

Digitalisation: A Harbinger in the Transformation of the Department of Posts

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Abstract

India Post, commonly known as The Department of Posts, is the largest postal network in the world and also it is one of the most essential Service Sector Departments under the Government of India. The cardinal feature of the Department of Posts is that most of its post offices (around 84% of the total 1.5 lakh post offices) are rendering selfless service in the rural areas. The main function of this department which was started under the British Raj with a few post offices was to deliver mails. But, in the course of time, the Department of Posts became the backbone of communication in India as a result of which the number of post offices increased rapidly. With the advent of liberalisation, globalisation and privatisation, the Department had to Re-engineer itself to adapt to the ever changing and competitive environment. It announced itself on the platform of the changing environment by adopting digitalisation through Information Technology. This digitalisation process became a harbinger in changing the face of the Department of Posts. The major areas of digitalisation process in the Department of Posts include computerisation of all counter transactions, introduction of Core Banking System, Project Arrow, iMO, eMO, DARPAN (Digital Advancement of Rural Post Office for a New India), Internal Money Transfer System, etc. With the help of digitalisation, India Post has ventured into banking operations by entering the payments banks sector. It has received license from RBI and has thus become the third entity in India to start its own payments bank. Though, India Post has adopted digitalisation on a large scale, yet, there are a few challenges in implementing them. In the years to

come, digitalisation would surely help the department to shed its loss making image and transform it into a profit-making premier Government Department.

Keywords: Digitalisation, Globalisation, Core Banking System, Project Arrow, e-Post, e-Payment, DARPAN, eMO

Introduction

Apart from being one of the oldest Departments in India, the Department of Posts, now christened as 'India Post' that operates with over 1.5 lakh post offices, has the largest network of post offices in the world. The first post office was established at Kolkata in the year 1727 by the British. Later on, during the late 1770s, the British established three more General Post Offices in the cities that were very strategic to them namely Kolkata (now known as Calcutta GPO), Madras (now known as Chennai GPO) and Bombay (now known as Mumbai GPO). Till the early 18th century the British did not have any specific act to control the Post offices. This led them to pass the Indian Post Office Act in the year 1837. The focal point of this act was to bring orderliness and evenness in the working of the post offices. To overcome the shortcomings of the Indian Post office act of 1837, an exhaustive act was enacted in the 1854. This act of 1854 was the bedrock on which the current postal system of independent India has been built. The said Indian Post Office Act of 1854 was later amended in 1898 that provided a major boost to the postal operations in India.

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The Department of Posts also prides itself for being the first country in Asia to issue adhesive postage stamp. The very first postage stamp was issued as early as 1852 and the name given to the first postage stamps was termed 'Scinde dawks.' The stamps were thus termed because they were issued in the Sindhi province of undivided India and hence took the name of the province in which they were issued. These stamps were in vogue till 1866. On 18th February, 1911, the world's first airmail flight took off from Allahabad to Naini traversing a distance of 18 kilometers across the river Ganges. The first postage stamp valid across the country was issued on 1st October, 1854. This provided an affordable and uniform rate of postage based on weight. After the issuance of the first postage stamp on 1st October, 1854 that was valid across the country, the Department of Posts started its operations on a major scale and has since been contributing to the socio-economic development of the country.

Till the advent of technology, the elemental functions of the Department of Posts was primarily limited to mail and money order remittance. With the changing times, due to the changing needs of the customers, the Department of Posts has reinvented itself and is now providing financial services, banking services, insurance services, etc. It has been the premier agency in distributing the benefits of Mahatma Gandhi National Rural Employment Guarantee Scheme to the rural masses apart from being the forerunner in implementing the various social security schemes of the Central Government. All this has been made possible due to the adaptation and implementation of technology and digitalisation that has turned out to be the game changer for the Department of Posts.

Review of Literature

Roy, Banerjee and Pal (2004) conducted a study regarding the Indian postal automation that was based on the recognition of pin code and city name. In the proposed system, at first, non-text blocks (postal stamp, postal seal, etc.) were detected and destination address block (DAB) were identified from the document. Next, lines and words of the DAB were segmented. In order to identify the script by which a word was written, they proposed a water reservoir based technique. They found that it was very difficult to identify the script by which the pin code portion was written as any of the vernacular languages

could be used to write the pin code. So, they have used two-stage artificial neural network based general classifiers for the recognition of pin-code digits written in English and vernacular language. For recognition of city names, they proposed an NSHP-HMM (non-symmetric half plane-hidden Markov model) based technique.

Tahat (2009) has examined the application of the postal acceptance rule to email acceptances. He states that there were different views against the application of acceptance rule of the postal department. The acceptance rule of the department of posts that was established in 1818 as a legal norm in the formation of a contract. Due to digitalisation, many letters were sent through email thus posing a question as to whether the acceptance rule could be applied to the emails also. He concluded that email was not an instantaneous method of communication, but could be viewed as a digital version of the hitherto normal post and hence the postal acceptance rule should also legally apply to this kind of contracting too.

Mala and Vasanthi (2016) aimed to study the role of Indian postal service in financial inclusion and the challenges faced by it. They concluded that the Indian postal services could become a good financial inclusion. The study revealed that the India Post could lead the way in financial integration through its own network and reach. The Department of Posts could become more relevant and profitable if all stakeholders are united to build one platform to implement necessary changes, take up innovation and follow a corresponding political line.

Kumari (2017) conducted a survey to examine the function and goals of the payment banks of the Department of Posts, including their role for financial inclusion objectives and also their future challenges and problems. The author's epilogue was that India Post Payments bank, due to its vast network in the rural area, could become a leading payments bank in India. She also added that payment bank of the Department of Posts was planned for postal transformations and that they are essential drivers of the financial integration policy of the Central Government as they provide digital services like internet banking, mobile banking, ATMs, advance payment equipment, etc.

Sharma and Gupta (2018) conducted a study on the importance and working of Payments Bank of the

Department of Posts. The general purpose of their study was to inquire into the importance of payments banks. The specific purpose of their study was to explore the role of India Post Payments Bank. They state that payments bank promoted by India Post was expected to use the physical network of post offices as well as digital platforms like internet banking, mobile, debit cards, money transfer, point of sale devices, etc. to cater to the needs of the population that were yet to be brought under the banking umbrella. They conclude that payments bank would be able to provide an important connectivity especially in those areas that do not have any bank branch but have a post office.

Borsenberger (2020) has studied the impact of digitalisation on the global postal network with specific insights about the European postal network. The author says that due to digitalisation, there is a shrink in the core business of the postal networks, that is, delivery of letter mail and as a result of this, there is a pressure on the economy. The author also adds that due to digitalisation, the postal networks in various countries have started new ventures to keep them relevant by using their already existing network. The author suggests that it is the duty of the postal networks to contribute to the economy and also support the ageing population dependent on it.

Amutha and Rebekha (2022) in their article titled “Impact of Digitalisation on Postal services among Postal employees of Kanyakumari district”, have stated that the postal industry was facing an unavoidable digital transformation in its business due to new innovations. They have given the example of banking services that had introduced net banking and ATM services to its customers in a step towards digitalisation. They also state that the Department of Posts has had to face challenges to implement the digitalisation process. They collected data from the departmental staff of India Post from selected areas of Kanyakumari. They have stated that most of the employees found it difficult to adopt the changes towards digitalisation.

Kavitha, Karanam, Suma and Mamatha (2023), A in their article titled “Technological Evolution of Postal Services in India” have stated that the Department of Posts has served the nation for more than 150 years and that it is largest postal network in the world. The source of their data was secondary that was collected from the website of

India Post. The main objectives was their study was to find new technologies adopted by India Post to optimise its services. They conclude that technological transformation of the Department of Posts had a positive impact in easing the life of a common man and also helps in supporting the economy of the country.

Need for the Study

At the time of its inception, the main work of the Postal Department was to deliver mails. Before the advent of internet and mobiles, the Department of Posts was serving as the lifeline of communication to majority of the people. After the arrival of liberalisation, privatisation and globalisation, there arose a necessity of the Department of Posts to reinvent itself. There was a danger of it becoming obsolete in the light of changing preferences of the customers. It had to re-engineer itself and embrace the technology with both the hands in order to survive in the competition. Therefore, in order to adhere to the changing times and also to provide the services more effectively and efficiently, the Department of Posts has ventured into the process of ‘Digitalisation’ and has reinvented itself to be more ‘technology driven’. Recently, India Post has ventured into banking operations by entering the payments banks sector. It has received license from RBI and has thus, become the third entity in India to start its own payments bank.

Objectives of the Study

- To study the postal network in India.
- To identify the functional areas of the Department of Posts where digitalisation has been initiated through IT Modernisation Project.
- To examine the significance of India Post Payments Bank.
- To suggest measures regarding effective implementation of digitalisation.

Methodology

Type of Study

The present study is a conceptual study.

Study Area

The present study is about the functions of the Department of Posts that have been digitalised. It also focuses on the areas (urban and rural) that have been digitalised and also that are under the process of digitalisation.

Data Type and Sources

As this is a conceptual study, the main source of data is secondary data. The said secondary data has been collected from the relevant websites, RTI information, journals, articles and annual reports of the Department of Posts.

Geographical area

The present study focuses on the application of technology and other forms of digitalisation used in the post offices of the Department of Posts both in the urban post offices as well as the post offices situated in the rural areas of India.

Operational Definition of Certain Concepts

- *Core Banking System:* Core banking is the software that is used to process and manage the financial operations of India Post.
- *Digitalisation:* It is adaptation of a system or a process to be operated with the use of computers and the internet.
- *e-Post:* The term stands for 'Electronic Post.' Instead of using pen and paper to write the message, the sender can use a more visually appealing electronic message to send to the receiver. The post office at the receivers place scans these messages and sends

it to the destination post office. The post office at the destination takes out the printout of these electronically sent messages and delivers it to the receiver through the postmen.

- *e-Payment:* The post office cash counters acts as a multi utility centre to collect the bills on behalf of various public utility departments/boards. The popular among them relate to bills of electricity, university fees, various recruitment boards fees, telephone bills, etc. The post office issues a computer generated receipt for all these bills and fees.
- *eMO:* eMO is the acronym for 'Electronic Money Order.' This service was introduced by the Department of Posts in the year 2008. It is an electronic mode of payment of money order in which the sender pays the money to be remitted to the payee at the nearest post office which in turn electronically transmits the details to the post office where the payee is located. After receiving the money order in electronic form, the payee post office pays the money order through the concerned postman to the payee.

Analysis

Postal Network in India

There are totally 23 postal circles throughout India. Each postal circle is in charge of the postal activities in one or more States/Union Territories. With a staggering 1,59,251 post offices (31.03.2022), the Department of Posts prides itself as having the largest network of post offices in the world. Out of these, around 1,34,141 are in the rural areas. The postal network in India as on 31.03.2022 is presented in Table 1.

Table 1

<i>Postal Network of the Department of Posts (in number and as on 31.03.2022)</i>		
1	Postal Circles and Regions (Postal Circles are the States and certain Postal circles have jurisdiction over more than 1 state and UT)	23
2	Regions (For administrative purpose, the postal circles are further divided into regions)	54
3	Postal Divisions (The Regions are further divided into Postal divisions)	457
4	Circle Stamp Depots (All the stamps are sent to the circles from here)	01
5	Postal Store Depots (All the postal bags and other items of stationary are supplied from here)	26

Postal Network of the Department of Posts (in number and as on 31.03.2022)		
6	Railway Mail Service Divisions (They sort /process the mails for further transmission and are usually situated near the Railway stations)	69
7	Postal Training Centres (They provide training to the Permanent employees of the Department of Posts)	6
8	Post Office (The basic unit of the Department of Posts that provides yeoman's service to the masses)	1,59,251
9	Rural Post Office (They are the post offices situated in villages)	1,43,985
10	Urban Post Office (They are the post offices situated in urban areas)	15,266
11	General Post Office (They are the post offices usually situated in a metropolitan city/capital of a State or UT)	24
12	Head Post Office (That which consolidates the postal accounts of the sub post offices, Gramin Dak Sewak post offices apart from providing the regular services to the public)	808
13	Sub Post Office (A regular post office that has to submit its day to day accounts to its designated Head Post Office)	24,302
14	Gramin Dak Sewak Post Office (A post office that is manned by Gramin Dak Sewaks who are not the permanent employees of the Department)	1,34,141
15	Delivery Post Office (That which delivers all the accountable and unaccountable mails, money orders, e post, etc)	1,51,313
16	Night Post Office (That post office that works in the night and provides postal services to the customers)	113
17	Sorting Hub (Involved in sorting the articles)	92
18	Average persons to whom the Post office provides service	8,627
19	Average Area in square km. served by a Post Office in India	20.64

Source: Annual report of the Department of Posts 2022-23.

Transformation of the Traditional Post Offices through IT Modernisation Project

Most of the traditional post offices of the Department of Posts are being transformed into modern post offices with the help of IT Modernisation Project. This venture was started by the Department of Posts in November, 2012. The initial outlay of the said project was Rs. 4,909 crores. This has been enhanced to Rs.5,785 crores for the year 2022–23. The main aim of this project is to replace the manual methods of work in the Department of Posts with technology and thereby increase the operational efficiency in the working of the post offices. The implementation of the project that was started in the year 2012–13 is still under progress and is being implemented in a phased manner. The project is being implemented in eight segments.

One of the significant achievement of the said project is that it has contributed to network all the post offices in India. As a result of this networking, it has become convenient for the customers to track all the mail and money orders sent by them. The customers have to just enter the receipt number that they received at the time of booking the article/money order. The rest is taken care by the department's website. The customers can track every

movement of their article. The other operational areas that have been benefited from the said IT Modernisation Project include savings bank, PLI (post life insurance), core banking solution, installation of ATMs, etc.

Through the Core Systems Integrator, all the major postal operations like the operations performed at the post office counters, mail operations, accounts of all the post offices, human resource data base of all the staff of the department, etc., have been computerised and have been brought under one central platform. In order to enable the employees of the Department of Posts to adapt to this technological change, the project aims to provide training to all the internal stake holders of the department. The various postal training centers are being made use to provide hands on training relating to the technological changes that are being implemented under this project.

Majority of the post offices (83%) are functioning in rural areas. Therefore, it is imperative that the major thrust should be on the digitalisation of rural post offices. These rural post offices are known as Gramin Dak Sewak Branch Post Office (GDSBO) or Branch Office (BO). A project titled 'Rural ICT Project' has been introduced for these BOs. The prime aim of the said project is to computerise all the post offices that are working in the rural areas of the country. This project has been implemented successfully

and as a result, most of the post offices in the rural areas have been provided with network connectivity and the necessary computer hardware. DARPAN meaning Digital Advancement of Rural Post Office for a New India has been implemented in the rural post offices. It is a customised software specially designed for the functioning of the post offices. A hand held device containing the DARPAN software has been given to all the village postmen (known as Gramin Dak Sevaks) to make digital payments at the doorsteps of the customers.

Significance of India Post Payments Bank

On 17th August 2016, India Post Payments Bank (IPPB) was started by the Government of India. The said IPPB has been started as a Public Limited Company in which the Government of India holds 100% equity and the overall functioning of IPPB is under Department of Posts. On 30th January 2017, IPPB started its operations through 2 branches. One branch was inaugurated at Ranchi in Jharkhand and the other was inaugurated at Raipur in Chattisgarh. Later on, the number of IPPB branches increased and as of now, all the Post Offices have the service of IPPB. The network of the Department of Posts has immensely helped IPPB and it is the advantaged that has made IPPB to aim at being the largest payments bank for the country's common man. The primary goal of IPPB is to provide digital services to the rural unbanked population. The staff of the Department of Posts starting from the Gramin Dak Sevaks, Postal Assistants and Postmasters are providing the IPPB services to the customers. In rural areas, the Gramin Dak Sevaks are providing door step banking facilities. Through IPPB a customer can avail the facilities of linking IPPB accounts with Post office savings bank account, RTGS, NEFT, payments to other bank accounts, mobile banking services and other online services.

Suggestions

For effective implementation of digitalisation and also for increasing the revenue of the Department, the following measures are suggested:

- At present, the main function of India Post Payment Bank is to accept deposits. But there is no provision

for it to provide loans as is done by the Public Sector Banks. The major sources of revenue of India Post are from sale of postage stamps, money orders, Indian postal orders, registered post, speed post, remuneration from savings bank and savings certificate work. But, the revenue generated from these items is very less when compared to the expenditure involved. Hence, by providing recoverable loans, India Post can certainly increase its revenue drastically. Digitalisation can certainly be a game changer in providing recoverable loans. Once all the records are digitalised, the loans can be processed online as is being currently done in nationalised banks.

- The entity of the Department of Posts should be changed from that of Department to Public Sector Undertaking. Once, it is converted into a PSU, it can certainly go for subscription of shares and can enjoy all the benefits of a PSU. But for this to happen, digitalisation should be completely implemented. Once digitalisation and conversion to PSU is done, more and more investors would be interested to invest in the Department of Posts. Like any public sector undertaking, the Department of Posts, can list its shares in stock exchanges, can issue initial public offerings and also can be effectively managed by professionals.
- Non core functions of the department should be outsourced. Certain functions of the department that are becoming less popular and are non remunerative like sale of stamps, sale of postal stationery, booking of articles, etc., should be outsourced. This would certainly trim the staff in the department of posts as a result the expenditure incurred on the salaries of staff would come down. Also, once the department is fully automated, the quantum of excess staff can be identified and suitable redeployment of the excess staff can be done. This would certainly reduce the expenditure incurred on the salaries and retirement benefits of the excess staff.
- Proper training should be given to the existing staff. As automation and digitalisation involves technical skills to which most of the senior staff would be averse, the department should introduce hands on training to all the staff. Most of the problems

that staff faces are related to the lack of computer knowledge. In order to fill this void, the department should pay more attention on technical training content to the staff.

Conclusion

“Change is the only thing that is Constant” and India Post is not an exception to it. The Department of Posts which is one of the prime service sectors under the Government of India is in the process of restructuring itself to stay alive in the present days competitive world. Though it was late realisation by India Post to adopt digitalisation, yet, it is surely making an earnest effort in that direction. The various digitalisation measures adopted by India Post are yielding results, though it has to be admitted that these results are at a slow pace. The major constraints in implementation of digitalisation in India Post include lack of training to its employees, opposition from a certain quarter of the Union members, lack of proper feedback mechanism, resistance from senior staff members, etc. India Post is providing bread to nearly 4.03 lakh of its employees. Though the salaries of all of them have risen over the years, yet, the corresponding increase in revenue is far from satisfactory. digitalisation can surely become a ‘Harbinger’ of positive change for the Department of Posts provided it is implemented at all levels, especially the grass root levels. The Department of Posts has survived the competition from Internet, couriers, private parcel carriers and so on. In order to make itself relevant, it should make the fullest use of ‘Digitalisation.’

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