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Research Report on Information Economy

Create demand via links among media

Effectively integrate advertising with sales promotion

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- Leading role in IT sector shifting from digital devices to digital content
 - Adopt cross-media strategy leveraging "creative destruction"
 - Speed reforms in law and business practices to achieve breakthrough
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The decline in the level of economic activity with the recession has made it easier to discern underlying structural problems. In addressing these problems, it is critical to apply not just short-term stimulus measures but medium-term growth strategies for the years ahead as the economic recovery picks up steam.

Indeed, faced with a rapid deterioration of the economy, those in the information-technology (IT) and related industries have stepped up efforts to address structural problems hitherto relegated to the back burner. The information economy unit which I led at the Japan Center for Economic Research has examined the underlying trends and the ongoing "creative destruction" in IT-producing industries, which include software developers, information providers, and content producers, as well as hardware manufacturers.

IT-related economic indicators show that the Japanese economy is in the midst of adjustments more severe those which followed the collapse of the IT bubble in the early 2000's. The recession, however, represents more than just a cyclical phase. Rather, it also represents a process of regeneration in preparation for the next phase of growth. What must not be overlooked are the long-term economic trends which underlie short-term business conditions.

A look at changes in the IT-producing industry based on the Input-Output Tables published last August shows that a brisk transition from IT devices and other hardware manufacturing to telecommunication services, digital solutions and content creations. As for the size of domestic production, IT hardware, which was greatest among the IT industries in 1990, has been on the

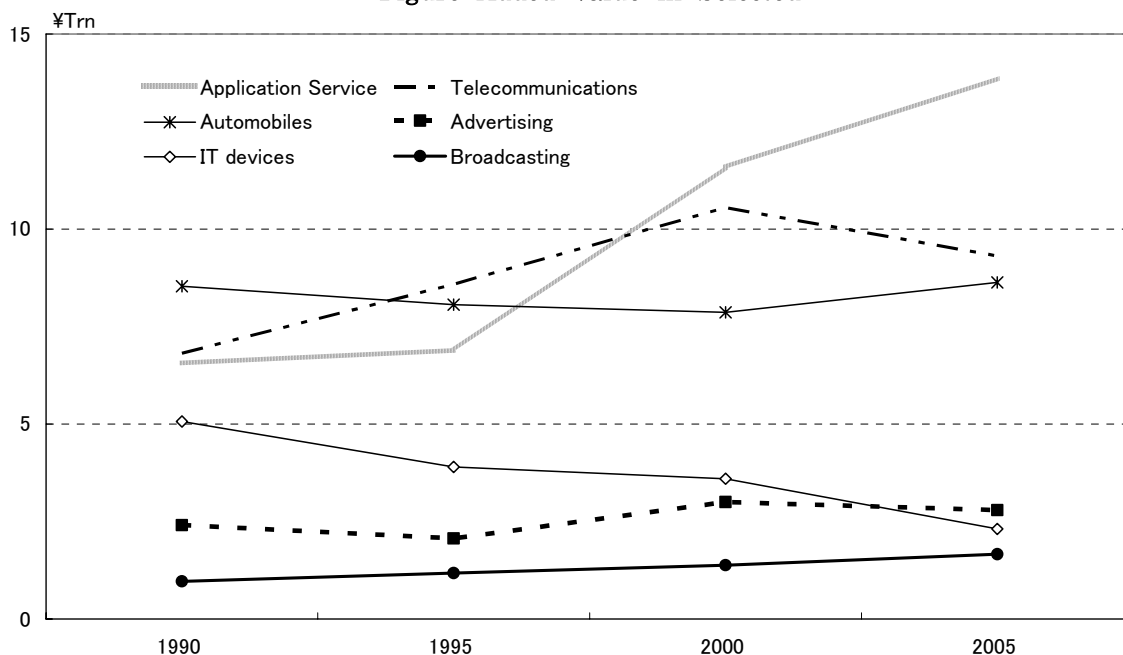
decline over the past decade. In addition, telecommunications services, which doubled in the 1990's, have shown little vigor in the first decade of this century.

In contrast, the size of domestic production by such application service providers as software developers, information providers, and content producers has continued to grow briskly, reaching 26 trillion yen in 2005, far more than both hardware at 11 trillion yen and telecom at 16 trillion yen. Its significance is even more striking when gauged by the size of value added, excluding intermediate inputs.

In 2005, the value added created by application service providers reached 14 trillion yen, outpacing not just that of IT hardware and telecom but the 9 trillion yen value added of Japan's signature automobile industry (see figure). This indicates that the IT-producing sectors are developing into leading industries in Japan, although their internal driving forces have changed.

This leap forward is being encouraged by innovation in digital technology, TCP/IP technology, mobile telecommunications technology, and broadband technology. These technologies are dramatically enhancing the power of digital convergence or digital linkages readily crossing various boundaries. Once something is digitalized, it enters the ever-flowing and ever-transforming stream of digital content through wired and/or wireless TCP/IP networks.

Figure Added Value in Selected



Source: Ministry of Internal Affairs and Communications, Input-Output Tables.

Miyoei Shinohara, Professor Emeritus of Hitotsubashi University, has pointed out that important consequences of information technology have included not just a digital divide, which causes lopsided income distribution, but digital destruction, which triggers changes in resource allocation. Shinohara has described the manner in which old sectors have contracted as new sectors have rapidly expanded.

These trends are clearly illustrated in the advertising market, which is closely tied to the digital content business. *Advertising in Japan*, a publication of Dentsu Inc., reported that, despite the extraordinary demand associated with the Beijing Olympics, aggregate advertising expenditures in the four mass media (newspapers, magazines, radio and television broadcasting) fell by 8% last year, with the share of such expenditures in total advertising spending dropping below 50% for the first time.

Meanwhile, Internet advertising continued to grow at a double-digit pace last year and now appears ready to outpace newspaper advertising. In particular, advertising via the mobile internet rose by 50% annually despite plummeting handset sales, indicating a transformation in emphasis by the IT-producing industry from hardware manufacturers to application service providers, such as digital content creators.

What is significant is the fact that the recession is accelerating this trend. With the deterioration of business in the current recession, advertising sponsors are placing greater stress on return on advertising spending (ROAS, a measure of sponsorship productivity). Use of the Internet makes it possible to target advertising more appropriately and to analyze behavior from ad placement to purchase, making the effectiveness of ROAS more visible.

Having said that, the rise of the Internet does not mean that more traditional media forms will be reduced in direct proportion owing to competition, as in a zero-sum game. As was the case with motion pictures, it is simplistic to assume that the existing media will be completely displaced by the new medium of Internet.

Actually, content providers, advertising agencies, and sponsors are exploring cross-media strategies, or integrated marketing communications, that enhance linkages among different types of media by integrating the significant attention-getting power of existing mass media with the detailed product information searching capabilities of the Internet, with users then shifting easily to actual purchasing activity.

"Cell phone fiction" has become popular in Japan as a type of digital content in which the user is involved. Such digital content could be exploited in a multiplicity of ways. For example, a user's story might be dramatized, then distributed through websites in highly condensed form, broadcast over television in less condensed form, and finally made into a motion picture in extended form. In this way, skillful use of the latest technologies could open the way to creating new demand for digital content used in a number of different ways, and in the case of cell phones and other audio-visual players, would synergize with the diversification of user interface gadgets and devices.

Furthermore, new technology will cultivate another huge market. Major business firms spend about twice as much on sales promotion as they do on advertising. The two fields have been separated in their marketing tactics so far, but if they are effectively integrated, as through discount coupons issued in conjunction with Internet advertising, advertisers could expect the dual benefit of expanded sales channels in addition to improved ROAS. Internet advertising can also be tailored to localities, and there is ample room to digitalize more conventional forms of promotion such as fliers and newspaper inserts.

Thus, on the industry level, the rise of the Internet is helping to create new markets which extend to the frontiers of broadcasting and communications, while on the firm level, it is boosting productivity through effective integration of advertising with sales promotion. These trends represent not simply destruction but the kind of "creative destruction" which Joseph Schumpeter advocated as a dynamo of economic development.

If this emerging trend is skillfully encouraged, the growth potential of the economy could be strengthened. Simulations based on several production function models demonstrate that the economy has the potential to achieve a higher trend growth rate (e.g., two and a half percent rather than the present consensus view of one and half percent), assuming that business investment in new technology accelerates and leads to changes in Japan's economic structure.

However, several challenges remain on the road to such a breakthrough. One of these is developing overseas markets. In the 1990's, when hardware products constituted the primary output of the nation's IT industry, exports exceeded imports in the industry by some 5 trillion yen. On the other hand, imports of application services into Japan have long outpaced exports and account for an increasing share of the industry. As a result, the IT-producing industry has seen a growing deficit in net exports since 2000.

New technology can wipe out this deficit because it is possible to provide made-in-Japan entertainment products globally via the Internet. Such application service products could play a kind

of “soft power” role to boost the number of young people abroad who are familiar with Japanese culture, conventions, and society. These young people could then contribute Japan’s prosperity in the next generation.

Another issue is that of institutional reform. As pointed out by Douglass North, Nobel laureate and Professor of Washington State University in St. Louis, the potential for economic development through technological change is achieved through appropriate institutional change or regulatory reform. This is especially true in the new fields that innovation opens up, where the existing regulations often become restrictions and the unintended consequences of such regulations might cause confusion.

It is noteworthy that institutions impose not only such formal rules as laws and legal regulations but also informal constraints like business practices, conventions and behavior within the industry. It must be emphasized that both the regulatory authority and private businesses should make intensive and continuous effort to overhaul these institutions to avoid missing the chance to develop new businesses.

Classic examples include the barriers between broadcasting and telecommunications and various issues associated with copyrights. In the broadcasting business, the unified nature of broadcasting facilities (“hard” or tangible business assets) and program production (“soft” or intangible business assets) appears fixed in stone and the clear divisions in telecommunications do as well.

As a matter of fact, however, following amendments to the Broadcasting Act and the Radio Act in 1989, broadcasting via telecommunications facilities became possible in satellite-related business fields, thus unbundling “hard” and “soft.” In addition, cable TV companies initiated high-speed data and telephone services using their own cable networks more than ten years ago.

Moreover, the year 2001 saw the enactment of the Law Concerning Broadcasting via Telecommunications Services, which opened the way for broadcasting through wired telecommunication networks such as fiber to the home (FTTH) networks. Therefore, it can be concluded that a formal institutional framework has been put in place in the area of satellites and cable broadcasting businesses, and now these changes are slowly but steadily permeating into major terrestrial broadcasting businesses.

With respect to copyrights, it has often been pointed out that the Copyright Law of Japan has been one of the most stubborn impediments to the development of Internet broadcasting. But even

under the existing legal framework, various countermeasures have become possible through business contracts among stakeholders.

As considered by Tetsuo Taka, Professor Emeritus of Kyushu University, informal constraints consist of "habits of thought" among stakeholders, and these strongly affect the actual state of business. Thus, rather than relying excessively on formal rules, as by formulating new Copyright Law, it might be much more effective to seek more realistic solutions by changing the business conventions and practices among the related parties which constitute institutions in this sense.

We see a good example now. The Japan Broadcasting Corporation (NHK) began a new distribution service called "NHK on Demand," or NOD, last December. NHK anticipated that individuals with legal rights associated with the program might come forward later and, in lieu of royalties, made preemptory payments to institutions acting on behalf such individuals. In this way, NHK took measures under the existing Law, which is now scheduled for amendments in line with NOD practices.

Another example is an informal rule on multi-use of TV programs. NHK and other private broadcasting companies are making in effort to review practices applied under the "post-broadcast rules" which govern secondary use of TV programs three years after initial terrestrial broadcast. Under these rules, secondary use in the form of Internet distribution was not possible for three years.

NOD, however, went over this rule and began to provide some TV programs the day after initial broadcast for about a week. If these kinds of concentrated efforts are made to resolve such problems, the result could be a catalyst for a breakthrough. NOD services are controlled by the Ministry of Internal Affairs and Communications and are scheduled for review in three years.

Given the pressing current need to pull out of recession in a few years, it would be desirable to designate a "special urgent period" in the same way that "special economic zones" have been designated in the past. This period would be intended as a time for IT-producing sectors, especially application service businesses, to take every possible action toward accelerating economic growth.

Finally, it should be mentioned that we have to avoid the dichotomy of a horizontal linkage model versus a vertical integration model regarding industrial organization and related institutional frameworks. As was the case in the early stages of broadcasting businesses and cell phone services, there have been many cases in which the integrated model proved most effective in that stage when new markets are being created. In the success story of the iPod portable music player, on the other hand, Apple Inc. does not integrate content creation of music, network media with player devices

vertically but just provides a new framework of platform services for users to easily combine them each other.

What should be stressed here is that, in an uncertain innovative business environment, it is important to facilitate the creation of an institutional framework in which entrepreneurs can freely choose the integrated model or the horizontal linkage model at their own business risk so that fair business relationships can be built as the market in this new frontier grows.

Ultimately, these efforts will test Japan's ability to make the most of the opportunities just emerging in these difficult economic times.

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