

The Impact of COVID-19 on Consumers: Preparing for Digital Sales

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Abstract—COVID-19 has affected everyone's daily lives. At least 316 million people in 42 states have been asked to stay at home to slow down the pandemic. In this aspect, businesses have been susceptible to make substantial transformations. Workplace operations of many businesses went virtual. The effect of the digital transformation on productivity and corporate culture has been studied extensively. Meanwhile, how COVID-19 has influenced consumers and the consumption culture has received relatively limited attention. Managers often take a wait-and-see approach on the impact of COVID-19 on sales. It is often uncertain whether and how many customers will return after the pandemic passes. Consumers live through the pandemic, and some changes might be long-lasting even after the situation eases. We examine the pandemic as an accelerator of the structural change in consumption and the digital transformation in the marketplace. Managers might adapt to the digital transformation in the market to recover or even grow further the sales after COVID-19.

Key words: Consumer culture, COVID-19, digital marketing, digital sales, E-commerce, online shopping, pandemic

IMPACT OF COVID-19 ON BUSINESSES

CCOVID-19, often referred to as coronavirus, is the pandemic virus that has infected 1.6 million people and killed approximately 100 000 people worldwide as of April 10, 2020. [1] This pandemic has affected everyone's daily lives. At least 316 million people in 42 states of the U.S. have been asked to stay at home, and subsequently, businesses have been susceptible to transition into virtual workplaces or laying off employees [2], [3]. Many employees have been quick to adjust to the digital transformation. Online video conference software *Zoom* reports a 78% growth in profits, and *Google Meet* reports an approximately 60% increase in user traffics, where people spend 2 billion minutes in online meetings every day [4], [5]. Employees might not want to go back to physical offices even after the

pandemic eases. Managers predict that some of the impacts from COVID-19 on workplaces might be lasting, where flexible working hours and digital meetings are expected to increasingly replace the traditional corporate culture [6]. Businesses are experimenting with decentralized decision making and new software to make the new digital work culture effective and as productive as working in physical offices [4]. Although it is critical for businesses to make this transition as effectively and swiftly as possible, some other consequences that are critical to the viability of businesses have often been left out from the discussion—the impacts of COVID-19 on consumers and the market.

Employees are not able to come to work. This has been treated with a sense of urgency. Managers and recent management research in responses to COVID-19 have

predominantly focused on the digital transformation of workplaces [7], [8]. According to the “Mere Urgency Effect,” people tend to allocate most of the resources and time to the urgent matter regardless of its importance [9]. Workplace operations are critical. However, the sale is a fundamental block of businesses. Consumer spending has been decreasing due to the pandemic, except for a few product categories such as hand sanitizers [10]. According to a recent survey of 304 businesses, 42% were concerned about the revenue; however, most of the managers take a wait-and-see approach rather than taking actions to improve the situation [11]. Managers might expect that sales will simply recover as consumption increases after the pandemic passes. However, the pandemic has had some lasting impacts not only on the workplace culture but also on the consumer culture. The pandemic might have transformed the market structure, maybe forever. In this article, we examine how the pandemic influenced

the digital transformation on the consumers’ ends as well—and how businesses might adapt to digital sales. Consumer insights during the pandemic indicate that the market is transitioning to e-commerce. The rise of online shopping provides new opportunities for harnessing success after COVID-19.

THE IMPACT OF COVID-19 ON CONSUMERS

Pandemic, although it was considered an unlikely event for a long time before the COVID-19 outbreak, has been identified as one of the key threats to businesses, according to a survey conducted in 2007 [12]. Virtual meetings and project management technologies have been increasingly implemented even before the pandemic, and the digital transformation has been relatively hassle-free for many businesses [4]. Thus, most businesses have made successful transitions into online operations successfully—however,

the impact of the pandemic is not likely to be limited only to the business operations. Consumers who live through a pandemic might be changed, and the changes can be long-lasting even after the pandemic passes. According to a recent survey, 46% of respondents plan to reduce spending during the pandemic [10]. Although demands increased for specific categories, including groceries or household supplies, discretionary spending is expected to decrease as approximately 60% of respondents plan to cut spending on consumer electronics or vehicles [10] (see Figure 1). Managers might expect that sales will somehow recover when the situation eases; whether and how many customers will return after the pandemic might depend on how well the business adapts to the evolving consumer culture due to the pandemic.

E-commerce: Rogers viewed innovation diffusion as a social phenomenon, where new products

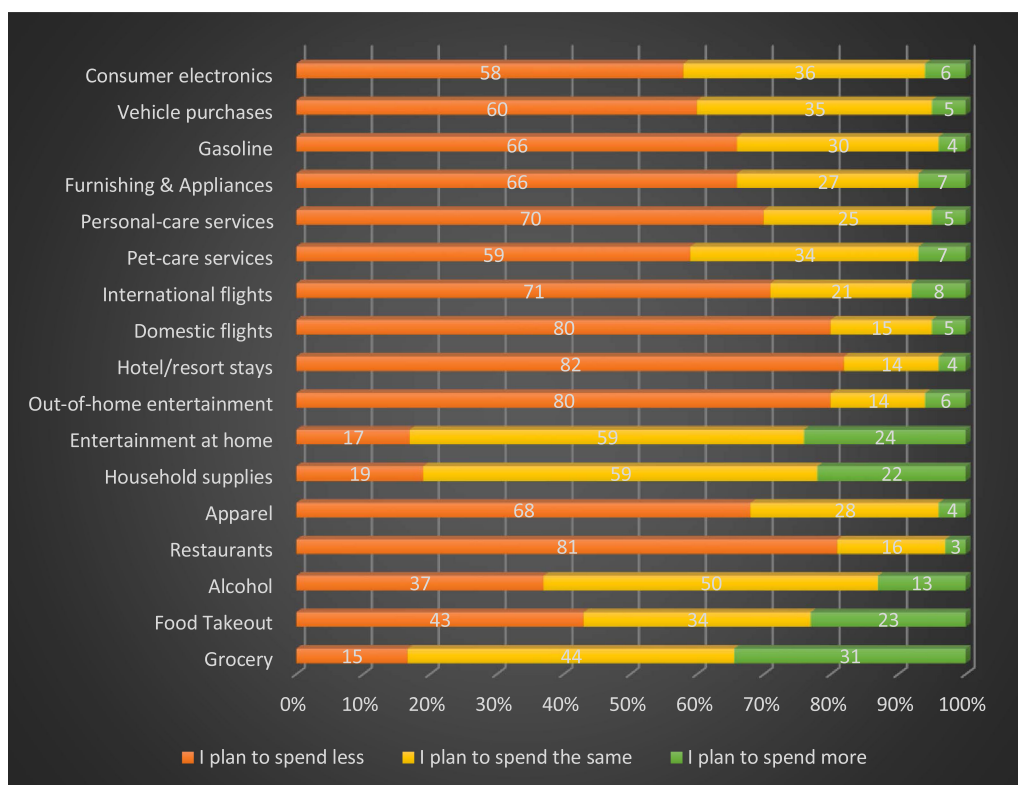


Figure 1. Reductions in spending due to COVID-19 by retail category.

are diffused to the majority because the enthusiast consumer demographic, also known as “early adopters,” promote the new product to their social circles and diffusion occurs via network effects [13]. The early research on diffusion theory found that consumers could be classified into two groups: early and late adopters by certain characteristics such as enthusiasm for newness [14]. A survey conducted in 1998 when *e-bay* introduced the new way of shopping online, found that 46% of early adopters were using e-commerce frequently, while only 8% of late adopters had an experience of web shopping [14]. However, the recent survey on online shopping behavior indicates that diffusion might occur not only due to network effects, but the pandemic can also be a trigger. According to a recent survey of 2200 adults in the U.S., 37% of survey respondents have considered shifting to online shopping after COVID-19 [15].

Furthermore, even the late adopters, who never used online shopping before, are prompted to shop online as there is no alternative when sheltering in-place. A significant portion of those late adopters who were averse to shop online have

inflowed into electronic markets after COVID-19. Among those surveyed, 11% of Generation Z (Gen Z), 10% of Millennials, and 12% of Generation X (Gen X), and 5% of Boomers have bought something online for the first time due to the pandemic (see Figure 2). Consequently, at least 66% of Gen Z, 68% of Millennials, and 73% of Gen X, and 68% of Boomers have adopted online shopping after the sharp increase in the number of online shoppers due to the pandemic [15].

Consumers' adaptations to online shopping, which are accelerated by the pandemic, are not likely to end or reduce after the COVID-19 passes [16]. The previous study finds that the dominant two motivations for shopping in physical stores instead of shopping online are immediate possessions and social interactions, while online shopping tends to be substantially more convenient and economical [17]. Online shopping offers greater flexibility in terms of time, location, and product variety [18]. One potential barrier that makes many consumers hesitant to adopt online shopping might be the learning cost [15]. Consumers might have preferred to shop in physical stores not only due to the desire for immediate possessions but also

because they have been averse to investing time into learning how to shop online. In this aspect, the pandemic can be a trigger that induces the late majority, who have been averse to the new way of shopping, to finally shop online [19]. The new 10% of the consumer demographic, who adopted online shopping due to pandemic, already paid the cost and experienced the convenience of online shopping and realized that a few days of waiting for delivery might be worth it [17]. Although late adopters are likely to be more skeptical in evaluating new experiences [20], their online shopping experience is likely to be positive, as it provides a relatively safe way to shop during the pandemic, and thus, they are likely to continue to shop online even after the pandemic passes [21].

SELLING IN THE DIGITAL AGE

Although at least 60% of people plan to cut spending on consumer electronics, web traffics to online tech retailers surged by 16% since the COVID-19 outbreak [10], [22]. Consumers were already shopping online increasingly more before COVID-19, and the pandemic has accelerated the structural change

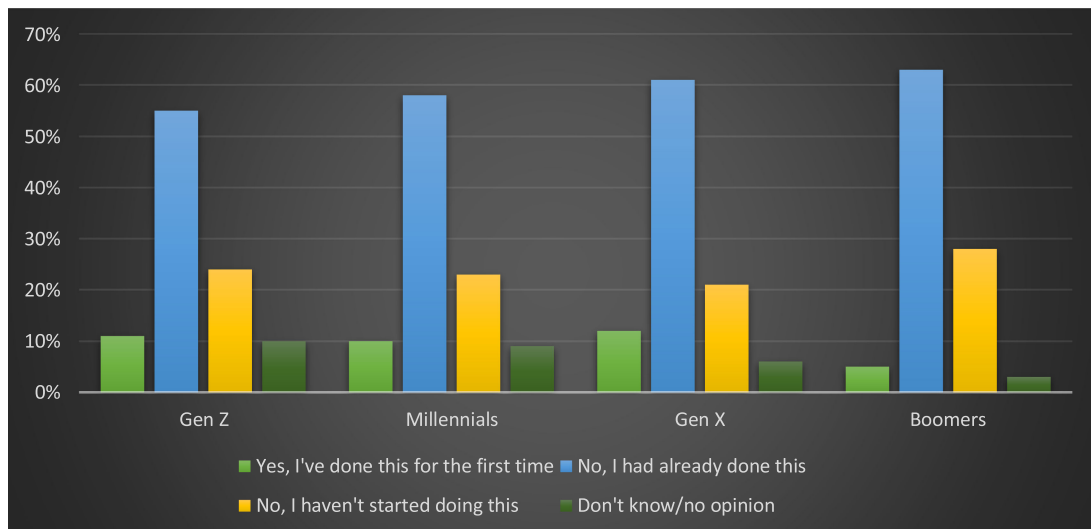


Figure 2. First time online shopping users due to COVID-19.

[15]. For example, online grocery shopping and delivery services have been growing rapidly, where *Instacart*, a pioneering grocery delivery app founded in 2012, had brought in 2.9 billion USD in revenues in 2019 [23]. The pandemic might accelerate this already impressive growth. Daily downloads of grocery apps have doubled during a week since March 11th when the World Health Organization officially declared COVID-19 a pandemic [24], [25].

The automobile industry has also been hit hard by the pandemic as the April new car sales are expected to be down by 80% [26]. Meanwhile, stock values of online car sales services, including *Carvana*, *CarMax*, and *Copart*, have been increasing, where the shareholder value of *Carvana* has been doubled since the date of the WHO declaration of a pandemic [27]. *Carvana* now offers “touchless” delivery of cars, where they will unload the car in the driveway, sanitize the steering wheel and keys, then leave the paperwork on the passenger seat [28].

Thus, the pandemic induced not only the workforce, but the consumers to make the digital transformation.

Although sales in e-commerce have increased five times faster compared to in-store retail, approximately 90% of retail sales in 2019 happened in-store [29]. Online sales are expected to increase, and businesses might have to invest the resources to make digital selling more effective as well as virtual business operations. The importance of digital selling has been acknowledged even before the pandemic as managers expect that Millennials and Gen Z, also known as “digital natives (DNs),” are more comfortable with online shopping [30]. The pandemic only accelerates the transition of the consumption culture into the online hemisphere, especially since many businesses that have not made the digital transition have lost all access to customers and are less likely to survive through the pandemic [15], [31]. The success of *Instacart* and *Carvana* shows that consumers are willing to purchase groceries or even cars online if businesses innovate the way how they provide product information and ensure postpurchase customer services [17]. Managers might adapt to this fast-evolving consumer culture and innovate the mechanism of digital sales. We make suggestions on how managers might respond to the

consumers’ digital adaptation and make some transitions for selling in the digital age (see Figure 3).

INNOVATING THE ONLINE SHOPPING EXPERIENCE

Online shopping provides greater convenience in aspects of time and location compared to shopping in-stores [17]. However, one reason why some consumers still prefer to shop in physical stores can be that it is more difficult to process information when they shop online [18]. When consumers shop online, product information is often limited to images and product descriptions provided by sellers [32]. Managers might want to utilize recent technologies to help consumers make decisions more easily while they shop online. On *Carvana*, consumers can view the car and interior virtually with patented 360° photo technology [32]. *Amazon* offers virtual clothes fitting experience by utilizing augmented reality (AR) technology [33]. Virtual reality (VR) and AR techs are expected to open new opportunities for personalized shopping experiences online. Furthermore, the previous study suggests that music in advertisements improves attention span and product evaluation [34]. Managers might want to implement music in online stores to grab consumers’ attention and induce a positive mood while they shop online. Also, interactivity can improve the cognitive processing and memory [35]. Managers might innovate a way to provide interactive shopping experiences online. *Whole Food* offers a chatbot that helps customers decide on ingredients to shop from the store by suggesting new recipes. When a customer is in a rush, they can simply send a food emoji to instantly get the specific kind of recipe [36].

One challenge for digital sales is consumers’ skepticism about making purchases online [37]. “Trust” is often a determinant factor to predict whether a consumer is willing to shop

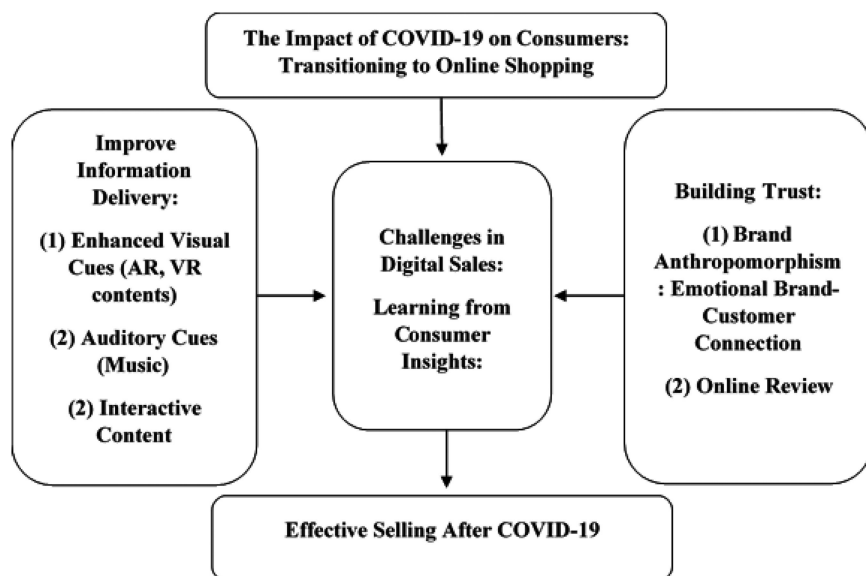


Figure 3. Digital sales after COVID-19.

or return to purchase again in e-commerce [38]. Consumers are likely to trust, be loyal to, and advocate for anthropomorphic brands with specific human characteristics, such as displaying emotions or expressing friendliness [39]. Managers might personify the brand on social media and interact with customers to create an emotional connection [35]. Consumers who have an emotional connection with a brand have a 306% higher lifetime value [40]. Additionally, online reviews can help reduce skepticism about making purchases online [41]. The hotel industry makes 82% of its sales completely online

even if hotels are experience goods and booking accommodations online involves a high level of risk [41], [42]. Consumers often can evaluate hotels and reduce risk effectively by reading customer reviews that are available on most of the hotel booking websites [42]. Managers might enable online reviews and encourage consumers to provide feedback to help reduce the uncertainty involved in making purchases online.

CONCLUDING REMARKS

The pandemic forced workplace operations to go virtual—and many

businesses have made such transition successfully in a short period of time. However, how the pandemic affects consumers and marketplaces has received relatively limited attention. In this article, we explored how the pandemic accelerated the growth of e-commerce. We encourage managers to develop innovative digital-sales initiatives to prepare for the digital transformations of the market. Future research might explore the impacts of expanding e-commerce on new product launches, product development, product management, and/or pricing.

REFERENCES

- [1] World Health Organization, Coronavirus disease (COVID-19) Pandemic, 2020, Accessed: April 10, 2020. [Online] <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- [2] S. Mervosh, D. Lu, and V. Swales, See Which States and Cities Have Told Residents to Stay at Home, *The New York Times*, April 7, 2020. [Online] <https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html>
- [3] M. Isaac, D. Yaffe-Bellany, and K. Weise, Workplace vs. Coronavirus: 'No One Has a Playbook for This,' *The New York Times*, March 5, 2020. [Online] <https://www.nytimes.com/2020/03/05/business/coronavirus-offices-covid-19.html>
- [4] Q. Hardy, COVID-19 And Our Surprising Digital Transformation, *Forbes*, Accessed April 10, 2020. [Online] <https://www.forbes.com/sites/googlecloud/2020/03/11/beyond-spreadsheets/#401e43c76c7f>
- [5] A. Tilley, Zoom Video Posts Fourth-Quarter Net Profit on 78% Revenue Growth, *The Wall Street Journal*, Accessed: March 4, 2020. [Online] <https://www.wsj.com/articles/zoom-video-posts-fourth-quarter-net-profit-on-78-revenue-growth-11583363098>
- [6] B. Pimentel, Work is Never Going Back to What It Once Was, *Business Insider*, March 23, 2020. [Online] <https://www.businessinsider.com/bill-mcdermott-coronavirus-digital-transformation-workplace-2020-3>
- [7] H. K. Gardner and I. Matviak, Coronavirus Could Force Teams to Work Remotely, *Harvard Business Review*, March 5, 2020. [Online] <https://hbr.org/2020/03/coronavirus-could-force-teams-to-work-remotely>
- [8] T. Neeley, Adjusting to Remote Work During the Coronavirus Crisis, *Harvard Business Review—IdeaCast*, March 24, 2020. [Online] <https://hbr.org/podcast/2020/03/adjusting-to-remote-work-during-the-coronavirus-crisis>
- [9] M. Zhu, Y. Yang, and C.K. Hsee, The Mere Urgency Effect, *Journal of Consumer Research*, 45(3), 673–690, 2018.
- [10] S. Bhargava *et al.*, Survey: US Consumer Sentiment During the Coronavirus Crisis, McKinsey and Co., April 5, 2020. [Online] <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/survey-us-consumer-sentiment-during-the-coronavirus-crisis>
- [11] L. Freedman, Perspectives Taking the Pulse: Retailers and the Coronavirus, *Digital Commerce* 360, March 11, 2020. [Online] <https://www.digitalcommerce360.com/2020/03/11/taking-the-pulse-retailers-and-the-coronavirus/>

- [12] P. W. Smith, K. Hansen, L. Spanbauer, and D. F. Shell, Pandemic Influenza Preparedness: A Survey of Businesses, *American Journal of Infection Control*, 35(7), 484–485, 2007.
- [13] E.M. Rogers, *Diffusion of Innovations*, 3rd ed. London, U.K.: The Free Press, 1983.
- [14] D. Howland, The Consumer After COVID-19, *Retail Dive*, April 8, 2020. [Online] <https://www.retaildive.com/news/the-consumer-after-covid-19/575634/>
- [15] Morning Consult, Crosstabulation Results, *National Tracking Poll #200394*, March 26, 2020. [Online] https://morningconsult.com/wp-content/uploads/2020/03/200394_crosstabs_CORONAVIRUS_CONTENT_Adults_v4_JB-1.pdf
- [16] M. Wolfinbarger and M.C. Gilly, Shopping Online for Freedom, Control, and Fun, *California Management Review*, 43(2), 34–55, 2001.
- [17] A. Rangaswami and S. Gupta, Innovation Adoption and Diffusion in the Digital Environments: Some Research Opportunities. In Vijay Mahajan, Eitan Muller, and Yoram Wind (Eds.), *New Product Diffusion Models*, New York, NY, USA: Springer, 2000.
- [18] A. J. Rohm and V. Swaminathan, A Typology of Online Shoppers Based on Shopping Motivations, *Journal of Business Research*, 57(7), 748–757, 2004.
- [19] R. Peres, E. Muller, and V. Mahajan, Innovation Diffusion and New Product Growth Models: A Critical Review and Research Directions, *International Journal of Research in Marketing*, 27, 91–106, 2010.
- [20] R. Y. Kim, The Influx of Skeptics: An Investigation of the Diffusion Cycle Effect on Online Review, *Electronic Markets*, In press, 2020.
- [21] C. Lin and W. Lekhawipat, Factors Affecting Online Repurchase Intention, *Industrial Management & Data Systems*, 114(4), 597–611, 2014.
- [22] Content Square, The COVID-19 eCommerce Impact Data Hub, Content Square, Accessed: April 14, 2020. [Online] <https://contentsquare.com/covid-19-ecommerce-impact-data-hub/>
- [23] Owlery, Instacart's Competitors, Revenue, Number of Employees, Funding, and Acquisitions, *Owler*, Accessed: April 10, 2020. [Online] <https://www.owler.com/company/instacart>
- [24] S. Perez, Grocery Delivery Apps See Record Download Amid Coronavirus Break, *Tech Crunch*, March 16, 2020. [Online] <https://techcrunch.com/2020/03/16/grocery-delivery-apps-see-record-downloads-amid-coronavirus-outbreak/>
- [25] World Health Organization, WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020, *World Health Organization*, March 11, 2020. [Online] <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020>
- [26] K. Liang, Auto industry seeks help in Washington to weather COVID-19 crisis, *The Detroit News*, April 7, 2020. [Online] <https://www.detroitnews.com/story/business/autos/2020/04/08/auto-industry-seeks-help-from-washington-coronavirus-crisis/2954524001/>
- [27] Nasdaq, Market Activity, *Nasdaq*, Accessed: April 10, 2020. [Online] <https://www.nasdaq.com/market-activity/stocks/cvna>
- [28] J. Gorzelany, Best Ways To Buy A Car In The Age Of Coronavirus, *Forbes*, March 17, 2020. [Online] <https://www.forbes.com/sites/jimgorzelany/2020/03/17/car-buying-in-the-age-of-coronavirus>
- [29] U.S. Department of Commerce, Quarterly Retail E-Commerce Sales, *U.S. Census Bureau News*, February 19, 2020, [Online] https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf
- [30] A. A. Zoltners, P. Sinha, and S. E. Lorimer, How Sales Teams Can Thrive in a Digital World, *Harvard Business Review*, February 18, 2018. [Online] <https://hbr.org/2020/02/how-sales-teams-can-thrive-in-a-digital-world>

- [31] H. Torry, Coronavirus Pandemic Widens Divide Between Online, Traditional Businesses, *The Wall Street Journal*, April 1, 2020. [Online] <https://www.wsj.com/articles/coronavirus-pandemic-widens-divide-between-online-traditional-businesses-11585733402>
- [32] Carvana, How It Works, *Carvana*, Accessed: April 10, 2020. [Online] <https://www.carvana.com/how-it-works>
- [33] S. Bird, Amazon to 'Revolutionise' Shopping With 'Virtual Changing Room' App, *The Telegraph*, Accessed: January 26, 2019. [Online] <https://www.telegraph.co.uk/news/2019/01/26/future-fashion-retail-just-swipe-away-amazon-patent-reveals/>
- [34] A. Krishna, L. Cian, and T. Sokolova, The Power of Sensory Marketing in Advertising, *Current Opinion in Psychology*, 10, 142–147, 2016.
- [35] Q. Xu and S. S. Sundar, Interactivity and Memory: Information Processing of Interactive Versus Non-Interactive Content, *Computers in Human Behavior*, 63, 620–629, 2016.
- [36] B. Morgan, 20 Fresh Examples of Customer Experience Innovation, *Forbes*, October 21, 2019. [Online] <https://www.forbes.com/sites/blakemorgan/2019/10/21/20-fresh-examples-of-customer-experience-innovation/#5e332057c41c>
- [37] K. Stouthuysen, I. Teunis, E. Reusen, and H. Slabbinck, Initial Trust and Intentions to Buy: The Effect of Vendor-Specific Guarantees, Customer Reviews and the Role of Online Shopping Experience, *Electronic Commerce Research and Applications*, 27, 23–38, 2018.
- [38] A. Bilgihan, Gen Y Customer Loyalty in Online Shopping: An Integrated Model of Trust, User Experience and Branding, *Computers in Human Behavior*, 61, 103–113, 2016.
- [39] P. Aggarwal and A.L. McGill, When Brands Seem Human, Do Humans Act Like Brands? Automatic Behavioral Priming Effects of Brand Anthropomorphism, *Journal of Consumer Research*, 39(2), 307–323, 2012.
- [40] B. Morgan, 100 Stats On Digital Transformation and Customer Experience, *Forbes*, December 16, 2019. [Online] <https://www.forbes.com/sites/blakemorgan/2019/12/16/100-stats-on-digital-transformation-and-customer-experience/#c8a48793bf3e>
- [41] R.Y. Kim, When does online review matter to consumers? The effect of product quality information cues, *Electronic Commerce Research*, In press, 2020.
- [42] G. Abramovich, 15 Mind-Blowing Stats About Digital Trends In Travel And Hospitality, *CMO by Adobe*, May 15, 2017. [Online] <https://cmo.adobe.com/articles/2017/5/15-mind-blowing-stats-about-digital-trends-in-travel-hospitality-tlp-ddm.html#gs.3d70qi>