

## INNOVATIVE MECHANIZATION IN POSTAL SERVICES

### A Preliminary Data Assessment of Northwestern India

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#### ABSTRACT

*The paper presents the compilation assessments, made after examining its different aspects, as follows:*

**Purpose:** *To preliminarily associate operations, analysing utility, and suggest reform ideas.*

**Methods:** *The paper is a qualitative one, with a primary focus on conducting descriptive analysis based on field visits. Initial field screening was held in stated regions of northwestern India*

**Key findings:** *Delhi circle held that the Mechanization of process may help in postal operations in handling high traffic. Haryana circle had the approvals delays as the key issue, that needs development. Himachal and Punjab circle had the shortage of staff and illiterate customers.*

**Conclusion:** *Future is prospected to minimize human involvement with lesser physical presence of customer and seller. Self-vending machine may go successful, but teller is needed.*

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**Suggestions:** Addition of more offices, staff and counters, with specialised training and counselling may help. Practical operability and reach using thermal or solar heating equipment, drone and Heli taxi can add. Extension on demographic and psychographic dimensions of products in other circles and across nation can add for the betterment of commercial portfolio of the department.

**Implications:** The study results are only confined to department of posts or the comparative sectors. The paper discusses the necessity of implementing mechanization and technological advancements to improve efficiency. The study emphasizes potential areas for startups to introduce innovation. It emphasizes the societal significance of postal services. Regarding the environmental aspect, the proposal to utilize solar equipment is an ecofriendly practice.

**Keywords:** Automation, Postal Services, Preliminary Data Assessment, North-Western India, Literacy.

## INTRODUCTION

India Post is offering a strand of services, which helps in covering and developing different aspects of communication facilitation and financial inclusion since last two centuries approximately through its network of 0.15 million POs. Regardless of various initiatives offering entire assurance specially within the rural regions, inclusion is not so successful, bearing many field limitations and regional anomalies. To become the leader big challenge amid acute technology competition in this regard, is focusing the users' desires effectively at their doorsteps. To assist that, Infosys has been selected by IP for an application to enhance India public's financial services across 150000 POs. For the assignment, it assisted IP in complete machine integration, facts migration and system deployment and solutions throughout all identified POs, helping multi-year offerings utility support and infrastructure operations, training +35000 IP employees. Speaking on this deal, AS Prasad, DDG, economic services, IP said, "this transformational software is predicted to adorn IP's enterprise" (Infosys newsroom). Darpan Project, a part of larger IT modernisation project, will increase the department's rural reach (India Post, 2017). Looking on IP innovations and the ground

hindrances, this paper presents a basic enumeration of key aspects observed of department of posts in the stated regions of northwestern India.

## LITERATURE REVIEW

A limited literature was available on post offices and other relevant aspects. The few initial studies found were observed done as follows:

Jain, Morris, & Raghuram (2001) examine troubles around IP. Moves of IP were noted. Palacios, & Sin (2001) found the demanding situations of old age savings in India. They could device solution for modern-day individual's underneath pressure. World Bank (2002) counselled that IP is particularly nicely positioned to address the pressures of a changing surroundings by expanding services into non-traditional regions along with e-banking, e-authorities and e-trade.

Raghavan (2005) highlighted on PO savings bank as one of the largest pension distributor and largest life insurance company. As per him, challenges confronted are routine deficits, restricted capital expenditure, the preponderance of workforce

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expenses, a negative internetworking ratio, lagging circles, flawed costing strategies, and non-economic pricing.

Ranganathan (2005) stated that with the net, cellular telephone network revolution posing the risk of making the letter mail out of date, postal monopolies throughout the sector are in process of restructuring and/or privatization. The study has been targeted on identifying the motives.

Hari Sundar, & Jacob (2009) attempts to study endowment in Cochin district. The examiner exhibits the reality by PO maximum discount functions.

Subrahmanian (2010) highlights the importance of training of personnel in DOP. The focal point is on edification to improve pleasant motion and continuous development, he adds.

Planning commission (2011) have emphasized the want of the modernization of IP. The improvement in IP suggested by tips thru specialists.

Aggarwal (2012) looks at the various factors which focus on influencing the traders to invest many of the distinctive financial saving schemes of the POs. Instructions has an enormous effect at the saving. Malakar (2013) looks at the function played via IP in monetary inclusion and the challenges before the IP in supplying banking services, using discussions with officials of IP. He acknowledged that IP served Indian villagers as a banker lot earlier than monetary inclusion turn out to be buzzword and IP claims to be the pioneer of monetary inclusion in India.

Samal (2013) put forward that due to great use of digital media, more worrying clients, presence of courier, economic establishments, and challenges of globalization, corporatization and liberalization, PO must take the right steps for its survival. He highlighted business improvement, IT modernization, and service improvement, to be taken by the IP. Giri (2014) discusses the situation of economic services and technology modernisation. It also highlights the opposite generation driven offerings of the

Pondicherry postal division.

Potadar, M., Mehta, & Potdar, S. (2015) look on the extra demanding situations, IP may have. IP becomes the immediate enterprise eliminating market stress and locate itself efficaciously.

Birajdar, & Joshi (2016) specializes in excellence of offerings that are provided by IP. They point out the importance of maintaining the service for extended client pleasure.

Kanda, Bhalla, Bansal, Kaur, and Bhalla, Gunect S. (2021) observed the consumer acceptance and use of information technology in Indian postal services. They observed failure handling having the most impactful effect on brand value, loyalty and related factors. Kanda, and Bhalla (2021) assessed administrative efficiency of employees of Indian post offices. They found that there is a considerable impact of work flexibility on employee satisfaction.

Kanda, and Bhalla (2021) explored on customer satisfaction of users of Indian post offices. As per them, failure handling has a more detrimental impact on make worth and allegiance. Kanda, et. al (2021) referring tourism related perspectives of India post regarding the post offices located in the tourism hotspots, presented a perspective regarding the post offices located in the tourism hotspots. They recommended that how the scenario can be strengthened. Bhalla, Shukla, and Kanda (2022) assessed on the role of Indian postal services amid covid-19 in north India. They appreciated the adequacy, dynamism and turbulent support the postal services rendered. Dobrodolac, Lazarevic, and Jovicic (2024) proposes integrating the concept of shared mobility into the postal delivery system, by that expanding the existing assortment of services.

## RESEARCH GAP

Assessment dialogue tells that least observe is available on northwestern India. Only a few studies in international context have been found held in practice. While, referring to the actual studies in

Indian context, only four studies have been observed held on, where the earlier three were held by some prior authors, while the latter fourth one is held by the present author itself. Coming to a grassroots assessment of in specific department, significant gap is there.

## RESEARCH OBJECTIVES

- To preliminarily assess and associate factors of operations of postal, banking and other services at PO.
- To analyse the product utility amid provider, intermediaries, users w.r.t. entrepreneurs and startups.
- To summarize reformatory suggestions to facilitate further development of public and business.
- Accordingly, the purpose of this study is to preliminarily assess and associate the basic factors of operations, analysing the product utility of the products, and to summarize reformatory suggestions.

## RESEARCH METHODOLOGY

The paper is a qualitative one, with a primary focus on conducting descriptive analysis based on field visits. Initial field screening was applied as an instrument of initial enquiry towards the aspects. It helped us to understand and observe the consumer preference and staff view for the different set of postal services and products. It also helped us to observe the agent views. It was held in Chandigarh, Delhi, Shimla, Ludhiana, using depth interviews. It was undertaken using the pre-designed multiparty interview schedule for the purpose, filled based on conducted depth interviews. In the Initial Field Screening, under the Initial Field Screening, the researcher performed a line by line transcribe of the interviews and the transcribed document was running into pages. All the transcribed statements were retained relating to the same concept and were worded differently. As per the grounded theory (Strauss, & Corbin, 1990), each statement was categorised under respective concepts (Ollapally, 2015).

## ANALYSIS & DISCUSSION

As per the principles of grounded theory (Strauss, & Corbin, 1990), each statement collected in field visits was categorised under respective concept (Ollapally, 2015). Initial field screening was held in different offices of Delhi, Himachal, Haryana and Punjab Circles as follows:

### 1) Delhi Circle

Delhi, officially Delhi NCT, is a union territory and the federal capital (MLJ, 1991; Habib, 1999). The entire NCT's populace was 16.8 million in 2011 (City Population), with Delhi urban being the world's second biggest urbane (United Nations, 2016), inhabited since the 6 Century BC (Asher, 2000), and emerged critically after 1900's becoming global corporate and economic centre (NCRPB) as second wealthiest metropolis, and home to 23000 millionaires and 18 billionaires (Global Data Lab). The federal and local authorities administer the New Delhi mutually, under the ambit of the planning board act 1985 (NCRPB). We visited Meghdoot Bhawan (CPMG, Delhi Circle) on 11/2/2020. In post, high traffic is observed there. Mechanization of process may help. In savings, it is looking for developments.

### Delhi NCT

Gole market was built by Edwin Lutyens in 1921 (ANI, 2023), where Gol Dak Khana GPO is 800 meters from it, designed by Robert Russell in 1931 (ANI, 2023). We visited Gol Dak Khana (New Delhi HO) on 11/2/2020 and 25/2/2020. In postal segment, user look mostly for speed, parcel, and registered post. In savings products, user purchase in bulk, having all secured. Insurance is only for government employees. The building is an old heritage structure, that needs conservation and restoration.

We visited the infamous Dak Bhawan, Department of Posts at Sansad Marg, formally housing Sansad Marg HO and National Philatelic Museum on 25/2/2020. In postal segment, user look mostly for speed, parcel, and registered post. In savings products, user purchase in bulk, having all secured. We visited Kashmiri Gate GPO on 8/2/2020. In postal segment,



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in staff view, parcel, bulk, registered, speed post and philately are taken. In savings, in agent views, FD, pensions, motive-based saving are taken.



Ambala



Ambala cantonment has a large military base and the air force. Its geographical position makes it critical in local tourism. We visited Ambala cantonment HO at Staff Road on 7/2/2020. In postal segment, speed, registered, parcel post, post card and stamps are taken for. In savings, TD, saving, Atal pension, and Sukanya are mostly taken. Insurance is being promoted for

professionals now. Rural computerisation in vast stretch is a strength. Customer look in utility, trust and security. We visited RMSD Ambala cantonment on 3/2/2020. In postal segment, speed, registered, ordinary and parcel post are taken for. We visited SSPO, Ambala division situated at upstairs Ambala cantonment GPO on 19/3/2020. For postal services,

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user look speedy, authentic and cost savvy service / products. For savings products, user seek full-fledged banking.

### **Panchkula**

We visited Panchkula SO on 06/10/18. In postal segment, post is a reliable, cost and time efficient solution for users. In savings, interest and convenience are the product USPs.

### **Rohtak**

We visited Rohtak HO on 25/2/2020. In postal services, user look for optimum time, charges, brand, safety and authenticity. In savings products, user seek brand and convenient solutions.

### **Gurugram**

Gurugram is the most populous city in Haryana. We visited Gurgaon HO on 11/2/2020. In postal segment, speed, registered and parcel post are preferred with no effect of courier. In savings, time deposits, and small saving account are looked for. Insurance is being promoted for professionals verbally. Customer view look in brand and security of funds. Self-vending machines can work well.

### **Panipat**

During the 8th battle of terrain, Ghoris defeated Prithvi Raj here (Deshwal, 2004). We visited Panipat HO on 26/2/2020. In postal services, user look for optimum time, charges, brand, safety and authenticity. In savings products, user seek easy, in close proximity, brand and convenient solutions. Insurance is not so popular.

### **Hissar**

We visited Hissar HO on 28/2/2020. In postal services, user look for optimum time, charges, safety and authenticity. In savings products, user seek brand and convenient solutions.

## **3) Himachal Pradesh Circle**

According to Puranas, Himachal Pradesh is the Jalandhar Khand and Kedar Khand, known as “Dev

Bhumi” to the ancients, and located in the Western Himalayas (Balokhra, 2007), with the society is divided into castes and sub-castes. We visited CPMG Himachal Pradesh office and officials at Kasumpti, Shimla on 14/2/2020. In postal segment, postal services are the preferred product options, given vast reach everywhere. In savings, saving products are preferred mostly in rural markets.

### **Shimla**

Shimla was the spring capital of British and became capital of East Punjab and Himachal consecutively (Chauhan, 2019). The city hosted the 1972 Shimla agreement. We visited Ambedkar Chowk PO, Shimla GPO and SSPO office, Shimla division on 13/2/2020. In postal segment, there is good response for all services bearing vast network in hills. In savings, voluntary training and information is usually provided to agents. Insurance is very efficient for government employees. Customer look in authenticity, safety, brand repute, security of investment and all place delivery. We visited SSPO Shimla. We visited Kasumpti SO, Chotta Shimla PO and Summer Hill PO on 14/2/2020. In postal services, speed, parcel and registered post are preferred.





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## **Kullu Manali**

Kullu is called the valley of gods and thus every village has its local deity (Balokhra, 2007). There are various places of interest in the vicinity. We visited Kullu HO on 15/1/2020. Things were up to mark.

## **Mandi**

Mandi is a town on the banks of river Beas (Balokhra, 2007: Chapter :5 – Cultural Heritage, P. 158). We visited Mandi HO on 18/1/2020. For postal services, parcel noted was used mostly.

## **Dharamshala**

Dharamshala was declared the second capital of Himachal Pradesh by CM Virbhadra Singh on 19 January 2017. We visited Dharamshala HO on 12/1/2020 and 13/1/2020. For postal services, article

safety and timeliness are a matter of preference, to the customers and users. For savings, products are good much looked for, along with other options sold in region by competitors.

## **Kanghra**

Kanghra, the highest populated in Himachal, had Katoch as the oldest Dynasty (Balokhra, 2007). Kanghra, Hamirpur, Kullu, Lahul and Spiti formed Kanghra district of undivided Punjab (Kumar, & Kundal, 2016). We visited Kanghra HO in Himachal Pradesh for the first time on 31/08/19 and 12/1/2020. For postal services, things were up to mark with parcel used mostly along with post. For savings products, consumption is moderate by the users, along with utilisation of banks.



## **Dalhousie**

Dalhousie, named after the viceroy Lord Dalhousie, is having a large church (Balokhra, 2007). We visited Chamba GPO on 13/01/2020. In postal segment, scarce population that is far flung, use ordinary post mostly. Customer view selling through branch correspondent and postman helping.

## **Una**

Una district is home to the holy shrine of Chintpurni. We visited Una HO and SSPO office on 15/1/2020. In postal segment, there is good response for all services bearing vast network in hills. In savings, voluntary training is provided to agents. Customer

look in security and delivery.

## **Hamirpur**

Jwala Mukhi sanctum, dedicated to the goddess Jwala was visited by many eminent personalities. We visited Hamirpur HO on 26/08/19. In postal segment, bearing scarce population and a far-flung location, people use ordinary post mostly. In savings, small saving scheme is opted by rural females.

## **4) Punjab Circle**

In the modern history, the word Panjab has been first quoted by Mughals, later seen the rise of Sikhism (Goraya, 2010), with a parallel existence of the

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British (Chauhan, 2019). The period followed the fall of Punjab as a province of British, where the British made Gulab Singh, king of Kashmir (Dhar, 1977) and took Koh-e-Nur to London (Chauhan, 2019). With 1947 partition, Simla became the capital of East Punjab (Deshwal, 2004). Later, reorganization commission merged hill areas into Himachal (Balokhra, 2007) with rest divided among a Hindu Haryana and Sikh Punjab (Chauhan, 2019). The period from 1980 to 1991 had terrorism activities (Balokhra, 2007; Chauhan, 2019). The Punjab circle constitute of Indian Punjab and UT Chandigarh. We visited CPMG Punjab at Chandigarh on 12/2/2020. In postal segment, speed, registered, parcel post are the preferred products. Insurance is being promoted for professionals.

## Chandigarh

Chandigarh capital region includes Chandigarh, Panchkula and Mohali. We visited Chandigarh GPO on 08/10/18. In postal segment, people go for speed and regd. In savings, SB, TD and NSC are looked.

## Ludhiana

Ludhiana is Punjab's largest metropolis with an envisioned population of 1618879 as of the 2011 census ([www.smartcities.gov.in](http://www.smartcities.gov.in)). We visited Ludhiana HO on 6/2/2020. In postal segment, speed, parcel, registered post and stamps, with time and safety are sought. In savings, Sukanya, cumulative TD, small savings are taken for. Insurance is being promoted for professionals. Customer look in convenience and suitability. Competitors for financial products have advertised. We visited RMSD Ludhiana then.



## Jalandhar

We visited Jalandhar HO on 11/1/2020. For postal services, things were observed going on. For saving products, mobile banking, investment security and high interest rates are core USP. Insurance products introduction for common professionals is there. Customer view postal services as preferred.

## Amritsar

Amritsar is recognized for its wood chessboards, and chess portions producing industry. We visited Amritsar GPO on 20/08/18 and 10/1/2020. For postal services, it was observed that e-resources may not work as some literacy problems may exist in coming future as such. For savings products, it was reported a low hassle



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solution, with higher interest rate and full security instead of banks.

## **Pathankot**

Pathankot is located the intersection of Jammu and Kashmir, Punjab and Himachal Pradesh. Nurpur state founded by Jhetpal in about 1000 AD, had capital at Pathankot (Balokhra, 2007). We visited Pathankot Rural SO on 31/08/19. In postal segment, regd. post is looked.

## **RESEARCH FINDINGS**

Opinions and statements of IP officials in the northwestern Indian regions had following findings: Delhi: Problems faced on selling front is having the high traffic, with most footfall constituting lesser educated migrant population, in an old condensed premise.

Ambala: Only parking seems a limitation. Rural computerisation in vast stretch is a strength. Being a public utility, expenses are more than receipts, causing deficit. Self-vending operations may help.

Gurugram: Problems faced on selling front is excess workload in NCR region. Problems faced on resource front is infrastructure renovation and land area redundancy. Shortage of staff was observed.

Kanghra: Problems faced on the resources front are on material supply sometimes, being harsh terrain.

Ludhiana: Competitors for financial products have advertised superior and extensive in locality to give strong competition and grab customers. Insurance is being promoted extensively for professionals.

Amritsar: Postal products were observed having an authoritative staff. High crowd is selling front problem having limited number of staff. Resource front problem is old infrastructure and equipment.

## **Discussion**

Previous literature does cite slightly similar results and circumstances on the limited literature available for reference, with limitedly relevant solutions to the explored problems. Only a few studies in international

context have been found held in practice. While, referring to the actual studies in Indian context, only four studies have been observed held on, where the earlier three were held by some prior authors, while the latter fourth one is held by the present author itself. Coming to a grassroot assessment of in specific department, significant gap is there. Hence, this study made a significant contribution as a full-fledged grass root field examination, covering some of the past gap.

## **CONCLUSION**

Future is prospected to minimize human involvement with lesser physical presence of both parties. Self-vending machine may go successful, but teller is needed given the rural and illiterate populace.

CPMG Delhi Circle had the following observations. Mechanization of process may help in postal operations in handling high traffic. Problems faced on selling front are regional offices ignoring the directions. Problems faced on resource front is internal will lacking for improvement.

CPMG Haryana Circle had the following observations. In postal segment, consumer look for speed, registered post and philately specifically. In savings, consumer go for TD, small saving account. Insurance is limited for government employees only. Problems faced on selling front are high traffic and literacy differences among regionalities. Problems faced on resource front are the government / departmental approvals delays, that are needed to have major developments. Customer look in convenience, price, authenticity, safety and security in products. Gurgaon PMG had the following observations. In post, speed, parcel, and registered post are sought after. In savings, TD taken much.

CPMG Himachal Pradesh Circle had the following observations. In postal segment, postal services are the preferred product options, given vast reach everywhere. In savings, saving products are preferred and taken extensively, mostly in rural markets. Insurance is being promoted for professionals. Infrastructure and resources are up to

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mark at CPMG, with some management issues. Inner location in hilly terrain may be a slight hindrance. Shortage at regionality level may be there, resource updating is limited in remote locations. As noted by a senior official of CPMG, 2 H.O. are accessible by air at large.

CPMG Punjab Circle had the following observations. In postal segment, speed, registered, parcel post, and philately are the preferred products. In savings, TD, SB, KVP, MGNREGS are preferred. Problems faced on selling front are shortage of staff and illiterate customers in regionality. Customer looks in comfort and brand repute, while choosing the product. A dynamic management style is there.

## RECOMMENDATIONS

The compilation provides us a comprehensive account of the characteristics of the study and the interpretation of results was made using the facts. The study results are useful to departments of posts and its such other competitors and contemporaries in India and abroad. Specific recommendations are: Timely solutions, authenticity, paperless procedures and minimum effort functions to be focused much. Addition of more offices, staff and counters, with specialised training and counselling should be there. Himachal and Punjab circle having approvals delays, needs to have early developments responsibly. Practical operability and reach using solar heating equipment, drone and Heli taxi needs to be worked.

## IMPLICATIONS

The paper discusses the necessity of implementing mechanization and technological advancements in postal services to improve financial efficiency and enhance service delivery. It emphasizes potential areas for startups to introduce innovation in postal services, including self-service vending machines and automated teller systems. Suggested solutions will also have many positive benefits for the environment, including lesser pollution, renewable energy utilization, and low fuel ingesting.

## LIMITATIONS

The study results are only confined to department of posts in India with special reference to northwestern India, or in comparison with the relevant competing industries and sectors in India and abroad, given the similarity of economy, social environment and such other factors.

## FUTURE RESEARCH

An extension on demographic and psychographic dimensions with particular reference to individual products in specific regions, circles and national level, using a structured randomized study would be a fruitful extension. Same can be held with the postal and rural finance department of other international economies to test about the similarities and variations.

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