servicescape), and processes (Gummesson, 2010). People element holds for the emphasis of the service personnel while physical evidence refers to all tangible elements, places, looks of people, and other things included in a service ecosystem. Processes element refers to the design of service delivery and consumption processes. All must be an integral part of service marketers plan and implementations, with the other 4Ps.

2.1. Why Do Services Matter for Us?

There is an increasing influence of services related sectors on economies around the world (Kunz & Hogreve, 2011) since its emergence as a separate subfield of marketing discipline in the late 1970s (Brown, Fisk, & Bitner, 1994). Governmental organizations and companies gain an insight into the need for services marketing and management (Gummesson & Grönroos, 2012). However, it was the study of Vargo and Lusch (2004) that changes the direction of the ongoing debates with the introduced concept "*service-dominant (S-D) logic*".

S-D logic basically claims that services are the basis of all kinds of exchange, all economies are service economies, and this view is inherently customer relationship oriented (Gummesson, 2010; Vargo & Lusch, 2008). Thus, even services marketing term is limiting the capacity of services as any sales or marketing activity could incorporate an act or performance, when the new dynamic service-ecosystems approach is taken into account (Akaka & Vargo, 2015) including social and economic elements, comprised of networks of people and organizations.

Today, to draw attention to the value of service encounters (defined as "*the context in which service is exchanged between a firm and a customer and satisfaction/dissatisfaction is determined*" by Akaka and Vargo (2015), the service-ecosystems approach is preferred (which is explained in the following section). The S-D logic also converged into a new concept "*customer-dominant logic*" (Heinonen et al., 2010) where again companies and customers are co-creators of value (Palmer & Bejou, 2016).

Hoffman and Bateson (2010) stated the rationale behind the importance of studying services marketing as; expansion of the contribution of service economies in global by contributions to the nations' Gross Domestic Products (GDP), increased availability of the service workforce in the global arena, developments concerning e-services, and creating sustainable service practices, in short. The services industries are highly popular today, for sure.

2.2. Extended Scope of Services Marketing

The evolution of services marketing research tells us the relevant important and top topics related to different eras in marketing related developments. As Grove, Fisk, and John (2003) declared, services marketing has maturing fields, nevertheless the scope is expanding while blurring boundaries (Lovelock & Gummesson, 2004) between goods and services. Looking into the past, Fisk, Brown, and Bitner (1993) declared this evolution by three eras: Crawling Out (pre-1980), Scurrying About (1980-85), and Walking Erect (1986-1993), and presented a new look nearly two decades later and added two more eras (Fisk & Grove, 2010): making tools (1994-1999) and creating language (2000-2010) (Russell-Bennett & Baron, 2016). In short, the first stage symbolizes the struggling nature of marketing scholars' debate on the unique characteristics of services. The second stage refers to the rapid development of diverse topics with the high interest in services marketing. The third stage points out the rise of an established field with specific marketing problems (Fisk et al., 1993) such as the issue of service quality, the concepts of service encounters/experiences, service design, customer retention, internal marketing, and so on. Making tools stage is the era of rapid technological improvements and web-based services shaping service industries,

while the fifth stage (creating language) is where a technical service language is emerging to communicate and knowledge is shared across the community of service scholars and managers (Fisk & Grove, 2010).

The extended context of services refers to different conceptualizations beginning from service encounters to servicescapes and last, to service ecosystems. Service encounters (defined in the previous sections) are the bundle of performances (Tripp & Drea, 2002) that now happens with the help of SSTs besides interpersonal interaction. Thus, the context transformed into the term "*servicescape*", regarding also customer-to-customer relations in a market. A more recent conceptualization is "*service ecosystems*" referring to the application of knowledge and capabilities for the benefit of all (Akaka & Vargo, 2015). Caring for the interest of all participants in these ecosystems and a proper control of the resulting value by provided service experiences does matter. Figure 1 represents the evolution of the services marketing context, based on the arguments of Akaka and Vargo (2015) in their study.

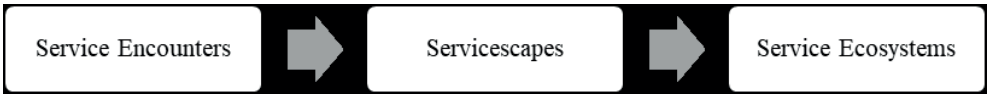

Figure 1: From service encounters to service ecosystems

Lagrosen (2005) stated that the main reason for the existence of organizations is not themselves, it is the customers. The focal point is to be able to correctly examine and understand consumers to provide the best of experiences, thus maintaining relations. Besides their different aims, customers and service providers should find this relationship valuable as two equal partners (Gummesson, 2010). Considering the service ecosystems approach, the service process needs to be orchestrated as a win-win situation.

3. Strategic Look into Service Industries: Then and Now

Services marketers need to deal with a diverse collection of problems or issues today. At the beginning of the 21st century, Gilmore (2003) defined the four most important issues as (1) bonding with customers by using relevant relationship marketing approaches, (2) managing the implementation of the service practice, the fulfillment process, (3) creating and managing sustainable services by considering social and environmental issues, (4) maintaining a stable fund supply and support by the public, especially for a non-profit context. These are considered as strategic goals back in this decade.

Today, these goals may hold their relevance, however, there are other concerns that should be discussed, too. Free trade and self-regulating markets created more competitive service ecosystems and also helped to raise consumers' expectations from service providers (Palmer, 2003).

3.1. Everything is a Service!

To begin with, the following question need to be answered: Which businesses are service businesses? Wilson, Zeithaml, Bitner, and Gremler (2018) give an answer as "all are!". The authors argue that all companies provide services, whether the service is the core of their business model, or they are manufacturers of physical goods. Because in all industries, companies somehow provide services at least like repair, distribution, consulting and information technology services. A smartphone or tablet manufacturer can be also a part of the service economy because the experience and solutions, in fact, are embedded in the product's use. All products deliver a collection of benefits to its consumers.

Besides, most new business models are described as service models which are mainly technology-based and information processing services, such as ride-sharing, music streaming, and online/mobile booking services.

3.2. The Rise of the Service Economies

Just as service industries have a huge impact on the economy of many nations, a number of industries have managed to improve productivity and stimulate growth, such as transportation (with increased budget or strategies on the rail, road, air travel services) or distribution (Palmer, 2003) and accommodation services. There are new service models for customers to find service providers. There is a new service business model which emerged for the needs of manufacturers or intermediaries to find suppliers and vice versa. With the help of cyberspace, these sectors are growing too.

In the most classical terms, definitions on the service economy refers to the so-called soft elements of the economy comprising of mainly nine sectors: "*education and health services, financial activities, government, information, leisure and hospitality, professional and business services, transportation and utilities, wholesale and retail trade, and other services*" (Hoffman & Bateson, 2010). There is an increase in the demand for services as a result of individual customer choices and increased social welfare and newly introduced services such as the ones in education, research, healthcare, etc. (Peneder, Kaniovski, & Dachs, 2003). Gummesson (2010) presented a more detailed classification as: "*trade, hotels and restaurants,*

transport (including tourism, travel agencies, tour operators), storage and communication, financial services, real estate and dwellings, business services (e.g. accounting, software development, management consultancy, technical consultancy), public administration, defence, education, health services, religious and other community services, legal services, recreation, entertainment, and personal services". Many official reports state that in developed economies, the service sector is expanding while agricultural and manufacturing industries are narrowing (Lovelock & Wirtz, 2011).

Other than changing classifications in time with newly introduced services, the context of remaining service sectors is also evolving; expanding or creating other subsectors. Talking of financial services which were mainly concerned with operations, risk and all financial issues; now have subsectors, such as retail bank marketing, which owns even different kinds of channels to deliver the service which a retail bank stands for. Tourism, which is one of the biggest and dynamic sectors among service economies, led to the birth of many subsectors, comprised of different elements from the private and public sectors, creating many job opportunities (Gilmore, 2003). For example, in the healthcare sector, service providers now actively use online channels to provide information and back-up services (Bodkin & Miaoulis, 2007). Current healthcare consumers now see a diverse portfolio of service providers, channels, prices, thus one can choose the most promising or valued provider or plan to find a treatment for the diagnosed problem or even for problem diagnosis (Ettinger, 1998). In providing patient-service provider connection also the internet provides many benefits, including tailored marketing communications (Suggs & McIntyre, 2009). The popular category related to the trading of information called knowledge-based services is comprised of accounting, engineering, management consulting, information technology and training, educational services, legal services, etc. (Javalgi, Benoy Joseph, & LaRosa, 2009). Particularly in developed economies, these services present a rapid growth rate.

4. Service Marketers vs. Today's Consumers and Technology

Technology and information systems play a significant role in supporting innovation in many fields, positively affecting our daily, personal and professional lives. Cudmore, Bobrowski, and Kiguradze (2011) take this view to another level and state that the embracement of new information technologies and the Internet is not a choice, but it must be the key to an organization's survival in the long run. Any organization should focus on the successful integration of these technologies into their practice and reshape its management policies with practices.

For service providers, technology-related innovations represent a reduction in related costs, a closer connection with customers, greater convenience provided to customers by helping them save time and effort (Walker & Johnson, 2006). Services that were previously held interpersonally with human-to-human interaction now offers most of the service benefits on the web (Lagrosen, 2005). Besides online ventures of existing service providers, there are new kinds of services, such as ride-sharing, music streaming, and online/mobile booking services, as mentioned earlier. Larivière et al. (2017) provide a framework on the interdependent roles of technology, employees, and customers in today's world. According to the authors, when investigating the role of technology on business models, there should be two different perspectives: business models that are enhanced by technology, and business models that feed technologies. Technology has an augmenting role (on the performance of service provider and personnel); while also it may substitute the old practices, replace them with new systems like SSTs or automation systems (substituting role); and creates new networks, digital platforms, machine to machine interaction, etc. (facilitator role). On the other hand, there are the new business models creating technology to lead the way to other business models such as analytics software or communication technologies. What is important in the design of business models with technology is to consider the complexity of business environments and to make sure to choose the best design possible. Managers, undoubtfully, should look for a balance between the service inputs, whether it is comprised of human resources and/or technological inputs.

On the use of technology-enabled services, Walker and Johnson (2006) discuss that even providers offer many benefits, all of these marketed benefits may not be necessarily embraced or valued by all of the service consumers. The authors ask the question of whether all consumers see themselves or can be seen as totally confident and motivated to use these kinds of services. Thus, there is a need to have an insight from the perspective of both sides – companies and consumers.

Among all other benefits a customer may experience by the use of appropriate technologies, provided convenience was one of the most important and appreciated. Service provider companies should provide several types of convenience during a service encounter (Berry, Seiders, & Grewal, 2002), which are namely (1) "*decision convenience*" in the pre-purchase stage, (2) "*access convenience*" of customers to initiate service performance, (3) "*transaction convenience*" in completing service transactions, (4) "*benefit convenience*" from service experience, and (5) "*post-benefit convenience*" referring to the resolution of any problems appearing after sales (Berry, 2016). In short, these could be evaluated as the stages of

consumption activities. When considering consumer evaluations of the service performance, consumers' perceptions on time and effort (physical/mental) costs related to these stages reflects their total evaluation of the firm performance. This topic is so important in service economies that most recent innovations probably result from the relevant deficiencies in service marketers' performances. There is an everlasting increase in consumers' demand for more convenience in all aspects due to socio-cultural and economic developments, technological advancement, increasing competition in market environments and opportunity costs of converting a business into a more consumer-friendly service environment. Because the time or effort put into a specific transaction can not be renewed (Berry et al., 2002), service convenience should be a huge concern for all parties involved in service delivery. To decrease relevant costs today there are fruitful opportunities with the help of technology. In the following sections, these modern technologies, beginning with the digitalization of services, SSTs (from telephone-voice response to interactive kiosks and further), and mobile services in particular, and implementations in different fields in the service sector are discussed in detail.

4.1. Digitalization and E-Services

Rapid innovations and ongoing introduction of the latest technologies shape today's world with interactive and dynamic digital services (Mishra, Maheswarappa, & Colby, 2018). Technology is the use of science in solving problems or performing such activities. E-service is basically offering services via Internet-based information technologies, that are open for the use of people, businesses or other electronic services, such as a bank's online account services, Automatic Teller Machines (ATMs), a courier company's package tracking service, online booking sites, a supermarket's self-check-out option, etc. (Hoffman & Bateson, 2010). Due to the stated importance of service convenience for service providers (Benoit, Klose, & Ettinger, 2017) and customers, being a part of the online world or providing e-services is a necessity.

Since it is considered that success of services can be measured by the degree of personalization, timeliness, accessibility from anywhere and/or enjoyableness (Leimeister, Österle, & Alter, 2014), the digital world helps consumers to be just one click away to the desired product. But in the presence of heightened competition, service providers also need to be on the alert. They need to differentiate the marketed benefits by usefulness, ease of use and customization level. Based on this logic, the authors portrayed a "*path to the digital society*" describing the human, task and technology integration and interdependency after digital transformation. By asking strategic questions ("*How to handle complexity of different*

offerings?", "What are underlying mechanisms for explaining successful design, use, and effects of digital services for consumers?", etc.), the foundations of the digital society (connected digital users) are explained and the potentials of a new wave of innovations caused by these mechanisms was opened for discussion. In the information age, consumer data gets the attention of many companies, along with the ones who deal with big data. Companies like Google and Amazon are among the largest players, as service providers, in processing the data and gaining customer insight on future behavior. The resulting issues become very valuable inputs for new service or new companies. Berry (2016) referred to Google as an "*online information department store*". A variety of electronic service offerings are available for use for free, or as freemium/premium services, such as LinkedIn, Dropbox (Leimeister et al., 2014), Netflix for entertainment business (Berry, 2016; Wayne, 2018), Spotify which is a music streaming service providing cloud-like functions, and the video sharing site Youtube (Lee, Wishkoski, Aase, Meas, & Hubbles, 2017), etc.

Digitalization has had a significant effect on most media and entertainment businesses, because digital technologies led to lowering costs of copying and distributing information, thus information-based services. In the music industry, for example, these developments created many opportunities for consumers to easily enjoy a diverse collection of offers, very fast and with minimal costs (Aguiar & Martens, 2016). Booking services provide the benefits of the online world in such areas as, hotel and restaurant reservations, travel tickets, cinemas, theaters or other art performances. Booking a flight or a hotel room online or via mobile applications can be seen as very regular and ordinary activities (Schaarschmidt & Höber, 2017). These services have been a substitute for many services or channels.

Customization is an important feature offered by online service providers. Listeners of a music streaming service can like or rate, download, create lists, share their playlists; while they are offered new content based on previous likes or downloads (Lee et al., 2017).

On the other hand, the main concern for consumers of e-services is related to the uncertainties involved, arising from risk perceptions of security, privacy and, of course, performance efficacy (Featherman & Hajli, 2016). This is because the sales and purchase process of e-services is very different from the traditional service delivery processes. The press or past studies cite this problem which also affects digital society and service economies in return: "*Some e-service providers' lack of security control allows damaging privacy losses and the subsequent misuse of consumers' confidential information, as in identity theft. This results in a variety of privacy risk assessments by consumers*" (Featherman, Miyazaki, & Sprott, 2010). As an interesting discussion, the authors also state that e-services perform

better in sustaining customer-service provider relationship in longer terms, due to the ongoing transmission and distant storage of customer-related or customer provided information. This might be applicable only if there are well-designed systems or service experiences, in face of security or privacy risks. To conclude, risk perceptions and trust are significant issues (Mou & Cohen, 2013) in the design and control activities of e-services, and consumers' acceptance as well, whether it stands for a commercial (such as e-banking) or non-commercial context (such as e-government service).

The health sector is an area worth discussing. A similar finding is presented in the study by Gummerus, Liljander, Pura, and Van Riel (2004) conducted in health-care services (classified as a content-based website, as an e-service provider), referred to trust as the main driver of customer satisfaction, and loyalty indirectly. Concerning the rapid evolution of information technologies, health on the Internet is advancing (Cain, Sarasohn-Kahn, & Wayne, 2000), health-care service is becoming customized and peculiar (Wang et al., 2018). Health-related information provided online is resourceful for patients (especially critical for low-income patients, people without health policies or insurance, rural patients), caregivers or service providers (Stvilia, Mon, & Yi, 2009). Goetzinger, Park, Jung Lee, and Widdows (2007) investigated the value-driven consumer e-health information search behavior, and suggested that website designers in this sector need to stress functional features of websites, since information relevance and information clarity are strongly related to perceived value, while the utilitarian value of search motivates users to repeat their actions. So, the service environment does matter. Cudmore et al. (2011) states that besides being resourceful, websites need to be gratifying and interactive for savvy users. An interesting finding is that users hold a more positive attitude toward commercial healthcare web sites than hospital-based web sites.

Another rapidly growing sector for e-services is banking, as a subfield of financial services. Marketing scholars have had a huge interest in the topic of investigating consumer behavior in several directions regarding adoption and use. Dauda and Lee (2015) performed an analysis of consumers′ preference on future online banking services, which include ATMs - cardless technologies, video banking - a real-time interaction, mobile banking - mobile wallet, security services - ATMs and smartphone integration and certification, internet banking - digital currency. A study (Sikdar, Kumar, & Makkad, 2015) on Indian banking customers revealed that trust, ease of use and accessibility are valid factors for determining internet banking adoption. Yee-Loong Chong, Ooi, Lin, and Tan (2010) found that perceived usefulness, trust, and government support are the factors that all positively related to use of online banking in Vietnam. Çelik (2008) examined the adoption behavior of Turkish online

banking users and determined similar results as perceived usefulness plays an important role in Turkish users' intentions to adopt online banking.

4.2. Self-Service Technologies are Under the Spotlight

A customer can contact a seller via phone, mail or the Internet, or may take the traditional way and have a face-to-face contact. Each interactive relation, called as an encounter, is definitely an opportunity for the seller to sell its brand, sell its offerings and to create a satisfied customer base. It may also lead to one or a group of dissatisfied customers. Because service encounters are important for every industry, not just service economies, integration of technology in the process is a must for maintaining and further improving the conditions. They are vital "*moments of truth*" in which customers develop ongoing impressions about the firm. The relations and interdependence between the components; customers, company and service personnel (Bitner, 1995) were discussed in the literature with the concept titled "*services marketing triangle*". Subsequently, this concept has been stated to have a new facet, a new dimension at the top of all, called technology, and mentioned as "*services marketing pyramid*" (Parasuraman, 1996). Technology can be used by both customers and service personnel (as human-machine interaction has been started back in the day), to increase customer satisfaction, improve service recovery processes, increasing customization and flexibility, or delight customers (Bitner, Brown, & Meuter, 2000).

In fact, the term "*encounter*" was regarded as more of a high-contact service (Bitner et al., 2000), including higher human contact such as getting a haircut or dinner at a restaurant (Lovelock & Wirtz, 2011), and technology integration make the process more of a low-contact service, such as internet banking. Today, with the help of technology, there are changes in the nature of service processes and how firms deliver services, including the integration of both human interaction and technology to some degree via different channels. This development can also be seen as a part of a new perspective in marketing, omnichannel marketing (that will be shortly discussed in the following sections).

Over the years, many advancements in technology, and/or led by technology, changed how people live their lives while service providers also find many ways to integrate the latest technology into the service experience (Curran & Meuter, 2007). Service providers, practicing for the implementation of these technologies, have become successful in varying levels (Meuter, Ostrom, Bitner, & Roundtree, 2003). SSTs are just one of them.

To begin with, for SSTs, one of the most cited studies in the literature belongs to Meuter, Ostrom, Roundtree, & Bitner (2000) who defined the term as "*technological interfaces that*

enable customers to produce a service independent of direct service employee involvement". Main examples are the applications such as automated phone systems, ATMs, automated airline ticketing, self-scanning at retail stores, transactions via the Internet, etc. (Meuter & Bitner, 1998; Meuter et al., 2003). Meuter et al. (2000) classified SSTs by two dimensions: type of interface and purpose. The authors defined four main interface categories namely "telephone-based/interactive voice response", "online interfaces", "interactive free-standing kiosks" and "video/CD technologies", nearly two decades ago. Based on different purposes (which are namely "customer service", "sales transaction" and "self-help"), the authors provided various examples. For instance, interactive kiosks being used for customer service includes ATMs, automated hotel checkout; again, examples on kiosks being used for transactions are pay at the pump, car rental, and automated hotel checkout, while blood pressure or tourist information machines can be referred to as self-help kiosks. Telephone banking can be an example of a telephone-based/interactive voice response with the purpose of customer service or sales transactions. This list goes on.

Forbes (2008) offered two main types, Internet and non-Internet SSTs, to investigate the difference for the latter one in terms of service failure and recovery. Cunningham, Young and, Gerlach (2009) portrayed a classification based on the degree of separability and customization, also as opposed to the classification of traditional services. For example, online auctions or online automobile buying can be customized and highly separable (meaning that in each case, the consumer can distinguish the difference between the purchasing service and the product purchased), online baking is moderately separable, and online brokerage is highly customized and inseparable from product/service. Standardized services are retail self-scanning, ATMs (moderate separability), and interactive phone systems (inseparable). Blut, Wang and Schoefer (2016) referred to the moderating effects of SST types and distinguish transaction (online payment) and self-help SSTs (airport self check-in), kiosk and internet SSTs, public (ATMs) and private SSTs.

The concept (SST) has a very broad scope, in fact. It includes many technological facets that allow customers to perform the service by themselves, instead of any type of presence of a service employee (Meuter & Bitner, 1998), face-to-face or online. However, these systems need to be designed very properly.

4.2.1. Self-Service vs. Traditional Service Encounter

It is very important to understand the why or how consumers choose among SST options or choose between SSTs and traditional (interpersonal) service encounters, such as a choice

between a bank customer's decision to deposit money through an ATM or with a teller inside the bank (Meuter et al., 2003) or use this bank's mobile application. This choice is supposed to be the result of consumers' evaluation based on many things, but mostly advantages or disadvantages of each option and felt comfortableness with these options.

According to Meuter et al. (2000), because of its pervasive nature and easy-to-access characteristics, it has many advantages to easily handle many situations including immediate or somewhat troubling transactions. The authors referred the main benefits of SSTs for consumers compared to alternatives as the following: avoiding service personnel, saved time (speed) and money, being easy-to-use and flexibility of using without place and time constraints (p.56). Other benefits may be customization (Bitner et al., 2000) features. By solving many needs, it may perform better than the alternative interpersonal way of service delivery in such encounters (S.C. Chen, H.H. Chen, & Chen, 2009). In addition to this, customers may perceive a service encounter including an SST option as enjoying (Dabholkar, 1996).

Hoffman and Bateson (2010) referred to the main purpose of SSTs as "*to automate routine interactions between customers and providers with the goal of providing convenience and efficiency to both parties*".

From the perspective of service providers, the main benefits are related to company costs in terms of both time and money (Beatson, Lee, & Coote, 2007) (e.g. a reduced number of contact, decreased number of personnel, avoiding costs occurring by unnecessary repetitions in transactions), accessing a wider customer base (Hilton, Hughes, Little, & Marandi, 2013), reaching worldwide markets without time or geographical boundaries (Bitner, Ostrom, & Meuter, 2002) having a chance for personnel to be assigned to more critical and valuable duties, improved productivity and competitiveness (Lee & Allaway, 2002), and increased satisfaction and use continuity (Bitner et al., 2002) when it works properly.

On the other hand, to replace human service with technology to some degree, firms need to invest in new knowledge and behavior. Due to the high fixed costs of implementing SSTs to service processes at first, companies need to attract a considerable number of customers to use it (Lee & Allaway, 2002). It may be disadvantageous when the effect of technology anxiety (Meuter et al., 2003) is considered for trial decision. Consumers may have concerns about privacy and security, such as keeping the conversation confidential and not to receive uninvited communications (Bitner et al., 2000). The perceived effort required to use the relevant technology, perceived complexity of service encounter with SSTs, reliability and

accuracy of outcome and consumer control over the process are stated as characteristics associated with SSTs (Dabholkar, 1996). Consumers prefer to use SST options when it gives a sense of control, by being able to use them anytime (Michelle Bobbitt & Dabholkar, 2001).

It could be dissatisfying when a self-service design is not well designed (or has the technology and/or process failure, as well) and also very unfortunate for companies when customers do not take any responsibility for dissatisfactory encounters (Meuter et al., 2000). SSTs can be the major source of dissatisfaction when they go wrong in some part of the process. For instance, by lack of design, a hospital's automated phone system providing various options, but surprisingly the option stated "*If this is an emergency…"* as the ninth one (Hoffman & Bateson, 2010). Besides, people seeking human interaction in delivery processes may have lower degrees of satisfaction or intention to use. Consumers who are used to service assistance, may not be so eager to adopt new technologies (Lee & Allaway, 2002). Dabholkar (1996) portrayed disposition toward the use of technology-based self-service options as an important antecedent that has been highlighted very much in the literature, comprising of consumers' attitude toward using technological products and need for interaction with service personnel. Michelle Bobbitt and Dabholkar (2001) stated that service marketers should consider that consumers can be frustrated in their attempts to use SSTs, and it is important to successfully determine the goals and expectations of consumers regarding service encounter, whether it is simplicity, convenience or time-saved, etc. Because SSTs refers to the co-production of the service, it requires service customers to engage in additional behaviors (Meuter, Bitner, Ostrom, & Brown, 2005). The results of the study of Reinders, Frambach, and Kleijnen (2015) show that technology experts have fewer positive evaluations of the new self-service than technology novices, which may be an interesting fact. Even benefits are exciting, this fact cannot be useful unless customers adopt and use these technologies (Lin & Chang, 2011). At the end of the day, the most important thing is what consumers think, feel or say about the service.

As a transition, sometimes companies use some tactics on customers to practice these technologies or give incentives to gather customer attention. Some scholars (Liu, 2012; Reinders, Dabholkar, & Framback, 2008) investigated the consequences of forced use where consumers have no other options but to use. The results of a study (Liu, 2012) showed that forced use increases anxiety and affects technology trust, satisfaction, and behavioral intentions negatively. In practice, there are such implementations that do not include forced use only, but also charging additional fees for traditional service or giving bonuses or prizes for SSTs (Reinders et al., 2008).

4.2.2. What are the Critical Issues on SSTs?

Companies are becoming more innovative with technology. Each service industry finds its ways of business innovation. Not so long ago, consumers saw the introduction of customer-oriented SSTs in restaurants and bars. Customers now can order via digital menus loaded on tablets or tableside electronic monitors (Ahn & Seo, 2018). For the hospitality and tourism industry, it has been a growing and anticipated trend that has been spread with the help of airport automated check-in machines or self-service check-in kiosks at hotels (Wei, Torres, & Hua, 2016), electronic tourist guides, tourist information kiosks, self-service systems in dining facilities (Oh, Jeong, & Baloglu, 2013), and with other newly added channels and technologies. Replacing human waiters or paper menus with technological self-service devices could give an advantageous position to a service company by providing a variety of services also caring for operational efficiency (Ahn & Seo, 2018). But, is there something missing for consumers and what should companies do? Service providers need to ask this question a lot, no matter what. Researchers also asked lots of similar questions on the assimilation and use of these technologies. Several studies investigated issues involving SSTs in several sectors, focusing on different aspects such as SST service quality (Lin & Hsieh, 2011), customer satisfaction (Meuter et al., 2000; Robertson, McDonald, Leckie, & McQuilken, 2016) loyalty (Schuster, Proudfoot, & Drennan, 2015); effects of customer readiness and individual differences (Meuter et al., 2005), technology readiness (Liljander, Gillberg, Gummerus, & Van Riel, 2006; Lin & Chang, 2011; Wang, So, & Sparks, 2017), past experiences and value (Nijssen, Schepers, & Belanche, 2016), SST design features (Zhu, Nakata, Sivakumar, & Grewal, 2007) situational variables related to time and space (Collier, R.S. Moore, Horky, & Moore, 2015), service recovery (Collier, Breazeale, & White, 2017), and so many others on such behavioral aspects.

There are notable findings from studies on SSTs in the accommodation sector. Ahn and Seo (2018) discovered the significant role of consumers' gadget-loving propensity on their responses to interactive SSTs in restaurants, stating that the effects of perceived quality of interactive SSTs on use is higher among consumers who love this kind of gadgets more. A research on the customers of a large hotel chain revealed that fun is an important antecedent on usage behavior however, some consumers may avoid using SST kiosks for options regarding the process beginning from their check-in to checkout due to the need of a technological pause on vacation (Rosenbaum & Wong, 2015). Reducing customer waiting times is one of the most important issues in service process design and with SSTs customers may experience less time-related costs. A simulation study by Kokkinou and Cranage (2013)

revealed that waiting-times in a hotel check-in process was influenced by the resources available to customers, the number of recipients, the processing speed of the self-service kiosk and the failure rate. When the processing times of kiosks are longer and they tend to fail much, people wait too much during busy hours. So, the design and the performance also are what matters. This is also one of the significant issues of the study of Oh et al., (2013). The authors declared that designers of SSTs must be careful considering hotel customers' non-technology related concerns and motivations such as privacy, to be able to design more effective SSTs. A different study (Oh, Jeong, Lee, & Warnick, 2016) provided empirical evidence on the effects of situational (waiting line and task complexity) and attitudinal variables (technology trust and anxiety) on consumers' acceptance of SSTs. Customers prefer SSTs for fast and less complicated transactions. On the other hand, when consumers have much to learn from the service provider and there are only a few people waiting in line, they may not prefer to use SSTs. This may provide valuable insights for hotel operators to also consider a proper control on the situational conditions.

There is a self-service technology infusion in transportation. Besides cost savings for companies, online check-in systems provide more choice, service convenience, and control (Lee, 2016), as well as other SSTs such as airport check-in kiosks or by the use of mobile phones (Lu, Chou, & Ling, 2009). Ku and Chen (2013) stated that the communication of service process between passengers and SSTs should be more transparent, kiosks should display pleasing visual designs, and enjoyment is an important moderator between use intention and actual behavior. In a study from Turkey (Gures, Inan, & Arslan, 2018), among Y generation passengers (Millenials), functionality, speed, and enjoyment again are found to be crucial factors affecting usage. Castillo-Manzano and López-Valpuesta (2013) investigated the choice between check-in modes (desk, online, kiosk) and discovered that the factors that determine consumers' choice are found as age and level of education, waiting time, the reason for the journey, and the type of airline. In another study (Gelderman, Paul, & Van Diemen, 2011) examining consumer choices between SSTs and interpersonal service delivery, the authors stated that time-saving SSTs are more appealing in overcrowded situations, thus perceived crowdedness is important in making choices.

For financial services and the banking sector, the use of SSTs is not something new. Withdrawing money from an ATM has become a routine for most people. The banking sector takes advantage of information technologies, and the Internet to run internal activities and to deliver services to their customers. Thus, customers are less dependent on branch banking and they tend to devote less time and effort to such activities (Martins, Oliveira, & Popovič,

2014). Eriksson and Nilsson (2007) investigated the antecedents to consumers continued use of SSTs in the context of Internet banking and found that perceived usefulness positively affects the use, but multichannel satisfaction (concerning experiences in all other channels) negatively affects the continued use of SST, as an interesting finding. In another study in the same context (Ho & Ko, 2008), the effects of SSTs on value and customer readiness were examined. The results show that characteristics of SST such as usefulness, ease of use, costs saved, and self-control positively affect consumer value and readiness. Ding, Verma, and Iqbal (2007) have a study on the drivers of choice among different service modes for financial services (investments). The authors stated that self-service customers prefer it due to personal control, saved time and effort and to avoid personal contact. In a different study (Curran & Meuter, 2005), a comparison of three technologies (ATM, telephone banking and online banking) demonstrated that there are considerable differences in terms of attitudes. According to the results, usefulness is a significant predictor of attitudes toward ATMs and telephone banking, except for online banking. Besides the ease of use affects attitudes toward ATMs only while the perceived risk is an important determinant of attitudes toward online banking.

4.3. Mobile Services – To Use or Not to Use?

Mobile devices and mobile applications initiated many changes in people's lives, the way they interact with each other and interact with companies. The number of mobile applications on the market has increased to a great extent. Applications can be used for many purposes such as undertaking some transactions related to banking services, tracking packages of shopped items, booking an airline ticket or to make check-in, or to look for information about movie theaters or tickets (Leon, 2018). On the other hand, companies also make use of mobile applications to have customer insights based on their use and consumption habits (Lee, 2018) or to create loyal customers, besides making a profit. Mobile devices are another way to deliver service (self-service), in fact even a tailor-made service, and companies should truly understand the relationship between customers and this technology (Priya, Gandhi, & Shaikh, 2018).

There is a growing trend of the use of mobile services such as mobile instant messaging applications (for communication), mobile search (for information) or mobile music services (for entertainment) (Zhou, 2011). Mobile banking has also been used by many people since its introduction. Today, banking services and numerous related activities can be handled via mobile devices. The banking activities in the modern world are becoming more and more dependent on technology (Koksal, 2016), thus, a mobile channel and its premises should be truly understood. In a recent study (Leon, 2018) on service mobile applications concerning Millenials, the author stated that information quality, ease of use, usefulness and self-efficacy

affect intention to use mobile applications, as service attributes. Another study (Priya et al., 2018) on young consumers' adoption of mobile banking revealed that perceived ease of use, usefulness, credibility and structural assurance highly increase satisfaction and use intention. According to the results of a different one in the same context (Koenig-Lewis, Palmer, & Moll, 2010) perceived usefulness, compatibility and risk are significant antecedents. Zhou (2011) stated that establishing consumers' initial trust is vital for mobile service providers. A cross-cultural study (Sampaio, Ladeira, & Santini, 2017) pointed out the consumer complaints mostly included ease of use, convenience and security reasons. Another cross-cultural study (Mortimer, Neale, Hasan, & Dunphy, 2015) revealed that national culture is an important factor in consumers' adoption. Further, it is important for companies to retain loyal mobile users, when perceived risk and satisfaction are the factors to be considered (Yuan, Y. Liu, Yao & Liu, 2016). According to Moser (2015), discussions on mobile banking point out that the number of people who adopt and use this channel will highly increase in the near future, mostly due to technological innovations and the served convenience, usefulness and availability. Considering a step forward, the author proposes the probable integration of social networks into the context of mobile banking in the related study. Malaquias and Hwang (2016) declared that mobile banking is an appealing technology where both players in the banking sector and consumers can benefit. Thus, related parties in the banking sector should work on increasing the benefit perceptions of mobile banking (Akturan & Tezcan, 2012) to support service ecosystems.

Booking hotel rooms, renting houses, or purchasing tickets for airlines, cars and other transportation vehicles through the Internet is considerably widespread among individuals. For hotel room distribution, it is one of the most important channels besides traditional channels (via agents, phone or in-hotel) with provided convenience and ease. From hotel's mobile sites and mobile booking apps offered by third party organizations (Ismail, Hemdi, Sumarjan, Hanafiah, & Zulkifly, 2017), customers get the needed information and service. A study in this context stated that customers need ease of navigation with a convenient experience while they are experiencing the technology, thus, the design of user interfaces again matters (Öztürk, Bilgihan, Nusair, & Okumuş, 2016). Mobile apps help to serve with personalized interfaces. However, for a complete personalized experience, users may need to give some personal information in return. Morosan and DeFranco (2016), who investigated users' intentions to use hotel mobile applications for personalized services, suggested that service providers should provide assurance that mobile systems are secured and have relevant measures for maintaining privacy, concerning the negative effects of privacy concerns.

Another study (Tao, M.Z. Nawaz, Nawaz, Butt, & Ahmad, 2018) indicated the importance of personalized encounters, declaring the compatibility of consumers' goals of finding an application that matches well with their tastes and lifestyles, with convenience. Besides mobile banking, perceived risk has got considerable attention in mobile shopping and mobile booking (Park & Tussyadiah, 2017) due to the intangible nature of tourism and hospitality services which affects customers' confidence over their decisions. A study (Mallat, Rossi, Tuunainen, & Öörni, 2008) examining mobile ticketing services adoption for public transportation revealed that contextual factors, such as budget, pressure by time and availability of other alternatives affect use behavior.

Healthcare services is another area that gathers both services sector participants and marketing scholars' attention. Especially in developing countries, mobile health services are gaining attention as a form of information and communications technology (Hoque & Sorwar, 2017). Deng, Mo, and Liu (2014) defined mobile health services as "*the services or applications regarding the provision of health care, prevention, diagnosis, treatment, and monitoring services via mobile devices*". Akter, Ray, and D'Ambra (2013) defined them as "*a personalized and interactive health service with the goal of providing ubiquitous and universal access to medical advice and information by any user at any time over a mobile platform*". Mobile services in this area are expanding worldwide due to the growing elderly population and chronical diseases (Zhang, Lai, & Guo, 2017). Via mobile services, people can seek medical advice, register for appointments, see medical test results or have self-treatment cures after diagnosis at their convenience (Deng et al., 2014). Although mobility maintains benefits such as portability, timeliness and ubiquitous data streaming (Wang et al., 2018), because the success of these services is highly related to the compliance of customers with instructions, the productivity of the services necessitates patient performance, also known as customer participation (Dellande, Gilly, & Graham, 2004). Again, the existence of privacy-personalization paradox was discussed in the health-care services context in mobile (Guo, Zhang, & Sun, 2016), where concerns on privacy were found to negatively affect and personalization positively affect adoption intention, but trust mediates this relation.

To conclude, benefits offered matter, but, the level of perceived risk, trust and the level of satisfactory experiences are also important antecedents in mobile services adoption and use.

5. Predicting the Near and Distant Future of Services

Marketing scholars are wondering what topics will be important for services marketing and services marketing research in the future. A research (Kunz & Hogreve, 2011) discovered

that key trends for the near future are mostly about online services, technology infusion in services, cocreation and coproduction (consumer participation to enhance service processes), dynamic customer satisfaction management, managing B2B services (especially in manufacturing firms, as declared) and some other related factors.

More knowledgeable consumers, increased use of computer-mediated communications via websites, chat rooms, established communities online (Misra, Mukherjee, & Peterson, 2008) also may force or support companies in the introduction of new services and service innovation. Companies can benefit from these environments to gain deep insights and also to adaptively personalize their service offerings individually. Considering information-based service offerings (music, video, some professional services, etc.), which is one of the fastest-growing type, consumers' options boost exponentially as the possibility of differentiating and customizing service offerings is higher (Chung, Rust, & Wedel, 2009). Customized service offerings are thought to be one of the most important trends in many sectors today and for the future.

One trend that should be discussed in detail is the concept of consumer participation, as mentioned before. Both marketing scholars and practitioners need to find-out the best-suited ways to include customers into service production and the delivery process, to different degrees and analyze its' emotional or psychological outcomes (Kunz & Hogreve, 2011). Consumers' role in design and production may vary based on the type of service offer. Active participation of consumers (also referred to with the term "*partial*" employees, because consumers can influence the outcome) can be needed in a weight-reduction programme or legal counselling (Bitner, Faranda, Hubbert, & Zeithaml, 1997). Health-care, consulting or educational services offer more opportunities for consumers to participate in the design, whereas in SSTs there is a higher probability for consumers to participate in production (Dong, 2015). Based on S-D logic (Vargo & Lusch, 2004), customers are always co-creator of value, thus, designing or designating proper roles for them to participate is important for today's companies, such as designing a self check-out or employee check-out in a shop, or providing tutoring online, mobile or face-to-face, or promoting participation in a community held by a service brand's advocates where a new service idea is discussed, and so on. Companies should make wise choices considering all facets of a service encounter.

There is a huge influence of information management on the success of any service exchange (Dong, 2015). With all benefits such as wide reach and capacity to disseminate information, social media can be an important channel to engage customers in (Pookulangara, 2012). It is a place where it is convenient for customers to share all their ideas about

companies, services, brands, etc. Besides, there is an interaction going on between participants in a virtual space, and tracking consumers or communities' demand or complaints can be possible. Marketing activities in social media offer much potential for service companies. As consumer's power is increasing with the digital age, rise of the Internet and then, social media supported and accelerated the process of individuals' integration as a powerful party. These individuals become crowds, and then, develop into network-based power centers helping to introduce new services or concepts such as crowd-funding services, crowd-selling, crowd-support, somewhat similar in philosophy to peer-to-peer forums, or sharing economy (For more detailed information about the evolution of consumer empowerment, see the study of Labrecque, vor dem Esche, Mathwick, Novak and Hofacker, 2013). Accordingly, another trend can be collaborative consumption of services, which means that services are being consumed by sharing practices (Guyader, 2018), the most popular examples can be seen in the hospitality and transportation sectors.

Tourism is one of the fastest-growing service sectors, where considerable innovations are seen for services. Hotel chains aiming for growth, listen to their customers and incorporate big data insights (will be explained in the following section) and go beyond the segmentation approach to tailored services. Much like travel companies that offer several services together (seat, meal, transport, etc.), hotel chains follow this trend and offer multiple related services in one package (Richard, 2017), which is also referred to as bundled services. There are hotel chains today that establish innovation labs and use crowdsourcing to find solutions, discover new ideas and to co-create (Richard, 2017). These service providers feel obligated to do it, because there are alternative ways, channels, service models that bring customers and suppliers together. For example, as an innovative accommodation product (Geissinger, Laurell, & Sandström, 2018), it is declared that Airbnb has affected the perceptions of service consumers and related parties. Forgacs and Dimanche (2016) defined their business model using the term "*a cloud-based matchmaker*". Thus, this peer-to-peer sharing economy platform triggered changes in the sector (Guttentag & Smith, 2017), even if they are not full substitutes of each other (Blal, Singal, & Templin, 2018). However, it is a promising field.

The main assumption is that companies will no longer compete on providing superior value, but creating and managing seamless customer experience and long-term emotional bonds by memorable experiences will be the concern (Bitner, Ostrom, & Morgan, 2008). The banking sector follows a trend toward online and virtual reality banking and new service models, like using mobile assistants. Even services including high human interaction are supported with mass-customized and more convenient service elements with the help of

technology (Gilmore, 2003). Health-care services providers enable consumers to schedule appointments online, validate insurance information in the doctor's office using portable tablets or receive information on test results or diagnosis via mobile apps (Lin & Hsieh, 2011). Companies' use of alternative channels (face-to-face, web, mobile, SSTs, telephone, etc.) together effectively has given birth to a new marketing idea referred to as omnichannel marketing, which aims for a unique brand and shopping experience. According to this marketing concept, companies need to manage and optimize the offerings and performance of each channel preferred (Öztürk & Okumuş, 2018). It is defined as an "*Optimization approach in channel management by pursuing total integration among each interaction point for brand-customer communications, brand offers and of all channels regarding design, management and control activities to deliver consistent and unique consumer value by virtue of advanced technology*" (Öztürk & Okumuş, 2018). Today, omnichannel orientation seems to have become a fundamental part of the retail banking sector (Komulainen & Makkonen, 2018) and several others.

Russell-Bennett and Baron (2015) stated fresh ideas for services as the following: services marketing for the bottom of the pyramid, virtual services, new ways to collect and measure data, big data and service analytics, and such.

5.1. Big Data, Artificial Intelligence, Robots, and Where to Go Next?

Today, big data enables many benefits, but also challenges for companies. With the help of current information and communication technologies, organizations are getting closer to their customers and creating a competitive advantage by virtue of big data approaches and the sustained customer intelligence. The ability to control customer-related data in large scales is important for service companies. This vision can support business, product and customer relationship management strategies by enabling better targeting and customization through data-driven insights (Kunz et al., 2017). Some marketing scholars (Motamarri, Akter, & Yanamandram, 2017) asked how big data analytics can affect front-line service personnel in service delivery, and stated that it may be beneficial for changing service dynamics for several reasons such as;

- managing customer value over time by linking declared customer concerns to amenable solutions,
- improving relationships by making accurate suggestions to customers by past shopping history,

- providing customized and real-time service by proactive service process design,
- creating new service offerings by seeing strategic gaps in the market,
- assisting in decision-making process and demand forecasting,
- applying dynamic pricing practices based on historical data,
- better segmentation,
- better optimization and supply chain or operational effectiveness,
- ability to control and manage service design, etc.

Because front-line personnel can be seen as the face of any service company, opportunities created with big data are important, especially in high-contact service types as in health-care or financial services. Big data has also gained scholar attention for privacy concerns and ethical aspects. The applications have begun to be used by some service industries (banking, telecommunication and utilities, etc.), while it is referred that service marketers still need to study the use of big data to improve firm performance and customer relations (George & Wakefield, 2018; Ostrom, Parasuraman, Bowen, Patrício, & Voss, 2015).

It has been said that in the upcoming decades, machine learning algorithms and artificial intelligence (AI) will play an essential role in the lives of consumers (Tuominen & Ascenção, 2016). Machine learning is a field that establishes methods appropriate for uncovering, mapping and classifying themes and trends in big data sets (Antons & Breidbach, 2018) as utilization of AI. The rapid development of AI and related new digital technologies and devices (smartphones, robotics, intelligent agents, etc.) are changing the way customers and companies interact. These company-owned or customer-owned technologies and human actors get into close touch in physical or digital service environments, creating human-technology or technology-technology encounters other than human-to-human interactions (Larivière et al., 2017). The present increase in wearable technologies will give companies a handful of opportunities for data and information. AI is definitely reshaping services, being used for many tasks and as a source of innovation. Huang and Rust (2018) discussed AI in service ecosystems both with offered opportunities and some drawbacks threatening human jobs by undertaking all tasks. The authors stated that robots for houses, hotels, restaurants or health sector automated so many things. Many service tasks have turned into self-service by virtual technologies. Besides, big data analytics is supposed to replace the job of managers, there are robots or touch-screen kiosks in place of human greeters in customer-facing services. For the diagnosis of human diseases, AI and deep learning algorithms may provide more

consistent results, such as in cancer patients (Esteva et al., 2017). There are applied technologies as integrated systems, such as in-car intelligent systems that replace problem diagnosis by technicians in the automotive industry (Huang & Rust, 2018). In the report of OECD (2019), the impact and applications of AI in society are presented in detail with examples from various areas, including transportation, financial services, marketing, advertising, security, public sector, etc. Briefly, the impact of AI on the service sector could be good for increasing productivity and all benefits including cost savings, but thinking of human labor and jobs, maybe businesses need to approach with caution. Another recent study by Wirtz et al. (2018) on the potential role of service robots revealed that these technologies will have significant implications concerning individual experiences, the market and the prices, and all key stakeholders at the macro level. The authors defined service robots as "*system-based autonomous and adaptable interfaces that interact, communicate and deliver service to an organization's customers*". They also classified service robots based on task type (physical or virtual service robots: humanoid or non-humanoid robots) and the recipient of the service (holograph-based, video-based, voice-based, text-based, software integrated) referring different examples. At the macro level, considerable cost-saving can be the issue that matters the most.

Ivanov, Webster, and Berezina (2017) studied the adoption of robots and service automation by tourism and hospitality companies. Supported by AI, there is an increase in the level of the use of automation and robots in this sector. The authors presented examples from a hotel in Japan that has no human employees, hotel rooms with a smart digital assistant managed with voice-control in the USA, or totally automated restaurants. In hotels, robots can handle many tasks; house-keeping, delivery, assistance, or in an event, robots can assist, work as booth attendants, chefs, cleaners, bartenders, servers or guides. In an airport terminal, there could be an airport robot guide, bag drop robots, robotic agents for customer service, entertainment robots, etc. There could be a robot sales agent in a travel agency. Besides, service automation would be highly used with mobile apps, QR codes, interactive kiosks or displays.

The predictions on the future of the tourism and hospitality sector vary in the literature. Projections concerning emerging economies, information and communications technologies, demographic and environmental changes and such factors refer to changes in the role of hotels. In their study, Tuominen and Ascenção (2016) presented the service design of hotels of the future, integrating wireless, mobile, wearable technologies by different scenarios; including attributes such as a personal monitoring device held by a travel guide, wristwatches

keeping track of bodily functions, or sensor floors in rooms to gain real-time customer insight. According to their study, robotic butlers, holographic screens, personal wireless monitoring, personalized sounds/odors, remote medical assistance, automated luggage-handling, automated room access with near field communications (NFC) are declared among the most relevant technologies of the near future also available for the hospitality and tourism sector. Kalakou, Psaraki-Kalouptsidi, and Moura (2015) conducted a study on future airport terminals simulating such new technologies; automated bag-drop off systems, passenger and baggage check-in via SSTs, smart security measures, use of biometric machines for identity confirmation (facial and voice recognition systems), besides the use of NFC to allow transfer of data between enabled devices, smartphones as wallets and big data for an improved customer experience.

In fact, consumers in today's world are used to service automation which is also seen in ATMs, store self check-outs and vending machines (Ivanov, Webster & Berezina, 2017). But the aforementioned examples are the next level due to equipped technology.

6. Conclusion

Today, there are new ways of service creation and consumption owing to great amounts of available consumer data and technology. The proliferation of new service channels and new services offers potential for making such contributions to society and people's everyday life. E-services emerge for many service sectors including communication, retail shopping, entertainment business, health-care, finance, etc. (Leimeister et al., 2014). Globalization, increasing wealth and standards of living in developed or developing countries, individuals rising expectations for personalized services for education, entertainment, and some others also work as a driving force in such sectors (Barrett, Davidson, Prabhu, & Vargo, 2015). Based on their study, Tuominen and Ascenção (2016) declared the most important and valued driving forces behind the service design of the future as fragmented consumer types, technology, aging populations, global warming, urbanization, increasing wealth, slow culture for food, travel, etc., and the list goes on with other factors. Durmusoglu et al. (2018) stated that in emerging economies, specific external factors; economic turbulence, political instability or the weather could force organizations to offer innovative products.

Service innovation is dynamic, transformative and interactive, but can also be seen as risky (Witell et al., 2015). But, to catch up with the new world and conditions, service innovation is a must for companies. As mentioned earlier, there are many new technologies to choose from; SSTs, mobile services, robotics, etc. SSTs are employed by many service

sectors, banks, insurance companies, hotels, and by a variety of retail operations (Hoffman & Bateson, 2010). A service provider may adopt SSTs as a mechanism to co-create value, but they also need to consider the consequences of shifting responsibility to the consumer in some degree (Hilton et al., 2013). Besides, businesses should not think that customers view all options favorably (Rosenbaum & Wong, 2015). On the adoption of service robots, Wirtz et al. (2018) stated that it depends on how well these robots satisfy functional needs, and also emotional and relational needs. Besides, SSTs and robotics could be different in terms of flexibility of interaction and service scripts, customers' error tolerance and service recovery solutions.

When choosing a new way in the design or delivery of a service offering, service providers should aim to gather the best of each alternatives considering the aforementioned benefits and drawbacks in previous sections. Both profitability for the business and value for consumers matter. Accordingly, adoption, use or likability of these innovations will change. An honest projection about the effects of the related innovations on service convenience, service quality and loyalty should be made and analyzed.

Due to the increasing number of participants in the service field (Fisk & Grove, 2010), today's service ecosystems are crowded and sometimes overloaded. Thus, these analysis processes also can be made with the help of related technologies, making use of consumer data, AI and big data analytics to obtain accurate and valuable results.

Changing trends in consumption styles and consumers should be the main concern on business decisions. For example, it is found that younger consumers are more interested in the newest technologies (Harris, Cox, Musgrove, & Ernstberger, 2016) in the context of banking services, so for the adoption of these innovations, service providers may look for these target audiences first. They need to both encourage consumers to use these technologies and offer alternatives for people who are not so capable or ready to adopt new technologies (Lin & Hsieh, 2012). There can be more work on the benefits sought by the offers of technology to be fully understood (Curran & Meuter, 2005) because, as declared by some scholars (Sharma et al., 2018), there are many questions to be answered or research gaps to resolve.

References

Aguiar, L., & Martens, B. (2016). Digital music consumption on the internet: evidence from clickstream data. *Information Economics and Policy, 34*, 27-43. https://doi.org/10.1016/j.infoecopol.2016.01.003

Ahn, J. A., & Seo, S. (2018). Consumer responses to interactive restaurant self-service technology (IRSST): The role of gadget-loving propensity. *International Journal of Hospitality Management, 74,* 109-121. https://doi.org/10.1016/j.ijhm.2018.02.020

Akaka, M. A., & Vargo, S. L. (2015). Extending the context of service: from encounters to ecosystems. *Journal of Services Marketing, 29*(6/7), 453-462. https://doi.org/10.1108/JSM-03-2015-0126

Akter, S., Ray, P., & D'Ambra, J. (2013). Continuance of mHealth services at the bottom of the pyramid: the roles of service quality and trust. *Electronic Markets, 23*(1), 29-47. https://doi.org/10.1007/s12525-012-0091-5

Akturan, U., & Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence & Planning, 30*(4), 444-459. https://doi.org/10.1108/02634501211231928

Antons, D., & Breidbach, C. F. (2018). Big data, big insights? Advancing service innovation and design with machine learning. *Journal of Service Research, 21*(1), 17-39. https://doi.org/10.1177/1094670517738373

Barrett, M., Davidson, E., Prabhu, J., & Vargo, S. L. (2015). Service innovation in the digital age: key contributions and future directions. *MIS quarterly, 39*(1), 135-154.

Beatson, A., Lee, N., & Coote, L. V. (2007). Self-service technology and the service encounter. *The Service Industries Journal, 27*(1), 75-89. https://doi.org/10.1080/02642060601038700

Benoit, S., Klose, S., & Ettinger, A. (2017). Linking service convenience to satisfaction: dimensions and key moderators. *Journal of Services Marketing, 31*(6), 527-538. https://doi.org/10.1108/JSM-10-2016-0353

Berry, L. L. (1980). Services marketing is different. *Business, 30*(3), 24-29.

Berry, L. L. (2016). Revisiting "big ideas in services marketing" 30 years later. *Journal of Services Marketing, 30*(1), 3-6. https://doi.org/10.1108/JSM-10-2015-0318

Berry, L. L., Seiders, K., & Grewal, D. (2002). Understanding service convenience. *Journal of Marketing, 66*(3), 1-17. https://doi.org/10.1509/jmkg.66.3.1.18505

Bitner, M. J. (1995). Building service relationships: it's all about promises. *Journal of the Academy of Marketing Science, 23*, 246-251. https://doi.org/10.1177/009207039502300403

Bitner, M. J., Brown, S. W., & Meuter, M. L. (2000). Technology infusion in service encounters. *Journal of the Academy of Marketing Science, 28*(1), 138-149. https://doi.org/10.1177/0092070300281013

Bitner, M. J., Faranda, W. T., Hubbert, A. R., & Zeithaml, V. A. (1997). Customer contributions and roles in service delivery. *International Journal of Service Industry Management, 8*(3), 193-205. https://doi.org/10.1108/09564239710185398

Bitner, M. J., Ostrom, A. L., & Meuter, M. L. (2002). Implementing successful self-service technologies. *Academy of Management Perspectives, 16*(4), 96-108. https://doi.org/10.5465/ame.2002.8951333

Bitner, M. J., Ostrom, A. L., & Morgan, F. N. (2008). Service blueprinting: a practical technique for service innovation. *California Management Review, 50*(3), 66-94.

Blal, I., Singal, M., & Templin, J. (2018). Airbnb's effect on hotel sales growth. *International Journal of Hospitality Management, 73*, 85-92. https://doi.org/10.1016/j.ijhm.2018.02.006

Blut, M., Wang, C., & Schoefer, K. (2016). Factors influencing the acceptance of self-service technologies: A meta-analysis. *Journal of Service Research, 19*(4), 396-416. https://doi.org/10.1177/1094670516662352

Bodkin, C., & Miaoulis, G. (2007). eHealth information quality and ethics issues: an exploratory study of consumer perceptions. *International Journal of Pharmaceutical and Healthcare Marketing, 1*(1), 27-42. https://doi.org/10.1108/17506120710740261

Brown, S. W., Fisk, R. P., & Bitner, M. J. (1994). The development and emergence of services marketing thought. *International Journal of Service Industry Management, 5*(1), 21-48. https://doi.org/10.1108/09564239410051894

Cain, M. M., Sarasohn-Kahn, J., & Wayne, J. C. (2000). Health e-people: the online consumer experience. *Institute for the Future*, 1-73.

Castillo-Manzano, J. I., & López-Valpuesta, L. (2013). Check-in services and passenger behaviour: Self service technologies in airport systems. *Computers in Human Behavior, 29*(6), 2431-2437. https://doi.org/10.1016/j.chb.2013.05.030

Chen, S. C., Chen, H. H., & Chen, M. F. (2009). Determinants of satisfaction and continuance intention towards self-service technologies. *Industrial Management & Data Systems, 109*(9), 1248-1263. https://doi.org/10.1108/02635570911002306

Chung, T. S., Rust, R. T., & Wedel, M. (2009). My mobile music: An adaptive personalization system for digital audio players. *Marketing Science, 28*(1), 52-68. https://doi.org/10.1287/mksc.1080.0371

Collier, J. E., Breazeale, M., & White, A. (2017). Giving back the "self" in self service: customer preferences in self-service failure recovery. *Journal of Services Marketing, 31*(6), 604-617. https://doi.org/10.1108/JSM-07-2016-0259

Collier, J. E., Moore, R. S., Horky, A., & Moore, M. L. (2015). Why the little things matter: Exploring situational influences on customers' self-service technology decisions. *Journal of Business Research, 68*(3), 703-710. https://doi.org/10.1016/j.jbusres.2014.08.001

Cudmore, B. A., Bobrowski, P. E., & Kiguradze, T. (2011). Encouraging consumer searching behavior on healthcare web sites. *Journal of Consumer Marketing, 28*(4), 290-299. https://doi.org/10.1108/07363761111143187

Cunningham, L. F., Young, C. E., & Gerlach, J. (2009). A comparison of consumer views of traditional services and self-service technologies. *Journal of Services Marketing, 23*(1), 11-23. https://doi.org/10.1108/08876040910933057

Curran, J. M., & Meuter, M. L. (2005). Self-service technology adoption: comparing three technologies. *Journal of Services Marketing, 19*(2), 103-113. https://doi.org/10.1108/08876040510591411

Curran, J. M., & Meuter, M. L. (2007). Encouraging existing customers to switch to self-service technologies: put a little fun in their lives. *Journal of Marketing Theory and Practice, 15*(4), 283-298. https://doi.org/10.2753/MTP1069-6679150401

Çelik, H. (2008). What determines Turkish customers' acceptance of internet banking?. *International Journal of Bank Marketing, 26*(5), 353-370. https://doi.org/10.1108/02652320810894406

Dabholkar, P. A. (1996). Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality. *International Journal of Research in Marketing, 13*(1), 29-51. https://doi.org/10.1016/0167-8116(95)00027-5

Dauda, S. Y., & Lee, J. (2015). Technology adoption: A conjoint analysis of consumers′ preference on future online banking services. *Information Systems, 53*, 1-15. https://doi.org/10.1016/j.is.2015.04.006

Dellande, S., Gilly, M. C., & Graham, J. L. (2004). Gaining compliance and losing weight: The role of the service provider in health care services. *Journal of Marketing, 68*(3), 78-91. https://doi.org/10.1509/jmkg.68.3.78.34764

Deng, Z., Mo, X., & Liu, S. (2014). Comparison of the middle-aged and older users' adoption of mobile health services in China. *International Journal of Medical Informatics, 83*(3), 210-224. https://doi.org/10.1016/j.ijmedinf.2013.12.002

Ding, X., Verma, R., & Iqbal, Z. (2007). Self-service technology and online financial service choice. *International Journal of Service Industry Management, 18*(3), 246-268. https://doi.org/10.1108/09564230710751479

Dong, B. (2015). How a customer participates matters:"I am producing" versus "I am designing". *Journal of Services Marketing, 29*(6/7), 498-510. https://doi.org/10.1108/JSM-01-2015-0020

Durmusoglu, S. S., Nayir, D. Z., Chaudhuri, M., Chen, J., Joens, I., & Scheuer, S. (2018). Barriers to firm service innovativeness in emerging economies. *Journal of Services Marketing, 32*(7), 925-944. https://doi.org/10.1108/JSM-11-2016-0411

Eriksson, K., & Nilsson, D. (2007). Determinants of the continued use of self-service technology: The case of Internet banking. *Technovation, 27*(4), 159-167. https://doi.org/10.1016/j.technovation.2006.11.001

Esteva, A., Kuprel, B., Novoa, R. A., Ko, J., Swetter, S. M., Blau, H. M., & Thrun, S. (2017). Dermatologist-level classification of skin cancer with deep neural networks. *Nature, 542*(7639), 115-118.

Ettinger, J. W. (1998). Consumer-perceived value: the key to a successful business strategy in the healthcare marketplace. *Journal of the American Geriatrics Society, 46*(1), 111-113. https://doi.org/10.1111/j.1532-5415.1998.tb01024.x

Featherman, M. S., & Hajli, N. (2016). Self-service technologies and e-services risks in social commerce era. *Journal of Business Ethics, 139*(2), 251-269. https://doi.org/10.1007/s10551-015-2614-4

Featherman, M. S., Miyazaki, A. D., & Sprott, D. E. (2010). Reducing online privacy risk to facilitate e-service adoption: the influence of perceived ease of use and corporate credibility. *Journal of Services Marketing, 24*(3), 219-229. https://doi.org/10.1108/08876041011040622

Fisk, R. P., & Grove, S. J. (2010). The Evolution and Future of Service: building and broadening a multidisciplinary field", In Maglio, P. P., Kieliszewski, C. A. and Spohrer, J.C. (Eds), Handbook of Service Science (pp. 641-661). New York: Springer, Boston, MA. https://doi.org/10.1007/978-1-4419-1628-0_28

Fisk, R. P., Brown, S. W., & Bitner, M. J. (1993). Tracking the evolution of the services marketing literature. *Journal of Retailing, 69*(1), 61-103. https://doi.org/10.1016/S0022-4359(05)80004-1

Forbes, L. P. (2008). When something goes wrong and no one is around: non-internet self-service technology failure and recovery. *Journal of Services Marketing, 22*(4), 316-327. https://doi.org/10.1108/08876040810881713

Forgacs, G., & Dimanche, F. (2016). Revenue challenges for hotels in the sharing economy: Facing the Airbnb menace. *Journal of Revenue and Pricing Management, 15*(6), 509-515. https://doi.org/10.1057/s41272-016-0071-z

Geissinger, A., Laurell, C., & Sandström, C. (2018). Digital distruption beyond Uber and Airbnb—Tracking the long tail of the sharing economy. *Technological Forecasting and Social Change*. Advance online publication. https://doi.org/10.1016/j.techfore.2018.06.012

Gelderman, C. J., Paul, W. T., & Van Diemen, R. (2011). Choosing self-service technologies or interpersonal services-The impact of situational factors and technology-related attitudes. *Journal of Retailing and Consumer Services, 18*(5), 414-421. https://doi.org/10.1016/j.jretconser.2011.06.003

George, M., & Wakefield, K. L. (2018). Modeling the consumer journey for membership services. *Journal of Services Marketing, 32*(2), 113-125. https://doi.org/10.1108/JSM-03-2017-0071

Gilmore, A. (2003). *Services Marketing and Management*. Sage.

Girard, T., & Dion, P. (2010). Validating the search, experience, and credence product classification framework. *Journal of Business Research, 63*(9-10), 1079-1087. https://doi.org/10.1016/j.jbusres.2008.12.011

Goetzinger, L., Park, J., Jung Lee, Y., & Widdows, R. (2007). Value-driven consumer e-health information search behavior. *International Journal of Pharmaceutical and Healthcare Marketing, 1*(2), 128-142. https://doi.org/10.1108/17506120710762988

Grove, S. J., Fisk, R. P., & John, J. (2003). The future of services marketing: forecasts from ten services experts. *Journal of Services Marketing, 17*(2), 107-121. https://doi.org/10.1108/08876040310467899

Gummerus, J., Liljander, V., Pura, M., & Van Riel, A. (2004). Customer loyalty to content-based web sites: the case of an online health-care service. *Journal of Services Marketing, 18*(3), 175-186. https://doi.org/10.1108/08876040410536486

Gummesson, E. (2010). The new service marketing, In Baker, M. & Saren, M. (Eds.). *Marketing Theory: A Student Text*. SAGE Publications Limited.

Gummesson, E., & Grönroos, C. (2012). The emergence of the new service marketing: Nordic School perspectives. *Journal of Service Management, 23*(4), 479-497. https://doi.org/10.1108/09564231211260387

Guo, X., Zhang, X., & Sun, Y. (2016). The privacy–personalization paradox in mHealth services acceptance of different age groups. *Electronic Commerce Research and Applications, 16*, 55-65. https://doi.org/10.1016/j.elerap.2015.11.001

Gures, N., Inan, H., & Arslan, S. (2018). Assessing the self-service technology usage of Y-Generation in airline services. *Journal of Air Transport Management, 71*, 215-219. https://doi.org/10.1016/j.jairtraman.2018.04.008

Guttentag, D. A., & Smith, S. L. (2017). Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations. *International Journal of Hospitality Management, 64*, 1-10. https://doi.org/10.1016/j.ijhm.2017.02.003

Guyader, H. (2018). No one rides for free! Three styles of collaborative consumption. *Journal of Services Marketing, 32*(6), 692-714. https://doi.org/10.1108/JSM-11-2016-0402

Harris, M., Cox, K. C., Musgrove, C. F., & Ernstberger, K. W. (2016). Consumer preferences for banking technologies by age groups. *International Journal of Bank Marketing, 34*(4), 587-602. https://doi.org/10.1108/IJBM-04-2015-0056

Heinonen, K., Strandvik, T., Mickelsson, K. J., Edvardsson, B., Sundström, E., & Andersson, P. (2010). A customer-dominant logic of service. *Journal of Service Management, 21*(4), 531-548. https://doi.org/10.1108/09564231011066088

Hilton, T., Hughes, T., Little, E., & Marandi, E. (2013). Adopting self-service technology to do more with less. *Journal of Services Marketing, 27*(1), 3-12. https://doi.org/10.1108/08876041311296338

Ho, S. H., & Ko, Y. Y. (2008). Effects of self-service technology on customer value and customer readiness: The case of internet banking. *Internet Research, 18*(4), 427-446. https://doi.org/10.1108/10662240810897826

Hoffman, K. D., & Bateson, J. E. (2010). *Services Marketing: Concepts, Strategies, & Cases*. 4th ed, Cengage learning.

Hoque, R., & Sorwar, G. (2017). Understanding factors influencing the adoption of mHealth by the elderly: An extension of the UTAUT model. *International Journal of Medical Informatics,, 101*, 75-84. https://doi.org/10.1016/j.ijmedinf.2017.02.002

Hsieh, Y. C., Chiu, H. C., & Chiang, M. Y. (2005). Maintaining a committed online customer: A study across search-experience-credence products. *Journal of Retailing, 81*(1), 75-82. https://doi.org/10.1016/j.jretai.2005.01.006

Huang, M. H., & Rust, R. T. (2018). Artificial intelligence in service. *Journal of Service Research, 21*(2), 155-172. https://doi.org/10.1177/1094670517752459

Ismail, M. N. I., Hemdi, M. A., Sumarjan, N., Hanafiah, M. H., & Zulkifly, M. I. (2017). Customer's acceptance, usage and M-satisfaction of mobile hotel reservation apps (MHRA). *Journal of Tourism, Hospitality & Culinary Arts, 9*(2), 1-18.

Ivanov, S. H., Webster, C., & Berezina, K. (2017). Adoption of robots and service automation by tourism and hospitality companies. *Revista Turismo & Desenvolvimento, 27*(28), 1501-1517.

Javalgi, R. R. G., Benoy Joseph, W., & LaRosa, R. J. (2009). Cross-cultural marketing strategies for delivering knowledge-based services in a borderless world: the case of management education. *Journal of Services Marketing, 23*(6), 371-384. https://doi.org/10.1108/08876040910985852

Kalakou, S., Psaraki-Kalouptsidi, V., & Moura, F. (2015). Future airport terminals: New technologies promise capacity gains. *Journal of Air Transport Management, 42,* 203-212. https://doi.org/10.1016/j.jairtraman.2014.10.005

Keaveney, S. M., & Parthasarathy, M. (2001). Customer switching behavior in online services: An exploratory study of the role of selected attitudinal, behavioral, and demographic factors. *Journal of the Academy of Marketing Science, 29*(4), 374-390. https://doi.org/10.1177/03079450094225

Koenig-Lewis, N., Palmer, A., & Moll, A. (2010). Predicting young consumers' take up of mobile banking services. *International Journal of Bank Marketing, 28*(5), 410-432. https://doi.org/10.1108/026523210110 64917

Kokkinou, A., & Cranage, D. A. (2013). Using self-service technology to reduce customer waiting times. International *Journal of Hospitality Management, 33*, 435-445. https://doi.org/10.1016/j.ijhm.2012.11.003

Koksal, M. H. (2016). The intentions of Lebanese consumers to adopt mobile banking. *International Journal of Bank Marketing, 34*(3), 327-346. https://doi.org/10.1108/IJBM-03-2015-0025

Komulainen, H., & Makkonen, H. (2018). Customer experience in omni-channel banking services. *Journal of Financial Services Marketing, 23*(3-4), 190-199. https://doi.org/10.1057/s41264-018-0057-6

Ku, E. C., & Chen, C. D. (2013). Fitting facilities to self-service technology usage: evidence from kiosks in Taiwan airport. *Journal of Air Transport Management, 32*, 87-94. https://doi.org/10.1016/j.jairtraman.2013.07.001

Kunz, W. H., & Hogreve, J. (2011). Toward a deeper understanding of service marketing: The past, the present, and the future. *International Journal of Research in Marketing, 28*(3), 231-247. https://doi.org/10.1016/j.ijresmar.2011.03.002

Kunz, W., Aksoy, L., Bart, Y., Heinonen, K., Kabadayi, S., Ordenes, F. V., ... & Theodoulidis, B. (2017). Customer engagement in a big data world. *Journal of Services Marketing, 31*(2), 161-171. https://doi.org/10.1108/JSM-10-2016-0352

Labrecque, L. I., vor dem Esche, J., Mathwick, C., Novak, T. P., & Hofacker, C. F. (2013). Consumer power: Evolution in the digital age. *Journal of Interactive Marketing, 27*(4), 257-269. https://doi.org/10.1016/j.intmar.2013.09.002

Lagrosen, S. (2005). Effects of the internet on the marketing communication of service companies. *Journal of Services Marketing, 19*(2), 63-69. https://doi.org/10.1108/08876040510591376

Larivière, B., Bowen, D., Andreassen, T. W., Kunz, W., Sirianni, N. J., Voss, C., ... & De Keyser, A. (2017). "Service Encounter 2.0": An investigation into the roles of technology, employees and customers. *Journal of Business Research, 79*, 238-246. https://doi.org/10.1016/j.jbusres.2017.03.008

Lee, J. H., Wishkoski, R., Aase, L., Meas, P., & Hubbles, C. (2017). Understanding users of cloud music services: selection factors, management and access behavior, and perceptions. *Journal of the Association for Information Science and Technology, 68*(5), 1186-1200. https://doi.org/10.1002/asi.23754

Lee, J., & Allaway, A. (2002). Effects of personal control on adoption of self-service technology innovations. *Journal of Services Marketing, 16*(6), 553-572. https://doi.org/10.1108/08876040210443418

Lee, L. Y. S. (2016). Hospitality industry web-based self-service technology adoption model: a cross-cultural perspective. *Journal of Hospitality & Tourism Research, 40*(2), 162-197. https://doi.org/10.1177/1096348013495695

Lee, S. (2018). Enhancing customers' continued mobile app use in the service industry. *Journal of Services Marketing, 32*(6), 680-691. https://doi.org/10.1108/JSM-01-2017-0015

Leimeister, J. M., Österle, H., & Alter, S. (2014). Digital services for consumers. *Electronic Markets, 24*(4), 255-258. https://doi.org/10.1007/s12525-014-0174-6

Leon, S. (2018). Service mobile apps: a millennial generation perspective. *Industrial Management & Data Systems, 118*(9), 1837-1860. https://doi.org/10.1108/IMDS-10-2017-0479

Liljander, V., Gillberg, F., Gummerus, J., & Van Riel, A. (2006). Technology readiness and the evaluation and adoption of self-service technologies. *Journal of Retailing and Consumer Services, 13*(3), 177-191. https://doi.org/10.1016/j.jretconser.2005.08.004

Lin, J. S. C., & Chang, H. C. (2011). The role of technology readiness in self-service technology acceptance. *Managing Service Quality: An International Journal, 21*(4), 424-444. https://doi.org/10.1108/09604521111146289

Lin, J. S. C., & Hsieh, P. L. (2011). Assessing the self-service technology encounters: development and validation of SSTQUAL scale. *Journal of Retailing, 87*(2), 194-206. https://doi.org/10.1016/j.jretai.2011.02.006

Lin, J. S. C., & Hsieh, P. L. (2012). Refinement of the technology readiness index scale: a replication and cross-validation in the self-service technology context. *Journal of Service Management, 23*(1), 34-53. https://doi.org/10.1108/09564231211208961

Liu, S. (2012). The impact of forced use on customer adoption of self-service technologies. *Computers in Human Behavior, 28*(4), 1194-1201. https://doi.org/10.1016/j.chb.2012.02.002

Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing, 47*(3), 9-20. https://doi.org/10.1177/002224298304700303

Lovelock, C. H., & Wirtz, J. (2011). *Services marketing: people, technology, strategy*. Global Edition, 7th ed., Pearson Prentice Hall.

Lovelock, C., & Gummesson, E. (2004). Whither services marketing? In search of a new paradigm and fresh perspectives. *Journal of Service Research, 7*(1), 20-41. https://doi.org/10.1177/1094670504266131

Lu, J. L., Chou, H. Y., & Ling, P. C. (2009). Investigating passengers' intentions to use technology-based self check-in services. *Transportation Research Part E: Logistics and Transportation Review, 45*(2), 345-356. https://doi.org/10.1016/j.tre.2008.09.006

Malaquias, R. F., & Hwang, Y. (2016). An empirical study on trust in mobile banking: A developing country perspective. *Computers in Human Behavior, 54*, 453-461. https://doi.org/10.1016/j.chb.2015.08.039

Mallat, N., Rossi, M., Tuunainen, V. K., & Öörni, A. (2008). An empirical investigation of mobile ticketing service adoption in public transportation. *Personal and Ubiquitous Computing, 12*(1), 57-65. https://doi.org/10.1007/s00779-006-0126-z

Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management, 34*(1), 1-13. https://doi.org/10.1016/j.ijinfomgt.2013.06.002

Meuter, M. L., & Bitner, M. J. (1998). Self-service technologies: extending service frameworks and identifying issues for research. *In American Marketing Association. Conference Proceedings (Vol.9, p.12)*. American Marketing Association.

Meuter, M. L., Bitner, M. J., Ostrom, A. L., & Brown, S. W. (2005). Choosing among alternative service delivery modes: An investigation of customer trial of self-service technologies. *Journal of Marketing, 69*(2), 61-83. https://doi.org/10.1509/jmkg.69.2.61.60759

Meuter, M. L., Ostrom, A. L., Bitner, M. J., & Roundtree, R. (2003). The influence of technology anxiety on consumer use and experiences with self-service technologies. *Journal of Business Research, 56*(11), 899-906. https://doi.org/10.1016/S0148-2963(01)00276-4

Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: understanding customer satisfaction with technology-based service encounters. *Journal of Marketing, 64*(3), 50-64. https://doi.org/10.1509/jmkg.64.3.50.18024

Michelle Bobbitt, L., & Dabholkar, P. A. (2001). Integrating attitudinal theories to understand and predict use of technology-based self-service: the internet as an illustration. *International Journal of Service Industry Management, 12*(5), 423-450. https://doi.org/10.1108/EUM0000000006092

Mishra, A., Maheswarappa, S. S., & Colby, C. L. (2018). Technology readiness of teenagers: a consumer socialization perspective. *Journal of Services Marketing, 32*(5), 592-604. https://doi.org/10.1108/JSM-07-2017-0262

Misra, R., Mukherjee, A., & Peterson, R. (2008). Value creation in virtual communities: the case of a healthcare web site. *International Journal of Pharmaceutical and Healthcare Marketing, 2*(4), 321-337. https://doi.org/10.1108/17506120810922358

Morosan, C., & DeFranco, A. (2016). Modeling guests' intentions to use mobile apps in hotels: The roles of personalization, privacy, and involvement. *International Journal of Contemporary Hospitality Management, 28*(9), 1968-1991. https://doi.org/10.1108/IJCHM-07-2015-0349

Mortimer, G., Neale, L., Hasan, S. F. E., & Dunphy, B. (2015). Investigating the factors influencing the adoption of m-banking: a cross cultural study. *International Journal of Bank Marketing, 33*(4), 545-570. https://doi.org/10.1108/IJBM-07-2014-0100

Moser, F. (2015). Mobile Banking: A fashionable concept or an institutionalized channel in future retail banking? Analyzing patterns in the practical and academic mobile banking literature. *International Journal of Bank Marketing, 33*(2), 162-177. https://doi.org/10.1108/IJBM-08-2013-0082

Motamarri, S., Akter, S., & Yanamandram, V. (2017). Does big data analytics influence frontline employees in services marketing?. *Business Process Management Journal, 23*(3), 623-644. https://doi.org/10.1108/BPMJ-12-2015-0182

Mou, J., & Cohen, J. (2013). Trust and risk in consumer acceptance of e-services: A meta-analysis and a test of competing models., *Thirty Fourth International Conference on Information Systems,* Milan 2013.

Myrden, S. E., & Kelloway, E. K. (2015). Leading to customer loyalty: a daily test of the service-profit chain. *Journal of Services Marketing, 29*(6/7), 585-598. https://doi.org/10.1108/JSM-01-2015-0058

Nijssen, E. J., Schepers, J. J., & Belanche, D. (2016). Why did they do it? How customers' self-service technology introduction attributions affect the customer-provider relationship. *Journal of Service Management, 27*(3), 276-298. https://doi.org/10.1108/JOSM-08-2015-0233

OECD (2019), Artificial Intelligence in Society, OECD Publishing, Paris, https://doi.org/10.1787/eedfee77-en.

Oh, H., Jeong, M., & Baloglu, S. (2013). Tourists' adoption of self-service technologies at resort hotels. *Journal of Business Research, 66*(6), 692-699. https://doi.org/10.1016/j.jbusres.2011.09.005

Oh, H., Jeong, M., Lee, S., & Warnick, R. (2016). Attitudinal and situational determinants of self-service technology use. *Journal of Hospitality & Tourism Research, 40*(2), 236-265. https://doi.org/10.1177/1096348013491598

Ostrom, A. L., Parasuraman, A., Bowen, D. E., Patrício, L., & Voss, C. A. (2015). Service research priorities in a rapidly changing context. *Journal of Service Research, 18*(2), 127-159. https://doi.org/10.1177/1094670515576315

Öztürk, A. B., Bilgihan, A., Nusair, K., & Okumuş, F. (2016). What keeps the mobile hotel booking users loyal? Investigating the roles of self-efficacy, compatibility, perceived ease of use, and perceived convenience. *International Journal of Information Management, 36*(6), 1350-1359. https://doi.org/10.1016/j.ijinfomgt.2016.04.005

Öztürk, S., & Okumuş, A. (2018). The Birth of Omni-Channel Marketing and New Dynamics of Consumers' Approach to Retail Channels. In Ozturkcan, S. and Okan, E. (Eds.), *Marketing Management in Turkey (Marketing in Emerging Markets)* (pp. 247-272). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78714-557-320181018

Palmer, A., & Bejou, D. (2016). Retrospective: service failure and loyalty: an exploratory empirical study of airline customers. *Journal of Services Marketing, 30*(5), 480-484. https://doi.org/10.1108/JSM-04-2016-0137

Palmer, A.D. (2003). *The Marketing of Services*, in Baker, M. (Eds). *The marketing book*. Butterworth-Heinemann.

Parasuraman, A. (1996). Understanding and leveraging the role of customer service in external, interactive and internal marketing, *Frontiers in Services Conference,* Nashville, TN.

Park, S., & Tussyadiah, I. P. (2017). Multidimensional facets of perceived risk in mobile travel booking. *Journal of Travel Research, 56*(7), 854-867. https://doi.org/10.1177/0047287516675062

Peneder, M., Kaniovski, S., & Dachs, B. (2003). What follows tertiarisation? Structural change and the role of knowledge-based services. *The Service Industries Journal, 23*(2), 47-66. https://doi.org/10.1080/02642060412331300882

Pookulangara, S. (2012). *Culture and Social Media: Changing Service Expectations*. In Kandampully J. (Eds.), *Service Management* (pp. 185-205). Springer, New York, NY.

Priya, R., Gandhi, A. V., & Shaikh, A. (2018). Mobile banking adoption in an emerging economy: an empirical analysis of young Indian consumers. *Benchmarking: An International Journal, 25*(2), 743-762. https://doi.org/10.1108/BIJ-01-2016-0009

Reinders, M. J., Dabholkar, P. A., & Frambach, R. T. (2008). Consequences of forcing consumers to use technology-based self-service. *Journal of Service Research, 11*(2), 107-123. https://doi.org/10.1177/1094670508324297

Reinders, M. J., Frambach, R., & Kleijnen, M. (2015). Mandatory use of technology-based self-service: does expertise help or hurt?. *European Journal of Marketing, 49*(1/2), 190-211. https://doi.org/10.1108/EJM-12-2012-0735

Richard, B. (2017). Hotel chains: survival strategies for a dynamic future. *Journal of Tourism Futures, 3*(1), 56-65. https://doi.org/10.1108/JTF-06-2016-0018

Robertson, N., McDonald, H., Leckie, C., & McQuilken, L. (2016). Examining customer evaluations across different self-service technologies. *Journal of Services Marketing, 30*(1), 88-102. https://doi.org/10.1108/JSM-07-2014-0263

Rosenbaum, M. S., & Wong, I. A. (2015). If you install it, will they use it? Understanding why hospitality customers take "technological pauses" from self-service technology. *Journal of Business Research, 68*(9), 1862-1868. https://doi.org/10.1016/j.jbusres.2015.01.014

Russell-Bennett, R., & Baron, S. (2015). Fresh thinking in services marketing: contemporary, cutting-edge and creative thoughts. *Journal of Services Marketing, 29*(6/7), 421-424. https://doi.org/10.1108/JSM-06-2015-0218

Russell-Bennett, R., & Baron, S. (2016). Back to the future! The importance of history in services marketing. *Journal of Services Marketing*, 30(1), 1-2. https://doi.org/10.1108/JSM-12-2015-0362

Sampaio, C. H., Ladeira, W. J., & Santini, F. D. O. (2017). Apps for mobile banking and customer satisfaction: a cross-cultural study. *International Journal of Bank Marketing, 35*(7), 1133-1153. https://doi.org/10.1108/IJBM-09-2015-0146

Schaarschmidt, M., & Höber, B. (2017). Digital booking services: comparing online with phone reservation services. *Journal of Services Marketing, 31*(7), 704-719. https://doi.org/10.1108/JSM-04-2016-0145

Schuster, L., Proudfoot, J., & Drennan, J. (2015). Understanding consumer loyalty to technology-based self-services with credence qualities. *Journal of Services Marketing, 29*(6/7), 522-532. https://doi.org/10.1108/JSM-01-2015-0021

Sharma, P., Tam, J., & Wu, Z. (2018). Challenges and opportunities for services marketers in a culturally diverse global marketplace. *Journal of Services Marketing, 32*(5), 521-529. https://doi.org/10.1108/JSM-05-2018-0150

Sikdar, P., Kumar, A., & Makkad, M. (2015). Online banking adoption: A factor validation and satisfaction causation study in the context of. *International Journal of Bank Marketing, 33*(6), 760-785. https://doi.org/10.1108/IJBM-11-2014-0161

Stvilia, B., Mon, L., & Yi, Y. J. (2009). A model for online consumer health information quality. *Journal of the American Society for Information Science and Technology, 60*(9), 1781-1791. https://doi.org/10.1002/asi.21115

Suggs, L. S., & McIntyre, C. (2009). Are we there yet? An examination of online tailored health communication. *Health Education & Behavior, 36*(2), 278-288. https://doi.org/10.1177/1090198107303309

Tao, M., Nawaz, M. Z., Nawaz, S., Butt, A. H., & Ahmad, H. (2018). Users' acceptance of innovative mobile hotel booking trends: UK vs. PRC. *Information Technology & Tourism, 20*(1-4), 9-36. https://doi.org/10.1007/s40558-018-0123-x

Tripp, C., & Drea, J. T. (2002). Selecting and promoting service encounter elements in passenger rail transportation. *Journal of Services Marketing, 16*(5), 432-442. https://doi.org/10.1108/08876040210436902

Tuominen, P. P., & Ascenção, M. P. (2016). The hotel of tomorrow: A service design approach. *Journal of Vacation Marketing, 22*(3), 279-292. https://doi.org/10.1177/1356766716637102

Vargo, S. L., & Lusch, R. F. (2004). The four service marketing myths: remnants of a goods-based, manufacturing model. *Journal of Service Research, 6*(4), 324-335. https://doi.org/10.1177/1094670503262946

Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science, 36*(1), 1-10. https://doi.org/10.1007/s11747-007-0069-6

Walker, R. H., & Johnson, L. W. (2006). Why consumers use and do not use technology-enabled services. *Journal of Services Marketing, 20*(2), 125-135. https://doi.org/10.1108/08876040610657057

Wang, L., Wu, T., Guo, X., Zhang, X., Li, Y., & Wang, W. (2018). Exploring mHealth monitoring service acceptance from a service characteristics perspective. *Electronic Commerce Research and Applications, 30*, 159-168. https://doi.org/10.1016/j.elerap.2018.06.003

Wang, Y., So, K. K. F., & Sparks, B. A. (2017). Technology readiness and customer satisfaction with travel technologies: A cross-country investigation. *Journal of Travel Research, 56*(5), 563-577. https://doi.org/10.1177/0047287516657891

Wayne, M. L. (2018). Netflix, Amazon, and branded television content in subscription video on-demand portals. *Media, Culture & Society, 40*(5), 725-741. https://doi.org/10.1177/0163443717736118

Wei, W., Torres, E., & Hua, N. (2016). Improving consumer commitment through the integration of self-service technologies: a transcendent consumer experience perspective. *International Journal of Hospitality Management, 59,* 105-115. https://doi.org/10.1016/j.ijhm.2016.09.004

Wilson, A., Zeithaml, V., Bitner, M. J., & Gremler, D. (2018). *Services Marketing: Integrating Customer Focus Across the Firm*, 7th ed., McGraw-Hill Education

Wirtz, J., Patterson, P. G., Kunz, W. H., Gruber, T., Lu, V. N., Paluch, S., & Martins, A. (2018). Brave new world: service robots in the frontline. *Journal of Service Management, 29*(5), 907-931. https://doi.org/10.1108/JOSM-04-2018-0119

Witell, L., Anderson, L., Brodie, R. J., Colurcio, M., Edvardsson, B., Kristensson, P., ... & Wallin Andreassen, T. (2015). Exploring dualities of service innovation: implications for service research. *Journal of Services Marketing, 29*(6/7), 436-441. https://doi.org/10.1108/JSM-01-2015-0051

Yee-Loong Chong, A., Ooi, K. B., Lin, B., & Tan, B. I. (2010). Online banking adoption: an empirical analysis. *International Journal of Bank Marketing, 28*(4), 267-287. https://doi.org/10.1108/02652321011054963

Yuan, S., Liu, Y., Yao, R., & Liu, J. (2016). An investigation of users' continuance intention towards mobile banking in China. *Information Development, 32*(1), 20-34. https://doi.org/10.1177/0266666914522140

Zhang, X., Lai, K. H., & Guo, X. (2017). Promoting China's mHealth market: A policy perspective. *Health Policy and Technology, 6*(4), 383-388. https://doi.org/10.1016/j.hlpt.2017.11.002

Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research, 21*(5), 527-540. https://doi.org/10.1108/10662241111176353

Zhu, Z., Nakata, C., Sivakumar, K., & Grewal, D. (2007). Self-service technology effectiveness: the role of design features and individual traits. *Journal of the Academy of Marketing Science, 35*(4), 492-506. https://doi.org/10.1007/s11747-007-0019-3