

A Research Report on the Working of the United States Postal Service, India & International Postal Service

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Abstract

Post offices offer mail-related services such as acceptance of letters and parcels; provision of post office boxes; and sale of postage stamps, packaging, and stationery. Today the governments of many countries use their postal systems to provide a range of services that often have no direct connection with the traditional function of exchanging letters. Assured and speedy delivery of goods by the Postman is possible with the help of speed post service. To provide for the collection, transport, and delivery of letters throughout a country, it has been necessary to establish a network of post offices extending into the remotest areas. The post office provides postal and non-postal services. For more than 150 years post office has been the backbone of country. Over the time the role of post office has been grown to provide the best investment avenue options to the investors with a very nominal amount on opening account. It plays a significant role in developing economy. Financial inclusion has been the key element of developing society and socio-economic development. The role of post office is very important in developing the economy by providing various services to all the sections of the society. The services offered by Indian Post are as per the requirement of the customers. It serves to both rural as well as urban clientele. The financial services offered by post offices includes saving schemes, postal life insurance, rural postal life insurance. The post office small savings schemes provides a secure, risk free, attractive, investment option for small investment and offers the saving products across 155000 post offices. POSB are the oldest savings bank in India and the largest in banking system. The post office is universally recognised as facilitator of communication. The postal runs through all odds but discharge and perform all their duties. It is pioneer in retail services and provides a diverse range of services through wide networks. Mail order introduced in 1877 and 1880, it reached to doorstep of customers. Post Office Saving Bank was introduced its banking services in 1882 and in 1884 Postal Life Insurance was started for government employees.



Keywords: Postal Service, USA, India, International

I. INTRODUCTION

India possesses the largest network of postal offices. Post offices have traditionally acted as vital channel for small household savings. The department of posts, trading as India post, is a government postal system in India it is generally referred as “India post. As on 31st march 2011, the Indian postal service and planning had 154,866 post offices, of which 139040 were in rural areas; and 15826 in urban areas. The postal services are under the department of posts, which is a part of Ministry of Communication and Information Technology of the Government of India and adopted the motto “service before help” The slogan of Indian post is “Dak seva jan seva”. Department of post is serving the economy since 1982. The apex body of the department is the postal service board, consisting of a chair and six members. The six members of the board include personal, operations, technology, postal life insurance, human resource development and planning. The joint secretary and financial advisor are also permanent invitee. Department Of Post is engaged in 3 activities

- 1) Retailing postal products and services.
- 2) Transmission of Postal articles.
- 3) Delivery of Postal articles.

Customers are the king of the market. Customers’ perceptions, attitudes and preferences differ in terms of investment avenue options. Customers’ satisfaction is one of the most important issues concerning any business and service organisation in this competitive world. They are trying harder and harder to satisfy the customers by serving them best. Customer satisfaction is important because it provide marketers and business owners with a metric that they can use to manage and improves their business. It is a perception of the degree to which customers requirement have been fulfilled. Customers’ satisfaction measurement may be considered as the most reliable feedback, considering that it provides in an effective, direct, meaningful and objective way the clients preferences and expectation. In this way customer satisfaction is a baseline standard of performance and possible standard of excellence for any business organisations. The emerging era for Post Office is highly competitive and it has to change its old pattern of working. Today the focus is on modernisation and innovation of services of post .E-post and value added services like speed post and business post etc. It also in engaged in providing E-governance to customers. It deals in providing various postal services, non-postal services and financial services like E-post, E-billing, media post, mutual funds, insurance products western money transfer etc. It plays a divergent role in socio, economic development of the country. It is no1 in philatelic stamps all over the world. At present the changing and a transformation role of Department of Post is been undertaken. Network of post office is very strong as it spread all over India, It is cost effective and Reliability, safety and security is key element of their services this Strength of Postal services makes it a vital in serving millions of people.



II. UNITED STATES POSTAL SYSTEM - HISTORY

During early colonial times in the 1600s, few American colonists needed to send mail to each other; it was more likely that their correspondence was with letter writers in Britain. Mail deliveries from across the Atlantic were sporadic and could take many months to arrive. There were no post offices in the colonies, so mail was typically left at inns and taverns.

The Articles of Confederation, which preceded the Constitution, also made it clear that the government “shall also have the sole and exclusive right and power of ... establishing or regulating post offices from one State to another, throughout all the United States, and exacting such postage on the papers passing through the same as may be requisite to defray the expenses of the said office.”

And the Constitution made sure that these crucial services were preserved. In Article I, Section 8, the Constitution gave Congress the ability “To establish Post Offices and post Roads.” That means it not only does Congress have the power to create a postal system, it had the ability to acquire and control the land for the “post roads” to carry the mail and the buildings needed to maintain the system.

In 1789, that meant 75 Post Offices and about 2,400 miles of post roads.

But it was the Postal Act of 1792 that established the foundation of a modern Postal Service. Congress granted the Postmaster General broader powers. And the act addressed issues related to commerce and privacy.

The act ensured newspapers could be sent at low mail rates, which facilitated a free press across the new states. The law also protected privacy by making it illegal for postal officials to open mail unless it was undeliverable. Offenders faced up to six months in jail and a \$300 fine.

And to make sure people knew Congress was serious, section 17 of the act included death as one of the possible punishments for robbing a mail delivery person, or for stealing mail from a post office. (In 1872, Congress reduced the penalty to five years in prison.)

Congress also called for more mail routes to service an expanding nation. The newly expanded service kept its headquarters in Washington, D.C. in 1800.

Today, the United States has over 40,000 post offices and the postal service delivers 212 billion pieces of mail each year to over 144 million homes and businesses in the United States, Puerto Rico, Guam, the American Virgin Islands and American Samoa. The postal service is the nation's largest civilian employer, with over 700,000 career workers, who handle more than 44 percent of the world's cards and letters. The postal service is a not-for-profit, self-supporting agency that covers its expenses through postage (stamp use in the United States started in 1847) and related products. The postal service gets the mail delivered, rain or shine, using everything from planes to mules. However, it's not cheap: The U.S. Postal Service says that when fuel costs go up by just one penny, its own costs rise by \$8 million.



Research in the United States subsequently has concentrated on various systems that print a machine-readable bar code to allow for high-speed automatic processing to individual carrier routes or blocks of addresses within carrier routes. In 1983 the U.S. Postal Service began deploying OCR's with this capability to major post offices throughout the country. The postal service regards this application of automation, combined with the use of ZIP+4 (a nine-digit postal code) by business mailers, as a major means of keeping postal costs under control as mail volumes expand.

A. Numerical Speech Translator

Another line of research being pursued in the United States is the development of equipment that translates five- and nine-digit ZIP codes and sorting-code numbers spoken by an operator into instructions for a sorting machine. Since this system obviates the need for a keyboard, it leaves the operator's hands free, making it particularly valuable in the operation of parcel- and sack-sorting machines. It also eliminates the need for keyboard training of operators. The testing of the equipment includes determination of the effects of regional speech variations, background noise, and operator speech fatigue.

B. Electronic Data Exchange

Electronic mailing information submission delivers impressive results – including substantial time, and money savings to organizations of all sizes. Supplying information electronically also allows us to assemble the appropriate resources for efficient processing like postal wizard etc.

C. Parcel Return Service

Parcel Return Service (PRS) is a workshare discount program from the United States Postal Service that offers an easy and convenient way for your customers to return items to you. With PRS, you or your agent retrieve returned parcels from designated Returns Delivery Unit (RDU) or Return Sectional Center Facility locations helping to reduce costly processing and transportation expenses. Your company benefits from improved customer satisfaction and the cost-savings associated with this workshare program.

D. Electronic Verification System

The e-VS, or Electronic Verification System, allows high-volume package mailers and package consolidators to document and pay postage, including special service fees, using electronic manifest files. The files are transmitted over the Internet to a Postal Service database. e-VS is designed to make it easy for high-volume package mailers to take advantage of destination entry rates

III. UNITED STATES POSTAL SERVICE – A REVIEW

The United States Postal Service (USPS) is the largest postal service in the world handling about 41% (630 million pieces a day) of the world's mail volume. The second largest is Japan which handles about 6% of the world's mail. The USPS employs 760,000 workers making it the largest official employer in the United States. It has over 300,000 mail collection boxes, 38,000 post offices, 38,000 post offices, 130 million mail delivery points, more than 300 processing plants to sort and ship mail, and more than 75,000 pieces of mail processing equipment. It handles over 100 billion pieces of first class mail a year, ships about 3 billion pounds of mail on commercial flights, making it the airlines largest shipper.

The majority of first class mail begins at the advanced facer system. This system positions each letter so that it is face up, with the stamp in upper corner, checks to see if the address is hand-written, and pulls the hand addressed letters off the line. It also rejects letters that have the stamp covered by tape, have no postage, or have meter impression that are too light to read.

Next the letters go to the multiline optical character readers, which handle both printed and pre-bar coded mail, but not hand addressed mail. The optical reader sprays a bar code on the mail that has not been pre-bar-coded, which represents upto an 11 digit code. For hand-addressed mail, a camera focuses on the front of letter, and the image is displayed on a remote terminal, where an operator views the image and provides the information that the optical reader could not determine so that a bar code can be added.



Bar code readers then sort the mail into one of the stackers doing it at the rate of 500 a minute. The mail goes through another sort using manually controlled mechanical equipment. At that point the mail is separated according to whether it is local or out of town mail. The out of town mail is placed into appropriate sacks according to its destination, and moved to the ongoing send area, where it will sort it and coaded and loaded on trucks.

The local mail is moved to another machine that not only sorts the mail into local carrier delivery routes, it sorts mail according to delivery walk sequence. Small parcels, bundles of letters are sorted by bundle sorting machine.

IV. HOW A LETTER TRAVELS

- 1) Collection of mail at local Post Office...
- 2) Culling and Postmarking. ...
- 3) Scanning and Lifting Images. ...
- 4) Applying a Barcode and Sorting. ...
- 5) Transportation to Processing Plant. ...
- 6) Sorting into Delivery Order. ...
- 7) Transportation to Delivery Post Office....
- 8) Delivery to Addressee.

A. From Your Doorstep

The mail delivery process begins at your mailbox, of course. Once your envelope is sealed, addressed and has a stamp upon it, the mail carrier will pick it up, either at your doorstep or another postal box in which you place it. The mail carrier puts it on his truck and takes it to the local post office. Each city in the United States has its own post office where the mail is loaded onto the larger

U.S. Postal Service trucks for shipment to a distribution center. Most cities in the U.S. are within a four-hour drive of a regional distribution center. These decentralized hubs make the process much faster.

B. At the Distribution Hub

Once your mail reaches the regional distribution center, your handwriting or address label is read into a computer that converts that into a barcode. The barcode is stamped onto the front of the envelope in fluorescent ink and the stamps are marked through so they cannot be reused. The envelopes move down a conveyor belt and the fluorescent ink on each individual piece of mail is scanned by a sorting machine. Based on the area of the country that the piece of mail is headed to, it is sorted into bins that are then loaded onto trucks or planes for transportation to the regional distribution center in which the target ZIP code is located.



C. Out for Delivery

Once the piece of mail reaches its target region, it is again sorted into trays labeled with individual ZIP codes within that region. Each mail carrier is assigned specific routes and ZIP codes, and they are mapped to ensure maximum efficiency. The properly sorted mail is loaded into the truck responsible for the postal code marked on the envelope, and it is up to the individual mail carrier to ensure that it gets to the right end-user mailbox.



D. Classes of Mail

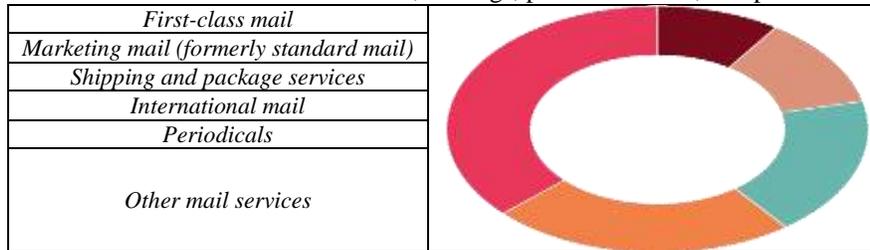
The Postal Service divides mail into different services, called "classes." Each class of mail has different features, service levels, postage prices, and presort requirements.

For most of your mailings, the content of the material and postage will determine the class of mail you select. To learn more about each class of mail—including what can be mailed, the minimum and maximum weights and sizes, and the number of pieces needed for commercial prices—just click on the name of the class of mail. Not sure which class of mail is right for your mailing? Look at the matrix below to determine what class of mail best matches your priorities.



If you are unsure about what class your mailpiece will—or should—be, contact your Business Mail Entry Unit for advice.

- 1) Priority Mail Express: Anything mailable, letters, merchandise.
- 2) Priority Mail: Anything mailable, bills, invoices, personal correspondence, merchandise.
- 3) First-Class Mail: Anything mailable, bills, invoices, personal correspondence, merchandise.
- 4) Periodicals: Newsletters, magazines; (formal authorization needed).
- 5) USPS Marketing Mail: Advertisements, circulars, newsletters, small parcels, merchandise.
- 6) Package Services and USPS Retail Ground: Merchandise, catalogs, printed material, computer media.



V. INDUSTRY TRENDING IN THE US

- 1) Total Revenue in 2019 = \$74billion
- 2) Number of Businesses = 33,595
- 3) Annual Growth 2014-2019 = 2.1%
- 4) Industry Employment = 599,898

The US Postal Service (USPS), the sole operator in the Postal Service industry, handles 47.0% of the world's mail and boasts the country's largest retail network. Despite its size, the industry has historically suffered revenue losses. Over the past five years, internet services such as online banking and e-mail have increasingly replaced traditional mail. In addition, since USPS is highly regulated, it is subject to government-mandated expenses, which have dramatically raised costs for the industry. Over the five years to 2019, revenues set to decline at an annualized rate of 2.1% to \$66.6 billion. The decline in revenue would have been more drastic if not for the 2.6% boost that came in 2016. The U.S. Postal Service reported total revenue of \$17.1 billion for the third quarter of fiscal 2019 (April 1, 2019 - June 30, 2019), an increase of \$16 million, which is essentially flat compared to the same quarter last year.

First-Class Mail revenue declined by \$98 million, or 1.6 percent, on a volume decline of 361 million pieces, or 2.7 percent, compared to the same quarter last year. Marketing Mail revenue declined by \$121 million, or 3.0 percent, on a volume decline of 878 million pieces, or 4.7 percent, compared to the same quarter last year. Periodicals revenue declined by \$38 million, or 11.2 percent, on a volume decline of 173 million pieces, compared to the same quarter last year. Meanwhile, Shipping and Packages revenue increased by \$250 million, or 4.8 percent, despite a volume decline of 47 million pieces, or 3.2 percent, compared to the same quarter last year.

Total operating expenses were \$19.3 billion for the quarter, an increase of \$797 million, or 4.3 percent, compared to the same quarter last year. Excluding costs resulting from actuarial revaluation, discount rate changes, and amortization of unfunded liabilities, which are outside of management's control, expenses increased by \$218 million, or 1.2 percent, compared to the same quarter last year. Estimated annual income for the year 2019 for United States Postal Service is 74 billion.

S.NO	Revenue in \$ Millions; Volume in Millions of Pieces	Revenue		Volume	
		2019	2018	2019	2018
1	<i>Service Category</i>				
2	<i>First Class Mail</i>	\$ 5859	5957	13,098	13,459
3	<i>Marketing Mail</i>	3861	3982	17,668	18,546
4	<i>Shipping and Packages</i>	5416	5166	1423	1470
5	<i>International</i>	615	617	204	222
6	<i>Periodicals</i>	302	340	1182	1355
7	<i>Others</i>	1033	1012	85	96
8	<i>Total operating revenue and volume</i>	\$ 17,086	\$ 17,074	33,660	35,148

VI. INDUSTRY SWOT ANALYSIS

The industry is exposed to the following threats and opportunities:

- 1) Online services such as e-mail decrease demand for traditional mail. Online services can also be used to send documents such as bills, financial statements and tax returns.
- 2) The greater the percentage of services conducted online, the more demand for industry services will decline.
- 3) The percentage of services conducted online is expected to increase in 2019, posing a potential threat to the industry.
- 4) Corporate profit measures profit earned by US corporations. Business activities, including mail transactions and communication, typically increase when corporate profit is high.

- 5) This, in turn, increases demand for industry services. Corporate profit is expected to rise in 2019, representing a potential opportunity for the industry.

VII. INDUSTRY SERVICES

This industry includes establishments that operate the national postal service and perform one or more postal services such as sorting, routing and delivery. Establishments that operate on a contract basis (except the bulk transportation of mail) are included in this industry.

A. Main Activities

- 1) Local postal delivery services operated by United States Postal Services (USPS).
- 2) Local postal delivery services operated on a contract basis.
- 3) Postal services operated by USPS.
- 4) Postal stations operated by USPS.
- 5) Postal stations operated on a contract basis.

B. Key External Drivers

- 1) The Consumer Confidence Index reflects trends in disposable income, unemployment and consumer confidence in the economy. People conduct more transactions.
- 2) Consumer Confidence Index
- 3) Corporate profit
- 4) Percentage of services conducted online
- 5) E-commerce sales

C. Current Performance

- 1) Online services suppress mail volume
- 2) Healthcare contributions cripple profit
- 3) Universal service obligation
- 4) Attempt to revive profit
- 5) Revenue Growth

D. Industry Outlook

- 1) Profitability will remain weak
- 2) Special privileges and alternative sources of revenue
- 3) Stable fundamentals

VIII. UTILITIES IN THE US

A. Key Selling Industries

- 1) Office Stationery Manufacturing in the US
- 2) Copier & Optical Machinery Manufacturing in the US
- 3) Local Freight Trucking in the US
- 4) Long-Distance Freight Trucking in the US

B. Products & Services

- 1) Magazine & Periodical Publishing in the US
- 2) Telecommunications Resellers in the US
- 3) Finance and Insurance in the US
- 4) Public Administration in the US
- 5) Residential – rural
- 6) Residential - PO box
- 7) Business Mail
- 8) Residential - Highway
- 9) The Postal Service industry, operated only by USPS, provides First-Class Mail, standard mail, shipping services, periodicals, package services and other m...
- 10) Industry demand is heavily dependent on economic activity. A growing number of households and businesses increases demand for mail and postal services. Co...

IX. INDIAN POSTAL SERVICE

Indian postal service also known as Indian post office is a most widely distributed postal system in the world (second is china). Indian postal service is run by Indian government. It is a part of Ministry of communications and information technology.



- 1) The first post office in India was established by British East India company in Bombay in 1764.
- 2) Postage stamps were first used in India in 1852 at district of scinde (also known as scinde dawk). In the year 1854, the first all India stamp was issued. Post independence, India's first postal stamp was issued on 21 November 1947. Independent India's first postal stamp depicted the picture of national flag of India. .
- 3) India is divided into 23 postal circles. Each circle is divided into regions. Regions are also further divided into divisions and subdivisions. Beside 23 circles, there is also a base circle, which provides postal services to Indian armed forces. Each circle is headed by chief postmaster general and region is headed by postmaster general.
- 4) Pincode system was introduced in India on 15 August 1974 by Shriram Bhikaji Velankar. In 1880 money order service was first started.
- 5) Indian pincode is six digits long. The first digit represents the region, second digit represents the subregion, the third digit identifies the district of the region and last three digits are assigned to the post offices.
- 6) On 18 February 1911, world's first official airmail flight was started. World's highest post office is located in Hikkim, Himachal Pradesh, India (height is 4,700 m).
- 7) Due to the increase of digital services, Indian Post had terminated two important services - Telegram (in 2013) and Money order (in 2015).
- 8) In 2008, Project Arrow was launched to reform the Indian Postal Services to make it more people friendly and digital.
- 9) Beside postal services, Indian post offices also offers different financial services too.

A. Quick Information about Indian Postal Services:

<i>First Post Office of India</i>	<i>Bombay in 1774</i>
<i>Founder of Postal in India</i>	<i>Governor General Lord Dalhousie</i>
<i>First Postage Stamp of India</i>	<i>Sinde Dawk in 1852</i>
<i>First Airmail</i>	<i>From Allahabad to Naini in 1911</i>
<i>First Post Office Outside India</i>	<i>Dakshin Gangotri Antarctica in 1983</i>
<i>Postal Staff College</i>	<i>Ghazi abad</i>
<i>Indian Postal Day</i>	<i>10th October</i>

B. Important Years of Indian Postal Services

<i>S.No</i>	<i>Year</i>	<i>Event</i>
<i>1</i>	<i>1774</i>	<i>First Post Office of India was established in Bombay</i>
<i>2</i>	<i>1852</i>	<i>First postal stamp was introduced</i>
<i>3</i>	<i>1863</i>	<i>First railway mail service was started</i>
<i>4</i>	<i>1879</i>	<i>First post card was introduced</i>
<i>5</i>	<i>1880</i>	<i>Money Order service was started</i>
<i>6</i>	<i>1911</i>	<i>Airmail service was started</i>
<i>7</i>	<i>1972</i>	<i>Pin code was adapted</i>
<i>8</i>	<i>1986</i>	<i>Speed Post service was started</i>
<i>9</i>	<i>2004</i>	<i>E post service was started</i>
<i>10</i>	<i>2008</i>	<i>Electronic money order and Instant money order services were started</i>

X. INTERNATIONAL POSTAL REFORM: THE UNIVERSAL POSTAL UNION

The advent of the steamship and the railway had provided the opportunity for speedier international postal services, and the expansion of commerce ensured a growing demand for such facilities. Unfortunately, serious obstacles to the free exchange of international mails existed. Postal relations between states were the subject of bilateral postal treaties that had multiplied alarmingly during the 19th century. Most large European states were party to at least a dozen treaties by the 1860s. Such treaties necessitated the maintenance of detailed accounts between the countries concerned. Owing to the bewildering variety of currencies and units of weight and measurement then in use, the accounts attained a complexity described by a contemporary postmaster general of the United States as “almost beyond belief.” Understandably, the users of the post suffered from this chaotic situation and from the high international postage rates that were its natural result.

In the mid-1970s, the concept of “surface air-lifted” (SAL) mails was developed in conjunction with the International Air Transport Association (IATA). This arrangement allows some mails to receive, for little or no surcharge, speedier transmission than by surface, but without the priority of fully surcharged mails. Use of SAL varies from country to country.

For individual correspondence, the most practical and inexpensive form of airmail remains the compact aerogram, which was introduced in Britain. Recognized by the UPU, the aerogram is available in most countries.

International mail is a key means of furthering economic, social, and cultural links between nations. The international postal system is in itself an outstanding example of worldwide organization and mutual trust. A postal administration relies completely upon the postal authorities of other countries to play their parts in ensuring that its foreign mails reach their destination.



International cooperation in this field has been greatly facilitated by the Universal Postal Union since 1875. It has built a comprehensive international organization, with a membership composed of numerous sovereign states and several dependent territories. The postal administrations that are not represented generally follow the rules of the UPU.

These fundamental rules of the international postal service are to be found in the Universal Postal Convention and General Regulations and have been little changed since adoption of the Bern Treaty. The first basic principle is that all member countries form “a single postal territory for the reciprocal exchange of correspondence.” From it is derived the principle of freedom of transit: every member country guaranteeing to respect the inviolability of transit mails and to forward them by the most rapid transport used for its own mails.



Another important principle is that the charges for letter-post items are not shared. Since 1875 each country has retained the postage it collects on international mail. Although intermediate countries are paid for transit service, the country in which the mail is delivered receives no payment. This principle was adopted in order to minimize the need for complex international accounts and was justified on the supposition that a letter normally generates a reply. Certain developing countries, however, have found themselves at a considerable disadvantage under this rule, due to an excessive imbalance between incoming and outgoing mail. To remedy this, the 1969 Congress of Tokyo provided for compensatory payments in such cases.

As a further measure of simplification, the convention prescribes international postal charges, as well as agreed tolerances, and specifies weight steps, limits of size, and conditions of acceptance for letter-post items. Disputes between postal administrations, which usually concern allocation of liability for the loss of registered or insured items, are to be settled by arbitration. Mention

should also be made of the constitutive acts of the union that prescribe its general aims, its organization, its financial structure, and the rules of membership, namely, the constitution and its general regulations.



This comprehensive framework of international regulations is regularly revised to take account of changing circumstances and technical advances. This is the chief function of the union's quinquennial congress. Between congresses, the continuity of the union's work is ensured by its elected Executive Council and its permanent office in Bern, the International Bureau. The bureau acts as a clearing house for the settlement of international accounts and for the exchange of information between members, especially notifications of important operational and organizational changes. Problems arising in the technical, operational, and economic fields are studied by another permanent organ, the Consultative Council for Postal Studies (CCPS). Regular contact is also maintained with other international bodies, such as the International Telecommunications Union and the International Standards Organisation.

The establishment of efficient and comprehensive postal systems in the developing countries is important internationally as well as from the purely domestic viewpoint. Successful maintenance and progressive improvement of international postal service require the effective cooperation of all member countries of the UPU



Many developing countries are not able to provide even the minimum scale of postal facilities. To underline the pressing need for improvement and to provide a yardstick for future progress, the UPU has adopted, for the Second and Third United Nations Development Decades, certain key planning objectives, covering management, quality of service, promotion of its financial services, and improved public information. These are to be carried out to favour, in particular, the least developed countries.

XI. POSTAL TECHNOLOGY

A. Advanced Communications Technology

Rapidly advancing computer and data transmission technologies of the late 20th century are being felt far more widely within the postal sector than were previous advances, such as improved roads, the railway, and the airplane. Although the latter enabled postal services to reform or enhance existing services, today's technologies go further by providing alternatives to the letter in the form of electronic messaging networks and electronic data-processing techniques to improve administrative efficiency.

B. Technological Progress in Postal Transport

Postal administrations have been among the first to utilize new forms of transport. The advent of aerospace and telecommunications technology in the mid-20th century gave rise to research aimed at adapting this technology to postal systems. Experiments have been conducted using ballistic missiles to transport mail, but this remains a novelty because of costs and the problems of reusability and accuracy. Advances in computer and message transmission technologies are, however, being utilized by postal administrations.

Since 1981 public facsimile services have been available in a number of advanced postal administrations in various parts of the world. The United States, Great Britain, and Sweden were among the first countries to introduce tele-impression services, whereby bulk correspondence in electronic form is transmitted to regional postal printing centres for enveloping and delivery.

C. Automation of Mail Handling

Since the 1950s there has been a marked intensification of research and development efforts to apply technology to the handling of mails, especially in countries faced by manpower problems and higher labour costs. The wide variety of projects undertaken in many countries and the progress made has been summarized.

Actual implementation has generally been slower than expected. There have been good reasons for this. Primarily, most postal administrations, being government agencies, are subject to strict control of their capital investment programs. Similarly, the introduction of postal address codes and the standardization of sizes of envelopes and cards, which are prerequisites for mechanical handling, are relatively slow because of difficulties inherent in the change of procedures.



D. Materials-Handling Equipment

Postal systems continue to rely heavily on human labour for bulk materials handling and distribution, both at loading bays and between work processes within sorting centres. New mail centres, however, are normally built in the style of factories and include all appropriate materials-handling equipment.



Equipment used for loading and unloading sacks of mail, rigid containers, and loose parcels includes mobile belt conveyors, roller conveyors, forklift trucks, mobile and fixed cranes, and table lifts. Handling equipment within buildings includes chain conveyors; horizontal and rising belt conveyors of all types, for the transport of loose letters, packets, and trays of letters (notably used for continuous clearance of public posting boxes); tow conveyors, which allow wheeled containers to be hooked onto a fixed-path underfloor traction system; bucket or pan elevators; and chutes and other gravity devices.

Buffer-storage facilities, in the form of ramps, hoppers, and moving belts, have to be incorporated to compensate for normal postal traffic fluctuations. The smooth distribution of traffic through the system is often monitored by closed-circuit television, which allows effective centralized control. Automatic regulation and recording, using a variety of sensing and counting devices linked to a computer, are the ideal. Modern systems-engineering techniques are thus able to ensure a carefully planned continuous mechanized mail flow with maximum productivity benefits.

E. Segregating Machines

Mail collected from branch post offices and street mailboxes, although for the most part made up of ordinary letters and cards, also contains small parcels, newspapers, magazines, and large envelopes. These items, because of their size or shape, cannot be handled on machinery designed for the normal-sized letter and have to be segregated from the majority of standard "machinable" letters. Owing to its varied characteristics, most packet mail has to be manually stamped and sorted, although its movement between work

processes may be fully mechanized. So-called packet sorting machines are, in fact, essentially conveyor systems for distributing manually sorted mail.

A commonly adopted type of segregator consists of a laterally inclined rotating drum, into the upper end of which a regulated flow of “mixed” mail is fed from a storage conveyor. Letters within a thickness standard, but of excessive length or breadth, are picked out by various simple mechanical devices installed on the conveyor belt that eventually delivers machinable letters to the storage stacks of the facer equipment.

F. Facing Equipment

Facing is the process of aligning letters so that all will have the address side facing the canceler, with stamps in a uniform position. The process is normally combined with a separation of the mail into at least two streams, letter and printed-paper rate or first- and second-class, to allow priority handling for one of the streams.

Facer-canceler machines perform these processes by passing letters through sensing or stamp-detecting units, which identify the presence or absence of a stamp on the side of the envelope facing them, and, when present, its position. Sensing units are also designed to separate mail in the priority class from nonpriority mail by identifying the stamp or commonly used combination of stamps representing the basic postage rate and manipulating selector gates accordingly. This identification is usually achieved by printing distinctive indexes on the stamps in normally invisible, phosphorescent or luminescent inks that are sensitive to ultraviolet radiation emitted by the sensing unit.

G. Coding and Sorting Machines

For manual sorting of letters, each operator normally uses a device with between 40 and 50 pigeonholes. This has been found by most administrations to be the optimum arrangement in view of the limited arm span and “memory” of the sorter. The development of various types of postal codes was aimed at making the sorting of a coded letter a mechanical process for the operator by dispensing with the need to memorize a sorting plan.

H. Optical Character Recognition

The ultimate aim in automated sorting has been to perfect a machine that can read some or all elements of the address on letters. Research in this field has been conducted in most of the industrial nations with sophisticated postal services. The immediate aims of these national research programs vary in so far as the type of character to be recognized is concerned: printed, typewritten, or addressing-machine characters; stylized handwritten scripts; and even ordinary handwriting.

An optical character reader (OCR) can be designed to either directly sort mail or mark it with a machine-readable code so that sorting at subsequent stages can be carried out by high-speed automatic machines. The U.S. Postal Service began experimenting with an alphanumeric OCR. By the early 1981s the service had developed where a machine capable of scanning up to three lines of an address, verifying the postal code, and imprinting the letter with a routing.

XII. POSTAL SERVICE SCHEMES

Post office small saving schemes have been popular among Indians for their low risk and their easy availability at the nearby India Post Office. Though not all such savings schemes have tax benefits, there are a few Post Office tax saving schemes that you can avail with ease in urban and rural areas alike. The following is a short list of Post office savings schemes.

Table with Comparison of Post Office Tax Savings

<i>PO Small Saving Schemes</i>	<i>ROI (%)</i>	<i>Tenure</i>	<i>Range of Investment (Rs.)</i>	<i>Tax Benefit</i>		
				<i>Investment</i>	<i>Interest</i>	<i>Maturity</i>
<i>PO – Time Deposit</i>	7.8	5 Years	200 – No Limit	Y	Y	N
<i>NSC</i>	8.0	5 Years	100 – No Limit	Y	Y	N
<i>PPF</i>	8.0	15 Years	500 – 1.5 lakhs annually(12 installments annually)	Y	Y	Y
<i>SCSS</i>	8.7	5 Years	1000 – 15,00,000	Y	N	N
<i>Sukanya Samridhi Yojana</i>	8.5	When the account holder turns 21	1000 – 150,000 pa	Y	Y	Y

The interest rates mentioned above are applicable from the October onwards. The above facts and figures are for illustrative purposes only and the interest rate/features of scheme are subject to periodic change as per decisions of the Ministry of Finance.

A. 5 Year Time Deposit under Post Office Deposits Rules, 1981.

Similar to 5 year tax saver fixed deposit of banks which are eligible for deduction u/s 80 C, 5 year time deposit with post office is also eligible for tax deduction. Following are the basic features of the product:

- 1) Account can be opened and operated individually or jointly.
- 2) No limit on the number of time deposit accounts.
- 3) Minimum investment required is Rs. 200 with no maximum limit on investment.
- 4) Maturity period is 5 years.
- 5) Principal eligible for tax deduction but interest and maturity amount are taxable.

B. National Savings Certificate Issue VIII (NSC VIII)

This has been one of the most traditional forms of tax saving investments in India. Following are the salient features of the product:

- 1) The scheme is specially designed for resident Indians. HUF and Trust are not allowed to invest in the scheme.
- 2) Certificates of NSC are available in the denomination of Rs. 100, Rs. 500, Rs. 1,000, Rs. 5,000 and Rs. 10,000
- 3) These certificates can be kept as collateral to get loan from banks / financial institution
- 4) It can be held in single form, on behalf of a minor or jointly.
- 5) No TDS applicable to maturity proceeds
- 6) Interest accrued on NSC is deemed to be re-invested

C. Public Provident Fund (PPF) Scheme

PPF has definitely been the go-to scheme for Indian investors. It has been traditionally considered as one of the safest investments for creating wealth in the long term while offering tax benefits. Stated below are the few key features of PPF:

This is one of the few investments that is EEE i.e. Exempt, Exempt, Exempt. This implies –

- 1) Deposits made can be claimed as tax deduction.
- 2) Interest earned on deposits is not taxable.
- 3) Amount received on maturity is also tax exempt.
- 4) One can open a PPF account with the post office as well as designated branches of various nationalized banks and with select private sector banks.
- 5) All resident Indians can open a PPF a/c.
- 6) Foreigners, Non Resident Indians (NRIs) and Hindu Undivided Family (HUF) are not eligible to open a PPF account.
- 7) A parent/guardian can open a PPF account in the name of a minor.
- 8) PPF account cannot be held jointly.
- 9) Nomination facility available.
- 10) Only a single PPF account is allowed per person. If a person is found holding more than one account, then immediately the second account is closed and the holder is returned only the principal amount.
- 11) The account matures after the completion of 15 years from the end of the fiscal year in which the account was opened.
- 12) On maturity of 15 years, the account can be renewed for 5 years at a time (with or without additional deposits)
- 13) Premature closure of account is allowed only in certain cases after completion of 5 years.
- 14) From the 3rd to the 6th year, an account holder can avail loan against the amount held in the account subject to key terms and conditions.
- 15) Partial withdrawal of account balance is allowed from the 7th year of account opening subject to various terms and conditions.
- 16) PPF account balance cannot be attached under court order or claimed by a creditor.

D. Sukanya Samridhi Yojana (SSY) Account

This is the latest entrant in the EEE category and is only available to investors with a girl child. Stated below are some of the key features of the Sukanya Samridhi Yojana:

- 1) A natural or legal guardian can open a SSY account in the name of a girl child.
- 2) This account can be opened up to the age of 10 years of the girl child.
- 3) Initial account deposit for opening the account is Rs. 1000.
- 4) A maximum of one account can be opened in the name of one girl child with a maximum limit of two accounts for two girl children.
- 5) If the girl child is married, then normal premature withdrawal is allowed after the age of 18.
- 6) Partial withdrawal with a maximum limit of 50% of the balance in the Sukanya Samridhi Yojana account at the close of the previous fiscal is permitted for higher education and marriage only after the account holder turns 18.
- 7) Deposit can be made as a lump sum deposit or multiple times during a year however it should be in multiples of Rs. 100.
- 8) Maximum annual deposit eligible for tax exemption under Section 80C is Rs. 1.5 lakhs.

Public Provident Fund and Sukanya Samridhi Yojana are the only two Post Office Savings Schemes which fall into the EEE category. While the PPF rates currently stand at 7.6%, Sukanya Samridhi Yojana investments provide its investors an even more attractive rate of 8.1%.

Well there are a lot of postal services, some are as follows:

- | | | |
|-----------------------------|----------------------------------|---------------------------------|
| 1) Speed Post | 12) Recurring Bank Accounts | 19) Parcel Post |
| 2) Registered Parcel | 13) Term Deposit 1 Year 2 Year 3 | 20) Indian Postal Orders |
| 3) Parcel Post | Year 4 year 5 Year | 21) Postal Life Insurance |
| 4) Cash On Delivery Parcels | 14) Sukhniya Samroodi Account | 22) Rural Postal Life Insurance |
| 5) Vpl | 15) Kisan Vikas Patra Fd | 23) Postal Shops |
| 6) Vpp | 16) National Saving Certificates | 24) Money Orders And Many More |
| 7) Emo | 17) Insured Speed Post | |
| 8) Registered Letter | 18) Insured Parcel | |
| 9) RI With Ad | | |

- 10) Ordinary Mail Service
- 11) Saving Bank Accounts

XIII. CONCLUSIONS AND RECOMMENDATIONS

- 1) Assured and speedy delivery of goods by the postman is possible with the help of speed post service
- 2) Addressee receives the parcels at his door step. He/She doesn't have to travel too far in search of his parcels
- 3) FedEx is another source of delivering posts, goods from one place to another place
- 4) A convenient mode of transport can be used when quantity is small and volume is low
- 5) Parcels can be easily dispatched because post offices are located mostly near market place
- 6) For ordinary mail, we have to calculate postage and buy stamps and paste stamps on the postal mail, Parcel can be sent in a priority mail through the post office
- 7) To send large quantities of goods, heavy and bulky goods, special alternate mail options must be considered
- 8) Email vs Postal Mail: Although emails are very fast, you can send and receive packages, magazines, brochures and more via postal delivery
- 9) Speed post vs Registered Post: The speed post is for its timely delivery and registered post is known for secured delivery. The fundamental difference between, speed post and registered post is that the former is address specific while the latter is addressee-specific.
- 10) Time taken for the delivery of Ordinary Post is 2-4 days, Speed Post is 2-3 days, and Registered post is 2-5 days
- 11) Operations Management in Postal Service: A postal manager is capable of delivering 500 mails a day to households and other organizations
- 12) Safety of Employees in Postal Service: Follow safety material/tips to help postal workers stay safe on the job and safety will serve the workers very well

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