Postal Services and ICTs in Japan

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INTRODUCTION

Postal service organization has a long history of exploiting ICTs in its business operation as a government ministry, then as a public corporation from April 2004. In the business world, ICTs play a central role of promoting operational efficiency and customer services as well as fostering new businesses for further development. The Japanese postal service organization will be privatized in October 2007 and privatized companies will be forced to make further use of ICTs.

In this article, the use of ICTs in the postal services will be described with a view to clarifying the relationship between the incentives of introducing ICTs and the institutional arrangements, namely a government ministry and a public corporation.

BACKGROUND

The modern postal service was created by the national government in 1871. Three categories of services, namely postal delivery service, postal savings service, and postal life insurance service had been provided by the government (Ministry of Posts and Telecommunications, MPT) for about 130 years.

In the late 1950s, the government started its government-wide undertaking for the management reform of administrative affairs. Coincidently, the first computer in the national government was introduced by the Meteorological Agency in 1958. During the 1960s, improvement in the efficiency and efficacy of public administration were made through the use of computers (ECHMCA, 2001). Since 1960s, as one of the reform measures, MPT had been introducing ICTs into its postal service operation to improve the operational efficiency and customer services (MPT, 1972).

As a result of "Hashimoto Reform," the drastic restructuring of central ministries and agencies was conducted in January 2001. MPT and the other two ministerial-level organizations were merged to become the Ministry of Internal Affairs and Communications (Kaneko & Horie, 2000). At the same time, the unit in charge of conducting postal services was detached from the internal units of the ministry to become the Postal Services Agency, an external agency of the Ministry of Internal Affairs and Communications. Japan Post, a new public corporation, was established to carry out postal services in April 2003 as a successor to the Postal Services Agency.

The institutional arrangement of the Japanese postal services once was a ministry for more than 130 years and became a public corporation. In the following, the outcomes of the ICT strategies taken by MPT will be described. Then, on-going efforts by Japan Post will be mentioned in the future trends.

ANALYTICAL FRAMEWORK

There are some theories concerning the use of new technologies in society. One of them is the technology acceptance model (TAM). TAM is an information systems theory that models how users come to accept and use a technology. The other prominent theory is the diffusion of innovation theory formalized by Everett Rogers (Rogers, 1995). Rogers stated that adopters of any new innovation or idea could be categorized as innovators, early adopters, early majority, late majority, and laggards, based on a bell curve. Each adopter's willingness and ability to adopt an innovation would depend on their awareness, interest, evaluation, trial, and adoption. Some of the characteristics of each category of adopter include:

- **Innovators:** Venturesome, educated, multiple information sources
- **Early Adopters:** Social leaders, popular, educated
- **Early Majority:** Deliberate, many informal social contacts
- **Late Majority:** Skeptical, traditional, lower socio-economic status
- **Laggards:** Neighbors and friends are main info sources, fear of debt

The categorization of adopters in the diffusion of innovation theory is used in describing the use of ICTs in postal service operation in Japan. Japan Post provides transportation services and financial services. These two categories of activities are quite different so that two separate headings are set up to describe the ICT use in the postal services.

Graph 1. Trends in mail volume 1948-2002 (MPT, 2000; Japan Post, 2004)
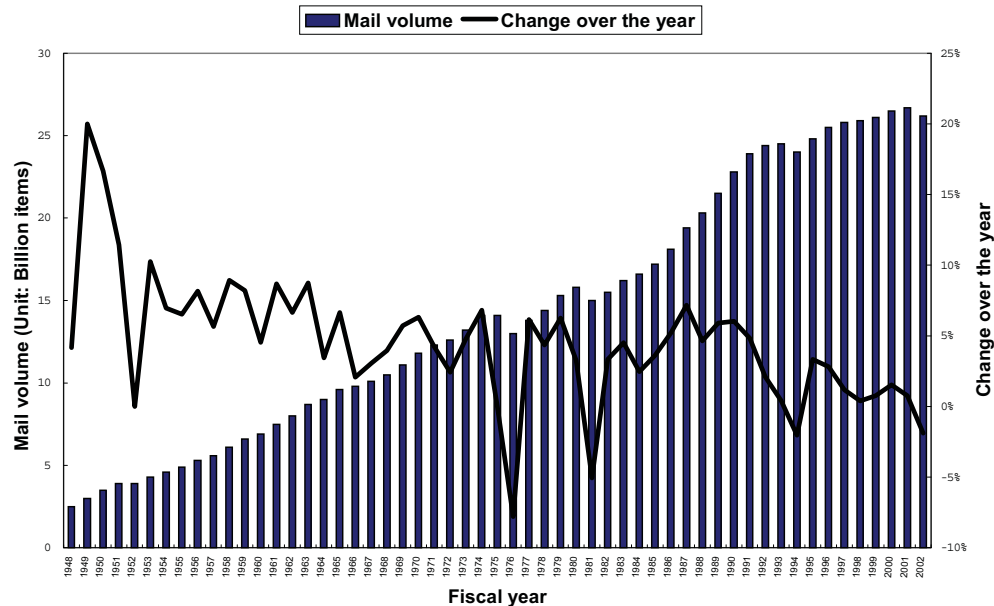
POSTAL DELIVERY SERVICE AND ICTS FROM 1960s TO 2003

Business Outline of the Postal Delivery Service

The postal delivery service is by its very nature a transportation activity collecting mail and parcels posted in mailboxes or accepted at the post offices, sorting them according to where they are to be sent, transporting them to the delivery post offices nearest to the addressees and delivering them to the addressees themselves.

The total number of items mailed in fiscal 2003 stood at 25.6 billion. This number is almost the same as that of France (Japan Post, 2004). The volume of mail continued to grow from the 1950s through to the mid-1970s when the oil crises struck Japan which had a negative effect on the items sent. After that, the Japanese economy recovered and the volume of mail sent also began to increase steadily. In the early 1990s, the volume leveled off as results of the development of the Internet and the severe competition in the parcel delivery market.

Introduction of a Five-Digit Postal Code System

A five-digit postal code system was introduced in 1968. In this system, automatic postal code reading and sorting machines were installed in sorting mails according to the addresses. The machine was originally developed and custom-made for the use of MPT and was a product with advanced ICTs (MPT, 1972). It cost lots of money to develop the machine. At that time, there weren't any private transportation companies to introduce such machines in Japan. In this context, it can be said that MPT was an innovator in adopting ICTs according to the diffusion of innovation theory. The development of the machine served two purposes. One was to improve the operational efficiency of postal delivery service. The other was to promote the use of ICTs in society. MPT had dual roles. It was not only in charge of providing the general public with postal services but also responsible for policy-making and implementation in the ICT field. It seems that such dual nature promoted the introduction of ICTs in postal service operation.

Around 1960s, the mail volume continued to increase and a labor shortage was expected. This situation also forced MPT to introduce the automatic postal code reading and sorting machines in the postal delivery service. With this system, customers were requested to write five-digit postal codes as an appendage to addresses shown on mail.

Automatic postal code reading and sorting machines were put into operation in the post offices with collection and delivery functions. Many machines were installed even though their prices were relatively high.

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