
Original Article

A new approach to target segmentation: Media-usage segmentation in the multi-media environment

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ABSTRACT This study attempts to develop new consumer segmentations based on consumer media habits in the multi-media environment. Three media-usage clusters are identified: print-oriented information/surveillance users; mediocre passive users; and sensual video-audio fun-seekers. Each cluster showed distinct patterns in terms of media-use time and motivation. The sensual video-audio fun-seekers are most likely to be simultaneous media users and opinion leaders, showed the most favorable attitudes toward advertising in general, and displayed the highest likelihood of interpersonal social interactions. Implications for media and advertising strategies are provided.

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Keywords: media usage; media planning; target segmentation; cluster; simultaneous media use; multi-media environment

INTRODUCTION

Selecting the right media has never been as much of a 'hot potato' for advertising practitioners as it is now. This fact stems both from an unprecedented proliferation of media platforms and the highly fragmented media audience.¹ As a result of the variety of media options, the

media landscape has drastically changed and traditional media companies have lost significant portions of their audience shares. For instance, networks have lost much of their audience share, which declined from 92 per cent in 1978 to 48.5 per cent in 2003.² On the other hand, consumers are enjoying an ever-increasing number of media options, from traditional mass media to customized individual media such as interactive TV, User Created Content (UCC) Web sites, blogs, satellite radio, Personal Video Recorder (PVR) and podcasts. These phenomena

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explain why marketers have increasingly been expressing skepticism about traditional media and looking for alternative channels through which to communicate with consumers. However, as Cannon³ pointed out, new media platforms emerge faster than audience measures of new media can be developed. Thus, both advertisers and media planners are facing unprecedented challenges when making media decisions in the multi-media environment. Moreover, the popularization of integrated marketing communications has forced media planners to explore ways to integrate all different types of media.⁴ Nevertheless, a traditional approach based on demographic information, called the advertising distribution model, is still relied upon considerably to understand new media audiences. This conventional approach can hardly achieve its goal in the era of increasingly fragmented media, which is represented by the prevalence of simultaneous media usage (SMU).⁵ In fact, early research in the marketing field revealed that demographic variables poorly predict consumer behaviors, and are not appropriate bases for segmentation strategies.⁶

Accordingly, it is imperative that we understand advertising media audiences in the context of the multi-media environment. Most of the research on media usage has been done in connection with three areas: usage and gratification studies, taxonomical studies and media-market matching studies. There is no doubt that these studies have provided a decent base for understanding how media work. On the other hand, it is also true that they pose a limitation to understanding contemporary consumers in the multi-media environment. This exploratory study attempts to segment modern consumers based on their media usage in hopes that the segmentation may facilitate the media decision process for advertisers.⁷ Also, it profiles each segment by using media and advertising variables such as media-use time, SMU, and attitudes toward advertising in general. In order to ensure criterion validity, the study validates the clustered segments by using the media engagement/dependency scale. This article further discusses the practical

application of the identified media usage segmentation in developing media and advertising tactics in the contemporary media marketplace. Limitations and implications for academics and advertising practitioners are provided.

LITERATURE REVIEW

As Cannon³ pointed out, inter-media comparisons have become more important as the media environment keeps evolving. Traditional media have evolved from mass media to narrow media, providing more target-specified media formats and contents. For instance, the average TV household in 2004 received 100 different channels, compared with 27 channels in 1994.¹ Spurred by the emergence of the Internet and wireless media, the media landscape is rapidly changing and hard to predict. Along with changes in the media environment, it is evident that advertisers have shifted their budget from mass media to narrowly targeted media. McDonald's, for example, spent a third of its advertising budget on television in 2004, compared with two-thirds of its budget 5 years ago. Facing this changing media landscape, advertisers have entered a challenging time for defining their target audiences in the highly fragmented media marketplace. Identifying a target audience correctly is even harder because audiences not only use a variety of media, but also use them simultaneously.⁵ Thus, it has become extremely difficult for marketers to choose the right media for the right audience at the right time by using the traditional demographic-based advertising distribution model. Consequently, development of new approaches to understand target audiences is necessary, and the current study would be a stepping stone to identifying target segments based on media usage patterns. This approach may, as Cannon and Willams⁷ suggested, simplify the media decision process and contribute to a better understanding of contemporary media users.

Media usage

Research on consumer usage of a medium proliferates when the medium becomes prominent in the market. For instance, studies on TV users were very common in the 1970s and the early

1980s. On the other hand, studies on Internet users are a more recent phenomenon. Most of the studies on media usage fall into one of three areas: uses and gratification studies, taxonomical studies and media-market matching studies.

Uses and gratification studies have been done by many researchers across different disciplines, including advertising. In the advertising field, this category of study has sought to understand the motivations and usage patterns underlying media consumption for various media, such as television,⁸ newspaper⁹ and the Internet.¹⁰ This, in turn, provides qualitative insights into how advertisers might use these media more effectively. With the growth of the Internet, many researchers have recently attempted to understand Internet users in terms of their uses and gratifications.¹⁰⁻¹³ Specifically, Ko *et al*¹⁰ attempted to explore Internet users' gratification levels and the ways in which these individuals used the Internet. They did so by profiling web users based on their motivations for using the Internet. Also, research on the viewing-value relationship may be included in the category of gratification study because viewing-value studies seek to understand the kind of people who use various media and why they do so. Schiffman *et al*¹⁴ attempted to explain the relationship between values and Internet use, suggesting that web users who hold certain values favor certain types of Internet activities. In an attempt to understand the effects of personal value on TV-viewing behavior, McCarty and Shrum¹⁵ suggested that even though TV viewing patterns can be explained by third variable effects, such as demographics, some viewing patterns (for example, news viewing) can be predicted by personal values. There have also been attempts to explain the relationship between media usage and other variables, such as consumers' innovativeness¹⁶ and opinion leadership.¹⁷ As new media keep emerging, profiling media consumers based on their motivations and underlying media consumptions will be more critical than ever.

Taxonomical studies attempted to identify groups of media with similar types of users and user motivations. In the early years of

taxonomical research, many researchers attempted to refine the definition of media/vehicle classes, so that planners could allocate their budgets based on qualitative considerations before evaluating the cost effectiveness of specific media vehicles.¹⁸⁻²¹ In addition, as Baron²² suggested, taxonomical studies may create media prototypes, in which the characteristics of a 'measured medium' might be used to estimate the audience characteristics of an 'unmeasured medium' that falls into the same basic category. Refining definitions of media classes and creating media prototypes would facilitate our understanding of the extremely diversified contemporary media market places.

Another category for media-usage studies is the media-market matching category suggested by Cannon and Seamons.²³ At the simplest level, this involves matching media vehicles to product users, either using single-source data or seeking to synthesize single-source data to complete the analysis. These studies might be used to identify audience characteristics that correspond with those of the target market. In the early years, Reynolds *et al*²⁴ studied media habits of in-home buyers in an attempt to provide insights into the nature of the market. Katz²⁵ reported light TV viewers' program preferences in order to increase accessibility to the viewers. On the other hand, Becker and Conner²⁶ attempted to explore the values that heavy users of mass media hold. Other researchers have examined characteristics and media usage patterns of various target groups, such as mobility-disabled consumers,²⁷ senior citizens,²⁸ green consumers²⁹ and Generation X consumers.³⁰ In addition, Internet users have recently been major subjects of media-market matching studies.^{16,31,32} Media-market matching studies share common interests in that they have attempted to match audiences' characteristics to implications for advertising strategies, including media placement and message strategy.²⁷ This study could be applied in the context of a multi-media environment, by identifying media clusters, or systems, and matching them to corresponding target market constructs.

In summary, several approaches have been taken to study media usage and understand media

users. Our approach differs from past research in several ways. First, it accommodates many different types of advertising media, from mass media (for example, television) to narrow media, such as Internet UCC and mobile phone. In fact, most of the previous research focused on a single medium at a time, rather than multiple media. Some studies looked at two or three media at the same time, but rarely reported from the perspective of multi-media usage. Second, this study profiles media user segments in terms of various media and advertising variables, such as media-use time, general attitude toward advertising, media engagement, and usage and gratification. Psychographic traits for the media-user segments, such as innovativeness and opinion leadership, are also described. Third, this study attempts to provide practical guidelines for media decision-making in the multi-media environment. Past research on media usage has mostly focused on matching audiences to vehicles within a medium, suggesting, for example, which TV programs are better appealing to a target group than other programs. By filling needs of the three kind of research mentioned above, this study strives to provide a solution for the selection of media, rather than the vehicle selection.

Segmentation

Segmentation is defined as 'identify[ing] homogeneous groups or customer segments in the market place that will respond in a consistent, predictable way to variations in the marketing mix'.³³ As consumers have become diverse and fragmented, the importance of consumer segmentation has increased because it has a direct impact on the consumer decision-making process.⁶ Market segmentations have taken many different forms: demographic, psychographic, geographic and behavioral.³⁴

While literature on market segmentation is readily available in the field of marketing, advertising researchers have directed very little attention toward studying segmentation.^{33,35,36} Aside from market segmentation studies, there have been some attempts in the advertising field to develop taxonomies of media usage,

as discussed earlier. Most studies that segment media usages have been limited to categorizing media vehicles into homogeneous groups.^{7,18} However, Cannon and Williams⁷ raised an important point: that developing taxonomies of media usage may facilitate the media decision process. This statement seems very valid in the changing media environment. In addition, Frank and Greenberg³⁷ argued that a traditional segment study poses a main limitation, in that it is mostly focused on 'whom' to approach, disregarding 'how' to approach. They suggested that a segmentation study on media habits could be a solution to the limitation. Accordingly, this study attempts to segment consumers into homogeneous groups in terms of their media habits in the hope that this will facilitate the process of advertising media selection.

Research questions

This exploratory study attempts to categorize media audiences in terms of their media-usage patterns across various media. Further, it profiles each segment by using media and advertising variables, and examines the validity of the segmentation. Specifically, the research questions proposed in this study are:

- RQ₁:** Based on media-usage patterns across various media, what are the different clusters of media users?
- RQ₂:** Do the identified media-usage clusters display a different amount of media-use time for each media?
- RQ₃:** What are the characteristics of the identified media-usage clusters in terms of various media and advertising variables, such as SMU, uses and gratification, general attitude toward advertising, opinion leadership and social interaction? Do different types of media-usage patterns result in a different attitude toward advertising in general?
- RQ₄:** Can the identified media-usage segmentation be validated by its relationship with media engagement/dependency?

METHOD

This study used survey research. Survey questionnaires were distributed to college students attending a large southeastern university in the United States, and students were promised extra credit points for participating. Only respondents with complete information were included in the analysis; consequently, 300 subjects ($n = 300$, male 25 per cent; female 75 per cent) were used for the data analysis. Respondents were first asked to record their media-use time per week in hours and minutes, and then to indicate how frequently they use each media (1: rarely, 2: once a month, 3: two to three times a month, 4: once a week, 5: two to three times a week, 6: four to five times a week, 7: almost every day). Specifically, the Internet was divided into several different categories, such as search engines, UCC sites, VOD sites, social networking sites, RSS feeds and so on. The researchers did not consider the Internet as a single medium, sharing Chen *et al.*'s³⁸ view on the Internet as a collection of media. Following the questions about media-usage frequency, respondents were asked to indicate their motivations for using each medium in six 7-point Likert items: entertainment, being up-to-date, interaction with others, passing time, seeking information and escaping. These six motivations were borrowed from previous usage and gratification studies on a variety of media.⁸⁻¹³ Each respondent was also asked about their simultaneous media-usage patterns for various media combinations (for example, 'How frequently do you use the Internet and watch television at the same time?'). In order to understand respondents' engagement in each medium, the degree of medium involvement was measured by adopting the Revised Product Involvement Inventory (RPII) scale.³⁹ The media involvement scale included ten 7-point semantic differential items: important/unimportant, irrelevant/relevant, means a lot to me/means nothing, unexciting/exciting, dull/neat, matters to me/doesn't matter, fun/not fun, appealing/unappealing, boring/interesting and of no concern/of concern. The respondents then rated their attitudes toward advertising in general, which was measured by three 7-point

semantic differential scales (bad/good, unfavorable/favorable, negative/positive). We also measured each respondent's opinion leadership. Ten 7-point Likert items were borrowed from Weimann *et al.*¹⁷ The items included I usually rely on being successful in everything I do; I am rarely unsure about how I should behave; I like to assume responsibility; I like to take the lead when a group does things together; I enjoy convincing others of my opinion; I often notice that I serve as a role model for others; I am good at getting what I want; I am often a step ahead of others; I have many things others envy me for; and I often give others advice and suggestions. To measure social interpersonal interaction, we used social interaction scales by Katz *et al.*⁴⁰ The three items included How many times did you meet your friends in person last week? (1: never, 2: once, 3: two times, 4: three times, 5: four times, 6: five times, 7: six or more times); I am frequently away from home (1: strongly disagree, 7: strongly agree); and How many of the 10 people living closest to your home do you know? (1: no one, 2: one person, 2: two to three people, 3: four to five people, 5: six to seven people, 6: eight to nine people, 7: 10 people).

RESULTS

First, the researchers of this study checked reliability of all the constructs used in this study. The reliability coefficients of all variables were very high, except the one for social interpersonal interaction: Cronbach's Alpha was 0.92 for uses and gratification; 0.93 for media involvement; 0.94 for attitude toward advertising in general; 0.82 for opinion leadership; and 0.46 for social interpersonal interaction.

Frequency of various media use was used in this study to establish cluster membership. A nonhierarchical (K means) cluster analysis was conducted to classify media audiences into specific media-user categories. To identify the appropriate number of clusters, the researchers tried alternative cluster numbers (two to five), and came to a conclusion that a three-cluster solution makes the most meaningful and statistical sense, suggesting the most within-group

Table 1: Media-usage cluster solution

Frequency of media use	Final cluster centers			F	Significance
	1	2	3		
	<i>Print-oriented information/surveillance users (n=56)</i>	<i>Mediocre passive users (n=174)</i>	<i>Sensual video-audio combined fun-seekers (n=62)</i>		
Cable TV use	5.75	6.07	6.48	3.910	0.021
Network TV use	4.38	4.98	6.05	11.092	0.000
Satellite TV use	1.68	2.08	4.26	34.780	0.000
PVR use	1.34	2.39	4.35	34.793	0.000
Local newspaper use	5.66	3.90	3.69	19.507	0.000
National newspaper use	3.48	2.21	2.53	13.206	0.000
Consumer magazine use	3.38	2.50	3.79	20.029	0.000
Radio use	4.82	4.94	5.74	3.902	0.021
Satellite radio use	1.34	1.44	3.08	27.353	0.000
Internet search engine use	6.98	6.55	6.55	4.999	0.007
Internet VOD use	4.77	2.51	4.87	60.025	0.000
Internet news sites use	6.30	3.07	4.92	82.821	0.000
Internet blogs use	4.64	1.64	2.90	70.757	0.000
Internet consumer review sites use	2.88	1.48	2.90	49.193	0.000
Internet UCC use	5.70	3.93	5.23	34.917	0.000
Internet social networking use	6.80	6.37	6.56	2.337	0.098
Internet RSS feeds use	2.63	1.29	3.03	43.446	0.000
Online games use	1.96	1.38	2.66	18.802	0.000
Game consoles use	1.77	1.51	2.89	20.782	0.000
Podcastings use	1.45	1.16	1.52	3.504	0.031
Movie theaters use	2.29	2.29	2.61	2.785	0.063
Mobile game use	1.48	1.40	2.11	7.255	0.001
Mobile SMS use	4.93	2.95	4.52	16.739	0.000
Mobile mini-web sites use	1.57	1.33	2.94	29.111	0.000

Note: *df*=2289, 1: rarely, 2: once a month, 3: two to three times a month, 4: once a week, 5: two to three times a week, 6: four to five times a week, 7: almost everyday.

homogeneity and between-group heterogeneity. The three media-usage clusters include print-oriented information/surveillance users (*n* = 56), mediocre passive users (*n* = 174) and sensual video-audio combined fun-seekers (*n* = 62). Table 1 shows cluster solution.

Media audiences in the first cluster, print-oriented information/surveillance users, were defined as frequent users of newspapers, magazines, Internet search engines, Internet news, Internet UCC, Internet blogs, Internet social networks and mobile SMS (see Figure 1). They exhibited a significantly higher level of media-use time of newspapers (*M* = 2.26 hours per week) and magazines (*M* = 1.45 hours per week) than other clusters (*P* < 0.05). Compared to the other two clusters, people in this cluster are more likely to use newspapers for keeping up-to-date (*M* = 6.61) and seeking information (*M* = 6.21). In addition, they tend to use the Internet for

keeping up-to-date (*M* = 6.80) and seeking information (*M* = 6.66). The results were statistically significant (*P* < 0.05).

The second cluster, mediocre passive users (*n* = 174), exhibited significantly lower frequency of media use across all media than the other two clusters. In terms of media-use time, people in this cluster showed the least amount of time spent across all media. They showed the lowest score in general attitude toward advertising (*M* = 5.27) and also displayed the lowest scores both in social interaction (*M* = 5.07) and opinion leadership (*M* = 5.16).

Members of the third cluster, sensual video-audio combined fun-seekers (*n* = 62), appear to be active users of TV, radio, Internet VOD, Internet games, movies, video games and mobile mini-web. Compared to the other two clusters, people in the third cluster spent the greatest amount of time using television (*M* = 12.57),

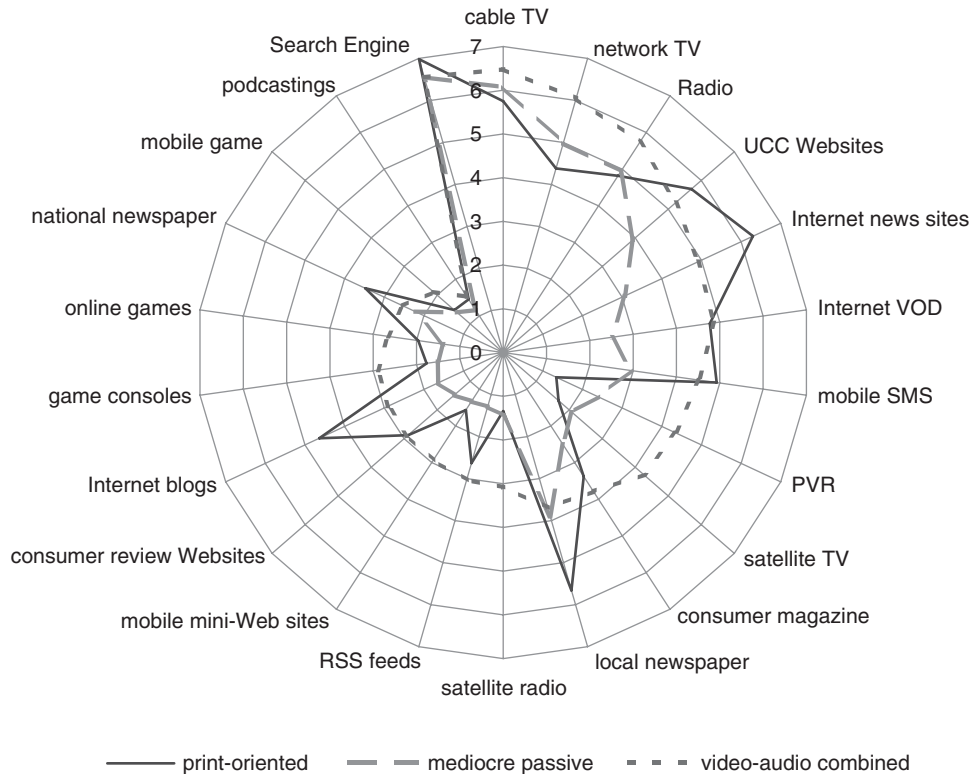


Figure 1: Media-usage comparison by media-usage segment.
 Note: Media that are significantly different among clusters at $P < 0.05$ are included.

radio ($M = 4.29$), Internet ($M = 23.13$), games ($M = 2.52$) and movie theaters ($M = 1.5$). This group is more likely than the other two clusters to use the Internet and magazines ($M = 5.34$), TV and mobile phone ($M = 5.53$), and TV and the Internet ($M = 6.05$) simultaneously ($P < 0.05$). Furthermore, people in this cluster are more likely to use TV for keeping up-to-date ($M = 5.89$) and seeking information ($M = 4.04$), and to use radio for seeking information ($M = 3.55$) and escaping ($M = 4.40$). In addition, they exhibited significantly higher scores in opinion leadership ($M = 5.51$) and social interpersonal interaction ($M = 5.45$) at the 95 per cent confidence level. Tables 2 and 3 show media-use time and SMU and motivations, respectively.

Validation

Laurent and Kapferer⁴¹ explained that different levels of involvement result in different consequences on consumer behavior. That is,

media usage, a form of behavior,²⁶ should differ when the level of involvement in media differs. Accordingly, the researchers attempted to validate media-user segmentation by comparing respondents' involvement with each medium among the three clusters. The RPII scale was used to measure involvement in media,³⁹ and the researchers examined whether the media involvement in each medium is consistent with the cluster membership. Table 4 illustrates mean, standard deviation and F-ratio of involvement in each medium by cluster. The results were statistically significant across all media ($P < 0.5$), except 'games', for which the results were marginally significant ($P = 0.51$). The first cluster, print-oriented information/surveillance users, showed higher involvement scores for newspapers ($M = 4.77$) and podcasts ($M = 2.76$) than the other two clusters. Considering their print-oriented media-usage patterns, this seems consistent with the result of the mean comparison. The second

Table 2: Media-use time (hours) by medium

	<i>Print-oriented information/surveillance users (n=56)</i>		<i>Mediocre passive users (n=174)</i>		<i>Sensual video-audio combined fun-seekers (n=62)</i>		<i>F (df=291)</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
TV	8.54	7.51	10.27	7.56	12.57*	8.62	4.02
Newspapers	2.26*	1.76	1.22	1.30	1.31	1.18	12.31*
Magazines	1.45*	1.62	0.89	1.22	1.42	1.63	5.41*
Radio	2.81	4.27	2.84	5.36	4.29*	5.06	1.98
Internet	20.32	16.55	14.49	10.79	23.13*	18.66	10.17*
Games	0.88	2.21	0.75	2.52	2.52*	5.60	6.53*
DVD	2.31	1.89	2.77	3.41	2.52	4.24	1.68
Podcasting	0.17	0.58	0.12	0.94	0.25	0.86	0.51
Theater	0.75	1.06	0.80	1.07	1.50*	3.15	4.13
Mobile	9.18	13.80	10.28	14.50	11.60	11.68	0.46

*statistical significance at $P < 0.05$.

Table 3: Noticeable simultaneous media usage (SMU) and motivations

	<i>Print-oriented information/surveillance users (n=56)</i>		<i>Mediocre passive users (n=174)</i>		<i>Sensual video-audio combined fun-seekers (n=62)</i>		<i>F (df=291)</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>SMU</i>							
Internet and magazines	5.05	1.92	4.82	1.96	5.34*	1.79	1.71
TV and mobile	4.82	2.00	4.79	2.00	5.53*	1.54	3.63*
TV and Internet	5.38	1.91	5.28	1.98	6.05*	1.48	3.92*
<i>Motivations</i>							
TV: being up-to-date	5.16	1.71	4.82	1.53	5.89*	1.31	11.23*
TV: seeking information	4.48	1.84	4.15	1.67	4.94*	1.69	4.97*
NP: being up-to-date	6.61*	0.73	6.11	1.34	6.00	1.25	4.28*
NP: seeking information	6.21*	1.06	5.83	1.53	5.76	1.50	1.83
Radio: seeking information	2.89	1.89	2.66	1.80	3.55*	1.70	5.65*
Radio: escaping	3.27	2.27	3.70	2.20	4.40*	2.23	4.03*
Mobile: entertainment	3.98	2.38	4.24	2.13	5.08*	2.12	4.48*
<i>Attitude toward advertising in general</i>							
Opinion leadership	5.43	1.02	5.27	1.18	5.74	1.20	3.74*
Social interpersonal interaction	5.16	0.82	5.16	0.78	5.51	0.80	4.63*
	5.15	1.07	5.07	0.97	5.45	1.09	3.20*

*Statistical significance at $P < 0.05$.

Note: All items were measured by 7-point scales.

Table 4: Involvement with each medium

	<i>Print-oriented information/surveillance users (n=56)</i>		<i>Mediocre passive users (n=174)</i>		<i>Sensual video-audio combined fun-seekers (n=62)</i>		<i>F (df=291)</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
TV	4.80	1.10	4.94	1.03	5.48	1.07	7.72*
Newspapers	4.77	1.01	4.26	0.93	4.30	1.21	5.46*
Magazines	4.77	1.23	4.47	1.11	4.89	1.26	3.53*
Radio	3.97	1.51	4.44	1.26	4.80	1.42	5.68*
Internet	6.26	0.83	6.03	0.85	6.38	1.01	4.24*
Games	3.12	1.57	2.94	1.39	3.50	1.91	3.00
Podcasts	2.76	1.63	2.14	1.28	2.18	1.57	4.25*
Mobile	5.81	1.17	5.93	0.90	6.25	0.93	3.50*

*statistical significance at $P < 0.05$.

Note: Ten 7-point semantic differential items were used: important/unimportant, irrelevant/relevant, means a lot to me/means nothing, unexciting/exciting, dull/neat, matters to me/doesn't matter, fun/not fun, appealing/unappealing, boring/interesting, of no concern/concern.

cluster, mediocre passive users, was found to be less involved in all the different types of media than the other two clusters (see Table 4). Therefore, the second cluster was also validated, and it has some criterion-related validity. People in the third cluster, sensual video-audio combined fun-seekers, are more likely to be engaged in video/audio-oriented media such as TV ($M=5.48$), radio ($M=4.80$), games ($M=3.50$) and mobile phones ($M=6.25$) than people in the other two clusters. Thus, the third cluster was also validated.

DISCUSSION

Exploratory research is a necessary step to develop theories and test hypotheses.⁷ This study attempts to explore contemporary media usage patterns in hopes that we can better understand media users in the context of multi-media use. In the multi-media use context, it might be risky for advertisers to base a significant marketing investment only on demographic information such as age and gender. Thus, in order to keep pace with the new contemporary media users, inter-media research like this is a necessity.

Three categories of media users appear to be distinctive: print-oriented information/surveillance users, mediocre passive users and sensual video-audio combined fun-seekers. Each cluster showed distinct patterns in terms of media-use time and motivation. The sensual video-audio fun-seekers are most likely to be simultaneous media users and opinion leaders, showed the most favorable attitudes toward advertising in general, and displayed the highest likelihood of interpersonal social interactions. On the other hand, the print-oriented information/surveillance users are more likely to use print- and information-oriented media such as newspapers, magazines and Internet news sites, and their motivation to use these media is mostly centered on keeping up-to-date. The mediocre passive users are less frequent users of all media than members in the other two segments, showing less media consumption and lower engagement across media. They also displayed the lowest likelihood of interpersonal social interaction.

There have been many attempts to segment consumers in order to identify whom to target.

However, as Frank and Greenberg³⁷ pointed out, many segmentation studies have missed how to approach the identified target. This study differs from previous studies of media usage because it attempts to provide guidelines for how to approach media audiences by classifying consumers into different categories based on their media usage. Further, this study suggests that the categories to which consumers belong are mostly on account of the inherent nature of the media. In other words, media in the same media-usage segment tend to share same attributes, such as modality. Understanding media attributes shared by the media-usage segment will not only facilitate taxonomical classifications of the contemporary media, but will also aid in defining newly emerging media. In explaining the mix of media attribute approach, Eveland⁴² pointed out that even new media represent the multidimensional continuum of attributes that make up all other media. Therefore, new media can easily be understood as a different mix of attributes, and thus there is no need to reinvent 'the wheel' when new media is introduced. Accordingly, it would be interesting to further examine in greater depth media attributes shared in a media-usage segment.

Furthermore, the traits of target audiences who prefer certain attributes of media will provide a foundation for media mix strategy and advertising creative strategy, which will improve marketing practices. This study provides people making advertising media decisions with ideas about how media users can be classified and which media can be used to effectively reach target audiences. In other words, the findings of this study provide another consumer segmentation method to advertisers. The media-usage segmentation identified in this research could be used to select advertising target audiences along with traditional demographic and psychographic segmentation methods. For example, when a marketer's target audiences are identified as print-oriented information/surveillance seekers, the marketer could mix specific media types in its media strategy (for example, newspapers, magazines, Internet news, blogs, social networking sites and mobile SMS) to effectively reach

this group. On the other hand, the sensual video-audio combined fun-seekers can be effectively reached by visual-oriented media such as TV, games, Internet VOD and theaters. The media-usage segmentation also would aid in developing creative strategies. Print-oriented information/surveillance seekers tend to use media for the purpose of keeping up-to-date and seeking information. Therefore, advertisers might try to appeal this group by providing informative ads rather than image-oriented ads. On the other hand, the sensual video-audio combined fun-seekers tend to be opinion leaders, and they like to try new interactive media. In this situation, advertisers might use various media (for example, TV, Internet VOD, Internet game sites and mobile mini-web) to deliver more vivid, sensual and interactive advertising messages. As entertainment is one of the most important gratifications this group seeks from their media usage, advertisers might consider using entertainment-oriented advertising messages such as humorous ads, dramatized ads and emotional ads.

This study suggests an integrated view on media for better understanding of the contemporary consumer in the multi-media environment. It is imperative to understand that current consumers are exposed to multiple media simultaneously, and thus media selection should not solely be based on the reach capability of a single medium. Therefore, it is suggested that the questions to construct media-usage segments should be appended to any consumer research.

Limitations and directions for future research

As with all studies, this study has several limitations. First of all, this study used convenient samples of college students. Although this study has successfully established cluster memberships among such homogeneous samples and suggested the potential structure of media segments, the use of a homogeneous student sample might result in different segments than would be found in the general population. Research conducted by using a more representative sample would facilitate more diverse and insightful media usage patterns,

and, consequently, would provide marketers with more insightful practical implications and more generalizable segments of media users. Therefore, it would be valuable to replicate this study with more diverse consumer samples. Second, partly as a result of the limited sample frame, this study did not include demographic information. There has been criticism regarding attitudinal profiling that does not utilize demographic traits such as gender, social class or category expenditure.⁴³ Critics have pointed out that attitudinal segmentation without a clear demographic profile may not strike a chord with marketing practitioners and could end up just being an appealing taxonomy. Thus, future research is needed to include demographic information in order to bring findings from the study to life. Third, this study was limited to profiling and validation of media-usage segmentation. As discussed earlier, exploring and validating attributes shared by different media in a segment is suggested. In addition, empirical research could examine effects of media attributes on each segment's cognitive, attitudinal and behavioral responses to advertising messages. Abundant discussions about the media-usage segmentation would result, and both academia and industry would benefit.

Overall, the potential for media-usage segmentation and research appears promising in such a fragmented media environment. This study offers a useful framework for capturing media-usage differences and for understanding contemporary media users. Additional research is needed to further generalize media-usage segmentation and provide more practical guidelines for advertising practitioners.

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