CHAPTER 11

# Understanding Consumer Behavior in Technology-Mediated Spaces

*İlayda İpek*

Substantial improvements in technology have been influencing not only strategies and structures of firms but also consumers' social and economic lives. In terms of the former, in order to respond to the alterations in the technological environment, and ultimately, to stay ahead of the competition, firms have been making continuous attempts to fit their internal resources and competencies with the external circumstances. Concerning the latter, having an enormous impact on the manner of communicating, consuming, and progressing, technological advancements have been shaping consumers' daily lives. Specifically, digital technology has affected consumers' routines and habits, which in turn has led to changes in consumer behavior.

Currently, along with the benefits of the Internet, consumers have the ability to easily reach all information regarding firms, which increases the bargaining power of consumers. They have had a more tendency to shop online; however, the critical thing is that they desire to have unique experiences, which stresses the significance of effective customer relationship management (CRM) activities. Being aware of the strength of technology

İ. İpek (✉)
Faculty of Business, Dokuz Eylül University, İzmir, Turkey
e-mail: ilayda.gungor@deu.edu.tr



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on consumer behavior, firms have been more inclined to enhance their offerings, with a particular emphasis on the design of positive consumer experiences. Additionally and remarkably, together with the advances in technology, the roles of firms and consumers have differed considerably. In this sense, firms have been working interdependently with their customers, who are highly involved in co-creating value. Correspondingly, digital marketing has gained huge importance in every aspect of business activities. Building on the aforementioned issues, by drawing on digital marketing, the main purpose of this chapter is to identify how consumer behavior has evolved through the digital transformation in recent decades.

## Digital Marketing

Dating back to the early 1990s, the Internet has been commercially utilized since almost three decades (Tiffin & Rajasingham, 2003). Coupled with this digital evolution, boundaries across firms and cultures have been seriously decreased (Wymbs, 2000). In today's business world, rivalry among firms is not based on products or services, but instead on business models, which aim to generate customer value by the combination of digital technologies (Yoffie & Cusumano, 1999). Nevertheless, maintaining competitive advantage in a marketplace is much more burdensome than before by reason of high business risks related to the extremely dynamic nature of the digital environment (Hamel & Sampler, 1998). As it has been well emphasized by Bill Gates (1999), "the Internet changes everything".

Increase in the availability of the Internet; and thus, its extensive commercial usage, have led new players to stand out in today's modern economy. Those players have recorded huge success; such that, according to Forbes (2018a), Google, Facebook, and Amazon have been among the world's five most valuable brands in this year. E-commerce has been dramatically growing; for instance, current retail tendencies indicate that more than half of Americans (51%) have been engaged in online shopping in 2018, with the e-commerce growth rate of 23% year-over-year (BigCommerce, 2018). In addition, it has been expected that US consumers' spending on online shopping will total $632 billion by 2020 (Business Insider Intelligence, 2016).

Moreover, as another distinctive alteration in the technological environment, Web 2.0 has begun to replace Web 1.0. Whereas the contents of Web 1.0 tools are created by providers, Web 2.0 technologies incorporate interactive and user-generated content (Munar & Jacobsen, 2014). In conjunction with the widespread acceptance of Web 2.0 technologies, a substantial switch from firms to consumers has been reflected (Berthon, Pitt, Plangger, & Shapiro, 2012). In spite of its technological nature, Web 2.0 has also yielded to sociological revolutions, which have exerted an enormous influence on business operations (Berthon et al., 2012). Relying on these facts, in recent years firms have been more inclined to enhance "digital relationships" with their customers (Phillips, 2015).

In order to keep pace with the digital transformation of consumer behavior, firms have been oriented to reshape and restructure their functions, with a special stress on marketing operations (Edelman & Heller, 2015). Accordingly, over the past decades, marketing scholars and practitioners have registered a significant change in the nature of marketing, specifically due to the emergence of new marketing communication channels derived from technological innovations (Lamberton & Stephen, 2016). Currently, digital technology has critically altered the way firms formulate their targeting strategies and interact with their customers. In this respect, "digital marketing" arises as a crucial concept.

The digital marketing term is defined as "an adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders" (Kannan & Li, 2017, p. 23). Digital marketing represents a novel perspective, not only traditional marketing reinforced by digital components; hence, it includes idiosyncratic characteristics that need to be in-depth evaluated (Taiminen & Karjaluoto, 2015). Instead of concentrating on technology, an effective digital marketing strategy necessitates to comprehend how consumers adopt technology, and correspondingly, to look for channel alternatives in an attempt to strengthen the engagement between consumers and brand (Ryan & Jones, 2009). Without a proper analysis, digital marketing communications may not make sense for target customers, which in turn may result in big losses. Dealing with change and innovation seems to be problematic for all marketing practitioners; however, the situation is notably difficult for digital marketers (Chaffey, 2010).

Being aware of the role of digital marketing in consumers' decision making process, in today's business world, it is imperative for firms to apply digital marketing solutions in an effort to reach their target customers. This is especially valid for both large and small- and medium-sized enterprises to stay competitive in market (Taiminen & Karjaluoto, 2015). Newly, digital advertising expenditures provide evidence on this notion;

digital ad spending worldwide accounted for $283.35 billion in 2018, with a growth rate of 21.4% (eMarketer, 2019). In addition, it has been also anticipated that worldwide spending on digital advertising will amount to $517.51 billion by 2023 (eMarketer, 2019). Critically, the amount of digital touchpoints is rising by more than 20% in every year, because more number of consumers prefers to use digital technologies and "younger, digitally oriented consumers enter the ranks of buyers" (Bughin, 2015). Contacting with consumers by means of digital media is therefore recognized as one of the most promising approaches in the area of strategic marketing for the coming decades (Smith, 2011).

Accompanied by digitization, traditional marketing communication tools started to be supported by new digital channels. These digital tools, providing new and exciting platforms, enable firms to reach target markets in various and creative manners (Ryan & Jones, 2009). Importantly, besides its impact on targeting strategies, digital marketing also allows to leverage existing brand equity (Chaffey, 2010). Augmented reality practices, social media, and mobile apps constitute some late communication channels in digital marketing, which have been broadly preferred by today's success-oriented firms. As an illustration, Uber symbolizes an achievement story, mainly by virtue of the right mixture of targeting and digital media. Operations of the firm are managed with a mobile app and the firm has largely employed online advertising in social media to cultivate its business activities. Presently, Uber announced $48 billion valuation (Donnelly, 2018), which signifies an outstanding accomplishment obtained in just nine years. Another similar example in the sharing economy focusing on digital marketing is Airbnb founded in 2008, with the reported value of $31 billion as of March 2017 (Forbes, 2018b). In a nutshell, it has been strongly suggested that "technology has facilitated novel market behaviors, interactions, and experiences" (Lamberton & Stephen, 2016, p. 146).

It is a foregone conclusion that digital marketing strategies are of vital importance in today's highly dynamic environment; nevertheless, it has been also firmly advocated that firms should be careful about the decisions regarding digital marketing channels. Specifically, firms cannot perform in all digital communication channels, because "being active" is the first and foremost factor of success (Kaplan & Haenlein, 2010). The appropriate digital medium needs to be determined on the basis of customers to be targeted and message to be delivered (Kaplan & Haenlein, 2010). Moreover, the number and engagement degrees of customers in a digital platform remarkably influence performance (Trusov, Bodapati, & Bucklin, 2010). As a result, pros and cons of each communication medium require to be deeply scrutinized before resources are assigned to digital marketing activities.

## E-Customers

It has been widely acknowledged that increase in consumers' involvement in digital devices has given rise to changes in consumer behavior. In particular, information technology innovations have affected to a greater extent how consumers respond to different market settings (Lamberton & Stephen, 2016). The Internet usage rates all over the world have been growing in each year; the statistical report offered by the World Bank (2018) demonstrates that 45.79% of the world's population used the Internet in 2016, while this number was 43.08% in the previous year. Even more stunning is the Internet adoption statistics in some developed countries; for example, in the UK, Japan, and United Arab Emirates more than 90% of the country's whole population utilized the Internet in 2016 (World Bank, 2018).

Consumers' rising inclination toward using the Internet and digital channels can be well explained by the principles of the Technology Acceptance Model (TAM) (Davis, 1989) and Diffusion of Innovations (Rogers, 1962). In line with the TAM, since digital technology encompasses both perceived usefulness and perceived ease of use (Davis, 1989), consumers have been more willing to accept the transformations in the technological environment. As for the Diffusion of Innovations, on the basis of the fit between the digital technology and the characteristics, which affect the acceleration of innovation (i.e., relative advantage, compatibility, complexity, trialability, and observability) (Rogers, 1962), consumers have become more interested in engaging in the Internet and digital tools (Rodriguez, Peterson, & Krishnan, 2018; Takacs & Freiden, 1998). Hence, progresses in the Internet and Web-based platforms have cultivated online consumer behavior, which has shaped the nature of consumers' daily activities (Tiago & Veríssimo, 2014).

The essence of the interaction between firms and customers is not like before, since "The Internet is not just another marketing channel; it's not just another advertising medium; it's not just a way to speed up transactions; the Internet is the foundation for a new industrial order" (Hamel & Sampler, 1998). Web 2.0 technologies have dramatically resulted in a shift in value creation and power from firms to customers (Berthon et al., 2012). Currently, customers are more empowered than before because of the advantages associated with the employment of digital devices, covering, information access, product variety, competitive pricing, and convenience (Pires, Stanton, & Rita, 2006; Tiago & Veríssimo, 2014). Without much effort, they are able to spread word-of-mouth information about products/services via social networks even with individuals they do not know (Kannan & Li, 2017). Further, as another concern for digital marketers, customers are becoming increasingly sophisticated and their expectations are incessantly expanding (Udo, Bagchi, & Kirs, 2010).

Customers are actively taking part in different digital communication channels such as social media, web forums, blogs, and mobile apps. Whereas previously for product/service purchases, customers were more relying on worth-of-mouth communication with membership reference groups such as family and friends, today they prefer more to gather information about products/services through online reviews, to compare and contrast different offerings' aspects and prices on websites, and to talk over alternatives through social-networking platforms (Edelman, 2010). In conjunction with customers' high authority in digital world, brand messages formed by firms have lost their effect and the possibility of conversion has declined on average (Bughin, 2015). Realizing their bargaining power on firms, customers want firms to build close bonds with them, rather than to command (Edelman, 2010).

Especially, social media acts a critical role for digital customers; in social media customers have an interaction with brands and they exchange information and experiences with others (Lamberton & Stephen, 2016), which have been considered to have a significant influence on buying behavior (Berthon et al., 2012). It has been revealed that in globe 135 minutes were daily spent in social media in 2017, with an increase from 126 minutes in the prior year (Ward, 2018). And interestingly, the statistics referring to the time devoted for mobile devices have indicated that in the US individuals consume more than 90% of their Internet time on smartphone apps (eMarketer, 2017).

In some cases, customers' high involvement in digital mediums may be seen as problematic in terms of firms. As it has been already highlighted, today customers are identified as "unfettered" (Nunes & Cespedes, 2003), and correspondingly, they are free to spread positive and negative words about a firm's offerings and strategies with or without getting permission of the firm (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). This makes firms defenseless as their offerings' quality, availability, and prices are completely obvious and any weak points are swiftly disseminated all over the world (Nunes & Cespedes, 2003). Such kinds of online customer-to-customer information exchanges are attempted to be managed by firms with word-of-mouth marketing methods such as social media marketing, viral marketing, and guerilla marketing (Kozinets, de Valck, Wojnicki, & Wilner, 2010), because customers are highly dependent on other customers' opinions and feelings while making buying decisions.

### *Online Customer Experiences*

Developments in technology; logistics, payment systems, and trust in particular—together with the escalation in the Internet usage—have formed a $1.9 trillion global online shopping market, in which "millions of consumers no longer 'go' shopping, but literally 'are' shopping - at every moment and everywhere" (KPMG, 2017, p. 2). Primarily due to the benefits provided by online retailing to consumers such as freedom of shopping in any time and place, online sales have smoothly reached double-digit growth numbers in some countries (Nielsen, 2017). Notably, in the world's biggest online market, China, the growth rate of 32.2% year-on-year in online retailing was recorded in 2017, while this number decreased by 2.1% in the first two quarters of 2018 (National Bureau of Statistics of China, 2018a, 2018b). The nature of online shopping is assumed to alter at an even faster speed coupled with the expansion of voice search and omni-platform/omni-channel alternatives (Popomaronis, 2017).

Apart from these online shopping trends, it is indisputable that consumers are not rational decision makers anymore. During the stages of the decision making process, they are more relying on their feelings and they want to have unique experiences. Accordingly, the present situation is more challenging for firms, since they have to devote more time and effort to improve their offerings through well-designed and positive customer experiences. This fact is not only true for brick-and-mortar businesses; by virtue of highly competitive environment, online operations need to be also strengthened by favorable experiences in order to leverage conversion rates. However, this is much more painful, as providing and managing "a balanced experience" on a digital platform is severely complicated (Chaffey, 2010).

Consumers collect information about products/services either by direct experience, such as trial, or by indirect experience, such as exposure to advertising (Li, Daugherty, & Biocca, 2001). Consumer experiences in digital environment are considerably different; such that, this concept has been viewed as indirect experiences; but it also includes social and interpersonal cues (Liao & Keng, 2014). Moreover, in Web-based platforms consumers rest solely on sight and sound, whereas in traditional marketplace experiences encompass all senses (Straker, Wrigley, & Rosemann, 2015). In this regard, online consumer experiences are described as psychological and emotional conditions faced by consumers, meanwhile having interaction with products online (Li et al., 2001). Widespread preference of online shopping has resulted in the evolution of the e-customers' buying behavior, allied with the attainment of e-purchasing experiences (Hernandez, Jimenez, & Martín, 2009).

Increase in the strength of online consumer behavior has caused firms to expand their digital existence (Nielsen, 2017); and hence, to look for the ways to create a unified experience across various channels. On the other hand, it has been shown that one of the most important obstacles of online shopping is the lack of delightful experiences and social interplay (Barlow, Siddiqui, & Mannion, 2004). Consumers remark that online transactions are not specific to a certain customer and they do not feel comfortable while purchasing unusual and intricate products; they therefore expect firms to offer customer assistance not only in offline but also in online environments (Holzwarth, Janiszewski, & Neumann, 2006), that places a high emphasis on the significance of unified customer experience. In this respect, customer experiences have been recognized as the pivotal drivers of online shopping behavior (Childers, Carr, Peck, & Carson, 2001).

Further, as a consequence of the diffusion of digital marketing tools, currently, customers have become more engaged with brands; for example, they receive regular e-mails about new season products, they utilize mobile apps to take the advantage of discount prices, or they visit the brand's social media pages to learn about the upcoming events (Edelman, 2010). Nevertheless, considering customers' involvement in different digital channels at once, firms should be more inclined toward generating multi-channel experiences (Straker et al., 2015). This approach has been thoroughly underlined by the term of "perfect customer experience", which is firmly intertwined with the firm's capability "to gather and deploy customer information from all channels and to integrate it with other relevant information" (Payne & Frow, 2005, p. 173). In this sense, digital channels help firms consolidate customer experiences, which in turn produce high online traffic and superior customer loyalty at the end (Edelman, 2010).

Currently, many firms have leaned toward the integration of online and offline customer experiences. L'Oreal is one of those firms which successfully creates unique experiences for its customers through the combination of online and offline aspects. As an illustration, L'Oreal's Makeup Genius app offers opportunity for customers to virtually try various kinds of makeup products through a webcam (Edelman & Heller, 2015). As another example, last year IKEA introduced IKEA Place app—an augmented reality application, which aims to form memorable customer experiences by enabling people to virtually design their homes, offices, and so on with different furniture (IKEA, 2017).

Furthermore, in recent decades retailing industry has also registered substantial alterations, mainly due to the improvements in online mediums and continuous digitalization (Verhoef, Kannan, & Inman, 2015). In an effort to respond to changes in retailing, firms have begun to simultaneously operate both in traditional and online channels; however, at this point the critical thing is that those retailing activities require to be carried out in an integrated fashion. Assuming that retailing operations are dependent on autonomous systems, fragmented supply chains emerge, which fail to create a coherent and trustworthy customer experience (Saghiri, Wilding, Mena, & Bourlakis, 2017). Concordantly, in the latest years, a shift from multi-channel retailing to omni-channel retailing has been noticed (Verhoef et al., 2015).

Whereas multi-channel retailing fundamentally concentrates on retail channels, in omni-channel retailing the stress is placed on the integration between channels and brands (Picot-Coupey, Huré, & Piveteau, 2016). Symbolizing a challenge for traditional retailers (Rigby, 2011), omni-channel retailing is defined as "the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized" (Verhoef et al., 2015, p. 176). It puts a particular emphasis on the interplay of "disparate channels into a single seamless omni-channel experience" (Rigby, 2011, p. 67). The concept has gained a considerable importance in retailing together with increase in customers' demands for unified brand experiences. Concisely, the effective management of the multi-channel customer experiences is particularly vital for outstanding business success and performance in today's highly digital environment.

### *E-Customer Relationship Management*

Relationship marketing, focusing on creating, expanding, and sustaining sufficient relational exchanges, has been seen as a big transformation for both marketing scholars and practitioners (Morgan & Hunt, 1994). It has been strongly suggested that establishing long-term relationships with internal and external partners generates more positive returns compared to discrete transactions (Morgan & Hunt, 1994); that view has caused a fundamental shift from a transaction-based perspective to a relationship-centered orientation. In this regard, within the context of CRM, in what manner customers should be dealt to establish effective bonds with them has become a crucial concern in marketing theory and practice (Reinartz, Krafft, & Hoyer, 2004).

Drawing on the relationship marketing theory, CRM rests primarily on the notion that in order to be successful and survive in the market, instead of looking for ways to sell products/services, firms should consistently direct themselves toward building high customer value, which in turn creates value for the firm (Boulding, Staelin, Ehret, & Johnston, 2005). The main tenets of CRM defend that as long-term customers are more profitable than short-term ones, firms should maintain their relationships with customers to improve customer retention and loyalty (Zeithaml, Berry, & Parasuraman, 1996). Correspondingly, firms have increasingly started to appreciate that the economic worth of customers to the firm is not the same; and thus, they need to tailor their products/services and marketing communications on the basis of various customers (Reinartz et al., 2004).

Even though CRM is frequently adopted to refer to technology-oriented customer solutions (e.g., sales force automation), the breadth of the concept is wider; such that, CRM covers a strategic vision with a particular stress on the interrelationship of organizational culture, information technology, and customer service (Payne & Frow, 2005). Nevertheless, whereas CRM comprises diverse types of applications, a technology-based view is widely accepted (Keramati, Mehrabi, & Mojir, 2010). The fast progress in information technology has allowed firms to adopt new technology-based tools, entitled CRM technology, which aims to support the process of CRM (Jayachandran, Sharma, Kaufman, & Raman, 2005). Currently, many firms make huge investments in CRM technology in an attempt to effectively manage their CRM activities (Powell, Noble, Noble, & Han, 2018).

In the increasingly digitalized world, CRM technology is of great importance; CRM was identified as the biggest software market in 2017, with the worldwide revenue totaling \$39.5 billion (Gartner, 2018). In addition, it has been estimated that CRM will grow by 16% in 2018 and will therefore represent the fastest expanding software market in the same year (Gartner, 2018). Adoption rates also signify the strength of CRM in current topics of marketing; with approximately 47% in 2017, on average (Lazar, 2017). Firms prefer to employ CRM technology for different purposes such as more accurate customer profitability evaluation, integrated customer data management, and superior customer lifetime value (Powell et al., 2018). However, albeit its popularity, the consequences of CRM technology are questionable in terms of either customers or firms (Jayachandran et al., 2005).

By virtue of the substantial effect of technological advancements on business processes, CRM operations have been also influenced by Internet-based technologies in a considerable way. In recent decades, an increasing integration between CRM and Internet technology has been noticed, that formed a novel approach for CRM strategy. Being called as electronic CRM (e-CRM), traditional CRM applications have been replaced with a more interactive nature, depending fundamentally on regular and effective customer communication (Kımıloğlu & Zaralı, 2009). Together with exploiting the benefits of Internet technology, e-CRM enables to expedite the handling of customer relationships (Harrigan, Ramsey, & Ibbotson, 2008).

A comprehensive definition of e-CRM involves "the marketing activities, tools and techniques, delivered over the Internet (using technologies such as Web sites and e-mail, data-capture, warehousing and mining) with a specific aim to locate, build and improve long-term customer relationships to enhance their individual potential" (Lee-Kelley, Gilbert, & Mannicom, 2003, p. 241). In this sense, e-CRM offers important advantages in respect of scrutinizing customer data, since at the right time it signals what customers really expect (Harrigan et al., 2008). Thanks to this attribute, it prevents resource losses in production operations systems (Harrigan et al., 2008). Importantly, by means of e-CRM, firms are more able to personalize their bonds with customers, notably owing to higher number of customer touchpoints and greater opportunity to customize marketing communications (Day & Hubbard, 2003).

Referring to the reality of digital consumer behavior and the significance of e-CRM with respect to both efficiency and effectiveness, today firms have been more apt to apply online CRM solutions to attain competitive advantage. Besides, in parallel with the late trends in consumer behavior and the growing impact of Web 2.0 technologies, within the context of e-CRM, new concepts also emerged. Among these, social CRM (or CRM 2.0) serves as a popular philosophy that combines social media and dynamic capabilities of traditional CRM (Greenberg, 2010). This new concept has been recognized as a more cooperative and network-driven perspective to deal with customer relationships (Trainor, Andzulis, Rapp, & Agnihotri, 2014).

Customers have become highly involved in social media channels not only to keep in touch with their friends or colleagues but also to interact with firms (Trainor, 2012). In this regard, the brief purpose of social CRM is to respond to the expectations of social customers (Greenberg, 2010). Via social CRM applications firms endeavor to cultivate their bonds with customers in social networks both with regard to quality and quantity; and thus, to reinforce brand image and overall brand loyalty (Wongsansukcharoen, Trimetsoontorn, & Fongsuwan, 2015). Seen as a new breath in CRM, social CRM is of great benefit to firms. such that it has been found that customer retention rates increase by 26%, thanks to social CRM applications (Lazar, 2017). Considering these facts, traditional CRM service providers (e.g., Salesforce.com and SAP) have begun to merge data from social media channels such as Facebook and Twitter to actively monitor customers and quickly respond to customer requirements (Owyang, 2010).

### *Customer Co-Creation*

Traditional value creation approach is based on the thought that firms establish value and transfer it to customers (Prahalad & Ramaswamy, 2004a). Specifically, with limited or without interaction with customers, firms independently decide on which products to be manufactured, which marketing messages to be delivered, which distribution channels to be used, and so on so forth (Prahalad & Ramaswamy, 2004b). On the other hand, fundamentally because of the upheavals in customers' roles in recent decades, the main tenets of the traditional value creation view started to be doubted (Prahalad & Ramaswamy, 2004a). It has been suggested that this passive perspective regarding customers should be changed with an active approach, since the real value of a product/service can be best reflected in the eyes of customers (Witell, Kristensson, Gustafsson, & Löfgren, 2011).

Coupled with the big transformation in the essence of the relationship between customers and firms, the process of value building has considerably altered; currently, customers have tended toward taking an active part in each step of firms' value creation processes (Prahalad & Ramaswamy, 2004b). Being described as "co-creation" of value, customers have begun to have an impact not only on product development stages but also on service designs (Heidenreich, Wittkowski, Handrich, & Falk, 2015). Based on this, it has been contended that marketing has recorded a significant change from a goods-dominant logic, focusing mainly on "tangible output and discrete transactions", to a service-dominant logic, which depends strictly on "intangibility, exchange processes, and relationships" (Vargo & Lusch, 2004, p. 2).

Rather than following the traditional definitions of the term, the service-dominant approach identifies services as "the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself" (Vargo & Lusch, 2004, p. 2) and it places special emphasis on the collaboration between the firm and its stakeholders, which are highly involved in the co-creation of value (Lusch, Vargo, & O'Brien, 2007). This perspective claims that customers represent stakeholders, who consistently make contributions to value generation, whereas firms refer to enterprises with an opportunity to only propose value (Vargo & Lusch, 2004).

Growing engagement in the usage of the Internet and social media channels has facilitated the implementation of co-creation activities. Accordingly, in conjunction with the benefits of digital technology, firms have been increasingly formulating successful co-creation strategies. For instance, Dell's Ideastorm exemplifies one of those impressive applications in value co-creation (Saarijärvi, Kannan, & Kuusela, 2013). In this platform, customers of Dell express their opinions and suggestions about how to improve the offerings of the firm. Owing to this, Dell has an access to customers' actual ideas in relation to Dell's products, and at the same time customers see that their contributions are of great prominence for Dell, that is likely to strengthen customer participation and citizenship behavior (Yi & Gong, 2013).

In this context, Threadless.com also sets a good example (Saarijärvi et al., 2013). The firm calls its customers to design different range of products, covering t-shirts, accessories, and home decor, and so on, and to load their drafts on its website. All customers can give scores for the sketches and total customer scores determine which products will be sold under the name of Threadless.com. By means of this co-creation of value, customers are able to purchase their favorite products and the firm can anticipate future customer demands (Saarijärvi et al., 2013). Furthermore, BMW also cooperates with its customers to put its cars into final form (BMW Group, 2010). In particular, the firm introduced the Co-Creation Lab, which serves as a virtual gathering place where customers are encouraged to comment on automotive world in the future. BMW utilizes the sharing of the customers in order to plan the upcoming projects.

Building on the foregoing, in an effort to exploit the advantages of value co-creation, firms have been trying their best to employ customer resources in an efficacious manner. By means of co-creation activities, firms collect information about future customer requirements and expectations (Gustafsson, Kristensson, & Witell, 2012), which cultivate open innovation (Martini, Massa, & Testa, 2014). By virtue of this close interaction with customers in value creation, firms are able to achieve a competitive positional advantage both in terms of efficiency and effectiveness (Grissemann & Stokburger-Sauer, 2012). The benefits of value co-creation are not confined to firms; but also include customers (Dong, Evans, & Zou, 2008). For example, co-creation of value allows customers to enjoy getting quick response to their demands and having products/services with lower prices (Dong et al., 2008).

## Conclusion

In the light of the aforementioned issues, considerable developments in technology have been exerting an enormous impact on both firms and consumers. From the firms' standpoint, necessary adjustments in organizational structures and strategies need to be made in order to keep pace with the latest technological progress; however, more critically, firms should be simultaneously involved in scrutinizing deeply and understanding ever-changing consumer behavior. This is notably because in today's highly digitalized world the way consumers use products/services, communicate with their environment, and interact with firms has been experiencing a huge change. In this sense, tremendous alterations in consumer behavior have been putting a great pressure on firms to be more leaned toward utilizing novel marketing programs and solutions in general, and digital marketing activities in particular.

Importantly, together with the increase in the extension rate of information and communication technologies, the authority of market knowledge has started to be passed from suppliers to consumers, which has yielded to the transformations of consumer empowerment, and ultimately, marketing implications (Pires et al., 2006; Tiago & Veríssimo, 2014). Currently, e-consumers are more able to easily compare and contrast features, prices, and varieties of products/services offered by various firms and even more significant to contact with firms and other consumers without difficulty. Hence, consumers have been considered being more sophisticated and holding more bargaining power than before (Berthon et al., 2012; Udo et al., 2010), which puts special emphasis on the fact that digital engagement between firms and consumers has become much more prominent.

Specifically, relying on the notion that in conjunction with rational drivers, consumers take emotional factors into consideration during their decision making processes (Schmitt, 1999), a vital requirement emerges to provide positive and unique customer experiences not only through offline but also through online platforms in the contemporary marketplace. However, at this point, a critical concern that warrants attention by marketing practitioners pertains to the design of unified customer experiences which balance and harmonize experiences across different marketing channels. In this respect, omni-channel retailing arises as a valuable concept, of which applications are promising in terms of the management of customer experiences, since "the distinctions between physical and online will vanish, turning the world into a showroom without walls" (Brynjolfsson, Hu, & Rahman, 2013, p. 2).

Additionally, digital consumer behavior has also reflected in the revolution of value creation perspective; such that, customers have increasingly stood out as co-creators of value. In recent decades, the collaboration between firms and customers has been much greater and customers have been taking an active part more in establishing value, echoing successful real life examples. As customers represent the best sources of information regarding a value of a product/service (Witell et al., 2011), firms should be more inclined to work together with customers in an attempt to enhance their offerings and to gain a competitive advantage in the marketplace. Drawing on all of these important evolutions in consumer behavior, e-CRM applications have become even more paramount, which underline the significance of creating long-term and effective bonds with digital customers. All in all, this chapter spotlights how consumer behavior has remarkably changed on the basis of the digital metamorphosis, with the particular stress placed on the main tenets of digital marketing and e-customers.

## References

Barlow, A. K., Siddiqui, N. Q., & Mannion, M. (2004). Developments in information and communication technologies for retail marketing channels. *International Journal of Retail and Distribution Management, 32*(3), 157–163.

Berthon, P. R., Pitt, L. F., Plangger, K., & Shapiro, D. (2012). Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons, 55*(3), 261–271.

BigCommerce. (2018). The 19 ecommerce trends + 147 online shopping stats fueling sales growth in 2018. Retrieved September 6, 2018, from https://www.bigcommerce.com/blog/ecommerce-trends/

BMW Group. (2010). BMW Group Co-Creation Lab. Retrieved September 27, 2018, from https://www.press.bmwgroup.com/global/article/detail/T0082655EN/bmw-group-co-creation-lab?language=en

Boulding, W., Staelin, R., Ehret, M., & Johnston, W. J. (2005). A customer relationship management roadmap: What is known, potential pitfalls, and where to go. *Journal of Marketing, 69*(4), 155–166.

Brynjolfsson, E., Hu, Y.J., & Rahman, M.S. (2013). Competing in the age of omnichannel retailing. *MIT Sloan Management Review*, Summer, 1–7.

Bughin, J. (2015). Brand success in an era of Digital Darwinism. *McKinsey Quarterly*. Retrieved September 9, 2018, from https://www.mckinsey.com/industries/high-tech/our-insights/brand-success-in-an-era-of-digital-darwinism

Business Insider Intelligence. (2016). Retail Forecast: U.S. consumers will spend $632 billion online by 2020. Retrieved September 6, 2018, from https://www.businessinsider.com/ecommerce-online-retail-monetization-strategy-planning-2016-11

Chaffey, D. (2010). Applying organisational capability models to assess the maturity of digital-marketing governance. *Journal of Marketing Management, 26*(3–4), 187–196.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing, 77*(4), 511–535.

Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Day, G. S., & Hubbard, K. J. (2003). Customer relationships go digital. *Business Strategy Review, 14*(1), 17–26.

Dong, B., Evans, K. R., & Zou, S. (2008). The effects of customer participation in co-created service recovery. *Journal of the Academy of Marketing Science, 36*(1), 123–137.

Donnelly, G. (2018). Travis Kalanick net worth tops $4 billion with sale of Uber stock. *Fortune*. Retrieved September 8, 2018, from http://fortune.com/2018/01/19/travis-kalanick-net-worth/

Edelman, D. (2010). Four ways to get more value from digital marketing. *McKinsey Quarterly*. Retrieved September 9, 2018, from https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/four-ways-to-get-more-value-from-digital-marketing

Edelman, D., & Heller, J. (2015). How digital marketing operations can transform business. *McKinsey Digital*. Retrieved September 6, 2018, from https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/how-digital-marketing-operations-can-transform-business eMarketer. (2017). Mobile time spent in 2018: Will smartphones remain ascendant? Retrieved September 7, 2018, from https://www.emarketer.com/content/mobile-time-spent-2018

eMarketer. (2019). Digital Ad spending 2019. Retrieved May 8, 2019, from https://www.emarketer.com/content/global-digital-ad-spending-2019

Forbes. (2018a). The world's most valuable brands. Retrieved September 6, 2018, from https://www.forbes.com/powerful-brands/list/#tab:rank

Forbes. (2018b). As a rare profitable unicorn, Airbnb appears to be worth at least $38 billion. Retrieved September 8, 2018, from https://www.forbes.com/sites/greatspeculations/2018/05/11/as-a-rare-profitable-unicorn-airbnb-appears-to-be-worth-at-least-38-billion/#2c045ff22741

Gartner. (2018). Gartner says CRM became the largest software market in 2017 and will be the fastest growing software market in 2018. Retrieved September 17, 2018, from https://www.gartner.com/newsroom/id/3871105

Gates, B. (1999). Business @ the speed of thought. *Business Strategy Review, 10*(2), 11–18.

Greenberg, P. (2010). The impact of CRM 2.0 on customer insight. *Journal of Business and Industrial Marketing, 25*(6), 410–419.

Grissemann, U. S., & Stokburger-Sauer, N. E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management, 33*(6), 1483–1492.

Gustafsson, A., Kristensson, P., & Witell, L. (2012). Customer co-creation in service innovation: A matter of communication? *Journal of Service Management, 23*(3), 311–327.

Hamel, G., & Sampler, J. (1998). The e-corporation more than just web-based, it's building a new industrial order. *Fortune*. Retrieved September 9, 2018, from https://money.cnn.com/magazines/fortune/fortune_archive/1998/12/07/252120/index.htm

Harrigan, P., Ramsey, E., & Ibbotson, P. (2008). E-CRM in SMEs: An exploratory study in Northern Ireland. *Marketing Intelligence and Planning, 26*(4), 385–404.

Heidenreich, S., Wittkowski, K., Handrich, M., & Falk, T. (2015). The dark side of customer co-creation: Exploring the consequences of failed co-created services. *Journal of the Academy of Marketing Science, 43*(3), 279–296.

Hernandez, B., Jimenez, J., & Martín, M. J. (2009). Adoption vs acceptance of e-commerce: Two different decisions. *European Journal of Marketing, 43*(9/10), 1232–1245.

Holzwarth, M., Janiszewski, C., & Neumann, M. M. (2006). The influence of avatars on online consumer shopping behavior. *Journal of Marketing, 70*(4), 19–36.

IKEA. (2017). IKEA launches IKEA place, a new app that allows people to virtually place furniture in their home. Retrieved September 24, 2018, from https://www.ikea.com/us/en/about_ikea/newsitem/091217_IKEA_Launches_IKEA_Place

Jayachandran, S., Sharma, S., Kaufman, P., & Raman, P. (2005). The role of relational information processes and technology use in customer relationship management. *Journal of Marketing, 69*(4), 177–192.

Kannan, P. K., & Li, H. A. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing, 34*(1), 22–45.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons, 53*(1), 59–68.

Keramati, A., Mehrabi, H., & Mojir, N. (2010). A process-oriented perspective on customer relationship management and organizational performance: An empirical investigation. *Industrial Marketing Management, 39*(7), 1170–1185.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54*(3), 241–251.

Kımıloğlu, H., & Zaralı, H. (2009). What signifies success in e-CRM? *Marketing Intelligence and Planning, 27*(2), 246–267.

Kozinets, R. V., de Valck, K., Wojnicki, A. C., & Wilner, S. J. (2010). Networked narratives: Understanding word-of-mouth marketing in online communities. *Journal of Marketing, 74*(2), 71–89.

KPMG. (2017). The truth about online consumers: 2017 global online consumer report. Retrieved September 11, 2018, from https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2017/01/the-truth-about-online-consumers.pdf

Lamberton, C., & Stephen, A. T. (2016). A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry. *Journal of Marketing, 80*(6), 146–172.

Lazar, M. (2017). Ecommerce CRM software: 2017 CRM statistics show why it's a powerful marketing weapon. *IBM Community*. Retrieved September 17, 2018, from https://www.ibm.com/developerworks/community/blogs/d27b1c65-986e-4a4f-a491-5e8eb23980be/entry/2017_CRM_Statistics_Show_Why_it_s_a_Powerful_Marketing_Weapon?lang=en

Lee-Kelley, L., Gilbert, D., & Mannicom, R. (2003). How e-CRM can enhance customer loyalty. *Marketing Intelligence and Planning, 21*(4), 239–248.

Li, H., Daugherty, T., & Biocca, F. (2001). Characteristics of virtual experience in electronic commerce: A protocol analysis. *Journal of Interactive Marketing, 15*(3), 13–30.

Liao, T. H., & Keng, C. J. (2014). Online purchase delay: The roles of online consumer experiences. *Journal of Electronic Commerce Research, 15*(2), 133–150.

Lusch, R. F., Vargo, S. L., & O'Brien, M. (2007). Competing through service: Insights from service-dominant logic. *Journal of Retailing, 83*(1), 5–18.

Martini, A., Massa, S., & Testa, S. (2014). Customer co-creation projects and social media: The case of Barilla of Italy. *Business Horizons, 57*(3), 425–434.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20–38.

Munar, A. M., & Jacobsen, J. K. S. (2014). Motivations for sharing tourism experiences through social media. *Tourism Management, 43*, 46–54.

National Bureau of Statistics of China. (2018a). Total retail sales of consumer goods in December 2017. Retrieved September 11, 2018, from http://www.stats.gov.cn/english/pressrelease/201801/t20180126_1577681.html

National Bureau of Statistics of China. (2018b). Total retail sales of consumer goods in June 2018. Retrieved September 11, 2018, from http://www.stats.gov.cn/english/pressrelease/201807/t20180719_1610962.html

Nielsen. (2017). What's in-store for online grocery shopping: Omnichannel strategies to reach crossover shoppers. Retrieved September 11, 2018, from https://www.nielsen.com/content/dam/nielsenglobal/de/docs/Nielsen%20Global%20Connected%20Commerce%20Report%20January%202017.pdf

Nunes, P., & Cespedes, F. V. (2003, November). The customer has escaped. *Harvard Business Review, 81*, 96–105.

Owyang, J. (2010). Social CRM: Not your father's CRM. *Forbes*. Retrieved September 24, 2018, from https://www.forbes.com/2010/04/09/facebook-twitter-social-media-crm-dell-comcast-cmo-network-jeremiah-owyang.html#225e9e303d89

Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of Marketing, 69*(4), 167–176.

Phillips, E. (2015). Retailers scale up online sales distribution networks. *Wall Street Journal*. Retrieved September 6, 2018, from https://www.wsj.com/articles/retailers-scale-up-online-sales-distribution-networks-1447792869

Picot-Coupey, K., Huré, E., & Piveteau, L. (2016). Channel design to enrich customers' shopping experiences: Synchronizing clicks with bricks in an omnichannel perspective—The direct optic case. *International Journal of Retail and Distribution Management, 44*(3), 336–368.

Pires, G. D., Stanton, J., & Rita, P. (2006). The internet, consumer empowerment and marketing strategies. *European Journal of Marketing, 40*(9/10), 936–949.

Popomaronis, T. (2017). E-Commerce in 2018. Here's what the experts are predicting. *Forbes*. Retrieved September 12, 2018, from https://www.forbes.com/sites/tompopomaronis/2017/12/15/e-commerce-in-2018-heres-what-the-experts-are-predicting/#65a9c2596deb

Powell, A., Noble, C. H., Noble, S. M., & Han, S. (2018). Man vs machine: Relational and performance outcomes of technology utilization in small business CRM support capabilities. *European Journal of Marketing, 52*(3/4), 725–757.

Prahalad, C. K., & Ramaswamy, V. (2004a). *The future of competition: Co-creating unique value with customers*. Boston: Harvard Business School Press.

Prahalad, C. K., & Ramaswamy, V. (2004b). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing, 18*(3), 5–14.

Reinartz, W., Krafft, M., & Hoyer, W. D. (2004). The customer relationship management process: Its measurement and impact on performance. *Journal of Marketing Research, 41*(3), 293–305.

Rigby, D. (2011). The future of shopping. *Harvard Business Review, 89*(12), 65–76.

Rodriguez, M., Peterson, R. M., & Krishnan, V. (2018). Impact of CRM technology on sales Process behaviors: Empirical results from US, Europe, and Asia. *Journal of Business-to-Business Marketing, 25*(1), 1–10.

Rogers, E. M. (1962). *The diffusion of innovations*. New York: Free Press.

Ryan, D., & Jones, C. (2009). *Understanding digital marketing: Marketing strategies for engaging the digital generation*. London: Kogan Page.

Saarijärvi, H., Kannan, P. K., & Kuusela, H. (2013). Value co-creation: Theoretical approaches and practical implications. *European Business Review, 25*(1), 6–19.

Saghiri, S., Wilding, R., Mena, C., & Bourlakis, M. (2017). Toward a three-dimensional framework for omni-channel. *Journal of Business Research, 77*, 53–67.

Schmitt, B. (1999). Experiential marketing. *Journal of Marketing Management, 15*(1–3), 53–67.

Smith, K. T. (2011). Digital marketing strategies that Millennials find appealing, motivating, or just annoying. *Journal of Strategic Marketing, 19*(6), 489–499.

Straker, K., Wrigley, C., & Rosemann, M. (2015). The role of design in the future of digital channels: Conceptual insights and future research directions. *Journal of Retailing and Consumer Services, 26*, 133–140.

Taiminen, H., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development, 22*(4), 633–651.

Takacs, S. J., & Freiden, J. B. (1998). Changes on the electronic frontier: Growth and opportunity of the World-Wide Web. *Journal of Marketing Theory and Practice, 6*(3), 24–37.

Tiago, M. T. P. M. B., & Veríssimo, J. M. C. (2014). Digital marketing and social media: Why bother? *Business Horizons, 57*(6), 703–708.

Tiffin, J., & Rajasingham, L. (2003). *The Global Virtual University*. London: RoutledgeFalmer.

Trainor, K. J. (2012). Relating social media technologies to performance: A capabilities-based perspective. *Journal of Personal Selling and Sales Management, 32*(3), 317–331.

Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research, 67*(6), 1201–1208.

Trusov, M., Bodapati, A. V., & Bucklin, R. E. (2010). Determining influential users in internet social networks. *Journal of Marketing Research, 47*(4), 643–658.

Udo, G. J., Bagchi, K. K., & Kirs, P. J. (2010). An assessment of customers' e-service quality perception, satisfaction and intention. *International Journal of Information Management, 30*(6), 481–492.

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing, 68*(1), 1–17.

Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: Introduction to the special issue on multi-channel retailing. *Journal of Retailing, 91*(2), 174–181.

Ward, T. (2018). How much social media is too much? *Fortune*. Retrieved September 8, 2018, from https://www.forbes.com/sites/tomward/2018/06/08/how-much-social-media-is-too-much/#299a7b3360e6

Witell, L., Kristensson, P., Gustafsson, A., & Löfgren, M. (2011). Idea generation: Customer co-creation versus traditional market research techniques. *Journal of Service Management, 22*(2), 140–159.

Wongsansukcharoen, J., Trimetsoontorn, J., & Fongsuwan, W. (2015). Social CRM, RMO and business strategies affecting banking performance effectiveness in B2B context. *Journal of Business and Industrial Marketing, 30*(6), 742–760.

World Bank. (2018). Individuals using the Internet (& of population). Retrieved September 7, 2018, from https://data.worldbank.org/indicator/it.net.user.zs

Wymbs, C. (2000). How e-commerce is transforming and internationalizing service industries. *Journal of Services Marketing, 14*(6), 463–477.

Yi, Y., & Gong, T. (2013). Customer value co-creation behavior: Scale development and validation. *Journal of Business Research, 66*(9), 1279–1284.

Yoffie, D. B., & Cusumano, M. A. (1999, January–February). Judo strategy: The competitive dynamics of internet time. *Harvard Business Review, 77*, 70–81.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing, 60*(2), 31–46.