



The Trend of Outsourcing Housework through Home Meal Replacement: The Consumption Value of Food Subscription Service*

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Abstract

Purpose – This study aims to predict the future market and draw policy implications by analyzing the trend of outsourcing housework through the food subscription service.

Research design, data, and methodology – Content analysis was conducted on the consumption value emphasized in advertisements by item targeting food subscription service advertisements. Advertisements used as research data were extracted via keyword searches on Google web pages. A total of 30 advertisements selected were used for the final analysis.

Result – The consumption values emphasized in the advertisements for staple foods, refreshments, and special foods were analyzed by considering the following factors: price, convenience, health, and pleasure. Convenience and health were emphasized in the staple foods, and price and pleasure were emphasized in the snacks. In the case of special foods, convenience and pleasure appeared together with a focus on health.

Conclusion – Based on the trend of food subscription services, the implications for the market and policies for outsourcing housework through home meal replacement can be presented. Considering that the consumption value of a food subscription service is differentiated by item, it is necessary to formulate a plan to develop the market and policies related to outsourcing housework.

Keywords: Housework, Trend of Housework, Outsourcing of Housework, Home Meal Replacement, Food Subscription Service, Consumption Value

JEL Classification Code: D10, D12, D13.

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1. Introduction

Food is not only a means of survival, but it also plays a significant role in human relationships in that eating together creates a sense of unity (Food Bank, 2017). Having meals with other people makes people develop favorable views of each other and further helps them to sympathize. In psychology, this is referred to as the “Luncheon Effect.” (Yonhap News, 2015). In this context, it is safe to conclude that family meals are crucial for forming bonds between family members. As of 2019, the average daily meal preparation time was 27 minutes, accounting for approximately 26% of 1 hour and 42 minutes of total time for housework (Statistics Korea, 2020). This reflects the importance of family meals at home. As the word “Sikku” symbolizes, eating together is a daily and important ritual for the family. Therefore, meal preparation is the most essential but the most difficult part of housework to be perfectly outsourced.

Meanwhile, owing to the prolonged COVID-19 outbreak, remote jobs and work-at-home culture have been established, which have increased the burden of preparing meals at home, resulting in a significant increase in demand for food delivery and home meal replacement. In the case of food delivery services, the total transaction amount increased from only KRW 500 billion in 2017 to KRW 3.5 trillion in 2021 (Solo Economy, 2021). Additionally, the Home Meal Replacement (HMR) food market grew at an average annual rate of 16.1% from 2010 to 2018, even recording sales of KRW 4.2 trillion in 2019 (KREI Korea Rural Economic Institute, 2021). Particularly, the demand for home meal replacement, which was limited to single-person households, has expanded to all generations owing to improved awareness among older adults (Maeil Broadcasting Network, 2020). Moreover, following the development of an online platform accompanied by the fourth industrial revolution, real-time orders became feasible. Moreover, orders can now ascertain the location of the delivery person and delivery time through mobile apps. Owing to its convenience, the use of real-time orders has expanded significantly (Venture Square, 2018).

Simultaneously, the use of food subscription services is also increasing. Food subscription service refers to an integration of home meal replacement and a subscription service (Lee & Kim, 2020) that allows you to receive specific food products on a regular basis by paying a monthly fee for food delivery service. It initially focused on baby food and dairy products but gradually diversified items into lunchboxes, breads, sweets, drinks, salads, pasta, fruits, and alcoholic beverages during the aftermath of COVID-19, and further increased the market size from KRW 25.9 trillion in 2016 to KRW 40 trillion in 2020 (The Dong-A Daily News, 2021). According to the Korea Agro-Fisheries & Food Trade Corporation, as of 2021, 57.2% of domestic consumers had used food subscription services; 66.2% of them cited convenience as the number one advantage (Agricultural, Fisheries and Livestock Newspaper, 2021).

It is important to note that food subscription service provides various values such as health and fun beyond simple convenience. First, the food subscription service provides the value of health to consumers. For example, company “C”’s healthy diet subscription service provides regular delivery of a nutritionally balanced, salt and sugar-controlled diet for the elders at home (CJ, 2021). Additionally, food subscription services are trying to differentiate their brands by adding entertainment factors to the service, in such ways as collaborating with other brands, releasing limited edition products, and providing customized curation services (Economic Review, 2021). For example, food company “L” collaborated with sports OTT platform “Sport TV Now” and music streaming platform “Genie Music,” to facilitate the use of its snack subscription service, by offering its subscribers the subscriptions of corresponding collaborative platforms.

However, the research on the consumers who mainly use food subscription services or the analysis of the consumption values pursued through the service is scant. In most cases, studies are limited to simply investigating home meal replacement or delivery of food in segments. However, unlike general market products, “food” in food subscription services is significantly related to the health of consumers. Therefore, thorough management and government supervision as well as continuous interest are essential.

This study aims to predict the future market and draw policy implications by analyzing the trend of housework outsourcing in the dietary life area through food subscription services. To this end, we examine the current status of the food subscription service, identify the expected consumption value of the service and suggest the course of development as well as the policy implications of the food subscription service market.

2. Literature Review

2.1. Trends in outsourcing of housework through changes in housework hours

The trend of outsourcing housework through “Home Meal Replacement” can first be identified through changes in overall housework hours. Statistics Korea has been conducting National Time Use Survey every five years since 1999. Through this, it is possible to understand the time use of Koreans for 24 hours a day.

According to KOSIS National Statistics Portal’s Time Use Survey, total housework hours for adults over the age of 19 have decreased by 10 minutes in the past 20 years. The average total housework time in 1999 was two hours and 16 minutes. However, in 2019, the average declined to two hours and 6 minutes. When split into two categories, average home management time decreased by five minutes, from 1 hour 47 minutes in 1999 to 1 hour 42 minutes in 2019. Family care time decreased by five minutes from 29 minutes in 1999 to 24 minutes in 2019. Overall, a five minutes decrease in home management and a five minutes decrease in family care add up to a 10 minutes decrease. However, when estimated by gender, up-and-down appears in different directions. The housework hours of women are continuously decreasing while those of men are continuously increasing (KOSIS National Statistics Portal).

Looking more closely at the changes in household working hours by action classification, the proportion of food preparation time takes the largest portion. As of 2019, it was 48 minutes, which is seven minutes less compared with 1999. Particularly, women's food preparation time decreased by 20 minutes, from 1 hour and 40 minutes (1999) to 1 hour and 20 minutes (2019), reflecting that food preparation has traditionally been in the domain of women’s tasks. Relatively, men's food preparation time increased from five minutes (1999) to 15 minutes (2019), indicating that men's participation in food preparation, a traditional female housework task, is gradually increasing (Lee et al., 2022).

Meanwhile, among the subcategories of home management behavior, the “buying goods and services” time should be considered. The time required to purchase goods and services is increasing. The average time used increased by three minutes from 11 minutes in 1999 to 14 minutes in 2019. It is worth noting that the time used for home management (e.g., clothing, food, and shelter) is decreasing, whereas the time spent on purchasing goods and services is increasing. This indicates that the development of various home appliances has enhanced the efficiency of housework, and the advent of housekeeping products and services in the market has partially replaced housewives’ (mainly women) labor at home. Therefore, people now spend more time searching for suitable goods and services that can effectively replace housework, instead of wasting time bearing tough house chores on their own (Lee et al., 2022).

Table 1: Housework Hours by Behavior Classification

Units (Time: minutes)

Behavioral Classification	1999			2004			2009			2014			2019		
	Total	Male	Female												
Home Management	1:47	0:24	3:07	1:41	0:26	2:52	1:41	0:31	2:48	1:42	0:35	2:45	1:42	0:44	2:37
Food preparation	0:53	0:05	1:40	0:50	0:07	1:30	0:50	0:09	1:30	0:50	0:11	1:27	0:48	0:15	1:20
Clothing management	0:14	0:01	0:26	0:12	0:01	0:23	0:12	0:02	0:21	0:09	0:02	0:15	0:10	0:03	0:18
Cleaning and tidying up	0:22	0:07	0:37	0:21	0:07	0:34	0:20	0:08	0:32	0:24	0:10	0:38	0:22	0:12	0:32
Housing and household goods management	0:04	0:04	0:04	0:04	0:04	0:04	0:04	0:04	0:04	0:01	0:01	0:01	0:01	0:01	0:01
Vehicle management	0:01	0:01	0:00	0:00	0:01	0:00	0:01	0:01	0:00	0:00	0:01	0:00	0:00	0:01	0:00
Caring for pets and plants	-	-	-	-	-	-	-	-	-	0:03	0:02	0:03	0:04	0:03	0:06
Purchasing goods and services	0:11	0:04	0:18	0:11	0:05	0:17	0:12	0:06	0:19	0:13	0:07	0:19	0:14	0:08	0:20
Other home care	0:02	0:01	0:03	0:02	0:01	0:03	0:02	0:02	0:02	0:02	0:01	0:02	0:02	0:02	0:02
Caring for family members	0:29	0:09	0:48	0:30	0:11	0:48	0:29	0:11	0:46	0:26	0:11	0:40	0:24	0:12	0:36

* Source: Statistics Korea, National Time Use Survey, each year
 Re-cited from Lee et al. (2022). “Household labor and care policy”. pp 153.

As discussed above, the most notable change in housework hours is that home management time in the area of food, whereas the time for purchasing goods and services is increasing. Particularly, over the past 20 years, women's food preparation time has been reduced by 20 minutes. Furthermore, women's food preparation time decreased while men's food preparation time increased by 10 minutes. This shows that the expansion of home meal replacement contributed to promoting male participation in food preparation, a task traditionally considered to be performed by women.

2.2. Outsourcing of Housework

Outsourcing of housework is a type of marketization of domestic chores. According to Lee et al. (2022), the marketization of housework refers to the transfer of the production process within the household to society outside the household, and the purchase or use of goods and services provided by businesses to satisfy the needs of family members. The marketization of housework is divided into the commodification of housework (replacing housework with goods) and outsourcing of housework (replacing housework with services), depending on whether the alternative means of housework is a product or a service. Specifically, “commercialization of housework” means reducing the burden of housework by “purchasing goods” such as home appliances and home meal replacement, whereas “outsourcing housework” means “using housework services” such as housekeeper service and grocery shopping agency services. The means to “Use of care services” to care for young children or older adults in a home is also included in the concept of outsourcing housework. The use of the food subscription service, which is the subject of analysis in this study, corresponds to the outsourcing of housework work in that it replaces the housekeeping work in the meal preparation area with a market service.

The factors behind outsourcing housework can be comprehensively explained using three macro-environmental factors: changes in the value of housework owing to changes in household structure and generational change, changes in the technological environment owing to the technological revolution in the 20th century, and increased burden of housework owing to the spread of COVID-19. (Lee, 2021). The traditional gender norm of “man at work, woman at home” is collapsing in the division of housework as the number of dual-income households and single-person households increases. As the results of a survey on perceptions related to housework and housekeeping service in 2021 (MacromilEmbrain Trend Monitor, 2021) show, the perception of the use of housekeeping services is also changing positively. Moreover, as the “millennial generation,” the generation born between the early 1980s and the early 2000s, has grown into the mainstream of society in the 21st century, perceptions and attitudes toward housework are changing significantly. For millennials, who value personal time and life, housework is just labor that needs to be done cost-effectively. Therefore, while baby boomers do the housework at home, millennials actively utilize external resources and helper platforms (Lee et al., 2022). Additionally, the development of digital platforms owing to the spread of 5G Internet communication networks and smartphones, and the emergence of customized housekeeping services based on AI big data analysis, act as factors that increase the convenience and accessibility of outsourcing housework.

2.3. HMR (Home Meal Replacement)

Home Meal Replacement (HMR) refers to a complete or semi-cooked product manufactured, processed, and packaged so that it can be consumed as it is made or through a simple cooking process (Ministry of Food and Drug Safety, 2020). In the narrow sense, home meal replacement refers only to foods that fall under the category of instant consumption and convenience foods based on the Food Standards Code. Instant food refers to food that can be consumed without heating or cooking (e.g., lunchboxes, gimbap, hamburgers, milkshakes). Fresh convenience foods refer to salads and sprouted vegetables that have undergone simple processing such as washing and cutting, and ready-to-cook foods refer to soups, sun-dae, and stew that can be consumed through simple cooking processes.

Meanwhile, home meal replacement can be broadly defined as a concept that includes frozen food, seasoned food, confectionery, bread, rice cake, noodles, processed meat products, and processed seafood in addition to instant foods and convenience foods. In a broad sense, home meal replacement can be divided into four categories based on the retail market: RTE (Ready to Eat), RTH (Ready to Heat), RTC (Ready to Cook), and RTP (Ready to Prepare) (Korea Agro-Fisheries & Food Trade Corporation, 2019). RTE is a product that can be consumed after purchase without additional cooking, which refers to lunch boxes, sandwiches, gimbap, salads, and fruits. RTH products can be consumed through simple heating, which includes frozen dumplings, instant jjajang, hot dogs, instant tteokbokki, and instant noodles. Compared with RTH, RTC products require prolonged heating or simple cooking. They include Yukgaejang, chicken legs, meatballs, boneless chicken feet, chicken gomtang, and grilled fish. RTP is an easy-to-cook product that comes with ready-made ingredients, seasonings, and recipes. A representative example can constitute a “meal-kit” (Park, Kwon, & Nah, 2019).

According to the Korea Rural Economic Institute, domestic shipments of home meal replacement in 2018 are estimated to be 3.2 trillion won, 17.3% higher than in 2017, and shipments in 2022 are expected to exceed 5 trillion won (Korea Agro-Fisheries & Food Trade Corporation, 2019). In this study, home meal replacement is considered a broad concept that encompasses RTE, RTH, RTC, and RTP.

2.4. Food subscription service

2.4.1. Subscription Economy

Subscription refers to using a specific product or service regularly by paying a monthly fee (Lee & Kim, 2020). The subscription service, which started out as a milk and newspaper subscription, has a positive aspect in that it enables consumers to conveniently use products and services at a lower price and enables businesses to secure stable profits (Munhwa News, 2021). Following the growth of the MZ generation, who value sharing and diverse experiences rather than ownership, the subscription economy is expanding in size following the recent development of ICT, the emergence of customized subscription services, the advancement of delivery systems, the growth of online platforms and innovation in payment methods. Particularly, the subscription economy is revitalizing as non-face-to-face transactions and services expanded owing to the recent COVID-19 outbreak. According to the KT Economic Management Research Institute, the size of the domestic subscription economy market has grown rapidly, from 25.9 trillion won in 2016 to 40.1 trillion won in 2020 (Hankyung Securities Co., Ltd, 2021). By 2025, the entire subscription market is expected to grow to 100 trillion won (The Dong-A Daily News, 2021).

The subscription economy is divided into three types: a membership type that pays a monthly subscription fee and uses unlimited products every month, a rental type that rents products after paying a monthly subscription fee, and a regular delivery type that receives products delivered regularly according to the set schedule (Samjong KPMG Economic Research Institute, 2021). The membership type encompasses coffee, health club, OTT, and digital music content subscriptions. The rental type encompasses automobile, water purifier, and luxury clothing subscriptions. Lastly, regular delivery type can be referred to as daily necessities, nutritional supplements, food, and flower subscriptions (Fortune Korea, 2021). As such, the subscription economy is being introduced to all industries such as distribution/consumer goods, media/contents/games, mobility, and healthcare (Samjong KPMG Economic Research Institute, 2021), OTT, music, games, automobiles, fashion, and furniture. Moreover, nowadays, it is expanding its scope to foods.

2.4.2. Food Subscription Service Market

Food subscription refers to paying a monthly fee for food delivery or using related services regularly. There are various types of foods that can be delivered, from simple ingredients to home meal replacements. Considering the current state of the food subscription service market, the representative food subscription service that reflects the consumer's demand for home meal replacement is the side dish subscription. The side dish subscription service providers include a side dish subscription platform operated by a food company that has acquired an online HMR sales company, and a side dish subscription service operated by famous department store's food halls. There is also a subscription service that provides not only some side dishes but also a full meal. A company that launched as a startup is providing a lunch box subscription service that provides a single meal that comprises the main dish, several side dishes, and rice in the form of a lunch box. "Meal kit" subscription, which contains ingredients so that you can easily cook and eat it yourself, rather than finished food, is also attracting attention owing to the prolonged prevalence of COVID-19. According to the Korea Agro-Fisheries & Food Trade Corporation, the size of the meal kit market, which was only 2 billion won in 2017, increased approximately 100 times in three years to 188.2 billion won in 2020, and is expected to reach 725.3 billion won in 2025 (Korea JoongAng Daily, 2021). Company "M," a meal kit company, launched a "save club" to enable regular subscriptions to meal kits (Food Bank, 2021).

A subscription service is also being provided for snacks such as bread, coffee, fruit, sweets, and ice cream that are enjoyed separately from daily meals. Some bakeries are running a bread subscription service that sends bread to their homes once a week, a total of four times monthly. It can be customized according to the tastes of the subscriber, such as caffeine content, coffee machine, weight of beans, taste and smell of beans, and whether or not the beans are ground. Some cafes also deliver coffee regularly and in various forms. There is also a fruit subscription service that provides regular delivery of five to seven types of fruit in small amounts, and a service that delivers customized fruits on the day of the week, considering the number of families and non-preferred fruits, at a local premium fruit store. (Munhwa News, 2021). A confectionery company started a confectionery subscription service that sends unique and brand-new snacks with a new theme monthly. Recently, the company started a collaboration with an oatmeal brand and launched a regular delivery service for easy-to-carry oatmeal. The food industry introduced subscription services only for dairy products, coffee, kimchi, ice cream, and sweets. However, recently, collaborations between different industries have been actively conducted. The food industry predicts that subscription services can become more diverse. It is predicted that the number of subscription service items can be increased in that companies can generate stable profit, and the industrial scale can grow as the number of users increases. (The Dong-A Daily News, 2021).

Meanwhile, as consumers' demand for health-conscious customized meals expands, various care food subscription services are also emerging. "Design Mill" delivers a nutrition-designed customized diet by experts every morning based on a health survey (Munhwa News, 2021). Additionally, the healthy diet program launched in 2021, regularly delivers care food considering side dishes, menus, taste, and composition for older adults at home (CJ, 2021). Some lunch box subscription services provide lunch boxes tailored to various health goals, such as low sugar, low fat, low salt, low cholesterol, and low saturated fat. In particular, there are a wide variety of salads and chicken breast subscriptions for diet and exercise. A famous salad restaurant provided a regular salad delivery service and expanded the service to the delivery of regular lunch boxes and salads in a bundle. Another food subscribing company provides a "one-day 00kcal program" and "600kcal intermittent fasting" lunchbox as body management lunch boxes, and "Danish diet program," "high protein health program," and "chicken breast and squid salad" as high-protein products.

According to all the information combined regarding the current status of the food subscription service market, items of food subscription service can be broadly categorized into three categories: staple food, refreshments, and special food. Specifically, staple food refers to "general food for meals," such as soup, side dishes, lunch boxes, and meal kits. Refreshments refer to "extra foods between meals" such as bread, cereals, fruits, and snacks. Special food refers to "food for a special purpose such as health and beauty" such as salads and low-sodium and low-sugar meals. In this case, the special food can be subdivided into small items according to the main consumption "purpose" of each food. Specifically, foods intended for general health management such as diet and body toxin removal are salads and diet foods, whereas foods aimed at maximizing the muscle growth effect of exercise are chicken breasts and high-protein foods, for the treatment and prevention of diseases. Foods made with sugar can be divided into sugar, salt, and iodine control. Table 2 shows the small items of the food subscription service that fit the definition of each large item.

Table 2: Food Subscription Service Items and Details

Large Item	Staple Food	Refreshments	Special Food
Definition	General food for meals	Extra foods between meals	Food for special purposes such as health and beauty
Small Item	Soup·Side dishes	Bread·Cereal	Salad·Food for diet
	Meal-kit	Fruits	Chicken breast·High protein food
	Lunch Box	Snacks	Sugar·Salt·Iodine Control

2.5. Consumption value of food subscription service

Consumption value is a personal belief that is a fundamental motive that continuously affects consumption behavior and serves as a criterion for judgment. It is also a goal that consumers ultimately want to achieve through consumption activities (Park & Huh, 2012). If general value is the standard that affects the whole of an individual's life, consumption value is the standard and belief that consumers determine and act only on consumption behavior (Won & Jeong, 2015). Therefore, consumption value becomes a predictive indicator of consumer behavior. Moreover, if the consumer's main consumption value is clearly identified, it can be used in marketing fields such as product development (Lee, 2018). Sheth, Newman, and Gross explain consumption value as the main factor in choosing a specific product or brand in the consumption value theory and divide it into five types of value: functional, social, emotional, cognitive, and situational.

Among the studies on the consumption value of food, Woo & Ji (2021) analyzed the consumption value of home meal replacement by dividing it into two dimensions: practical value and hedonistic value. Jeon (2021) analyzed the moderating effect of hedonic value and practical value on the effect of dining out consumer experience on revisit intention. Hwang & Kim (2020) demonstrated the value of experience and health in food consumption by explaining the post-COVID-19 dietary trends into four consumption categories: experiential, health, residential, and online. Kim (2021) emphasized the three consumption values of health, efficiency, and fun in meals, saying that modern people want healthy, delicious, efficient, and fun health management with respect to the dietary management behavior of the sustainable health management trend "Healthy Pleasure." By integrating the above, it is clear that food, unlike general products, stands out for its value of "health" in addition to practicality and pleasure.

Lee & Kim (2020) divided the consumption value of home convenience subscription services into economic value, functional value, social value, and emotional value. Economic value is about cost and convenience, which refers to the price versus the quality of the service. Functional value is about the usefulness and practicality of the service, and refers to the convenience that consumers feel about factors such as appearance, usage, ease of use,

and price. Social value is about the satisfaction of social needs, and refers to the value felt by establishing social rapport or revealing social status through the use of services. Emotional value is the value obtained by feeling pleasure and excitement through a hedonistic experience in the process of using a service. This study is meaningful in that it analyzes the effect of the consumption value of home meal replacement subscription services on consumer attitudes. However, there is a need for supplementation in that the consumption value of “health” was not included. Moreover, the fact that the consumption value of the food subscription service could differ for each food item was not considered.

3. Methodology

3.1. Research Questions

- [Research Question 1] What is the consumption value of food subscription services for staple food?
- [Research Question 2] What is the consumption value of food subscription services for refreshments?
- [Research Question 3] What is the consumption value of food subscription services for special food?

3.2. Methods

3.2.1. Data

To understand the trend of the food subscription service, we analyzed the values emphasized in the food subscription advertisement of each item. The items comprised staple food, refreshments, and special food, and were further categorized into small-item groups.

Data were collected by extracting advertisements on Google webpages through keyword analysis. It was done for 30 days, that is from December 22, 2021, to January 22, 2022. First, we searched webpages based on the keywords of each item by simply adding the words “subscription” and “regular delivery” to them. We further selected up to five advertisements in order, starting from the top for each item. Thirty advertisements were selected and used for the analysis. Google provides auction-type advertisements, of which positions are determined under comprehensive evaluation on their maximum bid price, quality score, user's search context, advertisement extensions, and expected effects of other advertisement formats. Specifically, the quality score is estimated by the advertisement’s expected click-through rate, its relevance with the search, and the quality of the landing page. As the advertisements highly related to the keyword we used and those that ranked high in click-through rate and landing page quality will appear at the top, we adopted such selecting method. A total of 30 advertisements used in the analysis are summarized according to the items in <Table 3>.

Table 3: Number of advertisements analyzed on each food subscription service items

		Sub Total	Total	
Staple Food	Soup·Side dishes (A)	4	9	30
	Meal Kit (B)	2		
	Lunch Boxes (C)	3		
Refreshments	Bread·Cereal (D)	4	9	
	Fruits (E)	3		
	Snacks (F)	2		
Special Food	Salad·Food for diet (G)	4	12	
	Chicken breast·High protein food (H)	5		
	Sugar·Salt·Iodine Control (I)	3		

3.2.2. Operational definition of the concept

Based on Lee & Kim (2020) and Hwang & Kim (2020), this study defines the consumption value of food subscription services in four dimensions: pricing, convenience, health, and pleasure. “Pricing” corresponds to the concept of economic value, and includes the aspect of reducing meal preparation-related expenses through low-cost food subscription services. “Convenience” is related to functional value, and reflects the aspect of saving time and effort for meal preparation by subscribing to food. “Health” refers to the value recognized by having

nutritious and healthy meals. Lastly, “pleasure” is a concept that corresponds to the emotional value that comes from entertaining factors in food subscription service; it includes expectations for daily changing menus, and the pleasure of enjoying collaboration events.

To evaluate the consumption value emphasized in the advertisements of each item, keywords and phrases for each value, keyword sets were formed by extracting words in the advertisements and referred to the scales of Joo, Choi, & Lee (2020), Jeon (2021), and Kang, Choi, & Kim (2019). <Table 4> below shows the definition and keywords of each consumption value, which were used to analyze the values that were emphasized in advertisements.

Table 4: Operational Definition of Consumption Value of Food Subscription Service

Concept		Definition	Keyword
Consumption Value	Pricing	Economic value indicating how high the price-to-price utility of the food subscription service is	cheap, discount, cost-effectiveness, price
	Convenience	Functional value indicating how much time and effort is saved in meal preparation through food subscription	fast, convenient, easy, reduces the burden of meal preparation, saves time and effort, personalized,
	Health	A value indicating how well a food subscription can help you maintain a nutritious and healthy diet.	nutritional balance, sufficient nutrition, healthy, fresh, hygienic, safe, low salt, low sugar, healthy, health care
	Pleasure	Hedonic value indicating the extent to which positive emotions such as excitement and pleasure are evoked during food subscription processes	collaboration, limited edition, event, cross delivery, various flavors, menu change, pick and eat

4. Result

4.1. Consumption value trend of staple food subscription service

The consumption value trend shown in the advertisement for a staple food subscription service was analyzed by categorizing the items into three small item groups: soup/side dish (A), meal kit (B), and lunch box (C) (Table 5). We found that first, convenience and health appeared to be the prominent consumption values of the soup and side dish subscription service. Convenience was emphasized in every advertisement through keywords such as “customized diet,” “simple,” and “convenience.” Health was emphasized in all but one advertisement, through keywords “according to the Food Sanitation Act,” “safe food,” “health,” “good ingredients,” “freshness,” and “clean,” among others. In contrast, price and pleasure did not appear in any advertisements.

Next, convenience and pleasure were highlighted in the advertisement of the meal kit subscription service, and health also partially appeared on it. Convenience was emphasized in all the advertisements through phrases such as “Quick & Easy,” “Simple,” “I shall take care of you,” “Reduce the number of shopping,” “Only the products you want, when you want”; pleasure was also emphasized in all the advertisements and appeared through keywords such as “special broadcast,” “payback event,” and “collaboration.” Health, which appeared only in one out of two advertisements, was revealed through keywords such as “fresh early morning delivery,” “safety,” and “sanitation management.” Meanwhile, price did not appear in any advertisements.

Lastly, convenience, health, and pleasure were all strongly emphasized in the lunchbox subscription service advertisement. “Simple” and “customized diet” were keywords for convenience, and “HACCP certification,” “sanitation and quality,” “health care,” “balanced,” and “safe and fresh” were keywords for health. Keywords for pleasure included “new every day,” “curation,” and “colorful menu.” However, the price appeared in only one out of three advertisements, through the phrases “lower price” and “reasonable price.”

Table 5: Keywords of Consumption Value Appeared on Staple Food Subscription Service Advertisement

	Product	Price	Convenience	Health	Pleasure
Soup/ Side Dish	A1	-	Just need to microwave	A week full of homemade soup instead of instant noodles	-

(A)	A2	-	(Customized meal) A meal set for those who eat alone	Safe food according to the Food Sanitation Act.	-
	A3	-	Soup as well as main and side dishes easy to have at once.	Take care of family's health by subscribing to our dishes	-
	A4	-	Delicious and convenient food delivered to your home on any weekday you want.	Sound ingredients, fresh ingredients HACCP certified, cooked in a clean kitchen	-
Meal Kit (B)	B1	-	Quick & Easy No need to find recipes, no need to shop for ingredients, Convenient recipe Only 10 minutes to cook.	Fresh and Safe Tasty food freshly Reliable environment, hygiene management fresh morning delivery	Year-end meal kit special broadcast Save Club Payback Event Launched meal kit in collaboration with X
	B2	-	We shall take care of your meals. You can save time shopping at grocery stores!		New meal kit with new side dishes every week
Lunch Box (C)	C1	Meet your lunch at a reasonable price. High quality at a lower price.	Easy subscription life, You can get it from one any amount of days you want.	Hygiene and quality control with HACCP certification. With direct and safe delivery	New composition every day Your day will be more exciting and happier Curated Lunch
	C2		Customized diet For those who skip meals for convenience	Health care and calorie control, Balanced and healthy lunch Safe and fresh, daily refrigerated delivery	Delicious calorie-controlled meals.
	C3		Simple and delicious meal in the midst of a busy daily life	Healthy eating for a balanced diet Sanitary production process	Gourmet looking for a colorful menu

4.2. Consumption value trend of refreshments subscription service

The consumption value trend of the refreshments subscription service shown in the advertisements was also analyzed by categorizing the items into three small item groups: bread/cereal (D), fruit (E), and snacks (H) (Table 6). First, health was prominent, and price and pleasure also partially appeared in the bread and cereal subscription service. Health was stressed in all the advertisements and could be confirmed in phrases such as “healthy,” “used only 100% plant-based ingredients,” and “fresh and safe.” Pricing was emphasized in two out of four advertisements using phrases such as “reasonable price,” “high cost-effectiveness,” and “10% additional discount on regular delivery.” In contrast, convenience appeared in just one advertisement through the keyword “simple.”

Second, in the fruit subscription service advertisement, price and health were featured strongly, whereas convenience was featured slightly. Keywords for price shown in all the advertisements were “regular delivery discount,” “reasonable price,” “cheap for price,” among others. Keywords for health included “premium seasonal fruit,” “carefully selected quality,” “full of vitamins,” “fresh,” “healthy,” and “safe.” In two out of three advertisements, convenience was expressed through phrases such as “Only domestic fruits harvested at the most delicious time,” “Will take care for you,” “Customized,” and “Send you at the right timing.” Meanwhile, pleasure only appeared in one advertisement, in the phrase “will send it randomly.”

Third, price and pleasure were very prominent in the advertisement of snacks and ice cream subscription services, whereas convenience appeared partially. Price was shown in phrases such as “a generous composition compared with the subscription fee” and “reasonable price for expensive products,” whereas pleasure was

expressed through phrases such as “an interesting theme that changes every month,” “curation service,” “new every month,” and “premium brand.” Convenience shown in one out of two advertisements was expressed in phrases such as “Are you always worried about? (I will ease the burden of choice),” “Are you wandering in search of new sweets? (I will ease your burden of searching)” However, none of the advertisements emphasized health.

Table 6: Keywords of Consumption Value on the Refreshments Subscription Service Advertisement

	Product	Price	Convenience	Health	Pleasure
Bread / Cereal (D)	D1	Reasonable price (4-week subscription fee of 80,000 won), high cost-effective package	-	Healthy bread made with naturally fermented species	Once a week, bring home a “bread package made up of popular products’
	D2	-	-	Healthy freshly baked young bakery vegan bread!	-
	D3	-	-	Vegan Bread - 100% plant-based ingredients only	-
	D4	10% additional discount on regular delivery	Enjoy the fullness of oats more conveniently!	Fresher! (freshly produced, shipped) Safer! (meet the strict quality hygiene law standards)	More delicious! (Exclusive development in Korea to suit the taste of Koreans)
Fruit (E)	E1	Cheaper when you subscribe and give even more	Domestic fruits harvested at the most delicious time without any worries!		Only 1% premium seasonal fruits grown by fruit masters The curator will select them and send them to you randomly
	E2	Reasonable Price	Will deliver the product when you want	Quality selected by the fruit master Full of vitamins, fresh 365 days a year	1:1 customized fruit selected by the customer
	E3	Regular delivery discount Cheap for the price	-	“Safe food” for your children healthy fruit set	-
Snacks (F)	F1	Nice composition for the subscription fee	Are you always worried about what kind of snacks to give to your children? Are you wandering in search of new sweets?	-	Interesting themes and snacks that change every month Unique snack curation service New snacks every month
	F2	Reasonable price even for expensive foods.	-	-	Differently every month! With new products! Even with premium brands!

4.3. Trend of consumption value of special food subscription service

The consumption value trend in the advertisements of the special food subscription service was analyzed by categorizing the items into three small item groups: salad diet (I), chicken breast/high protein diet (F), and sugar, salt, iodine control diet (G) (Table 7). First, health was emphasized in all the advertisements while convenience, pleasure, and price were emphasized in some advertisements. Health was expressed in phrases such as “nutrition balance,” “healthy seasoning,” “fresh cooking,” “safe ingredients,” “healthy diet control,” and “manufactured every day like home-cooked.” Convenience and pleasure were shown in three out of four advertisements. Convenience appeared in phrases such as “without worrying about getting tired” “easy 6 days a week,” “daily delivery,” “customized recommended diet,” and “easy diet management.” The pleasure was expressed through

phrases such as “variety” and “3 meals + snacks.” The price was stressed in two out of four advertisements, using keywords such as “increase of the discount rate according to the (subscription period)” and “cheap price.”

The chicken breast/high protein subscription service advertisement further showed strong healthiness, and some convenience and pleasure. Healthiness was prominently shown in four out of five advertisements through phrases such as “post-treatment diet,” “high protein nutritious diet,” “safe,” “fresh,” “balanced nutrients,” and “healthy and tidy.” Convenience appeared in phrases like “10-minute completion kit,” “automatic order, self-delivery,” “busy daily life with regular delivery,” and “Can stock in your home”; pleasure was indicated by phrases such as “variety recipe to enjoy without getting tired,” and “choose and eat according to your taste.” In contrast, price appeared only in two out of five advertisements.

Lastly, health and pleasure were highly emphasized. Moreover, some convenience was found in the advertisement for the sugar, salt, and iodine control subscription service. Keywords for health in every advertisement included “according to HACCP principles,” “safe diet verified with university hospitals,” “using zero iodine salt,” “safe and healthy,” and “healthy nutritional balance,” among others. Keywords for pleasure included phrases such as “New menu for breakfast, lunch, and dinner,” “Variously according to your lifestyle,” and “not to get tired of same old things.” Convenience showed in two out of three advertisements through phrases like “Eat meals easily with RTE/RTC,” “Without worrying about food ingredients selection,” and “Simply.” In contrast, price did not appear in any advertisements.

Table 7: Keywords of Consumption Value in Special Food Subscription Service Advertisement

	Product	Price	Convenience	Health	Pleasure
Salad / Diet (G)	G1	-	-	Perfect nutritional balance, healthy sauce Order made products fresher cook according to the schedule	When you get sick of the same salad
	G2	The longer the discount rate goes, the higher the discount rate	Six days a week, conveniently without burdensome	Freshness, healthy composition, and safe use of ingredients A cold chain system for freshness and quality	Pick yourself. Change it to any salad of your choice! A variety of chef-made gourmet salads without getting sick of it
	G3	-	Daily delivery Customized Recommended Meal	Daily brown rice, mixed grain rice Fresh salad made of the day	-
	G4	Lower price than other companies under similar conditions	Diet management is very cumbersome. Now eat without any worries	No worries about malnutrition A three-year study on a healthy diet control method Daily production, refrigeration, fresh dawn delivery, about 1150 kcal manufactured every day like home-cooked	Three meals with snacks
Chicken breast / High Protein (H)	H1	-	10 minutes and ready to go	Guidebook for 100% utilization of post-treatment diet Scientific nutritional design focused on high protein a safe diet that abides by standards and principles	A variety recipe that you never get sick of
	H2	Get the products you buy often cheaper! Up to 5% additional discount per order	Order automatically with one card registration and ship on your own!	-	-

			With regular delivery of your busy daily life,		
	H3	-	-	Rich protein content and balanced nutrients High-quality organic vegetables and carefully selected fresh fruits	-
	H4	-	-	Fill in at least one healthy meal a day! Healthy and clean taste using minimal seasoning	A variety of salads to choose from!
	H5	Up to 6% additional discount on the basic salad price when ordering 4-week regular delivery	Delivered automatically every week Just tear it apart, pour it, dip it and eat it! Keep it in the refrigerator for a week and eat it.	Chicken breast with high protein content It is vacuum-packed to extend the freshness by 5 to 9 days	Various options and is clean
Sugar·Salt·Iodine Control (I)	I1	-	-	The most necessary table for those who know the importance of health Made according to HACCP Safe diet verified with university hospitals	Variety recipes to enjoy without getting bored
	I2	-	Easy meal solution with RTC Reliable and convenient meal solution without worrying about selecting ingredients	Use of iodine zero salt Iodine-controlled diet of less than 100mg per day	New menu for breakfast, lunch, and dinner Enjoy a variety of meals according to your lifestyle with Meal Kit
	I3	-	It was always annoying to make dinner after work, but it was nice to be able to cook it easily and eat it!	Safe, healthy, and delicious salt control diet Healthy nutritional balance HACCP-certified sanitary manufacturing facility	200+ healthy and delicious menus The menu is varied and delicious, so you can eat it without getting sick of it!

The consumption values in the advertisements for staple foods, snacks, and special food were analyzed based on each aspect of the values which are price, convenience, health, and pleasure. According to the analysis above, it is safe to conclude that the values emphasized in each items differ. To understand the overall trend of the consumption value emphasized in the food subscription service, we summarized the result based on the proportion of advertisements including corresponding keywords or phrases (Table 8). For each item, if more than 75% of the advertisements emphasized a specific consumption value, we assigned a symbol ★; if more than 50% and less than 75%, ○; if more than 25% and less than 50%, △; and if less than 25%, -. Overall, in staple food, convenience was the most emphasized value, followed by health. In contrast, in refreshments, price was the most emphasized; pleasure appeared as an additional value. As special meals serve a special purpose of “health,” health of course appeared to be the core consumption value in all small item groups in it, with pleasure and convenience being emphasized as the additional values.

Table 8: Consumption Value by Item of Food Subscription Service

		Consumption Value			
		Price	Convenience	Health	Pleasure
Staple Food	Soup·Side dishes	-	★	★	-
	Meal Kit	-	★	○	★
	Lunch Boxes	△	★	★	★
Refreshments	Bread·Cereal	○	△	★	○
	Fruits	★	○	○	○
	Snacks	★	○	-	★
Special Meals	Salad·Food for diet	○	★	★	★
	Chicken breast·High protein food	△	○	★	○
	Sugar·Salt·Iodine Control	-	○	★	★

(★: More than 75% / ○: More than 50% ~ Less than 75% / △: More than 25% ~ Less than 50% / -: Less than 25%)

5. Conclusion

5.1. Academic Implications

Following the recent rapid rise of the subscription economy as a global trend, the food subscription service market in Korea, centered on HMR, is also growing. Particularly, after the COVID-19 outbreak, the size of the home meal replacement market has grown. As the time spent at home increased owing to COVID-19, the burden of housework increased. Therefore, the demand for outsourcing housework has also increased. Above all, it is safe to conclude that the burden of housework related to food preparation is the largest; this is evident through the trend of outsourcing housework through HMR. The increase in the demand for HMR is expanding with the growth of the food subscription service market consistent with the subscription economy development.

This study considers the current status of food subscription services and analyzes the consumption value shown through food subscription service advertisements to understand the trend of outsourcing housework in the dietary area through food subscription services. For this purpose, content analysis was attempted based on keywords by a consumption value of 30 advertisements by food subscription service item. The items of the food subscription service were divided into staple food, refreshments, and special food, which were further divided into small items. Content analysis was further conducted focusing on the keywords emphasized in the advertisement of each item.

Consequently, the trend of food subscription service consumption value by item can be summarized as follows. First, the staple food subscription service emphasizes health while focusing on convenience. Convenience value was found to be the highest in the sense that staple food reduces the effort of preparing meals from time to time as they have to be consumed daily. Additionally, the value of health is also an important factor in stocks, as the food you eat every day has a cumulative and long-term effect on your health. The staple food subscription service emphasizes that it can save time and effort required for shopping, trimming ingredients, finding suitable recipes, and allows you to enjoy healthy and safe food cooked with fresh ingredients in a nutritionally balanced way.

Second, in the case of refreshments subscription services, price was the most emphasized. Refreshments such as bread, fruit, and snacks are not essential foods. Therefore, there is less willingness to subscribe to this as opposed to staple foods. As such, the price appealing to the discount benefits is being emphasized as the most important consumption value. Further, the pleasure of appealing to the tastes of customers who pursue various and new things is being emphasized as an additional consumption value.

Finally, the value of health is the most prominent in the special food subscription service; convenience and pleasure appear together. As the purpose of eating a special diet is to manage health, maximize the effect of exercise, and prevent and treat diseases, health is essentially the most important value. Therefore, the special food subscription service emphasizes the fact that it is a fresh and safe diet with abundant nutrients and nutritional balance. In contrast, special meals may be tasteless and difficult to eat consistently as they are manufactured with a focus on health and nutrition. Therefore, the special food subscription service intends to increase the value of pleasure by providing a menu that does not become monotonous and lets customers enjoy delicious and enjoyable meals. Furthermore, the value of convenience is emphasized in that general customers who lack specialized

knowledge about special foods may find it difficult to select ingredients or use recipes tailored to their health purpose.

Meanwhile, the results of the analysis of advertisements by item clearly show that the consumption value, which was used as the basis of the study, can be more subdivided. Particularly, it is safe to conclude that the consumption values of convenience, health, and pleasure are further subdivided into two dimensions (Table 9). First, convenience is subdivided into informational convenience, which indicates how much the food subscription service reduces the burden of composing and preparing complex meals that require specialized knowledge, and time convenience, indicating the extent of reduction in the time burden of preparing meals. Health can be divided into hygienic health, which indicates how fresh, hygienic, and safe food subscription food is, and nutritional health, which indicates how helpful food is to nutrition and health. Pleasure is subdivided into intrinsic pleasure and satisfaction, which is provided by new tastes of food subscriptions and various menus, and additional pleasure, which indicates pleasure and satisfaction from various additional services such as gifts and collaboration events.

Table 9: Consumption Value Segmentation of Food Subscription Service

Concept		Definition	
Consumption Value	Price	An economic value indicating how high the price-to-price utility of the food subscription service is	
	Convenience	Time Convenience	The value indicating how much food subscription service reduces the time burden of meal preparation
		Informational Convenience	The value indicating how much the food subscription service reduces the burden of formulating and preparing complex recipes and meals respectively, that require specialized knowledge
	Health	Hygienic Health	The values for the freshness, hygiene, and safety of food
		Nutritional Health	The value of food subscriptions to how beneficial they are to nutrition and health.
	Pleasure	Intrinsic Pleasure	The value of pleasure and satisfaction provided by new tastes of food, various menus, and customized composition to customer tastes
		Additional Pleasure	The value of pleasure and satisfaction from various additional services such as gifts and collaboration events in the food subscription service

By reflecting this segmented consumption value, it is possible to understand the consumption value trend by item of the food subscription service more comprehensively. First, convenience is the most emphasized consumption value in the staple food subscription service. Evidently, time convenience, which can save time, is the central consumption value. Staple foods are daily meals, an area that requires routine food preparation. Food preparation time, which accounts for the largest portion of housework hours, is closely related to staple foods prepared for meals. Therefore, consumers who subscribe to staple food are expected to have an important consumption value for time convenience, which saves time and effort to prepare meals daily. In the staple food subscription service, the most outstanding value next to convenience is health. As meals are eaten daily and are being promoted as the basis for leading a healthy life, they must be hygienic, safe, and nutritious. In this sense, nutritional health and sanitary health are both emphasized as important consumption values for the stock subscription service.

Meanwhile, the refreshments subscription service emphasizes price and pleasure because, unlike staple foods, refreshments are not essential. Considering that pursuing price value is a basic consumption value, pleasure becomes more important. As such, the intrinsic pleasure of finding various new products and products that fit taste is highlighted more importantly in the refreshment's subscription service.

In contrast, it was found that health is the most important consumption value for special food subscription services, and convenience and pleasure are also emphasized. As the purpose of the special diet is in health care, both nutritional health and sanitary health, two aspects of health, were considered important consumption values. Convenience and pleasure are emphasized together to maintain and achieve health, which is the purpose of a special diet. The convenience of information is emphasized in the special food subscription service in that it relieves the burden of complicated nutritional knowledge and complicated cooking processes required for special food manufacturing. Simultaneously, intrinsic pleasure is being emphasized in that special meals should be delicious and varied.

5.2. Policy Implications

Based on the consumption value trend of the food subscription service examined above, the implications for the market and policies for outsourcing household labor through home meal replacement can be presented as follows. First, to further vitalize the market for outsourcing housework through food subscription services, it is necessary to develop a service that considers the consumption value of the food subscription service. As a result of this study, the consumption value of the food subscription service was differentiated by item. In the case of staple food, convenience and health were emphasized as important consumption values; in the case of snacks, price, and pleasure, and in the case of special meals, convenience and pleasure were emphasized together with a focus on health. Of course, these results are an analysis of food subscription service advertisements and have limitations in that they are not directly surveyed on consumers who actually use them. However, considering that the food subscription service market is in its early stage of growth, it is meaningful to identify the central consumption value trend that currently leads the market as it serves as basic data for predicting future growth factors. For example, in the case of staple foods and special foods, the consumption value of “price” is not emphasized in the advertisement. However, from the consumer's perspective, “price” may be required as a more important consumption value for staple foods and special foods. Staple foods (i.e., regular meals eaten every day) and special meals (i.e., healthy foods eaten for special purposes) are inevitably eaten regularly. Moreover, their nature is consistent with the “regularity” of the subscription economy. If subscription services for staple foods and special foods satisfy the consumption values of convenience and health while also guaranteeing price, the demand in the market is expected to increase. The subscription economy pays a fixed amount for a certain period and provides regular services; the basic attribute is to create a sustainable profit structure. As a company has secured service users for a certain time period through the regularity of subscription, it can plan price benefits for repeated consumption, hence improving the sustainability of subscription services further.

Second, to further revitalize the outsourcing market for housework through food subscription services, it is necessary to expand the entry of local small business owners as well as large retailers and small and medium-sized companies. Currently, the food subscription service market is growing, centered on large department stores, home meal replacement manufacturers, and restaurant companies. As the consumption value of food subscription services is segmented and the demand for individual taste customization from simple convenience is predicted to increase, the development of more diverse services is required. Following the recent expansion of the subscription economy, food subscription services are attracting attention as a new revenue-generating model for local small business owners. Regarding food subscriptions, there is a movement at the government level to expand the subscription economy to products of small business owners as well as traditional markets. The government plans to commercialize the products of small businesses into meal kits, such as developing 25 types of meal kits for 1,000 stores that are more than 30 years old by 2021 and developing 600 types from 1,300 in 2022 (Korea Policy Briefing, 2021). Small businesses have high barriers to entry as there are many difficulties in establishing the basis for sales platform, logistics, and product composition necessary for the operation of the subscription economy. Policy support to lower these barriers to entry will diversify the market actors related to food subscription services, hence contributing to the expansion of customized services to suit the tastes of consumers of various lifestyles. Additionally, the subscription economy is a win-win strategy in that it has the advantage of securing stable profits and long-term customers for small business owners, and providing consumers with products and services at low cost and time (Korea Policy Briefing, 2022).

Third, among the areas of outsourcing housework, the food subscription service is related to our food. Moreover, food safety management needs to be reinforced. Particularly, as online food purchases increase owing to the prolonged COVID-19, the Ministry of Food and Drug Safety announced measures to reinforce the safety management of delivery restaurants (Ministry of Food and Drug Safety, 2020). This includes the promotion of kitchen disclosure that discloses cooking facilities and cooking processes to consumers (CCTV), dissemination of customized hygiene management manuals for each delivery item, expansion of special inspections for delivery restaurants, preliminary inspection of restaurants with risk concerns through analysis such as delivery app reviews or consumer reports, reinforcing restaurant facility standards, establishing fines for negligence, and conducting a campaign to observe hygiene rules. As the food subscription service is a regular delivery service, it may have a more significant effect on the health and safety of consumers. Therefore, it is necessary to apply stricter food safety management standards.

Lastly, along with the prospect of expanding the food subscription service market, it is expected that the related consumer problems will further expand and intensify the transaction problems and environmental problems. In the subscription economy, various consumer problems may arise in relation to transaction details, amount, payment date, and transaction conditions such as refund. Therefore, it is necessary to identify and prepare countermeasures for the consumer transaction problems experienced by food subscription service users. Additionally, as the transaction amount of food subscription services increases, it is necessary to manage

environmental problems, which also increase plastic waste. According to the survey results of the Korea Consumer Agency (2021), the average amount of plastic containers used per user for delivery food was 1,341 items or 10.8 kg. This accounts for 12% of the annual per capita plastic consumption, indicating that the amount of plastic waste generated is closely related to the consumption of packaging and delivery containers. It is necessary to pursue not only consumption values (e.g., price, convenience, health, and pleasure) in food subscription services but also consumption values that consider environmental issues for sustainability. As the MZ generation, who has emerged as a new consumer, recognizes the importance of corporate ESG management practices (Chosun Biz, 2022), it is necessary to consider sustainability in consideration of the environment as an important consumption value in future research.

5.3. Research Limitations

This study has limitations in that it examines the trend of outsourcing housework labor in the dietary life area through the content analysis of food subscription service advertisements. In a follow-up study, it is necessary to forecast the market more comprehensively, based on consumer demand, by analyzing the kind of demand and value consumers have for outsourcing housework including food subscription services. Additionally, it is necessary to provide basic data for finding solutions to safety problems, transaction problems, and environmental problems by examining various problems experienced by users of food subscription services.

References

- Agricultural, Fisheries and Livestock Newspaper. (2021). [Issue+] A new platform for the agricultural and livestock industry, the 'subscription economy'. Retrieved from <https://www.aflnews.co.kr/news/articleView.html?idxno=208978>
- CJ. (2021). A hearty meal prepared for the elders! CJ Freshway. Retrieved from <https://cjnews.cj.net/>
- Chosun Biz. (2022). 6 out of 10 MZ generation "buy ESG practice products even if they are expensive". Retrieved from <https://biz.chosun.com/industry/company/2022/04/03/5YLI6YI3EFCYFOFK5AUJT3UJSA/>.
- Economic Review. (2021). From ice cream to pasta... Food sales, 'subscription service' craze. Retrieved from <http://www.econovill.com/news/articleView.html?idxno=544934>.
- Food Bank. (2017). Meaning of eating together. Retrieved from <https://www.foodbank.co.kr/news/articleView.html?idxno=52262>.
- Food Bank. (2021). My chef, launched meal-kit subscription service 'save club'. Retrieved from <https://www.foodbank.co.kr/news/articleView.html?idxno=62086>
- Fortune Korea. (2021). 40 trillion subscription economy market, who will dominate? Retrieved from <http://www.fortunekorea.co.kr/news/articleView.html?idxno=20156>
- Hankyung Securities Co., Ltd. (2021). The subscription economy market will be \$1.5 trillion by 2025 Subscription economy theme pops up. Retrieved from <https://www.hankyung.com/finance/article/202109216959i>.
- Hwang, K., & Kim, H. (2020). The effect of dietary trend changed by COVID-19 consumption value on behavioral intention. *Tourism Research*, 45(4), 705-727.
- Sheth, J. N., Newman, B. I., Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values, *Journal of Business Research*, 22(2), 159-170.
- Jeon, H. M. (2021). The impact of grocerant experience of foodservice consumer on hedonic value, utilitarian value, and revisit intention - Using Schmitt's strategic experiential modules. *The Korean Food Service Association*, 17(3), 7-21.
- Joo, H., Choi, J., & Lee, D. (2020). The Role of Economic Value in the Impact Path of Individual Value on Customer Satisfaction in Southeast Asian Customers Using Mobile Shopping - Focused on Vietnam Customers. *The e-Business Studies*, 21(5), 195-214.
- Kang, B., Choi, T., & Kim, M. (2019). The Effects of Menu Characteristics of HMR Convenience Store Lunch Box on Functional Consumption Value and Repurchase Intention. *Culinary Science & Hospitality Research*, 25(6). 152-159.
- Kim, N. D. (2021). *Trend Korea 2022*. Seoul: Miraebook.
- Korea Agro-Fisheries & Food Trade Corporation. (2019). *2019 Processed Foods Market Status: Convenience Food Market*. Naju: Korea Agro-Fisheries & Food Trade Corporation
- Korea Consumer Agency. (2021). *A survey on the actual condition of plastic containers for delivery food*. Korea Consumer Agency.
- Korea JoongAng Daily. (2021). Will Meal-kit Venture float on the stock exchange? The 'Bang goo seek Restaurant' has grown 100 times in three years. Retrieved from <https://www.joongang.co.kr/article/24110162#home>

- Korea Rural Economic Institute. (2021). [Report] The home convenience food market is growing at an average annual rate of 16%, and it is necessary to link with domestic agriculture.
- Korea Policy Briefing. (2021). Introduction of subscription economy to traditional markets ... Supporting the commercialization of meal kits. Retrieved from <https://www.korea.kr/news/policyNewsView.do?newsId=148895986>
- Korea Policy Briefing. (2022). Expanding the subscription economy for small businesses. Retrieved from <https://www.korea.kr/news/policyNewsView.do?newsId=148899743>
- KOSIS National Statistics Portal. Average time by age group. Retrieved from https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1TS202004&conn_path=I3
- Lee, H. A. (2021). Trends in the change of household labor in the middle-aged. *Journal of Family Resource Management and Policy Review*, 25(1), 47-61.
- Lee, H., Kim, E., & Kim, Y. (2022). Household labor and care policy. Seoul: Korea National Open University Press.
- Lee, H., & Kim, J. (2020). Effects of consumption value on consumer attitude in purchasing hmr products through subscription service. *Digital Convergence Research*, 18(9), 71-79.
- Lee, M. H. (2018). Impact of consumption value and consumption propensity of cruise tourist's on behavior intention. *Journal of Tourism Management Research*, 22(4), 1167-1186.
- MacromilEmbrain Trend Monitor. (2021). Survey of perceptions of housework and housework services. *Research Report*, 2021(1), 1-38.
- Maeil Broadcasting Network. (2020). The retired 'opal generation' chose home meal replacement instead of eating out. Retrieved from <https://www.mk.co.kr/news/business/view/2020/02/154230/>
- Ministry of Food and Drug Safety. (2020). Ministry of Food and Drug Safety prepares measures to strengthen safety management of delivered food. Retrieved from https://www.mfds.go.kr/brd/m_99/view.do?seq=44913&srchFr=&srchTo=&srchWord=&srchTp=&itm_seq_1=0&itm_seq_2=0&multi_itm_seq=0&company_cd=&company_nm=&page=3
- Ministry of Food and Drug Safety. (2020). The story of HMR food (home meal replacement food) through food statistics. Retrieved from https://www.mfds.go.kr/brd/m_629/view.do?seq=20
- Munhwa News. (2021). [Subscription Series] How much do you know about food subscription service? Retrieved from <https://www.mhns.co.kr/news/articleView.html?idxno=504778>
- Na, W., & Dong, H. (2021). Factors for Intention to Use for Digital Contents Subscription Service in Korea. *Journal of the Korea Digital Contents Association*. 22(5), 755-766.
- Park, M., Kwon, M., & Nah, K. (2019). Study on repurchase intention of RTP HMR products - focused on meal kit. *Journal of the Korean Contents Association*, 19(2), 548-557.
- Park, S., & Huh, K. (2012). A structural relationship between consumption value, consumption behavior and consumption satisfaction by income class. *Journal of Consumption Culture*, 15(3), 139-157.
- Samjong KPMG Economic Research Institute. (2021). Digital subscription economy trends and business opportunities. *Samjong Insign*, 75, 1-15.
- Statistics Korea. (2020). *The results of time use survey 2019*. Daejeon: Statistics Korea.
- Solo Economy. (2021). With the growth of delivery apps, the number of increased, but unresolved problems remain. Delivery costs battle continues. Retrieved from <https://www.dailypop.kr/news/articleView.html?idxno=51750>
- The Dong-A Daily News. (2021). "Capture the 40 trillion-won market"... Food industry launches a variety of subscription services 'Nongil'. Retrieved from <https://www.donga.com/news/Economy/article/all/20210914/109246327/1>
- Venture Square. (2018). Check the location and delivery time of the delivery person in real-time. Retrieved from <https://www.venturesquare.net/761552>
- Won, J., & Jung, J. (2015). The Segmentation of Single-Person Households Based on Sheth's Theory of Consumption Values. *Korea Consumer Association Conference*, 2014(5), 3-8.
- Woo, J., & Ji, Y. (2021). A study of the effect of home meal replacement (HMR) product selective attributes on attitude and intention to purchase: Focusing on the moderating effect of practical value and hedonistic value. *Korea Tourism Research Association*, 34(8), 177-191.
- Yonhap News. (2015). What will happen if you eat with your neighbor? Retrieved from <https://www.yna.co.kr/view/AKR20151113167800033>