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ARE CONSUMERS READY FOR FEE-BASED ONLINE SERVICES?

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Abstract

Many online service businesses are beginning to charge fees for services that they used to provide for free. It is unclear whether consumers are ready to embrace this practice. This study explores the critical issue of consumer attitudes toward fee-based online services. The results of the study indicate that consumers' willingness to pay for online services is likely to be influenced by their perceived value of convenience these services provide, as well as by the extent to which they utilize these services. While the study finds that consumers are more willing to pay for services that are qualitatively better than free services, there is also indication that the belief remains strong among many that online services that were free in the past should remain free. The findings of this study will contribute to the formulation and implementation of sustainable business models for e-businesses in the service sector.

Keywords: C arged online service, service e-commerce, online consumer, consumer behavior, e-commerce business model

Introduction

During the “golden times” of e-commerce in the late 1990s, many online businesses tried to attract consumers by providing free services (Addison 2001; Schonfeld 2001). Since the “dot-com crash”, it has been argued that providing free online services and relying exclusively on advertisement revenues is a business model that is not sustainable (Addison 2001). Many online service providers are beginning to charge their users a subscription or membership fee for the online services provided (Anonymous 2001a; Anonymous 2001b; Goldman 2001; Taylor 2001). Most consumers, however, are accustomed to free online services and therefore unwilling or unprepared to accept the new charges. In a survey conducted in 2000 by Greenfield Online (Coupey 2001), of 3,000 people surveyed, 66% said free goods or services attracted them to Web sites (while 47% were attracted by discounted prices, 43% were attracted by contests – again free gifts or awards). In such an environment, companies that begin to charge for online services may well see their customers “driven away” (Anonymous 2001b).

There is likely to be a variety of reasons for consumers' unwillingness to pay for online services. It might be a matter of customs that developed in the past few years. It might be due to consumers' perception of the way online service businesses operate. It might depend on the characteristics of the online services provided. It might also be related to the pricing and payment methods available (Jezzard 2001; Anonymous 2001b; Schneider and Perry 2001). In any case, it is important to understand the opinions of online consumers toward fee-based online services and the factors influencing these opinions. Such knowledge will help Web-based businesses understand and predict the behavior of their online customers. It will also allow online businesses to develop business models and design appropriate revenue-generation methods that are more likely to be successful.

This study attempts to identify factors that significantly influence consumer opinions regarding fee-based online services. Specifically, the study explores the relationship between consumers' willingness to pay for online services and a number of

factors, including their perceived importance of various online services and their past experience of using these services. In addition, the study explores consumer opinions about different pricing and payment methods that fee-based online services might use. The findings of the study are expected to contribute to the development of more effective and sustainable business models for online service businesses to survive and succeed in the restructuring and maturing of e-commerce.

Discovering Consumer Opinions on Fee-Based Online Services

Web-based e-commerce has won the favor of consumers with the great value and convenience it brings to them, such as “shopping 24x7 from home,” among others. Moreover, online services provide consumers with access to an unlimited selection of information, from news to travel to match-making, and in a variety of formats, including text and numbers, graphics and audio/video, and statistics and comparisons. Harsh economic reality is now forcing many of these Web-based companies to start charging for their services. While consumers have so far enjoyed the convenience provided by online services, whether or not, and to what extent, they are willing to pay for this convenience remains to be seen. To a consumer, if the convenience brought by a certain online service is considered important, it is likely that s/he would be willing to pay for that service. It is intuitive, then, that the perceived **importance of convenience** provided by an online service should have some influence on consumers’ willingness to pay for that service.

E-commerce offers consumers with a wide variety of online services. Depending on individual needs, one tends to use a specific service more often than s/he does other services. While people are happier accessing free services, if one has developed a habit using a certain service and that service goes from being free to fee-based, it is likely that s/he would be willing to pay for the service to continue using it. Therefore, the willingness to pay for a service ought to be related to how much the service has been used by the consumer, in that how habitual s/he has become in using the service. Consequently, the amount of **usage** of a specific online service should have an impact on the consumer’s willingness to pay for the service.

To a particular online consumer, his/her **willingness to pay** is further influenced by a set of beliefs and expectations:

- to be fair, one should always pay for the service one gets, be it tangible or intangible;
- online businesses need profits to survive, but their advertisement revenues are insufficient, therefore consumers must pay for the services received to help keep them in business;
- fee-based services are quantitatively and qualitatively better than free services.

In contrast, there might also be a number of **reasons why a particular consumer will be unwilling to pay** for online services:

- accustomed to getting online services for free, it is not easy for the consumer to accept any new charges (Addison 2001; Schonfeld 2001; CNN Headline News 2002);
- the consumer might continue to believe that online service providers could fully rely on advertisement revenues and therefore do not need to charge online users for the services;
- the consumer might be concerned about the security of using credit cards for on line payment.

Consumers’ **demographic characteristics** can play important roles in their behaviors (Mowen and Minors 1998; Fram and Grady 1997). Due to their differences in age, gender, and amount of work experience, consumers may hold different attitudes and exhibit different behaviors toward such issues as paying for online services. Earlier studies on online consumer behaviors show that consumers’ e-commerce experience may have a particular impact on their perceptions and responses toward issues such as online purchase decision making (Lee 2001) and online privacy and security concerns (Chen *et al.* 2001; Sheehan 2002; Yang and Jun 2002). It is natural to assume that the amount of online purchase experience of consumers would also influence their attitudes and responses toward fee-based online services. Therefore, the amount of **e-commerce experience** of consumers should be introduced into the study of charged online services.

A questionnaire was developed to collect data on consumer attitudes toward fee-based online services, their assessment of the importance of convenience for various online services, their usage of common online services, as well as their opinions on pricing and payment methods. Demographic data such as gender, age group, and number of hours worked were collected to help explore the relationships between the afore-mentioned attitudes/opinions and the characteristics of online consumers. Finally, e-commerce experience of consumers in terms of length of e-commerce experience (when the consumer first made an online purchase) as well as frequency of online purchases (how many online purchases were made) were collected.

A pilot study identified ten most common online services, including email, travel, health information, news, reference, weather, etc. All of them were listed in the questionnaire. Subjects expressed their willingness to pay, their perceived importance of convenience, and their frequency of usage, regarding each specific online service. Responses were measured on a 5-point Likert-type scale. Correlation and regression analyses were used to analyze the data collected.

The subjects of this study were business students in a large Western state university. Two hundred and thirteen valid responses were collected. Of the 213 subjects, the average age was 25.9, and the average number of hours worked per week was 20.2. 203 subjects reported their gender, with 99 of them being male and 104 being female. This was a gender-balanced sample, with reasonable amount of work and “real-life” experience, and of reasonable maturity.

Results and Discussions

Relationships between Willingness to Pay, Usage, and Perceived Importance of Convenience

Table 1 presents the average measures of the respondents’ willingness to pay, usage, and perceived importance of convenience, broken down by specific online services. Also shown are relative rankings of these measures across the different types of online services.

Table 1. Subjects’ Rating and Ranking on *Willingness to Pay for, Usage of, and Importance of Convenience of, Online Services*
(Rating on a 1 to 5 scale, with 5 being the highest)

Online Service	Willingness to Pay	Rank	Usage	Rank	Importance of Convenience	Rank
Email	3.15	1	4.84	1	4.58	1
Reference	3.03	2	3.03	4	4.06	3
Travel	2.86	3	2.74	5	4.11	2
News	2.52	4	3.65	2	3.95	4
Entertainment	2.49	5	3.14	3	3.75	5
Health info.	2.40	6	2.16	8	3.65	6
Weather	2.10	7	2.56	6	3.59	7
Sports	2.05	8	2.51	7	3.22	8
Auction*	1.86	9	1.59	9	3.14	9
Relationship	1.83	10	1.33	10	2.54	10

* Users are charged for entering.

There appears to be a clear pattern across the three measures. Email, Reference, Travel, News, and Entertainment ranked consistently at the top half as online services that respondents were most willing to pay to use, that they used most often, and that they considered the convenience provided by these services to be the most important. Other services, especially auctioning and relationship (i.e., dating/match-making) services, ranked consistently at the bottom half.

Correlation analyses suggest that the respondents’ willingness to pay for a certain online service is related to both their amount of usage and their perceived importance of convenience of that service (among the twenty pairs of correlations, only two pairs are not statistically significant). A closer examination also found a strong relationship between usage and importance of convenience. Significant correlations were observed between usage and importance of convenience for 9 out of the 10 online services. Therefore, to control for the influences of one factor on the other, partial correlations were conducted and the results are presented in Table 2.

As shown in Table 2, with a majority of the online services, willingness to pay is positively related to either of the two factors: usage and importance of convenience. These results suggest that consumers’ usage of an online service appears to influence their willingness to pay for that service, so does their perceived importance of convenience of that service. In other words, unless a

consumer is a heavy user of an online service and perceives the convenience provided by that service to be very important, s/he is likely to go elsewhere for services of the same type, if the online service becomes fee-based.

Table 2. Partial Correlations of Willingness to Pay with Usage of Online Services and with Importance of Convenience of Online Services

Online Service	Correlation with Usage, controlled for Importance of Convenience	Sig.	Correlation with Importance of Convenience, controlled for Usage	Sig.
Email	.129	.061	.079	.253
Travel	.107	.123	.200	**
Reference	.165	0	.179	**
News	.120	.084	.188	**
Entertainment	.166	0	.173	0
Health info.	.152	0	.271	**
Weather	.153	0	.104	.133
Sports	.274	**	.121	.081
Auction	.206	**	.200	**
Relationship	.260	**	.273	**

*: significant at 0.05 level

**: significant at 0.01 level

Other Reasons for Consumers' Willingness or Unwillingness to Accept Fee-based Services

In addition to amount of usage and perceived value of convenience, it is plausible that consumers' willingness to pay might be independent of the specific type of services they use. Instead, other reasons could affect their acceptance or rejection of all fee-based on-line services. In this study, the respondents were also asked to indicate the extent they agreed/disagreed with a number of other reasons that might explain their willingness/unwillingness to pay. The results of their responses are summarized in Table 3.

Table 3. Mean Ratings of Reasons to Pay/Not to Pay for Online Services
(5-point scale, with 5 being Strongly Agree, and 1 Strongly Disagree)

Reasons	Rating	Rank
Need to Pay		
I would pay for better service	3.34	1
I need the service and want it to survive	3.28	2
It is the right thing to do	3.19	3
Advertisement revenues are shrinking	2.97	4
Need not pay		
The services have always been free	4.11	1
They get paid from advertisement	4.00	2
I Don't want to use credit card online	3.71	3

An expectation that fee-based online services would be better than free services is the highest rated reason that consumers may be willing to pay. Consumers seem to accept the notion that as long as there is a marked differentiation between service qualities, better services are worth more and therefore should be fee-based. On the other hand, it seems difficult for consumers to accept the fact that online services can no longer be supported exclusively by advertisement revenues, as it was the lowest rated reason by the respondents. When asked about the reasons why they would not want to pay for online services, the respondents gave the highest rating to the statement, "The services have been free; why should I pay for them now?" Given the very high rating, it would appear that such a habitual belief is still too strong for online service providers to overcome.

To understand how these opinions might affect consumers' willingness to pay for online services, we conducted correlation analyses of the respondents' overall willingness to pay with the reasons listed above. The results are shown in Table 4.

Table 4. Correlations of Overall Willingness to Pay with Opinion Items

Reasons	r	p	Significance
Need to Pay			
I would pay for better service	0.227	0.012	0
I need the service and want it to survive	-0.027	0.764	N.S.
It is the right thing to do	0.189	0.034	0
Advertisement revenues are shrinking	0.123	0.177	N.S.
Need not pay			
The services have always been free	-0.331	0.0001	**
They get paid from advertisement	-0.250	0.001	**
I Don't want to use credit card online	-0.046	0.546	N.S.

*: significant at 0.05 level

**: significant at 0.01 level

Consumers' overall willingness to pay is significantly and positively correlated with the expectation that fee-based services would be better, and with the belief that "pay for what you get" is the right thing to do. Meanwhile, overall willingness to pay appears to be negatively impacted by consumers' deeply entrenched "free lunch" habit, and by the perception that online service providers' advertisement revenues are sufficient for their financial viability.

Relationships between Reasons to Pay/Not to Pay and Consumers' E-commerce Experience

To measure respondents' e-commerce experience, they were asked to report both the lengths of their experience ("EC Years" hereafter) and the frequencies of their activities ("EC Times" hereafter). We intended to find whether with or without e-commerce experience has an effect on the subjects' opinions on fee-based online services. One might postulate that EC Years would very likely be closely related to the EC Times. A correlation coefficient of 0.541 ($p < 0.01$) confirms that this indeed is the case. In order to control for the effects of such correlation between EC Years and EC Times, we calculated partial correlation coefficients between respondents' overall willingness to pay and each of the two variables – EC Years and EC Times, controlling for the other variable, respectively. We found a marginally significant relationship between willingness to pay and EC Times ($r = 0.1342$, $p = 0.069$, controlled for EC Years), but no significant relationship between willingness to pay and EC Years ($r = -0.0785$, $p = 0.289$, controlled for EC Times). Partial correlation coefficients were also calculated for reasons why one is willing or not willing to pay with EC Years and EC Times respectively, controlling for the other variable. Only one reason for not to pay, "don't want to use credit card online," is correlated significantly with EC Times ($r = -0.3732$, $p < 0.01$).

The Differences between Those Willing to Pay and Those Not Willing to Pay

It would be valuable for e-businesses to identify behavioral differences of those who are willing to pay for online services and those who are not, so they may design their marketing strategies and business models accordingly. To explore such differences, we divided the returned questionnaires into two groups: those who indicated a willingness to pay (the "P" group), and those who indicated an unwillingness to pay (the "NP" group). *T*-tests were then conducted between these two groups with regard to their opinions toward fee-based online services and their willingness to pay for specific online services (such as auction, travel, news, etc). Only significant results are summarized in Table 5.

**Table 5. *t*-statistics on Differences between the Two Groups:
“Pay (P)” and “Not Pay (NP)”**

Items on Which the Groups Are Compared	t	p	Sig.	Mean-NP	Mean-P
“Online services have been free and should remain so”	5.364	0.0001	**	4.55	3.67
“They have advertisement revenues”	3.658	0.0001	**	4.31	3.69
Willing to pay for entertainment	-2.485	0.014	0	2.25	2.67
Willing to pay for weather information	-2.073	0.039	0	1.91	2.24
Age	-2.506	0.013	0	2.55	2.93

*: significant at 0.05 level

**: significant at 0.01 level

As shown in Table 5, the results suggest the following:

- the group that are not willing to pay (the “NP” group) believe more strongly that since the online services have been free they should stay free;
- the NP group believe more strongly that online services are supported adequately by having advertisement revenues and therefore do not need to charge consumers;
- the P group are more willing to pay for online entertainments;
- the P group are more willing to pay for online weather information;
- the NP group is on the average younger than the P group.

Conclusions and Implications

The findings of the study provide valuable insights for e-businesses in assuring revenues from the services they provide online. The online service businesses can count on consumers’ basic value (of paying for what one gets), and should leverage on that value to assure revenues from services the businesses provide. Online service businesses, at the same time, should live up to consumers’ expectation for a better service when fees are charged. They should further educate the public on the fact that advertisement revenues alone are not sufficient to keep online services alive. Unless consumers understand that the online services they want depend on their payments to survive (rather than exclusively relying on advertisement revenues) it would be difficult for online service business to persuade the consumers of those services to pay.

Online service businesses should watch certain indicators to identify the type of online consumers who are more likely to pay. Now that we have seen some indicating behaviors of people who are willing to pay (such as willingness to pay for certain online services), e-businesses may be able to identify profitable customers and conduct more effective target marketing. In addition, it is valuable marketing information that “those who will pay tend to pay for certain services,” which will make advertising on the sites of those services more profitable. Finally, the fact that the group that do not want to pay for online services tend to be younger is a double-fold message to e-businesses: (1) there is a need to work on this younger group, and (2) as they grow older their attitudes and behaviors may change (possibly related to the strengthening of such fundamental value as “it is right to pay for things you get”).

The findings of this study would enhance the understanding of online consumer behavior, specifically consumer opinions on paying for services provided online. Since revenues generated from fee-based online services would be vital for the survival of many online service businesses, the understanding of consumers’ attitudes/opinions toward fee-based online services would help online businesses to better identify and refine their business models and strategies to survive and succeed in today’s intensively competitive e-commerce environment. Future research should explore strategies to leverage factors identified in this study to assure sustainable revenues for online services.

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