

# Does cost matter: How customer adopts the fee-based online content services?

Jeon-Gil Choi\* · Soon-Goo Hong\*\* · In-Jai Kim\*\*\* · Sang-Guen Lee\*\*\*\*

## <목 차>

I. Introduction	4.2. Coding Process
II. Tradition of Inquiry	V. Discussions
III. Data Collection	REFERENCES
IV. Data Analysis	Abstract
4.1 Open Coding Categories	

## I . Introduction

In a network-based economy, many goods and services can be accessed online. Online content services such as newspaper, magazine, music, or movie were provided free of charge in the early stage of online business transactions. Online information services providers converted their services from a free-of-charge form to a fee or subscription-based form to cover their web management costs, build switching barriers over competitors, and take a first mover advantage using network externality. Some companies like The Wall Street Journal succeeded in converting into the fee-based provision, others didn't mainly due to the customer resistance. Why do customers have a willingness to pay a fee in order to use the online content services? How do customers react to the fee-based provision of online contents on the Web? This study would explore the process of user behavior and answer the aforementioned questions.

Previous and related research in the information systems area has focused on the analysis

\* 메리맥대학(Merrimack College), jeongil.choi@merrimack.edu

\*\* corresponding author, 동아대학교(Donga University), shong@daunet.donga.ac.kr

\*\*\* 동국대학교(Dongguk University), ijkim@dgu.ac.kr

\*\*\*\* 아주대학교(Ajou University), slee1028@ajou.ac.kr

about adoption of information technology or systems in the individual, team or organization level. Many popular models represent attempts at applying general social-psychological models to the IT context, including The Technology Acceptance Model (TAM, Davis, 1989) which was based on Azjen and Fishbein's Theory of Reasoned Action (TRA, 1980), Moore and Benbasat's Diffusion of Innovation (DOI, 1991) which was based on Roger's DOI work dating back to 1963 (1983, 1995), Theory of Planned Behavior (TPB, Mathieson, 1991; Taylor & Todd, 1995) which was based on Azjen's 1985 TPB work (Ajzen, 1985; Ajzen & Madden, 1986), and Cooper & Zmud's Infusion model (1990). Although many of these models differ in their theoretical structures, constructs, and relationships posited, all of them address the use of technology. Of these, TAM appears to be the most widely accepted among information systems researchers, because of its parsimony and empirical support.

In 1989, Davis designed TAM to predict and explain IT use. According to TAM, belief about using the target systems influences usage intentions and behavior via their effects on a potential adopter's attitude. Many empirical studies related to IT usage intention and behavior have used TAM in various field settings involving a broad range of IS applications (e.g., Mathieson, 1991; Adams et al., 1992 Szajna, 1994 Venkatesh & Davis, 1994 Chin & Gopal, 1995 Keil et al., 1995 Igarria et al., 1996, 1997). TAM has also been examined across cultures (Straub, 1994; Gefen & Straub, 1997 Gefen & Keil, 1998). The recent extension of TAM by Venkatesh and Davis (2000) included perceived usefulness and usage intention in terms of social influence and cognitive instrumental processes.

However, no principle research has been carried out on the user adoption behavior of online content services provisions. As users actively access online contentson the Web, it needs to explore user adoption behavior in different settings. Many IS research has used quantitative approaches, even though they deal with the process of user behavior regarding the information technology or system. Therefore, employing grounded theory in this research offers the opportunity to gather information without biases and perspectives that understand user behavior regarding the provision of content services on the Web.

The purpose of this study is to discover how customers adopt the fee-based provision of online content services. At this stage in the research, the customer adoption will generally be defined as customer's payment to use the online content services. Using the grounded theory approaches, we can better understand the complexity of the perception held about the fee-based provision of online contents and the process to make a decision of paying or not to take the service provision. The central research question is to explore how customers adopt to pay the fee in order to see the online content services. The first sub question is to inquire what factors bring customer's adoption to pay the fee. Another sub question is to discover

the user's perception about the fee-based provision of online content services over the offline content services.

## II. Tradition of Inquiry

A grounded theory methodology within a qualitative research approach was chosen because it provides the most useful and relevant way to generate or discover a theory that explains actions, processes of people (Creswell, 1998). Strauss and Corbin (1998) suggest that grounded theory, drawn from data, is likely to offer insight, enhance understanding, and provide a meaningful guide to action. We believe data (stories) told by participants in their own words may hold more information than quantified responses on a survey instrument. Through probing participants' recalled experiences of how they select to pay the fee in the usage of online content services, researchers can identify or develop concepts that do not manifest themselves through analysis of the available numerical data or scale.

This study was conducted through an emancipatory paradigm. The nature of reality is subjective and multiple in perspectives shaped by social, cultural, and economic values. The research is based on the collaboration between researcher and participants. This study can be conducted by a quantitative design, but a qualitative approach can be more emphasized and desirable to find participants' experiences in more detail. Although we believe not all research questions can best be answered qualitatively, we feel that some can only be answered in this manner and this undertaking represents one of them. This study is guided by the work of Strauss and Corbin (1998) and by the work of Creswell (1998).

Although the story of participants interviewed could have been told using various qualitative methods, the grounded theory approach was chosen because we believe it is the desirable method, which will make the participant experiences heard by the most audiences. Their message needs to be heard by not only MIS academics but also practitioners in the field, or those who develop approaches from free-based to fee-based online content services provisions. This method uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon (Strauss & Corbin, 1998), which presents the process of customer adoption. The theory, proposed in this study, is constructed by use of a complex system of coding which refines and defines the data found in dialogue. The strict formula for constructing grounded theory as defined by Strauss and Corbin (1998) is followed as the emergent themes in stories told by participants. Grounded theory helps researchers understand phenomenon and processes of customers through individual interviews and

systematic data analysis, and generate the theory.

### III. Data Collection

The data was collected from users who paid the fee to obtain the premium service on the "Business Week" website and those who did not pay. The sample is consisted of four experienced readers of "Business Week Online". The sample is consisted of three males and one female; ages ranged from 27 to 39. Among the sample, three are readers who paid the fee and one is not. Names of possible participants were secured by using a purposeful sampling technique. Individuals who might have experiences reading business articles on the website and use a fee-based online content services were contacted. Then researchers asked the possible subjects if they could participate in the study. If they indicated an agreement, they were contacted with a research description and purpose, answering questions, and setting up interviews.

Interviews were audio-taped of the four participants using an interview protocol composed of six in-depth, open-ended questions (Appendix A). The interviews lasted 30 to 60 minutes. Interviews were transcribed, and analyzed using techniques of grounded theory (Glaser, 1978; Strauss & Corbin, 1998). All participants were interviewed twice to possibly saturate the categories. Each participant was asked to describe the psychological situation when they were asked to pay the fee to read the premium articles and to explain how they decide to pay or not. All participants who wish will receive a copy of the final report.

### IV. Data Analysis

According to Strauss and Corbin (1998), the process of analyzing data consists of open coding, axial coding, and selective coding. The process of coding data typically begins with the identification of open coding categories and using the constant comparative approach (Creswell & Maietta, 2002). In this study, open coding categories were achieved through a process that involved bracketing the ideas that captured the essence of a section of the transcription (Creswell, 1998). The data within each section was compared, conceptualized and categorized, and finally applied temporary labels to it. This technique continually defined and refined categories. Initially, the codes were numerous, but over time, dominant codes emerged: relative advantages, perceived ease of use, social factors, and satisfaction and self-esteem.

Table 1. Open Coding Categories

Open Coding Categories	Properties	Dimension of Properties
Relative Advantages	<ul style="list-style-type: none"> <li>▪ Saving money and time</li> <li>▪ Easy to search</li> </ul>	<ul style="list-style-type: none"> <li>▪ Much useful than off-line</li> <li>▪ Various resources on the Web</li> <li>▪ Economic benefit</li> </ul>
Perceived Ease of Use	<ul style="list-style-type: none"> <li>▪ Easy to access at any time</li> <li>▪ Easy to use on the Web</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce time constraint</li> <li>▪ Easy to use Web surfing</li> </ul>
Social Factors	<ul style="list-style-type: none"> <li>▪ Recommendation of colleagues</li> <li>▪ Universalization of online content services</li> <li>▪ Observation to other peoples</li> <li>▪ Feel membership of community</li> </ul>	<ul style="list-style-type: none"> <li>▪ Depend on other peoples</li> <li>▪ Recognize the community-wide trend</li> <li>▪ Spread of online content services</li> <li>▪ "Me too"</li> <li>▪ Membership over isolation</li> <li>▪ Sharing with other peoples</li> </ul>
Satisfaction and Self-Esteem	<ul style="list-style-type: none"> <li>▪ Satisfaction to use advanced technology</li> <li>▪ Showing off online usage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pursue the leading trend</li> <li>▪ Being a first-adopter (follower)</li> <li>▪ Value on showing off</li> </ul>

## 4.1 Open Coding Categories

### 4.1.1. Relative Advantages

Relative Advantages (Moore & Benbasat, 1991 Rogers, 1995) is generally defined in terms of what effect the participant believes the paying of fee will have on their job or daily life. The extent to which a potential adopter views the innovation as offering an advantage over previous ways of performing the same task. The degree of relative advantage may be measured in economic terms, but social prestige, convenience, and satisfaction are also important factors. A participant typically considers usage of fee-based online content services to be useful if it aids them in increasing their overall efficiency and productivity, enhancing their job effectiveness and helping their job performance levels.

*[Every morning, I start my job by turning on the computer. As a business faculty, I check web-based daily newspaper and magazine. Online newspaper and magazine are dynamically changing and I can see the updated news as much as I want. It provides me with the vivid business news and I often quote the idea into my classroom and apply to the investment of stock. Well, printed magazine are also beneficial, but I like more timely and updated news.]*

*[For me it's made my job a lot easier because I have my reports, I can run reports*

*anytime I want.]*

The participants also feel that they get a variety of information within a short time on the Web compared with offline Business Week.

*[Sometimes, when I travel, I bring a magazine to spend the spare time on a flight and to scrap the article to important to me. But web surfing is very useful. I can search a specific article within a short time and get even related articles. Even though the Web asked me to pay the fee on the specific article, I don't care because it gives me more benefits than the offline magazine.]*

#### 4.1.2. Perceived Ease of Use

A very important factor in the adoption of information technology (IT) applications is the users' perception of how easy the system is to use. Previous studies (Davis, 1989; Mathieson, 1991; Venkatesh & Davis, 1994; Taylor & Todd, 1995; Karahanna et al., 1999; Venkatraman & Davis, 2000) have shown that in general users are more likely to use and enjoy using a system that they perceive as being easy to use. We believe online content services is enabled by IT and presented on the Web. Therefore, participants perceive their online information usage in different ways depending on and how much control they have over the web-based information acquisition.

*[I know many contents service providers tried to induce the usage of online content services and to charge a fee on the usage of service. But I feel still more comfortable to see the printed magazine. I hate to jog my neck to see the article presented on the small screen. I like more tangible touch, you know.]*

*[Well, everyday, I feel time is too short for me. I'm always in a hurry, but I don't want to be myself behind the business trend. I can command web surfing very well. I can get everything from the Internet.]*

*[But of course the navigation makes me not too sure of how to run through the system and hard to get used to looking at the screen and menus and so forth. It's very daunting.]*

If the readers feel more at ease to use the online content services, they are more likely to

use the service and to have willingness to pay.

### 4.1.3. Social Factors

Triandis (1980) argued that behavior is influenced by social factors and defined social factors as "the individual's internalization of the reference group's subjective culture, consisting norms, roles, and value" (p.210). The extension of a technology acceptance model incorporates additional theoretical constructs spanning social influence processes and cognitive instrumental processes (Venkatesh & Davis, 2000). Among the social influence processes, subjective norm is a principal construct of TPB (Ajzen, 1985). As another extension of TRA, TPB asserts that a behavioral intention is formed by one's attitude, perceived behavioral control, and subjective norm, which reflect perceptions that significant referents desire the individual to perform or not perform a certain behavior (Taylor & Todd, 1995). Consistent with TRA, Venkatesh and Davis (2000) tap into social influences via subjective norm. Social influence means the extent to which a member of a social network influences another's behavior (Rice et al., 1990). From a media richness perspective, social influence is exerted through messages and signals that help form perceptions of the value of a product or an activity (Salancik & Pfeffer, 1978; Fulk et al., 1987; Fulk & Boyd, 1991). Venkatesh and Brown (2001) suggest that a positive "word of mouth" from friends, family, and other adopters has a significant influence on future adopters, but may not be as influential on those who have already acted.

*[...] it was difficult at first because there's so much to it that I felt overwhelmed, but because of my colleague, [...], he introduced me and recommended its usage, I would follow his recommendation, even though I have some negative feelings on paying the fee.*

*[I would say right now I would like to recommend it to other friends. What we probably need [...] is to easily draw data and with a high degree of confidence that we've got accurate data. And we're struggling with that.]*

*[It's there, it's a tool and I use it and I like it. If she did not tell me, I would not know of such a convenience.]*

Participants within the academic community are more sensitive on the mutual communication to share a new product and service. They are also inclined to follow the

suggestion of referent others.

#### 4.1.4. Satisfaction and Self-Esteem

Satisfaction is the positive affect experienced by an individual in a relationship (Rusbult et al., 1998). It is influenced by the extent to which a relationship fulfills the individual's most important needs. According to the theory of disconfirmation of expectations (Oliver, 1980), satisfaction arises when a consumer compares their perceptions of a product's performance to their expectations. If the perceived performance is better than his expectations, the consumer is satisfied.

*[I can't understand why peoples don't want to pay for using online content services, even though they pay atthe street-stand. [...] In fact, online content services are same to offline papers in terms of content. We should pay to use the same service.]*

*[...] now most of the information that we need is at our fingertips.*

*[It's just, there are just so many different avenues to go out on and you kind of happen into finding that information that you're looking for. I wish it were easier to get back into it you know I put it in, where's it at?]*

*[The changes created a lot more work for me, and I feel very strongly about. I'm one person I can only do so much.]*

*[I like being able to, when I see something's been done wrong in the accounting system, just to go in and fix it.]*

## 4.2. Coding Process

In this study, the experienced participants of online content services feel satisfaction and enjoyment. They did not hesitate to pay the fee because the premium article deserves to get the fee. By using the IT-enabled advanced applications, they get self-satisfaction and self-esteem in believing they are the first adopter group of a new service.

From open coding, this study proceeds to axial coding and the development of a coding paradigm. The open coding categories were then re-positioned in the axial coding process by making connections between categories based on conditions, context, and action. In the axial coding process, based on the Creswell & Maietta's suggestion (2002), we selected "sense of pride and self-esteem" among the open coding category and use it as the core phenomenon in



the axial coding paradigm. We identified several categories of information that relate the core selected category (satisfaction and self-esteem): causal conditions, intervening and contextual categories (What were the contextual or setting factors that influenced it?), action (What did people do in response to it?), and consequences. Figure 1 shows an example of axial coding paradigm using "satisfaction and self-esteem" as a core phenomenon.

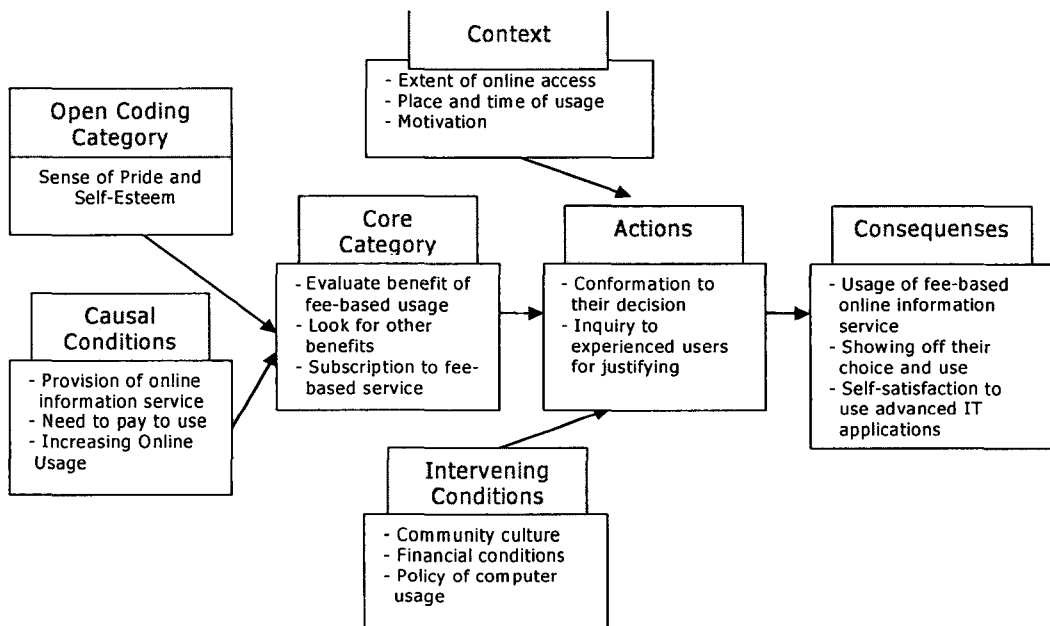


Figure 1. A Model of Customer Adoption Process on the Fee-based Provision of Online Content services

The final process of coding is selective coding. It involved building a story in narrative form that connected the categories defined in axial coding around a core category with its properties and dimensions fully explored. It provides the development of a visual model and conditional propositions that represents the relationships defined between the identified categories. The propositions that emerge from the above model are as follows.

- A sense of pride and self-esteem will affect a reader seeking online content services to pay the fee.
- The readers who choose the fee-based online content services are more likely to find confirmation and justification about their decisions.
- The readers who choose a fee-based online content services are more likely to show off

their choice and get their own sense of pride and self-esteem.

Verification of the data through careful checking of the resulting categories against the actual data for support as well as evidence of difference and variation should be further explored (Strauss and Corbin 1998). Finally the participants were asked to review the findings and subsequent model for validation.

## V. Discussions

Content services provision on the Web provides customers different decision making to purchase unlike the printed information. As online content services providers convert their services from a free-of-charged form to a fee or subscription-based form, this study explores how customers decide to pay a fee and why some customer don't want to pay.

Using the grounded theory of analysis, this study can find customer resistances to pay a fee in order to use online content services. There are several reasons to be emerged. Using online content services is not universally enough to feel comfortable like a printed paper. In order for more readers to use the online content services and to have the willingness to pay, it should provide more technical infrastructure and need a higher level of customer perception to adopt. On the contrary, very strong supporters to pay the fee for using online content services appear to enjoy the convenience of online content services. Furthermore, they feel a sense of pride and self-esteem because they use the advanced IT applications. Finally, this study can also find out it is hard to measure economic and social benefits in using online information over offline materials.

This study has some limitations with regard to generalizability. The theory proposed in this study was developed from a relatively small sample and some parts of the categories were previously noted in the related literature. The stage, phase, and extent of the process of customer willingness to pay the fee aren't clarified exactly. Thus, it should conduct further investigation based on more longitudinal analysis to discover the process of customer adoption.

## REFERENCES

- Adams, D.A., Nelson, R.R., & Todd, P.A., "Perceived usefulness, ease of use, and usage of information technology: A replication," *MIS Quarterly*, Vol.16, No.2, 1992, pp. 227-247.
- Ajzen, I. & Fishbein, M., *Understanding attitudes and predicting social behavior*. New York City: Prentice Hall, 1980.
- Ajzen, I. & Madden, J.J., "Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control," *Journal of Experimental Social Psychology*, Vol. 22, 1986, pp. 453-474.
- Chin, W.W. & Gopal, A., "Adoption intention in GSS: Relative importance of beliefs," *The Data Base for Advances in Information Systems*, Vol. 26, No. 2-3, 1995, pp. 42-63.
- Cooper, R.B., & Zmud, R.W., "Information technology implementation research: A technological diffusion approach," *Management Science*, Vol. 36, No. 2, 1990, pp. 123-139.
- Creswell, J.W., *Qualitative Inquiry and Research Design: Choosing From Among Five Traditions*, Thousand Oaks, CA: Sage, 1998.
- Creswell, J.W. & Maietta, R., Qualitative research, In N.J. Salkind & D.C. Miller (Eds.), *Handbook of Research Design and Social Measurement* (6th ed., pp.143-164), Thousand Oaks, CA: Sage, 2002.
- Davis, F., "Perceived usefulness, perceived ease of use and user acceptance of information technology," *MIS Quarterly*, Vol. 13, No. 3, 1989, pp. 319-339.
- Gefen, D. & Straub, D.W., "Gender differences in perception and adoption of E-Mail: An extension to the technology acceptance model," *MIS Quarterly*, Vol. 21, No. 4, 1997, pp. 389-400.
- Gefen, D. & Keil, M., "The impact of developer responsiveness on perceptions of usefulness and ease of use: An extension of the technology acceptance model," *The DATA BASE for Advances in Information Systems*, Vol. 29, No. 2, 1998, pp. 35-39.
- Glaser B., *Theoretical sensitivity*, California: The Sociology Press, 1978.
- Igbaria, M., Parasuraman, S., & Baroudi, J., "A motivational model of microcomputer usage," *Journal of Management Information Systems*, Vol. 13, No. 1, 1996, pp. 127-143.
- Igbaria, M., Zinatelli, N., Cragg, P., & Cavaye, A.L.M., "Personal computing acceptance factors in small firms: A structural equation model," *MIS Quarterly*, Vol. 21, No.3, 1997, pp. 279-305.
- Keil, M., Beranek, P.M., & Konsynski, B.R., "Usefulness and ease of use: Field study evidence regarding task considerations," *Decision Support Systems*, Vol. 13, No. 1, 1995, pp. 75-91.

- Mathieson, K., "Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior," *Information Systems Research*, Vol. 2, No. 3, 1991, pp. 173-191.
- Moore, G.C. & Benbasat, I., "Development of an instrument to measure the perceptions of adopting an information technology innovation," *Information Systems Research*, Vol. 2, No. 3, 1991, pp. 192-222.
- Oliver, R.L., "A cognitive model for the antecedents and consequences of satisfaction," *Journal of Marketing Research*, Vol. 17, 1980, pp. 460-469.
- Oliver, R.L., "Whence consumer loyalty," *Journal of Marketing*, Vol. 63, No. 4, 1999, pp. 33-44.
- Rogers, E.M., *Diffusion of innovations*. New York: The Free Press, 1983.
- Rogers, E.M., *Diffusion of innovations*, New York: The Free Press, 1995.
- Rusbult, C.E., Martz, J.M., & Agnew, C.R., "The investment model scale: measuring commitment level, satisfaction level, quality of alternatives, and investment size," *Personal Relationships*, Vol. 5, No. 4, 1998, pp. 357-391.
- Salancik, G.R., & Pfeffer, J., "A social information processing approach to job attitudes and task design," *Administrative Science Quarterly*, Vol. 23, No. 2, 1978, pp. 224-253.
- Straub, D.W., "The effect of culture on IT diffusion: E-mail and FAX in Japan and the U.S.," *Information Systems Research*, Vol. 5, No. 1, 1994, pp. 23-47.
- Strauss, A. & Corbin, J., *Basics of qualitative research*(2nd ed), Thousand Oaks, CA: Sage, 1998.
- Szajna, B., "Software evaluation and choice: Predictive validation of the technology acceptance instrument," *MIS Quarterly*, Vol. 18, No. 3, 1994, pp. 319-324.
- Triandis, H.C., *Attitude and attitude change*. New York: John Wiley & Sons, 1971.
- Triandis, H.C., "Values, attitudes and interpersonal behavior," In H.E. Howe (Ed.), *Nebraska Symposium on Motivation*, 1979 (Vol. 27, pp.195-259). Lincoln, NE: University of Nebraska Press, 1980.
- Venkatesh, V. & Davis, F., Modeling the determinants of perceived ease of use. In J. I. DeGross, S. L. Huff, and M. C. Munro (Eds.). *Proceedings of the Fifteenth International Conference on Information Systems* (pp. 213-227). Vancouver, British Columbia, 1994.
- Venkatesh, V., & Davis, F., "A theoretical extension of the technology acceptance model: Four longitudinal field studies," *Management Science*, Vol. 46, No. 2, 2000, pp. 186-204.
- Venkatesh, V. & Brown, S., "A Longitudinal investment of personal computers in homes: Adoption determinants and emerging Challenges," *MIS Quarterly*, Vol. 25, No. 1, 2001, pp. 71-102.

Appendix A

## **Interview Protocol Does cost matter: How do customers adopt the fee-based provision of online content services?**

Header (Explanation to participants in the beginning stage)

I am writing to ask your help in a study "Customer Adoption of the Fee-based Provision of Online content services." This study is to explore how customers adopt the fee-based provision of online content services.

Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. You can help us by taking a few minutes to share your experiences and opinions about the fee-based provision of online content services.

I would like to give you a \$5 gift card as a small token of appreciation. If you have any questions or comments about this study, I would be happy to talk with you.

### Actual Interview Questions

1. What is your feeling about the fee-based provision of online content services?
2. How can you compare online content services with offline material?
3. What factors do you consider important for user acceptance and adoption of the fee-based online content services?
4. Do you have any factors to inhibit your use of the fee-based online content services?
5. What is your level of satisfaction in using the fee-based online content services?
6. What changes, if any, have you faced or noticed due to the use of online content services?

Thanks you very much for helping with this study.

<Abstract>

## Does cost matter: How customer adopts the fee-based online content services?

Jeon-gil Choi, Soon-goo Hong, In-jai Kim, Sang-guen Lee

As Internet usage widely grows, online content services such as newspaper, magazine, music, game and movie are provided with a fee-based subscription. Many content services providers consider charging a usage fee into its service provisions as one of the Internet business models for increasing revenue. There are customer resistances to adopting the fee-based service provision on the Web. Previous research in information systems (IS) has focused on the analysis of adoption of information technology or systems in the individual or organization level. No principle research has been carried out on the user adoption behavior of online content services provisions. As users actively access content services on the Web, it needs to explore user adoption behavior in different settings. Many IS researcher have employed quantitative approaches, even though they deal with the process of user behavior regarding the information technology or system. In this study, we attempt to discover how customers adopt the fee-based provision of online content services by employing grounded theory, one of the principal qualitative research methods.

**Keyword** : Customer Adoption, Fee-based Service Provision, Grounded Theory, Online Content