

Human Factors Design Study for Home Beer-Brewing Machine in Residential Space: Focused on In-Depth Interviews of South Korean MZ Generation

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ABSTRACT

The purpose of this paper is to extract and understand the significance of home-drinking culture and living spaces among the emerging customer group, the South Korean MZ generation, contributing to the activation of the Home Beer-Brewing Machine market. To achieve this, the paper conducted a literature review to explore the conceptual shifts in drinking behaviors and living space perceptions of the South Korean MZ generation following social trends. Drawing from the obtained results, recent studies within the last decade were gathered to explore the link between home drinking culture and the evolution of residential spaces among the Korean MZ generation. Analyzing from a Human Factors perspective, the study aimed to validate the diverse roles and meanings of residential spaces. After, In-depth interviews were implemented with 31 individuals from the MZ generation born between 1982 and the early 2000s to extract their meaning of home-drinking culture and living spaces. The analysis and diagnosis of the interviews revealed that experience and communication are central elements in home-drinking culture, while emotion and personalization are key factors in living spaces. Expanding on these findings, the conceptualization of home-drinking culture for the MZ generation was redefined, and the core values of home-drinking culture based on the MZ generation were typified and presented. Therefore, looking forward to future studies, this study anticipates that its results will serve as foundational data for future developments in the Home Beer-Brewing Machine market.

Keywords: The MZ generation, Home drinking, Residential space, K-culture

INTRODUCTION

As modern society undergoes rapid changes, the MZ generation in South Korea is exhibiting diverse lifestyles and values. They tend to pursue a better quality of life and value of place with premium experiences. Particularly noteworthy is their drinking culture, which is seen to influence residential spaces. The drinking culture of the MZ generation has evolved into a culture where the consumption goes beyond merely purchasing and consuming liquors. It involves combining emotional consumption with tangible consumption, embracing a culture that appreciates both taste and experience.

According to the 2017 South Korea National Statistical Yearbook, the craft beer market is expanding annually within the liquor market. This growth can be attributed to factors such as increased preference for low-liquor beverages, rising women's liquor consumption, and the popularity of home drinking. In line with this trend, various home Beer-Brewing Machines are being developed (Lee, 2019). Furthermore, regarding residential spaces, the MZ generations express their preference for lifestyles and interiors that evoke emotional responses. Companies are trending towards releasing products tailored to their interior design trends and customer needs while strengthening their live commerce activities and marketing strategies (Park, 2022). Aligned with these trends, it is important to gain a tangible understanding of the psychological characteristics of the MZ generation and the specific areas for product improvement. Additionally, academic research based on Human Factors theory is necessary to determine the design direction for Home Beer-Brewing Machines, improving user-friendly environments for The MZ generation.

Therefore, this paper comprises a review of existing literature and In-depth interviews with users. Through a literature review focused on the evolved 'home drinking' culture of the MZ generation and recent studies within the last decade, this paper analyzed trends in the meaning of home drinking culture and residential spaces. After, In-depth interviews were conducted with 31 users using the affinity diagram method for analysis. In conclusion, this paper derived the key elements of characteristics specific to the MZ generation, home drinking culture, and residential spaces. Furthermore, it discussed the directions for the future activation of the Home Beer-Brewing Machine market.

LITERATURE REVIEW

The Characteristics of the MZ Generation in South Korea

The MZ generation in the United States, born between the 1980s to the early 2010s, is often referred to as the "adulthood" generation. They tend to delay independence and commonly continue living with their parents or family into adulthood. This generation exhibits a strong dependence on parental financial support and is significantly influenced in their decision-making by their parent's opinions. Moreover, they also heavily rely on social media for product research and discovery. They favor purchasing limited edition items from mono-brand stores¹ or opting for second-hand luxury² products that reflect their individuality and values. Additionally, there is a notable desire for innovative designs among this generation.

The term "MZ generation" in South Korea collectively refers to Millennials born from the early 1980s to the early 2000s and Generation Z

¹Mono-brand Store: A store that exclusively sells products from a single brand, giving customers a dedicated space to explore and purchase their collection.

²Second-hand luxury: Where to buy pre-owned luxury items, such as designer bags, shoes, and other high-quality goods, at discounted prices.

born from the mid-1990s to the early 2000s (Kim, 2019). The MZ generation is familiar with the digital environment, prioritizes mobile usage, possesses strong communication skills, and demonstrates empathy through social media networks. They are emerging as influential customers in the distribution market. The MZ generation exhibits consumer traits that prioritize individual happiness over group dynamics, favor sharing to ownership, and emphasize experiences rather than material belongings. They also drive the ‘value-driven consumption’ and ‘flexing consumption’ culture, prioritizing differentiated individuality or beliefs over the price of products. This underscores the demand for diverse marketing strategies targeting the MZ generation, offering distinctive experiences such as fun, rarity, and ethical consumption (Song, 2022).

The MZ generation, moreover, giving precedence to individual preferences and desires, actively seeks experiences that allow them to cultivate their unique tastes, particularly with drinking. This is highlighted by the introduction of DIY drinking kits and subscription services, indicating a more solid presence. Additionally, the MZ generation is price-sensitive and values diversity in preferences for the taste and aroma of liquors (Lee, 2023). This trend has emerged, mainly among the MZ generation, favoring rare and premium spirits, deviating from conventional drinking consumption patterns. They seek to enjoy unique and flavorful drinks in their own space, moving away from group-oriented and standardized drinking gatherings. Recently, due to COVID-19, there has been a decrease in dining out and socializing, leading to an additional increase in home drinking culture. This includes engaging in in-home parties and solo drinking, as the time spent at home has extended. In response to this consumption trend, various unique craft beer products are being introduced in South Korea, aiming to capture the attention of the MZ generation customers who seek differentiated experiences.

The Meaning of Residential Space to the MZ Generation

The significance of residential spaces is on the rise as they serve as the primary domain of human activity, exerting psychological influences such as self-esteem, emotions, and overall stability (Kim, 2019). The MZ generation demonstrates distinct attitudes and values in life compared to older generations, leading to unique characteristics in their residential lifestyles. They prefer solitary activities over social interactions and emphasize work-life balance, seeking to maximize their time spent at home (Kim, 2021). Furthermore, with an increasing amount of time being spent at home, the need for design changes in residential spaces among the MZ generation is growing. Valuing their alone time and possessing a self-centered and individualistic nature, they reflect their preferences in the living environment by customizing it. They seek a life of consumption and experience in their unique space, utilizing various mediums (IoT, television, iPad, PC, etc.) to consume and experience digital content. Recently, there has been an increase in individuals, often referred to as “home people³,” who enjoy activities that are readily available outside, within the comfort of their personal space.

³Home People (Home-Jok): a person or group of people who like to enjoy leisure at home rather than going outside.

Home Drinking Culture and Residential Space of the MZ Generation

According to Hong Jun, a public relations adviser for the South Korea Liquor Importers Association, customer preferences for liquors have diversified, leading to emerging trends such as ‘homebrewing,’ where individuals make and drink personalized liquors at home, and ‘home-tending(home+bartending),’ where they create cocktails themselves at home. Thus, personalized products tailored to the preferences and lifestyles of the MZ generation are playing a significant role in the market. The Home Beer-Brewing market, in particular, gains attention due to the spread of home drinking culture.

These social changes also influenced the interior of residential spaces. As the MZ generation spent more time at home, their interest in interior decorating grew, leading them to seek out unique decorations for their homes. During the home drinking consumption process, uniquely designed bottles of liquors play a significant role in creating a distinctive space tailored to the preferences of the MZ generation. Interestingly, among those unable to purchase expensive spirits like whiskey, there is a significant presence of trading empty bottles on online platforms such as Dang-geun Market (Carrot Market)⁴ and Junggonara (Used Product Market)⁵. This reflects the changing lifestyle of the MZ generation and the evolving trends in liquor consumption (Shim, 2018).

The spread of home drinking culture is changing homes into spaces where people express themselves, communicate, and have fun, instead of just places to live (Kim, 2019). Therefore, it is essential to enhance the home drinking experience by utilizing a home Beer-Brewing Machine tailored to the taste and lifestyle of the MZ generation, while also complementing the design and interior of residential spaces.

IN-DEPTH INTERVIEW

Interview Process and Method

Drawing on the analysis of prior studies Figure 1, keywords on the characteristics of the Korean MZ generation, their home drinking culture, and the meaning of their residential spaces were extracted. Based on this, perceptions, purposes, identity, and consumption related to the home drinking culture and residential spaces of the MZ generation were set as criteria for the In-depth interview questions. The process of In-depth interviews was designed based on Nigel Cross’s 4-stage design process. As illustrated in ‘The Process In-depth Interview’ in Figure 1, the In-depth interview begins with the Understanding stage, which involves pre-research and planning, progresses through the Data Collecting stage where interviews are conducted, followed by the Analysis stage where the collected data is analyzed. The entire process concludes with the Insight Generation stage, in which key findings and

⁴Dang-geun Market (Carrot Market): a smartphone app that facilitates easy local transactions for used products.

⁵Junggonara (Used Product Market): an online second-hand trading platform that enables users to buy and sell used products on the internet, without being restricted to a specific region and with a wide range of users.

implications are derived. The participants of the In-depth Interviews were 31 participants (16 males and 15 females) in 20s and 30s, the MZ generation in South Korea, with drinking experience from various occupations. The In-depth interview questions were designed to ensure that they were easily understandable, focusing on the meaning of liquors, reasons for consumption, experiences pursued in drinking culture, and their consumption values. In addition, we wanted to explore perceptions and their usage of residential spaces, as well as experiences of home drinking within residential spaces.

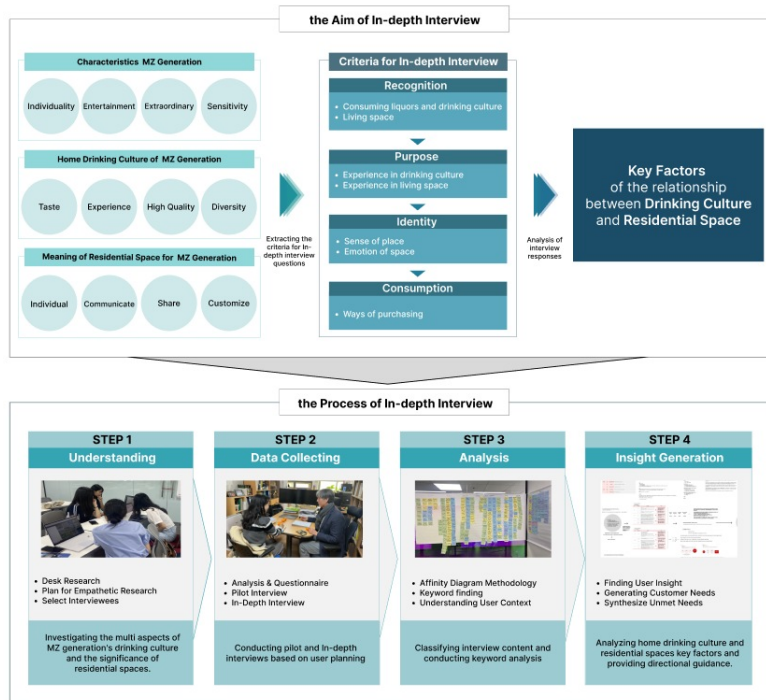


Figure 1: The aim and process of in-depth interview (adapted from Park, 2020).

INSIGHT ANALYSIS

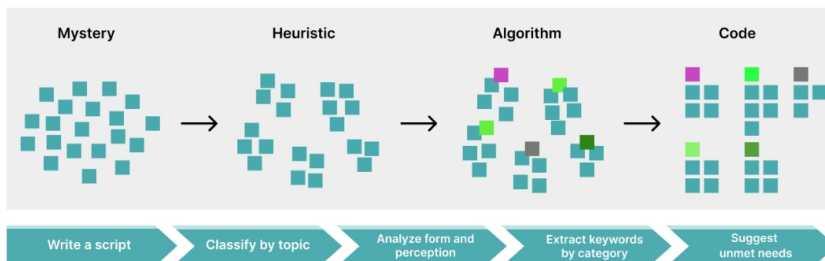


Figure 2: Method of interview analysis: knowledge funnel & affinity diagram (adapted from Park, 2023).

As a method for analyzing interviews, the affinity diagram technique, applying Roger Martin's concept of the Knowledge Funnel was used. As shown in Figure 2, the Knowledge Funnel classifies the interview comments, referred to as "Mystery," into topics, constructs an appropriate heuristic, and analyses algorithms corresponding to each topic in detail to derive codes. Subsequently, the process involves contextual conceptualization of the meaning of interview comments. Therefore, in this paper, a five-step methodology was employed, encompassing data analysis, the creation of interview scripts, thematic categorization, understanding user behaviors and perceptions, and extracting keywords as well as presenting latent needs (Unmet Needs).

Insight Analysis through the above process can be organized as follows. In common, the drinking culture among the MZ generation is directly related to personal emotions, serving to relieve or share emotions with others. It was observed that there exists a desire for efficient consumption and something uniquely personal within the MZ generation. Regarding residential spaces, it was observed that the purposes of these spaces are not clearly defined, and individuals prefer to subdivide or change the shape according to personal tendencies and lifestyles.

A common demand for emotional exchange through the behavior of drinking alcohol among users				
Definition of Users	A user who lives alone and wants to enjoy drinking alone in a casual atmosphere to feel emotions.	A user who lives alone but wants to share emotions while enjoying drinks with friends in a joyful atmosphere.	A user who lives with two or more people and enjoys drinking briefly in moments of leisure.	A user who lives with two or more people and enjoys drinking in a relaxed atmosphere.
Needs of Users	"I want to lay artificial turf on a terrace or balcony, put out two camping chairs, and either drink together or play some music and drink alone."	"I think I'll have a beer every day, and since we have a beer-making machine at home, I'll probably invite friends over to try it out. I expect to invite many."	"I don't want to drink alcohol near my baby or smell beer at home, so I prefer to drink in a separate, distinct space away from indoors."	"I love the atmosphere of hanging out with friends in the attic or having my dad grill meat on the terrace and eating together. The beer in that kind of ambiance would be perfect."
Core Values	Value of Self-satisfaction	Value of Entertainment	Value of Relaxation	Value of Connection

Figure 3: Definition and needs of users with their core values.

Through this, users were classified into four categories as defined in Figure 3: 1) those who live alone and enjoy drinking alone in a relaxed atmosphere to experience emotions, 2) those who live alone but prefer to share drinks with friends in a pleasant atmosphere, sharing emotions, 3) those who live with others and briefly enjoy drinking in moments of relaxation, and 4) those who live with family and enjoy drinking in a relaxed atmosphere. Based on this classification, the core values for each user were derived as Value of Self-satisfaction, Value of Entertainment, Value of Relaxation, and Value of Connection. When explained according to importance, it is as follows:

- **Value of Self-satisfaction:** It signifies the core values of users who live alone and prioritize solitary time in their own space, especially for those in single-person households. They highly value personal satisfaction and happiness and tend to minimize external constraints. Additionally, they

exhibit a strong desire to enjoy entertainment while drinking alone in a relaxed atmosphere.

- **Value of Relaxation:** It refers to the core values of users living with two or more members, facing a lack of spare time due to parenting or work-related responsibilities. They have a desire to alleviate daily fatigue, engage in light conversations, and acquire positive energy.
- **Value of Entertainment:** It is a core value keyword for users who live alone but have excellent sociability and prioritize interpersonal relationships. They prefer sharing experiences, and they have a desire to communicate and share joyful experiences through home drinking parties.
- **Value of Connection:** It represents the core values of users living with family members, who prefer socializing over drinks in a comfortable and warm atmosphere with family or friends. They seek to enhance bonds, communicate, and share special moments through drinking gatherings.

By synthesizing the Insight Analysis above, the design direction of the Home Beer-Brewing Machine, which considers the core aspects of drinking culture with residential space, and the core values of the MZ generation, can be described as follows.

Considering the diverse types of households within the MZ generation, it is advantageous to develop products of various capacities, ranging from small household sizes to large party sizes. Introducing products with user-friendly and convenient features would be beneficial. Furthermore, Home Beer-Brewing Machines must create enjoyable experiences where customers can create their own space and engage in communication. To achieve this goal, it is essential to integrate a design that facilitates easy movement of the product and seamlessly aligns with interior aesthetics, taking into account adaptable lifestyles that can influence changes in the form of residential space and its utility. Therefore, it is necessary to provide customers with options to choose the color of the product when considering its visual aspects. This allows users to expand their range of choices, providing an opportunity to select products that align with their personality, preferences, and needs. These considerations in the design aspect can enhance the competitiveness of the product, increase customer satisfaction, and serve as a crucial factor for growth and development.

CONCLUSION

The purpose of this paper is to extract the meaning of the home drinking culture, one of the characteristic drinking cultures of the emerging MZ generation in South Korea, and its relationship with residential spaces, and to propose the direction of Home Beer-Brewing Machine by confirming the changing characteristics according to the trends of the times.

Furthermore, as a study aimed at providing foundational data for activating the Home Beer-Brewing Machine product market, an analysis of previous studies was conducted to confirm the necessity of In-depth interviews. The significance of this paper lies in deriving the core aspects of the MZ generation, the core values of their home drinking culture, and residential space through the results of In-depth interviews, and thus, the direction for Home

Beer-Brewing Machine product design can be presented. Therefore, in subsequent research, we hope that the specific design developed based on the results derived from this paper will be implemented, leading to the high utility of Home Beer-Brewing Machines not only in the South Korean market but also in overseas regions where home-party culture has flourished. In conclusion, it is also hoped that the results of this paper will serve as the foundation for the design direction of the next-generation Home Beer-Brewing Machine, contributing to market expansion with enhanced customer satisfaction.

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