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A Study on the Relationship between Purchasing Media and Demographic Factors in Home Shopping*

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Abstract

Purpose **–** The goal of this study is to extensively grasp the latest status of domestic home shopping and to propose useful information on the direction of development for the somewhat stagnant this market. This study investigates the relationship between purchasing media and demographic factors such as average monthly income, age and occupation. Categories of purchasing media under consideration are cell phones, tablet PCs, PCs/notebooks, phone calls and TV directly.

Research design, data, and methodology **–**The survey was conducted in 2021 on a total of 4,537 integrated panel households including 3,510 households and 191,027 newly constructed in 2019 and about 10,800 household members aged 6 years or older in the household. The independence test and correspondence analysis as statistical tools are exploited to detect the relationship between the underlying factors.

Result – It can be demonstrated that all demographic variables considered are related to the purchase media of home shopping. In particular, cell phones among purchasing media are closely associated with 2 million - 5 million won, teenagers, 20s, 40s, professionals, office workers, managers and soldiers.

Conclusion **–** It is necessary to establish a new management strategy and related policies in order to overcome the current stagnation and ensure the continued growth of this industry.

Keywords: Home Shopping, Purchasing Media, Relationship, Correspondence Analysis

JEL Classification Code: C40, C81, M30.

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1. Introduction

In 1995, after 24 cable channels started broadcasting in Korea and two of them were assigned to home shopping channels, TV home shopping has grown at an annual average rate of 10.2% for 15 years until 2010. In 2018, TV home shopping is dominated by seven TV operators, with total sales reaching about 5 trillion won. Sales of TV home shopping in 2021 were 640.7 billion won, down 2.42% from the previous year. It was more than 700 billion won in 2017, but it has been on the decline almost every year since then.

It is true that TV home shopping offers a variety of products at low prices and has excellent payment, delivery, refund, and return services, but if you cannot find a new consumer group or niche consumer, the growth of TV home shopping in the future can be a problem. Home shopping companies are accelerating their 'de-TV' strategy. Transmission commissions, which are soaring every year, account for more than half of sales and are eating away at operating profit. The growth of e-commerce companies that have grown in size by taking advantage of the spread of Corona 19 has further intensified competition in the market. To overcome this, home shopping companies are promoting various experiments such as live commerce and diversifying channels.

Home shopping companies are accelerating their 'de-TV' strategy. Transmission commissions, which are soaring every year, account for more than half of sales and are eating away at operating profit. The growth of e-commerce companies that have grown in size by taking advantage of the spread of Corona 19 has further intensified competition in the market. To overcome this, home shopping companies are promoting various experiments such as live commerce and diversifying channels. The competitors of TV home shopping are not offline distribution such as large discount marts or department stores, but online content platform operators such as Netflix and Wave, which have completely taken consumers' attention and time away from TV. However, due to the diversification of distribution channels, sales in the TV home shopping market have decreased, and it is time to expand the customer base and raise loyalty.

Recently, TV home shopping has been stagnating as it competes with online and mobile distribution industries. Changes in the media environment and changes in the media consumption behavior of TV viewers have a negative impact on the growth of TV home shopping. As shown in the results of survey company Embrain, many generations are interested in TV home shopping, but the main generation is the elderly, and the younger generation uses online and mobile home shopping.

The home shopping industry, which is regarded as the beginning of non-face-to-face e-commerce, is seeking strategies to break away from TV channels and target young consumers according to the trend of online shopping, but it is still struggling. In 2021, due to the corona crisis, a twinkle performance improvement was seen, but in 2022, it appears through app analysis that it has stalled again. T-commerce, which has dug into the gap in analog TV home shopping, has been growing explosively every year from 250 billion won in 2015 to 7 trillion won in 2022. T-commerce companies are also in the midst of increasing platform competitiveness by using 'two-way' data with IT technology on their backs. T-commerce is a combination of TV and commerce, which means e-commerce through television. TV home shopping is a one-way structure in which home shopping companies configure the broadcasting order by time zone and sell products in bulk during a limited live broadcasting time, whereas T-commerce transmits data in the form of recorded broadcasting.

According to the Korea T-Commerce Association, the size of the T-commerce market is growing rapidly, from 250 billion won in 2015 to 5.4 trillion won in 2020 and exceeding 7 trillion won in 2021. On the other hand, the total sales of all home shopping companies, including T Commerce, have slowed from 18.7244 trillion won in 2017 to 21.6313 trillion won in 2020 and 21.9771 trillion won in 2021. This can be considered as a sign that the analog TV home shopping industry is shrinking compared to the booming T-commerce market. Home shopping companies are also focusing on strengthening mobile and online, but as the market share competition in the e-commerce industry is intensifying, they are attracting customers through membership and live broadcasting. In this situation, it is urgent to develop channels (mobile and data broadcasting) that will overcome the structural growth limit of the TV sector and to differentiate strategies by strengthening product strength. It is pointed out that the industry needs to find a growth strategy centered on media that can find contacts with MZ generation, including mobile and data broadcasting.

What differentiates this study from most previous studies is that it can specifically identify the related properties among the attributes of the two categorical variables considered based on visually calculating and comparing relative distances on a two-dimensional plane. This work analyzes the relationship between purchasing media and demographics such as average monthly income, age and occupation on the condition that the association between two variables exists. At this time, attributes of the underlying purchasing media are cell phones, tablet PCs, PCs/notebooks, phone calls and TV directly. The main goal of this study is to extensively grasp the latest status of domestic home shopping and to propose useful information on the direction of development for the somewhat stagnant this market. The findings of this study can be utilized as basic quantitative data for policy making and decision making.

In this research, some relationships between purchasing media and demographic factors are examined utilizing both independent test and correspondence analysis The categories of demographic factors under consideration are average monthly income, age and occupation, and categories of purchasing media are cell phones, tablet PCs, PCs/notebooks, phone calls and TV directly. Literature review will be covered with in section 2, and data collection and statistical methods will be referred in section 3. Description and interpretation of several relationships on the statistical findings will be made in section 4. Finally, concluding remarks and imitations of this work will be stated in section 5.

2. Literature Review

Lee et al (2020) analyzes the demographic characteristics, personal characteristics, media use characteristics, and media repertoire of product buyers who have never experienced TV home shopping purchases in an intensified competitive media environment. their work aims to analyze patterns such as which media consumers who first entered TV home shopping consumed in which place and how much, and to suggest strategic implications for how TV home shopping should respond to the changed media environment through age and gender classification by predicting the turning point of product purchase introduction through TV home shopping.

Media repertory can be defined as a bundle of specific media that is mainly used based on one's preference among all available combinations of media, behaviors, and connections that consume content given to users. In this study, we extracted samples for analyzing the determinants of TV home shopping purchase using data from 2016 to 2018, when the survey on TV home shopping began. As a result, the sample that started to purchase TV home shopping showed a higher rate of smart media and digital media use than the sample that did not, and showed more time spent in the movie theater as a spatial media. In addition, document work, chatting, and using messenger apps accounted for a large percentage of the media repertoire, and the proportion of spending time on media connected to IPTV broadcasts was greater than that of cable TV broadcasts. If the concern about personal information is too high, then it is assumed that the probability of entering TV home shopping is low, due to the fact there is a concern about all remote shopping such as internet shopping and TV home shopping. And if it is moderately high, it seems to be easier to enter TV home shopping than internet shopping.

Silver layer customers of TV home shopping use traditional media such as TVs that prefer analog methods, and silver layers over 50 are still contributing to the increase in TV home shopping sales because of the convenience of home shopping. If the needs according to the characteristics of the silver layer consumers and the selection factors are purchased, and the satisfaction and repurchase intention are grasped and the marketing strategy is established, the marketing cost can be reduced from the standpoint of the company where the competition between the channels is intense, and the competition will be superior.

Shaw et al. (2022) examined online shopping continuance - comparing online activities before the pandemic with predicted behavior after the pandemic and induced the factors that account for the potential of online shopping continuance. They construct the model by utilizing ES-QUAL that measures overall website quality, and then take account for the context of online shopping intentions after the pandemic with extending to the constructs of convenience and perceived usefulness. Thinking over hedonic motivation in their findings, retailers may give consideration to offering a similar virtual reality shopping surrounding, easily intertwining it with online shopping and online shopping after the pandemic will be higher than before the pandemic levels.

Kim et al. (2019) suggested implications for establishing an efficient strategy for the silver layer market, which is rapidly emerging as a promising market for TV home shopping companies. For this purpose, they examined to identify the purchase selection factors, which are the basic information in the home shopping market, and analyze the effects of these factors on the home shopping satisfaction and repurchase intention of the silver layer. There was a significant difference in the selection factors of silver TV home shopping purchase according to the characteristics of age, marital status, residential area, religion, and residential type among demographic characteristics. In addition, as a result of hypothesis testing whether there is a difference in purchase selection factors according to the type of TV home shopping use, it was found that the longer the viewing time, the higher the number of purchases, and the higher the purchase amount, the more the difference. The influence of silver layer TV home shopping purchase selection factors on home shopping satisfaction showed significant differences in reputation, price appropriateness, and delivery safety.

The effect of silver layer TV home shopping purchase selection factors on home shopping repurchase intention showed significant differences in the relationship between convenience, shopping mall reputation, price appropriateness, and delivery safety with repurchase intention. The overall vitality of the home shopping industry is declining due to internal and external problems such as disputes with small and medium-sized suppliers, growth of other distribution businesses such as mobile shopping and large discount stores. However, since the TV home shopping industry is mediated by TV, it can promote products to an unspecified number of people at relatively low cost, and it has the characteristic of effectively delivering product information to consumers through entertainment elements. In particular, it has a public interest in that it functions as a distribution channel for SMEs with relatively low distribution capacity.

Venkatesh et al. (2022) suggested a mixed model of consumers' online shopping intention and behavior, which offers a comprehensive account that combines and expands previous online shopping and consumer behavior work and concluded that congruence, one of predictors of online purchasing behavior, shows that consumers obviously have prejudice of the appropriateness of buying products/services online. In addition, gender (women) is relevant to higher risk perceptions and a preference for local shopping and is related to a higher preference for both home shopping and for branded goods.

Kwak et al. (2018) measured the market size of the domestic TV home shopping industry by using quarterly and annual financial statements data of companies in the domestic TV home shopping industry, and to provide basic data of related industry policies and management policies of companies by predicting future market size. By 2020, CJ O Shopping and GS Home Shopping sales will rise moderately, but Hyundai Home Shopping and Woori Home Shopping will continue to grow. As a result, in 2020, Hyundai Home Shopping Co., Ltd. ranked first, and the sales gap between the leading group companies and our home shopping companies also decreased. These results suggest that in the long term, the level of sales of the four major companies converges to a similar level, which will intensify competition among companies in the oligopolistic market. They provided quantitative information on the status of domestic TV home shopping industry and future market size by applying seasonal ARIMA model, unlike qualitative analysis. It was confirmed that the harmonization of management strategies by company is one of the causes of recent low growth, and if this trend continues, the bleeding competition between companies could become serious. Existing policies that focus on maintaining the oligopolistic system are affecting not only the role of entry barriers but also the market performance and management strategies of companies.

3. Data Collection and Statistical Techniques

With the advent of non-face-to-face daily life in the age of 'With Corona', online media activities, new media use, and e-commerce use, which are linked to digital media, are increasing, and various changes are also being confirmed in terms of media holding, media use, and content spending.

The Korea Media Panel Survey was first conducted in Seoul, the metropolitan area and the six metropolitan cities in 2010, and since then it has been expanded to a nationwide survey of 5,109 households and 12,000 households in 2011, and was conducted annually and conducted its twelfth survey in 2022. This survey was conducted by expanding panel households and household members (KMPS11) across the country in the second year (2011), starting with the panel construction in the metropolitan area and the five metropolitan cities in the first year (2010), and the panel supplementation (KMPS19) was conducted in the tenth year (2019).

The 12th year (2021) survey was conducted on a total of 4,537 integrated panel households including 3,510 KMPS11 households and KMPS 191,027 newly constructed in the 10th year (2019) and about 10,800 household members aged 6 years or older in the household. In the case of household surveys, one-on-one interviews were conducted by interviewers. From the 2016 survey, CAPI (Computer-aided Personal Interview) was applied to improve the convenience of the panel's response and data accuracy. In the case of personal surveys in households, personal questionnaires and media diaries were filled out for three days for all household members over 6 years of age.

The survey unit of this survey is households and individuals aged 6 years or older, target population is the total number of household members aged 6 years or older in all households residing in the Republic of Korea at the time of the survey. In consideration of the practical aspects of the survey, the survey population shall be selected as all households in the apartment survey area and the general survey area of the Population and Housing Census except for islands, boarding facilities, special social facilities, tourist hotels and foreign survey areas. The sample design of the original panel of the Korea Media Panel Survey was divided into 28 floors by regional stratification using the division of city and province (16) and eup, myeon, and dong (2) in the province. The floor was divided into two floors according to the ratio of apartment furniture in the area and the ratio of agriculture and forestry fisheries in the area.

In this study, the design weight can be reflected according to the probability of extraction by household in the survey area according to the stratified two-stage probability proportional system extraction method used in the sample design. The purpose of the Korea Media Panel Survey is to investigate the effects of the changing media environment on the media use behavior of households and individuals, to track the mid- to long-term trends by tracking them in households and individuals, and to provide basic data for analyzing differences in media use behavior by region and class.

On the condition that the significance of relationship between factors exists utilizing independence test (Agresti, 2002), this association may be represented visually with correspondence analysis (Greenacre, 1984; Hoffman & Franke, 1986; Clausen, 1988; Benzercri, 1992; Greenacre, 2007; Hair et al., 2007; Brigitte, 2009; Steven, 2009; Doey & Kurta, 2011; Yang, 2013).

4. Research Results and Discussion

Looking at the experience rate of e-commerce using telecom sales, PCs, and mobile phones such as TV home shopping for the past year, 72.4% of respondents have experienced e-commerce. 44.4% of respondents aged 13 years or older were found to acquire information through portal site search in order to obtain relevant information before purchasing goods or services, and 25.6% of them to obtain information through their neighbors.

As a result of examining the experience rate of using e-commerce by type, the experience rate of using online shopping malls was the highest at 86.1%, followed by TV home shopping (45.0%), inter-personal transactions (17.6%), and overseas direct purchase (15.5%). As for the main purchasing medium, smartphone was the highest in all transaction types, and the purchase method was relatively high in purchasing through exclusive app purchase.

As the main payment method, it was found that credit card (safe payment) was used most in all types except inter-personal transactions, but in the transaction between individuals, it was found that the most frequent use was bankless deposit/account transfer (52.1%). As for the frequency of use by transaction type, online shopping malls were found to use the most with 27.56 times per year, followed by TV home shopping (9.86 times per year), inter-individual transactions (6.61 times per year), and overseas direct purchase (5.74 times per year).

4.1. Relationship between Average Monthly Income and Purchasing Media

Purchasing media for TV home shopping are cell phones (53.1%), phone calls (29.6%), TV directly (14.5%), PCs/notebooks (2.3%) and tablet PCs (0.5%). Unusually, those who do not have income purchase more than those whose monthly average income is less than 1 million won (11.5%). This fact is due to the fact that since the mobile phone penetration rate in Korea is 100%, and smartphone users account for 95% of this, accessibility is the easiest among purchasing media. In addition, since the households without income include housewives and children among 4,171 households and 10,154 individuals in the households surveyed, it is expected that the class with relatively very low income purchases more frequently than the class.

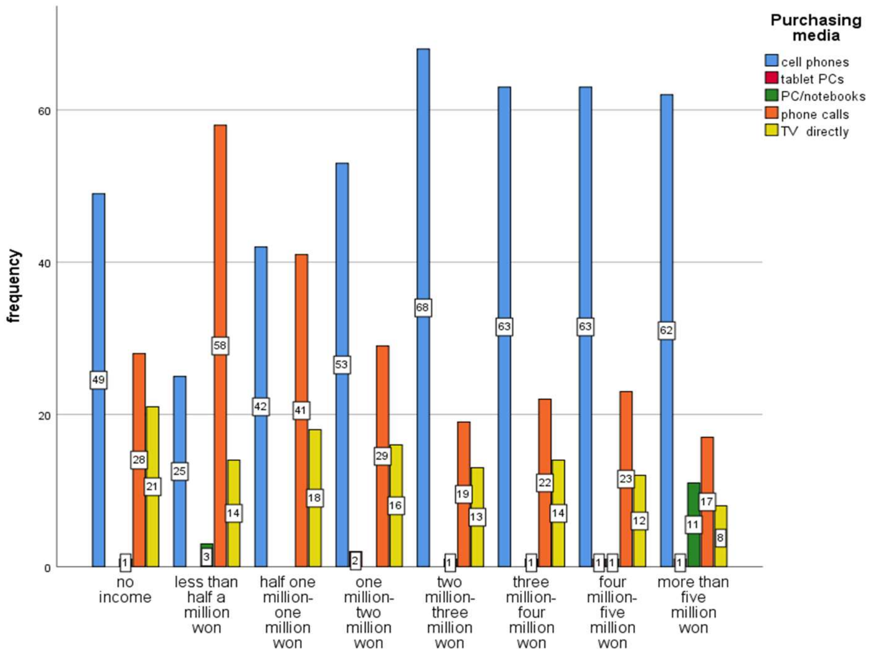

Figure 1: Average Monthly Income by Purchasing Media

In most of the monthly average income categories, cell phone purchases are the most common, especially as monthly average income increases. The three categories with an average monthly income of more than 3 million won have a constant rate of purchasing using cell phones. In particular, those who do not have income have a higher rate of purchasing using cell phones than those with monthly average income of less than 1 million won. Since the mobile phones used by the extremely low-income class are not smartphones but low-priced general mobile phones, it is presumed that they use the phone instead of a mobile phone when purchasing it. Next, the proportion of purchasing by phone calls is the largest, especially in the ultra-low-income class (less than 5 million won) (58.0%). Low-income (monthly average income less than 1 million won) are more likely to purchase home shopping through cell phones and phone calls, especially those with less than 5 million won. Those with no income purchase cell phones (49.5%), phone calls (28.3%), and TV directly (21.2%).

Tablet PCs and PCs/notebooks are insignificant in almost all average monthly income classes, but the high income class (over 5 million won) has a very high percentage of purchases with these media compared to other classes (11.1%). It is judged that the high-income class uses table PCs and PCs/notebooks relatively more frequently than other classes, and the ultra-low-income class uses them relatively less frequently.

When purchasing using tablet PCs, 50% of the purchases are made in the two classes with an average monthly income of 4 million won or more, and in particular, especially half of those purchasing at 1million to 2 million won. This is also due to the reason why tablet PCs are likely to be owned by people with high monthly average income. Except for 5 million won or more (1.4% among all combinations of purchasing media and average monthly income), all average monthly income categories do not purchase PCs/notebooks, and the frequency of purchasing tablet PCs in all categories is very rare.

In the case of application and purchase while watching TV directly, the ultra-high income class (more than 5 million won) accounts for a smaller share than other average monthly income. In particular, the category without income accounts for the largest proportion (18.1%). Among the 40 combinations of purchasing media and average monthly income, several combinations with noticeable frequency are as follows: (2 million - 3 million won, cell phones, 8.5%), (3 million - 4 million won, cell phones, 7.9%), (4 million - 5 million won, cell phones, 7.9%), (over 5 million won, cell phones, 7.8%), etc.

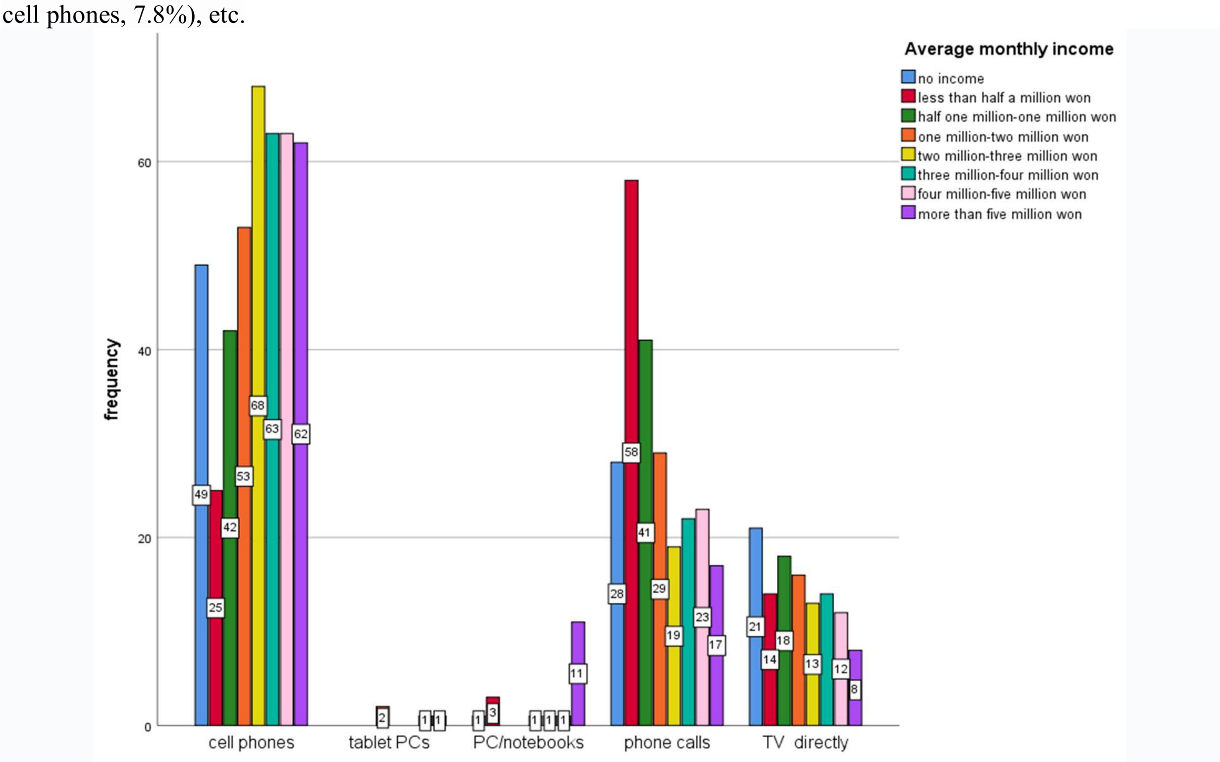

Figure 2: Purchasing Media by Average Monthly Income

A significant relationship between average monthly income and purchasing media (p-value < .001) can be detected using Pearson's test statistic (128.404). This result demonstrates that the null hypothesis that it is not related to purchasing media and monthly average income is rejected at the level of 5%. We can find that 'less than half a million won and '2 million - 5 million' are closely related to 'phone calls' and 'cell phones', respectively, as demonstrated in Figure 3. On the other hand, 'half a million- one million', 'no income' and '1 million- 2 million' are marginally connected to 'TV directly'. A bi-plot on Figure 3 depicts visual relationships of each class between average monthly income and purchasing media by measuring the distance among classes.

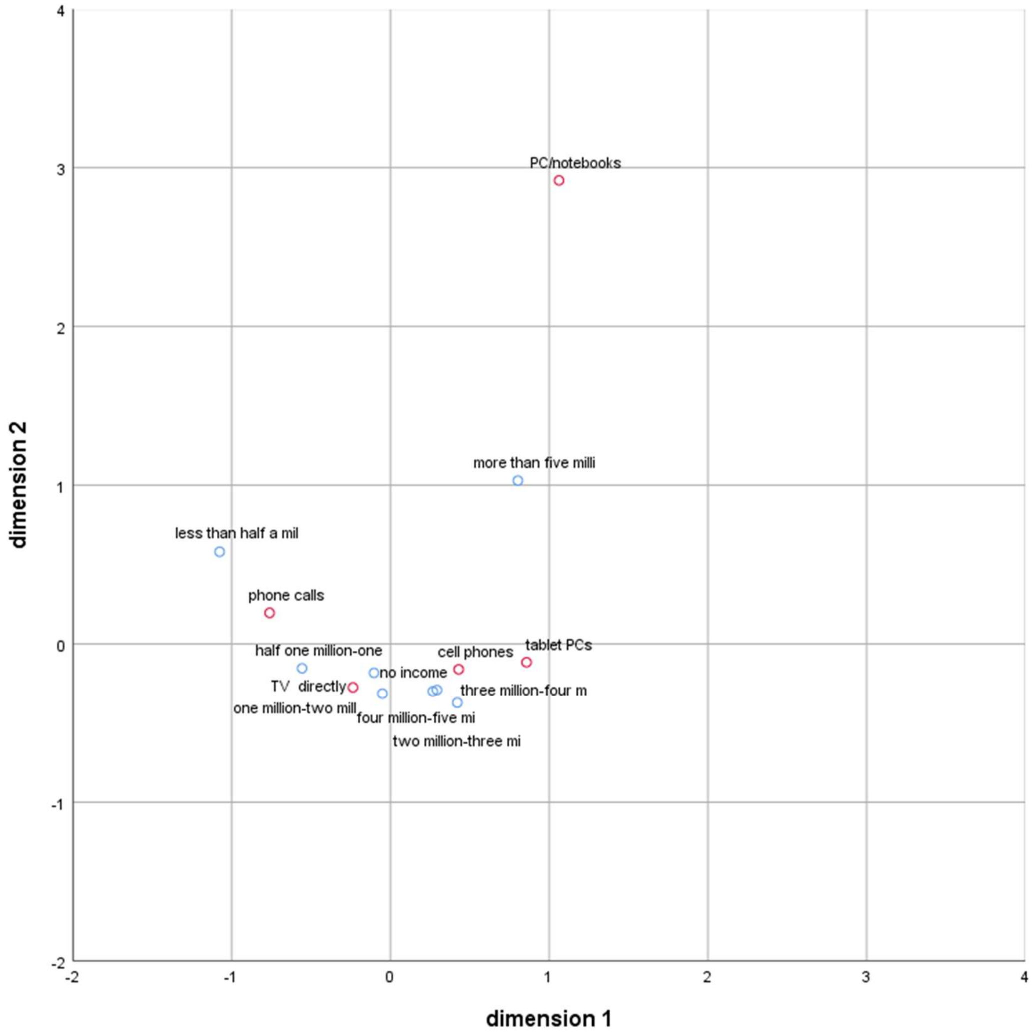

Figure 3: Row and Column Points with Symmetric Normalization

4.2. Association between Age and Purchasing Media

It can be seen that the tendency to purchase home shopping products with cell phones from teenagers to 50s is dominant, and purchases with cell phones tend to decrease as age increases. In particular, those in their 60s and older significantly decrease the frequency of purchases with cell phones, and purchases account for the largest proportion through phone calls (52.0% in their 60s and 51.0% in their 70s and older). This implies that the elderly has difficulty purchasing goods using smartphones compared to other age groups, and prefer phones that are much easier to use than other media.

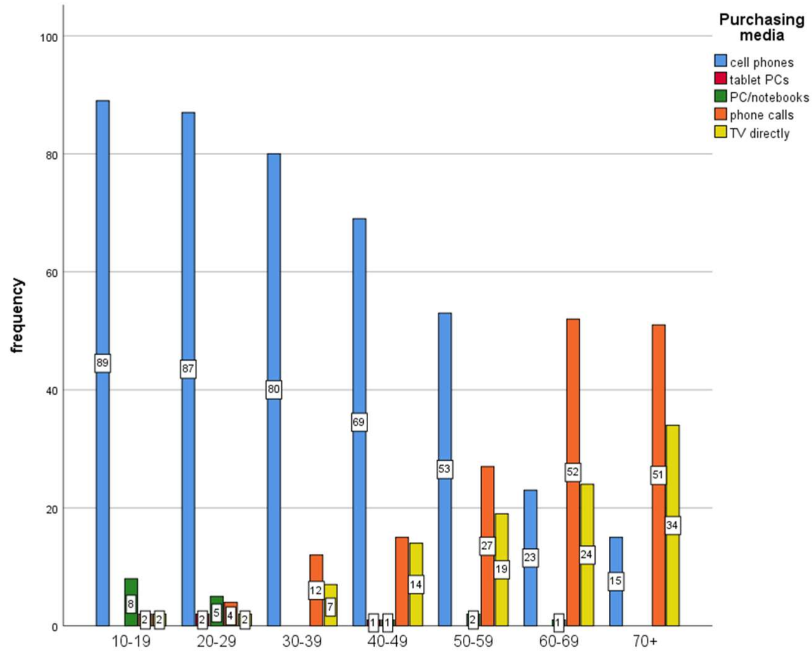

Figure 4: Age by Purchasing Media

For teenagers and 20s, it is absolute to purchase with cell phones (88.1% and 87.0%), followed by a PCs/notebooks and phone calls, while for those in their 30s to 50s, it appears that they purchase phone calls and TV directly after cell phones. Therefore, it can be found that there is a clear difference in the media purchased from the youth to the elderly. In other words, the purchasing medium mainly used by age is reflected as it is. Only teenagers (88.1%) and 20s (87.0%) are prominent in purchasing PCs/notebooks, while 20s (66.7%) and 40s (33.3%) are limited to purchasing table PCs. As age increases, the frequency of phone calls or direct TV orders increases significantly, while the frequency of purchases with cell phones and PCs/notebooks decreases significantly.

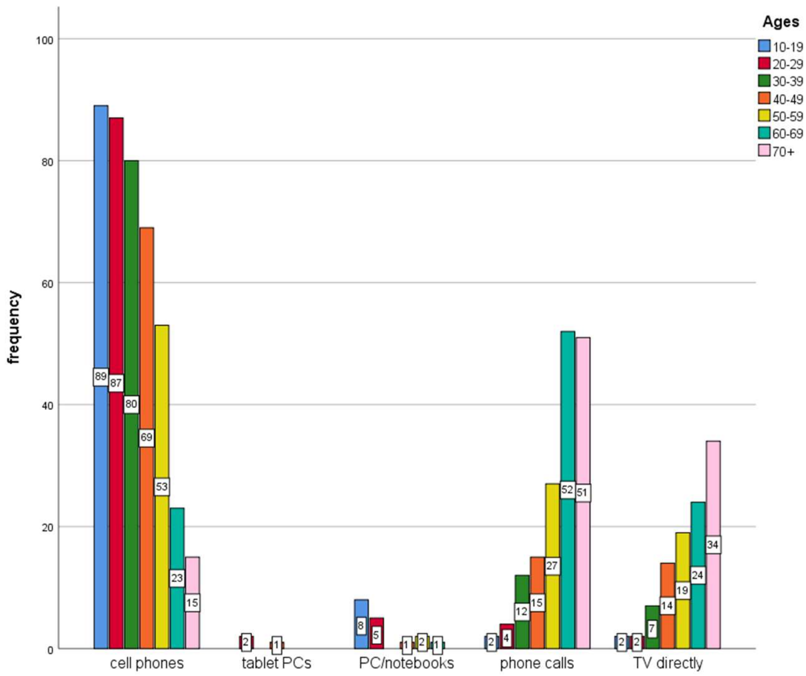

Figure 5: Purchasing Media by Age

Out of the 35 combinations of purchasing media and age, (teens, cell phones, 12.7%) and (20s, cell phones, 12.4%) account for a significant proportion compared to other combinations. Findings of independence test demonstrates a close relationship between age and purchasing media (p-value <.001). More specifically, Figure 6 presents that phone calls are closely and marginally related to 60s and 70s, cell phones are marginally connected to 10s, 20s and 40s. In terms of age, 40s is marginally linked with tablet PCs and cell phones, while 50s is marginally cell phones and TV directly.

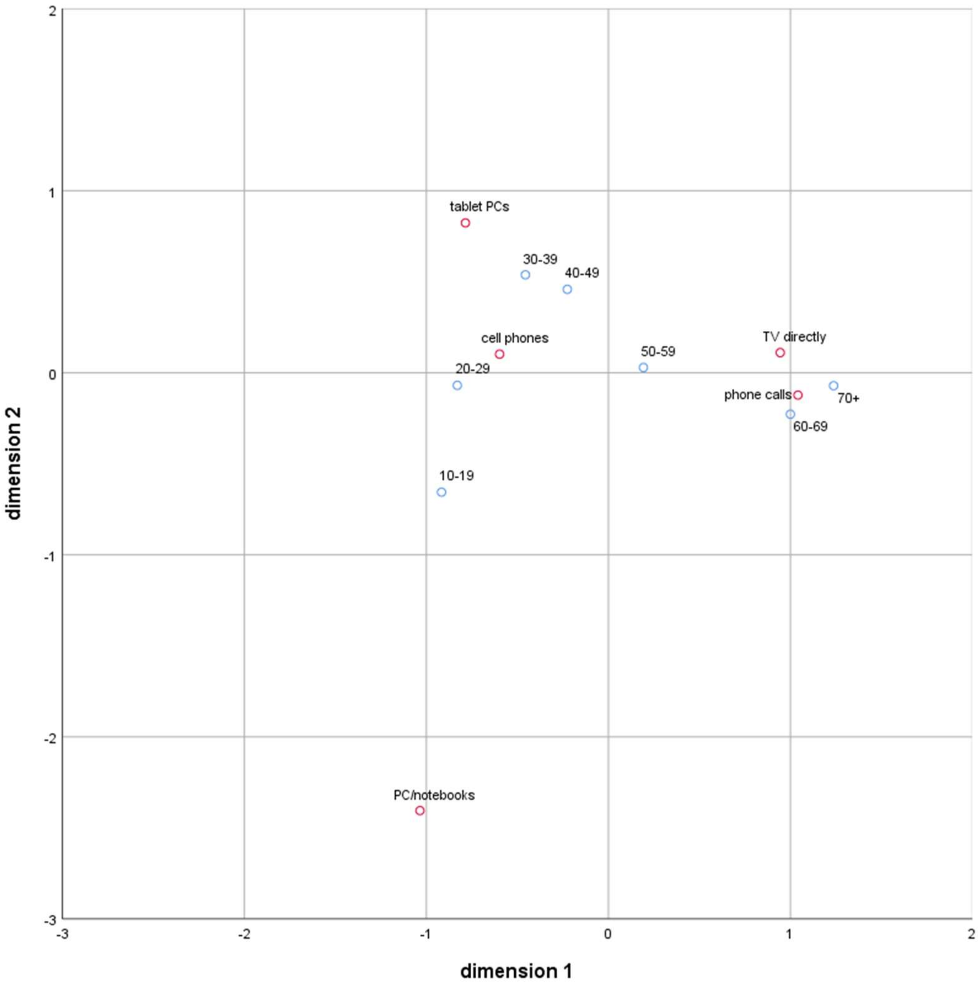

Figure 6: Row and Column Points with Symmetric Normalization

4.3. Association between Occupation and Purchase Media

Home shopping is purchased in all occupations, and the order of frequency of the media is cell phones, phone calls, TV directly, PCs/notebooks and tablet PCs. As an exception, students prefer PC/notebooks after cell phones, while agriculture, forestry and fisheries are followed by phone calls (61.0%) and cell phones (32.0%), which refers to the medium mainly used by students and agricultural, forestry and fisheries. In all occupations, home shopping purchases using cell phones are the most frequent, and this trend is evident in soldiers (100%), professionals (79.0%), students (79.0%), and office workers (74.3%). On the other hand, agriculture, forestry and fisheries (32.0%), simple labor (46.0%), and housewives (46.0%) are relatively less frequently purchased using cell phones than other occupations.

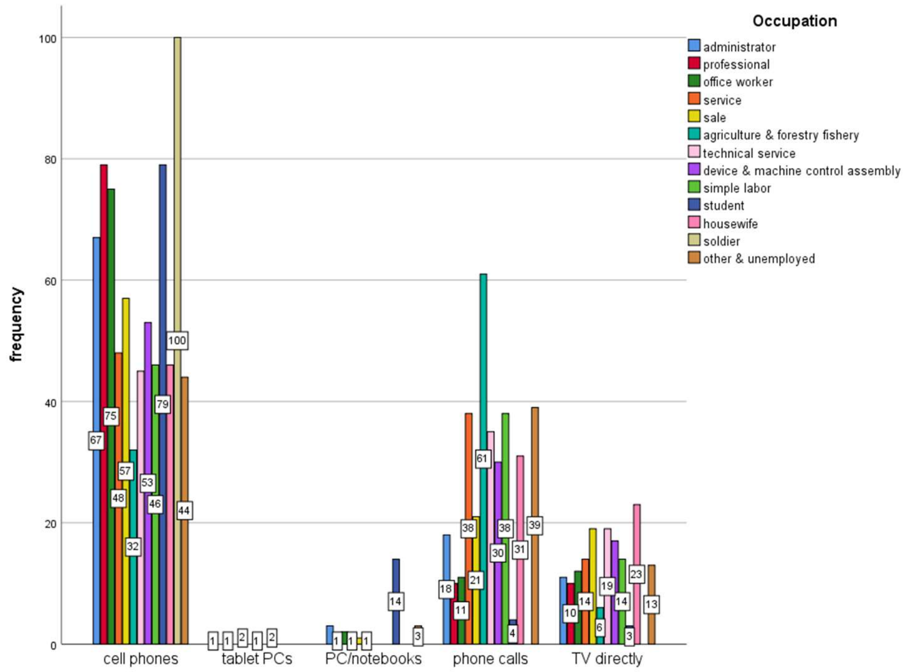

Figure 7: Purchasing Media by Occupation

Among the combinations of purchasing media and occupations, professionals and students using cell phones account for the largest frequency (6.1% and 6.1%), followed by office workers using cell phones (5.8%) and administrator (5.1%). In the case of purchasing over the phone (61.0%), occupations in agriculture, forestry & fisheries account for the largest proportion, whereas in the case of purchasing directly from TV, full-time housewives account for the largest proportion (23.0%). In the case of direct purchase of TV, it appears in the order of housewife (14.3%), sale (11.8%), technical service (11.8%), and device & machine control assembly (10.6%). When purchasing using PCs/notebooks, students account for the largest percentage (53.8%), and the frequency of purchasing with tablet PCs for all remaining occupations is very low.

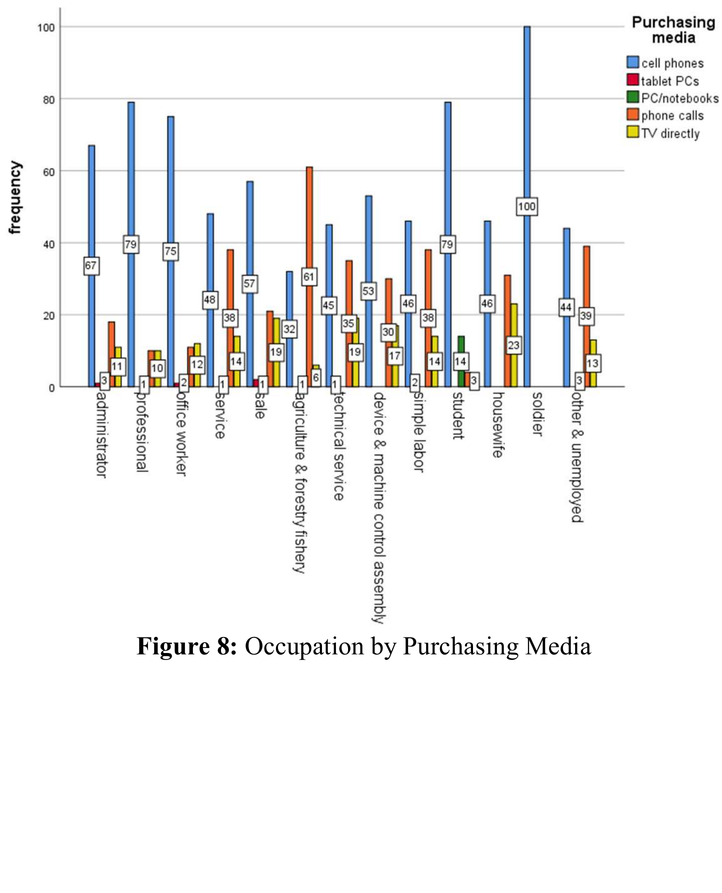

Figure 8: Occupation by Purchasing Media

The corresponding small p value (>. 001) of Pearson's calculated test statistic (352.052) implies that the null hypothesis of 'no relationship between purchasing media and occupation' is rejected at level 5%. As shown in Figure 9, a specific relationship between purchasing media and occupation can be derived as follows. Cell phones are marginally related to professionals, office worker, administrators and solider, phone calls are marginally connected to both agriculture, forestry & fisheries and other & unemployed. On the other hand, students are marginally linked with both cell phones and PCs/notebooks.

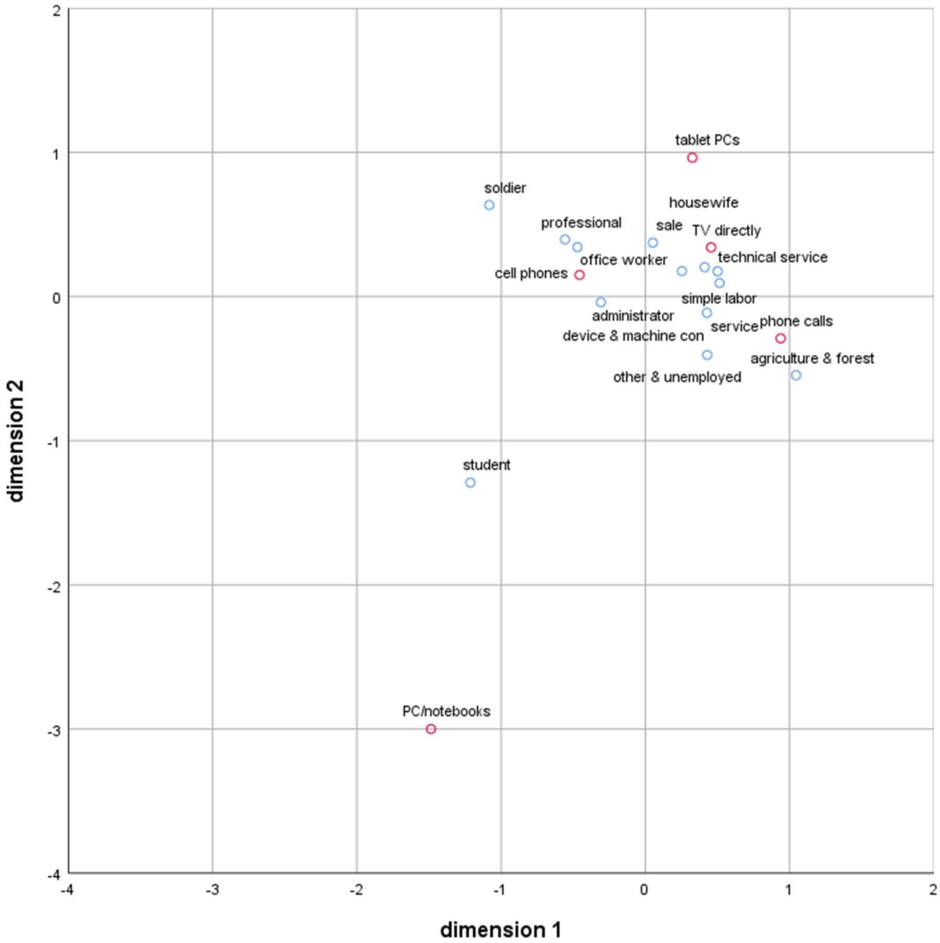

Figure 9: Row and Column Points with Symmetric Normalization

5. Concluding Remarks and Limitations

In general, a model between variables is established from a causal perspective, and this paper's contribution to the theory is to identify the relationship between the variables and specific properties considered using exploratory multivariate statistical techniques before setting this causal model. It will be very meaningful to apply this to purchase media and demographic variables in the home shopping market for the first time. Based on this, a causal model such as a structural equation model can be expanded to analyze and understand a more comprehensive mechanism.

In this work, we examine several relationships between purchasing media and demographic variables by utilizing bar chart, independence test and correspondence analysis. The demographic factors under consideration are average monthly income, age and occupation, and the traits of purchasing media are cell phones, tablet PCs, PCs/notebooks, phone calls and TV directly. As a result, it can be demonstrated that all three demographic variables considered are related to the purchase media of home shopping. To sum it up, 'phone calls' among purchasing media are closely related to the average monthly income of income of less than 500,000 won, the age of 60 or older, and the occupation is closely related to agriculture, forestry & fishing, and other & unemployed. 'Cell phones' are closely associated with 2 million - 5 million won, teenagers, 20s, 40s, professionals, office workers, managers, and soldiers, respectively. 'TV directly' are mainly related to low-income people, 50s, technical service, device & machine control assembly, full-time housewives, and simple labor jobs. And tablet PCs are deeply related to 40s, while PCs/notebooks are to students.

Shoppers are more interested in e-commerce and home shopping during and after the pandemic, and working-level officials want to know how to keep customers in the current domestic home shopping market with various challenges. Recognizing and understanding the specific relationship between demographic variations such as average monthly income, age, and occupation and home shopping purchasing media is a very basic and key factor for practitioners to consider. Therefore, practitioners should consider the subdivided availability of purchasing media and establish demographic marketing promotion and policies to conveniently shop anytime, anywhere for home shopping visitors to select and invest efficient products.

There are two chronic ills of TV home shopping. First, broadcasters are often linked to other home shopping channels at the same time in the morning and evening. It is criticized for lowering the credibility of broadcasting and not revealing sponsorship. There is even a link to insurance, not limited to health. Second, it is often purchased even though it is not necessary because impulsive purchase is triggered from the consumer's point of view, and even if you search on the Internet, the quality is not good or most of them are sold cheaper on the Internet.

The biggest drawback of home shopping is that buyers cannot see what the item really is. At the same time, the disadvantage is that it is impossible to compare price and quality with products of the same type. It is impossible to compare the quality, price, A/S information, etc. of products of various manufacturers in real time. Therefore, if you are thinking of purchasing through home shopping, it is better to buy without expecting quality and price instead of convenience. If you intend to buy it, it is essential to check the product reviews on the Internet for the purchased product. TV home shopping is being used as a major distribution channel for SMEs, and may play a positive role in terms of national economy since it is also highly connected to related industries such as cable TV and courier industry. Therefore, it is necessary to establish a new management strategy and related policies in order to overcome the current stagnation and ensure the continued growth of this industry.

It can also be a good solution to focus on providing differentiated contents compared to competitors based on product sourcing ability and know-how. As part of overcoming the difficulties of home shopping, Hyundai Home Shopping continues to strengthen its sales growth by expanding its sales product group and creating synergy between online and offline, and is also promoting diversification of sales channels by expanding 'e-TV', which sells TV products through the Internet. In addition, one of the breakthroughs would be to improve customer convenience and seek differentiation by introducing product recommendation services, simple login, and simple payment methods to strengthen the mobile shopping sector.

At a time when every media is shifting from TV to smartphones and even shopping habits at marts are shifting to mobile orders and delivery, TV home shopping, which used to dominate the homeroom with new media, is no longer new media. If you want to follow the lifestyle, desire, and nature of the business that you want to meet the needs of viewers, it would be a natural conclusion to develop a new shopping style. It is time to have the wisdom to chase two rabbits in a contradiction that cannot easily leave TV, but can also leave TV lightly at the same time.

There are also some limitations to the growth of the TV business, which is the flagship business, due to the decrease in TV audience ratings among young people. If home shopping companies, which are pushed to growth limits, fail to cut new food and various costs, sluggish performance in the second half of the year is expected. Smooth communication between industries for a realistic transmission fee system considering the reduction of TV sales is also considered a factor to be sought. In addition, differentiation strategy from other media is also an essential factor, focusing on product power through active MD development.

In this work, demographic factors such as average monthly income, age and occupation for detecting relationships with purchasing media are considered. Extending more useful demographics, we can examine relationships with a variety of factors such as gender, academic level, administrative district, housing type, family composition, Number of household members, Relationship with the head of the household and employment status in the future. In terms of the type of shopping, it will also be interesting to study the relationship between demographic variables and purchasing media in overseas direct purchases.

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