

Innovation Nippon 2015 Research Report

The Economic Impact of Information Sharing on the Internet

In this report, we investigate the positive economic impact of information sharing on the Internet in the following four aspects. 1. What services are there to support online information sharing? 2. How many people use these services? 3. How large is the direct economic impact? 4. What social values do these services create?

First, we analyzed existing services supporting online information sharing and classified these into eight types: "online review sites," "electronic bulletin boards," "blogs," "Q&A sites," "SNS and communication sites," "video sharing sites," "opinion sharing sites," and "content curation sites." Second, on the basis of an analysis of the questionnaire and the economic impact, we identified the number of users and associated economic effects. It should be noted that "users" are the number of users in their 20s~60s.

The number of users and the economic impact of the information sharing

| Service Type | Market Size | Communication Fee | Economic Impact | Users | Characteristics |
|-----------------------------|------------------|-------------------|-------------------|---------------------|--|
| Online review sites | 35.6 billion yen | 108.8 billion yen | 144.4 billion yen | 24.68 million (31%) | A large number of female users. |
| Electronic bulletin boards | 14.7 billion yen | 159.3 billion yen | 174.0 billion yen | 17.60 million (22%) | A large number of male users in their 30s. |
| Blogs | 23.9 billion yen | 229.4 billion yen | 253.3 billion yen | 22.61 million (28%) | There is no difference in the number of users by gender. |
| Q&A sites | 19.2 billion yen | 78.3 billion yen | 97.5 billion yen | 20.94 million (26%) | A large number of middle-aged users. |
| SNS and communication sites | 87.2 billion yen | 279.9 billion yen | 367.1 billion yen | 22.58 million (28%) | A large number of users in their 20s; 59% of women in their 20s use these. |
| Video sharing sites | 88.6 billion yen | 538.1 billion yen | 626.7 billion yen | 30.58 million (38%) | The highest number of users. Over 50% of the men and women in their 20s use these. |

| | | | | | |
|------------------------|--------------------------|----------------------------|----------------------------|--|---|
| Opinion sharing sites | 5.1 billion yen | 39.0 billion yen | 44.1 billion yen | 9.25 million (11%) | A large number of users in their 50s and 60s. |
| Content curation sites | 19.9 billion yen | 38.1 billion yen | 58.0 billion yen | 8.43 million (10%) | Very few users in their 50s and 60s. |
| Total | 294.1 billion yen | 1,470.9 billion yen | 1,765.0 billion yen | 47.47 million^I (59%) | There are over 10 million users in their 20s. There are over 5 million users in their 60s. |

We divided the economic impact into the market size and communication fee, which is typically the amount a user pays to the ISPs and other telecommunications providers. It was found that the overall economic effect was 1,765 billion yen. This value represents about 90% of TV advertising revenue, and 214% of Internet advertising revenue. In short, the information sharing on the Internet has already had a significant economic effect.

The market size and communication fee are quite different. One may infer from this that either the communication fee is too expensive or the revenues of the information sharing sites are too small. First, the creation of innovative online services could be hindered if Internet usage cost is high for end users. One may further connect this with recent policy discussions about mobile device fees. However, the information presented in the mobile phone fee^{II} international comparative study in 2014 suggests that the fee in Japan is not particularly high. Second, the online sites may have some problems. Earning 294.1 billion yen from serving 50 million users is too small. At least two explanations seem possible: 1) the service providers in Japan may not have established good business models, or 2) advertisers in Japan do not use Internet advertising and end users are not willing to pay for these online services. These are questions for future studies.

There are some other limitations to the current study. The figure 1,765 billion yen is the direct economic impact of information sharing on the Internet. However, there are other economic benefits outside of this direct economic impact, most notably stimulation of consumption and elimination of asymmetry of information. Furthermore, reviews of e-commerce sites, sharing services, and distribution services are not included in our current study. They, too, have online information sharing functions, and the economic benefits

^I The number of users who use at least one of these services.

^{II} The comparison is based on cost of packets, excluding the rate for telephone calls.

generated there are presumably sizeable.

Among them, there are two types of effects on consumers. First, online information services eliminate asymmetry of information because consumers can use third person opinions as a reference when they make purchasing decisions. Thereby, they can avoid purchasing poor quality products and choose better goods within the same budget. Second, consumers can acquire new information easily because many information-sharing services have sort functions by review evaluation points. Consumers can acquire the new information that suits their interests using these sorting features.

In addition, there are two types of effects on producers. First, small and medium enterprises have a greater chance of gaining consumer attention. Attracting consumer attention was next to impossible for such enterprises up until these information-sharing services appeared. Second, producers can acquire knowledge about consumer needs at low cost, enabling them to improve services and develop products more easily.

The following table summarizes the economic benefits beyond the direct economic impact.

The economic benefits beyond the direct economic impact

| Subject | Effect | Outline |
|----------|--|---|
| Consumer | <ul style="list-style-type: none"> a) Eliminating asymmetry of information b) Access to new information | <ul style="list-style-type: none"> a) Consumers can acquire information not transmitted by producers. b) Consumers can acquire new information that suits them using sorting functions for the information other consumers transmit. |
| Producer | <ul style="list-style-type: none"> c) Easily attract customers d) Optimum improvement of, or new development of, services and products | <ul style="list-style-type: none"> c) Small and medium enterprises can improve consumer awareness, previously impossible to engender until information sharing services appeared. d) Producers can learn about consumer needs at low cost, enabling them to improve services and develop products easily. |

Furthermore, the scope of this effect can be explained as follows.

Scope of influence

| Scope of Influence | Scale of Economy |
|---------------------|-------------------|
| Online transaction | 12.8 trillion yen |
| Offline transaction | 27.4 trillion yen |
| Total | 40.2 trillion yen |

It was discovered that the economic benefits beyond the direct economic impact of information sharing on the Internet has had a strong effect on society. However, this effect has not been reflected in the GDP. Therefore, it is necessary to consider this impact when the government makes Internet policy decisions affecting online information sharing. Furthermore, creation of an index of these other economic benefits is an imperative.

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Innovation Nippon is a project that has co-founded by GLOCOM, International University of Japan and Google Japan. The project has been conducting studies and producing policy proposals related to Information & Communications Technologies (ICT) usage to accelerate innovations in Japan. The project's updates and archive can be found on its website: <http://innovation-nippon.jp>.