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### A CROSS-MEDIA STUDY OF KOREANS' MEDIA CHOICE PROCESS AND CONSUMPTION PATTERNS IN THE NEW MEDIA ENVIRONMENT

by

Jin-Young Kim

A Dissertation Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

December 2002

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The University of Southern Mississippi

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Approved:

Director

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#### ABSTRACT

## A CROSS MEDIA STUDY OF KOREANS' MEDIA CHOICE PROCESS AND CONSUMPTION PATTERNS IN THE NEW MEDIA ENVIRONMENT by Jin-Young Kim

#### December 2002

This study used the uses and gratifications, channel repertoire, and media substitution hypotheses to examine individuals' media choice process and seven media consumption patterns in the new media environment. A proportionate stratified sampling methodology (based on the gender, age, and regional proportion distribution) was utilized and 500 personal interviews were conducted across South Korea. The adjusted response rate for the study was 48.11 percent.

Multiple regression analyses found that affinity of each medium was the most influential predictor in media choice followed by perceived usefulness. Needs, perceived accessibility, educational level, and age were not influential predictors of media choice. Findings were consistent with past uses and gratifications research in that gratifications sought and obtained correlated to media exposure.

The impact of Internet use on traditional media use revealed mixed support of the media substitution hypothesis. Internet use had a replacement effect on television use, a supplemental effect on motion pictures and books, and no effect on the use of

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newspapers, magazines, and radio. The more time spent on the Internet, the larger the individual's media repertoire.

Subjects relied, on average, on 2.26, 2.25, and 2.01 media to satisfy their general, information, and entertainment needs respectively. General media repertoire density was positively related to the salience of needs, media attitude (media usefulness, affinity, and accessibility) and leisure time. As the importance of information and entertainment needs increased, the density of information and entertainment repertoire also increased. Also those who had higher media affinity and perceived usefulness regularly used a larger number of media. Younger subjects and those with higher levels of education, income, and available leisure time included more media in their general, information, and entertainment repertoires.

Television was judged the most helpful medium in satisfying information and entertainm: needs followed by the newspaper and the Internet. The least chosen media for both in. ation and entertainment needs were radio and magazines. Consistent with the high Ir. et penetration, the Internet was one of the most frequently chosen media in Korea inclu d by 44.6 percent of subjects in their information and entertainment repertoires.

Males were heavier users of the newspaper and the Internet, while females were more likely to use magazines and books. Older subjects were much heavier users of traditional print and broadcast media while younger generations were heavier users of the Internet, movies, magazines, and books. Those with high income, education, and leisure time were much more likely to use media than those with low income, education, and leisure time except television watching.

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#### CHAPTER I

#### INTRODUCTION

#### Statement of the Problem

Due to the development of digital technology and political regulatory changes, media industries have experienced rapid change both nationally and globally. Given recent and widespread changes to the media landscape, media themselves have undergone modifications in position and function. The trends of media convergence and deregulation of the communications industry have also shifted the media consumption and exposure pattern of the audience. In general, a new medium tends to lead to a reshaping of the way in which audiences consume established media (Elliot & Quattlebaum, 1979; Morris & Ogan, 1996; Williams, Phillips, & Lum, 1985). Moreover, nowadays, media use is a universal phenomenon and most people consume the greatest amount of leisure time using media (Jeffres, Atkin, & Neuendorf, 1995). Therefore, it is an appropriate time to study media choice processes and media consumption patterns by media users.

In uses and gratifications research, the audience makes media choice decisions as follows. First, the audience is motivated and purposeful in their communication behavior. Second, the audience selects and uses communication media and contents to satisfy needs. Third, audiences are influenced by social and psychological factors when seeking to communicate and selecting among communication alternatives. Fourth, the media

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compete with other communication channels for attention, selection, and use (Rubin, 1994; Rubin, & Bantz, 1987).

This active audience concept of the uses and gratifications perspective is applicable for the study of the media choice process as well as for the study of new media in a multi-channel era for two reasons. First, the audience has a greater potential for being more active (Heeter & Greenberg, 1988), and second, the new media provide audiences new opportunities for communicating. Audiences can allocate time at their convenience and can interact with media (Ha & James, 1998; Ruggiero, 2000; Williams, Strover, & Grant, 1994).

In the current media environment, it's complexity and the growing choice of communication channels raise questions about why individuals choose a certain medium and what factors affect media choice. However, many questions about an individual's media choice and use remain unanswered. According to Ruggiero (2000), the study of motivation and satisfaction has become more important in audience analysis in the new environment. One of the most influential and important perspectives for examining audiences' media use is the uses and gratifications research. Therefore, it is useful to reexamine the uses and gratifications perspective (Finn, 1997; Newhagen & Rafaeli, 1996; Ruggiero, 2000).

Studies that have considered audience media use within a multiple-medium environment have found that different media are used to satisfy different needs (Adoni, 1979; Cutler & Danowski, 1980; Dobos, 1992; Elliout & Quattlebaum, 1979; Katz, Gurevitch, & Haas, 1973; Kippax & Murray, 1980; Lichtenstein & Rosenfeld, 1983, 1984; Lometti, Reeves, & Bybee, 1977; Perse & Courtright, 1993). These studies have also found that different media can fulfill similar or overlapping needs. The implication of these studies is that although needs are important predictors, it is not the only variable for the prediction of audience media choice.

Moreover, Swanson (1987) asserts that the reasons for low to moderate correlation between gratifications sought (or need) and media use can be found in other contexts, which may influence the relationship between gratification seeking and media exposure behavior. According to Swanson, the other influential factors in media choice can be fatigue, availability, time, social setting, and extraneous events.

Based on the process of convergence of telecommunications, which blurs the distinguishable attributes of media (Pavlik, 1998), one can expect that audiences' perceptions will be more important rather than attributes of media. Media attitudes can be predicted more readily than perceived media attributes. Further, one can tell that media choice is not solely dependent on audience needs and attitudes. There are many social and external constraints on media choice and use. Studies of media dependency theory (e. g., Ball-Rokeach, 1985; Loges, 1994), social influence models (Fulk, Schmitz, & Steinfield, 1990), and media richness theory (Daft & Lengel, 1984) have supported the idea that media choice by audiences is influenced by social relations and external factors.

In this regard, the main question of this study asks how people make choices among different media in a new media environment. The study utilizes the uses and gratifications, channel repertoire, and media substitution hypotheses to assess individuals' media choice process and their entertainment and information media repertories. 3

#### Purpose of the Study

This dissertation examines the media choice process in South Korea. It utilizes uses and gratifications theory and investigates individuals' regular media use sets for satisfying their information and entertainment needs, (also called the information and entertainment media repertoire). In addition, it explores the impact of Internet use on media consumers' media time budgets.

Theoretically, the purpose of the study is to test the ability of the uses and gratifications framework to explain satisfaction with the choice of various communication channels in Asian society. By exploring individuals' media choices and consumption patterns and by examining the impact of new media use on the level of other media use, this dissertation seeks a more complete understanding of the audience media choice process and seeks a more complete portrait of the contemporary media environment and media audiences.

In the first part, applying the uses and gratifications perspective, this study examines the main predictors which influence media choice and use. The first part of this dissertation employs the uses and gratifications framework to examine how (a) social and psychological antecedents (age, gender, income, leisure time, and education), (b) media attitudes (perceived affinity, usefulness, accessibility), (c) communication motives (entertainment and information needs) and media exposure and satisfaction are related to each other.

By investigating important factors that affect the audiences' media use, this study tries to better understand how individuals perceive and use media to satisfy their needs. All relationships among gratifications, needs, and attitudes toward media and external

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constraints of media use are examined. Specifically, this study explores the main factors (salience of needs, perceived usefulness, accessibility, and affinity toward each medium, leisure time, income, education, gender, age) in relation to media choice. This study also seeks to determine which factors are the main predictors for media use and choice.

In the second part, this research examines the general media repertoire (regular media use sets) of individuals and their information and entertainment media repertoire. The core questions of the second part of this study examine (a) what individuals' regular media use sets for satisfying information and entertainment needs are (b) preferences for specific media over other media, and (c) how demographics, social constraints, attitudes, satisfaction, and salience of needs influence individuals' media repertoire. The concept of channel repertoire provides the theoretical background for these issues. Finally, based on substitution/ supplement effect of new media adoption, the influence of Internet use on other media, focusing on the time budget, is measured.

#### Significance of the Study

This study attempts to overcome some shortcomings of past uses and gratifications studies. There are three deficiencies in past studies concerning audiences' media use. First, there are few cross-media studies of media choice and behavior by audiences (e. g., Dobos, 1992; Katz, Gurevitch, & Haas, 1973; Kippax & Murray, 1980; Lichtenstein & Rosenfeld, 1983, 1984; Lometti, Reeves, & Bybee, 1977; Shah, McLeod, & Yoon, 2001; Weaver, Wilhoit, & DeBock, 1980). Although a significant amount of research has focused on media use patterns of traditional media (e. g., TV- Greenberg, 1974; McQuail, Blumler, & Brown, 1972; Pamlgreen & Rayburn, 1979; Rubin, 1981a, 1981b, 1983; Cable – Jacobs, 1995; Radio – Rubin & Step, 2000) and new media (Atkin, Jeffres, & Neuendorf, 1998; Flanagin & Metzger, 2001; Garramone, Harris, & Anderson, 1986; LaRose & Atkin, 1988a, 1988b, 1992), most studies have focused on the use of one particular medium.

In addition, most cross-media studies are comparisons between two or three media. Examples include the comparison of television and print media (Eijck & Rees, 2000), cable news and television news (Baldwin, Barrett, & Bates, 1992), television news, newspaper news, and web news (Althaus & Tewksbury, 2000) and television, cable, and VCR (Dimmick & Albarran, 1994). Relatively little empirical research has examined audience behavior by utilizing multiple cross-media studies. Studies comparing gratifications across a variety of communications media are somewhat rare. Moreover, in his information repertoire study, Reagan (1996) argues that researchers should avoid "single-medium source" studies. He asserts researchers should "move away from the ambiguity caused by labeling people as 'television oriented' or 'newspaper oriented'" (p.118) and scholars should consider audiences more as users of cross-media clusters for their needs.

The second deficiency in many past cross-media studies of media choice is a failure to combine new media technologies. Much of the uses and gratifications research has examined relationships between audiences and their media choice. This perspective has also examined why audiences adopt a new medium when it becomes available. Audiences evaluate the usefulness of the new option relative to older media for satisfying their needs. Numerous empirical studies have been conducted concerning this topic, however, cross-media studies combing traditional media and new media are rare. Although a great deal of empirical research has been done on audience selection and use of "new" media (Cohen, Levy, & Golden, 1988; Dobos, 1992; Jeffres & Atkin, 1996; LaRose & Atkin, 1988a, 1992; Levy, 1980, 1987; Perse & Courtright, 1993; Rubin & Bantz, 1987; Salvaggio & Bryant, 1988; Schmitz & Fulk, 1991; Walther, 1994; Williams, Phillips, & Lum, 1985; Williams & Rice, 1983), these studies did not include the Internet. While there are that Internet-oriented uses and grarifications studies have only recently become popular, still rare cross-media studies have been conducted concerning the relationship between the Internet and old media.

The third shortcoming in the uses and gratifications approach about audiences' media choices is the failure to consider possible external constraints in empirical studies. Previous uses and gratifications studies did not focus well on audience's social constraints as factors in predicting media use and choice (Elliott, 1974). Although some uses and gratifications studies have mentioned external and social constraints of media use, these studies have not examined external constraints empirically. Furthermore, a only small number of empirical researchers are interested in the factors of media choice concerning needs, media attitudes, and external constraints.

Rubin (1994) identified six directions in uses and gratifications approach. One direction is the link between media use motives and their relationships with media attitudes and behaviors. The second direction is the comparison of motives across media and the comparison of the effectiveness of different media. The third is examining social and psychological circumstances of media use. This work has studied how life status, personality, loneliness, and media deprivation influence media behavior. Fourth, researchers have analyzed the relationship between gratifications sought and obtained. Fifth, they have assessed how variations such as motives and exposure affect outcomes (media effects). Finally, the sixth direction is analyzing methods which are used in the uses and gratification approach.

Most uses and gratifications studies have traditionally sought communication motives for using a certain medium and examined which media satisfy audiences' needs (Garramone, Harris, & Anderson, 1986; James, Wotring, & Forrest, 1995; Katz, Gurevitch, & Haas, 1973; Levy & Windahl, 1984; Lin, 1998; Perse & Dunn, 1998). The main research questions are why audiences use a particular medium and what gratifications audiences receive from their media use. In other words, in predicting media use, past studies have attempted to look at the role of personal needs and perceived gratification of those needs, ignoring the effect of external constraints.

This study attempts a more realistic exploration of the predictors of media behavior by using social and psychological predictors and by incorporating both the contemporary media environment and new media. Empirically, the multiple relationships among such main factors as media motivations, media attitudes, media satisfaction, demographic characteristics, social constraints, and media use levels have been neglected or partially examined in uses and gratifications investigations. In general, media choice is viewed as a function or outcome of many factors, such as personality, media accessibility, experience with a medium, psychological and social needs, social interactions, and audiences' attitudes and perceptions toward medium. Further, although Rubin (1981a, 1983) has tried to explore the relationships between motivations and media behavior and attitudes, his work has been concerned with television in particular. Therefore, cross-media study is needed. In the past, cross-media studies concerning media consumption have been conducted in Western societies and in one Israel study, however; there has been no such study in Asian societies. It is valuable for scholars in mass communication to introduce other cultural views of the way people deal with the mass media. As the research setting for this study is South Korea, a country which has a well-advanced media system in the Asian world; the findings of this study can offer a different perspective because the environment in which people live affects their ways of thinking, behaving, and dealing with technology.

In summary, it is important to analyze audience behavior in the new media environment. Reinvestigating media use with the uses and gratifications approach is necessary because today more media options are available than ever before. Furthermore, examination of the individual media choice process could provide valuable information for understanding today's complex media environment. This study also provides implications for policy and marketing strategies in media industry using all explanations of psychological, social, and demographic variables to predict media consumption. This study not only provides answers for future uses and gratifications study, but also gives theoretical insights.

#### The Media Environment in Korea

In order to understand how media are used for audiences' satisfactions, we must look to the media environment. Korea has highly developed media systems that reach a majority of its population. All media markets in Korea have changed dramatically in recent years, partly in response to technological advances and policy deregulation. New

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cable service authorizations and broadcast spectrum allocations have greatly increased the diversity of radio and television stations available to domestic audiences.

According to a survey of the Korea Press Foundation in July 2000, the average Korean spent two hours and fifty-four minutes a day watching television. The average time of other media use per day was one hour and one minute for radio, forty-two minutes for the Internet, thirty-five minutes for newspapers, and ten minutes for magazines (the Korea Press Foundation, 2000). The following is a description of the present media situation in Korea.

#### Television/Radio

The era of television opened with government controlled Seoul Television in 1956. By the early 1990s, the control of broadcasting had shifted from the government to the marketplace. New broadcasting laws opened a multi-channel and commercial broadcasting environment in 1990. Under the deregulation environment, the Seoul Broadcasting System (SBS), a new privatized commercial broadcaster, began operating in 1991. In addition, the government allowed local private television networks to cover major cities in Korea (Kim, 2001).

Now, private and public broadcasting systems coexist. There are five nationwide territorial television companies such as the two branches of KBS (Korea Broadcasting System) – KBS1 and KBS 2 TV, MBC (Munhwa Broadcasting Corporations) TV, and SBS TV as well as the EBS (Education Broadcasting System) TV. KBS and MBC, two public broadcasting services, have 25 and 19 subsidiary station networks respectively. There are also eight independent local private television companies but they are allied

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with SBS in some programs. In addition, there is a specialized broadcasting system, AFKN-TV, for U.S. Army and military dependents.

The history of broadcasting started with the first radio transmission in Korea in 1927. Currently, the KBS has two AM radio channels and one FM channel, and MBC has an AM and a FM channel. SBS and EBS also have one channel each. There are also specialized radio systems including the religious broadcasting systems of CBS (Christian Broadcasting System), PBC (Pyonghwa Broadcasting Center) and BBS (Buddhist Broadcasting System). There are also the specialized missionary radio channels of Asia Broadcasting, Kukdong Broadcasting, TBS for traffic information, International Broadcasting and Social Broadcasting, and Voice of Love Broadcasting for the handicapped.

#### Newspapers/ Magazines

Due to the tendency toward more press freedom and privatization of media, a variety of newspapers and magazines in diverse forms emerged during the 1990s. There are 19 general nationwide daily newspapers (e. g., Chosun Iibo, DongA Iibo, and JoongAng Iibo), 5 economic newspapers, 4 foreign language newspapers, 4 daily sports tabloids, 3 children's newspapers, and 10 specialized newspapers in circulation in Seoul as of 2000. In addition, a number of local newspapers are being publishing and the country had a total of 112 daily newspapers as of 2000 (Korea Press Foundation, 2001). At the same time, most newspapers provide on-line real-time news in the form of text, images and sound through the Internet.

Since the first magazine, "Sonyeon" (literally, "children"), was published by Choi Namsun in 1908, magazines in Korea have continued gradual development. In 1999, there were a total of 6,418 magazines registered with the Ministry of Information: 2,369 weekly magazines, 3,284 monthly magazines, 448 bimonthlies, 879 quarterlies and 249 biannuals. (The Foundation for Broadcast culture, 2001) Recently, more and more magazines attempt to satisfy the diversified interest and specific needs of the reader. Cable TV

Regular cable television service began on March 1, 1995. The birth of Korean cable television was planned by the Korean government to provide audiences with a variety of information and entertainment programs and to establish broadband infrastructure for the information super highway.

The cable TV industry in Korea is divided into three parts; network operators (NO), system operators (SO), and program providers (PP). The PPs provide programming to SOs who provide services to subscribers through local channels. The NOs transmit the programs from PP or SO to subscribers. Monthly subscription fees are divided up by these three sectors. Most SOs (e.g., Central Cable Vision Inc., Seoseoul Cable TV, and United Broadcasting System) and PPs (e.g., MBN, OCN, Q channel, and M. Net) are private companies, except KTV for public service, Arirang TV for language, and Broadcasting University TV for education. However, two NOs (Korea Telecommunication and Korea Electronic Power Corporation) are public corporations. Since the 1999 formation of Multiple System Operators (MSO) has been allowed, industry consolidation is expected.

There were forty-one PPs, eighty-eight SOs, and two backbone NOs in Korea in 2001, operating forty-four cable channels in twenty-two fields: news, cinema, sports, entertainment, music, religion, and home shopping, etc (Korea Press Foundation, 2001).

In 2000, there were 3.8 million cable TV subscribers, a penetration rate of 25 percent of the 15.3 million TV households (Korea Press Foundation, 2000). The cable TV companies are fighting with existing Community Antenna Television companies to take subscribers. The penetration of Community Antenna Television is 67. 4 percent of all TV households (Korea Press Foundation, 2000). Subscribers of both can watch more than 50 channels, including foreign satellite TV programs from America, Japan, China, Europe, among others.

#### Internet/New technologies

According to data from December 2001, 56.6 percent of the Korean population is now online (about 24.4 million Internet users). The ratio of Internet users according to sex is 56. 1 (male) vs. 43.9 (female). In terms of age, 89 percent of persons under 30 years old and 22.2 percent of those over 40 years old are online (Korea Network Information Center, 2001a). Stimulated by a boom in Internet usage, the number of persons subscribing to high-speed Internet services has grown sharply since the launch of the services in 1998. Korea is the leading country for broadband Internet connection in the world; 95 percent of home users in South Korea have a broadband connection (Nielsen/NetRatings, March 2001).

The report of KRNIC (Korea Network Information Center, 2001b) indicated several reasons behind the rapid increase of Internet use in Korea. Primarily, Internet literacy is seen as a basic skill required by people in Korea. In addition, the popularity of Internet games among the youth has resulted in a rapid increase in the number of Internet cafés (also called as PC rooms) equipped with high speed Internet facilities. Korea's unique housing pattern is another important factor in Internet diffusion. The fact that 40 % of Koreans live in apartments allows for easy deployment of LANs, easy installation of optical fiber at reasonable prices, and high-speed data transmission. Politically, the Korean government decided to build a high-speed National Information Infrastructure that provides the environment for delivering multimedia services across the nation. Furthermore, intensive investment in building this infrastructure also provides for increased online trading and e-commerce in Korea.

Moreover, the elementary, middle and high schools generally are connected to the Internet by the Korea Information Infrastructures Government and the Korean Education Network. According to the Ministry of Education, the Internet penetration rate among schools increased from 33.8 percent in June 1999 to 51 percent in March 2000(Korea IT Report, 2001).

Korea has continued to expand the capacity of its information society, introducing cable, broadband and DTH (direct-to-home) satellite transmissions during the last seven years. South Korea has become the first country in the world where mobile phone subscribers outnumber fixed-line customers (Rao, 2001). Thanks to the Mugunghwa-I satellite launched in August 1995, Korea started satellite broadcasting in July 1996, with two channels for KBS and another two for EBS.

#### CHAPTER II

#### LITERATURE REVIEW

#### **Uses and Gratifications Perspective**

The uses and gratifications perspective originally began in the 1940s and was revived in the 1970s (Ruggiero, 2000; Severin & Tankard, 1992; Weibull, 1985). During the 1970s, scholars in uses and gratifications intensely examined audience motivations and developed typologies of social and psychological needs. This approach focuses on needs for media use, factors that influence motives, and outcomes or gratifications obtained from media related behavior. A broad theoretical framework of uses and gratifications is concerned with explanations of the antecedents and consequences of audiences' media use.

Since the early 1970s, this approach has consistently focused on the relationships between basic psychological needs and media use. In the tradition of the uses and gratifications research, audiences' media use is associated with a set of psychological motives. Uses and gratifications researchers have argued that individuals' psychological motives and characteristics are significant factors influencing media use.

Katz, Blumler, & Gurevitch (1974) stated that the uses and gratifications approach is derived from the following:

(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) differential

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patterns of media exposure (or engagement in other activities), resulting in (7) other consequences, perhaps mostly unintended ones. (p. 20)

Social psychological origins of needs, values, and beliefs give rise to motives for behavior which cause one to seek various gratifications through media use.

As a consequence of media use, media satisfaction is linked to media choice. The extent of gratifications provided by a particular medium can be expected to contribute to both satisfaction and future choice (Katz, Gurevitch, & Haas, 1973; Kippax & Murry, 1980; Kline, Miller, & Morrison, 1974). This perspective explains that gratifications sought (defined variously as needs, expectations, or motivations) are shaped by individual characteristics and features of the social environment.

#### Key Elements of Uses and Gratifications

#### Active audience.

The main assumption of the uses and gratifications approach is that individuals communicate to satisfy personal needs and goals (Katz, Blumler, & Gurevitch, 1974). The idea is that a person is conscious of his/her needs and is goal directed with respect to media use and other behaviors. Concerned with understanding the audience's experience, the uses and gratifications approach focuses on what people do with media rather than what media do to people. This perspective is more audience oriented than the media effects approach (Klapper, 1963). In investigating the relationship between needs and gratifications, uses and gratifications research has primarily focused on individuals' decision-making processes. Therefore, the active audience is a key concept in media gratifications research. Palmgreen, Rosengren, & Wenner (1985) summarized the assumptions of researchers with the following statement:

(1) the audience is active, thus (2) much media use can be conceived as goal directed, and (3) competing with other sources of need satisfaction, so that when
(4) substantial audience initiative links needs to media choice, (5) media consumption can fulfill a wide range of gratifications.... (p. 14)

However, Blumler (1979) asserts that the concept of active audience is not so simple and varies among individuals, because people are not consistently active in their approach to media. Blumler identifies three kinds of activities demonstrated by audiences, such as utility (e.g., media have functions for people), intentionality (e.g., media consumption is directed by prior motivation), and selectivity (e.g., media behavior reflects prior interests and preferences).

Similarly, Levy & Windahl (1984) empirically measured data to discover audience activity. They noted that "the fundamental assumption of an active audience is basically correct. Not all audience members are active to the same degree. But many audience members are more or less active and there is a demonstrable association between their activeness and the uses and gratifications they associate with media exposure" (p. 74). Levy & Windahl (1984) concluded "different members of the audience will display different types and amounts of activity in different communication settings and at different times in the sequence of communication" (p. 74). They propose that audience activity have two dimensions. The first dimension is qualitative, including selectivity (e.g., the degree that people consciously chose media content), involvement (e.g., the level of personal relevance perceived in media message), and utility (e.g., how useful the messages). The second dimension is temporal dimension, including before, during and after media exposure. In other aspects, some studies have documented that media may be used either ritualistically or instrumentally (Rubin, 1981a, 1983). Rubin (1983) identified two types of television viewers. The first type are time consuming entertainment seekers who watch television for ritualized use, and the second type are non-time consuming information seekers who watch television for instrumental use. Ritualized media use is a less intentional, less purposeful and time-consuming activity. The ritualized use is associated with motives such as passing time, habit, relaxation, and companionship. In contrast, instrumental use is goal-directed, more intentional, purposeful and selective of a certain content (Rubin & Perse, 1987).

Again, new electronic technologies enable people to be more active with more content options and control. For example, VCRs make audiences more active along selectivity and utility dimensions. VCR has made television watching more convenient and allows viewers more control over what and when programs are watched (Rubin, & Bantz, 1987).

In summary, the concept of the active audience member is essential to understanding how people use mass media. There have been two consistent propositions about audience activity. First, motivations and needs are direct influences on audience activity. Second, new technologies are associated with higher levels of audience activity. In this perspective, people are aware of their needs, evaluate various communication channels and content, and select the channel that will provide the gratifications they seek. In other words, the perspective of mass media research views audiences as active communicators (Palmgreen, Rosengren, & Wenner, 1985). Audiences are also aware of functional alternatives, or different channels that can fill similar needs (Perse & Courtright, 1993).

This study examines audience selectivity as an elementary audience activity. Selectivity has been the focus of most uses and gratifications research. Researchers have suggested that audience selectivity is predicted by motivations and attitudes. The concept of the active audience is essential to understanding how people use mass media.

#### Needs and motives.

The uses and gratifications approach to mass media asserts that individuals have needs to use a certain medium (Blumer, 1979; Katz, Blumer & Gurevitch, 1974). The ultimate objective of uses and gratifications research is to explain the motivation for media usage and its link to specific media behaviors (Kippax & Murray, 1980). Blumler (1979) argues that audience motives should be considered in uses and gratifications studies which seek to predict media influence processes. Needs are assumed to influence the use of media. In his research, Weaver (1980) supports Blumler's (1979) proposal that basic audience orientations can predict media use and influence processes.

Motivation or need is central to explaining communication processes. Motives are general dispositions that influence people's actions. Many studies have explored the motives or needs of human beings for communication (e. g., Maslow, 1970; McGuire, 1974, Finn & Gorr, 1988). For example, McGuire (1974) expanded the social origins of media gratifications by examining psychological motives for media use that consist of a sixteen-cell classification scheme. McGuire's sixteen psychological motives include: consistency, attribution, categorization, objectification, autonomy, stimulation, teleological, utilitarian, tension-reduction, expressive, ego-defense, reinforcement, assertion, affiliation, identification, and modeling motives.

According to McLeod & Becker (1981), basic needs are the antecedents of motives. They argue that "needs" refers to an individual's unconscious psychological nature while "motives" are conscious conditions that influence a direct behavior. McLeod & Becker (1981) state that motives "are viewed as being less physiologically based and more amenable to conscious awareness, more focused and directed to some behavioral resolution, more problem-oriented, and more specific to the situation. Motives can be defined as expressed desires for gratification in a given class of situations" (p. 74). Although McLeod & Becker (1981) distinguish between the need and the motive for media assumption, most researchers use the terms interchangeable. The uses and gratifications studies have used the terms needs, motivations, gratifications sought, or gratification expectations as the same meaning.

The uses and gratifications approach suggests that media use originates with selfawareness of needs which motivates the individual to actively seek out media or content. Researchers have shown that different audience needs are associated with different media. For instance, broadcast media have been widely linked with entertainment needs (Rubin 1981a, 1983), while newspapers are primarily linked with information needs (Katz, Gurevitch, & Haas, 1973). Research on technology adoption indicates that audience needs are the primary determining factor (Neuendorf, Atkin, & Jeffres, 1998). In exploring VCR use motives, Rubin & Bantz (1987) discovered that perceived utilities are the primary factors behind VCR use decisions. A great number of empirical studies concerning needs, which are different reasons people use the media, have been examined. McQuail, Blumler, & Brown (1972) suggest four categories of media-person interaction, such as diversion, personal relationships, personal identity and surveillance. Greenberg (1974) identifies seven television viewing motivations: learning, habit, arousal, companionship, relaxation, escape, and passing time. Pamgreen & Rayburn (1979) further identify relaxing, learning about things, communication utility, forgetting, passing time, companionship and entertainment. Passing time/habit, information, entertainment, companionship, and escape are Rubin's classifications (1983) of television viewing. Ang (1995) proposes core motivations such as getting information, being entertained, interacting with others socially, and gaining insight into one's personal identity.

Similarly, in studying Internet use, Miller (1996) observes that individuals seek escape, entertainment, interaction, and surveillance need gratifications when they go online. Kang & Atkin (1999) identify several reasons why individuals use the Internet, including entertainment, loneliness/escapism, work/news, social relationship, and habit. Papacharissi & Rubin (2000) proposed five motives for Internet use such as interpersonal utility, passing time, information seeking, convenience, and entertainment.

These various sets of motivations for media use make it difficult to replicate subsequent studies. However, uses and gratifications research has consistently focused on social integration, personal identity, entertainment, and the information uses of media (Ang, 1995). Further, Lichtenstein & Rosenfeld (1984) assert that news/information and entertainment/diversion motives are believed to be all inclusive in explaining people's exposure to mass media. Much evidence shows that getting information and being entertained are two main needs and motivations in mass media use (Cohen, Levy, & Golden, 1988; Flanagin & Metzger, 2001; Fulk, Flanagin, Kalman, Monge, & Ryan, 1996; Kang & Atkin, 1999; Katz, Gurevitch, & Haas, 1973; Kippax & Murray, 1980; Rubin, 1983; Wenner, 1986; Weaver, Wilhoit, & DeBock, 1980). Even the basic gratifications noted in earlier research have not changed during the Internet's diffusion to date (Flanagin & Metzger, 2001; Kang & Atkin, 1999; Papacharissi & Rubin, 2000).

This study links traditional and new media use. Previous studies of new and traditional media use have shown that information and entertainment needs are the two main motivators for media use. Therefore, the study includes only two main needs for my research – infomation/surveillance and entertainment/diversion.

# Gratifications sought, gratifications obtained, and media use.

Studies of the uses and gratifications approach have demonstrated that gratifications sought are separable empirically and conceptually from gratifications obtained. These studies have also found moderately strong correlations between gratifications sought and gratifications obtained. According to Dobos (1992), "gratifications obtained or needs gratifications refer to the actual fulfillment of these media expectations by available alternatives" (p. 30). Satisfaction from media use is also a core component of uses and gratifications. Satisfaction is considered to equate with gratifications obtained (Palmgreen & Rayburn, 1985).

There is a reciprocal and cyclical relationship between gratifications sought (motivations, needs, or expectations) and gratifications obtained from the media (Rubin 1981a). Gratifications sought lead to media use. As a result of media use, audiences obtain various forms of satisfaction. If satisfaction is great, audiences develop expectations which guide subsequent media use.

Palmgreen & Rayburn (1979) investigated the relationship between gratifications sought and gratifications obtained in a study of exposure to public television. They found that gratifications sought and gratifications obtained significantly differ among viewers and nonviewers of public television. The result of Palmgreen & Rayburn (1979) showed that gratifications sought is positively related to gratifications obtained. In a separate study of television network evening news programs, Palmgreen, Wenner, & Rayburn (1980) examined the relationship between each individual's gratifications sought and corresponding gratifications obtained. The results showed that the relationship between the two has a moderate to strong correlation.

However, gratifications sought and gratifications obtained often contribute independently to variance in media consumption. Roberts & Bachen (1981) argue that gratifications sought are not necessarily obtained. Gratifications sought and obtained are related in different ways to variables such as media exposure and media dependency.

Alternatively, many studies of the uses and gratifications approach indicate that gratifications are related to media usage (Greenberg, 1974; Palmgreen & Rayburn, 1979; Palmgreen, Wenner, Rayburn, 1981). However, some other studies show either insignificant or weak correlations between gratifications sought and media usage (Babrow & Swanson, 1988; Rubin & Perse, 1987; Wenner, 1986). For example, Perse & Rubin (1988) found that media exposure was not predictive of soap opera viewing satisfaction. Limitations of the uses and gratifications approach and expectancy-value theory.

Although the uses and gratification approach to the study of media use offers some insight into the reasons why people choose a specific medium over alternative channels of communication, the approach has been criticized for several reasons (Elliott, 1974; Lometti, Reeves, Bybee, 1977; Rubin, 1994). Most of this criticism is directed at initial assumptions and early research. The uses and gratifications approach has often been called atheoretical primarily because it is too vague of a concept. It relies heavily on self-reports and is focused too narrowly on the individual. Furthermore, this approach is not sophisticated in its consideration of the social origin of needs. Some views the uses and gratifications research as nothing more than a data-collecting strategy. However, researchers in uses and gratifications have tried to respond to this criticism. There has been progress in uses and gratifications research in elaborating its own terms, problems, and measures. Researchers in uses and gratifications have attempted to conduct modified replications or extensions, to refine methodology, and to treat media use as an integrated communication and social phenomenon (Rubin, 1983).

After clarification of the audience activity concept made by Levy & Windahl (1984, 1985), some studies have provided theoretical and empirical definitions of the central concept of activity (e.g., Rubin, 1993; Rubin & Rubin, 1992). Furthermore, in an attempt to improve scientific prediction, Galloway & Meek (1981) introduced the expectancy value theory. Palmgreen & Rayburn (1982) developed an expectancy model that predicted gratifications sought from television news. They upgraded the uses and gratifications approach, giving it theoretical strength. The combination of the uses and gratifications and the expectancy value theory generated an expectancy value model of

gratifications sought (GS) and gratifications obtained (GO). Rosengren (1985) states that the combination of the uses and gratifications and the expectancy value theory is "a fine illustration of the integrative power of formalized and generalized theory, and it also forcefully demonstrates the basic soundness of the gratifications approach" (p. 278). Combining the uses and gratification approach with the expectancy-value theory is an integrative achievement in the history of the uses and gratifications research.

The expectancy-value theory and the uses and gratifications perspective are alike in many of their underlying assumptions. Galloway & Meek (1981) noted:

Both are cognitively-oriented path-goal approaches in which the direction of behavior is guided by perceptions of the situation and attempts to gratify needs. Concerning measurements, both assume that individuals are sufficiently selfaware as to be able to report their gratification dimensions, or at least to recognize them when confronted with them in an intelligible and familiar verbal formulation. Expectancy-value theory makes the additional assumption, still compatible but more explicitly state than in uses and gratifications research, that expectations about action to fulfill needs can be articulated if appropriately probed. (p. 439)

The expectancy-value theory offers a particularly explanatory model of individual media attitudes and behavior because of its conceptual precision. This theory has explored audiences perceptions of benefits offered by a medium and the differential values linked with these benefits (Palmgreen & Rayburn, 1982; Katz, Blumler, & Gurevitch, 1974). It assumes that media use is under the audience member's control. The expectancy-value theory views behavior and media use as a function of "(1) expectancy

(or belief) – the perceived probability that an object possesses a particular attribute or that a behavior will have a particular consequence; and (2) evaluation – the degree of affect, positive or negative, toward an attribute or behavioral outcome" (Palmgreen, 1984, p. 36). Expectancy value theory is a process, which the products of beliefs (expectations) and evaluations influence the seeking of gratifications, which influence media consumption. Such consumption results in the perception of certain gratifications obtained, which then feed back to reinforce or alter an individual's perceptions of a particular media (Rayburn & Palmgreen, 1984). Expectations and attitudes toward media are important factors influencing users to seek expected benefits and leading to more media use.

The expectancy-value analysis has been applied in a number of analyses of audience motives and exposure levels. Babrow & Swanson (1988) assert that gratification sought and expectancy-value orientations are different judgments although they are highly related to each other. Expectancy-value judgments affect intentions toward media use as well as media attitudes, whereas gratifications sought give a direct impact to both intention and media exposure level (Babrow & Swanson, 1988).

Meanwhile, in an attempt to overcome the microscopic and psychological theories of the expectancy value theory, Wenner (1985) introduced a transactional model which combines audience behavior in a broad social context. This transactional model consists of five stages: general background (demographic variables), general foreground (baseline effects on dispositions such as interests, knowledge, and attitudes), media reference background (habitual media exposure and functional alternatives), media reference foreground (gratifications sought), and effects. Wenner states:

What is most important in this model, and the concept of transaction as it applies more broadly to media gratifications research, is the clear focus on dynamic change, not only within the individual, but within and among individuals, media and society. (pp. 92-93)

This transactional model presents a wider scope of transactions among individuals, media, and society.

In general, the expectancy-value theory argues that media use is explained by a combination of perceived benefits offered by media and the differential value of these benefits for audience members. Attitudes toward media are an output of beliefs and values. This study examines not only individuals' the salience of needs which is similar to expectancy value orientation, but also their perceived gratifications obtained from different media sources which is similar to expectancy value, beliefs, or evaluation (perceived usefulness of media in satisfying needs or assessment of means of satisfaction needs). Therefore, the study tries to combine the uses and gratifications approach and the expectancy-value theory.

# Media Choice Models and Media Attitudes

One of the models of media choice process argues that people select communication technologies based on a medium's attributes. Short, Williams, & Christie (1976) proposed "the social presence model." Communication media vary in the degree to which they can convey the physical presence of communicators. Media range from low (numeric data) to high social presence (e.g., face-to-face). Individuals select the medium that they perceive to have the highest social presence. Another media choice model, "media richness theory," claims that people select communication technologies based on the attributes of the medium. This theory proposes that media can be arranged on a continuum from "lean" to "rich," based on their speed of feedback, variety of channels, personalness of source, and richness of language use (Daft & Lengel, 1984).

However, unlike the social presence and the media richness models, "the social influence perspective" emphasizes the core role of social influence in media evaluations and behavior. The proposition of the social influence perspective includes the followings: an individual's media use is a function of : (a) media evaluations (perceptions and attitudes); (b) media experience and skills; (c) social influence in the form of direct statements by coworkers regarding the application, vicarious learning, group behavioral norms, and social definitions of rationality; (d) task evaluations; and (e) situational factors such as individual differences, facilitating factors, and constraints. (Fulk, Schmitz, & Steinfield, 1990, p.127)

While the social presence and the media richness model emphasize audiences' evaluation of media attributes, the uses and gratifications perspective suggests that shared perceptions and collective experiences with technologies are important in media choice and use (Katz, Blumler & Gurevitch, 1974; Katz, Gurevitch, Haas, 1973; Perse & Courtright, 1993). Primarily, the attributes of media do not determine use, but rather such factors as assessments of needs fulfillment, appropriateness, social norms, and audiences' attitudes toward media.

The uses and gratification framework emphasizes the importance of individuals' subjective perceptions of expected and actual gratifications and the subjective evaluations

of media performance derived from the social context. (Greenberg, 1974; Lichtenstein & Rosenfeld, 1984; Perse & Courtright, 1993; Rubin, 1979, 1981a, 1983). Researchers have tried to understand how attitudes and dispositions influence gratifications sought, gratifications obtained, and audience behaviors. Certain social and psychological factors, along with perceptions and attitudes of media, influence media use and choice. That is, media use is assumed to be related to a specific kind of media orientation (McQuail, 1997; Weibull, 1985).

According to Ajzen & Fishbein (1980), attitude is "a person's evaluation of any psychological object"(p. 27). There have been low or inconsistent empirical relations between attitude and behavior. Therefore, they assess attitude as one of the many factors that influence behavior, independent contributors to behavior, or as moderators of the attitude-behavior relationship.

Blumler (1979) proposes that variations in media experience result from the interaction between individual characteristics, social circumstances, and patterns of media consumption. Examining the relationship between the reading of a party press and readers' own political orientation, Weibull (1983) found that a strong positive relationship between the two variables. The socialist press is read by 62 percent of socialist sympathizers but is read by only 15 percent of the nosocialists. The nonsocialist press is read by 93 percent of the nonsocialist sympathizers. Palmgreen, Rosengren, & Wenner (1985) emphasize the social psychological nature of the media use. They suggest that media content alone cannot be used to predict patterns of gratifications. In order to gain more understanding of the media audience, the personal, social and communication components of the media event should be counted. Williams, Phillips, & Lum (1985)

argue that audiences make media choice judgments among various media according to what is available and accessible to serve a particular perceived need.

Using the value-expectancy theory, Palmgreen (1984) proposed that individuals choose to use a medium based on their beliefs and feelings about how well it satisfies their needs. Moreover, there have been positive relationships between people's attitudes toward computers and computer usage. For example, Garramone, Harris, & Anderson (1986) examined motives for using political computer bulletin board systems (BBSs) and satisfactions from use. They found that political BBS use was motivated by surveillance, personal identity and diversion motives. They reported that media attitudes, such as social presence and personal identity satisfaction, are positively related to BBS use. Dobos (1992) examined the relationship between media satisfaction and choice in organizations. He observed that media selection is influenced by subjective evaluations of media performance in contrast to the media attributes approach. The findings supported the idea that media choice is guided by "organizationwide perceptions of the communication functions" served by various channels.

Flanagin & Metzger (2001) examined three Internet functions (information retrieval, information giving, and conversation capabilities) and the satisfaction of Internet users. They assert that it is important to consider users' conceptions of a medium's functional image in assessing media choice and use beyond media attributes. They argue that with increasing content convergence across media, assessments of media attributes become increasingly problematic as media become less distinct.

Meanwhile, researchers of uses and gratifications believe that there is a normative influence on perceived media channel image (Blumler, 1979). The study of normative

images of media (e.g., Elliott & Quattlebaum, 1979; Lichtenstein & Rosenfeld, 1983, 1984; Perse & Courtright, 1993) is also one of media attitude study. "Normative images" of media are "widely shared perceptions about a medium's typical usage, which are based on the functions that they serve" (Perse & Courtright, 1993, p. 486). The normative studies propose that the perceptions of what each medium has to offer are normative and each medium has a socially defined image. In the normative image study, there are two parts of the audience decision process. The first process is the acquisition of normative expectations about gratifications from different media. Second, audiences choose which medium will gratify their needs within the normatively defined cognitive activity (Lichtenstein & Rosenfeld, 1984).

However, Lichtenstein & Rosenfeld's study (1983) shows that a medium's normative image was not related to preference or level of use. The normative image does not fit an actual use. In order to measure normative images, respondents are asked "For most people, not necessarily for you, how useful is a certain medium?" That is, even though someone does not use a certain medium, they offer the same reasons for using that most people offer. Lichtenstein & Rosenfeld (1984) note that audiences share an image of the perceived gratifications obtainable from a medium and the image is independent of an audience's media choice. They argue that media image is not a function of use but of social learning. The normative study suggests that, according to Lichtenstein & Rosenfeld, "one of the major tasks still facing uses and gratifications researchers is to discover more about the process by which these external social forces are integrated into the individual's decision making process" (1984, p. 411).

Though there are normatively defined images of each medium, gratifications through mass communication is various in each individual. Because individuals' media attitudes can differ from widely shared perceptions about media usage, this study assumes that an individual's attitude is more predictable than socially defined normative images. This study measures audiences' attitudes toward media instead of a socially defined normative image.

#### External Constraints and Media Use

The incorporation of external constraint factors into the media choice process is needed. In reaction to the audience-oriented, psychological, and microscopic view of uses and gratifications research, a number of scholars have suggested social or external constraints for media use (Blumler, Gurevitch, Katz, 1985; Bogart, 1964; Lichtenstein & Rosenfeld, 1984; Kline, 1971; Weibull, 1985).

In the early stage, Katz, Blumler, & Gurevitch (1974) and Blumler (1979) mentioned the links between social circumstances and people's needs or gratifications, although they did not research this topic empirically. Elliott (1974) criticized uses and gratifications research for tending to treat the audience as individuals who are abstracted from their social environment. He argued that television use is more dependent on availability than active audience selection. Elliott (1974) emphasized that "gratification depends on a dynamic relationship between the individual and his whole social environment" (p. 260).

Kippax & Murray (1980) asserted that media use is best predicted by demographic variables: gender, age, education and occupation. They found that those aged 51 and over have more important needs than the younger age groups and better

educated people perceive more important needs than less educated persons. In specific needs clusters, Kippax & Murray showed that males emphasized more information needs and entertainment needs. Better educated persons stressed information needs. Kippax & Murray (1980) found no direct relationship between media selection, consumption, and needs importance. They concluded that a far more complex relationship might exist between the media use and needs gratification via the demographic and social characteristics of audiences and of each medium.

Blumler, Gurevitch, Katz (1985) suggest some proposals for advanced gratifications research. They argue as follows:

Social roles constrain audience needs, opportunities, and choices: We never meant to talk about abstracted individuals, but about people in social situations that give rise to their needs. The individual is part of a social structure, and his or her choices are less free and less random than a vulgar gratificationism would presume. (p. 260)

Furthermore, media users' psychological motives and media attitudes alone do not give insight into media consumption patterns. It is more reasonable to add media availability and media user accessibility. According to Elliott (1974), availability is rarely measured in uses and gratifications research. He argues that "availability is not just a matter of what is provided through each medium but also a matter of access to the media depending mainly on individuals' personal and family circumstances" (p. 259). Availability or accessibility is determined by time and money or any other social or situational constraints on the audience.

The degrees of accessibility or availability of media vary from individuals to individuals. The nature of technologies and their distribution systems determine the degree of availability. For example, technologically, television and radio are easily available, whereas the Internet is not. In distribution aspects, network television and national newspapers are easily available almost everywhere. In content aspects, electronic media are easier to receive than print media.

People have different degrees of accessibility to available media and content depending on the amount of resources they have. Besides their time, money, and educational level, people can have different perceptions about accessibility of media. In this study, leisure time, income, and educational level will be utilized as objective external constraints whereas perceived accessibility is measured as subjective media attitudes.

#### Uses and Gratifications Related to New Media

The uses and gratifications perspective has provided a foundation for developing a framework for research into the adoption of new technologies (Ruggiero, 2001; Willians, Phillips, & Lim, 1985). Many researchers have applied the uses and gratifications approach to the study of new technology use, indicating that audiences' selection and uses for communication depend on their personal need and motivations.

Researchers have addressed the uses and gratifications associated with personal computers (Dutton, Rosers, & Jun, 1987; Lin, 1998; Perse & Courtright, 1993; Perse & Dunn, 1998), VCRs (Rubin & Bantz, 1987), cable television (Jacobs, 1995; LaRose & Atkin, 1988a), audio/video text (LaRose & Atkin, 1992), pagers (Leung & Wei, 1999),

and recently the Internet (Atkin, Jeffres & Neuendorf, 1998; Garramone, Harris, & Anderson, 1986; James, Votring, & Forrest, 1995).

Krugman (1985) found that those viewers who made more income, had an occupation, and a higher level of education were significantly more apt to use cable, pay cable, and VCRs. Baldwin, Barrett, & Bates (1992) studied cable subscribers' perceptions and patterns of news media use. They discovered that cable news dependent subscribers were more likely to use cable news than broadcast news dependent subscribers. Cable subscribers were younger but there was no difference in income and education between cable subscribers and non-subscribers. Atkin, Jeffres, & Neuendorf (1998) supported previous studies, which found that age, education, and income are related to new media adoption. Perse & Dunn (1998) found that heavier computer use was linked with greater print media use and that perceptions of computer utilities were associated with computer use. The findings also showed that educational level and income were predictors of computer use. Leung & Wei (1999) confirmed that communication needs are related to new media adoption.

The Concepts of Channel Repertoire and Media Repertoire Channel Repertoire

In this study, the concept of channel repertoire provides a theoretical dimension for examining general mass media use sets of individuals and their information and entertainment media repertoire. The assumption of channel repertoire also clearly depends on the idea of an active audience. According to researchers, channel repertoire is dependent upon the choice process patterns and channel familiarity. The cable television era, with its variety of television program channels, has prompted new theoretical approaches regarding program choice. Given many entertainment options, cable viewers adopt various strategies to make a number of choices. One phenomenon, which occurs in numerous channels, is to narrow individuals' regular watching to the available channels that fit with individuals' interests. Heeter & Greenberg (1985) assert that viewers tend to choose a subset of channels to which they regularly attend. The subset of channels is called "repertoire." Reporting that cable subscribers regularly watch far fewer channels than the total number available, Heeter (1988) introduced the concept of "channel repertoire." It is conceptually defined as "the set of channels watched regularly by an individual or household" (p. 16). Heeter (1988) found that among the numerous channels, only the three local network affiliates were regularly watched by 50 percent or more of the cable subscribers surveyed. This repertoire usually consists of ten or fewer channels (Heeter, 1985; Ferguson & Perse, 1993; Ferguson, 1992; Lotchte & Warren, 1989).

Heeter (1985) examined viewers' awareness of program alternatives and individuals' differences with respect to demographic variables. She found that viewers had different viewing patterns and different repertoires for cable television. The process of orienting searches, becoming aware of alternatives to watch, was positively correlated with channel repertoire, which is defined as the use of cable television channel. Channel familiarity was strongly correlated with channel repertoire. A high level of familiarity with programs led to a diversity of channel repertoire. The higher the level of familiarity with cable programs, the greater the number of channel repertoire. A diverse and extensive channel repertoire was related to being male, younger, and of higher education and income.

Considering the diversity of channels in the cable television environment, it would be hard for anyone to be aware of all alternative programs that are available. Most people are aware of only a few cable program alternatives. Therefore, the awareness and familiarity toward programs affect cable channel repertoire. Similarly, this study assumes media affinity, usefulness, and accessibility will affect media repertoire. Further, individuals' differences of media repertoire is also measured.

#### Media Repertoire

This study explores individuals' media selections for information and entertainment needs and explores individuals' regular media use sets, a general media repertoire. The notion of the "media repertoire" extends the concept of "channel repertoire." It is shifted from cable to multiple media sources and is moved from program choice to media choice. Taylor (1999) views media repertoire as "the collection of media sources that an individual consistently selects to satisfy needs" (p.81). In this study, general media repertoire refers to "a certain media set that an individual regularly uses for communication needs."

In the same way, Reagan (1996) defined "information repertoire" as "the set of sources that a person may select for a topic" (p. 114). Therefore, information repertoire is used here to refer to "the set of media sources that an audience regularly selects for information needs." The study also defines entertainment repertoire as "the set of media sources that an audience regularly selects for entertainment needs." Audience members can choose two or more media and contents in order to fulfill their information and entertainment needs. Among these media collections, the sources most regularly used constitute the media repertoire.

Due to the development of telecommunication technologies, the number of possible information and entertainment sources have increased and continually increase. The specificity of sources also increases. Reviewed studies suggest that all media – whether traditional or new – are perceived 'o serve different functions. Audiences select a medium or a selection of media in order to satisfy their needs. Their decision depends on needs, expectations, evaluations, perceived usefulness, and so on.

The notion of media repertoire has not been formally recognized in the literature although some studies exist. However, Weibull's (1985) 'media orientation,' in his structural model, is similar to media repertoire. Media orientation refers to a regular pattern of behavior or a fairly constant disposition or tendency. This is the result of various outcomes "of social background and past media experience and takes the form of an affinity for certain media, specific preferences and interests, habits of use, expectations of what the media are good for, etc." (McQuail, 2000, p. 386). McQuail's (2000) "general content preference set," in his integrated model of the process of media choice, can be interpreted as media repertoire. General content preference set is "a hypothetical construct, but it shows up in consistent and thus predictable patterns of choice-making and also in more or less coherent patterns and types of media usage" (p. 392).

Moreover, at least five research groups have reported the existence of media repertoires (Baldwin, Barrett, & Bates, 1992; Reagan, 1996; Reagan, Pinkleton, Chen, & Aaronson, 1995; Taylor, 1999). These studies have suggested that motives of

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communication, individuals' interest, and their attitudes toward media influenced their media repertoire. For example, Baldwin, Barrett, & Bates (1992) compared television news and cable news and found that perceived usefulness positively affected media exposure. Taylor (1999) examined individuals' media repertoire and discovered that media attitudes regarding helpfulness, accessibility, and time efficiency were positively related to the general media repertoire. However, he failed to determine demographic differences in the media repertoire because of homogeneity of the sample (college students).

### Demographics and Information/Entertainment Repertoire

Much of uses and gratifications research has shown that audience needs, perceptions, and demographic characteristics are associated with different media. For example, print media are preferred by more educated persons, whereas less educated persons prefer electronic media (Katz, Gurevitch, & Haas, 1973). This tendency has suggested that higher educational levels may be associated with a higher salience of an information/surveillance need.

Katz et al. (1973) argue that "the selection of media and content, and the uses to which they are put, are considerably influenced by social roles and psychological predisposition" (p. 165). They observed distinctive patterns of need gratifications linked with mass media and interpersonal channels. Katz et al. found that newspapers were ranked most helpful for sociopolitical knowledge and interpersonal communications, while film and television provided more affective gratifications. Lometti, Reeves, & Bybee (1977) researched gratification based on channel differentiation and identified three distinctive clusters of electronic, interpersonal, and print channels. Print media were more specialized for informational gratifications and electronic media and interpersonal channels were specialized for entertainment and companionship gratifications.

In 1980, Kippax & Murray's cross-media study (including radio, books, film, television, newspapers, and magazines or journals) found that television, newspapers, and books are perceived to be the most helpful media. They also found that the use of media varied according to sex, educational status, occupation, and age. In addition, some media are used in a similar manner. For example, a high level of use of television is significantly related to a similar use of radio, but negatively related to reading books. These findings imply that the media repertoire will vary according to age, gender, and social constraints.

Heikkinen & Reese (1986) studied information needs (high or low) and channel orientation (traditional or modern media orientation) in videotext adoption. They found that youth had a modern channel orientation and a favorable view of all kinds of electronic services. A high information need is characterized by a high level of education and frequent newspaper reading. Persons who have high information needs show a more traditional information need orientation. Further, broadcasting media have been mainly linked with entertainment needs and newspapers are primarily used for surveillance needs (Jeffres, 1994).

Recently, Althaus & Tewksbury (2000) compared audience usage of three news sources (television, newspapers, and the web) and suggested that the use of the Internet as an informational source is positively related with reading newspapers. The Internet is mainly used as a source of entertainment and secondarily as a source of news. The

respondents of the study used the Internet as part of their regular use set, media repertoire.

Furthermore, demographic characteristics of media use have been an important factor in many studies including those of new media adoption. Heikkinen & Reese (1986) found that newspaper users who have information needs were more likely to adopt videotext than heavy television viewers. Jeffres & Atkin (1996) found that attitudinal variables such as quality assessments toward media and the needs for communication were predictive of Internet adoption intentions.

Some empirical studies have suggested that gratification seeking motives explain online service access behavior. For example, Eighmey (1997) addressed that the entertainment value of a web site is the strongest gratification related motivation for adopting commercial web sites. In a recent study, Lin (2001) also supported the importance of motives for online service adoption. She explored potential predictors for online service adoption and noted that cognitive and affective needs were the strongest predictors of online service adoption. An adopter's attributes such as adoption benefits, computer literacy, age, income, and education level were also moderate predictors of Internet adoption. However, the existing adoption cluster (technological categories with functional similarities) and existing media use were weak predictors of online service adoption. Interestingly, "an innovativeness need" was not a significant predictor for online service adoption in this study. Although, overall demographic characteristics were rather weak factors in determining adoption intention, younger age was consistently and significantly correlated with online service adoption likelihood.

### Alternative Media Use: Substitution or Supplement

Media scholars have paid a great deal of attention to competition among media for audiences' attention. When a new medium becomes available, three types of relationship between traditional and new media have been noted. First, new media use has little or no effect on the time spent consuming media. Agostino's (1980) and Sparkes's (1983) studies failed to show any evidence of cable's impact on time spent with television. Heikinnen & Reese (1986) discovered "noneffects" for videotext use on other media.

Second, new media adoption leads to a reduction in the time spent using alternatives. If the use of one particular medium is increased, then use of other competing media providing similar or comparable functions will, in turn, be displaced. Some studies (Krugman, 1985; James, Wotring, & Forrest, 1995; Jeffres, Atkin, & Neuendorf, 1995; Lin, 1994) have supported the substitution hypothesis, wherein the introduction of a new medium leads to reduction in the use of established media. According to the media substitution hypothesis, audiences may substitute the use of a functionally similar medium for another when such a substitution need arises and the circumstance presents itself.

The arrival of new cable television channels has partially displaced traditional television viewing (Grotta & Newsom, 1982). Jeffres (1978) reported a substantial decrease in the use of television after the introduction of cable television. Henke & Donohue (1989) found that a greater level of VCR use was negatively associated with movie-going. This finding was confirmed by Lin's (1993) study. LaRose & Atkin (1991) examined the relationship among the movie distribution modalities (e. g., VCRs, pay

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cable, pay-per-view). They observed evidence of the substitution effect in that if a person favors one distribution modality, a user might reduce the use of other competing media. In their Dutch time budget surveys, Eijck & Rees (2000) found that between 1975 and 1995, reading had declined whereas television viewing had increased.

Finally, there is the supplement effect, wherein the use of new media stimulates the consumption of other media. In an earlier study, Robinson & Jeffres (1979) showed that people who devote time to one medium are more likely to devote time to another medium. For example, persons who read newspapers are likely to read books and magazines. Harvey & Rothe (1986) discovered that after acquiring a VCR, audiences increased their time spent with television. Consistent with this finding, a series of cable studies (Becker, Dunwoody, & Rafaeli, 1983; Rothe, Harvey, & Michael, 1983; Webster, 1983; Weimann, 1996) have confirmed that cable subscription leads to more television viewing. Further, Heikkinen & Reese (1986) observed that newspaper reading did not reduce interest in videotext adoption. They argue that a new medium does not necessarily replace the old medium and complementary use of newspapers and videotext are possible. Lin (1999) studied online service adoption likelihood concerning the comparisons between television use motivations and online use motivations. She supported supplement function of online services in relation to television use.

## CHAPTER III

### HYPOTHESES DEVELOPMENT

# **Research Framework**

In predicting media use, complex and dynamic relationships among audience perceptions, needs, demographics, external constraints, and social systems exist. Weaver, Wilhoit, & DeBock (1980, figure i) suggest a model of the predictors of mass media use. They note the role of demographic origins and general personal needs in media use but stress individual motives and situational factors as media use predictors. The authors believe that the situational factors within which media operate along with social, economic, and political structures, are the major influences in shaping individual motives and media use. These situational factors, according to Weaver, Wilhoit, & DeBock, are social constraints, work schedules, media availability and so on.

Another structural model of media use is presented by Weibull (1985, figure 2). His model shows how social structure including the individual (situation and needs) and mass media structure (institutions and output), influence media behavior (media contact and content use). Media structure is based on the forms of production, distribution, and content, according to Weibull (1985), and understanding the role of media structure in individuals' media behavior is important. Weibull's model shows that the lower part of the model is a mirror image of the upper part. Weibull explains that the lower part of the figure represents the situation of the individual, media exposure, and media output, which is the indicative of a certain point in time – in reality, a certain day or a certain week. He

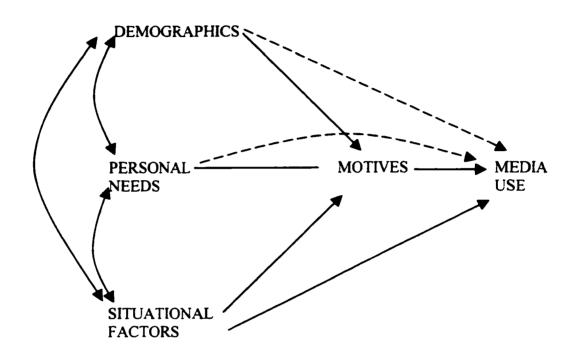
also notes that the individual's media orientation is a good predictor of media use and content exposure.

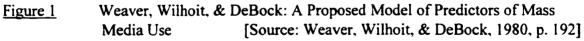
Becker & Schoenbach (1989, figure 3) studied anticipating audience behavior in media content diversity and they presented an audience member's decisional model. This model is based on both the uses and gratifications approach and the motivational literature of psychology to support the notion that individuals actively consider various alternative behaviors that might lead to need satisfaction. This model focuses attention on the choices that audience members make to satisfy needs. In Becker & Schoenbach's model, gratifications sought (social needs) have their origin in the social situation, individuals' background, and also in their more basic needs. These social needs lead to the assessment of the means of satisfying the needs. The availability of an individual's behavior influences this assessment, which would be expected to influence the costs of the behavior in terms of attention, finances, time and space. Based on this assessment, an individual selects a behavior. Some of these behaviors might be linked to the media and others might not.

McQuail (2000, figure 4) also proposes an integrated model of the process of media choice. He splits his model into two parts: the audience side and the media side. In the audience side, six factors influence media use. The six factors are social cultural location (social class, education, religious, cultural, and personal attributes such as age, gender, and family position), media related needs, personal tastes and preferences, availability and general habits of leisure time media use, awareness of choice, and the specific context of use (e.g., with whom and where). On the other hand, five factors are presented that affect media choice. In the media system, these five factors are the structure of media provision, available content options, media publicity, timing, and presentation by media organizations.

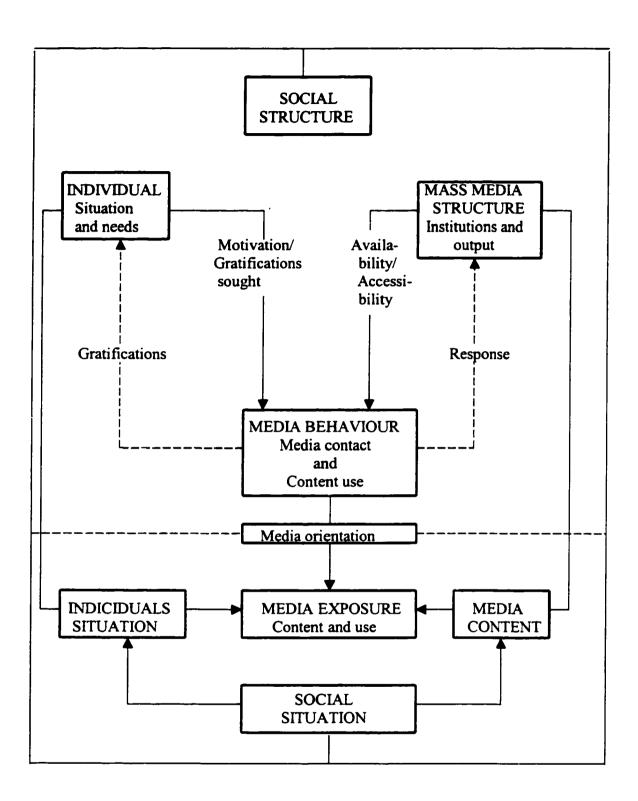
Given the results of previous research, a research framework related to individuals' media choice processes and their media collections is presented for this study. This investigation of factors influencing mass media use is designed to validate key links in a basic model of the uses and gratifications approach. Just like McQuail's integrated model (2000), the framework for this study focuses on the audience's aspect rather than the media's aspect. The main research question is whether various predictors influence audiences' media choice behaviors. As seen in Figures 5 and 6, the framework consists of three categories of variables: 1) independent variables or predictors of media use, 2) dependent variables (general media consumption and information and entertainment media repertoires), and 3) outcome, perceived usefulness or satisfaction. The predictors of media use include information and entertainment needs, media attitude (perceived usefulness, affinity, and accessibility), external constraints (income, education, and leisure time), and demographic variables (gender and age). Information and entertainment media repertoires come from general media exposure.

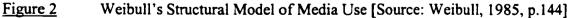
This model assumes limited freedom and autonomy on the part of the audience and limited influence related to perceived attitudes toward media and social constraints on the audience. Therefore, one of the purposes of this study was to test the varying degrees of influence exerted by these three factors on the media choice process.





- Broken lines represent more indirect (weaker) causal relationships.
- Solid lines represent more direct (stronger) causal relationships.





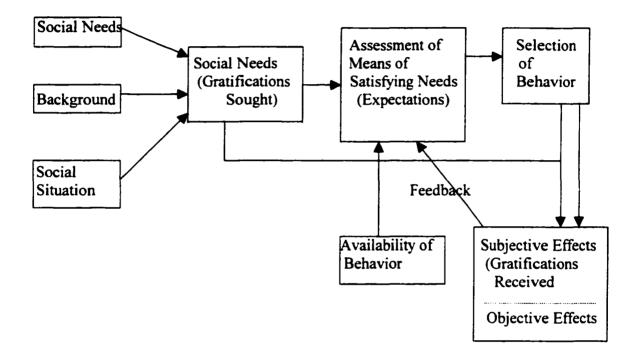
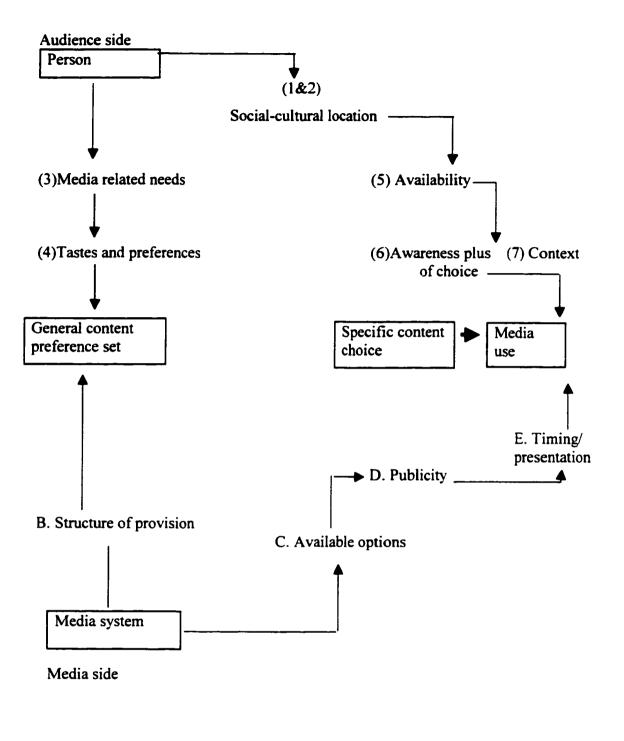
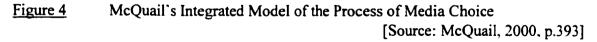


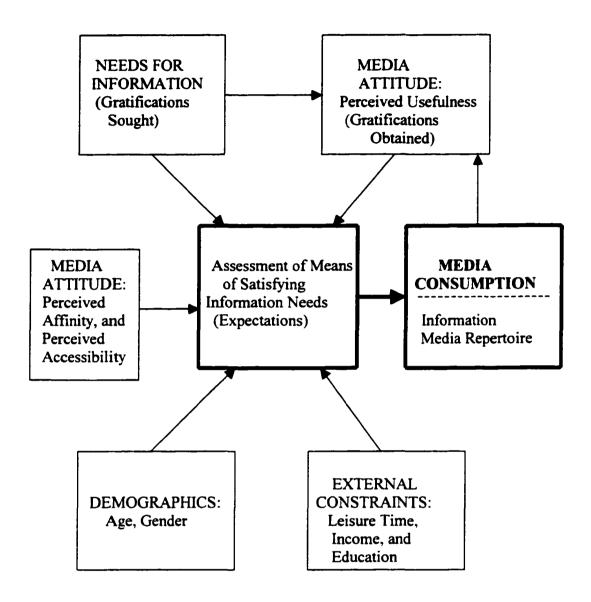
Figure 3Becker & Schoenbach's Decisional Models Based On Needs[Source: Becker & Schoenbach, 1989, p.18]

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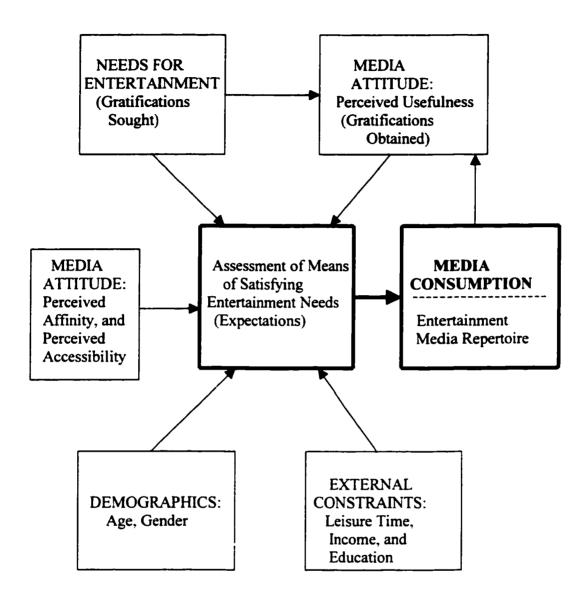


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Research Framework of This Study < Information>





Research Framework of This Study <Entertainment>

# **Research Questions and Hypotheses**

# **Research Questions**

This study focused on the effects of perceived media attitudes (usefulness, affinity, and perceived availability), information and entertainment needs, external constraints (income, education, and leisure time), and demographic characteristics in the use of mass media. The relationships between each factor and the general and specific media use sets, or media repertoires was also examined. This study took into account the extent to which people vary in their use of media, the scope of their media repertoire, the regularity of their media use, and the influence of new media use in traditional media time consumption.

# Predictors of media use.

Many studies have attempted to find predictors and antecedents of media use and choice. However, as the media environment changes, it becomes necessary to explore the media choice process in various cultural and social settings. Jeffres & Atkin's study (1996) suggested a diminished role for demographics in new technology adoption. They found that education and income were negatively related to the likelihood of using new technologies; however, there were strong correlations between communication needs and the use of new technologies to send messages. Additionally, perceived media quality was positively related to the use of new technologies for consumer purposes (Jeffres & Atkin, 1996).

Similarly, other works have suggested that users' needs and attitudinal variables (e. g., perceived benefits and usefulness) are more predictive than demographics or media use patterns (Jacobs, 1996; James, Wotring, & Forrest, 1995; Kang & Atkin, 1999;

LaRose & Atkin, 1988a, 1992; Neuendorf, Atkin, & Jeffres, 1998). In this regard, this study attempted to answer the following research question.

<u>RQ 1.</u> What are the main predictors of media consumption? How do various factors (information and entertainment needs, attitudes, external constraint, and demographic characteristics) predict media use?

# The salience of needs on demographics and external constraints.

This study is interested in the relationship between the salience of needs, a core concept of uses and gratifications research, and demographics (age and gender), as well as the relationship between the salience of needs and external constraints (income, education, and leisure time). There is a definite relationship between demographic factors and the importance of needs. The higher the educational level, the larger the number of needs usually rated as "very important" (Katz, Gurevitch, & Haas, 1973). Previous studies have noted that younger persons showed a high level of salience for needs related to self-gratification and entertainment needs (Katz, et al., 1973; Kippax & Murray, 1980).

A study about personal needs and media use in the Netherlands and the United States (Weaver, Wilhoit, & DeBock, 1980) shows that age was a significant predictor of the importance of needs in America. The older the respondent, the less salient the needs appeared to be, while educational level and occupational status were weak predictors of importance of information needs. The most significant age impact was on the salience of entertainment needs. In contrast, education level was the most significant predictor of need salience in the Netherlands. Higher education linked with greater salience of needs, especially cognitive needs. The U. S sample accounted for relatively little of the variability in need salience.

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This same study discovered that needs salience was a main predictor of Dutch media use whereas need salience was a weak predictor in America. Age, sex, and socioeconomic status were also poor predictors. In the Dutch sample, the best predictor of television viewing was less education, followed by the need for entertainment. However, in the U.S. sample, the best predictor was lower income, followed by the need to kill time. Furthermore, age was the dominant predictor of newspaper use in both countries: the older the person, the more time spent reading the newspaper. Those persons with greater needs salience for information tended to spend more time reading newspapers.

In addition, many studies have examined the adoption of new media, suggesting sets of demographic factors that predict new media adoption and use. Rubin & Bantz (1987) found that motives for using videocassette recorders were related to users' demographic factors such as age and gender. Vincent & Basil (1997) found that college rank (i.e., freshman, sophomore, etc.) predicted the importance of information needs, that is, the higher the class rank, the greater the needs. Therefore, the following research question was examined in this study.

<u>RQ 2</u>. How does the salience of information and entertainment needs differ in terms of demographics and external restraints?

# The impact of Internet adoption as media repertoire.

As discussed above, the lack of consistent findings makes it difficult to state hypotheses about relationships among media substitution or supplements. Studies regarding the impact of Internet use have suggested three different conclusions. The main finding concerning Internet adoption is that the displacement effect has not yet occurred between traditional media and online service use. Internet adoption studies have

supported the idea that Internet use has not reduced time spent with other media (Althaus & Tewksbury, 2000; Atkin, Jeffres, & Neuendorf, 1998; Jeffres & Atkin, 1996; Lin, 1999). For example, Bromley & Bowles (1995) researched the impact of the Internet on the use of traditional news media. They found that Internet users did not spend less time with newspapers, television and radio than they did before adopting the Internet. Perse & Dunn (1998) also found no evidence of the computer's displacement effects on traditional media use.

Lin (1999) notes that a displacement relation occurs when a mutually exclusive choice between two media is given to the audience. On the other hand, a complementary relation reflects a situation where the use of one medium makes the utility of another medium more complete. Research has shown that online services are not yet competing effectively with traditional media (Stipp & Coffey, 1997).

In their cable adoption and online service study, Kang & Atkin (1999) found that those who spend more time with traditional media are likely to spend more time with the Internet. Althaus & Tewksbury (2000) noted that the Internet as an information source seems unlikely to substantially diminish the use of traditional news media. They argued that the Internet supplements traditional news media. Similarly, supplementary relationships have been noted between Internet use and newspaper (e.g, Robinson, Barth & Kohut, 1997; Stempel, Hargrove, Bernt, 2000) and magazine reading (Atkin et al., 1998) whereas negative relationships between Internet use and television viewing have been found (Atkin et al., 1998; James et al., 1995).

The issue of time impact of new media raises questions regarding the time impact of Internet use on other traditional media. This study examined how regular Internet use (the Internet repertoire) influences time spent consuming traditional media. This research also took a different approach to the media substitution question by exploring how the Internet repertoire affects the general media repertoire. Besides examining the relationship between the Internet and specific media time spent, it also explored whether the media repertoires of those who have a distinctly new media repertoire differ from respondents who do not have a new medium repertoire. The relationship between the number of repertoires and Internet repertoire was examined.

# <u>RQ 3.</u> Does Internet use affect the time spent with other media and media repertoire?

Furthermore, in order to have a more comprehensive understanding about the media repertoire and media environment, the following research questions are examined in this study.

# <u>RQ 4.</u> What is the composition of respondents' information media repertoire, entertainment media repertoire, and general media repertoire?

<u>RQ 5.</u> What is the relative influence of demographics and external constraints on the general, information and entertainment media repertoire?

## Hypotheses

#### The relationship among needs, satisfaction, and media use

This study examines the relationships among salience of needs, perceived satisfaction of information and entertainment needs, and media use. Previous studies employing the uses and gratifications approach have referred to media satisfaction in terms of gratifications obtained, usefulness, and helpfulness of media. In this study, perceived satisfaction and the perceived usefulness of media for satisfying needs are synonymous. A number of studies have examined relationships between motives for media consumption and perceived gratifications (Levy & Windahl, 1984; McLeod & Becker, 1981; Wenner 1982). One major finding of such research is that gratifications sought show moderately strong correlations with gratifications obtained. McLeod & Becker (1974) proposed that gratifications sought had a strong impact regarding the gathering of political information seeking. Similarly, Palmgreen & Rayburn (1982) found strong relationships between positive attitude toward television news (general satisfaction with television news) and gratifications sought (needs) and television news exposure. Levy & Windahl (1984) found that a stronger news viewing motivation was linked with higher levels of selectivity, involvement, and utility before and after news exposure.

Empirical research on new media has supported the theoretical supposition that audience motivations are linked with media behaviors (Albarran & Dimmick, 1993; Lin, 1999). For example, a study of the use of an electronic political bulletin board demonstrated that the audience's needs for surveillance, personal identity and diversity all contributed equally to the adoption and use of the new media (Garramone, Harris & Anderson, 1986).

However, needs are not a good predictor of media use in some cases. When both gratifications sought and obtained were compared, Wenner's studies (1982, 1986) noted that gratifications sought made small contributions to program dependency and viewing frequency compared to gratifications obtained. Also, Kippax & Murray (1980) found a weak relationship between media use and need importance when demographic variables were held constant in multiple regression analysis.

Leung & Wei (1999) examined the use of pagers and noted that seeking information was a significant predictor of pager use for news. However, other expected values such as novelty, seeking fun, and credibility were not significant predictors. In addition, seeking news via the pager displaced the viewing of TV news. Recently, Papacharissi & Rubin (2000) studied predictors of Internet use and proposed that an information motive was a significant predictor of Internet satisfaction. However, an entertainment motive negatively predicted Internet satisfaction. Moreover, Rubin & Step (2000) examined the impact of motivation, interpersonal attraction and parasocial interaction on listening to talk radio. They found that a high level of entertainment motivation helped explain exposure to talk radio. Further, information motivation and task attraction predicted the audiences' perception of a host as an important source of information.

Furthermore, media satisfaction has been related to media consumption. Lometti, Reeves, & Bybee (1977) demonstrated differential mass media uses based on varying gratification in their study. Burgoon & Burgoon (1980) discovered that persons who spend more time reading newspapers tended to be more satisfied with the medium. LaRose & Atkin (1988b) proposed that satisfaction of subscribers caused continued cable subscription. Perse & Ferguson (1993) examined the impact of the use of newer television technologies such as cable television, VCRs, and remote control devices on satisfaction with television viewing. They found that television satisfaction was positively related to television exposure. Accordingly, the following hypotheses are explored.

## Information Hypotheses

H1*i*: The salience of information needs of each medium is positively related to the amount of use of each medium.

H2*i*: The salience of information needs of each medium is positively related to perceived usefulness of each medium in satisfying information needs.

#### Entertainment Hypotheses

H1e: The salience of entertainment needs of each medium is positively related to the level of use of each medium.

H2e: The salience of entertainment needs of each medium is positively related to perceived usefulness of each medium in satisfying entertainment needs.

H3: Satisfaction of each medium for information and entertainment needs is significantly related to the level of use of each medium.

Media attitudes and media use.

As literature reviews show, individuals' attitudes may be determining factors in decisions to choose a medium as a source which satisfies needs. Past research has addressed the idea that psychological characteristics, social context, and attitudes or perceptions influence people's motives and behavior (Rubin, 1993, 1994). Media use is related to the perceived helpfulness of media (Kippax & Murray, 1980). Katz, Gurevitch, & Haas, (1973) examined the potential linkages between media related needs and audience members' evaluations of the roles of the various media in gratifying these needs. Katz et al. (1973) asked respondents to indicate the level of usefulness of media in satisfying needs, but did not examine the relationship between perceived helpfulness of

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media and media use. However, the findings show that the perceived functions of the media are related with media choice.

Moreover, media affinity has been an influential factor in media use and choice. The studies on media attitudes have estimated media affinity in terms of how people are attached to a specific medium (Perse, 1986; Perse & Rubin, 1988; Rubin, 1981a, 1981b, 1983; Rubin, Perse, & Powell, 1985). An attachment index is usually a measure of several items (e.g., "I would rather watch TV than do anything else," Rubin, 1981a, p.151). Several studies indicate positive associations among television affinity and television realism and viewing levels, and a positive relationship between viewing motivations and viewing levels. These three viewing behaviors and attitudes (viewing levels, media affinity, and realism) can be significantly explained by motivations (Rubin, 1981a, 1983).

Rubin (1981b) investigated viewing motivations for the television program, 60 Minutes. The findings indicated strongly positive relationships between program affinity and frequency of viewing 60 Minutes, and positive relationships between entertainment and information seeking motivations for viewing 60 Minutes. Rubin, Perse, & Powell (1985) found that media affinity was the most significant predictor of parasocial interaction with television news personalities. The authors noted that instrumental news viewing for information was related to more parasocial interaction and perceived news realism. They argued that in viewing news for entertainment, news affinity, and news viewing level were correlated with each other. Perse (1986) and Perse & Rubin (1988) also confirmed the findings of previous media attitude studies. They found that instrumental viewing of soap opera was related to affinity and perceived realism. Gandy,

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Matabane, & Omachonu (1987) supported that intellectual interest and motivation are more important than the medium itself in media choice and use.

Although several studies (Bogart, 1964; Elliott & Quattlebaum, 1979; Kippax & Murray, 1980; Weibull, 1985) have simply referred to media accessibility as a factor of media use, media accessibility has rarely been measured in uses and gratifications research. Taylor (1999) examined the relationship between an individual's perception of media accessibility and the number of media use (media repertoire density). The author found that perceived media accessibility is related to the number of general media use. This study assumes perceived accessibility of media can influence media consumption. Regarding these studies, the following hypotheses are presented:

H4: The degree of affinity for each medium is positively related to the amount of use of each medium.

H5: Perceived accessibility of each medium is positively related to the amount of use of each medium.

# Information Hypothesis

H6*i*: Perceived usefulness of information needs of each medium is positively related to the amount of use of each medium.

## Entertainment Hypothesis

H6e: Perceived usefulness of entertainment needs of each medium is positively related to the amount of use of each medium.

# External constraints and media use.

This study also deals with social constraints and media use. Media use is related to a number of situational and social variables. Social structural variables constrain audience behavior (Weibull, 1985). For example, both financial and educational levels are important predictors of media behavior. In this study, money (income), time (leisure time), and intellectual constraints (education level) was applied to the media choice process. In reality, time and money are limited for mo st people. Only limited time and money can be devoted to mass media consumption, because these activities compete with other non-media behavioral options.

A number of studies have shown the effects of gender, income, and educational level on media exposure. In Bogart's article (1964), blue-collar families viewed more TV than white-collar families, and lower levels of education were associated with less use of the newspaper. However, Bogart argued that media use is less the result of an active choice by audience members and more the outcome of media availability or other extrinsic factors such as age, income, education, and leisure time. The author emphasized that media exposure and choice reflects chance circumstance within the range of availability rather than psychological motivations or needs.

Kline (1971) examined how family life style or the ecological-demographics of audiences influence media time budgeting. Results showed that changes in media use behavior by families are caused by changes in life style and by changes in ecologicaldemographic variables (e. g., length of time in community, time to work, income, father's education and occupation, where raised, and so on). He found that hours worked at home are positively related with newspaper and radio use. The ecological-demographic variables had both direct and indirect effects on media use.

Donohew, Palmgreen, & Rayburn (1987) studied the relationship between lifestyles and patterns of media use. The purpose of their study was the incorporation of

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activation theory into the uses and gratifications research. They classified four types of life styles: disengaged homemaker, outgoing activist, restrained activist, and working class climber. They found that persons with a great need for activation had greater exposure to public affairs information from media than those with a lower need for activation and less cosmopolitan lifestyles.

Media use is also influenced by leisure time. Persons with more leisure time tend to spend more time with media. For example, among people aged 60 –65 men spend 63 percent and women spend 50 percent of their free time with mass media (cited in Jeffres, Atkin, & Neuendorf, 1995). Recently, Lin & Jeffres (1998) explored audience intentions to adopt multimedia cable technology service and found that interest in adoption was related to marital status, higher income, and higher education level.

This study expects that external constraint factors are related to media use. From this notion, the following hypothesis is proposed:

H7: The amount of leisure time is positively related to the level of use of each medium.

## Hypotheses related to general, information, and entertainment media repertoire.

Heeter and Greenberg (1985) noted that the viewer's affective state and related needs were the antecedents to program preferences. Reagan, Pinkleton, Chen, & Aaronson (1995) explored the information repertoire for two topics (sports and what's going on in the community) along with traditional media sources and new technologies. They confirmed previous studies that found that as interest in a topic increased, generally the use of media also increased. There were different repertoires for two topics in terms of demographic factors. Moreover, sports had only a traditional media repertoire, while what's going on in the community revealed a combined traditional and newer technology repertoire, involving newspapers, radios, personal computers, and cellular telephones. Reagan et al. (1995) suggested that using information sources depends on individuals' perceptions of function toward media, not depending on technologies itself.

Reagan (1996) also examined the relationships between the people's interest in ten topics and the sources they selected for information about the topics. The researcher hypothesized that as interest in a topic increases, the number of sources (information repertoire) also would increase and confirmed positive relations between these two variables.

Eijck & Rees (2000) suggest that types of media audiences are differentiated according to the composition of their media repertoire. They argued that an adjustment to the repertoire occurs under the influence of structural changes in the media supply, changes in status, and other variables, such as gender, age, profession, household composition, and time budget.

Moreover, a considerable amount of mass communication research has suggested differences in media usage and effects across generational groups (McLeod, Daily, Guo, Eveland, Bayer, Yang, & Wang, 1996; McLeod, Scheufele, & Moy, 1999). Shah, McLeod, & Yoon (2001) found that generation X (aged 18 to 36) respondents use the Internet for information more than do older people. Also, newspapers and newsmagazines are more likely to be read by the more educated and affluent and by older people.

From previous literature, it appears that the more important the need for information, the broader the information repertoire will be. One can expect that individual repertoires will vary based on availability of media, importance of needs, and personality traits. Formal hypotheses are as follows:

H8: Perceived usefulness of media is positively related to the general media repertoire density.

H9: Affinity of media is positively related to the general media repertoire density.

H10: Perceived accessibility of media is positively related to general media

repertoire density

H11: Leisure time is positively related to general media repertoire density.

H12: The salience of needs is positively related to general media repertoire density.

# Information Hypotheses

H13*i*: As the importance of information needs increases the number of information repertoire also increases.

# Entertainment Hypotheses

H13e: As the importance of entertainment needs increases the number of entertainment repertoire also increases.

#### **CHAPTER IV**

# METHODOLOGY

#### **Research Design**

#### Sample Size

It is important to determine an efficient sample size. Gay & Airasian (2000) note that the larger the population size, the smaller the percentage of the population required to get a representative sample. They suggest that "beyond a certain point (about N=5,000), the population size is almost irrelevant and a sample size of 400 will be adequate ... but would be even more confident with a sample of 500" (Gay & Airasian, 2000, p. 135). Moreover, Henry (1990) presents the relationship between sample size and standard error. Standard error is significantly reduced by a sample size of approximately 400 and the rate of standard error is slightly reduced until a sample size of 1,000 is reached.

Other researchers suggest that a sample of 50, 75, or 100 subjects per group (or cell) is often used by researchers. This study conducted a personal interview survey with adults 18 and above 18 years of age. Using the normal mass media age spans of 18-24, 25-34, 35-44, 45-54, and over 55, the total sample size would be  $250 (5 \times 50)$  to  $500 (5 \times 100)$ . However, this study also considers the differences between men and women in their media usage, hence this study involved ten cells (five age intervals x two genders). Therefore, considering cost, time, and general sampling principles, an efficient sample size for this study is  $500 (10 \text{ cells } \times 50)$ . Increasing the sample size from 500 to 1,000 (10

cells x 100) would reduce sampling error by only a small percentage (Wimmer & Dominick, 1997). Moreover, standard recommendations regarding sample size for multivariate studies is as follows: 50 = very poor; 100 = poor; 200 = fair; 300 = good; 500 = very good; 1,000 = excellent (Comrey, 1973; cited in Wimmer & Dominick, 1997).

# Data Collection Procedure

Structured personal interviews (door-to-door interviews) were conducted during July 7 to July 22, 2002, in South Korea by trained interviewers from JeongEum Communication Corp., a research company in Busan, Korea. Before the main survey, a pilot study was done to refine the operational definitions to be used in the study, to clarify unclear questions, and to know the time required to answer the questionnaire. On the basis of the pilot test, some questions, which were difficult to answer or not easily understood, were revised.

The population for this study consisted of individuals age 18 and above living in South Korea. The study used a proportionate probability sampling method with threestage proportionate stratified random sampling. First, on the basis of the census of 2001 in Korea, criteria for a proportionate sample were generated based on gender, age, and region. With gender (weighted ratio was 50:50) and five age intervals (18-24, 25-34, 35-44, 45-54, over 55), stratified sample units were assigned in 7 metropolitan cities and 5 provinces of Korea. To obtain a nationwide sample, the nation was divided into two parts: one representing urban populations that was drawn from seven metropolitan cities (Seoul Metropolitan Government and Busan, Daegu, Inchon, Kwangju, Daejeon, and Ulsan Metropolitan city); and the other representing rural locations, five provinces, over the country (Kyonggi, Kangwon, Chungcheong, Jeolla, and Kyongsang Province).

Second, based on the assigned sample size of each region, the numbers of real survey spots were calculated. One real survey spot consisted of 7 to 10 households (eligible respondents). For example, because the assigned sample size of Busan is 40, four survey spots (4 sub-area x 10 households) were needed in Busan.

Third, the survey spot of each region was selected by utilizing a form of cluster sampling called multi-stage sampling. Each metropolitan city in Korea is divided into smaller geographical areas called "Gu." This Gu is also divided into smaller areas called "Dong." Similarly, each county and small city in a province is split into smaller geographical areas. "Up", "Myun", or "Dong" are smaller geographical areas in the counties and small cities. These Dong, Up, and Myun, have their own administrative office for supporting and conducting government affairs. In accordance with the numbers of survey spots of each of the 12 broad areas (7 metropolitan cities and 5 provinces), the smaller districts, "Dong", "Up", or "Myun" were randomly selected.

Finally, interviewers visited randomly chosen Dong, Up, or Myun to gather data from eligible respondents. The starting point of each chosen survey spot was an administrative office of each Dong, Up, or Myun. From each of the chosen Dong, Up, or Myun government offices, interviewers chose one out of every five households to be interviewed. One eligible respondent was selected per household to be interviewed. To get a random selection of individuals and eligible respondents in the selected households, interviewers simply asked: "How many people are age 18 and over in your home?" If there was more than one eligible respondent, the interviewers used the most-recentbirthday technique to choose a respondent from each household to be interviewed. In order to gather the assigned quota of each survey spot, the interviewers continued to visit households, which were selected as survey spots.

During the administration of the survey, interviewers obtained the telephone number of each respondent for verification. In order to verify completed questionnaires, a supervisor called randomly selected households to be interviewed and determined that an interview had taken place. If a completed questionnaire could not be verified, the supervisor made the questionnaire void. Also other questionnaires, which were administrated by an interviewer who made a void questionnaire, were all checked.

# Questionnaire and Measurement of Variables

This study examines the patterns of use of seven media including television, radio, the Internet, newspapers, motion pictures, magazines, and books in South Korea. The personal interview survey questionnaire was designed to collect data regarding salience of entertainment and information needs, the level of media use, perceived satisfaction, accessibility of media, affinity of each medium, media choice for information/entertainment needs, leisure time, respondents' media repertoire, and demographic data. The questionnaire was generated in English and was translated into Korean by a bilinguist, as language could be a limitation in conducting the survey. The questionnaire included 78 questions and took 20 minutes for each interview.

# Perceived Satisfaction (usefulness)

Audience satisfaction refers to the extent to which audiences believe a medium meets their expectations. Audience satisfaction is regarded as a perceptual and subjective outcome of medium use. It has been identified as an affective dimension of audience activity (Perse & Rubin, 1988). Palmgreen & Rayburn (1985) and Perse & Rubin (1988) have assessed satisfaction of a medium by asking, "Overall, how satisfied are you with a medium in satisfying your needs?"

Similarly, Kippax & Murray (1980) and Katz, Gurevitch, & Haas (1973) investigated the usefulness of a medium in gratifying various needs. In order to assess satisfaction or usefulness of media, respondents were asked how useful a certain medium was in satisfying their entertainment and information needs in this study. Five response options (e.g., Garramone, Harris, & Anderson, 1986) were used: "very useful" (5), "somewhat useful" (4), "neither useful nor not useful" (3), "somewhat useless" (2), and "very useless" (1).

## Salience of Needs

In order to measure the salience of needs, a total of eight information and entertainment needs items are included in the questionnaire. These items have been adapted from past studies (e. g., Lichtenstein & Rosenfeid, 1983; Rubin 1983). To assess the salience of information and entertainment needs, respondents were asked to indicate their agreement with each of four statements regarding the salience of each need. The five response options ranged from "very important" (5) to "very unimportant" (1). This five point bipolar continuous scale was established by Katz, Gurevitch, & Haas (1973) and Kippax & Murray (1980).

## Media Affinity

In order to measure media affinity, three statements were proposed to respondents: "I would rather use a certain medium than use any other medium"; "I

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would feel lost without a certain medium"; and "the use of a certain medium is one of the most important activities."

Respondents indicated their agreement with each statement for affinity index across five response options: "strongly agree" (5), "agree" (4), "neither agree nor disagree (neutral)" (3), "disagree" (2), and "strongly disagree" (1). This affinity index was drawn from a previous study (Rubin, 1981a).

## Perceived Accessibility

The perceived accessibility of each medium was also measured. People have different degrees of accessibility to use media depending on their circumstances. Perceived accessibility can be defined as "the amount of perceived effort that is required to use a medium. It is the turning on distance of the media" (cited in Taylor, 1999, p. 80). To measure media accessibility, Taylor (1999) asked respondents: "How accessible is a certain medium source? Similarly, in this study, respondents were asked, "how easy or difficult is it for you to gain access to a certain medium? Then respondents were asked to respond on a five point scale between "very easy to gain access to a certain medium" (5), "somewhat easy" (4), "neither difficult nor easy" (3), "somewhat difficult" (2), and "very difficult to gain access to a certain medium" (1).

# Media Repertoires and Information/Entertainment Repertoires

The general media repertoire was measured in terms of media usage levels. If a certain medium use level was at or above the average medium use level of the sample, the medium was defined as part of a subject's media repertoire. Similarly, a medium was included in the information/entertainment media repertoire if usage was at or above the mean of media usage by the sample. For example, if a respondent's use of the Internet is

at or above average Internet use by the sample, the Internet is the part of the respondent's media repertoire. If a respondent's radio usage is below the average level of radio usage by the sample, radio is not the part of the respondent's media repertoire.

Media repertoire density is the number of different media that individuals use consistently and may range from a maximum of seven, including television, radio, the Internet, newspapers, motion pictures, magazines, and books, to a minimum of zero, meaning that an audience does not use media at all. In order to measure information and entertainment media repertoire, respondents were asked "how often do you select each of these media sources when you want to satisfy your need for information (or entertainment)?" The five point scale with 1 "never select," 2 "seldom or rarely select," 3 "sometimes select," 4 "frequently select," and 5 "always select" was suggested. Leisure Time

Given relatively fixed time budgets, audiences' media use is constrained by leisure time. Leisure time is defined as the amount of time one spends on activities other than sleeping, eating, or working. The amount of leisure time is expected to have a positive effect on media exposure.

#### Demographics

To measure demographics, a series of open and close-ended questions on age, gender, family income, and education were included. Household income and education level are also considered as variables for external constraints to measure media use in this study. Gender of a respondent was dummy coded (1-male, 2-female). Age was divided into five age intervals of 18-24, 25-34, 35-44, 45-54, and over 55. Educational level was measured on a five-point scale (1- no education or elementary school graduate, 2- middle school student or graduate, 3-high school student or graduate, 4-college student or graduate, and 5-beyond college education). Based on the average annual income of 2000 in South Korea (about \$24,000), annual household income was measured on a six-level scale: (1) less than \$10,000, (2) \$10,000 - less than \$15,000, (3) \$15,000 - less than \$20,000, (4) \$20,000 - less than \$25,000, (5) \$25,000 - less than \$30,000, and (6) over \$30,000.

#### Statistical Analysis of Data

The data generated were analyzed with SPSS Windows 11.0 software to test the hypothesized relationships. Both descriptive statistics and inferential statistical analysis were conducted on the data. Statistical techniques used for the data analysis included chi-square analysis, t-test, ANOVAs, multiple regression with stepwise technique, and Pearson's correlation analysis. For regression analysis, dependent variables are the levels of use of each medium and media repertoire density. Independent variables are media attitudes (usefulness, affinity, accessibility), external constraints (leisure time, family income, education), gender, and age.

Before the statistical analysis was performed, all items and scales were examined for accuracy of data entry, missing values, and outliers. First, frequencies, means, and standard deviations were run for all of the questions to identify the variables. Second, a multiple regression analysis with a stepwise technique for independent variables was conducted to examine the effects of independent variables on the levels of use of each medium and to examine how independent variables are dependent in predicting media use. The multiple regression analysis was performed to test research question 1. In general, multiple regression is used to control possible confounding variables that may have influenced the hypothesized relationship between the variables. In order to test hypotheses H1 though H13 correlation analyses were used. The alpha level was set at .05 for all tests. Further, Pearson's correlation coefficients were computed to check which factors were more related to media repertoires. The relationship between media repertoire density and independent variables was identified (H8, H9, H10, H11). For research question 2, 3, 4, and 5, crosstabs with chi-square, t-tests and ANOVAs were used to determine whether there were differences among groups (e.g., Internet heavy users, light users, and non-users, low salience of needs and high salience of needs, income, age, and educational levels, and gender)

#### CHAPTER V

# DATA ANALYSIS AND RESULTS

The survey was conducted in South Korea from July 7 to July 22, 2002. The interviewers made concerted efforts to convert initial refusals into completed interviews in order to increase the high response rate. The assigned proportionate sample size was 500. Among a total of 1,038 household, 437 households declined to be interviewed. Of those declining, some targeted households were vacant or interviewers were unable to gain access to some households during the survey period (42 households, 4.05 %). A total of 601 households agreed to be interviewed. Response rate was 57.90 % (refusal rate = 42.10 %). However, among 601 respondents, 16 eligible respondents (1.54 %) went abroad or on trips or were unable to be contacted during the survey period. Sixty-five households (6.26 %) had no eligible respondent. Further, 20 questionnaires (1.93 %) were made void because of following the reasons: 1) missing data or partial interview; 2) break-offs, meaning less than 50 % of completion of questionnaire. (e. g., a respondent changed his/her mind or could not finish a questionnaire under circumstances); 3) making no sense or non logical answers in the questionnaire, and 4) unverified completed questionnaires. Therefore, the adjusted response rate for the study was 48.17 % or a total of 500 completed interviews. The following sections provide a detailed explanation of the results of this study.

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## **Descriptive Statistics**

In the first part of data analysis, results of the descriptive statistics are provided. These include frequency, mean, standard deviation, and percentage tables on various demographic, media attitudes, media use levels, and so on. Scale reliability for media affinity and the salience of needs is also presented.

# Description of the Sample

Using weighted data techniques, a gender variable was weighted fifty/fifty. The study sample consisted of 250 (50%) males and 250 females (50%). In terms of age, respondents in the sample ranged from 18 to 67 years old and data for age are reported in five age intervals: age 18 - 24, 25 - 34, 35 - 44, 45 - 54, and over 55. The largest percentage of respondents (27.6%) was 25 to 34 years old and the smallest percentage of respondents (10.0%) was over 55 years old. The mean age of the sample was 36.69 with standard deviation of 12.58 (see Table 1-1).

Table 1-1

| Frequency-Percentage Distribution of Respondents Based On Age |
|---|
| rrequency-refeemage Distribution of Respondents Dased On Age  |

| Code | Age                | Frequency | Percentage |
|------|--------------------|-----------|------------|
| 1    | 18 to 24 years old | 93        | 18.6       |
| 2    | 25 to 34 years old | 138       | 27.6       |
| 3    | 35 to 44 years old | 125       | 25.0       |
| 4    | 45 to 54 years old | 94        | 18.8       |
| 5    | Over 55 years old  | 50        | 10.0       |
|      | Total              | 500       | 100.0      |

Regionally, the respondents were drawn proportionately from the population in country. Two-hundred forty two respondents (48.4 %) lived in metropolitan cities and

258 respondents (51.6 %) lived in rural areas. Detailed information of the region and the

respondents is as follows (see Table 2-1).

Table 2-1

Frequency-Percentage Distribution of Respondents Based On Region

| Region                        | Frequency | Percentage |
|-------------------------------|-----------|------------|
| Seoul Metropolitan Government | 101       | 20.2       |
| Busan Metropolitan City       | 40        | 8.0        |
| Daegu Metropolitan City       | 30        | 6.0        |
| Inchon Metropolitan City      | 31        | 6.2        |
| Kwangju Metropolitan City     | 15        | 3.0        |
| Daejeon Metropolitan City     | 15        | 3.0        |
| Ulsan Metropolitan City       | 10        | 2.0        |
| Kyonggi Province              | 101       | 20.2       |
| Kangwon Province              | 16        | 3.2        |
| Chungcheong Province          | 37        | 7.4        |
| Jeolla Province               | 42        | 8.4        |
| Kyongsang Province            | 62        | 12.4       |
| Total                         | 500       | 100.0      |

In terms of education level, the range varied from people with no education to people with post graduate degrees. Two hundred eighteen respondents (43.6 %) reported that they were high school graduates or were in high school. One-hundred sixty eight participants (33.6 %) were in college or college graduates. Ninety five respondents (19%) reported that they graduated middle school (see Table 3-1).

# Table 3-1

| Frequency-Percentage | Distribution of Education |  |
|----------------------|---------------------------|--|
|                      |                           |  |

| Code | Education                         | Frequency | Percentage |
|------|-----------------------------------|-----------|------------|
| 1    | No education or elementary school | 5         | 1.0        |
| 2    | Middle school graduate            | 95        | 19.0       |
| 3    | In high school or graduate        | 218       | 43.6       |
| 4    | In college or graduate            | 168       | 33.6       |
| 5    | Beyond college school             | 14        | 2.8        |
|      | Total                             | 500       | 100.0      |

Of the sample in Korea, 292 respondents (58.4 %) reported that annual household income was between \$15,000 and \$30,000. Seventy respondents reported their annual family income to be over \$30,000 and 138 respondents reported their annual household income to be less than \$ 15,000 (see Table 4-1).

Table 4-1

| Frequency-Percentage | Distribution of Annua | l Household Income |
|----------------------|-----------------------|--------------------|
|                      |                       |                    |

| Code | Income Frequency      |     | Percentage |  |
|------|-----------------------|-----|------------|--|
| 1    | less than \$10,000    | 66  | 13.2       |  |
| 2    | \$ 10,000 - \$ 14,999 | 72  | 14.4       |  |
| 3    | \$ 15,000 - \$ 19,999 | 110 | 22.0       |  |
| 4    | \$ 20,000 - \$ 24,999 | 93  | 18.6       |  |
| 5    | \$ 25,000 - \$ 29,999 | 89  | 17.8       |  |
| 6    | \$ 30,000 - \$ 34,999 | 29  | 5.8        |  |
| 7    | Over \$ 35,000        | 41  | 8.2        |  |
|      | Total                 | 500 | 100.0      |  |

# Means and Standard Deviations of Data

# Media usefulness.

The usefulness of each medium for information needs and entertainment needs was assessed by the sample. Five possible responses ranged from 1 (a certain medium is very useless for necds) to 5 (very useful). Television was the highest ranked medium in satisfying respondents' information needs (Mean = 3.93, SD = .93). The newspaper (M = 3.69, SD = 1.06) and the Internet (M = 3.45, SD = 1.44) were second and third, respectively. However, respondents indicated that magazines were the least useful medium in satisfying information needs (M = 2.62, SD = .98).

For satisfying entertainment needs, television was also the highest ranked medium (M = 3.8, SD = .92). The second ranked medium in satisfying entertainment motives was the Internet (M = 3.29, SD = 1.44) and motion pictures (M = 3.16, SD = 1.10) were ranked third. The least mentioned medium for entertainment needs was also magazines (M = 2.69, SD = .95). The mean of media usefulness for information needs (M = 3.24, SD = 1.08) was slightly greater than the mean of media usefulness for entertainment needs (M = 3.10, SD = 1.07). The sum of media usefulness for information and entertainment needs by the sample was 3.17 (SD = .61)(see Table 5-1).

# Table 5-1

|               |            | Information Needs |          | Entertainment Need |      |
|---------------|------------|-------------------|----------|--------------------|------|
| Usefulness    | N          | М                 | SD       | M                  | SD   |
| Television    | 500        | 3.93              | .93      | 3.80               | .92  |
| Radio         | 500        | 2.93              | 1.06     | 2.78               | 1.04 |
| Newspaper     | 500        | 3.69              | 1.06     | 3.01               | 1.01 |
| Internet      | 500        | 3.45              | 1.44     | 3.29               | 1.44 |
| Film          | 500        | 2.77              | 1.00     | 3.16               | 1.10 |
| Magazine      | 500        | 2.62              | .98      | 2.69               | .95  |
| Book          | 500        | 3.28              | 1.12     | 2.97               | 1.00 |
| Total         | 500        | 3.24              | 1.08     | 3.10               | 1.07 |
| Overall Media | Usefulness |                   | M = 3.17 | SD =1.08           |      |

# Media Usefulness for Information and Entertainment Needs

<u>Note.</u> The higher the score is, the higher the usefulness. M = Mean, SD = StandardDeviation.

Perceived media accessibility.

Television was the most easily accessed medium in Korea (M = 4.19, SD = .80). The newspaper had the second highest degree of accessibility (M = 3.77, SD = .97). Radio (M = 3.44, SD = 1.12) and the Internet (M = 3.21, SD = 1.48) though less accessible than television or newspapers, showed higher accessibility than motion pictures (M = 2.81, SD = 1.15) and magazines (M = 2.82, SD = .99). Respondents reported that motion pictures were the most difficult medium to gain access to because of time and money. Overall, the average perceived media accessibility for the sample was a moderate 3.34 (SD = 1.07).

# Table 6-1

|            | N   | Min. | Max. | М    | SD   |
|------------|-----|------|------|------|------|
| Television | 500 | 1    | 5    | 4.19 | .80  |
| Radio      | 500 | 1    | 5    | 3.44 | 1.12 |
| Newspaper  | 500 | 1    | 5    | 3.79 | .97  |
| Internet   | 500 | 1    | 5    | 3.21 | 1.48 |
| Movie      | 500 | 1    | 5    | 2.86 | 1.15 |
| Magazine   | 500 | 1    | 5    | 2.82 | .99  |
| Book       | 500 | 1    | 5    | 3.13 | .98  |
| Total      | 500 | 1    | 5    | 3.34 | 1.07 |

## Perceived Media Accessibility

<u>Note</u>. Scales ranged from 1 = very difficult to gain access to a certain medium, to 5 = very easy to gain access to a certain medium.

# Media Use Levels

The average Korean spent two hours and twenty-five minutes a day watching television during the week but three hours and five minutes a day watching television during the weekend. The total mean of watching television by the sample was two hours and forty-five minutes (165.12 minutes). The average time spent listening to the radio was 49.5 minutes per weekday and 27.5 minutes per day during the weekend. Thus the mean of listening to the radio by respondents was 38.5 minutes. The average Internet use time per weekday was one hour and twenty-two minutes, but during the weekend, the average daily use was one hour and thirty minutes. The mean of Internet use was one hour and twenty-six minutes.

The average respondent went to the theater 1.48 times per month. The respondents read an average of 1.65 books per month and read magazines for an average

of 10.5 minutes a day. Furthermore, according to a scale ranging from 1 (never read the newspaper) to 5 (always read the newspaper), respondents were asked to rank how often they read the newspaper. The mean of responses about newspaper reading was 3.32 (SD = 1.50). Almost half of respondents (N = 224, 44.8 %) regularly read the newspaper everyday (N = 187, 37.4 %) or five/six days a week (N = 37, 7.4 %). One-hundred fifteen respondents (23 %) read the newspaper once or twice a week and 92 respondents (18.4 %) read the newspaper three or four times a week. Sixty-nine respondents (13.8 %) reported that they never read the newspaper.

Comparing the previous data on Koreans' media use levels by the Korea Press Foundation (KPF, 2000), media use levels have changed slightly. The average time for watching television and reading magazines in this study was comparable to past data. However, the average Internet use has greatly increased from 42 minutes to 1 hour and 26 minutes. The data of Internet time use in this study was similar to the data of the National Computerization Agency in Korea (1 hour and 19 minutes) (National Computerization Agency, 2001). On the other hand, the average time of listening to the radio has decreased from 1 hour and 1 minutes to 38.5 minutes.

# Scale Reliability

This study used three scales to measure three variables. All three scales (information needs, entertainment needs, and media affinity) were developed by previous studies. In order to measure the scales' quality, the reliability coefficient, alpha (Cronbach's alpha) was utilized. Cronbach's coefficient alpha for the four items of information needs scale was .75. The alpha of the entertainment needs scale was .84. According to Devellis (1991), an alpha between .70 and .80 is considered "respectable" and between .80 and .90 is considered "very good."

Table 7-1

| Salience of informational motives        | N   | <u>M</u> | <u>SD</u> |
|--|-----|----------|-----------|
| To keep up what is going on in country   | 500 | 3.77     | .93       |
| To keep up what is going on in the world | 500 | 3.38     | .98       |
| Information about daily life             | 500 | 3.55     | .95       |
| Learn things about myself and others     | 500 | 3.47     | .95       |
| Total                                    | 500 | 3.54     | .95       |
| Salience of entertainment motives        | N   | M        | <u>SD</u> |
| Need to be entertained                   | 500 | 3.69     | .90       |
| Need for excitement                      | 500 | 3.24     | .93       |
| Need to relax                            | 500 | 3.81     | .93       |
| Need to avoid boredom                    | 500 | 3.72     | .91       |
| Total                                    | 500 | 3.61     | .92       |

Means and Standard Deviation of the Salience of Information and Entertainment Needs

<u>Note.</u> Scale ranged from 1 = not at all important to 5 = very important.

Table 7-1 reports the sample mean and standard deviations for measurement of information and entertainment needs. Information needs statements varied from the highest mean score of 3.77 (SD = .93, "need to keep up with what is going on in my country") to the lowest mean scores of <math>3.38 (SD = .98, "need to keep up with what is going on in the world"). The higher the score, the more important the information need. On the other hand, the highest entertainment needs correlated with the statement "need to relax" (M = <math>3.81, SD = .93) whereas, the lowest salience for entertainment needs was "the need for excitement" (M = 3.24, SD = .93). The overall mean for information needs was 3.54 (SD = .95) and overall mean for entertainment needs was 3.61 (SD = .92).

Media affinity scales were also measured based on previous studies. This study has seven media affinity: television, radio, newspaper, Internet, motion picture, magazine, and book. Each media affinity was measured with three items. All coefficient alpha for media affinity were high (from .84 to .97), meaning that the reliability of the affinity scale is "very good". The Cronbach coefficient alpha for television affinity was .84. The alpha for radio, newspaper, and motion picture affinity was .93, respectively. Three items for Internet affinity were highly correlated with each other (alpha = .97). The cronbach's alpha for magazine and book affinity was .94, respectively.

The following table 8-1 and 8-2 show means and standard deviations for each media affinity in Korea. The means of each affinity item ranged from 3.83 ("I would rather watch television than use any other medium") to 2.06 ("magazine reading is one of my most important activities"). Respondents answered each affinity statement with a 5-point bipolar continuous scale. The scale ranged from strongly disagree (1) to strongly agree (5). The statements included positive statements. Therefore, the higher score, the higher the degree of affinity. In terms of each medium's affinity, television had the highest score (M = 3.52, SD = .98) followed by newspaper affinity score (M = 3.11, SD = 1.06). Internet affinity was ranked third (M = 2.91, SD = 1.43) followed by book (M = 2.69, SD = .96), motion pictures (M = 2.44, SD = 1.01), radio (M = 2.42, SD = .99), and magazine (M = 2.14, SD = .90). Overall media affinity was 2.75 (SD = 1.05).

# Table 8-1

|                | 1    | A B       |      | B         | (    | 2         |
|----------------|------|-----------|------|-----------|------|-----------|
|                | M    | <u>SD</u> | M    | <u>SD</u> | M    | <u>SD</u> |
| Television     | 3.83 | .94       | 3.45 | .96       | 3.27 | 1.03      |
| Radio          | 2.58 | .99       | 2.35 | .98       | 2.32 | .99       |
| Newspaper      | 3.27 | 1.00      | 2.98 | 1.07      | 3.07 | 1.10      |
| Internet       | 3.04 | 1.46      | 2.84 | 1.40      | 2.84 | 1.43      |
| Motion picture | 2.66 | 1.06      | 2.38 | .99       | 2.29 | .98       |
| Magazine       | 2.28 | .91       | 2.09 | .90       | 2.06 | .89       |
| Book           | 2.80 | .96       | 2.62 | .96       | 2.64 | .97       |

# Means and Standard Deviation of Each Affinity Items by Each Medium

<u>Note</u>. A = "I would rather use a specific medium than use any other medium." B = "I

would fell lost without a specific medium." C = "The use of a specific medium is one of my most important activities."

Table 8-2

# Affinity Means and Deviations of Each Medium

|                     | N   | Min. | Max. | M    | SD   |
|---------------------|-----|------|------|------|------|
| Television Affinity | 500 | 1    | 5    | 3.52 | .98  |
| Radio Affinity      | 500 | 1    | 5    | 2.42 | .99  |
| Newspaper Affinity  | 500 | 1    | 5    | 3.11 | 1.06 |
| Internet Affinity   | 500 | 1    | 5    | 2.91 | 1.43 |
| Movie Affinity      | 500 | 1    | 5    | 2.44 | 1.01 |
| Magazine Affinity   | 500 | 1    | 5    | 2.14 | .90  |
| Book Affinity       | 500 | 1    | 5    | 2.69 | .96  |
| Total               | 500 | 1    | 5    | 2.75 | 1.05 |

## Tests of Research Questions

# Predictors of Media Use

# <u>RQ 1.</u> What are the main predictors of media consumption? How do various factors predict media use?

Multiple regression analysis with the stepwise technique was utilized to test which variables effectively predict the use of each medium. The independent variables used to predict the choice of each medium were media attitude (each medium's affinity, perceived usefulness for information and entertainment motives, and perceived accessibility), the importance of information and entertainment needs, leisure time, income, education level, age, and gender.

In the first multiple regression in predicting television consumption, the three hypothesized variables, television affinity, usefulness of entertainment needs, and income, were the significant predictors of television use ( $\underline{F} = 27.24$ ,  $\underline{df} = 3/496$ ,  $\underline{p} < .001$ ). Betas of the variables were .29 for television affinity, .13 for usefulness of entertainment needs, and - .10 for family income respectively. These three variables have an influence on frequency of choice of television. However, the income variable showed a negative relationship to television use, meaning that the Koreans with high income were less likely to watch television than Koreans with low income. The R square for television viewing prediction was .14.

In predicting radio use, results showed that radio affinity (B = .39) and perceived usefulness for entertainment needs (B = .15) were statistically significant predictors (F =82.57, df = 2/497, p < .001). The R-squares given in Table 9 indicate the percentages of variance in the use each medium. That is, the R-square for radio use was .25, meaning that 25 % of the total variance of the degree of radio use may be explained. With regard to the use of newspapers, seven factors accounted for 42 percent of the variance in predicting newspaper reading ( $\mathbb{R}^2 = .42$ ). Perceived usefulness of information (B = .42) and entertainment needs (B = .18), age (B = .20), education level (B = .13), gender (B = .12), family income (B = .09), and leisure time (B = .08) variables influenced choice of the newspaper ( $\mathbf{F} = 51.58$ ,  $d\mathbf{f} = 7/492$ ,  $\mathbf{p} < .001$ ). However, gender and leisure time were negatively related to newspaper reading. These relationships revealed that Korean males were more likely to read the newspaper than Korean females. Moreover, persons with less leisure time were more likely to read the newspaper than those with more leisure time.

The result of a regression analysis of Koreans' Internet usage showed that Internet affinity (B = .45), age (B = ..14), leisure time (B = .09), and the salience of information needs (B = .08) were main predictors of Koreans' Internet consumption ( $\mathbf{F} = 56.51$ ,  $\mathbf{df} = 4/495$ ,  $\mathbf{p} < .001$ ). The negative relationships between Internet use and the salience of information needs can be interpreted to mean that Korean Internet users attached less salience to information needs than Korean Internet non-users. Also, younger Korean Internet users were more likely to use the Internet than the older users. The model of multiple regression for Internet consumption indicated that R-square was .31. The finding that leisure time was significantly related to Internet use supported previous findings of the National Computerization Agency (NCA, 2001), showing that those who had more leisure time and no occupation. It might also be reflected that recent Asian economic problems have resulted in a higher rate of unemployment of persons with a higher education level than previous years in Korea.

Thirty-three percent of variance ( $\mathbb{R}^2 = .33$ ) was explained in a regression analysis for predicting motion pictures usage ( $\mathbf{F} = 80.69$ ,  $\underline{df} = 3/496$ ,  $\mathbf{p} < .001$ ). Three variables, motion picture affinity, perceived usefulness of entertainment needs, and leisure time, were the main factors determining the amount of time spent watching motion pictures. The beta scores of these factors were .41 (affinity of motion picture), .22 (usefulness of entertainment needs), and .07 (leisure time) respectively.

The data show that book affinity (B = .37), perceived usefulness of information needs (B = .21), and the salience of information needs (B = .11) were the main predictors determining the amount of book reading (<u>F</u> = 51.43, <u>df</u> = 3/496, <u>p</u> < .001). The negative relationships between the salience of information needs and book reading indicated that Koreans who with highly salient information needs were less likely to read books than Koreans who had a low salience for information needs.

In terms of magazine reading, magazine affinity (B = .30), perceived usefulness of information needs (B = .17), and family income (B = .10) were statistically significant predictors in Korea (F = 38.13, df = 3/496, p < .001). Interestingly, persons with low family income were more likely to read magazines than persons with high family income.

Overall, regression analysis of each medium's use showed a range in Beta values from a low of .07 to a moderate .45 and R-square values from .14 to .42. Affinity of each medium was the most influential predictor in media choice, except for newspaper reading. The second most influential factor in each medium choice model was perceived usefulness, with the exception of Internet use. The importance of needs, perceived accessibility, educational level, and age were not influential predictors affecting the choice of medium in Korea. The results of the regression analysis are given in Table 9-1.

#### Table 9-1

| I. V.                | Beta   |          |          |          |          |        |          |  |  |  |
|----------------------|--------|----------|----------|----------|----------|--------|----------|--|--|--|
|                      | TV     | Radio    | N.P      | I        | F        | Book   | M        |  |  |  |
| Information need     |        |          |          | 08*      |          | 11**   | <u> </u> |  |  |  |
| Entertainment need   |        |          |          | <u> </u> |          |        | .22***   |  |  |  |
| Usefulness of Info.  |        |          | .42***   |          | <u> </u> | .21*** |          |  |  |  |
| Usefulness of Enter. | .13**  | .15**    | .18***   |          | .22***   |        |          |  |  |  |
| Perceived Affinity   | .30*** | .39***   | <u> </u> | .45***   | .41***   | .37*** | .30***   |  |  |  |
| Accessibility        |        |          |          |          |          |        |          |  |  |  |
| Leisure Time         |        |          | 08*      | .09*     | .07*     |        | .07*     |  |  |  |
| Education Level      |        | <u> </u> | .13**    |          |          |        |          |  |  |  |
| Family Income        | 10*    |          | .09*     |          |          |        |          |  |  |  |
| Age                  |        |          | .20***   | 14**     | <u> </u> |        |          |  |  |  |
| Gender               |        |          | 12**     |          |          |        |          |  |  |  |
| (R <sup>2</sup> )    | (.14)  | (.25)    | (.42)    | (.31)    | (.33)    | (.23)  | (.18)    |  |  |  |

# Multiple Regressions for Predictors of Each Medium's Choice

<u>Note</u>. N. P = the newspaper, F = motion pictures, I = Internet, M = magazines. \* = p < .05

(It indicates beta significance at the .05 level), \*\* = p < .01, \*\*\* = p < .001.

# Influence of Demographics and External Restraints on the Salience of Needs

<u>RQ 2.</u> How does the salience of information and entertainment needs differ in terms of demographics and external restraints?

Data analysis emploed a t-test and ANOVAs to test how the salience of

information and entertainment motivations differs in terms of gender, age, educational

level, and household income. The data showed that there was no difference between

males and females in terms of the importance of information needs ( $\underline{t} = 1.60, \underline{ns}$ ).

However, the salience of information needs, the mean of importance of information needs

by females (M = 3.59, SD = .73) was slightly higher than males' one (M = 3.48, SD = .70). (see Table 10-1).

In contrast, for entertainment needs, salience of entertainment needs for males (M = 3.63, SD = .75) was slightly higher than females needs (M = 3.60, SD = .76) However, there was also no statistically significant difference between males and females for salience of entertainment needs (t = .53, <u>ns</u>). Males' total mean score for information and entertainment need importance (M = 3.56, SD = .73) was slightly less than females' mean score (M = 3.60, SD .75).

Table 10-1

<u>T-test of the Salience of Information and Entertainment Needs between Males and Females</u>

|                    | Male |           | Fen  | nale      | T value               |  |
|--------------------|------|-----------|------|-----------|-----------------------|--|
|                    | M    | <u>SD</u> | M    | <u>SD</u> | (probability)         |  |
| Information needs  | 3.49 | .70       | 3.59 | .73       | 1.60 (.11), <u>ns</u> |  |
| Entertainment need | 3.63 | .75       | 3.60 | .76       | .53 (.60), <u>ns</u>  |  |
| Total              | 3.56 | .73       | 3.60 | .75       |                       |  |

<u>Note.</u> 1 = very unimportant, 5 = very important.

One-way analysis of variance was used to test differences in salience of needs among age groups. Table 11-2 showed that there were statistically significant differences among five age groups in importance of information needs ( $\mathbf{F} = 7.26$ ,  $d\mathbf{f} = 4/495$ ,  $\mathbf{p} <$ .001). Generally, the salience of information needs tended to increase as age increased. However, Koreans aged 55 and over had the least importance of information needs ( $\mathbf{M} =$ 3.07, SD = .78). Comparing means of needs importance among age groups, Koreans aged 45 to 54 had the highest mean score ( $\mathbf{M} = 3.69$ , SD = .67) Koreans aged 25 to 34 had the second highest mean score ( $\mathbf{M} = 3.61$ , SD = .70). The age group (age 35 to 44) ( $\mathbf{M} =$ 

3.58, SD = .72) had greater salience for information needs than the younger age group (age 18 to 24) (M = 3.49, SD = .68). A Tukey HSD test, a post hoc test, revealed that there were statistically significant differences in means for information needs between the 55 and over age group and the 18 to 24 age group (Mean difference = .42, p < .01), the 25 to 34 age group (Mean difference = .54, p < .001), the 35 to 44 age group (Mean difference = .51, p < .001), and the 45 to 54 age group (Mean difference = .62, p < .001). The mean salience for information needs of the 55 and over age group was less than that of the other four age groups. However, other pairwise comparisons between groups in means for information needs showed no statistically significant differences.

On the other hand, the younger the subjects were, the higher the salience of entertainment needs ( $\underline{F} = 12.47$ ,  $\underline{df} = 4/495$ ,  $\underline{p} < .001$ ). Means for entertainment importance showed that the youngest age group (age 18 to 24) had the highest salience of entertainment needs (M = 3.90, SD = .67). The second highest group was age 25 to 34 (M = 3.78, SD = .72) and the third group was age 35 to 44 (M = 3.47, SD = .69). The lowest score on entertainment salience was that the 55 and over age group (M = 3.15, SD = .83) (see Table 10-2). The results of multiple comparisons using the Tukey HSD test showed that most tested pairwise comparisons between groups in means for entertainment needs were statistically significant. The greatest mean difference for entertainment needs was between the 18 to 24 age group and the 55 and over age group (mean difference = .75, p <.001) followed by the 25 to 34 age group and the 55 and over age group (mean difference = .63, p < .001). The mean salience for entertainment needs of the 18 to 24 age group and the 25 to 34 age group was greater than the 55 and over age group. However, there were no statistically significant mean differences between the 18 to 24 age group

and the 25 to 34 age group, between the 35 to 44 age group and the 45 to 54 age group

and between the 35 to 44 age group and the 55 and over age group.

Table 10-2

|             |          | Informatio | Information Salience |         | ent Salience    |
|-------------|----------|------------|----------------------|---------|-----------------|
| Age (IV)    | <u>N</u> | M          | <u>SD</u>            | M       | <u>SD</u>       |
| Age 18 – 24 | 93       | 3.49       | .68                  | 3.90    | .67             |
| Age 25 – 34 | 138      | 3.61       | .70                  | 3.78    | .72             |
| Age 35 – 44 | 125      | 3.58       | .72                  | 3.47    | .69             |
| Age 45 – 54 | 94       | 3.69       | .67                  | 3.51    | .75             |
| Age Over 55 | 50       | 3.07       | .78                  | 3.15    | .83             |
| Total       | 500      | 3.54       | .72                  | 3.61    | .76             |
| F Value (I  | Prob.)   | 7.26***    | · (.000)             | 12.47** | <b>*</b> (.000) |

Analysis of Variance for Differences of the Salience of Information and Entertainment Needs among Age Groups

<u>Note</u>. **\*\*\*** indicates p <.001.

Table 10-3 contains comparisons of educational levels and the salience of needs. For this analysis, educational level was divided into three levels; 1) middle school graduate (including no education or elementary school graduate); 2) high school graduate or in high school; and 3) college graduate or in college (including graduate school graduate). Table 10-3 showed that the higher the educational level, the higher the mean for salience of information needs. The mean importance of information needs by the group with less than a middle school educational level was 3.43 (SD = .82) and the mean importance of information needs by the group with less than a high school education level was 3.51 (SD = .69). These who had at least a college education had the highest mean salience of information needs (M = 3.64, SD = .68). The result of the F test indicated that the salience of information needs means among three education groups were significantly different ( $\underline{F} = 3.11$ ,  $\underline{df} = 2/497$ ,  $\underline{p} < .05$ ). That is, we can expect that the higher educational level, the greater the importance of information needs. However, multiple comparisons of post hoc tests revealed that there were not statistically significant mean differences for information needs among three education level groups.

Furthermore, the result of the F test for comparisons of the salience of entertainment needs means among three educational level groups also resulted in statistical significant ( $\mathbf{F} = 13.63$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .001$ ). The higher the educational level, the higher the importance of entertainment needs. Utilizing the Tukey HSD test, multiple comparisons among the three groups showed that there were statistically significant differences in means for salience of entertainment needs. The group which was beyond a college education level had the highest mean score for the salience of entertainment needs (M = 3.79, SD = .67). However, the lowest educational level group had the lowest mean score in the salience of entertainment needs (M = 3.31. SD = .86). The difference of mean salience for entertainment needs was the greatest between the low educational level group and the high educational level group (mean difference = .49,  $\mathbf{p} < .001$ ).

Need salience was also compared across income levels. The income of the sample was divided into low, middle, and high household income groups to measure the differences in needs importance among the different groups. The low-income group consisted of persons who had less than \$ 15,000 per year as their household income. The middle-income group included respondents who earned between \$ 15,000 and \$ 25,000 as their annual family income. Those whose annual income

#### Table 10-3

## Analysis of Variance for Differences of the Salience of Information and Entertainment Needs based on Educational levels

|                 | n N | Information Salience |        | Entertainment Salience |           |
|-----------------|-----|----------------------|--------|------------------------|-----------|
| Education       |     | M                    | SD     | M                      | <u>SD</u> |
| Middle          | 100 | 3.43                 | .82    | 3.31                   | .86       |
| High            | 218 | 3.51                 | .69    | 3.60                   | .74       |
| College         | 182 | 3.64                 | .68    | 3.79                   | .67       |
| Total           | 500 | 3.54                 | .72    | 3.61                   | .76       |
| F value (Prob.) |     | 3.11*                | (.045) | 13.63**                | * (.000)  |

Note. Minimum value of 1 means "very unimportant in satisfying needs" and the

maximum value of 5 means "very important in satisfying needs." Middle = middle school or less than middle school graduate, High = in high school or high school graduate, and College = in college or beyond college graduate. \* indicates p < .05 and \*\*\* indicates p < .001.

Table 10-4

## Analysis of Variance for Differences of the Salience of Information and Entertainment Needs based on Income Levels

|                 |     | Information Salience |        | Entertainment Salience |           |
|-----------------|-----|----------------------|--------|------------------------|-----------|
| Income          | N   | M                    | SD     | M                      | <u>SD</u> |
| Low             | 138 | 3.41                 | .74    | 3.47                   | .81       |
| Middle          | 203 | 3.55                 | .70    | 3.67                   | .72       |
| High            | 159 | 3.64                 | .72    | 3.66                   | .74       |
| Total           | 500 | 3.54                 | .72    | 3.61                   | .76       |
| F value (Prob.) |     | 4.07*                | (.018) | 3.41*                  | (.034)    |

Note. Minimum value of 1 means "very unimportant in satisfying needs" and the

maximum value of 5 means "very important in satisfying needs." \* indicates p <. 05.

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exceeded \$25,000 per year were categorized as the high-income group. One-way ANOVAs conducted on both information need salience and entertainment need salience, showed statistically significant mean differences among three groups [Information salience ( $\mathbf{F} = 4.07$ ,  $\mathbf{df} = 2/497$ ,  $\mathbf{p} < .05$ ) and entertainment salience; ( $\mathbf{F} = 3.41$ ,  $\mathbf{df} = 2/497$ ,  $\mathbf{p} < .05$ )]. In other words, those who had a higher income were more likely to assign greater importance to information and entertainment needs than those who had a lower income (see Table 10-4). Examination of multiple comparisons of post hoc tests revealed that there was a statistically significant difference in information needs between the low income group and the high income group (mean difference = .24,  $\mathbf{p} < .05$ ), meaning that the high income group had greater salience of information needs than the low income group. There was a significant mean difference for entertainment needs between the low income group and middle income group (mean difference = .20,  $\mathbf{p} < .05$ ).

Salience of needs or motivations for using mass media was also dependent upon leisure time. Four different leisure time groups, 1) less than 1 hour of leisure time, 2) 1 hour to less than 4 hours, 3) 4 hours to 7 hours, and 4) over 7 hours, had significant mean differences on information motives (F = 4.26, df = 3/496, p < .01) and entertainment motives for mass media use (F = 4.62, df = 3/496, p < .01). The highest level of informational motivation was held by the group with1 hour to less than 4 hours of leisure time (M = 3.61, SD = .71). Those who had 4 to 7 hours of leisure time had an average salience of information needs of 3.51. However, the group who had over 7 hours of leisure time reported the lowest mean value for the salience of information needs (M =3.18, SD = .86). In a post hoc test, a statistically significant difference in mean for information needs was found between the group with 1 hour to less than 4 hours of leisure time and the group with over 7 hours of leisure time (mean difference = .44, p < .01). The group with 1 hour to less than 4 hours of leisure time had greater information needs than the group with over 7 hours of leisure time.

In contrast, particularly for entertainment needs, those who had 4 to 7 hours of leisure time showed the highest mean (M = 3.72, SD = .72). The lowest leisure time group (less than 1 hour leisure time) also had the lowest strength of entertainment motivation for using mass media (M = 3.07, SD = .73) (see table 10-5). A multiple pairwise comparison among the four groups showed that there was a statistically significant difference in means for entertainment needs between the group with less than 1 hour of leisure time and the group with 1 hour to less than 4 hours of leisure time (mean difference = .52, p < .01) and between the group with less than 1 hour of leisure time and the group with 2 hours of leisure time and the group with 2 hours of leisure time (mean difference = .65, p < .01). Table 10-5

|             |        | Information Salience |        | Entertainment Salience |           |
|-------------|--------|----------------------|--------|------------------------|-----------|
| Time (hr.)  | N      | M                    | SD     | M                      | <u>SD</u> |
| Less than 1 | 18     | 3.42                 | .66    | 3.07                   | .73       |
| 1-4         | 271    | 3.61                 | .71    | 3.59                   | .74       |
| 4-7         | 176    | 3.51                 | .69    | 3.72                   | .72       |
| Over 7      | 35     | 3.18                 | .86    | 3.52                   | .92       |
| Total       | 500    | 3.54                 | .72    | 3.61                   | .75       |
| F value (   | Prob.) | 4.26**               | (.005) | 4.62**                 | (.003)    |

Analysis of Variance for Differences of the Salience of Information and Entertainment Needs based on Leisure Time

<u>Note</u>. \*\* = p < .01

#### The Impact of Internet Adoption as Media Repertoire

#### RO 3. Does Internet use affect other time spent with media and media repertoire?

As mentioned earlier in the literature review, there are three types of relationship between traditional media and new media when a new medium is adopted, a replacement effect, a supplemental effect, and no effect. In this study, the impact of Internet adoption on traditional media was measured. The results showed that Internet use had a replacement effect on television use, a supplemental effect on motion pictures and books, and no effect on the use of newspapers, magazines, and radio.

Table 11-1 and 11-2 present the results of the impact of Internet use on other mass media. One-way ANOVAs were conducted to compare the time of media use among the three groups such as Internet non-users, Internet light users, and the Internet heavy user group. In order to divide the sample into different use level groups (Internet light users and Internet heavy users), the mean of Internet use time (M = 85. 76 minutes) was used. The mean of Internet use time was also used as a criterion for dividing the sample into two groups, one group with Internet repertoire and the other group without Internet repertoire. It can also be explained that Internet heavy users had Internet media repertoire while Internet light users had no Internet media repertoire. Examination of multiple mean comparisons of media use revealed that there was a statistically significant difference in the means of watching television among the three groups ( $\underline{F} = 3.18$ ,  $\underline{df} = 2/497$ ,  $\underline{p} < .05$ ). Internet light users (M = 138.08, SD = 109.73) and heavy users (M = 167.91, SD = 146.07) were less likely to watch television than Internet non-users (M = 181.37, SD = 182.41). A post hoc test revealed that there was a statistically significant mean difference between Internet non-users and Internet light users (mean difference = 43.29, p < .05). meaning that Internet non-users spent more time watching television than Internet light users.

In the ANOVA table of radio usage time reported by the three groups, Internet non-users (M = 40.99, SD = 115.17) and light users (M = 46.07, SD = 70.67) were more likely to listen to the radio than Internet heavy users (M = 29.99, SD = 51.21). However, there was no statistically significant mean difference among three groups ( $\underline{F}$  = 1.47,  $\underline{df}$  = 2/497, <u>ns</u>). In terms of the time spent reading the newspaper, the mean of newspaper reading indicated that the more time spent on the Internet, the less time spent reading the newspaper. Pearson's correlation also showed that there was a negative relationship between newspaper reading and Internet use(r = - .09 p < .05). The mean of Internet nonusers' newspaper reading was the highest score (M = 2.36, SD = 1.57) while the mean of Internet heavy users' newspaper reading was the lowest score (M = 2.12, SD = 1.49). However, there was no statistically significant difference among three users ( $\underline{F}$  = 2.74, <u>df</u> = 2/497, <u>ns</u>).

Meanwhile, table 11-2 shows that there was a supplemental effect between watching motion pictures and Internet use. Internet light users (M = 1.43, SD = 1.74) and heavy users (M = 2.21, SD = 2.04) were more likely to go the theater than Internet nonusers (M = .83, SD = 1.86). There was a significant difference among the three groups' means ( $\underline{F} = 24.19$ ,  $\underline{df} = 2/497$ ,  $\underline{p} < .001$ ). Using Tukey HSD, a post hoc test reported that all pairwise comparisons among three groups were statistically significant. Internet heavy users went to the theater most frequently followed by Internet non-users (mean difference = 1.39,  $\underline{p} < .001$ ) and Internet light users (mean difference = .78,  $\underline{p} < .01$ ). Also there was

a statistically significant mean difference between Internet non-users and Internet light users (mean difference = .60, p < .05).

Reading books also had a supplemental effect with Internet use. The more time spent on the Internet, the more time was spent with books. In Korea, Internet heavy users (M = 2.21, SD = 2.04) read an average of 2.21 books per month while Internet non-users read an average of .83 (SD = 1.86) books per month. The mean of reading books among the three groups had a statistically significant difference ( $\underline{F} = 7.95$ ,  $\underline{df} = 2/497$ ,  $\underline{p} < .001$ ). Also, in multiple comparisons among these three groups, there were statistically significant differences of means for reading books between Internet non-users and Internet light users (mean difference = 1.05,  $\underline{p} < .01$ ) and between Internet non-users and Internet heavy users (mean difference = .96,  $\underline{p} < .01$ ).

Lastly, Internet use had no effect on the time spent reading magazines. The means of reading magazines showed no statistically significant difference among the three different groups ( $\underline{F} = .10$ ,  $\underline{df} = 2/497$ , *ns*). Internet non-users (M = 9.95, SD = 27.36), light users (M = 10.90, SD = 19.25), and heavy users (M = 10.91, SD = 23.72) spent almost the same magazines of amount of time reading. All multiple mean comparisons are presented in table 11-1 and 11-2.

## Table 11-1

| Analysis of Variance for Differences of Media Use Time among Internet Non, | Light, and |
|--|------------|
| Heavy Users (I)  |            |

|          | Televisi | on (Min.)      | Radio (Min.)   |       | Newspaper<br>(days per week) |      |           |
|----------|----------|----------------|----------------|-------|------------------------------|------|-----------|
| Group    | N        | M              | SD             | M     | <u>SD</u>                    | M    | <u>SD</u> |
| Non      | 191      | 181.37         | 182.41         | 40.99 | 115.17                       | 2.36 | 1.57      |
| Light    | 133      | 138.08         | 109.73         | 46.07 | 70.67                        | 2.51 | 1.40      |
| Heavy    | 176      | 167.91         | 146.07         | 29.99 | 51.21                        | 2.12 | 1.49      |
| Total    | 500      | 165.12         | 153.74         | 38.47 | 85.64                        | 2.32 | 1.50      |
| F values | (prob.)  | 3.18, <u>r</u> | <u>o</u> < .05 | 1.47  | (.230)                       | 2.74 | (.066)    |

#### Table 11-2

# Analysis of Variance for Differences of Media Use Time among Internet Non, Light, and Heavy Users (II)

|       |      |          | pictures<br>er month) | Book<br>(times per month) |           | Magazines<br>(Min.) |           |
|-------|------|----------|-----------------------|---------------------------|-----------|---------------------|-----------|
| Group | N    | M        | • <u>SD</u>           | M                         | <u>SD</u> | M                   | <u>SD</u> |
| Non   | 191  | .83      | 1.86                  | 1.04                      | 2.01      | 9.95                | 27.36     |
| Light | 133  | 1.43     | 1.74                  | 2.08                      | 3.25      | 10.90               | 19.25     |
| Heavy | 176  | 2.21     | 2.04                  | 1.99                      | 2.94      | 10.91               | 22.60     |
| Total | 500  | 1.48     | 1.98                  | 1.65                      | 2.76      | 10.54               | 23.72     |
| F val | lues | 24.19, 1 | <u>p &lt; .001</u>    | 7.95, p                   | <.001     | .10 (               | .908)     |

Furthermore, the relationship between Internet use and the number of media in the media repertoire (media repertoire density) was measured to test how Internet use influences the time spent with other media. If person who spend more time on the Internet have greater numbers of media in their media repertoire than persons who spend

less time on the Internet, we can determine that Internet use does not cut into the time spent on other media. The result of analysis of variance for comparison of three groups showed that the more time spent on the Internet, the higher the media repertoire density (numbers) (F = 81.23, df = 2/497, p < .001). A post hoc test showed that all pairwise comparisons among the three groups revealed statistically significant differences in the number of media constituting an individuals' media repertoire. Internet heavy users had the largest number of media encompassing their media repertoire followed by Internet non-users (mean difference = 1.58, p < .001) and Internet light users (mean difference = 1.20, p < .001). While Internet non-users had only 1.6 media as their general media repertoire, Internet heavy users included 3.18 media in their general media repertoire. There was also a statistically significant mean difference for media repertoire density between Internet light users and Internet non-users (mean difference = .38, p < .05). These findings can be interpreted that those who had Internet repertoire were more likely to be active with other media than those who had no Internet repertoire. In other words, the Internet seems to act as a supplemental medium with other media rather than as a substitute medium. The relationship between Internet use and the number of media as individuals' media repertoire is presented Table 11-3.

#### Table 11-3

## Analysis of Variance for Differences of General Media Repertoire Density among Internet Non, Light, and Heavy Users

|                      | Media Repertoire Density (Numbers of media repertoire) |      |      |     |     |  |  |
|----------------------|--|------|------|-----|-----|--|--|
| Groups               | N  | M    | SD   | Min | Max |  |  |
| Internet non-users   | 191  | 1.60 | 1.20 | 0   | 7   |  |  |
| Internet light users | 133  | 1.98 | 1.25 | 0   | 7   |  |  |
| Internet heavy users | 176  | 3.18 | 1.23 | 0   | 7   |  |  |
| Total                | 500  | 2.26 | 1.41 | 0   | 7   |  |  |
| F value (prob.)      | 81.23*** (.000), p < .001.                             |      |      |     |     |  |  |

#### General, Information, and Entertainment Media Repertoire

<u>RQ 4.</u> What is the composition of the respondents' information media repertoire, entertainment media repertoire, and general media repertoire?

As mentioned earlier, the general media repertoire is a set of media that an individual uses regularly. In order to define the contribution of each medium to a repertoire, the mean for the use of each medium was used as a criterion. If an individual's average time for television viewing was greater than the mean time for television viewing of the sample, then the individual was determined to include television in his or her media repertoire.

Frequency counts and percentages for media repertoire density showed that subjects had average 2.26 media in their general media repertoire (M = 2.26, SD = 1.41). Theoretically, the maximum number of media that could be included in a subject's repertoire in this study was seven; however, six was the maximum number actually reported by respondents. According to the data, 59.1 percent of respondents (296) counted from 2 to 4 media and 18.8 percent of the sample (94) had over 4 media in their media repertoire. Also, 9.2 percent of respondents (46) had no media repertoire, meaning that for each medium, the level of use amounted to less than the sample's collection of average use. The frequencies and percentages of media repertoire density are presented Table 12-1.

Table 12-1

| N. Media | Frequency | Percent | Cumulative | Min. | Max |
|----------|-----------|---------|------------|------|-----|
| 0        | 46        | 9.2     | 9.2        | 0    | 6   |
| 1        | 121       | 24.2    | 33.4       | 0    | 6   |
| 2        | 128       | 25.5    | 59.0       | 0    | 6   |
| 3        | 111       | 22.2    | 81.2       | 0    | 6   |
| 4        | 57        | 11.4    | 92.6       | 0    | 6   |
| 5        | 31        | 6.2     | 98.8       | 0    | 6   |
| 6        | 6         | 1.2     | 100.0      | 0    | 6   |
| Total    | 500       | 100     | +          |      |     |

| Frequency Counts | : Media Repertoire Size | (Number of Media Included in the Repertore |
|------------------|-------------------------|--|
|                  |                         |  |

#### Note. N. Media = Number of Media

Regarding individual media, 44.8 percent of respondents (224) included the newspaper in their general media repertoire whereas 37 percent (185) included television. Thirty-five point two percent of the sample (176) included the Internet and the same number included motion pictures. Twenty-three point four percent of the sample (117) counted magazines in their general media repertoire and only 23 percent regularly chose books as part of their repertoire for general media needs. There was a total of 1129 multiple responses about the general media repertoire by the sample. Data showed that among the 1129 responses, the newspaper was a repertoire element in 19.8 percent of

those responses (224). Television (185) ranked second followed by the Internet, motion pictures, radio, magazines, and books (see Table 13-1).

Table 13-1

|            | Count | % of response | N   | % of sample |
|------------|-------|---------------|-----|-------------|
| Television | 185   | 16.4          | 500 | 37.0        |
| Radio      | 136   | 12.0          | 500 | 27.2        |
| Newspaper  | 224   | 19.8          | 500 | 44.8        |
| Internet   | 176   | 15.6          | 500 | 35.2        |
| Film       | 176   | 15.6          | 500 | 35.2        |
| Magazine   | 117   | 10.4          | 500 | 23.4        |
| Book       | 115   | 10.2          | 500 | 23.0        |
| Total      | 1129  | 100.0         |     |             |

Frequencies and Percentage of Media Included in the General Media Repertoire

The information and entertainment repertoires were also measured. The respondents were asked how often they used a certain medium for satisfying their information and entertainment needs. The five possible responses were as follows: 1) "never," 2) "rarely," 3) "sometimes," 4) "frequently," and 5) "always." Among five possible answers, if a respondent reported that he or she used newspapers "frequently" or "always" to meet information needs, the respondent was considered to include the newspaper in his or her information repertoire. If one of the other three responses ("never," "rarely," or "sometimes") was chosen, that medium was not considered a part of the relevant repertoire. In this study, the number of media relied upon by respondents (the media repertoires) varied from 0 to 7.

Korean respondents averaged 2.25 media in their information media repertoire (SD = 1.38) and 2.01 media in their entertainment media repertoire (SD = 1.36). Seventy-

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three point two percent of respondents (366) regularly used one, two, or three forms of mass media to meet their information needs. Twenty-two point six percent of respondents (113) included three media in their information media repertoire and 11.4 percent (57) relied upon four information media. With regard to the entertainment media repertoire, 74.2 percent of respondents (371) regularly used one, two, or three media in order to satisfy their entertainment needs. It was notable that 13.4 percent of respondents (67) did not have an entertainment media repertoire, meaning that they did not have a regular medium set for meeting their entertainment motivations (see Table 14-1).

Table 14-1

|             | Information | Repertoire  | Entertainment Repertoire |         |  |
|-------------|-------------|-------------|--------------------------|---------|--|
| N. of media | Frequency   | Percent     | Frequency                | Percent |  |
| 0           | 47          | 9.4         | 67                       | 13.4    |  |
| 1           | 108         | 21.6        | 124                      | 24.8    |  |
| 2           | 145         | 29.0        | 142                      | 28.0    |  |
| 3           | 113         | 22.6        | 107                      | 21.4    |  |
| 4           | 57          | 11.4        | 41                       | 8.2     |  |
| 5           | 24          | 4.8         | 13                       | 2.6     |  |
| 6           | 3           | .6          | 6                        | 1.2     |  |
| 7           | 3           | .6          | 2                        | .4      |  |
| Total       | 500         | 100.0       | 500                      | 100.0   |  |
| Mean (SD)   | 2.25 (1     | 2.25 (1.38) |                          | .36)    |  |

#### Size of Media Repertoire

<u>Note.</u> N. of media = number of media included.

In terms of response to the five-item scale reporting the frequency of reliance upon a medium to satisfy information or entertainment needs, people chose television most frequently (M = 3.84, SD = .91) while the newspaper ranked second for information needs (M = 3.40, SD = 1.12). The Internet was the third most frequently used medium for satisfying individuals' information needs (M = 3. 02, SD = 1.51) followed by books (M = 2.75, SD = .95), motion pictures (M = 2.56, SD = 1.00), and radio (M = 2.53, SD = 1.08). The least chosen medium for information needs was magazines (M = 2.28, SD = .92).

Similarly, television, the newspaper, and the Internet were the most frequently chosen media for satisfying entertainment needs. The mean for frequency of use for television for entertainment needs was 3.75 (SD = .95) The newspaper (M = 3.01, SD = 1.08), the second ranked medium for entertainment needs, and the Internet (M = 3.01, SD = 1.48), the third ranked medium, had very similar means, particularly for entertainment needs. The detailed mean scores are presented in Table 15-1.

The data showed that overall, television, the newspaper, and the Internet were the most commonly used media for satisfying individual' information and entertainment needs. Television was the most frequently chosen medium for both the information and entertainment repertoire. In contrast, magazines were the least frequently chosen medium for both the information and entertainment repertoire. Sixty-seven point eight percent of respondents (339) used television for satisfying information needs and 64 percent (321) consumed television for satisfying entertainment needs. The second ranked medium for information was the newspaper (N = 241, 48.2 %). However, the second ranked medium for entertainment was the Internet (N = 219, 43.8 %). Forty-five point four percent of respondents (227) used the Internet in their information media repertoire and 29.6 percent (148) chose the newspaper for their entertainment media repertoire. The lowest ranked media for the information repertoire were films (N = 81, 16.2 %) and magazines (N = 47,

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9.40 %) whereas books (N = 78, 15.6 %) and magazines (N = 44, 8.8 %) were the lowest

ranked media for entertainment repertoire (see Table 15-1).

Table 15-1

## Frequency (Mean) of Specific Media Related to Information and Entertainment Repertoire

|            |     |      |      | Infor | nation    | Entertainment |           |
|------------|-----|------|------|-------|-----------|---------------|-----------|
|            | N   | Min. | Max. | M     | <u>SD</u> | M             | <u>SD</u> |
| Television | 500 | 1    | 5    | 3.84  | .91       | 3.75          | .95       |
| Radio      | 500 | 1    | 5    | 2.53  | 1.08      | 2.49          | 1.03      |
| Newspaper  | 500 | 1    | 5    | 3.40  | 1.12      | 3.01          | 1.08      |
| Internet   | 500 | 1    | 5    | 3.02  | 1.51      | 2.97          | 1.48      |
| Films      | 500 | 1    | 5    | 2.56  | 1.00      | 2.70          | 1.04      |
| Magazines  | 500 | 1    | 5    | 2.28  | .92       | 2.24          | .92       |
| Books      | 500 | 1    | 5    | 2.75  | .95       | 2.68          | .93       |

Note. 1 = never use a certain medium for satisfying needs, 2 = rarely, 3 = sometimes, 4 =

very often, and 5 = always use a certain medium for satisfying needs.

#### Table 16-1

|            | Information need | Entertainment need | N   |
|------------|------------------|--------------------|-----|
| Television | 339 (67.8 %)     | 321 (64.2 %)       | 500 |
| Radio      | 94 (18.8 %)      | 85 (17.0 %)        | 500 |
| Newspaper  | 241 (48.2 %)     | 148 (29.6 %)       | 500 |
| Internet   | 227 (45.4 %)     | 219 (43.8 %)       | 500 |
| Film       | 81 (16.2 %)      | 109 (21.8 %)       | 500 |
| Magazine   | 47 (9.4 %)       | 44 (8.8%)          | 500 |
| Book       | 95 (19.0 %)      | 78 (15.6 %)        | 500 |

## Frequencies and Percentage of Specific Media Utilization in Information and Entertainment Media Repertoire

## The Impact of External Constraints on the General, Information, and Entertainment Media Repertoire

<u>RQ 5.</u> What is the relative influence of demographics and external constraints on the general, information and entertainment media repertoire?

In this section, independent sample t-test and ANOVAs were utilized to test the relationship between general media repertoire density and both demographic variables and external constraints. Using crosstabs with chi-square tests, the study also assessed relationships between general, information, and entertainment media repertoire and five variables (demographics and external constraints). The results are as follows.

General media repertoire density and demographics.

The general media repertoire density indicates the number of media that

individuals regularly use. Results based on t-test and ANOVAs showed that the

relationship between the general media repertoire density and age ( $\underline{F} = 21.53$ ,  $\underline{df} = 4/495$ ,

p < .001) and the general media repertoire density and educational level (F = 37.84, df =

2/497, p < .001) were statistically significant. Multiple mean comparisons among age groups in a post hoc test revealed that most mean comparisons were statistically significant. The comparison of the mean between the 18 to 24 age group and the 55 and over age group showed the highest difference for general media repertoire density (mean difference = 1.55, p < .001) followed by the 18 to 24 age group and the 45 to 54 age group (mean difference = 1.29, p < .001). Younger subjects were relied on higher number of media in their general media repertoires.

Education level and media repertoire density had a strong positive relationship. Statistically significant differences in the mean of general media repertoire density were found in a post hoc test. The high education level group had a larger number of media that they regularly use versus the low education level group (mean difference = 1.40, p < .001) and the middle education level group (mean difference = .65, p < .001). The middle education level group also had greater media repertoire density than the low education level group (mean difference = .75, p < .001). The higher education level, the larger the number of media in the general media repertoire. On the other hand, regarding the relationships between the general media repertoire and gender, income, and leisure time, there was no statistically significant mean difference among the groups (see Table 17-1 and 17-2).

## Table 17-1

|        | Ge              | nder       | Age Group  |       |       |       |         |  |  |
|--------|-----------------|------------|--|-------|-------|-------|---------|--|--|
|        | Male            | Female     | 18-24  | 25-34 | 35-44 | 45-54 | Over 55 |  |  |
| N      | 250             | 250        | 93   | 138   | 125   | 94    | 50      |  |  |
| M      | 2.28            | 2.23       | 2.95   | 2.70  | 2.06  | 1.66  | 1.40    |  |  |
| SD     | 1.32            | 1.48       | 1.27   | 1.44  | 1.36  | 1.04  | 1.23    |  |  |
| Values | <u>T</u> = .413 | (.680), ns | $\underline{F} = 21.53^{***}$ (.000), $\underline{p} < .001$ |       |       |       |         |  |  |

## T-test and Analysis of Variance for General Media Repertoire Density based on Gender and Age

## Table 17-2

Analysis of Variance for General Media Repertoire Density based on Education, Income, and Leisure Time Levels

|       | Income level |          |               | Education level     |                 |      | Leisure time        |      |      |      |
|-------|--------------|----------|---------------|---------------------|-----------------|------|---------------------|------|------|------|
|       | L            | M        | H             | L                   | M               | H    | 1                   | 4    | 7    | 8    |
| N     | 138          | 203      | 159           | 100                 | 218             | 182  | 18                  | 271  | 176  | 35   |
| М     | 2.02         | 2.33     | 2.38          | 1.42                | 2.17            | 2.82 | 1.61                | 2.20 | 2.39 | 2.40 |
| SD    | 1.54         | 1.32     | 1.37          | 1.22                | 1.35            | 1.32 | 1.09                | 1.43 | 1.31 | 1.74 |
| F-    | F = 2        | .77 (.06 | 3), <u>ns</u> | F = 37.84 (.000)*** |                 |      | F = 2.05 (.106), ns |      |      |      |
| value |              |          |               |                     | <u>p</u> <. 001 |      |                     |      |      |      |

<u>Note.</u> L = low level, M = middle level, H = high level; 1 = a group who had less than 1

hour leisure time, 4 = less than 4 hours, 7 = less than 7 hours, and 8 = over 7 hours. <u>NS</u> = not significant.

Influence of demographics and external constraints on media use on the general media repertoire.

A separate analysis was performed to test the relationship between each demographic variable and the inclusion or exclusion of each medium in subject's general media repertoire. For example, Table 18-1 shows results for chi-square tests of the relationship between gender and whether or not subjects included television, radio, and each of the other five media in their general media repertoire. There was a statistically significant relationship between gender and the inclusion of newspapers, the Internet, magazines, and books in subjects' general media repertoire. A majority (55.6 percent) of males included newspaper in their repertoire while only 34 percent of females did so. Similarly, males showed a higher incidence of Internet reliance (41.2 %) than females, among whom only 29.2% included the Internet in their general media repertoire. While 18.8 percent of males included magazines repertoire, 28 percent of females utilized this medium in their general repertoire. Similarly, the percentage of females (27.2) including books compared to 18.8 percent of males.

Age was significantly related to the inclusion of newspapers, the Internet, motion pictures, magazines, and books. As Table 18-2 shows, older people were more likely than younger respondents to read newspapers. However, in terms of the Internet, films, magazines, and books repertoire, younger persons were more likely than older ones to count these media forms in their general media repertoire.

#### Table 18-1

|         |      | TV                    | Radio  | Newspapers            | Internet       | Films                 | Mags                  | Books                 |
|---------|------|-----------------------|--|-----------------------|----------------|-----------------------|-----------------------|-----------------------|
| Z       | 0    | 63.6                  | 76.0   | 44.4                  | 58.8           | 66.4                  | 81.2                  | 81.2                  |
| Males   | 1    | 36.4                  | 24.0   | 55.6                  | 41.2           | 33.6                  | 18.8                  | 18.8                  |
|         | T    | 100.0                 | 100.0  | 100.0                 | 100.0          | 100.0                 | 100.0                 | 100.0                 |
| Fe      | 0    | 62.4                  | 69.6         66.0         70.8         63.2         72.0 | 72.8                  |                |                       |                       |                       |
| Females | 1    | 37.6                  | 30.4   | 34.0                  | 29.2           | 36.8                  | 28.0                  | 27.2                  |
| š       | Т    | 100.0                 | 100.0  | 100.0                 | 100.0          | 100.0                 | 100.0                 | 100.0                 |
| Ch      | i-   | .08                   | 2.59   | 23.58                 | 7.89           | .56                   | 5.90                  | 4.98                  |
| Sq      | uare | $\underline{df} = 1,$ | $\underline{df} = 1,$                                    | $\underline{df} = 1,$ | <u>df</u> = 1, | $\underline{df} = 1,$ | $\underline{df} = 1,$ | $\underline{df} = 1,$ |
|         | ĺ    | <u>ns</u>             | <u>ns</u>  | <b>g</b> <.001        | <u>p</u> <.01  | <u>ns</u>             | <b>p</b> <.05         | <b>g</b> <.05         |

# <u>Crosstabs with Chi-Square Tests of the Relationship Between Percentage of Inclusion of</u> Each Medium in the General Media Repertoire and Gender

<u>Note.</u> 0 = did not include this medium in the repertoire, 1 = did include this medium in

the repertoire.

#### Table 18-2

|        |      | TV                           | Radio                 | Newspapers           | Internet       | Films          | Mags          | Books          |
|--------|------|------------------------------|-----------------------|----------------------|----------------|----------------|---------------|----------------|
|        | 0    | 65.6                         | 73.1                  | 80.6                 | 20.4           | 33.3           | 73.1          | 59.1           |
| 18 - 2 | 1    | 34.4                         | 26.9                  | 19.4                 | 79.6           | 66.7           | 26.9          | 40.9           |
| 24     | T    | 100.0                        | 100.0                 | 100.0                | 100.0          | 100.0          | 100.0         | 100.0          |
|        | 0    | 58.7                         | 73.9                  | 55.1                 | 47.8           | 52.9           | 70.3          | 71.7           |
| 25 - 3 | 1    | 41.3                         | 26.1                  | 44.9                 | 52.2           | 47.1           | 29.7          | 28.3           |
| 34     | T    | 100.0                        | 100.0                 | 100.0                | 100.0          | 100.0          | 100.0         | 100.0          |
| 35     | 0    | 72.0                         | 66.4                  | 42.4                 | 83.2           | 72.8           | 76.0          | 81.6           |
| - 44   | 1    | 28.0                         | 33.6                  | 57.6                 | 16.8           | 27.2           | 24.0          | 18.4           |
|        | T    | 100.0                        | 100.0                 | 100.0                | 100.0          | 100.0          | 100.0         | 100.0          |
|        | 0    | 61.7                         | 75.5                  | 44.7                 | 92.6           | 88.3           | 84.0          | 87.2           |
| 45 - 5 | 1    | 38.3                         | 24.5                  | 55.3                 | 7.4            | 11.7           | 16.0          | 12.8           |
| 54     | Т    | 100.0                        | 100.0                 | 100.0                | 100.0          | 100.0          | 100.0         | 100.0          |
|        | 0    | 50.0                         | 80.0                  | 60.0                 | 96.0           | 92.0           | 88.0          | 94.0           |
| 55+    | 1    | 50.0                         | 20.0                  | 40.0                 | 4.0            | 8.0            | 12.0          | 6.0            |
|        | Т    | 100.0                        | 100.0                 | 100.0                | 100.0          | 100.0          | 100.0         | 100.0          |
| C      | hi-  | 9.40,                        | 4.34,                 | 37.30,               | 169.33,        | 91.42,         | 10.25,        | 34.12,         |
| squ    | lare | $\underline{\mathrm{df}}=4,$ | $\underline{df} = 4,$ | $\underline{df} = 4$ | <u>df</u> = 4  | <u>df</u> = 4  | <u>df</u> = 4 | <u>df</u> = 4  |
|        |      | <u>ns</u>                    | <u>ns</u>             | <u>p</u> <.001       | <b>g</b> <.001 | <u>p</u> <.001 | <u>p</u> <.05 | <b>p</b> <.001 |

## <u>Crosstabs with Chi-Square Test of of the Relationship Between Percentage of Inclusion</u> of Each Medium in the General Media Repertoire and Age

<u>Note</u>  $0 = \text{did not include this medium in the repertoire, 1 = did include this medium in the repertoire.$ 

In addition, the level of education had an impact on inclusion of television, newspapers, the Internet, films, and books in the general media repertoire. Table 18-3 shows that those who had a higher level of education had greater reliance on newspapers, the Internet, films, and books than those who had a lower level of education. Only in the case of television did those with the lowest a level of education had a outnumber subjects with the highest level of education. While 42 percent of the low educational group included television, only 29.1 percent of the highest educational level included this medium in their general media repertoire. Among the lowest educational level group reported only 4 percent included the Internet, while 61.5 percent of the high educational group did so. Similarly, only 14 percent of the lowest educational level group reported using films while 51.6 percent of the highest educational level group included this medium.

Table 18-3

## <u>Crosstabs with Chi-Square Test of Frequency of the Relationship Between Percentage of</u> <u>Inclusion of Each Medium in the General media Repertoire and Education</u>

|        |     | TV            | Radio         | Newspapers     | Internet       | Films          | Mags          | Books          |
|--------|-----|---------------|---------------|----------------|----------------|----------------|---------------|----------------|
|        | 0   | 58.0          | 78.0          | 69.0           | 96.0           | 86.0           | 80.0          | 91.0           |
| Low    | 1   | 42.0          | 22.0          | 31.0           | 4.0            | 14.0           | 20.0          | 9.0            |
|        | T   | 100.0         | 100.0         | 100.0          | 100.0          | 100.0          | 100.0         | 100.0          |
| ~      | 0   | 58.7          | 68.3          | 56.0           | 72.5           | 68.8           | 77.1          | 81.7           |
| Middle | 1   | 41.3          | 31.7          | 44.0           | 27.5           | 31.2           | 22.9          | 18.3           |
| le     | Т   | 100.0         | 100.0         | 100.0          | 100.0          | 100.0          | 100.0         | 100.0          |
|        | 0   | 70.9          | 75.3          | 46.7           | 38.5           | 48.4           | 74.2          | 63.7           |
| High   | 1   | 29.1          | 24.7          | 53.3           | 61.5           | 51.6           | 25.8          | 36.3           |
|        | Τ   | 100.0         | 100.0         | 100.0          | 100.0          | 100.0          | 100.0         | 100.0          |
| Ch     | i-  | 7.64,         | 4.11,         | 13.07,         | 103.67,        | 42.83,         | 1.27,         | 37.81,         |
| Squ    | are | df = 2,       | <u>df</u> =2, | <u>df</u> = 2, | <u>df</u> =2,  | <u>df</u> = 2, | <u>df</u> =2, | <u>df</u> = 2, |
|        |     | <u>p</u> <.05 | <u>ns</u>     | <b>p</b> <.001 | <b>g</b> <.001 | <u>p</u> <.001 | <u>ns</u>     | <u>p</u> <.001 |

<u>Note.</u> 0 = did not include this medium in the repertoire, 1 = did include this medium in

the repertoire.

#### Table 18-4

|        |     | TVR            | RR            | NPR            | IR             | FR             | MR                    | BR             |
|--------|-----|----------------|---------------|----------------|----------------|----------------|-----------------------|----------------|
|        | 0   | 60.1           | 79.0          | 74.6           | 65.9           | 68.1           | 75.4                  | 71.0           |
| Low    | 1   | 39.9           | 21.0          | 25.4           | 34.1           | 31.9           | 24.6                  | 29.0           |
|        | T   | 100.0          | 100.0         | 100.0          | 100.0          | 100.0          | 100.0                 | 100.0          |
| 7      | 0   | 60.6           | 68.0          | 62.6           | 66.0           | 64.0           | 75.9                  | 70.4           |
| Middle | 1   | 39.4           | 32.0          | 37.4           | 44.0           | 36.0           | 24.1                  | 29.6           |
| le     | T   | 100.0          | 100.0         | 100.0          | 100.0          | 100.0          | 100.0                 | 100.0          |
|        | 0   | 68.6           | 74.2          | 51.6           | 62.2           | 63.5           | 78.6                  | 64.2           |
| High   | 1   | 31.4           | 25.8          | 48.4           | 37.8           | 36.5           | 21.4                  | 35.8           |
|        | Т   | 100.0          | 100.0         | 100.0          | 100.0          | 100.0          | 100.0                 | 100.0          |
| Ch     | ni- | 3.09,          | 5.22,         | 16.76,         | .66,           | .82,           | .54,                  | 2.16,          |
| Squ    | are | <u>df</u> = 2, | <u>df</u> =2, | <u>df</u> =2,  | <u>df</u> = 2, | <u>df</u> = 2, | $\underline{df} = 2,$ | <u>df</u> = 2, |
|        |     | <u>ns</u>      | <u>ns</u>     | <u>p</u> <.001 | <u>ns</u>      | ns             | ns                    | <u>ns</u>      |

| Crosstabs with Chi-Square Test of the Relationship Between the Percentage of Inclusion |
|--|
| of Each Medium in the General Media Repertoire and Income                              |

<u>Note.</u> Low = less than \$ 15,000 income per year, Middle = between \$ 15,000 and \$ 25,000, and High = over \$ 25,000 income; 0 = did not include this medium in the repertoire, 1 = did include this medium in the repertoire.

Neither the variable of income nor leisure time was strongly associated with media use. Only income had a statistically significant relationship to the inclusion of newspapers in the general media repertoire. Those with a higher household income were more likely to read newspapers than those with a lower household income: 25.4 percent of the low-income group read newspapers regularly, whereas 48.4 percent of the highincome group did so. With respect to leisure time, there was only one significant relationship found. Only 5.6 percent of those with less than one hour of leisure time included the Internet in their general media repertoire. However, 40 percent of those with

more than eight hour of leisure time included the Internet (see Table 18-5).

Table 18-5

| Crosstabs with Chi-Square Test of the Relationship Between Percentage of Inclusion of |
|---|
| Each Medium in the General Media Repertoire and Leisure Time                          |

|         |     | TV                    | Radio                 | Newspapers  | Internet   | Films                 | Mags                  | Books                 |
|---------|-----|-----------------------|-----------------------|---|--|-----------------------|-----------------------|-----------------------|
| Λ       | 0   | 55.6                  | 72.7                  | 38.9  | 94.9   | 88.9                  | 94.4                  | 94.4                  |
| 1 hc    | 1   | 44.4                  | 27.8                  | 61.1  | 5.6  | 11.1                  | 5.6                   | 5.6                   |
| hour    | T   | 100.0                 | 100.0                 | 100.0   | 100.0  | 100.0                 | 100.0                 | 100.                  |
| ^       | 0   | 66.8                  | 72.0                  | 51.7  | 69.0   | 66.1                  | 77.9                  | 76.8                  |
| 4 ho    | 1   | 33.2                  | 28.0                  | 48.3  | 31.0   | 33.9                  | 22.1                  | 23.2                  |
| hours   | T   | 100.0                 | 100.0                 | 100.0   | 38.9 $94.9$ $88.9$ $94.4$ $51.1$ $5.6$ $11.1$ $5.6$ $00.0$ $100.0$ $100.0$ $100.0$ $51.7$ $69.0$ $66.1$ $77.9$ $48.3$ $31.0$ $33.9$ $22.1$ $00.0$ $100.0$ $100.0$ $100.0$ $59.7$ $56.3$ $63.1$ $72.7$ $40.3$ $43.8$ $36.9$ $27.3$ $00.0$ $100.0$ $100.0$ $100.0$ $58.6$ $60.0$ $51.4$ $77.1$ $31.4$ $40.0$ $48.6$ $22.9$ $00.0$ $100.0$ $100.0$ $100.0$ $7.26$ $15.03$ , $7.74$ , $4.92$ | 100.0                 |                       |                       |
| ^       | 0   | 60.8                  | 73.5                  | 59.7  | 56.3   | 63.1                  | 72.7                  | 75.6                  |
| 7 hours | 1   | 39.2                  | 26.5                  | 40.3  | 43.8   | 36.9                  | 27.3                  | 24.4                  |
| ours    | T   | 100.0                 | 100.0                 | 100.0100.0100.0100.0 $51.7$ $69.0$ $66.1$ $77.5$ $48.3$ $31.0$ $33.9$ $22.5$ $100.0$ $100.0$ $100.0$ $100.0$ $59.7$ $56.3$ $63.1$ $72.5$ $40.3$ $43.8$ $36.9$ $27.5$ $100.0$ $100.0$ $100.0$ $100.0$ $58.6$ $60.0$ $51.4$ $77.5$ $31.4$ $40.0$ $48.6$ $22.9$ $100.0$ $100.0$ $100.0$ $100.0$ $7.26$ $15.03,$ $7.74,$ $4.92$ $df = 3,$ $df = 3,$ $df = 3,$ $df = 3,$ | 100.0  | 100.0                 |                       |                       |
| 7       | 0   | 48.6                  | 77.1                  | 68.6  | 60.0   | 51.4                  | 77.1                  | 77.1                  |
| hours   | 1   | 51.4                  | 22.9                  | 31.4  | 40.0   | 48.6                  | 22.9                  | 22.9                  |
| +<br>+  | T   | 100.0                 | 100.0                 | 100.0   | 100.0  | 100.0                 | 100.0                 | 100.0                 |
| Ch      | ui- | 5.59,                 | .46,                  | 7.26  | 15.03,   | 7.74,                 | 4.92                  | 3.31,                 |
| Squ     | are | $\underline{df} = 3,$ | $\underline{df} = 3,$ | <u>df</u> = 3, <u>ns</u>  | $\underline{df} = 3,$  | $\underline{df} = 3,$ | $\underline{df} = 3,$ | $\underline{df} = 3,$ |
|         |     | <u>ns</u>             | <u>ns</u>             |   | <b>g</b> <.01  | <u>ns</u>             | <u>ns</u>             | <u>ns</u>             |

<u>Note.</u> 0 = did not include this medium in the repertoire, 1 = did include this medium in

the repertoire.

# Influence of demographics and external constraint on information and entertainment repertoire.

In order to satisfy information or entertainment needs, people tend to choose a certain medium over often. People also have their own media set, which they regularly use for their information and entertainment needs. The role of specific media in the information and entertainment repertoire differs from person to person. Tests of the impact of demographics and external constraints on the information and entertainment media repertoire showed very similar media consumption patterns to those noted with respect to the general media repertoire. T-tests and ANOVAs were performed to compare the numbers of media for information and entertainment needs (the density of information and entertainment media repertoire) based on age, gender, income, education, and leisure time. Frequencies of use of each medium for information and entertainment needs along with chi-square tests were used to examine the effects of demographics and external constraints on information and entertainment media repertoire.

There was no significant difference between males and females' information and entertainment media repertoire density (see table 19-1). However, there were statistically significant differences in information and entertainment density among groups based on age, income, education, and leisure time. Both information ( $\mathbf{F} = 11.74$ ,  $d\mathbf{f} = 4/495$ ,  $\mathbf{p} < .001$ ) and entertainment media density ( $\mathbf{F} = 20.20$ ,  $d\mathbf{f} = 4/495$ ,  $\mathbf{p} < .001$ ), were greater among younger persons than older persons. While the 18 to 24 year age group included 2.82 media for their entertainment needs, persons 55 and over had, on average, only 1.38 entertainment media repertoire (see table 19-2).

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In the education point a view, those who had a higher level of education were more likely to have greater information ( $\mathbf{F} = 24.13$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .001$ ) and entertainment media repertoire ( $\mathbf{F} = 21.49$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .001$ ) than those who had a lower level of education. The mean of the high education group information repertoire density was 2.68, but the mean of the low education group information repertoire density was 1.54 (see table 19-3). In addition, just as indicating table 19-4, the higher the household income the larger on density of information ( $\mathbf{F} = 7.02$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .01$ ) and entertainment media repertoire ( $\mathbf{F} = 3.73$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .05$ ). Also, the group with more leisure time had slightly a more dense information ( $\mathbf{F} = 4.23$ ,  $d\mathbf{f} = 3/496$ ,  $\mathbf{p} < .01$ ) and entertainment media repertoire ( $\mathbf{F} = 3.52$ ,  $d\mathbf{f} = 3/496$ ,  $\mathbf{p} < .05$ ) compared with the low leisure time group (see table 19-5).

Table 19-1

Independent Sample T-test of Differences between Gender and Information and Entertainment Media Repertoire Density

|   |     | Inform | ation reper | Entertainment repertoire density |      |      |             |
|---|-----|--------|-------------|----------------------------------|------|------|-------------|
|   | N   | M      | SD          | T value                          | М    | SD   | Tvalue      |
| M | 250 | 2.24   | 1.21        | .07 (.948), <u>ns</u>            | 2.02 | 1.13 | .26 (.793), |
| F | 250 | 2.25   | 1.53        |                                  | 1.99 | 1.57 | ns          |

Table 19-2

|   |     | Information repertoire density |      | Entertainment repertoire density |      |      |                 |
|---|-----|--------------------------------|------|----------------------------------|------|------|-----------------|
|   | N   | М                              | SD   | F value                          | M    | SD   | F value         |
| 1 | 93  | 2.81                           | 1.42 | 11.74,                           | 2.82 | 1.44 | 20.20,          |
| 2 | 138 | 2.54                           | 1.35 | 4/495,                           | 2.33 | 1.33 | 4/495,          |
| 3 | 125 | 2.02                           | 1.35 | <u>p</u> < .001                  | 1.63 | 1.30 | <b>p</b> < .001 |
| 4 | 94  | 1.90                           | 1.24 |                                  | 1.59 | 1.00 |                 |
| 5 | 50  | 1.58                           | 1.13 |                                  | 1.38 | 1.09 |                 |

# Independent Sample T-test of Differences between Age and Information and Entertainment Media Repertoire Density

Table 19-3

# Independent Sample T-test of Differences between Education and Information and Entertainment Media Repertoire Density

|   |     | Information repertoire density |      |                 | Entertainment repertoire density |      |                 |  |
|---|-----|--------------------------------|------|-----------------|----------------------------------|------|-----------------|--|
|   | N   | М                              | SD   | F value         | M                                | SD   | F value         |  |
| L | 100 | 1.54                           | 1.11 | 24.13,          | 1.34                             | 1.05 | 21.49,          |  |
| Μ | 218 | 2.22                           | 1.39 | 2/497,          | 1.98                             | 1.43 | 2/497,          |  |
| Н | 182 | 2.68                           | 1.33 | <b>p</b> < .001 | 2.41                             | 1.29 | <u>p</u> < .001 |  |

#### Table 19-4

| Independent Sample T-test of Differences between Income and Information and |
|---|
| Entertainment Media Repertoire Density                                      |

|   |     | Information repertoire density |      |                | Entertainment repertoire density |      |                |  |
|---|-----|--------------------------------|------|----------------|----------------------------------|------|----------------|--|
|   | N   | М                              | SD   | F value        | M                                | SD   | F value        |  |
| L | 138 | 1.97                           | 1.32 | 7.02,          | 1.85                             | 1.38 | 3.73,          |  |
| M | 203 | 2.20                           | 1.39 | 2/497,         | 1.93                             | 1.39 | 2/497,         |  |
| Н | 159 | 2.55                           | 1.36 | <u>p</u> < .01 | 2.25                             | 1.28 | <u>p</u> < .05 |  |

#### Table 19-5

Independent Sample T-test of Differences between Leisure Time and Information and Entertainment Media Repertoire Density

|   |     | Information repertoire density |      | Entertainment repertoire density |      |      |                |
|---|-----|--------------------------------|------|----------------------------------|------|------|----------------|
|   | N   | M                              | SD   | F value                          | M    | SD   | F value        |
| 1 | 18  | 1.17                           | 1.25 | 4.23,                            | 1.17 | 1.20 | 3.52,          |
| 4 | 271 | 2.34                           | 1.35 | 3/496,                           | 1.96 | 1.31 | 3/496,         |
| 7 | 176 | 2.23                           | 1.40 | p < .01                          | 2.19 | 1.43 | <u>p</u> < .05 |
| 8 | 35  | 2.17                           | 1.34 |                                  | 1.94 | 1.30 |                |

Chi-square tests and frequency counts suggest that age and educational level were two of the strongest factors in predicting the likelihood of adoption of a medium as a part of an information or entertainment repertoire. Among the variables examined gender, age, education, income, and leisure time, leisure time had the weakest relationship with both the information and entertainment media repertoires. Older persons were more likely to adopt television and newspapers as part of their information and entertainment repertoires. However, younger persons were more likely to use the Internet, motion pictures, magazines, and books in their information and entertainment repertoires. For example, 86.1 percent of respondents aged 18-24 and 67.4 percent of respondents aged 25 to 34 included the Internet in their repertoire for information needs. In other words, this percentage of respondents reported that when they needed to satisfy information needs, they used the Internet "frequently," or "always." However, only 17 percent and 4 percent of respondents, respectively, aged 45-54 and over 55 reported that they "never," "rarely," or "sometimes" included the Internet in their information media repertoire. In the meantime, 88.2 percent of respondents aged 18 to 24, and 65.9 percent of respondents aged 25 to 34 counted the Internet in their entertainment repertoire; whereas only 11.7 percent and 6 percent of respondents, respectively, aged 45 to 54 and over 55 relied on the Internet in their entertainment repertoire. Fifty-nine point seven percent of respondents of aged 18 to 34 adopted motion pictures as their information repertoire and 81 percent of respondents aged 18 to 34 adopted motion pictures as their entertainment repertoire while only 9.4 percent of respondents aged 45 and over used motion pictures as their information and entertainment repertoire.

In the regard to education, those with a higher level of education were more likely to use media generally. Among statistically significant relationships between educational levels and information and entertainment repertoire, higher educated persons tended to use all media such as the newspaper, the Internet, motion pictures, magazines, and books and not television. Those with less education were more likely to watch television for satisfying their information and entertainment needs. For instance, 70 percent of the low educational level group chose television as their information media repertoire and 66 percent of the low education group chose television as their entertainment media repertoires. However, 63.8 percent and 61 percent of those in the high educational level group, respectively, included television in their information and entertainment repertoires. In addition, 10 percent of the low education group reported that they used books "frequently" or "always" for satisfying information needs whereas 24.9 percent of the low education group used books frequently or always. Similarly, 10 percent of the high education group used books "frequently" or "always" for satisfying entertainment needs while 20.8 percent of the high education group chose books "frequently" or "always" as their entertainment repertoires.

Gender produced statistically significant relationships with newspaper, Internet, magazine, and book repertoire for satisfying information needs and with television, newspaper, magazine, and book repertoire for satisfying entertainment needs. In general, males were more likely to use the newspaper and the Internet than females. On the contrary, females were more likely to choose magazines and books for their information and entertainment repertoire than males. Fifteen point six percent and fourteen percent of female included magazines in their information and entertainment repertoires while 3.2 percent and 3.6 percent of males counted magazines in their information and entertainment repertoires. Books were chosen by 24. 8 and 20.4 percent of female for their information and entertainment needs, respectively, whereas books were chosen by 12.6 and 10.8 percent of males as their information and entertainment repertoires.

The relationship between income and information and entertainment media repertoire reflected that newspaper, Internet, film and magazine information repertoire had statistically significant relationships with income. For entertainment repertoire, newspaper, Internet, film, and book repertoire had significant relationships with income. Generally, the higher income level group, the more likely they were to use media. Meanwhile, leisure time had statistically significant relationships with Internet and film repertoire for information and newspaper, Internet, film, and book repertoire for entertainment. To satisfy information needs, those who had more leisure time were more used Internet and films. For entertainment repertoire, newspapers, the Internet, films, and books were more likely to be used by those who had more leisure time. The chi-square values in exploring relationships between media repertoire for information and entertainment needs and demographics are presented in Table 20-1 and 20-2.

Table 20-1

<u>Chi-Square Values between Haves of Information Repertoire and Havenots of</u> <u>Information Repertoire based on Gender, Age, Education, Income, and Leisure Time</u>

|        | Gender   | Age       | Education | Income   | Leisure |
|--------|----------|-----------|-----------|----------|---------|
| TV. IR |          | 41.06***  | 21.75 **  | <u> </u> |         |
| R. IR  |          | +         |           |          |         |
| NP. IR | 24.08*** | 55.26***  | 36.88***  | 34.61*** |         |
| I. IR  | 10.40*   | 246.89*** | 196.35*** | 24.35**  | 34.39** |
| F. IR  |          | 183.56*** | 96.92***  | 18.16*   | 28.86** |
| M. IR  | 28.90*** | 52.22***  | 23.26**   |          |         |
| B. IR  | 13.89**  | 56.59***  | 63.13***  |          |         |

<u>Note.</u> TVIR – television information repertoire, RIR – radio information repertoire, NPIR – newspaper information repertoire, I IR– Internet information repertoire, FIR – Motion pictures information repertoire, MIR – magazines information repertoire, and BIR – book information repertoire. \*\*\* = p < .001, \*\* = p < .01, \* = p < .05.

#### Table 20-2

|       | Gender   | Age       | Education | Income                                | Leisure  |
|-------|----------|-----------|-----------|---------------------------------------|----------|
| TV.ER | 11.24*   | 38.11***  | 23.94**   |                                       | ·        |
| R.ER  |          | -         |           |                                       |          |
| NP.ER | 21.60*** | 57.19***  | 27.09**   | 23.53**                               | 21.46*   |
| I.ER  |          | 258.46*** | 185.02*** | 19.72*                                | 34.41**  |
| F.ER  |          | 215.46*** | 117.51*** | 26.19**                               | 38.11*** |
| M.ER  | 27.64*** | 68.39***  | 37.59***  | · · · · · · · · · · · · · · · · · · · |          |
| B.ER  | 15.18**  | 49.72***  | 62.21***  | 42.78***                              | 24.07*   |

## <u>Chi-Square Values between Haves of Entertainment Repertoire and Havenots of</u> <u>Entertainment Repertoire based on Gender, Age, Education, Income, and Leisure Time</u>

Note. TV.ER - television entertainment repertoire, R.ER -radio entertainment repertoire,

NP.ER - newspaper entertainment repertoire, I.ER - Internet entertainment repertoire,

F.ER - motion picture entertainment repertoire, M.ER - magazine entertainment

repertoire, and B.ER - book entertainment repertoire.

## Tests of Hypotheses

## Relationships Among Needs, Satisfaction, and Media Use

In uses and gratification research, needs, satisfaction of need by media, and media use or choice have reciprocal relationships. Hypotheses 1, 2, 3 examined these relationships.

## Information Hypotheses

H11: The perceived salience of information needs is positively related to the level

of use of each medium. Pearson's correlation analyses were performed to test the

hypothesis 1*i*.

Table 21-1

Correlation between the Salience of Information Needs and the Levels of Use of Each Medium

| Variables                | Coefficients of correlation<br>with perceived salience of<br>information needs | Number of cases |
|--------------------------|--|-----------------|
| Television use level     | .17  | 500             |
| Radio use level          | .98* (p < .05)   | 500             |
| Newspaper use level      | .16 *** (p < .001)   | 500             |
| Internet use level       | 01   | 500             |
| Motion picture use level | .03  | 500             |
| Magazine use level       | .12 <b>**</b> (p < .01)  | 500             |
| Book use level           | .04  | 500             |

According to the results reported in this table, the hypothesis 1*i* was partially supported. The salience of information needs was positively related to the level of usage

of radio, newspapers, and magazines, but unrelated to levels of use for television, the Internet, motion pictures, and books.

H2*i*: The perceived salience of information needs is positively related to perceived usefulness of each medium in satisfying information needs.

On the basis of the literature review, a positive relationship has been found between the salience of needs and the perceived usefulness of media in satisfying such needs. The correlation analysis demonstrated that the salience of information needs was significantly related to perceived usefulness of each medium. All correlation coefficients between tested media and the importance of information needs were in the moderate range (r = from .12 to .32). The salience of information needs was most strongly related to the perceived usefulness of the newspaper. Therefore, Hypothesis 2*i* was supported (see Table 22-1).

Table 22-1

| Variables                 | Coefficients of correlation<br>with perceived salience of<br>information needs | Number of cases |
|---------------------------|--|-----------------|
| Television usefulness     | .26*** (p <.001)   | 500             |
| Radio usefulness          | .22*** ( <u>p</u> < .001)  | 500             |
| Newspaper usefulness      | .32 *** ( <u>p</u> < .001)   | 500             |
| Internet usefulness       | .26*** ( <u>p</u> <.001)   | 500             |
| Motion picture usefulness | .12*** ( <u>p</u> <.01)  | 500             |
| Magazine usefulness       | .22 <b>**</b> ( <u>p</u> < .001)   | 500             |
| Book usefulness           | .30*** ( <u>p</u> <.001)   | 500             |

Correlation between the Salience of Information Needs and Perceived Usefulness of Each Medium

### Entertainment Hypotheses

H1e: The perceived salience of entertainment needs is positively related to the level of use of each medium.

The test of hypothesis 1*e* (see Table 21-2) showed that unlike the relationship between the salience of information needs and the perceived usefulness of each medium, all media variables were significantly related to the salience of entertainment needs except for the newspaper. Therefore, this hypothesis was partially supported. Generally, those who attached higher salience to entertainment needs made greater use of each medium. The strongest positive relationship existed between the perceived usefulness of motion pictures and the salience of entertainment needs.

Table 21-2

| Correlation Between the Perceived Salience of Entertainment Needs an | id the Levels of |
|--|------------------|
| Use of Each Medium   |                  |

| Variables                | Coefficients of correlation<br>with perceived salience of<br>entertainment need | Number of cases |
|--------------------------|---|-----------------|
| Television use level     | .10 * (p < .05)   | 500             |
| Radio use level          | .11* (p < .05)  | 500             |
| Newspaper use level      | .04   | 500             |
| Internet use level       | .19 *** ( <u>p</u> < .001)  | 500             |
| Motion picture use level | .20 *** ( <u>p</u> < .001)  | 500             |
| Magazine use level       | .14 ** (p < .01)  | 500             |
| Book use level           | .10 * ( <u>p</u> < .05)   | 500             |

H2e: The perceived salience of entertainment needs is positively related to

perceived usefulness of each medium in satisfying entertainment needs.

Table 22-2 verifies that hypothesis 2e was supported. The salience of

entertainment needs was positively related to the perceived usefulness of each medium.

The salience of entertainment needs led to a relatively stronger perception of the

usefulness of the Internet, motion pictures, and magazines. Those with greater

entertainment needs tended to perceive the media as having greater usefulness.

Table 22-2

| Correlation Between the Perceived | I Salience of | Entertainment | Needs ar | nd Perceived |
|-----------------------------------|---------------|---------------|----------|--------------|
| Usefulness of Each Medium         |               |               |          |              |

| Variables                 | Coefficients of correlation<br>with perceived salience of<br>entertainment needs | Number of cases |
|---------------------------|--|-----------------|
| Television usefulness     | .23*** ( <u>p</u> <.001)   | 500             |
| Radio usefulness          | .19*** ( <u>p</u> < .001)  | 500             |
| Newspaper usefulness      | .11* ( <u>p</u> < .05)   | 500             |
| Internet usefulness       | .36*** ( <u>p</u> <.001)   | 500             |
| Motion picture usefulness | .34*** ( <u>p</u> <.001)   | 500             |
| Magazine usefulness       | .35 <b>***</b> ( <u>p</u> < .001)  | 500             |
| Book usefulness           | .25*** ( <u>p</u> <.001)   | 500             |

H3: The perceived level of satisfaction with each medium is significantly related to the amount of use of each medium.

Uses and gratifications studies have consistently argued that media satisfaction is the core factor in media use. Hypothesis 3 attempted to examine whether or not media satisfaction was related to the amount of media use. In this study, media satisfaction was equivalent to the sum of the perceived usefulness of both information and entertainment needs. The correlation coefficients confirmed the hypothesis. Satisfaction of each medium was positively related to the amount of use of each medium. All tested relationships between satisfaction with each medium and the level of use of each medium showed significant correlations. Specifically, satisfaction with the newspaper was strongly related to the amount of newspaper reading (r = .58, p < .001). The coefficient of satisfaction towards movies, the Internet, and radio was .50, .46, and .42, respectively, meaning that those variables had a statistically significant relationship at .001 levels. Table 23-1

| Correlation Between | the Perceived | Satisfaction of | of Each M | <u>Aedium and</u> | d the Amount | <u>of Use</u> |
|---------------------|---------------|-----------------|-----------|-------------------|--------------|---------------|
| of Each Medium      |               |                 |           |                   |              |               |

| Variables                   | Coefficients of correlation<br>with the amount of medium<br>use | Number of cases |
|-----------------------------|---|-----------------|
| Television satisfaction     | .27*** ( <u>p</u> <.001)  | 500             |
| Radio satisfaction          | .42*** (p < .001)   | 500             |
| Newspaper satisfaction      | .58*** ( <u>p</u> < .001)                                       | 500             |
| Internet satisfaction       | .46*** ( <u>p</u> <.001)  | 500             |
| Motion picture satisfaction | .50*** ( <u>p</u> <.001)  | 500             |
| Magazine satisfaction       | .36 *** ( <u>p</u> < .001)                                      | 500             |
| Book satisfaction           | .35*** ( <u>p</u> <.001)  | 500             |

# Media Attitude and Media Use

This study assumes that an individual's attitude towards media is a very important factor influencing the use of media, particularly in an environment of multiple media. Perceived affinity, accessibility, and usefulness of each medium was investigated. Hypotheses 4, 5, and 6 suggested how an individual's attitude towards media effected the use of each medium. Pearson's correlation tests were also used to test these hypotheses.

H4: The degree of affinity for each medium is positively related to the amount of use of each medium.

In this study, affinity toward each medium had a strong positive relationship with the level of use of each medium. Affinity toward the newspaper was highly related to newspaper reading (r = .66, p < .001). Correlation between Internet affinity and Internet use was also strong (r = .54). The perceived affinity of motion pictures and the frequency of going to the theater were also strongly correlated (r = .54, p < .001). Similarly, respondents reported that affinity towards radio influenced the level of listening to the radio (r = .49, p < .001).

Table 24-1

| Variables               | Coefficients of correlation<br>with the levels of use of<br>each medium | Number of cases |
|-------------------------|---|-----------------|
| Television affinity     | .34*** ( <u>p</u> <.001)  | 500             |
| Radio affinity          | .49*** ( <u>p</u> < .001)   | 500             |
| Newspaper affinity      | .66*** ( <u>p</u> < .001)   | 500             |
| Internet affinity       | .54*** ( <u>p</u> <.001)  | 500             |
| Motion picture affinity | .54*** ( <u>p</u> <.001)  | 500             |
| Magazine affinity       | .40*** ( <u>p</u> < .001)   | 500             |
| Book affinity           | .45*** ( <u>p</u> <.001)  | 500             |

Correlation Between Perceived Affinity Toward Each Medium and the Levels of Use of Each Medium

H5: The perceived accessibility of each medium is positively related to the amount of use of each medium.

Accessibility of media is one of the most important factors influencing media choice. In this study, perceived accessibility toward media was measured to investigate how this variable related to the usage levels of media. Correlation analysis found that the perceived accessibility of each medium was positively related to the levels of use of each medium. Accessibility of the newspaper, the Internet, and motion pictures was strongly related to reading the newspaper, surfing the Internet, and going to the theater.

Correlation coefficients among these variables were .46, .47, and .44 respectively.

However, though perceived television accessibility was significantly related to watching

television, the relationship showed the weakest coefficient (.12, p < .01). Hypothesis 5*i* 

was supported.

Table 25-1

| Variables                    | Coefficients of correlation<br>with the levels of use of<br>each medium | Number of cases |
|------------------------------|---|-----------------|
| Television accessibility     | .12** ( <u>p</u> <.01)  | 500             |
| Radio accessibility          | .29*** (p < .001)   | 500             |
| Newspaper accessibility      | .46*** ( <u>p</u> < .001)   | 500             |
| Internet accessibility       | .47*** ( <u>p</u> <.001)  | 500             |
| Motion picture accessibility | .44*** (p <.001)  | 500             |
| Magazine accessibility       | .29*** ( <u>p</u> < .001)   | 500             |
| Book accessibility           | .35*** (p <.001)  | 500             |

Correlation between Perceived Accessibility toward Each Medium and the Levels of Use of Each Medium

# Information Hypothesis

H6i: The perceived usefulness of each medium for satisfying information needs is

positively related to the amount of use of each medium.

While perceived usefulness of media has been recognized as an important factor in predicting media use and choice, correlation analysis of the data from this study confirmed this notion. The results of the correlation tests are presented in Table 26-1. All relationships between the perceived usefulness of satisfying information needs of each medium and the levels of use of each medium were significantly related to each other. All correlation coefficient values were statistically significant at an alpha level of .001. Usefulness of the newspaper for meeting information needs and reading newspapers had

the strongest correlation (r = .57, p < .001). This hypothesis was supported.

Table 26-1

# Correlation Between Perceived Usefulness of Each Medium for Satisfying Information Needs and the Levels of Use of Each Medium

| Variables                 | Coefficients of correlation<br>with the levels of use of<br>each medium | Number of cases |
|---------------------------|---|-----------------|
| Television usefulness     | .22*** ( <u>p</u> <.001)  | 500             |
| Radio usefulness          | .38*** ( <u>p</u> < .001)   | 500             |
| Newspaper usefulness      | .57*** ( <u>p</u> < .001)   | 500             |
| Internet usefulness       | .45*** ( <u>p</u> <.001)  | 500             |
| Motion picture usefulness | .42*** ( <u>p</u> <.001)  | 500             |
| Magazine usefulness       | .34 <b>***</b> ( <u>p</u> < .001)                                       | 500             |
| Book usefulness           | .37 <b>***</b> ( <u>p</u> <.001)  | 500             |

## Entertainment Hypothesis

H6e: The perceived usefulness of each medium for satisfying entertainment needs is positively related to the amount of use of each medium.

Just like the result of hypothesis 6*i*, the relationship between the perceived usefulness of each medium in satisfying entertainment needs and the levels of use of each medium were significantly related to each other. In this case, the relationship between the perceived usefulness of films in meeting entertainment needs and going to the theater had the highest correlation coefficient (r = .47, p < .001). Perceived newspaper usefulness and Internet usefulness for meeting entertainment needs were also strongly correlated to reading the newspaper and using the Internet (r = .43 and .45 respectively, p < .001). Hypothesis 6e was supported.

Table 26-2

# Correlation Between Perceived Usefulness of Each Medium for Satisfying Entertainment Need and the Levels of Use of Each Medium

| Variables                 | Coefficients of correlation<br>with the levels of use of<br>each medium | Number of cases |
|---------------------------|---|-----------------|
| Television usefulness     | .25*** ( <u>p</u> <.001)  | 500             |
| Radio usefulness          | .40*** ( <u>p</u> < .001)   | 500             |
| Newspaper usefulness      | .43*** ( <u>p</u> < .001)   | 500             |
| Internet usefulness       | .45*** ( <u>p</u> <.001)  | 500             |
| Motion picture usefulness | .47*** ( <u>p</u> <.001)  | 500             |
| Magazine usefulness       | .33*** ( <u>p</u> < .001)   | 500             |
| Book usefulness           | .27*** ( <u>p</u> <.001)  | 500             |

# **External Constraints and Media Use**

Beyond the individual's attitude towards media, various external constraints can also influence an media consumption. In the following section, leisure time was examined as one of the factors predicting media use. Correlation analysis was utilized to explore the relationship between the amount of use of each medium and an individual's amount of leisure time. H7: The amount of leisure time is positively related to the level of use of each medium.

The correlations between leisure time and the amount of use of each medium are presented in Table 27-1. The data showed that an individual's leisure time was not likely to influence the amount of consumption of all media. Leisure time was related to the amount of newspaper reading, Internet use, and watching movies. However, the relationships between an individual's leisure time and the levels of watching television, listening to the radio, reading magazines, and reading books were not statistically significant. Leisure time was positively related to the amount of Internet use and watching movies. However, reading newspapers was negatively related to leisure time. This means that those who had less leisure time were more likely to read the newspaper than those who had more leisure time were. Hypothesis 7 was partially supported by the sample.

Table 27-1

| Variables                | Coefficients with the levels<br>of leisure time | Number of case |
|--------------------------|---|----------------|
| Amount of television use | .02   | 500            |
| Amount of radio use      | 01  | 500            |
| Amount of newspaper use  | 13** ( <u>p</u> < .01)                          | 500            |
| Amount of Internet use   | .10* ( <u>p</u> <.05)                           | 500            |
| Amount of movie use      | .10* ( <u>p</u> <.05)                           | 500            |
| Amount of magazine use   | .05   | 500            |
| Amount of book use       | .01   | 500            |

Correlation Between Individual's Leisure Time and the Amount of Use of Each Medium

### Hypotheses Related to the General, Information, and Entertainment Media Repertoires

This study examined relationships between media repertoire density (the number of media in a repertoire), media attitude (usefulness, affinity, and perceived accessibility), leisure time, and the salience of needs. Understanding of the general, information, and entertainment media repertoires enables one to assess an individual's media consumption pattern. The variables of media attitude, leisure time, and the salience of needs were assumed to affect the general, information, and entertainment media repertoires. Pearson's correlation tests were performed to investigate those relationships.

H8: The perceived usefulness of media is positively related to the general media repertoire density.

To calculate the perceived usefulness of media, the usefulness of each medium for information and entertainment needs was summed. Hypothesis 8 assumes that the more usefulness media have for an individual, the greater the number of media in that individual will include in his or her general media repertoire. The result of correlation analysis reported in Table 28-1 clearly supports hypothesis 8, showing a significant positive correlation between media usefulness and the general media repertoire density (r = .47, p < .001). Again, hypothesis 8 was supported.

H9: Perceived affinity of media is positively related to the general media repertoire density.

An extremely significant positive relationship was found between perceived media affinity and the general media repertoire density (see table 28-1) (r = .51, p < .51.001). Total affinity toward media was strongly associated with the number of media in the general media repertoire, thus hypothesis 9 was supported.

### Table 28-1

|                     | General Media Repertoire<br>Density | Number of cases |
|---------------------|-------------------------------------|-----------------|
| Media Usefulness    | .47*** (p < .001)                   | 500             |
| Media Affinity      | .51*** ( <u>p</u> <.001)            | 500             |
| Media Accessibility | .43*** ( <u>p</u> <.001)            | 500             |
| Leisure Time        | .10* ( <u>p</u> < .05)              | 500             |
| Salience of Needs   | .24*** ( <u>p</u> <.001)            | 500             |

Correlation Matrix of General Media Repertoire Density

H10: The perceived accessibility of media is positively related to the general media repertoire density.

H11: Leisure time is positively related to the general media repertoire density.

H 12: The salience of information and entertainment needs is positively related to the general media repertoire density.

Table 28-1 shows that Hypotheses 10, 11, and 12 are supported and that significant positive associations existed among the general media density and media accessibility, leisure time, and the salience of needs. The higher the level of perceived media accessibility, the larger was the general media repertoire (r = .43, p < .001). The coefficient value for the relationships between the general media repertoire and leisure time was .10 (p < .05). Individuals who had the most leisure time were more likely to use a greater number of media in their repertoire. In addition, individuals who attached greater salience to information and entertainment were more likely to have larger general media repertoires. The salience of needs was significantly associated with general media repertoire density (r = .24, p < .001). Hypotheses 10, 11, and 12 were supported.

## Information Hypothesis

H13*i*: As the importance of information needs increases, the number of media in the information repertoire also increases.

## Entertainment Hypothesis

H13e: As the importance of entertainment needs increases, the number of media in the entertainment repertoire also increases.

The information repertoire densities of subjects with a low salience of information needs were compared with those with a high salience for information needs in order to test Hypothesis 13*i*. To explore hypothesis 13*e*, the mean difference of of the entertainment repertoire density was used to compare subjects with low level entertainment needs and those with high level entertainment needs. In each case the low level group included those with perceived needs below the mean score for the sample while those in the high level group had perceived needs above the mean score for the sample as a whole. Independent sample t-tests were utilized to test hypothesis 13*i* and 13*e*. The results of t-tests are as follows.

Table 29-1

<sup>&</sup>lt;u>T-test of the Information Repertoire Density Comparing the Low Information Needs and the High Information Needs Groups</u>

|                              | N                      | <u>M</u> | <u>SD</u> |
|------------------------------|------------------------|----------|-----------|
| Low Information Needs Group  | 278                    | 2.01     | 1.36      |
| High Information Needs Group | 222                    | 2.55     | 1.35      |
| Total                        | 500                    | 2.28     | 1.36      |
| T-value (probability)        | -4.49 (.000), p < .001 |          |           |

## Table 29-2

| <u>T-test of the Entertainment Repertoire Densit</u> | y Comparing the Low Entertainment Need | S |
|--|--|---|
| and the High Entertainment Needs Groups              |  | - |

|                                | N                             | M    | <u>SD</u> |  |
|--------------------------------|-------------------------------|------|-----------|--|
| Low entertainment needs group  | 257                           | 1.71 | 1.27      |  |
| High entertainment needs group | 243                           | 2.32 | 1.39      |  |
| Total                          | 500                           | 2.28 | 1.33      |  |
| T-value (probability)          | -5.12 (.000), <b>p</b> < .001 |      |           |  |

T-tests reported in Table 29-1 showed that the mean difference of the information repertoire density between the two information groups was statistically significant. Similarly, the mean difference of the entertainment repertoire density between the two entertainment groups was also statistically significant. In other words, the groups for which information and entertainment needs had higher levels of salience were more likely to have a larger number of media in their information and entertainment repertoires. The mean information repertoire density for the low information salience group was 2.01 (SD = 1.36). In contrast, the mean for the high information salience group was 2.55 (SD = 1.35). Whereas the group with less salient entertainment needs had an average of 1.71 (SD = 1.27) media in their entertainment repertoire, the group that attached higher levels of salience to entertainment needs group had a mean 2.32 (SD = 1.33) media in their entertainment repertoire. Therefore, each information and entertainment salience group had a statistically significant mean difference at alpha 001 levels.

Overall, in the Pearson's correlation analyses, hypothesis 8 through 13, media usefulness, affinity, accessibility, leisure time, and needs importance were all influential factors in predicting general media repertoire density. As was the case with the results

related to the general media repertoire density, the salience of information and entertainment needs had an effect on the density of both the information and entertainment media repertoires.

### Chapter VI

## DISCUSSION AND CONCLUSION

In this chapter, conclusions and implications are discussed based on the findings that have been presented in chapter V. In addition, a summary of the study, the contributions and limitations of the study, and recommendations for future research are included in this chapter.

### Overview of the Study

This study tested the uses and gratifications approach, examining the media choice process and consumption patterns in South Korea at an individual level. The research framework was designed 1) to overcome shortcomings of the uses and gratifications model, 2) to include multiple media including the Internet in a single analysis. Applying the uses and gratification approach, media choice process models, and channel repertoire theory, this study attempted to establish a better understanding of an individual's interaction with mass media and consumption patterns in the new media environment. Specifically, this study explored the main predictors of mass media choice and an individual's general, information, and entertainment media repertoire. The impact of Internet use on traditional mass media was also investigated in the study.

The proportionate stratified sampling methodology was utilized to extract a more accurate representative nationwide sample in for this study. A total of 500 personal interviews with trained interviewers were conducted across the entire region of Korea. Sampling was based on the gender, age, and regional proportion found in the census of 2001 in Korea. The adjusted response rate for the study was 48.11 percent (refusal rate = 42.10 %).

The verified questionnaires were computed and analyzed using several statistical techniques. Independent sample t-tests, one-way analysis of variance, crosstabs with Chi-square, Pearson's correlation, and multiple regression analysis were used in this study.

#### Discussion and Implications of the Results

The findings of this study were mainly consistent with past uses and gartifications studies. Regarding media use and choice, gratifications sought and gratifications obtained correlated to media exposure. In turn, gratifications sought appeared to serve as a behavioral guide for media use, but did not completely determine media choice in multiple regression analysis. Attitude toward media had a substantial impact on media use, whereas communication needs had only a trivial direct effect on media use. Media attitude such as, media affinity, perceived usefulness, and perceived accessibility were powerfully related to the amount of use of each medium.

The research framework of this study successfully supported existing media choice models except the individuals' needs. In this research framework, needs for information and entertainment were not significant predictors for media use. These findings contradicted past uses and gratifications literature. Contrary to the expectation generated from the uses and gratifications approach (see Albarran & Dimmick, 1993; Lin, 1999), individuals' needs were found to be irrelevant predictors of most media use. Perceived accessibility was also not a statistically significant predictor of media use when controlling other predictors. However, the results of bivariate correlation showed that perceived accessibility was positively related to the use of each medium and individuals' needs were partially related to the use of each medium. These results were interesting in that perception factors appear much more important than demographic and external constraints in predicting media use. This study suggested that individuals' motivation and satisfaction has become more important in media choice in the new media environment (see, Ruggiero, 2000). This notion was partially supported.

The main concept of an active audience in the uses and gratifications approach was also confirmed due to the fact that individuals typically chose a certain medium to satisfy their communication needs. It was notable that the Internet was one of the most frequently chosen media in Korea, along with two major traditional media (television and the newspaper). Media affinity and perceived usefulness were related to the amount of media use and were also associated with three media repertoires (general, information, and entertainment repertoires), suggesting that those who had higher media affinity and perceived usefulness regularly use a larger number of media. The data of this study showed that the salience of needs, media affinity, perceived usefulness, and perceived accessibility of media are the most important factors increasing individuals' media use and the diversity of their media repertoires.

Although other earlier cross media studies in various cultural contexts have noted cultural variation in demographics and external constraint differences with respect to the salience of needs, there were also some marked similarities across studies. Studies conducted in several different societies mainly revealed that the younger age groups and the better-educated peoples were more likely to have greater salience of information and entertainment needs. The data obtained from the Korean population in this study was generally consistent with the results from many western studies using the uses and gratifications approach. This supported the notion that the uses and gratifications approach and media choice model, developed in Western society, can apply to Korean audiences beyond the cultural boundary, or at least is not limited to western countries.

Overall, this study showed how the uses and gratifications approach and media choice model can be applied to explain the media use and consumption patterns. It supported the fact that individuals' attitude toward media becomes important while individuals' availability (time, money, accessibility, and so on) loses its importance in predicting media use. The test of the research hypotheses and research questions supported that the uses and gratifications approach and existing media choice models are useful in predicting the use of each medium.

Detailed and significant results drawn from empirical hypothesis and research question testing are discussed below.

#### Predictors of Media Choice Process

Media choice process models have previously maintained that an individual's communication needs (gratifications sought, or expectations), media attitude (or media orientations), gratifications obtained, demographics, and some situational and structural factors are important factors in predicting media choice. This study sought to identify which factors were the main predictors in the use of each medium. The principal findings of multiple regression analysis were as follows.

First, media attitudes were more predicable than demographic characteristics, such as age and gender. The findings of the multiple regression analysis confirmed an

argument concerning the diminished role of demographics found in recent uses and gratifications studies in explaining media use (e. g., Jacobs, 1996; James, Wotring, & Forrest, 1995; Jeffres, Atkin, 1996; Kang & Atkin, 1999; and Neuendorf, Atkin, & Jeffres, 1998). While media affinity and the perceived usefulness of a medium in meeting information and entertainment needs successfully explained the use of each mass medium, gender could only be used to predict the amount of newspaper reading (- .12, p < .01). Age not only was a predictor of the amount of newspaper reading, (B = .20, p < .001) but also of the amount of Internet use (B = -.14, p < .01). Negative beta values between age and Internet use indicated that the younger persons were more likely to use the Internet than the older persons in Korea.

Second, attitudes toward mass media such as media affinity and the perceived usefulness of information and entertainment needs were the most useful explanatory factors in predicting the choice of each mass medium. The tests of this study clearly supported the previous research, such as the studies of Katz, Gurevitch, & Haas (1973), Kippax & Murray (1980), Perse & Rubin (1988), Rubin (1981a, b, 1993, 1994), and so on.

The affinity of each medium was the strongest predictor. In multiple regression analysis, betas of media affinity were .30 (p < .001) for television, .39(p < .001) for radio, .45 (p < .001) for the Internet, .41(p < .001) for films, .30(p < .001) for magazines, and .37 (p < .001) for books. Perceived usefulness for meeting entertainment needs was also an important factor determining the use of motion pictures (B = .22, p < .001), newspapers (B = .18, p < .001), television (B = .13, p < .01) and radio (B = .15, p < .01) whereas the perceived usefulness of a medium in satisfying information needs was an efficient variable in predicting the use of the newspaper (B = .42, p < .001) and books (B = .21, p < .001). It was notable that the perceived usefulness of information needs was the strongest predictor for reading the newspaper. In general, then, perceptions of various mass media were more clearly related to the levels of use of media. However, perceived accessibility could not foresee media choice, as it was apparently an irrelevant predictor of media choice.

Third, the results of the effect of individuals' availability or external constraints (leisure time, income, education, and perceived accessibility) in predicting each medium use partially supported previous studies (e. g., Bogart, 1964; Kline, 1974; Lin & Jeffres, 1998). Factors related to an individual's availability, such as leisure time, income, and education, were predictors of media consumption. However, in this multiple regression analysis, perceived accessibility was not a significant factor in predicting the use of each medium. As Youn (1993) pointed out, television viewer availability becomes less important in predicting media use because the multi-channel environment offers more opportunity for the audience. The results of this study indicate that under the multi-channel circumstances, individuals' availability is not a good predictor in explaining the media choice.

In the test of the media choice process, leisure time as an external constraint on media use was the third most powerful factor predicting the choice of each mass medium. Leisure time was positively related to the amount of use of the Internet (B = .09, p < .05), motion pictures (B = .07, p < .05), and magazines (B = .07, p < .05). However, leisure time was negatively related to the amount of newspaper reading (B = .08, p < .05), meaning that those who had less leisure time were more likely to read newspapers than

those who had more leisure time. It was a reasonable finding that people who had more leisure time used the Internet, read magazines, and went to the theater more often than people who had less available leisure time. However, the negative relationship between leisure time and newspaper reading can be explained by the fact that those who had less leisure time assign greater information usefulness to the newspaper than those who had more leisure time.

The other external constraint on media choice for the study, education and income levels, were predictors of major traditional mass media use, such as television (income) and the newspaper (income and educational level). The negative relationship between family income and watching television (B = -.10, p < .05)was a not surprising finding. Whereas low income persons were more likely to watch television, the high income persons were more likely to read the newspapers (B = .09, p < .05). Education level was the only explanatory predictor of reading the newspaper (B = .13, p < .01).

Fourth, the importance of communication motivations, particularly information and entertainment needs, was not a strong predictor of the use of each medium in this study. The test of research question 1 showed that the relationship between communication needs and media use was trivial when various predictors were computed together in multiple regression analysis (when all predictors were held constant). The effect of communication needs was not significant in predicting most media choice when controlling all other factors.

As mentioned earlier, Weaver, Wilhoit, & DeBock (1980) found that the salience of needs was a main predictor of Dutch media use while the salience of needs was a weak predictor of American media use. Just like Americans' media choice pattern, needs

importance was a weak predictor in Koreans' media choice process. These findings also partially supported the notion of Kippax & Murray (1980) that there was no direct relationship between media selection and need importance. This study found a weak relationship between media use and need importance when other variables were held constant in multiple regression analysis. The results revealed inconsistencies with two recent new medium studies (Leung & Wei, 1999 – pagers; Papacharissi & Rubin, 2000 – the Internet) concerning communication needs as good predictors of media use.

The salience of entertainment needs was not an explanatory predictor except for reading magazines. Among tested mass media use, reading magazines had a positive beta value only with respect to entertainment needs (B = .22, p < .001). This means that entertainment needs were a predictor for reading magazines. In contrast, information needs had a weak but negative relationship with Internet usage (B = .08, p < .05) and book reading (B = .11, p < .01). The negative results between the salience of information needs, and Internet usage, and book reading were not expected. These results indicate that there were other unexplained factors predicting Internet usage and book reading. The negative relationships also may be explained by the fact that the major users of the Internet ( $X^2 = 169.33 df = 4, p < .001$ ) and books ( $X^2 = 34.12 df = 4, p < .001$ ) were younger persons (also see table 18-2). Their characteristics were reflected by their Internet use and book reading, in that younger people had relatively lower information needs than older persons (F = 7.26, 4/495, p < .001, also see table 10-2).

Fifth, this study attempted to address how the Internet, a newer medium, affected an individual's media choice process as well as the time spent on traditional media. The findings revealed that in an individual's media choice process, there was no significant difference comparing traditional media. These results, similar to other traditional mass media studies, showed media attitude was the most influential predictor predicting Internet use. Previous studies have primarily noted that age, income, and education were influential predictors of new medium use (e. g., Atkin, Jeffres, & Neuendorf, 1998; Baldwin, Barrett, & Bates, 1992; Krugman, 1985; Perse & Dunn, 1998). Data analysis showed partial support of previous findings for predicting the use of newer medium. The result of research question 1 duplicated the finding of Baldwin, Barrett, & Bates (1992), which stated that Internet users were younger than other media users, but there was no significant difference in income and education between Internet users and non-users.

Finally, multiple regression analysis of the data accounted for the low to moderate variance, particularly in predicting media choice and use. This means that there was needed more predictor variables such as individuals' habitual media use and moods or emotions. Media use is determined by intellectual measurement as well as emotional stimulation. For example, Zillmann & Bryant (1985) found that affects, moods, and emotions (stress, boredom, good mood, and bad mood) influence selective program exposure. Also, the results can be interpreted to mean, as Elliot & Rosenberg (1987) pointed out, that media consumption was not only motivated by gratifications and motivations, but could also be accidental and habitual in the case of traditional media like television and radio.

Also of note, seven variables (64 %) proved to be explanatory factors predicting newspaper reading. These were usefulness of information and entertainment motives, leisure time, educational level, family income, age, and gender. Forty-two percent of variance was explained by these seven variables in multiple regression analysis for

predicting newspaper reading ( $\mathbb{R}^2 = .42$ ,  $\mathbf{p} < .001$ ). Perceived affinity, leisure time, and age were significant predictors for Internet usage ( $\mathbb{R}^2 = .31$ ,  $\mathbf{p} < .001$ ).

## Time Impact of Internet Use on Traditional Mass Media

There were two main findings concerning the relationship between Internet usage and traditional media usage. First, results concerning the time impact of Internet use on traditional mass media offered mixed support of the expectations derived from the literature regarding media substitution. Of particular importance was the fact that Internet adoption in Korea had three types of time impact effects: a replacement effect, a supplement effect, and no effect on traditional media. Internet adoption had a replacement effect with respect to television, a supplemental effect with respect to motion pictures and books, and no effect on the consumption of newspaper, magazines, and radio. The media substitution mechanism was not always apparent and often inconsistent, however, the findings of this study primarily supported the idea that Internet use has not reduced time spent with other media (see Althaus & Tewksbury, 2000; Atkin, Jeffres, & Neuendorf, 1998; Bromley & Bowles, 1995; Jeffres & Atkin, 1996; Lin, 1999).

AN ANOVA test comparing media use among heavy users, light users, and nonusers of the Internet, revealed that Internet adoption led to a reduction in the time spent watching television. There was a statistically significant difference in the amount of television watching among the three groups ( $\mathbf{F} = 3.18$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .05$ ). This evidence was consistent with a past result of James, Wotring, & Forrest (1995), in which they found that Internet adoption reduced time spent watching television. This replacement effect on television watching provided additional support for recent studies (see Atkin, Jeffres, & Neuendorf, 1998; and Perse & Dunn, 1998). However, this finding was not consistent with the study of Lin (1999), which showed a supplemental function between online service and television viewing.

Conversely, as earlier studies indicated (Kang & Atkin, 1999; Lin, 1999; and Perse & Dunn, 1998), the findings showed a supplemental effect of Internet use with respect to motion picture attendance and book reading. The adoption of the Internet was positively related to motion picture attendance and book reading. Those who spent more time surfing the Internet were more likely to watch motion pictures ( $\mathbf{F} = 24.19$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .001$ ) and to read books ( $\mathbf{F} = 7.95$ ,  $d\mathbf{f} = 2/497$ ,  $\mathbf{p} < .001$ ) than those who had less time on the Internet. In this case, it can be interpreted that Internet use stimulated the consumption of motion pictures and books. It is possible that Internet users are more likely to be aware of new movies and new books due to information gained from the Internet. The findings may also be a reflection of Internet heavy users' demographic characteristics. For example, considering previous findings, younger subjects were more likely to use the Internet than older subjects (see Table 9). Internet heavy users were mostly younger persons, therefore they were more likely to use motion pictures and books (see Table 18-2).

On the other hand, the finding that Internet use was not statistically linked to newspaper reading, magazine reading, and radio listening was inconsistent with earlier studies. For example, some earlier studies reported a supplementary relationship between Internet use and newspaper reading (Perse & Dunn, 1998; Robinson, Barth, & Kohut, 1997; and Stempel, Hargrove, & Bernt, 2000). Also, the study of Atkin, Jeffres, & Neuendorf (1998) showed a positive relationship between Internet use and magazine reading. In this study, there was also a positive correlation, showing that more time spent on the Internet was related to more time spent reading magazines and less time devoted to newspapers and the radio. However, there was no statistically significant difference in time spent among heavy users, light users, and non-users of the Internet.

The other main finding about the impact of Internet use was that the Internet seems to used as a supplemental medium by Korean Internet users. An analysis of the general media repertoire density among three Internet user groups (heavy, light, and non-users) revealed that there were highly significant differences in media repertoire density. Internet heavy users were more likely to have a greater number of media in their repertoire ( $\underline{F} = 81.23$ ,  $\underline{df} = 2/497$ ,  $\underline{p} < .001$ ). Whereas as their general media repertoire, Internet heavy users included 3.18 media, Internet non-users regularly used only 1.6 media.

The findings of this study suggest that Internet use had one substitution effect, two supplemental effects, and three findings of no effect on traditional mass media at this point in time. However, with regard to technological development, changes in the media environment, and the speedy diffusion of the Internet in Korea, the relationship between the Internet and other media is subject to change with some new conditions, such as the introduction of another new medium. Because audience members have a limited amount of time and limited attention span, as new medium options become available, media will increasingly compete for consumers' time and attention.

#### Cultural Context on Demographics respect to the Salience of Needs and Media Use

Even though several previous cross media studies have shown demographic profiles to be related to the salience of needs (e. g., Katz, Gurevitch, & Haas, 1973; Kippax & Murray, 1980; Taylor, 1999; Weaver, Wilhoit, & DeBock, 1980), these studies have found demographic variables to be inconsistent and often contradictory predictors of the salience of needs. For example, only Kippax & Murray (1980) found gender along with education to be an important predictor of the salience of needs, while others failed to note any differences in gender. Taylor (1999) noted that the younger college students were likely to assign greater importance to information and entertainment needs than older students, yet Vincent & Basil (1997) found that older, not younger college students rated information needs as more important. These inconsistent findings may be due, in part, to the differences of cultural context and the time in which the studies were conducted. In spite of some differences, though, notable similarities can be observed across studies. That is, age and educational level tend to be the two main factors predicting the salience of needs.

In this study, Koreans' salience of needs showed statistically significant differences among age, education, income, and leisure time. Generally, the older age groups had higher information needs than the younger age groups; however, in contrast, the older age groups had lower salience of entertainment needs than the younger age groups. Koreans with higher educational levels and income tended to have greater information and entertainment needs than those with lower educational levels and income. Also subjects with more leisure time tended to have greater information and entertainment needs. However, persons who had over 7 hours leisure time revealed lower levels for the salience of information and entertainment needs.

Katz, Gurevitch, & Haas (1973) found that the higher the educational level, the greater the importance of general communication needs including information and entertainment needs in Israel. Younger Israelis had a higher importance of

communication needs than older Israelis. Similarly, in the study by Kippax & Murray (1980), Australians' salience of needs differed according to gender and education. Males and better-educated persons rated information and entertainment needs significantly higher than females and less-educated persons. The findings of Weaver, Wilhoit, & DeBock's study (1980) showed that younger Americans had attached more salience to information and entertainment needs than older Americans. However, in the Netherlands, a higher educational level was associated with greater salience of information and entertainment needs.

Regarding the role of demographics and external constraints on media use, two main findings among studies across five countries (Australia, Israel, Korea, Netherlands, and the United States) are noted. First, even though media systems and culture differ considerably from country to country, there were a number of similarities involving the impact of demographics on media use and choice. Second, demographics and external constraints were generally not strong predictors of media use and the salience of needs.

In case of general television use, a lower educational level was a good predictor in Australia (Kippax & Murray, 1980), Israel (Katz et al, 1973), and the Netherlands (Weaver, Wilhoit, & DeBock, 1980). In contrast, lower income was a predictor of television use in Australia, Korea, and the United States (Weaver, Wilhoit, & DeBock, 1980). With the exception of Israel, age was associated with newspaper reading in all five countries. Older people were more likely to read newspapers than younger people in four of studied countries. In Katz et al's study (1973), high educational level was a predictor of newspaper reading and book reading. Similarly, high educational level and having an occupation were related to newspaper reading and book reading in the study by Kippax & Murray (1980). Also high educational level, high income, and gender (male) were linked to newspaper reading in this study.

#### Media Repertoire and Consumption Patterns

In order to examine Koreans' media consumption patterns, three media repertoire (general, entertainment, and information media repertoire) or media set which Koreans regularly use were tested in this study. Although each individual was exposed to all mass media, individuals were found to possess a limited media set which they use regularly in order to satisfy communication needs. The general mass media set or general media repertoire mainly consisted of 2 to 4 media in this study. About 60 percent of respondents (296) had 2 to 4 media in their repertoire. Korean subjects relied, on average, on 2.26 media to satisfy their communication needs as their general media repertoire. Furthermore, Koreans' information media repertoire (for satisfying their information needs) averaged 2.25 media. In order to satisfy entertainment needs, the average person used 2.01 entertainment media as their entertainment media repertoire. Among many competing mass media, Koreans frequently used and chose less than three media for their communication needs.

These data were inconsistent with the results of Taylor's (1999). In Taylor's study, most respondents (college students in the U.S.) had 5 sources in their general media repertoire (52.1 %). About eight-five percent of the sample reported that they use 4 (32.6 %) or 5 (52.1 %) media as their general media repertoire. Considering Taylor studied only five media sources, this result was not typical, as shown by a very skewed distribution in the number of media repertoire. Most sample (84.7 %) tended to be convergent on high media repertoire density. The difference between Taylor's data (M =

4.3) and data of this study (M = 2.6) might be interpreted that Taylor's student sample were too homogenous to show individual differences in media usage. Taylor noted that the "survey question used to collect this general media repertoire data encouraged a uniform upward bias in the self-reported amount of media usage" (1999, p.190).

While college students in the U. S. regularly used five media (television, radio, newspaper, magazines, and the Internet) and regularly used three sources for their entertainment and information repertoire (Taylor, 1999), Koreans regularly used about three sources of media as their general media repertoire (e.g., television, newspapers, and either the Internet or motion pictures). The newspaper was the most frequently chosen medium followed by television and then the Internet and motion pictures with respect to general media consumption. In contrast, among American students, the Internet was the most frequently chosen medium followed by newspapers and magazines (Taylor, 1999). For responses of the Korean sample concerning the media repertoire as a whole, the percentage for the representation of each medium is as follows: 19.8 percent for the newspaper, 16.4 percent for television, 15.6 percent for the Internet and motion pictures, 12 percent for radio, and so on. In other words, 44.8 percent of respondents included newspapers in their media repertoire and 37 percent included television. The Internet (35.2 %) and motion pictures (35.2 %) were tied as the third ranking element of the media repertoire. Books occupied only 10.4 percent of the overall media repertoire. It should be noted that although the Internet and motion pictures was ranked as the third most important medium, the percentage of Internet use and motion pictures was not significantly different than the percentage of television watching and newspaper reading.

Past uses and gratifications studies have explored the perceived usefulness of media in satisfying needs. For example, whereas the newspaper was the most important medium (followed by radio and television, books and motion pictures) in Israel (Katz et al, 1973), television (followed by newspapers and books) was the medium most often associated with satisfying individuals' general communication needs in Australia (Kippax & Murray, 1980). In Holland and the U. S., although people used television and newspapers most often in satisfying to communication needs, books and radio were ranked the two most useful media for satisfying entertainment needs; however, for information needs, television and newspapers were the two most useful media (Weaver, Wilhoit, & DeBock, 1980). In a more recent study which included the Internet, American college students reported that radio was the most helpful medium for satisfying entertainment needs followed by television and magazines (Taylor, 1999). The same data showed that newspapers were rated as the most frequently used medium for information needs followed by the Internet and magazines among students in the U. S.

In this study television was judged the most helpful medium in satisfying information and entertainment needs. Television was the most frequently chosen medium for inclusion in both the information and entertainment media repertoire, followed by the newspaper and the Internet. The two least chosen media for both information and entertainment needs were radio and magazines. Comparing the general, information, and entertainment media repertoires, the findings showed very similar media consumption patterns. Television, the newspaper, and the Internet were the mass media most frequently chosen by Koreans for inclusion in their general, information, and entertainment repertoires. The newspaper was the most frequently used medium for

general communication needs, however, television was the most frequently used medium, for information and entertainment needs. It was noteworthy that the Internet, the newest type of communication medium, was one of the most frequently chosen media among the sample of Koreans.

Still, television and newspapers remain pervasive and influential as media. Primarily, television and newspapers were chosen as the most useful media for satisfying general needs. While the newspaper has been primarily an informational medium, television is a pervasive medium suited to general needs when compared to other media. However, more recent studies show that the Internet has also become pervasive medium (especially in Korea) whereas books and radio have become less important. In this study among Koreans, the Internet was the second frequently used medium for entertainment needs, and among American students the Internet was the most frequently used medium for general communication needs (see Taylor, 1999). It is striking that 44.6 percent of Koreans regularly included the Internet in their information and entertainment repertoires. Using the Internet could be considered an everyday activity in Korea. These findings were consistent with other data such as Nua Internet Surveys (2001) which showed that Koreans spend more time with the Internet than people in other Asian countries). Data from the Korea International Trade Association (2001) also supported the fact that Korean Internet users were rated as the second highest percentage in online shopping and third highest percentage in Internet use in the world.

Interestingly, Korean respondents considered motion pictures to be one of the most important media for satisfying their entertainment needs. They also rated motion pictures as the third frequently used medium in their general media repertoire. The fact that respondents indicated a higher level of use of motion pictures was reflective of the current phenomenon in Korea. For example, according to a survey by the Korean Film Commission, movie attendance increased 25 % in Korea in 2001, showing the average Korean watched 1.7 movies per month (Han, 2001). One reason for this increase has been attributed to the development of the Korean movie industry and attachment by Korean spectators. While U. S. based movies (Hollywood blockbusters) saw a decline in the number of their audiences in 2001, Korean movies saw an increase attracting about 16 million people in Seoul alone, equal to about 46 % of the total moviegoers in the capital, up 14 % from the previous year. Korean movie attendance increased 80 % in 2001. Such success for domestic films has boosted the Korean movie industry (Han, 2001).

#### The Role of Demographics on Media Repertoire

Although there has been no study of the relationship between demographic variables and the three media repertoires, the findings of this study showed similar patterns to those of earlier uses and gratifications studies regarding the role of demographics on media use (see, Atkin, Jeffres, & Neuendorf, 1998; Katz et al, 1973; Kippax & Murray, 1980; Krugman, 1985; Weaver, Wilhoit, & DeBock, 1980). In this study, it was evident that demographics and socio-economic situations influenced mass media use. In terms of the relationship between demographics and the density of the three media repertoire (general, information, and entertainment), age and education had an impact on the density of the general media repertoire. However age, income, education, and leisure time influenced information and entertainment media repertoires. As has been noted in previous research, those who were younger and who had higher levels of education, income, and available leisure time were more likely to have a greater

number of media in their general, information, and entertainment repertoires. Younger persons more actively used media than their elders.

With regard to the impact of demographics and external constraints of media use on the inclusion of each medium in the repertoire, it appeared that gender, age, education, income, and leisure time had an impact. The following results of this study showed that considerably similar pattern to Kippax & Murray's study (1980). Generally, males were heavier users of the newspaper and the Internet, whereas females were much heavier users of magazines and books. The cross-media analysis showed that those of older generations were much heavier users of traditional print and broadcast media while younger generations were heavier users of the Internet, movies, magazines, and books. Those with high income, education, and leisure time were much more likely to use media than those with low income, education, and leisure time. The major exception was that the lower education people were more likely to watch television than the higher education people. The finding that younger age groups, higher income, and higher education were significantly associated to the adoption of new medium, supported past studies of new media (see, Baldwin, Barrett, & Bates, 1992; Krugman, 1985; Perse & Dunn, 1998).

According to Bucy (2000), the relative costs and expertise associated with using the Internet have led to a concern about the rise of a "digital divide" between information "haves" and "have-nots." The findings of this study regarding the impact of demographics and external constraints on media use implied a disparity between those with a higher socio-economic status and higher education and those with a lower socioeconomic status and lower levels of education. Especially, Internet users tended to be of a

higher socio- economic status than the rest of the population and formal education was more directly related to Internet use. The analysis revealed that income, education, age, and leisure time were important determinants of Internet use. Therefore, the notion that an inequality of Internet access may give rise to an information gap between haves and have-nots is suggested by these findings. Moreover, the dominance of Internet use over traditional media among young adults has some implications for their future media use. Because young persons will influence the future media environment, the Internet or other digital technologies might dominate the future media environment.

#### Correlations between Main Predictors and Media Use

Core concepts, gratifications sought (needs), gratifications obtained (perceived usefulness of media), and media uses associated with of the uses and gratifications approach, were tested in order to examine how the three variables were related to each other. The correlation between the salience of information and entertainment needs was partially related to the level of use of each medium. However, consistent with earlier uses and gratification studies (see, Levy & Windahl, 1984; McLeod & Becker, 1981; Burgoon & Burgoon, 1980; Perse & Ferguson, 1993), the reciprocal nature between gratifications sought (needs or expectations) and gratifications obtained (satisfaction or usefulness) from media and between gratifications obtained and the use of each medium were confirmed in the correlation analysis of this study. The salience of information and entertainment needs was positively related to the perceived usefulness of each medium and the satisfaction with each medium was also positively related to the use of each medium. Therefore, the central concept of the uses and gratifications approach that there

are reciprocal relationships among needs, satisfaction, and media use was duplicated in this study.

Furthermore, the findings that individual satisfaction (perceived usefulness of needs) was directly linked to the actual use of each medium confirmed the active audience concept of the uses and gratifications approach because it assumes that people purposefully select and use certain media in order to achieve their gratifications (Katz et al, 1973; Perse & Courtright, 1993). Active audiences in the uses and gratifications approach are aware of their needs or motivations and purposively choose a certain medium that satisfies their needs. Blumler (1979) argues that the concept of the active audience is not the same with each individual. Thus, it should be noted that the salience of information and entertainment needs differed among individuals based on age, income, education, and leisure time. This fact explains the difference in the degree of activity from individual to individual and from group to group. The findings showed that generally, the older groups had more salience of information motivations than the younger groups whereas the salience of entertainment needs was greatest in the younger groups. The higher the educational level, the higher was the salience of information and entertainment needs. Similarly, higher income groups tended to have more information and entertainment needs. As leisure time increased, the salience of information and entertainment needs also increased. However, the group with over seven hours of leisure time had lower levels of information and entertainment needs than other groups with less than seven hours of leisure time.

In terms of the relationship between media attitude and media choice, affinity, usefulness, and perceived accessibility of each medium were positively related to the amount of use of each medium. Attitude toward each media was strongly associated with the amount of use of each medium. The strong correlation coefficient suggests that attitude toward media is a very important factor in predicting media use. In addition, the amount leisure time as an external constraint on media use was partially associated with the level of use of each medium. The amount of newspaper reading, Internet use, and watching movies was positively related to an individual's leisure time. The implication of these findings was that media attitude was a stronger predictor of media use than the external constraint.

This study also explored individuals' three media repertoires (the general, information, and entertainment repertoire), utilizing the concept of channel repertoire. Applying the notion of channel repertoire to the media repertoire was successful in examining the media consumption patterns and usage. All hypotheses regarding media repertoire were consistent to not only previous media repertoire studies (see Reagan, 1996; Reagan, Pinkleton, Chen & Aaronson, 1995; Taylor, 1999) but also to existing channel repertoire studies (see Heeter, 1985; Heeter & Greenberg, 1985). The fact that general media repertoire density was positively related to the salience of needs, all examined media attitude (media usefulness, affinity, and accessibility) and leisure time was supported. Moreover, data from this study also confirmed previous studies in that as the importance of information and entertainment needs increased, the density of information, and entertainment repertoire suggest (as does the literature) that communication motivations, satisfaction with media, and peoples' attitudes toward media positively influenced the general, information, and entertainment media repertoires. Meanwhile, there are some practical implications of this study. In media planning, advertisers use different media types to effectively reach target audience groups. The concept of media repertoires describe individuals' media usage better than just simple data of their media time consumption because media repertoires explain individuals' media needs (e. g, need for information, need to be entertained, need to understand one's self, etc.). In other words, a certain media repertoire gives information about an individual's regular media use set that satisfies his or her certain needs. The understanding of media repertoires for satisfying information, entertainment, or other needs is useful for effective advertising and for understanding audience itself. For instance, if advertisers have information of media repertoires, they can easily classify and access focus groups and can effectively make media planning for effective advertising. Additionally, this notion of media repertoire is a consumer-oriented perspective rather than an advertiser-oriented perspective. Therefore, media repertoires can be an additional media planning tool.

In case of implications for audience measurement, audience data on media repertoires gives a broader understanding of media consumption, even more so than the audience data of one specific source. Currently in Korea, research companies like Korea Gallup, World Research, Korea Research, and among others measure and sell basic demographic data about audiences' viewing, listening, or reading of one specific medium. Lack of research into media repertoires might be due to limitations of money, time, or even demand for such information. However, in the new media environment, individuals' attitudes and gratifications sought have become important factors in media

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usage. The need has arisen for broader and more accurate data to describe media usage by an audience. Again, data of media repertoire gives an understanding of audiences' needs to choose a certain medium and also gives a description of actual media usage. Therefore, audience measurement data is needed to report media usage in a cross-media format. This study of media repertoire can influence syndicated research to begin reporting media usage in a cross-media format which better reflects actual media usage.

In summary, the author concludes from this study that in an individual's media choice process, media attitude is the most important factor. In addition, among the growing number of media channels, individuals have developed and rely upon a their media repertoire for their communication needs. In addition, individuals' attitudes toward media also effect their media repertoire. The results of this study confirmed one of the basic suppositions of the uses and gratifications perspective, that is, people are aware of communication alternatives and select media based on their perceptions or media attitudes. This implies that increased channel capacities and media use options enable individuals to be more actively involved in the media choice process. Furthermore, it can be concluded that the media choice process theory is applicable in non-western cultures such as in Korea

#### Contribution of the Study

A major contribution of this study was that it examined the individual's mass media choice process and comprehensive consumption patterns empirically in a non-Western culture with an extensive nation-wide survey method. This research suggests how the media choice theory along with the uses and gratifications approach can be applied to explain media consumption patterns in a new media environment. This study used a number of relevant research models based upon review of extensive and diverse literature. This was especially important because the research dealt with media choice theories developed in Western cultures in a non-Western country. This study tried to determine whether the media choice process and the uses and gratifications approach would be applicable to other cultures or societies.

In addition, this study suggested a comprehensive description of media consumption patterns in terms of a general, a information, and an entertainment media repertoire. There has been no comprehensive study done to empirically test media choice theory and media consumption patterns in Korea. This study attempted to address which factors were influential in predicting media choice, how Koreans regularly chose and use media in response to their communication motivations, and how Korean's socioeconomic status influence the media choice process. These results can be used as basic data for future studies of the general, information, and entertainment media repertoires and consumption patterns in this country.

Another contribution of this study is that it involved cross media study including a new medium (the Internet). Cross-media studies of an individual's media choice processes are rare, even in Western culture. Reinvestigation of media choice processes is necessary because of the evolving new media environment. Overall, the findings of this study offer theoretical insights for academic researchers as well as practical implications for media planners. For example, study of media repertoire can be an additional media planning tool because it can give more precise information about "focus groups" to advertisers as this data shows audiences' needs rather than simply showing the time spent using a particular medium.

#### Limitation of the Study and Recommendations

Along with the contributions of this study, there were also several limitations. The main limitation of this study was that it examined a limited number of communication motivations (information and entertainment) as the main motivations in the cross-media study. Among the numerous communication motivations, passing time/habit, companionship, or escapism might be important predictors in the media choice process. In addition, the limited measurement of external constraints was not sufficient to test the role of external constraints in predicting media choice and use. Further work is needed to determine the multiple indicators for the media choice process beyond the present study's limited motivations and external constraints of media use.

Furthermore, this study is limited by its theory, the uses and gratifications approach, and the survey method itself. As demonstrated earlier, the uses and gratifications approach offers a great tool for empirical media research, but it does not offer a strong theoretical foundation. For example, there were some confounding relationships in the main concept of the uses and gratifications approach. In this study, gratifications obtained (usefulness of each medium) were related to actual media usage. However, though gratifications sought (needs or motivations) related to the use of each medium, the gratifications sought was not a predictor or weak predictor in predicting actual usage of each medium.

Concerning the research method, although a survey is a valuable tool in media research, several obstacles cannot be overlooked. The study relied upon the respondent's attitudes and perceptions of Korean media. This fact might be bias because of the respondent providing the socially correct response. For example, a respondent might report that the newspaper was the most useful in satisfying his or her information needs although the respondent hardly used the newspaper.

The complex nature of the relationship between audience members and media choice process suggests a challenge for future studies. The research makes the following recommendations:

First, given the blurred distinctions between various media and more competing media options, it will be important to study future research concerning the media choice process across more diverse and different cultural sample populations. As media industry is changing fast, media use patterns is also continually changing. Second, there is a need to explore the role of interpersonal interaction as a complementary and competitive means of gratifying communication needs. In addition, social information processing theories, media richness theories, and media dependency theories of communication technology have argued that individuals' technology-related cognition and behaviors are influenced by social interactions. It would be worth to examine the influence of social interactions in media choice process. A rigorous attempt to develop a media choice model should be made in the future.

Third, future studies should include newer medium comparing traditional media with the recent development of satellite broadcasting, cell phones, digital television, and so on. It will also be helpful if the future cross study include more various traditional media such as cable television and telephone. Finally, it would be interesting to compare Korean's media choice process and consumption patterns with other countries.

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# APPENDIX A

# SURVEY QUESTIONNAIRE

# <Salience of Information/ Entertainment Needs>

◆ Please answer how important each of following statements are in your life.

1. How important is your need to keep up what is going on in your country?

| ① very      | Qunimportant | <b>Oneither</b> important | ③important | Svery     |
|-------------|--------------|---------------------------|------------|-----------|
| unimportant |              | nor unimportant           |            | Important |

2. How important is your need to keep with what is going on in the rest of the world?

| <sup>①</sup> very | Qunimportant | <b>Oneither</b> important | @important | Øvery     |
|-------------------|--------------|---------------------------|------------|-----------|
| unimportant       |              | nor unimportant           |            | Important |

3. How important is your need to obtain information about daily life such as weather,

flights and trains schedules, shopping information and so on?

| ① very      | Qunimportant | <b>Oneither</b> important | @important | <b>Svery</b> |
|-------------|--------------|---------------------------|------------|--------------|
| unimportant |              | nor unimportant           |            | Important    |

4. How important is your need to learn things about yourself and others?

| 1 very      | Qunimportant | <b>Oneither</b> important | @important | (Svery    |
|-------------|--------------|---------------------------|------------|-----------|
| unimportant |              | nor unimportant           |            | Important |

5. How important is your need to be entertained?

| ① very      | Qunimportant | <b>Oneither</b> important | <b>@important</b> | Øvery     |
|-------------|--------------|---------------------------|-------------------|-----------|
| unimportant |              | nor unimportant           |                   | Important |

6. How important is your need for excitement?

| ① very      | Qunimportant | Oneither important | ③important | Øvery     |
|-------------|--------------|--------------------|------------|-----------|
| unimportant |              | nor unimportant    | _          | Important |

#### 7. How important is your need to relax?

| ① very      | Qunimportant | <b>Oneither</b> important | <b>Oimportant</b> | Øvery     |
|-------------|--------------|---------------------------|-------------------|-----------|
| unimportant |              | nor unimportant           |                   | Important |

# 8. How important is your need to avoid boredom?

| Overy       | Qunimportant | <b>Oneither</b> important | <b>Oimportant</b> | Overy     |
|-------------|--------------|---------------------------|-------------------|-----------|
| unimportant | _            | nor unimportant           |                   | Important |

#### <Media Attitudes>

#### Perceived Usefulness of Media

+ Please answer how useful each of following media is in satisfying your information

needs.

#### 9. How useful to you is television in satisfying your information needs?

| Overy useless | Øsomewhat | <b>Oneither</b> useful | Ouseful | Svery useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

#### 10. How useful to you is radio in satisfying your information needs?

| Overy useless | Øsomewhat | Oneither useful | Ouseful | Svery useful |
|---------------|-----------|-----------------|---------|--------------|
|               | useless   | nor not useful  |         |              |

# 11. How useful to you is the newspaper in satisfying information needs?

| Overy useless | Øsomewhat | <b>Oneither useful</b> | Ouseful | Svery useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

#### 12. How useful to you is the Internet in satisfying information needs?

| Overy useless | Øsomewhat | Oneither useful | Ouseful | ©very useful |
|---------------|-----------|-----------------|---------|--------------|
|               | useless   | nor not useful  |         |              |

# 13. How useful to you are motion pictures in satisfying information needs?

| Overy useless | Øsomewhat | <b>Oneither</b> useful | Ouseful | Svery useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

# 14. How useful to you are magazines in satisfying information needs?

| Overy useless | Øsomewhat | <b>Ineither</b> useful | Ouseful | ©very useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

#### 15. How useful to you are **books** in satisfying information needs?

| Overy useless | Øsomewhat | <b>Oneither useful</b> | Ouseful | Svery useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

+ Please answer how useful each of following media is in satisfying your entertainment

needs.

16. How useful to you is television in satisfying your entertainment needs?

| Overy useless | Øsomewhat | <b>Oneither</b> useful | Tuseful | Svery useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

17. How useful to you is radio in satisfying your entertainment needs?

| Overy useless | Øsomewhat | Oneither useful | ⊕useful | ©very useful |
|---------------|-----------|-----------------|---------|--------------|
|               | useless   | nor not useful  |         |              |

18. How useful to you is the newspaper in satisfying your entertainment needs?

| Overy useless | @somewhat | <b>Oneither</b> useful | Ouseful | ©very useful |
|---------------|-----------|------------------------|---------|--------------|
|               | useless   | nor not useful         |         |              |

19. How useful to you is the Internet in satisfying your entertainment needs?

| Overy useless | 2 somewhat | Oneither useful | ①useful | ©very useful |
|---------------|------------|-----------------|---------|--------------|
|               | useless    | nor not useful  |         |              |

# 20. How useful to you are motion pictures in satisfying your entertainment needs?

| Overy useless | ② somewhat | <b>Oneither</b> useful | Ouseful | Svery useful |
|---------------|------------|------------------------|---------|--------------|
|               | useless    | nor not useful         |         |              |

#### 21. How useful to you are magazines in satisfying your entertainment needs?

| Overy useless | @ somewhat | <b>Oneither</b> useful | Ouseful | Svery useful |
|---------------|------------|------------------------|---------|--------------|
|               | useless    | nor not useful         |         |              |

# 22. How useful to you are books in satisfying your entertainment needs?

| Overy useless | 2 somewhat | <b>Oneither</b> useful | Ouseful | Svery useful |
|---------------|------------|------------------------|---------|--------------|
|               | useless    | nor not useful         |         |              |

# Perceived Accessibility of Media

+ Some people cannot access a certain medium under some circumstances in terms of

time, space, attention, and finances. Please tell me how easy or difficult it is to gain

access to each of the following media.

# 23. How easy or difficult is it for you to gain access to television?

| Overy difficult | Ødifficult to | Ineither           | The search of | Svery easy to |
|-----------------|---------------|--------------------|---|---------------|
| to gain access  | gain access   | difficult nor easy | access  | gain access   |

24. How easy or difficult is it for you to gain access to radio?

| Overy difficult | Ødifficult to | <b>Oneither</b>    | The search of | Svery easy to |
|-----------------|---------------|--------------------|---|---------------|
| to gain access  | gain access   | difficult nor easy | access  | gain access   |

#### 25. How easy or difficult is it for you to gain access to the newspaper?

| Overy difficult | Odifficult to | Oneither           | Deasy to gain | Svery easy to |
|-----------------|---------------|--------------------|---------------|---------------|
| to gain access  | gain access   | difficult nor easy | access        | gain access   |

# 26. How easy or difficult is it for you to gain access to the Internet?

| O very difficult | <sup>②</sup> difficult to | ③ neither          | • easy to gain | S very easy to |
|------------------|---------------------------|--------------------|----------------|----------------|
| to gain access   | gain access               | difficult nor easy | access         | gain access    |

# 27. How easy or difficult is it for you to gain access to motion pictures?

| O very difficult | © difficult to | ③ neither          | ( easy to gain | S very easy to |
|------------------|----------------|--------------------|----------------|----------------|
| to gain access   | gain access    | difficult nor easy | access         | gain access    |

# 28. How easy or difficult is it for you to gain access to magazines?

| ① very difficult | <sup>②</sup> difficult to | (1) neither        | • easy to gain | S very easy to |
|------------------|---------------------------|--------------------|----------------|----------------|
| to gain access   | gain access               | difficult nor easy | access         | gain access    |

#### 29. How easy or difficult is it for you to gain access to **books**?

| ① very difficult | <sup>②</sup> difficult to | 3 neither          | (1) easy to gain | S very easy to |
|------------------|---------------------------|--------------------|------------------|----------------|
| to gain access   | gain access               | difficult nor easy | access           | gain access    |

# Media Affinity.

- + Thinking about *television*, would you agree or disagree with the following statements.
- 30. I would rather watch television than use any other medium.

| Ostrongly disagree | Ødisagree | I neither agree nor disagree | ③agree | Strongly agree |
|--------------------|-----------|------------------------------|--------|----------------|
|                    |           |                              |        |                |

31. I would feel lost without a television.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

32. Television watching is one of my most important activities.

| Ostrongly disagree   O neither agree nor disagree   O agree   O strongly agree |
|--|
|--|

- + Thinking about **radio**, would you agree or disagree with the following statements.
- 33. I would rather listen to radio than use any other medium.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

34. I would feel lost without radio.

| Octronaly disagree | Odisamee  | I neither agree nor disagree  | Aamee  | () strongly agree |
|--------------------|-----------|-------------------------------|--------|-------------------|
| Usuoligiy uisagice | euisagice | a liciulei agree noi disagree | Jagice | w subligity agree |

35. Radio listening is one of my most important activities.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

+ Thinking about **newspapers**, would you agree or disagree with the following

statements.

36. I would rather read newspapers than use any other medium.

|                       |             |                              | <br>The second se |
|-----------------------|-------------|------------------------------|---|
|                       |             |                              |   |
| (1) ctrongiv disagree | (2) dicampe | ③ neither agree nor disagree | i (5) chronaiv saraa i  |
|                       | I GUISARICC |                              |   |
|                       |             |                              |   |

37. I would feel lost without a newspaper.

|                       |              | ③ neither agree nor disagree  |              |                    |
|-----------------------|--------------|-------------------------------|--------------|--------------------|
| ()) ctrongly dicagree | (2) dicampag | (3) nother arres nor dicarres | 1 (1) 0 0 00 | (5) ctropoly cores |
| + WAUDHELV UISAELCC   | WUISAPICC    |                               | I WARICE     |                    |
|                       |              |                               | 1 8          | Strongly agree     |

38. Newspaper reading is one of my most important activities.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

+ Thinking about the Internet, would you agree or disagree with the following

statements.

39. I would rather use the Internet than use any other medium.

| Detrongly discorres | Odicamaa  | D naither agree nor disagree | (A)====== | (B) strongly arres |
|---------------------|-----------|------------------------------|-----------|--------------------|
| Usurongly disagree  | Cuisagree | ③ neither agree nor disagree | wagree    | Strongly agree     |

40. I would feel lost without the Internet.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

41. Internet use is one of my most important activities.

|                                      | <br>· · · · · · · · · · · · · · · · · · · |                |
|--------------------------------------|---|----------------|
| ©strongly disagree   @disagree       |   | Strongly agree |
| (1) ctrongly disagree $(2)$ disagree | 1 (4) <b>30TEE</b>                        |                |
|                                      |   |                |
|                                      |   |                |

Thinking about motion pictures, would you agree or disagree with the following

statements.

42. I would rather watch motion pictures than use any other medium.

| Ostrongly disagree | Ødisagree | ③ neither agree nor disagree | ④agree | © strongly agree |
|--------------------|-----------|------------------------------|--------|------------------|
|--------------------|-----------|------------------------------|--------|------------------|

43. I would feel lost without motion pictures.

Ostrongly disagree Odisagree Oneither agree nor disagree O strongly agree

44. Motion pictures watching is one of my most important activities.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

+ Thinking about magazines, would you agree or disagree with the following

statements.

45. I would rather read a magazine than use any other medium.

| Ostrongly disagree | Ødisagree | ③ neither agree nor disagree | Jagree | S strongly agree |
|--------------------|-----------|------------------------------|--------|------------------|
|                    |           |                              |        |                  |

46. I would feel lost without a magazine.

Ostrongly disagree Ødisagree Ø neither agree nor disagree Øagree Ø strongly agree

47. Magazine reading is one of my most important activities.

| Ostrongly disagree Ødisagree | I neither agree nor disagree | ④agree | I strongly agree |
|------------------------------|------------------------------|--------|------------------|
|------------------------------|------------------------------|--------|------------------|

- + Thinking about **books**, would you agree or disagree with the following statements.
- 48. I would rather read a book than use any other medium.

Ostrongly disagree Odisagree Oneither agree nor disagree Oagree Ostrongly agree

49. I would feel lost without books.

50. Book reading is one of my most important activities.

| Ostrongly disagree  | Odisamee  | I neither agree nor disagree | Aarree | S strongly agree |
|---------------------|-----------|------------------------------|--------|------------------|
| Usu oligiy uisagice | Suisagice | a nemier agree nor disagree  | agice  | S strongly agree |

#### <Media Use Level>

51 Approximately how much time do you spend per day both on a typical weekday and a typical weekend day with television? Weekday \_\_\_\_\_ Weekend day \_\_\_\_\_
52. Approximately how much time do you spend per day both on a typical weekday and a typical weekend day with a radio? Weekday \_\_\_\_\_ Weekend day \_\_\_\_\_
53. Approximately how much time do you spend per day both on a typical weekday and a typical weekend day with the Internet? Weekday \_\_\_\_\_ Weekend day \_\_\_\_\_\_
54. Would you tell me, an average, how often do you go to theater to see movies in a month? \_\_\_\_\_\_
55. Would you tell me, an average, how many books do you read in a month?

- 56. Would you tell me, an average, how much time do you read per day with magazines?

① Never ② 1-2 days a week ③3-4 days a week ④5-6 days a week ⑤ Everyday

<sup>57.</sup> How often do you read newspapers most weeks?

#### <Information/Entertainment Repertoire>

• When you want to satisfy your need for <u>information</u>, how often do you select each of the following sources? The possible five responses are never, seldom, sometimes, frequently, and always.

58. Television:

| Never         | Seldom    | Sometimes | Frequently | Always |  |
|---------------|-----------|-----------|------------|--------|--|
| 59. Radio:    |           |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |
| 60. Newspap   | ers:      |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |
| 61. The Inter | met:      |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |
| 62. Motion F  | victures: |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |
| 63. Magazin   | es:       |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |
| 64. Books:    |           |           |            |        |  |
| Never         | Seldom    | Sometimes | Frequently | Always |  |

✦ When you want to satisfy your need for <u>entertainment</u>, how often do you select each of the following sources? Please tell me a proper scale from 1 to 5 where 1 means "never" 5 means "always."

| 65. Television:   |        |           |            |        |  |
|-------------------|--------|-----------|------------|--------|--|
| Never             | Seldom | Sometimes | Frequently | Always |  |
| 66. Radio:        |        |           |            |        |  |
| Never             | Seldom | Sometimes | Frequently | Always |  |
| 67. Newspapers:   |        |           |            |        |  |
| Never             | Seldom | Sometimes | Frequently | Always |  |
| 68. The Internet: |        |           |            |        |  |
| Never             | Seldom | Sometimes | Frequently | Always |  |

69. Motion Pictures:

| Never          | Seldom | Sometimes | Frequently | Always |  |
|----------------|--------|-----------|------------|--------|--|
| 70. Magazines: |        |           |            |        |  |
| Never          | Seldom | Sometimes | Frequently | Always |  |
| 71. Books:     |        |           |            |        |  |
| Never          | Seldom | Sometimes | Frequently | Always |  |

#### Leisure time

Now I would ask your leisure time. Leisure time is defined as the time one spends doing things other than sleeping, eating, or working.

72. On average, how much leisure time do you have per day?

#### <Demographics>

- ◆ I have just a few demographic questions that will be used for research purposes only.
- 73. What year are you born? \_\_\_\_\_
- 74. What is your education level? \_\_\_\_\_
- O no education or elementary school Omiddle school graduate or in middle school

Thigh school graduate or in high school Tcollege graduate or in college school

Sbeyond college school or in graduate school

75. What is your household annual income level?

Oless than \$10,000 O \$10,000 - less than \$15,000 O \$15,000 - less than \$20,000

\$\$20,000 - less than \$25,000 \$\$25,000 - less than \$30,000  $\pm$  over \$ 35,000

76. Gender: 1) male. \_\_\_\_\_ 2) female \_\_\_\_\_

77. Address: \_\_\_\_\_

78. Telephone number \_\_\_\_\_\_ (it will be only used for the verification of the survey).

+ Thank You.

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