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## Service innovation: Using augmented reality in the IKEA Place app

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### Abstract

IKEA, a worldwide known “Assemble & Install-It-Yourself” furniture company with Swedish origin, launched an augmented reality app, namely, IKEA Place, that aimed to solve practical problems surrounding furniture shopping in September 2017. The IKEA Place, which used augmented reality to allow its users to visualize how furniture will look in their own home, is examined in this article. Discussion is centered around how the app allowed IKEA to create a service-centered value as it signaled that it understood the hurdles involved in the furniture shopping process for investing to extend technology-based support to its customers.

### Keywords

Augmented reality, furniture retailing, service innovation, IKEA, digital experience

### Introduction

“Oh, no! It doesn’t look like what I have thought that it would look like. Honey, this new furniture does not even fit into our living room in size, let alone it’s mismatching color and texture. I am sorry for the trouble, but we have to return it,” said Lucy to her fiancé Mike, right after they completed the installation of their dining room furniture in their new apartment.

In today’s demanding world, available technology offers promising ways to improve the shopping experience to prevent such unpleasant experiences. One such industry that can benefit from such improvement involves the services included in furniture retailing. In this article, IKEA Place App, by the renowned furniture retailer, is explored concerning its service innovation to offer its customers with an outstanding digital experience in their shopping.

In the following sections, first, the ready-to-assemble (RTA) furniture market, and IKEA as a company are introduced. Second, augmented reality (AR) and its use in marketing are presented. Next, follows a section that reviews the IKEA Place app and reflections about it. Finally, concluding remarks are presented within the S-D logic in terms of the service innovation captured by the AR.

### The RTA furniture market

The global furniture industry is estimated to have a market value of 545.46 billion US dollars in 2018, with a 2025 forecast indicating 654.6 billion US dollars (O’Connell, 2019c). As a subset, the RTA furniture market constituted of 12.32 billion US dollars in the year 2018, with expectations that of reaching to 18.4 billion US dollars by 2025 (O’Connell, 2019b). RTA furniture is also known as flat-pack, knock-down (KD), do-it-yourself (DIY), self-assembly, or kit furniture, typically assembled by consumers (Goldstein, 2019). Its low cost and high functionality earned RTA popularity in comparison to the ready-to-use (RTU) furniture (Goldstein, 2019). RTA involves both residential and office furniture that includes the living room, bedroom, kitchen, dining room, garden, balcony, kids and teenager room, as well as swivel chairs,

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tables, desktop tables, filing chairs, and pedestals (InfinitiResearch, 2017). Western Europe dominates the market by producing more than 25% of global furniture production and over 25% of entire furniture consumption (Goldstein, 2019). The major players in the RTA furniture are Tvilum, Walmart, Target, Dorel Industries, Simplicity Sofas, Euro Style, DMI Furniture, IKEA, Home Reserve, Cymax, Sauder, Artiva, and Bush Industries (Goldstein, 2019; InfinitiResearch, 2017; MarketResearch, 2018). Overall, the global success of RTA is attributed to ease in transportation and home access for consumers (Goldstein, 2019).

## IKEA—the company

IKEA (/aɪˈkiːə/ eye-KEE-ə, Swedish: [iˈke:a]) is among the big players of the RTA furniture market as the world's largest furniture retailer since 2008 (O'Connell, 2019a). As a European multinational group, IKEA both designs and sells RTA furniture, kitchen appliances, and home accessories in addition to home services.

Founded in 1943 in Älmhult, Sweden, by then a 17-year-old Ingvar Kamprad, the company is globally renowned with its flat-pack form of the RTA furniture of Scandinavian style (Loeb, 2012; Zuvella, 2008). Bloomberg Billionaires Index listed Kamprad's estimated net worth of US\$58.7 billion as the eighth richest person in the world when he died in 2018 (Pendleton, 2018). IKEA is an acronym of initials of Ingvar Kamprad, Elmtaryd, which is the farm where Kamprad spent his childhood, and Agunnaryd, which is Kamprad's hometown in southern Sweden (Biggs, 2018).

Inter IKEA Systems B.V., registered in the Netherlands and controlled by Kamprad's sons, owns the business. Modernist eco-friendly simplicity in design, coupled with cost control, detailed operational and service approach, and dedication to continuous development, enabled IKEA to become a successful worldwide business (IKEA, 2019c). As of November 2019, 430 IKEA stores are operating in 52 countries (IKEA, 2019a). Also, IKEA e-commerce reaches to 50 markets in 2019 (IKEA, 2019b).

Besides being a retailer of RTA furniture, during its years of striving business, IKEA also “demonstrated the mantra of always putting customers first and subsequently impressing them” (Pontefract, 2016). This motive has enabled the company to devote itself to value and service, with an appreciation and intention of delighting its customers. In a nutshell, IKEA has chosen to help its customers in improving their everyday lives as its core purpose. In line with this core purposes, the company has been referred to set an example in service culture, service excellence, and value-based service brands domains and had been suggested to have embedded the S-D logic (Edvardsson, 2006; Edvardsson and Enquist, 2002, 2011).

## Augmented reality

AR is often confused with the concept of virtual reality (VR). They are both enabled by current digital technological developments in offering a mixed reality via integrated and merged real and virtual worlds, at which physical and virtual objects complement, support, and interact with each other (Ohta and Tamura, 2014). While VR fully immerses its users in a computer-generated environment (Ozturkcan, 2018), users can interact with the real world through a computer-generated environment in the AR (Wakim et al., 2018). Users engaged with AR can continue to see and hear their surrounding real world with the addition of virtual three-dimensional objects and accompanying sounds. In this regard, AR is an essential supplementation to the real world rather than a virtual substitute.

## Use of AR in marketing

As smart devices enable widespread reach for AR applications, marketers interested in the vested opportunities are increasing. The possibility to allow a consumer to see or try a virtual replica of a real product, ranging from eye-wear to furniture, embedded with real-life elements attracts many retailers. AR enables firms to extend the carefully crafted in-store experiences to smartphones (Cehovin and Ruban, 2017; Swilley, 2016) by offering a more direct and engaging experience. When a consumer provided an AR-based trial opportunity before the purchase decision, a decrease in returns is expected.

Widespread smartphone adoption, decrease in cost, increase in mobility, and ability of AR to offer experiential value resulted in AR to move to the commercial retail realm from the labs (Rese et al., 2016). AR has valuable advantages for retailers and customers because of its influence on engagement and decisions as well as enhancing experiences (Huang and Liao, 2014; Tseng-Lung and Feng, 2014). AR enables retailers to provide their customers with detailed information to facilitate their choice-making (Oh et al., 2008). Improved evaluation of products and trying alternatives that consumers would not have considered in the absence of AR are some other benefits. AR significantly increases consumers' willingness to buy (Poushneh and Vasquez-Parraga, 2017).

AR's benefits for retailers also include the virtual trial opportunities that can improve conversion and return rates (Dacko, 2017). The interactive, exciting, and joyful personalized shopping experience possible via AR compensates for the static shelf displays. Research has been unpacking the AR technologies' potential impact on consumers in terms of interactivity, modality, and augmentation (Javornik, 2016; Poushneh and Vasquez-Parraga, 2017; Tseng-Lung and Feng, 2014). Steuer (1992)

defined interactivity as the “extent to which users can participate in modifying the form and content of a mediated environment in real-time.” As the interactivity entertains the user by immersion, it also leads to positive affective response (Fiore et al., 2005) as well as the experiential value (Javornik, 2016). AR’s advantage in facilitating immersive consumer experiences by enhancing physical reality is unique by endorsing immersion, playfulness, and excitement (Poushneh and Vasquez-Parraga, 2017).

AR use in the retail environment attracts the researcher’s attention with opportunities for both consumers and other stakeholders (Scholz and Duffy, 2018). Using AR in the marketing context can help with improving customer satisfaction and loyalty, repeat purchases, and even positive word-of-mouth (WOM; McLean and Wilson, 2019). Recent research indicates that AR devices can be used in helping customers for better alignment of their purchase decisions with their shopping goals (Van Esch et al., 2019). The resulting consumer inspiration influences the benefits that consumers derive from AR apps, with a future impact on their brand attitudes (Rauschnabel et al., 2019).

### The IKEA Place app

IKEA, a worldwide known “Ready-to-Assemble” furniture company with Swedish origins, has recently tapped into opportunities engaged in new technology for delivering better service. The company, launched back in 1943, grew into a world giant. Although it is the best renowned Scandinavian furniture company, the services that IKEA design offers to its customers also constitute a significant component of its marketing activities. Along these lines, in September 2017, the company launched an AR app, namely, IKEA Place, that aims to solve practical problems surrounding furniture shopping. With the aid of the freely downloadable app, customers would be allowed to try out furniture in their homes before buying it. The app would use AR to allow its users to visualize how furniture will look in their own homes. Not only would it take the hassle of furniture shopping off, but it would also eliminate the burden of returning any furniture that does not fit. With this free app, IKEA creates a service-centered value as it signals that it understands the hurdles involved in the furniture shopping process and extends support. IKEA Place App provides means to customers not only to decide which furniture to buy but saves them from undesirable unfit results. For this aim, the app enables furniture shoppers to virtually furnish their rooms with some 2,000 objects and accessories available from the IKEA catalog. It is as easy as snapping the space and then selecting the item. The app automatically scales the chosen product to the size based on the shopper’s room’s dimensions with some 98% accuracy. Furthermore, the ability to see the texture of the fabric and

rendering of light and shadows is among the features, too. Moreover, IKEA Place aimed to turn the experience of choosing an item of furniture into a rather fun digital engagement as well.

### Reflections about IKEA Place app

“It’s always scary to pick out a couch or a chair without knowing what it might look like in your home rather than the showroom floor,” said Wilson (2019) of FastCompany.

In September 2017, as an attempt to reduce the anxiety involved in furniture shopping, IKEA introduced the Place App as also described in the short video accessible at <https://youtu.be/UudV1VdFtuQ> (0:58 min).

The app was available in English, Croatian, Czech, Danish, Dutch, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Malay, Norwegian Bokmål, Polish, Portuguese, Romanian, Russian, Serbian, Simplified Chinese, Slovak, Spanish, Swedish, Thai, Traditional Chinese, and Turkish languages both on GooglePlay<sup>1</sup> and Appstore<sup>2</sup> on a free-of-charge basis. The Place app lets its users superimpose the virtual replicas of the IKEA furniture of their choice in their real homes by the aid of the AR technology. It provides shoppers with a more flawless look as to what that particular furniture might look like once placed in its intended spot.

The 3-dimensional renderings of over 2,000 products from different angles can be viewed by the aid of the app (Joseph, 2017). With 98% accuracy of real-life representations of texture, fabric, lighting, and shadows, digital IKEA furniture can be placed next to existing physical environments and objects (Pardes, 2017). The Place App enables a consumer to place a chair, a desk, or just about any other IKEA furniture in her kitchen, backyard, or wherever she wants to experiment how it would look. It is as easy as scanning the place of her choice with her smartphone camera, then browsing the IKEA products listed in the app, and finally selecting the product she’d like to experiment with.

Michael Valdsgaard, leader of digital transformation at Inter IKEA, the holding company for IKEA, said that

seeing lifelike versions of Ikea’s products in rooms lets shoppers make a “reliable buying” decision. Most people postpone the purchase of a new sofa because they’re not comfortable deciding if they aren’t sure the color is going to match [the rest of the room] or it fits the style. Now, we can give them [those answers] in their hands, while letting them have fun with home furnishing for free and with no effort. (Joseph, 2017)

“ . . . Now, technology has caught up with our ambition. AR lets us redefine the experience for furniture retail once more, in our restless quest to create a better everyday life for everyone, everywhere” (Chang, 2018).

The Place App was among the pioneers that took advantage of the ARKit that Apple provided to developers as an

AR framework. Later matched with Android, the ARKit used the iPhone's motion sensors and cameras in overlaying digital elements in the real world. Apple's CEO, Tim Cook, publicized the Place App on its release day as the future of shopping (Reynolds, 2018). With an overall 4.7/5.0 rating, the 5400 reviews left at the AppStore about the Place were of mixed nature (AppStore, 2019a). Some reviewers found the service fantastic or great, with also pointing areas of further improvement, while there were also customers finding it not easy to use. The 1013 reviews left at the GooglePlay with an overall rating of 3.2/5.0 were less favorable in comparison to the Appstore (GooglePlay, 2019).

To further advance the services extended by the AR, the updated versions of the Place app included some new features. The earlier versions were limited to the experimentation of only one single piece of virtual IKEA furniture with a real-life environment. Users who desired to experiment with IKEA furniture for an entire room were not able to do so. A newer version of the Place app improved upon this critical aspect by allowing users to experiment wholly virtually furnishing a room with a multi-placement option as well as introducing a wish list to save items for future shopping trips.

The impact of the IKEA Place App in delivering key performance indicators is not yet reported in detail. Still, some articulation is possible in some critical aspects. The Place app was listed among the most popular non-gaming free apps for a long time (Williams, 2018). Often, AR applications receiving more extensive attention include entertainment as in Pokemon Go or Snapchat Lenses. IKEA Place app, however, is designed as a useful service tool for IKEA's consumers with some key benefits. First, it aims to close the present omnichannel gap by the blend of digital and real worlds at the touch of a smartphone. Second, it provides opportunities for improving the stressful in-store shopping experience. It helps the user to short-list favorite items following the virtual fit experimentation with virtual replicas of furniture before stepping into the enormous showrooms with numerous alternatives in the display. Last but not least, it aims at reducing the returns and the involved hassle.

The app was favorably reviewed, although it is not possible to know its actual use. Even still, popularity and ratings hint a favorable impression. The service extended by

the AR app generated substantial marketing buzz. Google search of "IKEA AR" spiked (Figure 1), while the company enjoyed extensive news media coverage in getting among the 50 most innovative companies (FastCompany, 2018).

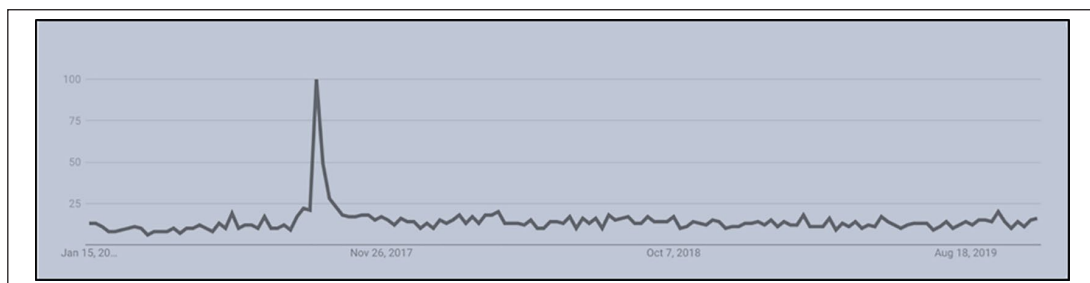
The app placed IKEA as a first mover and pioneer adapter of technology to service provision (Williams, 2018). To this day, it preserves its popularity as being referred to as a pioneer AR experience in retail.

## Conclusion

According to the traditional view of the G-D logic, business transactions often include some value, which is measured in units of output in manufacturing goods at the end of a production process that utilizes some tangible physical resources (Lusch and Vargo, 2006). The S-D logic, on the contrary, considers the knowledge and skills as resources used in service interactions where the focus is on co-created value. Yet, the goods and services distinction does not serve as a differentiating factor between the G-D logic and S-D logic (Gummeson, 2007). Also, a service-centered view is concerned with the "value-in-use" that is the co-created value together with the customers (Vargo, 2008; Vargo et al., 2008; Vargo and Lusch, 2008). Along the same lines, S-D logic identifies service as an application of knowledge and skills to provide something useful for all involved in the co-creation and exchange process (Vargo and Lusch, 2008). Also, service innovations become further possible upon treating knowledge and skills as resources that can be devoted to the creation of value in dynamic settings. From these lines, the AR app presented in this article provides a notable example of S-D-logic-based service innovation.

## Discussion questions

1. On a scale of 1–10, rate the success of the IKEA Place app? Explain why?
2. How would you evaluate the IKEA Place app in terms of the S-D logic?
3. What are some of the challenges in delivering services via the adaptation of new technologies?



**Figure 1.** Google search trends: interest over time (keyword: IKEA AR)/I September 2017–I November 2019.

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## Notes

1. [https://play.google.com/store/apps/details?id=com.inter\\_ikea.place&hl=en](https://play.google.com/store/apps/details?id=com.inter_ikea.place&hl=en)
2. <https://apps.apple.com/us/app/ikea-place/id1279244498>

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