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경영학 석사 학위논문

# An Empirical Study on Viewers' IPTV Channel Surfing Behavior

시청자의 IPTV 채널 서핑 행동에 관한 실증 연구

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노찬희

# An Empirical Study on Viewers' IPTV Channel Surfing Behavior

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# Abstract

This research delves into the intricacies of channel surfing behavior within the context of Internet Protocol Television (IPTV) subscribers, aiming to unveil the factors that drive and moderate this behavior. Leveraging an extensive dataset of Korean IPTV viewing behaviors, the study meticulously examines the influence of individual characteristics, channel-related variables, and content genre preferences on viewers' channel surfing patterns.

As the study unfolds, it elucidates the pivotal roles played by individual measures of television "Use" (comprising usage time, average number of channel visits, weekends/weekdays, and viewing days) in shaping channel surfing tendencies. These factors are found to be instrumental in explaining viewers' channel surfing behavior. The study also dissects the impact of prime-time viewing and investigates how viewers' loyalty to particular content genres contributes to their channel surfing behavior.

Furthermore, this study investigates the concept of over-time consistency, shedding light on the stability of key variables. Beyond its empirical findings, the research reveals that past behavioral variables consistently persist over time, aiding in the prediction and explanation of future channel surfing behavior. This insight deepens our understanding of the inherent nature of channel surfing behavior and provides valuable foresight for anticipating future consumer actions.

Additionally, this research offers a valuable perspective on the fields of communication, marketing, and broadcast media. By shedding light on channel surfing behavior and its implications, the study provides insights that are pertinent not only to IPTV service providers but also to TV stations, enabling them to better comprehend channel dynamics and viewer preferences in an ever-evolving media landscape.

**Keyword :** channel surfing behavior, IPTV, content genre loyalty, prime-time frequency, TV viewing behavior, over-time consistency

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# Chapter 1. Introduction

Television stands as an indispensable cornerstone of modern households, serving as a prime source of entertainment and information dissemination. Traditional television, as a non-interactive medium, offers passive viewership through broadcast networks. However, over the past decade, the rapid expansion of high-speed, accessible, and cost-effective broadband has empowered service providers to deliver an abundance of data and diverse viewing options to subscribers, leading to a remarkable surge in the adoption of Internet Protocol Television (IPTV).

To boost consumer adoption of IPTV, service providers are keen on offering an extensive array of content, both in terms of quantity and diversity. Consumers, no longer confined to the regional broadcasts and controlled viewing content of traditional TV, actively participate in the content selection process, relishing a wide spectrum of programming. Undoubtedly, research into IPTV consumer behavior is a thriving domain, encompassing a broad range of topics, from the introduction of diverse recommendation system models to the exploration of user behavioral patterns and the analysis of IPTV user activity data.

On the other hand, the growing volume of available content can potentially trigger channel surfing behavior. Consumers, particularly when navigating the vast possibilities with cumbersome smart TV remotes, may experience diminished interest and information overload, which, in turn, can lead to channel surfing tendencies. However, there has not been sufficient research conducted on channel surfing behavior. Hence, it is imperative to take a multifaceted approach to examine

the factors influencing channel surfing behavior.

Following are the specific research questions this study aims to answer.

- (1) What are the viewing behavior factors that induce or moderate consumers' surfing behavior? (usage time, average number of channel visits, weekends/weekdays, viewing days)
- (2) Does this effect vary depending on the type of content genre loyalty? Specifically, are there differences across the 12 genres—sports, drama, movies, variety shows, religion, kids' programs, hobbies, information, shopping, comprehensive/broadcast channels, paid content, and news?
- (3) Does the broadcast time of a program affect consumers' viewing persistence? Specifically, is there a difference in channel surfing behavior during prime time (8 pm – 10 pm) and non-prime times?
- (4) Does over-time consistency exist among the key variables? Specifically, how well can past variables, including the dependent variable (channel surfing behavior), explain the present state of the significant factors?"

To answer these questions, I use data from a Korean IPTV service provider that contains the viewing history of Korean viewers. This study measures consumers' channel surfing behavior when watching IPTV and analyzes the impact of TV use measures, prime-time frequency, and content genre loyalty on channel surfing behavior to provide deeper insight into IPTV viewing behavior.

## Chapter 2. Literature Review

### 2.1. Channel surfing behavior

Age and gender emerge as significant drivers of channel-changing behavior, as demonstrated in earlier studies (Eastman & Newton, 1995; Greenberg, Heeter, & Sipes, 1988; Copeland & Schweitzer, 1993; Heeter, 1985). Younger viewers tend to exhibit a proclivity for more frequent channel switches, while males are more inclined to change channels than females. These findings underscore the importance of considering age and gender dynamics in the analysis of channel surfing behavior.

Building upon this foundation, recent research by Adeliyi, Singh, and Aroba (2023) sheds light on the complex nature of channel surfing. Their experiment highlights gender, peak hour, age, and genre as the foremost contributors to this behavior, emphasizing the role of these variables in shaping viewers' choices.

Furthermore, Cha, Rodriguez, Crowcroft, Moon, and Amatriain (2008) underscore the contextual factors that influence channel surfing behavior. The arrival rate to the channel surfing state is found to be contingent on genre, time of day, and the popularity of programs and channels. This insight accentuates the multifaceted nature of channel surfing and the role of situational factors in viewers' decisions.

To provide a holistic perspective, Anand and Shachar's (2011) research reveals that viewers who actively engage with related programs exhibit higher levels of



viewing persistence. This underscores the intricate relationship between program participation and channel surfing behavior, emphasizing how content engagement can shape viewers' choices.

## **2.2. Content genre of TV channel**

Highlighting the enduring appeal of specific genre categories and their substantial influence on viewers' choices, Wober and Gunter (1986) emphasize that while preferences for particular shows and individual episodes may exhibit variability, preferences for content genres remain remarkably consistent over time.

The significance of genre as a meaningful and useful marker for viewers is further underscored by Atkin (1985). Notably, disparities among viewers in their perceptions of the instrumental utility of various genres highlight the genre's pivotal role in guiding viewers' preferences and selections. As Webster and Wakshlag (1983) suggest, "program type preference" (i.e., genre) is likely a pivotal factor influencing viewers' choices of specific shows.

Additionally, Rust and Alpert (1984) categorize content genres into five distinct categories, such as comedies and action dramas. Their findings reveal that viewers exhibit diverse preferences across these categories, emphasizing the role of genre in shaping viewers' content preferences.

Furthermore, the existence of loyalty among viewers, as demonstrated by Gollin and Bloom (1985) towards selected programs, and to content genres, as evidenced by Gertner (1985a, 1985b), underscores the enduring and stable nature of genre preferences. This loyalty highlights the continued appeal and influence of specific content genres on viewers' choices, thereby enriching the intricate landscape of television viewership.

### **2.3. Effect of content genre on TV channel surfing behavior**

Numerous studies on traditional TV channel surfing behaviors have identified various contextual and situational factors influencing channel surfing; however, the impact of the content genre has received comparatively less attention, in their investigation into viewers' use of the Remote Control Device (RCD) about program genres, Eastman and Newton (1995) discovered that viewers exhibit varying levels of channel switching depending on the broadcast content. Notably, viewers tend to change channels more frequently during sports programs and less so during paid cable movies. Nevertheless, some viewers show a tendency to change channels regardless of the genre or content provided, highlighting the complex and multifaceted nature of channel surfing behavior.

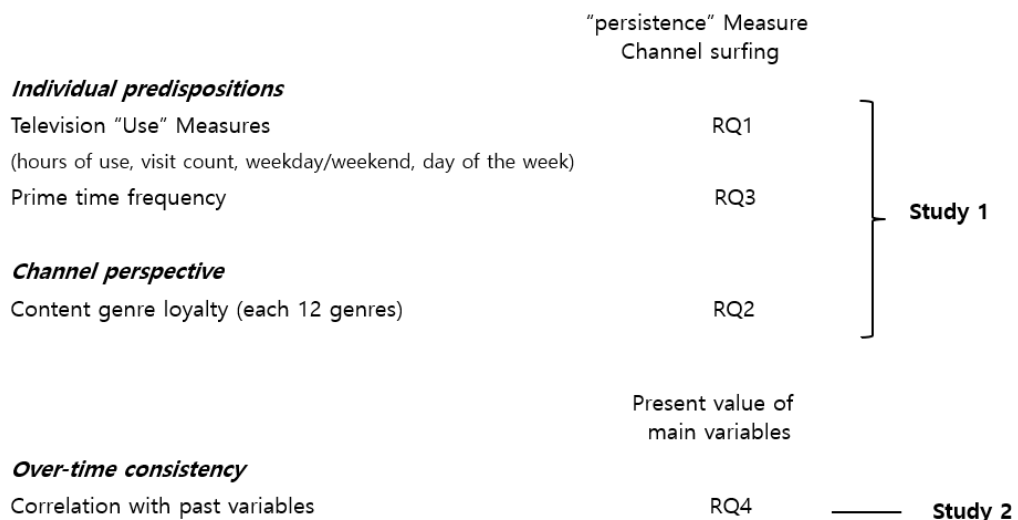
Eastman and Newton's (1995) study, however, does not reflect the significantly changed dynamics of TV viewing following the activation of IPTV. Their research, which examined 15 common genres, did not include newly emerged categories such as religion, kids, hobbies, and shopping channels that cater to diversifying viewer

preferences. IPTV offers a much broader array of program genres than before, underscoring the need to investigate the relationship between various content genres and channel surfing behavior that previous research has not addressed. Therefore, this study aims to focus specifically on the impact of content genre on channel surfing behavior, shedding light on an aspect that has been relatively overlooked.

### Chapter 3. Conceptual Framework

This study constructs a framework to analyze how individual predispositions and channel perspectives impact consumers' viewing persistence (Table 1).

**Table 1. Conceptual Framework**



In Study 1, I investigate the impact of individual measures of television 'Use' and prime-time frequency on channel surfing behavior. Additionally, I explore whether channel surfing behavior varies based on individual loyalty to each content genre. In

Study 2, I examine whether the key variables of the channel surfing behavior mechanism are well explained by past variables.

This paper contributes to the fields of communication, marketing, and broadcast media research from several key perspectives. In the context of IPTV, which offers a variety of channels and programs, consumers often engage in channel surfing behavior due to information overload encountered during the search process. As a result, paying close attention to channel surfing actions becomes crucial. While Eastman and Newton's study (1995) provided initial insights based on in-home observations of 253 adults, this study broadens the scope by analyzing viewing data from 478,530 set-top boxes over six months. By employing regression models not previously considered, to analyze IPTV subscriber behavior, this work extends methodological understandings of channel surfing dynamics.

Understanding consumer IPTV viewing behavior also sheds light on the impact of channel and content genre. Through this research, analyzing the actual viewing behavior of Korean viewers revealed that loyalty to each content genre plays a pivotal role in influencing channel surfing behavior. However, IPTV service providers tend to assess viewer behavior solely based on trends in program viewership. From the perspective of program selection, an increase in viewers' loyalty to specific content genres reduces channel surfing behavior and enhances sustained viewing, thereby addressing the chronic concern of channel bottlenecks faced by IPTV service providers.

# Chapter 4. Study I

## 4.1. Data Description

To test the framework, the current study analyzes Korean IPTV viewing data, including Korean viewers' set-top box ID, channel number, program name, viewing start time, and viewing end time. Data was collected for 6 months from November 1, 2022, to April 30, 2023. Among the 478,530 set-top boxes(651,295,038 observations) in the November data, 1,000 set-top boxes(1,248,526 observations) were randomly selected and used for analysis. Table 2 shows the variables used in the analysis.

The dependent variable, channel surfing, was calculated as the ratio of surfing sessions to the total number of sessions watched per day. According to previous literature, over 40% of IPTV channel switches occurred within 10 seconds of viewing (Adeliyi, Singh, & Aroba, 2023). Upon examining the distribution of the data used in this study, sessions with a duration of 10 seconds or less constituted 68.37% of the total. Therefore, channel surfing was coded as surfing if the net viewing time of a session was less than 10 seconds and as non-surfing if it exceeded 10 seconds.

**Table 2. Variable Operationalizations**

<b>Variable</b>	<b>Operationalization</b>
channel surfing	The ratio of the number of sessions surfed to the total number of sessions watched per day
visit count	Average channel access frequency divided by the total number of unique viewing sessions viewed per day divided by the total number of sessions viewed per day
hours of use	Total daily instant viewing time for each set-top box ID (unit: hour)
weekday/weekend	The dummy variable representing the viewing date as weekend (1) or weekday (0)
day of the week	7 dummy variables from Monday to Sunday
Prime-time frequency	Percentage of prime time(8 pm-10 pm) access sessions out of total viewing sessions (scaling from 0 to 1)
genre loyalty	Percentage of viewing time for each genre out of total viewing time (12 genres in total)

As indicated in Table 3, the "Persistence" measure, indicative of channel surfing, was utilized as the dependent variable. It was calculated as the proportion of viewing sessions with channel surfing over the course of a day, showing an average value of 0.7801 ( $M = 0.5815$ ,  $SD = 0.246$ ).

For the explanatory variables, I utilized visit count related to Television "Use" measures ( $M = 2.694$  times,  $SD = 1.733$ ), hours of use ( $M = 5.188$  hours,  $SD = 6.022$ ), and a dummy variable for weekday/weekend ( $M = 0.2789$ ,  $SD = 0.175$ ). Additionally, I incorporated dummy variables for each day of the week weekend( $M = 0.279$ ,  $SD = 0.175$ ), including Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

The "Prime-time" measure, represented by prime-time frequency ( $M = 0.249$ ,  $SD = 0.276$ ), was computed as the proportion of viewing sessions during the peak hours, from 8 PM to 10 PM.

Genre loyalty was calculated for each of the 12 genres by determining the proportion of daily total viewing sessions attributed to sessions within that genre. The 12 genres encompass all channels offered by the IPTV service provider and include sports, drama, movies, variety shows, religion, kids' programs, hobbies, information, shopping, comprehensive/broadcast channels, paid content, and news.

**Table 3. Descriptive Statistics**

<b>Variables</b>	<b>Characteristics</b>	<b>Min</b>	<b>Max</b>	<b>M</b>	<b>SD</b>
channel surfing (DV)	Percentage of daily channel surfing sessions	0.000	1.000	0.582	0.246
visit count	Average number of daily channel visits	1.000	56.000	2.707	1.733
hours of use	Total daily IPTV viewing time	0.000	90.020	5.188	6.022
weekday/weekend	Dummy variable indicating viewing date as weekday (0) or weekend (1)	0.000	1.000	0.279	0.175
day of the week	Expressing viewing days as dummy variables for each day of the week	0.000	1.000	0.143	0.449
Prime-time frequency	Daily Prime Time (8 pm-10 pm) Viewing Rate	0.000	0.992	0.249	0.276
genre1 loyalty	Loyalty to the sports genre	0.000	1.000	0.034	0.063
genre2 loyalty	Loyalty to the drama genre	0.000	1.000	0.093	0.142

genre3 loyalty	Loyalty to a movie genre	0.000	1.000	0.077	0.101
genre4 loyalty	Loyalty to the entertainment genre	0.000	1.000	0.098	0.128
genre5 loyalty	Loyalty to the Religious Genre	0.000	1.000	0.004	0.022
genre6 loyalty	Loyalty to the kid's genre	0.000	1.000	0.033	0.080
genre7 loyalty	Loyalty to a hobby genre	0.000	1.000	0.164	0.190
genre8 loyalty	Loyalty to information genres	0.000	1.000	0.167	0.189
genre9 loyalty	Loyalty to shopping genres	0.000	1.000	0.026	0.097
genre10 loyalty	Loyalty to the terrestrial/comprehensive programming channel genre	0.000	1.000	0.298	0.219
genre11 loyalty	Loyalty to paid program genres	0.000	1.000	0.001	0.015
genre12 loyalty	Loyalty to news genres	0.000	1.000	0.004	0.043

## 4.2. Model Description

This study introduces a two-way fixed effect regression model, capturing the direct effects of explanatory variables (hours of use, visit count, weekday/weekend, day of the week, prime-time frequency, and genre loyalty for each of the 12 genres) on channel surfing behavior. Dummy variables for each day of the week are included in the model to control for the specific effects of individual days. Additionally, fixed effects were incorporated for individuals and dates in the regression analysis, accounting for individual-specific and date-specific influences on the observed outcomes.



The model equation is as follows:

### ***Two-way Fixed Effect Regression Model***

$$\begin{aligned} Channel\_surfing_{it} = & \alpha_i + \gamma_t + \beta_{visit\_count} \cdot Visit\_count_{it} \\ & + \beta_{hours\_of\_use} \cdot Hours\_of\_use_{it} \\ & + \beta_{prime\_frequency} \cdot Prime\_frequency_{it} \\ & + \beta_{genre1\_loyalty} \cdot Genre1\_loyalty_{it} \\ & + \dots + \beta_{genre12\_loyalty} \cdot Genre12\_loyalty_{it} \\ & + \beta_{weekday\_weekend} \cdot X_{weekday\_weekend,it} + \varepsilon_{it} \end{aligned}$$

(for  $i=1,2,\dots,1000$  and  $t=1,2,\dots,30$ ,  $\alpha_i$  and  $\gamma_t$  are unit and time fixed effects)

## **Chapter 5. Study II**

### **5.1. Data Description**

To investigate the over-time consistency of key variables, I utilized Korean IPTV viewing data, comprising the set-top box ID, channel number, program name, viewing start time, and viewing end time for Korean viewers. Following the methodology of Study 1, a random sample of 1000 set-top boxes was selected, and the viewing records for a total of 61 days in November and December were analyzed (obs=2,187,950).

**Table 4. Descriptive Statistics**

<b>Variables</b>	<b>Characteristics</b>	<b>Min</b>	<b>Max</b>	<b>M</b>	<b>SD</b>
channel surfing (DV)	Monthly average channel surfing session ratio,	0.000	1.000	0.582	0.246
hours of use	Monthly average IPTV viewing time	0.000	90.020	5.188	6.022
weekday frequency	Monthly average weekday login frequency	0.000	1.000	0.279	0.175
weekend frequency	Monthly average weekend login frequency	0.000	1.000	0.143	0.449
Prime-time frequency	Monthly average prime time (8 pm-10 pm) viewing ratio	0.000	0.992	0.249	0.276
genre1 loyalty	Loyalty to the sports genre	0.000	1.000	0.034	0.063
genre2 loyalty	Loyalty to the drama genre	0.000	1.000	0.093	0.142
genre3 loyalty	Loyalty to a movie genre	0.000	1.000	0.077	0.101
genre4 loyalty	Loyalty to the entertainment genre	0.000	1.000	0.098	0.128
genre5 loyalty	Loyalty to the Religious Genre	0.000	1.000	0.004	0.022
genre6 loyalty	Loyalty to the kid's genre	0.000	1.000	0.033	0.080
genre7 loyalty	Loyalty to a hobby genre	0.000	1.000	0.164	0.190
genre8 loyalty	Loyalty to information genres	0.000	1.000	0.167	0.189
genre9 loyalty	Loyalty to shopping genres	0.000	1.000	0.026	0.097
genre10 loyalty	Loyalty to the terrestrial/comprehensive programming channel genre	0.000	1.000	0.298	0.219
genre11 loyalty	Loyalty to paid program genres	0.000	1.000	0.001	0.015

genre12 loyalty	Loyalty to news genres	0.000	1.000	0.004	0.043
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## 5.2. Model Description

This study employs a regression analysis model to capture the over-time consistency of key variables. This model illustrates how the dependent variable, channel surfing, and explanatory variables (Primetime frequency, Television 'Use' Measures, Content genre loyalty) are well explained by past variables, showcasing the temporal stability of these factors over time.

The model equations are as follows:

### ***Regression Model — Channel Surfing***

$$\text{Channel surfing}_{12} = \beta_0 + \beta_1 \cdot \text{Channel surfing}_{11} + \varepsilon$$

### ***Regression Model — Primetime frequency***

$$\text{Primetime frequency}_{12} = \beta_0 + \beta_1 \cdot \text{Primetime frequency}_{11} + \varepsilon$$

### ***Regression Model — Television “Use” Measures***

$$\text{Weekend frequency}_{12} = \beta_0 + \beta_1 \cdot \text{Weekend frequency}_{11} + \varepsilon$$

$$\text{Weekday frequency}_{12} = \beta_0 + \beta_1 \cdot \text{Weekday frequency}_{11} + \varepsilon$$

$$\text{Hours of use}_{12} = \beta_0 + \beta_1 \cdot \text{Hours of use}_{11} + \varepsilon$$

### ***Regression Model — Content genre loyalty***

$$\text{Genre loyalty}_{12} = \beta_0 + \beta_1 \cdot \text{Genre loyalty}_{11} + \varepsilon$$

# Chapter 6. Results

## 6.1. Study I

Table 5-1 presents the coefficients of the “Individual Predisposition” variables estimated from the two-way fixed effect regression model. These results provide insights into viewing behavior factors that either induce or mitigate consumer channel surfing behavior. The variables 'visit count' and 'weekday/weekend' exhibit a positive impact on channel surfing behavior. An increase in the number of visits to each channel correlates with an increase in channel surfing behavior, and there is a higher occurrence of channel surfing during weekdays compared to weekends.

On the contrary, the variables 'hours of use,' 'Monday,' 'Wednesday,' and 'Thursday' exert a negative influence on channel surfing behavior. This implies that as viewing time increases, channel surfing behavior decreases. Additionally, viewing behavior varies by day, particularly with less channel surfing observed on Mondays, Wednesdays, and Thursdays.

As the login rate during prime time increases, emphasizing channel surfing behavior, there is a decrease in sustained viewing behavior. Given that popular programs are broadcast across all channels during prime time, channel surfing behavior tends to escalate.

These findings contribute to understanding the nuanced factors shaping consumer channel surfing behavior.

**Table 5-1. two-way fixed effect regression model results**

<b>Individual Predispositions</b>	<b>The Impact on Channel Surfing</b>
Visit count	0.0085***
Hours of use	-0.0056***
Weekday/weekend	0.0159**
Monday	-0.0639***
Tuesday	-0.0276
Wednesday	-0.0159**
Thursday	-0.017**
Friday	-0.0101
Saturday	0.0075
Prime-time frequency	0.0345***

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

Table 5-2 presents the coefficients of “Channel Perspective” variables estimated from the same regression model. Channel surfing behavior manifests based on the types of content genre loyalty, proving the significance of content genre loyalty as a crucial variable in explaining channel persistence behavior. For genres such as sports, drama, movies, variety shows, and religious content, channel surfing behavior significantly increases as content genre loyalty rises. Conversely, for kids' programs, information, and comprehensive/broadcast channels, channel surfing behavior shows relatively smaller increases with higher content genre loyalty. The expected underlying mechanisms for these effects include the following: for kids' programs, hobbies, information, shopping, and comprehensive/broadcast channels, 1) higher immersion in media usage occurs as the genre's viewing ratio increases (Wang, Zeng, Cui, 2022), and 2) reduced channel surfing behavior is attributed to increased psychological engagement and positive emotions (M. Perse, 1998).

**Table 5-2. two-way fixed effect regression model results**

<b>Channel Perspective</b>	<b>The Impact on Channel Surfing</b>
Sports genre loyalty	0.6163***
Drama genre loyalty	0.4908***
Movie genre loyalty	0.4905***
Entertainment genre loyalty	0.4548***
Religion genre loyalty	0.6772***
Kids genre loyalty	0.3698***
Hobby genre loyalty	0.3231***
Information genre loyalty	0.165
Shopping genre loyalty	0.078
General programming genre loyalty	0.337***
Paid-content genre loyalty	0.67151***
News genre loyalty	0(omitted)

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

## **6.2. Study II**

Table 6-1 displays the estimated coefficients from the regression analysis for assessing the over-time consistency of channel surfing. This model indicates a positive relationship between channel surfing in November and channel surfing in December. The significant consistency between channel surfing behaviors in November and December suggests the presence of over-time consistency in channel surfing behavior.

**Table 6-1. Over-time Consistency Coefficients(Channel Surfing)**

$\beta_0$	0.1265***
$\beta_1$	0.7902***
Adjusted $R^2$	0.6670***

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

Table 6-2 presents the estimated coefficients from the regression analysis for assessing the over-time consistency of prime-time frequency. This model reveals a positive relationship between prime-time frequency in November and prime-time frequency in December. The considerable consistency between prime-time frequency in November and December implies the presence of over-time consistency in prime-time frequency.

**Table 6-2. Over-time Consistency Coefficients(Primetime Frequency)**

$\beta_0$	0.0571***
$\beta_1$	0.7232***
Adjusted $R^2$	0.5800***

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

Table 6-3 shows the estimated coefficients from the regression analysis for assessing the over-time consistency of television "use" measures. This model indicates a high consistency in weekend frequency, weekday frequency, and hours of use between November and December. This proves the existence of over-time consistency in individual television "use" measures.

**Table 6-3. Over-time Consistency Coefficients(Television “Use” Measures)**

<i>weekend frequency</i>	
$\beta_0$	0.3694 ***
$\beta_1$	0.5927 ***
Adjusted $R^2$	0.4280***
<i>weekday frequency</i>	
$\beta_0$	0.2336***
$\beta_1$	0.7277 ***
Adjusted $R^2$	0.6120***
<i>hours of use</i>	
$\beta_0$	1.2085*** (unit: hours)
$\beta_1$	0.7878 ***
Adjusted $R^2$	0.6850***

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

Table 6-4 illustrates the estimated coefficients from the regression analysis for assessing the over-time consistency of the 12 content genre loyalties. Most content genres exhibit high consistency between November and December, especially in shopping, drama, and news genres, where viewers' loyalty is maintained at a very high level. This provides insights into how viewers engage with different genres and the extent to which their engagement is sustained over the long term. However, genres such as religion and paid content show high consistency but low explanatory power, attributed to their lower popularity and fewer observations in the dataset.



**Table 6-4. Over-time Consistency Coefficients(Content genre loyalty)**

genre	$\beta_0$	$\beta_1$	Adjusted $R^2$
sports	0.0087***	0.7282***	0.526***
drama	0.0144 ***	0.7925***	0.753***
movie	0.0194***	0.6935***	0.529***
entertainment	0.0214***	0.7841***	0.672***
religion	0.0005***	0.8692***	0.374***
kids	0.0084***	0.7774***	0.555***
hobby	0.0441***	0.7668***	0.629***
information	0.026***	0.7605***	0.664***
shopping	0.002***	0.9124***	0.835***
general programming	0.0744***	0.768***	0.687***
paid contents	0.0114***	0.7056***	0.027***
news	0	1.027***	0.831***

(\*p<0.1; \*\*p<0.05; \*\*\*p<0.01)

## Chapter 7. Discussion

### 7.1. Implications

In this empirical research, I elucidated the underlying mechanisms of IPTV viewers' channel surfing behavior. The empirical findings of this study carry several significant implications for the understanding of consumer behavior in the realm of Internet Protocol Television (IPTV).

Moreover, the insights gained from the study contribute to enhancing the overall consumer experience in the IPTV landscape. Understanding the factors that induce or mitigate channel surfing behavior allows service providers to fine-tune their content delivery strategies. By aligning content with viewer preferences and refining recommendations, IPTV providers can elevate user satisfaction and engagement.

Furthermore, the study's exploration of content genre loyalty sheds light on the nuanced relationships between specific genres and channel surfing behavior. This understanding can guide content strategy optimization, enabling providers to focus on genres where loyalty positively influences viewer retention. Conversely, genres with lower loyalty may require targeted interventions to improve engagement.

The study's examination of prime-time and non-prime-time viewing behaviors offers practical implications for programming decisions. Acknowledging the influence of prime-time frequency on channel surfing behavior emphasizes the importance of strategically managing programming during peak viewing hours. Providers can leverage this insight to structure prime-time content that minimizes channel surfing tendencies and encourages continuous viewing.

Additionally, the identification of over-time consistency in key variables provides a foundation for strategic planning. Recognizing the stability of certain behaviors over time allows providers to make informed decisions based on historical data. This knowledge can aid in predicting and understanding consumer behavior, contributing to more effective long-term planning and decision-making.

## **7.2. Limitations**

Despite the valuable insights gained from this empirical study, it is essential to acknowledge certain limitations that may impact the generalizability of the findings. The study's focus on a specific Korean IPTV service provider and its audience may limit the generalizability of findings to other cultural or regional contexts. Consumer behaviors can be influenced by cultural nuances and market dynamics, making it crucial to interpret the results within the context of the studied population.

While the study identifies consistent patterns, some variables may exhibit high consistency but low explanatory power. For instance, genres like religion and paid content, although showing overtime consistency, may have limited impact due to their lower popularity. Providers should consider these nuances when interpreting the relevance of certain variables.

The rapid evolution of technology in the IPTV landscape may introduce new variables or alter the significance of existing ones. The study's reliance on data up to a certain point may not capture the potential impact of emerging technologies or changing viewer habits.

In conclusion, this empirical study significantly contributes to the understanding of IPTV consumer behavior, providing actionable insights for service providers. However, recognizing the study's limitations is crucial for a nuanced interpretation of the findings and for guiding future research directions in this dynamic and evolving field.

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# 국문 초록

이 연구에서는 IPTV(인터넷 프로토콜 텔레비전) 가입자의 맥락에서 채널 서핑 행동의 복잡성을 조사하고 이러한 행동을 유도하고 조정하는 요인을 밝히는 것을 목표로 합니다. 본 연구에서는 광범위한 한국 IPTV 시청 행태 데이터를 활용하여 개인 특성, 채널 관련 변수, 콘텐츠 장르 선호도가 시청자의 채널 서핑 패턴에 미치는 영향을 면밀히 조사했습니다.

연구가 진행됨에 따라 채널 서핑 경향을 형성하는 데 있어서 텔레비전 "사용량"(사용 시간, 평균 채널 방문 횟수, 주말/주중 및 시청 요일 포함)의 개별 측정이 수행하는 중추적인 역할을 밝혀냅니다. 이러한 요소는 시청자의 채널 서핑 메커니즘을 설명하는 데 중요한 역할을 하는 것으로 나타났습니다. 또, 황금 시간대 시청 여부와 콘텐츠 장르 충성도의 영향을 분석하여 소비자의 시청 지속행동을 설명하는 프레임워크를 구축하였습니다.

또한, 본 연구에서는 주요 행동 변수들이 시간의 흐름에 따라 보이는 일관성을 조사하여 시청 행동의 지속성을 밝힙니다. 실증적 발견 외에도, 연구에서는 과거의 행동 변수가 시간이 지나도 일관된 경향을 보여 미래의 채널 서핑 행동을 예측하고 설명하는 데 도움이 된다는 사실을 밝혔습니다. 이러한 통찰력은 채널 서핑 행동의 본질적인 특성에 대한 이해를 심화시키고 미래 소비자 행동을 예측하는 데 귀중한 통찰력을 제공합니다.

마지막으로, 이 연구는 커뮤니케이션, 마케팅, 방송 미디어 분야에 대한 귀중한 관점을 제공합니다. 채널 서핑 행동과 그 의미를 조명함으로써 이 연구는 IPTV 서비스 제공업체 뿐만 아니라 TV 방송국에도 관련된 통찰력을 제공하여 끊임없이 진화하는 미디어 환경에서 채널 역학과 시청자 선호도를 더 잘 이해할 수 있도록 해줍니다.

**Keyword** : 채널 서핑 행동, IPTV, 콘텐츠 장르 충성도, 황금 시간대 접속빈도, TV 시청행동, 일관성

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