

Challenges and Lessons: Embracing Design Thinking Practices for Website Innovation in South Korea

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Abstract

This research aims to investigate how Korean digital agencies practice design thinking for their website innovation. Based on a literature review on the design-thinking-driven web development process, multiple case studies of award-winning website projects were undertaken. Through analyses of these cases, the following challenges and lessons were disclosed: (1) challenges – building a long-term, playful partnership with clients, leveraging decision-making executives' design thinking awareness, and coping with limited resources (design thinking practitioners, budgets, and schedules) and (2) lessons – cross-functional collaboration, agile mobile-first development process, powerful visual storytelling, and compelling UX strategies and UI guidelines. Moreover, distinct approaches of design thinking practices were identified according to two website types: a brand promotion website – killer branding content-driven approach, and a service channel website – better UI/UX-driven approach.

Keywords: design thinking, design strategy, digital marketing, digital design agencies, website innovation, UI/UX design

The proliferation of digital technologies has diversified digital marketing platforms from web to mobile to social media. Among these platforms, the website is still an important starting point and the centerpiece for digital marketing because its content and operation can be fully controlled by a company, unlike social media sites. In particular, a well-designed website with high usability positively influences visitor retention and purchasing behaviors (Garett et al., 2016). Therefore, companies have paid more attention to how to build innovative websites that implement compelling branding or marketing strategies, while orchestrating other marketing channels.

Along with the companies' increasing interests in developing competitive websites, leading digital (design) agencies have broadened their expertise and service areas from building websites to identifying new digital marketing strategies and user experiences by adapting design thinking practices, once used primarily in product design (Groysberg & Slind, 2011; Kim et al., 2012). Conspicuously, Korean digital agencies have recently made great efforts to actively incorporate design thinking practices into their website development process; however, many of them are still struggling with the application of these practices.

In this vein, the present study aims to investigate the strategic deployment of design thinking to the web development process in Korea. To reach this aim, based on the theoretical framework of a design-thinking-driven web development process, case studies of four award-winning website projects were performed.

Literature Review: Design-thinking-driven Web Development Process

Over the past decade, the volume of practical writing on the topic of “design thinking” has dramatically increased. In popular management/business books and magazines, design thinking has been described as “a novel problem-solving methodology well suited to the often-cited challenges business organization face in encouraging innovation and growth (Liedtka, 2014, p.1).” As a popularized management version of translating designerly thinking, design thinking is heralded as a way to make managers think more creatively and use designer’s specific methods (Johansson- Sköldberg et al., 2013). In this designerly thinking perspective, Shapira et al. (2017) characterized the term “design thinking” by the following themes based on a literature review: human-centeredness, research-based, awareness of the surrounding context, collaboration, optimism, non-linearity, and experimentation.

Moreover, for driving innovation outcomes, a design thinking process prioritizes deep empathy for end-user desires, needs, and challenges to define the right problem, as well as iterative prototyping and testing phases to find appropriate solution. This design thinking process has been illustrated in various ways such as the following popular frameworks: (1) IDEO’s Human-Centered Design (HCD) process: inspiration, ideation, and implementation (IDEO.org, 2015); (2) Stanford d.school Design Thinking process: empathize, define, ideate, prototype, and test (Plattner, 2010); (3) the British Design Council’s Double Diamond: discover, define, develop, and deliver (Design Council, 2015). Among them, the Double Diamond model most clearly visualizes the iterative cycle between confirming the problem definition and creating its solutions in two diamond shapes. Consequently, the present research sticks to the Double Diamond in order to theoretically incorporate design thinking practices into the general web development process that consists of web planning and design/development stages, as shown in Figure 1.



Figure 1: Design-thinking-driven web development process

Research Methodology: Case Studies

Given the complexity and dynamics of the real website development process, multiple case studies were carried out while increasing the credibility of the results. Four award-winning website projects were selected for investigating how Korean digital agencies practice design thinking for their website innovation. These projects received the following awards from the 2016 Web Award Korea¹, which has become the most prominent domestic web competition: Amorepacific global website (the Grand Prize), Chungjungone brand website (the Brand Innovation Prize), SK Telecom T-world service website (the UI/UX Innovation Prize), and KT Olleh shop website (the Marketing Innovation Prize). The results of the case studies were drawn from in-depth interviews with key people, as well as published and unpublished information.

Results

Amorepacific Global Website²

Amorepacific Corp. is the largest beauty company of South Korea, operating over 30 beauty, healthcare, and personal care brands including Hera, Sulwhasoo, Laneige, Etude House, Lolita Lempicka, Happy Bath, Osulloc, and others. It has become the 14th largest cosmetics company and ranked #16 in the 2017 World's Most Innovative Companies by Forbes (debuting at #28 in 2015). Moreover, the company garnered more global appeal since inventing and launching its “cushion compact³,” which revolutionized make-up routines by reducing the make-up steps and time for women. Along with these compacts' huge success in the domestic and overseas marketplaces, Amorepacific has made further efforts toward global expansion into the Chinese, the Southeast Asian, and even the U.S. markets. In these circumstances, the company requested renovation of its global website from a Korean digital design agency called Iropke, which has undertaken a variety of internal digital marketing projects while maintaining long-term partnerships for several years.

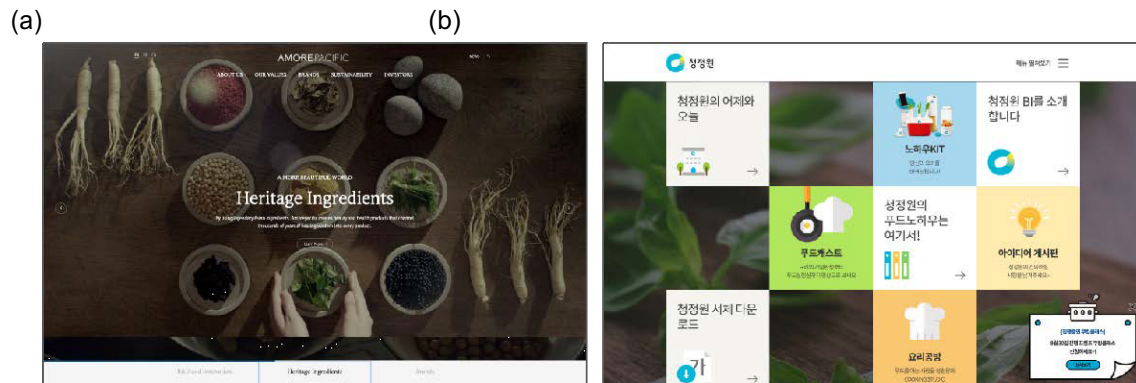
In general, most Korean companies begin with developing their official website written in Korean and then launch their multilingual websites by translating its content in different languages. With Iropke, however, Amorepacific built its global website in a completely different way. They created the global website (written in English) before renovating the domestic official website. In order to establish the global content strategy targeting North American customers, the agency worked with staff in its New York office during the first half of the project period. Based on meaningful insights drawn from a variety of user research with American customers, the project team created new brand communication contents (i.e. texts, graphics, photos, and videos), solely for the global website (Figure 2a). They also used trendy UI patterns suited to the global users' website surfing behaviors (e.g. drop-down menus showing their sub-menus at a glance). In the development process, the agency focused on worldwide fast access to the relevant brand contents via diverse devices

¹ Since its establishment in 2003 as the first domestic web award competition, the Web Award Korea has annually announced the best websites through online and offline evaluation processes undertaken by over 3,000 professionals in marketing, design, and development fields. Its award-winning websites are evaluated by the following six criteria: visual design, UI design, technology, content, service, and marketing.

² <http://www.amorepacific.com/int/en>

³ Cushion compacts are built with specially-designed urethane foam that preserves make-up liquid comprised of foundation, sunscreen and skin care formula. Since its introduction in 2008, more than 70 million cushion compacts have been sold.

and browsers with the implementation of mobile-first design, responsive web UI/UX design, intuitive navigation planning, a Content Delivery Network (CDN) server, and a Search Engine Optimization (SEO) process. After the successful launching of its global website, whose UVs, PVs, and mobile access rates increased noticeably, the company has been working on building other language websites including the Korean and Chinese versions under their own respective brand communication strategies.



Figures 2: (a) The landing page of the Amorepacific global website, using a high-quality video background that tells its brand stories (e.g. R&D innovation, heritage ingredients, and sub-brands), and (b) The trendy card-based layout design for displaying a variety of bite-sized brand contents (text, image, video, and others)

Chungjungone Brand Website⁴

Founded in 1956, Daesang Corp. has become the leading consumer food producer in Korea and has manufacturing subsidiaries around the world, with annual sales revenue of 2 billion dollars. Since 1996, its diverse foods have been produced under its flagship food brand Chungjungone, which means “clean and good care of the nature.” Chungjungone has promoted its brand through various offline events for invigorating active housewife communities as well as online marketing activities from Cyworld mini homepages, Naver cafés and blog, to its own community website. After its brand logo renewal for delivering food specialist images in 2014, Chungjungone ramped up its brand experience platforms including online marketing activities (social media and foodcasts), offline events (cooking classes), and development of new cooking tools. As its brand experience contents have been more diverse and widespread, Chungjungone decided to build a new brand website as its own digital hub for integrating and managing offline and online brand experiences systemically and continuously. First of all, Chungjungone undertook user research for encompassing different target groups beyond housewives as well as discovering relevant brand experience contents. Consequently, as shown in Figure 2b, a card-based responsive website was developed as the Chungjungone’s core digital brand community platform. Along with continuous creation of high-quality brand contents (e.g. Foodcast videos and Food knowhow tips), this website stresses interconnecting with its other social media contents such as Facebook, Instagram, Naver blog, and Kakao. Due to these efforts, its UVs and PVs have been increasing along with expanding its loyal customer base.

⁴ <http://www.chungjungone.com>

SK Telecom T-world Service Website⁵

As the largest, domestic wireless telecommunications operator, SK Telecom had managed numerous service websites individually. In 2016, therefore, SK Telecom built a consortium with several firms specialized in research, design, and development to integrate its core customer service touch channels into the T-world website. Due to more than 100 menus and 1000 products of SK Telecom, this project took more than two years (one year for establishing UI/UX strategies and one year for developing the website). Through the discover stage, its project team conducted a variety of research including user research, channel requirement analysis, competitive analysis, royalty roof analysis, and others. Based on the research results, they defined systematic UI/UX strategies and guidelines for a meaningful user journey throughout all of the webpages. Next, the project team translated these strategies into systematic web style guides (Figure 4a), focusing on the following aspects: a design language for better information visualization, interactive chat-robot communication, and more personalized contents/services. This T-world website enables SK Telecom to provide more meaningful experiences to customers according to continuous monitoring their needs and preferences, and to deliver consistent service experiences across diverse user touch-points.

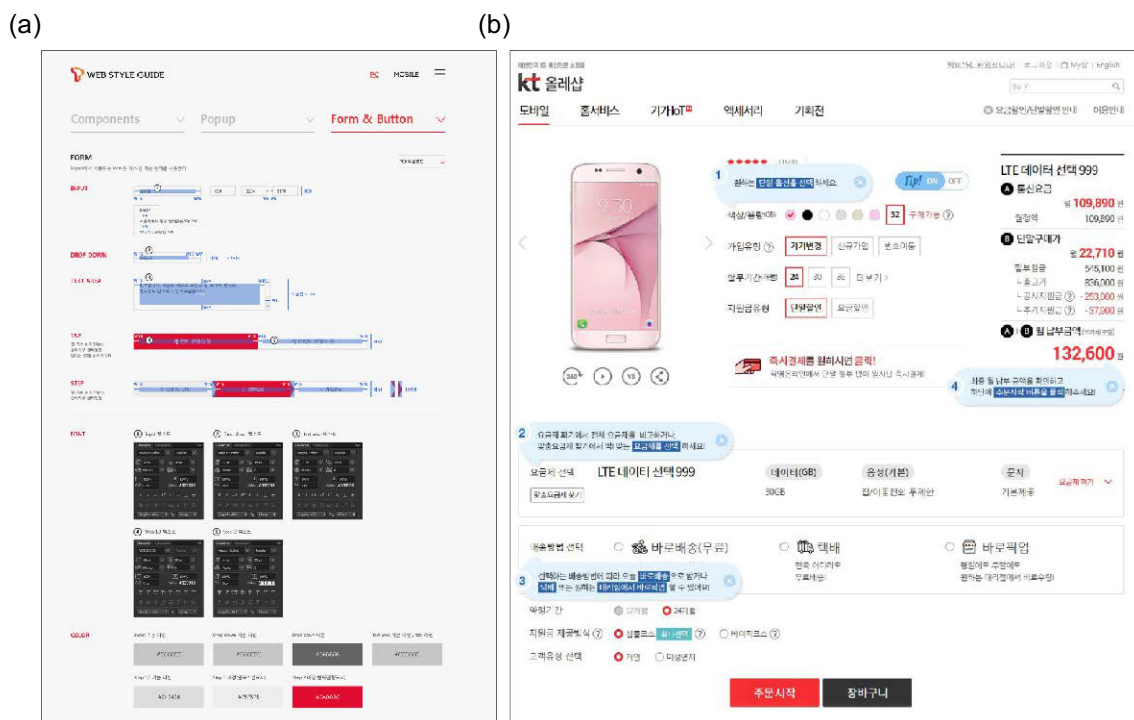


Figure 3: (a) Web style guide for the T-world website, and (b) Product order webpage of KT Olleh shop, using call-out symbols that show additional explanations about each selection stage

KT Olleh Shop Website⁶

KT Corp. (formerly, Korea Telecom) is South Korea's largest telephone company, and it has expanded its business into the wireless market since its 2009 merger with

⁵ <http://www.tworld.co.kr>

⁶ <http://shop.olleh.com>

KTF, one of the previous telecommunication companies. In 2011, KT launched a unified brand "Olleh" for both fixed-line and cellular broadband services. In particular, KT runs the Olleh shop, one of the largest domestic online shopping malls specialized in telecommunication products and services. In order to increase its sales volume and enhance users' shopping experiences, KT has worked on its renewal project recently. In this project, KT discovered users' pain points through a wide range of UI/UX studies including heuristic evaluation, stakeholder interview, usability testing, and user gang survey. Based on these findings, they were able to improve its user experiences, focusing on user-centered navigation structures, user-friendly ordering processes, and customized marketing contents or services (Figure 3b). In addition, strategic marketing and sales techniques were suggested by external UX consulting firms. Compared to KT's practical and stable brand images, its new brand identity (i.e. new, active, and fun) was also established for providing more pleasant shopping experiences, and this new brand image was translated into the relevant and emotional visuals on the website. Since its renewal, its online purchase conversion rate has been increasing gradually.

Discussion and Conclusion

Through the case studies above, the present study proved that aesthetic visualization or technological advancement is not enough to create compelling digital marketing websites. In order to boost user engagement on websites, the design thinking approach focusing on up-front user research or usability testing is not an option, but a prerequisite; however, it was also discovered that the current digital design agencies have been facing numerous challenges in adopting the design-thinking-driven web development process: (1) playing initiative or participative roles in the strategic web development process while building long-term, playful partnerships with their clients, (2) leveraging design thinking awareness of client-side executives who make influential decisions on financial or managerial supports for their web projects; and (3) coping with limited recourses (e.g. hiring prominent design thinking practitioners, securing enough research budgets or facilities, and setting effective project schedules).

On the other hand, the common key success factors of the four award-winning web projects were identified: (1) cross-functional collaboration among planners, designer, and developers throughout the whole iterative development process; (2) agile mobile-first development approach with the priority on responsive web design, in accordance with the dramatic proliferation of mobile users; (3) powerful visual storytelling about brands or products/services, while following the current web design trends (e.g. flat design, cinemagraphs, micro-interactions, hero images, bigger typographies, smaller color palettes, spotted data, shorter user flows, etc.); and (4) compelling UX strategies and UI guidelines for better user journeys across webpages.

Moreover, two distinct approaches of design thinking practices were identified according to the following website types: a brand promotion website (e.g. Amorepacific and Chungjungone) – killer branding content-driven approach, and a service channel website (e.g. T-world and Olleh shop) – better UI/UX-driven approach. In addition, considering their project schedules and scopes, this research mapped out their web development practices into the aforementioned design thinking-driven web development framework. As shown in Figure 4, their development processes were illustrated while dividing their planning and design/development

stages at the moment when their strategies were mapped out (e.g. Global brand communication strategies for the Amorepacific global website). Noticeably, due to growing bite-sized pieces of its brand community contents, the Chungjungone project allotted more time for the design/development stage, compared with the fixed brand promotion contents of the Amorepacific global website. Furthermore, in order to bind diverse online user touch-points into the T-world website, SKT made more efforts to consistently deploy its service UI/UX strategies and guidelines across different service websites and numerous webpages. On the other hand, through incorporating a wide range of usability testing methods into the planning stage, the KT Olleh project team could come up with divergent ideas about users' pain-points and convergent insights for better shopping experiences.

Finally, this study revealed that the impact of the design thinking approach on website innovation through the examination of both theoretical works and actual management practices of the leading Korean web projects. Some extended research could improve the practical application of the research results by including international web projects. It is hoped that this research will provide digital agencies with hands-on and practical knowledge in integrating design thinking practices into the new website development process.

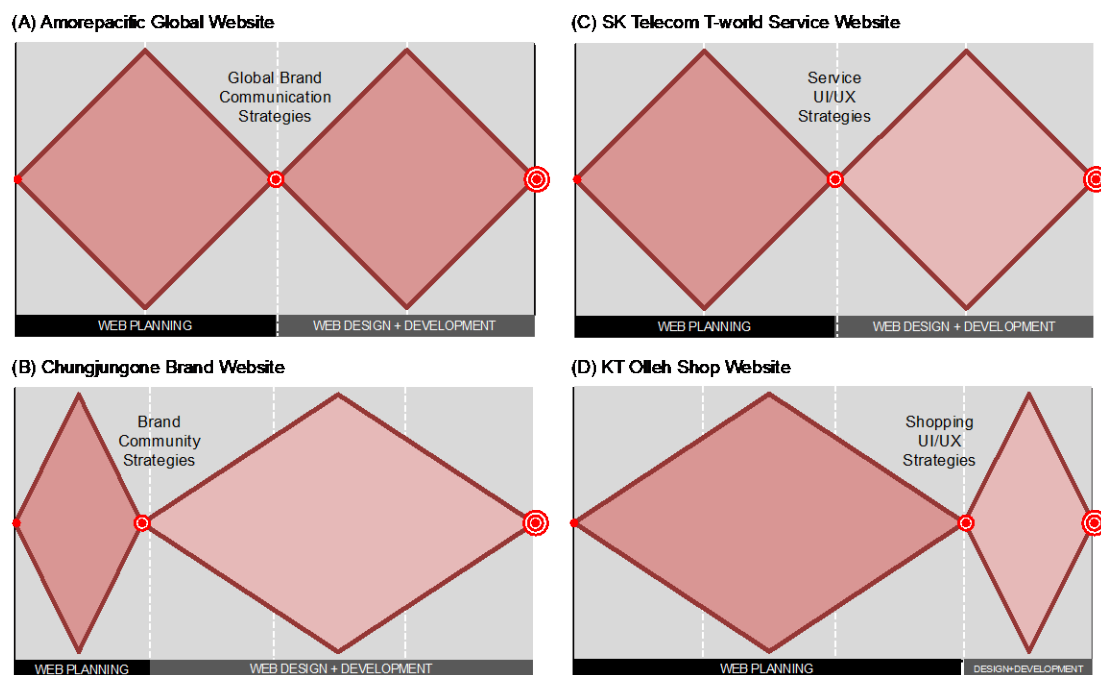


Figure 4: Differentiating the design-thinking-driven web development processes of the four web projects according to their actual practices

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Yu-Jin Kim is a professor in the Department of Visual Studies at Kongju National University. In 2011, she worked as a visiting researcher at the Design Management Institute (DMI) in Boston, and has been a DMI Advisory Board member since 2012. Her research interests are design management, UX design, digital color, and digital marketing. She has been a member of the top evaluation committee for the Web Award Korea since 2008. In 2005, Kim worked for the Continuum design strategy group in Boston, providing their designers with a color design workshop. Over the past decade, she has carried out design research projects for L.L.Bean, American Greetings, Samsung, LG, Amore-Pacific, and the Korean government. She is one of the authors of *The Handbook of Design Management*, published in 2011. She received her doctorate (design management, 2008), master's (design education, 2001), and bachelor's (industrial design, 1999) degrees from KAIST.