CHAPTER–II
REVIEW OF LITERATURE

2.1 INTRODUCTION

2.2 OBJECTIVES OF REVIEW

2.3 CONCEPT OF EFFICIENCY AND PERFORMANCE

2.4 STUDIES MADE IN INDIA
STUDIES IN RELATION TO EFFICIENCY AND
PRODUCTIVITY OF POSTAL SERVICES IN INDIA:

2.5 STUDIES MADE OUTSIDE INDIA
STUDIES IN RELATION TO EFFICIENCY AND
PRODUCTIVITY OF POSTAL SERVICES OUTSIDE INDIA

2.6 RESEARCH GAP

2.7 SUMMARY
CHAPTER - II
REVIEW OF LITERATURE

2.1 INTRODUCTION:

A careful review of research subject topic published in books, journals, thesis and sources of information including e-source of information on the problems are to be examined. Research is an effort which cannot be undertaken in isolation. The Researcher has to take cognizance, knowledge of current affairs in which the researcher is doing a research on a particular topic. Subject without cognizance the research though completed may not fulfill the objectives for which the research has been undertaken. Therefore, charm review of related literature; search must precede any well planed study of a problem.

2.2 OBJECTIVES OF THE REVIEW:

The process of evaluate literature gives an opportunity to researcher to get familiar with the current knowledge in the field or an area in which he is going to do research. The process of review of literature serves following objectives:

1] A review enables researcher to define the specific problem in which he is going to do research and it helps to the researcher to draw hindrance from the parallel cases where in research has been done this enables researcher to go beyond the findings of the past research.

2] The researcher gets a chance to do research where in positive results are likely to come and activities hard efforts of researcher are likely to add something new to the knowledge, meaningful way, it enables researcher to filter the unfruitful and useless problem areas.

2.3 CONCEPT OF EFFICIENCY AND PERFORMANCE:

The word efficiency as defined by the Oxford dictionary states that, "Efficiency is the accomplishment of or the ability to accomplish a job with minimum expenditure of time and effort".

1. It refers to the internal process that leads to output. It focuses on the means to achieve the desired end. As expressed by Peter Drunker, "Doing the things the right way is Efficiency." This denotes the fulfillment of the objective with minimum sacrifice of the available scarce resource. Fatless and speedy compliance to the process or system procedure is a measure of efficiency. Providing a specified volume and quality of service with the lowest level of resources capable of meeting that specification, performance measures and or indicators are required. These include
measures of productivity, unit volume of service etc. These measures help in minimizing of the resources in achieving the organizational objectives i.e., things rightly. Performance is the execution or accomplishment of work feats etc. or a particular, action, deed or proceeding is refers as performance.

2. However, the manner in which or the efficiency with which something reacts or fulfils its intended purpose is defined as performance. Performance may thus, mean different things to different businesses. Success or failure in the economic sense is judged in relation to expectations, return on invested capital and the objective of the business concern.

2.4 STUDIES MADE IN INDIA:

2.4.1 Studies In Relation to Efficiency and Productivity of Postal Services in India:

1) Jha, R.M., Murty M.N. and Paul S. (1990):

Researchers estimated the efficiency of India Post (in fact productivity) for the period from 1950-51 to 1983-84. Revenue at constant prices was estimated by correcting the revenue for index numbers of regulated prices. These corrected figures were taken to be approximately reflecting the output, dividing these figures by price of postcard in the year 1950-51. Estimates of postal services in postcard equivalents were obtained, which were comparable over time. The resource cost was also estimated at constant prices and productive efficiency was obtained by dividing the estimates of post card equivalent of total revenue by the total economic cost. Thereafter, an index of economic efficiency was calculated with 1950-51 as base year. Estimates revealed a fall in productivity in the 1950's with a gradual rise in the beginning of the 1960. The index of productivity was 1.19 in 1983-84, reaching a high of 1.29 in the year 1979-80, Increasing returns to scale was also indicated as elasticity of cost with respect to output was found to be 0.616, thereby implying that inefficiency if any, was one of scale inefficiency which decreased in 1960's. However, the study was inherently deficient in its scope as it used administered prices for aggregating the outputs on the presumption that these prices, like market prices, revealed preferences of the consumers. Empirical analysis have shown that total revenue as a measure of aggregate output appears to be less than satisfactory because few publicly owned organizations set out prices with market conditions or cost recovery in mind. As this behavioral assumption of revenue maximization does not hold in case of India Post, the study was of limited use. As mentioned earlier, it used
revenue as a basis for measuring output. Aggregating multiple outputs into a single index of output using prices is an adequate representation provided prices are market determined so as to reveal the preferences of the consumers. Empirical analysis have shown that total revenue as a measure of aggregate output appears to be less satisfactory because few publicly owned organizations set output prices with market conditions or cost recovery in mind. As these conditions do not hold in case of India Post, the study was inherently deficient in its objective of measuring efficiency.


The book consists Sixteen Chapters. The first chapter is devoted to concise and logical development of the subject. The second and third chapters deal with the frequency distributions and measures of average and dispersion. Mathematical treatment has been given to the proofs of various articles included in these chapters in a very logical and simple manner. The theory of probability which has been developed by the application of the set theory has been discussed and quite in detail. A large number of theories have been deduced using the simple tools of set theory, the simple applications for probability are also given the chapter on Mathematical expectation and theoretical distributions have been written keeping the latest ideas in mind. A new treatment has been given to the chapters on correlation, regression and bivariate normal distribution using the concept of Mathematical expectation. The thirteenth and fourteenth chapters deal mainly with various sampling distributions and the various tests of significance which can be derived from them. In chapter fifteen statistical inference (estimation and testing of hypothesis).

3. Amit Prakash & Others (2001): In this report researchers have focused on various issues in Indian Postal System - like structural issues, expenditure revenue gap and Tariff control, cross subsidization vs. budgetary control. Technological issues and under utilization of fixed assets etc. Researchers have observed various problems and suggested a road map for restructuring of DOP i.e. Reforms in Indian Postal Structure, such as legislative changes, subsidy rationalization, expenditure control, diversified services, modernization and maximum utilization of revenue generating activities such as speed post, business post, partner in e-commerce logistics, express parcel post, financial services, improvement in old services, new services based on I.T. etc. The Team researchers also suggested to increase efficiency of DOP such as - expansion of the range of services, exploring delivery services in combination with existing electronic communication making post offices Multi service centers playing
the role of mail centers, information hubs, local warehouses, community communication centers.

4. **Ramanathan R. (2003):** In this book author has given various methods and techniques of Data Envelopment Analysis with solutions in a very simple language so that a new researcher can even understand it.

5. **Mishra Richa and Damodaran Harish (2004):** In their study researchers argued that the post office continues to be a major attraction for savers going by the 32.45 percent higher collection during the first quarter of the current fiscal relative to that mobilized over the same period of 2003-04. Finance Ministry officials say that the attraction for the post office deposit schemes stems from the higher interest rate they offer vis-a-vis what banks provide. Between 1999-2000 and 2003-04 gross collections under the savings deposits shot up from Rs. 34,650 crores to Rs. 91,300 crores.

6. **Jaiswal J.Y. (2004):** The Book consist 261 pages: In this book author has focused on the importance of postal services in the developing world. Department of Post being public utility service, it should be efficient in its operations, present situation of Department of Post is not up to the expectation of customer. A customer, who suffers mostly because of the inefficient services by the Department of Post. Author compares the efficient functioning of private courier services, with the services of Department of Post and highlights the weaknesses of Department and Author is worried about how the consumers get suffered due to inefficiency of Department of Post.

7. **Kothari C.R. (2004):** This book consist fourteen chapters spread in 401 pages. It has been written with two clear objectives first is to enable researchers in developing the most appropriate Methodology for their research studies and second to make the researcher familiar with the art of using different research methods and techniques. Regarding the organization, the book consists of fourteen chapters. Chapter One is an introduction, presenting an overview of research methodology, chapter two explains the technique of defining a research problem. Chapter Three dwells on various research designs, lighting their main Characteristics. Chapter four presents the details of several sampling designs. Different measurement and scaling techniques along with multidimensional scaling, have been lucidly described in Chapter five. Chapter Six presents a comparative study of the different methods of data collection. It also provides in its appendices guideline for successful interviewing and for construction of questionnaire. Chapter seven deals with processing and analysis of data. Sampling
fundamentals. Chapter Eight & Nine has been exclusively devoted to several parametric tests of hypothesis followed chapter Ten concerning chi-square test. In Chapter Eleven important feature of ANOVA and ANCOVA technique have been explained and illustrated Important non-parametric tests generally used have been illustrated & described in chapter Twelve. In chapter thirteen conceptual aspects and circumstance under various multi variate techniques can be utilized in research studies. Specially in behavioral and social sciences. factor analysis has been dealt with in relatively more detail. Chapter fourteen has devoted to the task of interpretation and the art of writing research report.

8. Chaturvedi A.M. and Others (2004): “Functioning of Rural Postal System including Panchayat Seva Yojana” Report by AMC Research Group New Delhi submitted to Planning Commission Government of India. Researcher has made field survey in order to get a feedback on how the beneficiaries perceive the administration of the schemes in all respects in rural area through the network of DSOS and EDBO and PSSKS spread across the country. Their major findings are : most of the EDBOS has not displayed location of post office, working hours, they found that many EDBOS are not generating sufficient revenue as sale of postage stamp has gone down. Delay in replacement of BPM in EDBO’S is a major cause of inefficiency in service and decline in business. Based on the study of secondary data and field survey researcher has made some recommendations i.e. new post offices should be opened in new townships, new locations, new business centers, new manufacturing locations, new educational centres. Focus should be on resorting to low cost options like pssks and licenced postal agents scheme for mobilizing growing rural incomes in to rural postal saving schemes, infrastructure should be decent in EDBO’S, BPM should be from same village, suitable BPM from all respect should be appointed.

9. Ranganathan V. (2005): In this article, researcher has focused on the decline and falls of India post due to the sudden erosion of morale and fall in self esteem of employees, in working for one of the best public services. Researcher has been observed the problems of Indian postal services such as lack of market orientation and absence of competitive spirit. Due to that a premium public service has yielded ground to private couriers. As the private couriers came to the doorstep of the client and took the material, both for individual and corporate consumer, for the EMS speed post one had to go to the post office and hand it in. on paper EMS speed post also had the facility to go to the customer and take the mail for corporate clients, but it was not
a matter of routine, as in the case of private couriers. The booking of EMS speed post closes at 2.30pm and consequently it will create opportunity to the private couriers. Based on finding such as lack of close supervision and monitoring system and general loss of accountability there would be loss of pride in being part of excellent organization by the staff. Researcher has suggested structural changes in Indian Postal services.

10. Rao S. L. (2006) “Indian Post and Courier Services.” In this article researcher has focused on the cross subsidies given to post office as like other governments goods supply and services. The special price support dispensation for the poor. India post serves the lower socio-economic classes below the cost. Courier services are rich as they are charging high rate and taking away its profitable business. Cross-subsidies are harmful to the industry and do not reach the customers for who they are meant. Finally researcher has suggested there should be private public partnership in between private courier services and India post in order to enhance its efficiency.

11. Sanjeevani Rahane (2008): In this study researcher has focused on the performance of India Post in relation to Mail, General and Financial Services, also examined awareness about postal services, customer satisfaction and quality of postal services in the study area. Researcher has used observation method, interview method of study, the views of top level management postal authorities and ex-post masters regarding subsidy on postal products changing business environment, changing environment, efforts of IP for adopting accordingly, efforts of IP towards customers and employee satisfaction. Sample data collected has been analyzed and tested by using regression analysis technique and chi square test (X2- Test). Researcher finally concluded that the performance of IP in Pune Zone is satisfactory as compare to all India level.

12. Sunil Kumar & Ruchita Gulati (2008): The present study aims to measure the extent of technical, pure technical and scale efficiencies in 27 Public sector Banks operating in India in the year 2004-05. The empirical findings reveal that public sector Banks operating at 88.5% level of overall Technical efficiency, using Data Envelopment Analysis. The finding pertaining to return-to-scale in Indian public sector Banking Industry highlight that the predominant form of scale inefficiency is decreasing returns-to-scale. The results of logistic regression analysis provide that the exposure of Banks to off-balance sheet activities (i.e. non-Traditional activities) has a strong and positive impact on the overall Technical efficiency of Banks.
13. Sonia Riyat (2008): The objective of this study is to present a precise scenario of current working culture of Indian Postal Department and to provide a few suggestions. Researcher in this study made a SWOT analysis of Indian postal services and on its working process. Through light on competitors strategy to increase the market share like time effectiveness, effective working culture to help employees to be more productive, tie-up with other small companies and provide higher rate of interest Researcher has made few suggestions to improve efficiency of India Post. Like providing soft skill training to the employees from higher level to bottom level. Motivation should be given to employees. Attractive infrastructure flexibility in work. Finally researcher concluded that Indian Postal Service needs technological, social, cultural and economic change. With little bit of change, it can create a monopoly in the market.

14. Mrigendrakumar Singh (2008): In this study researcher has analyzed various postal services and financial services. Researcher has assessed performance of IP by using swot analysis technique. On the basis of findings researcher has concluded and suggested the technique of job rotation i.e. flexibility in job and also suggested to provide soft skill training to the employees for improving productivity.

15. Alkesh Tyagi (2009): Researcher has focused on challenges before IP and observed the technological changes going on in post offices by implementing the project Arrow. In which Indian postal services are modified and new innovative products & services are launched since 2008. Computerization of postal working system and infrastructural development is going on. The object of this plan is to make changes in postal services or to adopt changing business environment with change in technology and services. Researcher has concluded with a hope that IP will face the challenges of Technology, Competition and will avail the opportunity presented by current market condition.

16. Shekhar Kumar Sinha (2009): This book is spread in 138 pages and 7 chapters; basically this book is based on the doctoral thesis of researcher submitted to the University of Mumbai. The first chapter deals with introduction, evolution and organizational structure, various schemes, recent development of India Post etc. The main objective of the study is to examine whether the resources of India Post are utilized efficiently & effectively. Second Chapter deals with Review of Literature of studies made earlier, Third topic describes the methodology and data sources. Statistical data of Post Offices in various countries and India Post was collected and
analyzed by using Distance Functions, Malmquist Productivity Index, Stochastic frontier approach, Data Envelopment Analysis (DEA) technique. Fourth topic deals with analysis of productivity and efficiency empirical results are obtained by using above techniques, Global comparison, Asian comparison and comparison with emerging economies with India Post is made in this topic. Fifth topic is related to pricing of India Post, in which current costing methodology adopted is analyzed and also evaluated the new approaches to costing and pricing. Sixth topic deals with policy implications of India post, the seventh topic deals with findings, Conclusions. In this study the major findings are:

1) International Comparison of India Post with 23 developing countries showed that India post reflects a typical case of stagnation in productivity with surplus capacity and idle costs.

2) Technical inefficiency was correctly identified within the composed error term with a very high share of technical inefficiency in total variance. Thereby indicating that the vast majority of residual variation was due to the inefficiency effects.

3. Mail per capita and population per post office were two repressors’ found to be significantly affecting technical efficiency.

17. Hari Sunder G. & Prashob Jacob (2009): In their study researchers had observed the saving habits of individuals in rural area and tried to understand the awareness of people towards post office saving scheme, also examined the perception of investors towards Post Office Schemes. Methodology adopted was simple percentage & Chi-square test. From the analysis it was found that the major purpose of the individual saving was found to be their children’s education and next purpose was for their safety after retirement and the attractive interest provided by the Government. Business persons preferred Bank saving as the best mode of their transactions. Researchers concluded with the suggestions as for India Post, there is no alternative than to leverage its infrastructure, trust, and related services into a much larger role in e-commerce & e-Government. Government must create more awareness among rural and urban people about the saving schemes and benefits available through it.

18. Shubhda Mohan Kulkarni (2010): In this article researcher has focused on need of change with changing business environment in postal services for sustainable development of post offices in India. It highlights on customers satisfaction and technology up gradation. Researcher has also thrown light on an initiative to
transform India post into a vibrant and responsive organization has been taken under the project arrow in which modernization of post offices is under process. Further she has pointed out the need of product diversification and innovation in services. She has concluded with a suggestion of modernization and marketing of postal services for sustaining in the Globalization.

19. Subrahmaniam (2010): The main objectives of the study were to identify the need of the training programme of India post and to ascertain how far the training is useful to improve the performance and effectiveness of training programme. Researchers took opinion of employees before, during and after training programme through questionnaire and analyzed its effectiveness by using statistical tools for analysis such as multiple regression and discriminate analysis. 79% employees need is ascertained. The researcher has concluded that the superior should help and support their subordinates to practice what they have learned in training. Otherwise the training received will have no use.

20. Balasubramanian (2010): In this case study the innovative services provided by India Post to the rural masses of India like multilingual information kiosks, with the help of Microsoft services is described and the benefits of the services to the rural postal customers are elaborated. The central database system is developed and centralized content management system has been developed with the new software’s which are multilingual and it will be useful to get information in local language and will increase efficiency in postal services and reduce cost and increase competitiveness.

21. Kawaljit Singh (2011): This hand book is written by the author considering rural population and employees in various sector, as well as agents. The hand book consist seventeen chapters and described in 153 pages. The information in this book has been so designed that even rural population can understand easily the main features of small saving schemes and the goal of financial inclusion of Government. The first chapter deals with saving deposit Account which provides detailed information about procedure of SB A/c, opening transaction on the said A/c and nomination etc. The Second chapter deals with Recurring Deposit Account. Which provides detailed information of R.D. Account. Third Chapter deals with Time Deposit Account. Fourth Topic deals with wages Account under MG-NREGA, Fifth topic consisting information about monthly income Account Schemes. Sixth topic explains the Senior Citizen saving schemes and its Account opening procedure. Minimum, Maximum any
required for opening account. The Seventh topic consist information regarding PPF Scheme. The Eighth topic provides information about NSS National Saving Scheme. Ninth topic elaborate information about Kisan Vikas Patra (KVP) The Tenth topic explain about National Saving Certificates VIII issue and remaining topic gives guidelines for above schemes and fees charged to various schemes by post office, orders from income tax authorities.

22. Aditya Krishna (2012): In this article researcher has focused on two main postal aspects of Post Office Act 1889 and the Proposed draft of Post Office Bill 2011 i.e. Extending and maintaining an essential postal infrastructure (network). Restructuring the government Postal Services Provider and regulating the activity of players (DOP and Pvt. Courier companies) Researcher has highlighted concerns of services Providers and consumers, regarding the proposed draft of Post Office Bill 2011. Which recommends restructuring of Postal Services in the light of experiences of other countries in the world and regulatory, architecture for other network Industries (Private courier service Industries.)

23. Nalini G.S. (2013): In this study the main objectives are to know the perception of post office customers towards Post Bank of India and to examine the problems faced by the post office customers and to redress the problems of post office customers primary data was collected from 120 post office customers using interview schedule. The major findings were the various difficulties while availing post office serves i.e. less operating time, non availability of loan, limited withdrawal and savings etc. Researcher has suggested India post to concentrate some new initiatives such as ATM service, Loan availability, electronic fund transfer etc. to be more competitive. It also has to enhance its operating time to facilitate the customers. The Government should take necessary steps to transform the post office into post Bank of India in order to satisfy customers.

24. Anand M.B. and others (2013) Researchers evaluated the Indian Postal Services, its growth and thrown light on the future opportunities in India. While assessing the growth and reliability of India Post, researcher pointed out the strengths of India Post, as its long tradition of handling mail and financial services and its credibility and trust. Its wide reach among the mass market. The Indian Post IT modernization project is pegged at a total outlay of Rs. 1877 Crores including creation of integrated modular software solution covering postal operations. Banking and Insurance services. Under the new contact, Infosys would enable swifter postal banking and
insurance solutions to perform any time any where banking. The India Post has planned to transform the post offices in full-fledged banks. Postal Bank of India as part of 12th five year plan period subject to requisite regulatory approvals. While concluding researcher has pinpointed the weaknesses of India Post and the challenges in front of it and suggested to build strategic partnership with financial institutions, mutual fund, Insurance companies and telecom operators and IP should arrange G2P payments requirements.

25. Debye S. K. and Others (2014): “Can Post Offices of Rural India be the drivers of agricultural technology dissemination? experiences of action research.” Published in current science, Vol-107, PP-195-200. The main objective of this study is to validate the linkages with post offices in the dissemination of farm technology. Researcher has made organizational analysis of India Post and helped to identify the scope for entering into linkages for Indian Agriculture Industries. In the pilot study researcher has observed that seeds of improved varieties were disseminated and different possible dissemination modes were experienced. The collaborative activities through tie-ups with other agencies like SBI, ICICI, Mutual Fund Agencies, Oriental Insurance etc, had increased the turnover which provided the opportunity for establishing linkages.

26. Ashok Bahadur Singh (2014): “Mobile Banking Based Money Order for India Post : Feasible Model and Assessing Demand Potential” Article in Open Access Journal-Procedia-Social and Behavioral Sciences Vol-113, pp1-238 7th Feb 2014. This study examines the feasible model of mobile banking based money order by integrating India Post with banking sector and find out the factors that drive and inhibit the demand potentials for such services. The study has identified certain factors for demand of mobile money order for deploying the mobile money order, which can provide an opportunity to Banks and India Post to accelerate business growth. The results are interesting and useful for all the parties concerned.

2.5 STUDIES MADE OUTSIDE INDIA:

2.5.1 Studies in Relation to Efficiency and Productivity Postal Services outside India:

1. Jess J. Boromico and Others (1995): Researchers studied US Postal Services its nature and volume as well as productivity and sustainability. Researcher has concluded that there is loss of productivity and inefficiency in postal services. After analyzing data by using cost function and production function. Finally researcher has
suggested for sustainability of US postal services that US Postal Services should enhance its internal operational efficiency and provide reliable, customer oriented services.

2. Coelli, T.J. and S. Perelman (1996): Researchers applied distance function approach to measure technical efficiency of 17 European Railway Companies using annual data for the period 1979-83. The distance function was approximated by a translog function and the corrected ordinary least squares (COLS) method was used for estimation. Output were taken as passenger services and freight services performed. While inputs were labour, energy and capital, Technical efficiency was also calculated using total revenue of railways transportation obtained by adding revenues from passenger and freight services and Tornqvist output index using revenue shares to provide weights to passenger and freight activities. The results of the revenue Model were vastly different from the other sets of results, with correlation coefficient between the revenue model and others to be as low as 0.178, while correlation amongst the remaining gets ranged from 0.469 to U.967. The mean TE from revenue model which was 0.536 was substantially lower than others which were of the order of 0.80 to 0.90. It revealed that the use of total revenue as a measure of aggregate output in empirical analysis appeared to be less than satisfactory, confirming the presumption that few publicity owned rail organizations set output prices with market conditions or cost recovery in mind. The study also showed that the choice of orientation of the model was not crucial since input distance function results were found similar to the output distance function results, with correlation coefficient between TE predictions from the two models being as high as 0.967.

3. Bradley M.D. and J. Colvin (1999): In this study 'Inverse' production function has been used to measure productivity and efficiency of organizations having multiple outputs. This Method of circumventing the problem of multiple outputs was used in postal sector. While studying technical change and productivity in mail processing in the United States postal service. A single input, labour was used as endogenous input which was justified on the ground that labour represented 89 percent of the mail processing cost and also because there was no sustainable trend in the capital labour ratio which remained at a fairly low level. The Input requirement function was approximated with a translong function. Three output variables i.e. number of pieces of manual letters sorted, mechanized letters sorted and automated letters sorted were used as regressions along with a time trend to capture technical change. Data for the
period 1988-96 from 250 postal service plants in which mail processing took place was used for the estimation results showed that mail processing was subject to substantial returns to scale with elasticity of labour with respect to output being substantially less than 1. It also revealed that postal service benefitted from technical progress and restructuring in terms of methods of production and revision of work rules which took place in 1993.

4. Pierre Guislain & Others (2004): The team researchers in this study examined the present condition of postal sector in developing countries and concluded that post offices are still contributing to economic growth in many countries, but in others, antiquated, underfunded networks and lack of competition limit or reverse that contribution. Governments must reform their post offices to ensure they, once again, become on enable of economic development for the country as a whole, potentially through leveraging their extensive retail network. As this increasingly involves the provision of services other than traditional postal services, Government will need to ensure that these diversifications carried out in a pro-competitive manner. This means no fevered treatment of post offices relative to their competitors, but also freeing post offices from bureaucratic shackles that constrain them. The successful reform program can improve the efficiency of postal sector in developing countries.

5. Accentor global management consulting, technology services (2008): International postal liberalization comparative study of US and Key countries in this study the researcher has examined the various measures taken by US & other Key is countries (New Zealand, Australia, Japan and Canada). The objective of the study by Accentor, based on United States Postal Service (USPS) terms of reference is to provide structured, unbiased overview of postal Universal Service Obligation (USO), current changes to the USO and Liberalization experiences of postal markets in other countries as postal service competition increases.

    Researcher analyses the following things in this study: Status of the Postal Universal Service Obligation. Theory and guiding principal behind postal liberalization. Context and outcome of existing liberalization experiences. Comparative study, based on four key components of the US and other key countries. Description and comparisons of universal postal service specification. Relative liberalization upside potential. macro , micro economic relative exposure in the context of liberalization. Flanking measures put in place to manage liberalization. This study used Four Criteria to evaluate the relative upside potential from postal

6. Team Researchers (2011): The main objective of this paper is to present a Privacy-enhanced digital postal solution (DPS) designed to create public value through reducing citizens privacy concerns while providing secured government services. Additionally, the DPS restores, in digital format the full gamut of traditional universal services afforded by posts to citizens in earlier times. It provides citizens with a platform where they can avail of web 2.0 technologies to interact with government, making way for a more transparent and collaborative relationship between government and the public. It also provides every citizen with a private digital space. Where they can securely access process and store un official and personal information such as bills, receipts, health and financial records. In summary from this space, citizens can begin to fully and safely interact with digital society.

7. Steve Borgia (2011): In this book author described the evolution of postal services in India since 2000 BC. Author has given history of post office, from spokesmen to IBN-Batula, Shershah Suri and Akbar to Robert Clive, Diwani Barids to post office Act 1889. The evaluations is continue with people, place and technology. This book is well researched book on Indian postal history. Author has focused on the importance of postal services in the developing world. DOP being public utility service it should be efficient in its operations present situation of DOP is not up to the expectation of customer. A consumer who suffered mostly because of the inefficiency of India Post.

8. Darrel E. Benjamin and others (2012): The Main objective behind this study was to asset operational efficiency of US postal services. The team researchers followed interview and observation techniques to collect data from 4 high performing and 4 low performing postal service units and collected data related to volume of mail services and work load allowed, earned work hours. US postal service uses various systems and reporting tools to track and measure efficiency in its customer service operations. The customer service variance (CSU) program uses a standardized methodology based on projected mail volumes and target. Productivities to calculate earned work hours. Reports compare earned work hours with actual work hours to produce a CSV achievements rate. In addition, management developed staffing tool to assist managers at customer service units with scheduling staff work hours. Overall
operational efficiency increased from 79 percent to 86 percent from F.Y. 2010 to F.Y. 2012.

Analyzed the data by matching earned work hours with allotted / proposed work hours in selected sample size units and calculated operational efficiency of each unit and accordingly reported to inspector General of U.S. Postal services while calculating efficiency they used following formula
Operational efficiency = Earned work hours (Standard time)/ Actual work hour

9. Team Researchers (2013): The team researchers studied the present situation of US Postal services with reference to its Privatization policy. Researchers in this study observed and concluded that the privatization, in particular formal privatization in US Postal Services has lead to increase efficiency but a decrease in the quality of Universal Postal Service.

10. Jose Anson and Others (2013): “Financial Inclusion and the Role of Post Office” This paper analyses account ownership patterns of post offices in rural areas and their potential. The researchers has observed that post offices in comparison with traditional financial institutions, using the global financial inclusion indicators database, which collects data on account ownership at post offices in 60 countries where postal accounts are offered. Controlling for a host of individual characteristics and country fixed effects the paper finds that the post offices are relatively more likely than traditional financial institutions to provide accounts to individuals who are most likely to be from financially vulnerable groups. Finally the researcher concluded that post offices can boost account ownership by acting as a cash-merchants for transactional financial services such as electronic government and remittance payment and that partnership between the post office and other financial institutions.

2.6 RESEARCH GAP:

Review of the relevant literature shows that considerable work has been done on estimating productivity and efficiency of postal administration in advanced industrialized countries of Europe, USA, Australia, and Japan but no such attempts have been undertaken in the context of developing economies like India. The study undertaken by Jha et al. (1990) on India post was too limited as he has considered only one input variable i.e. labour. The study undertaken by Shekhar Sinha (2008) on India Post was also have some limitations, like he has considered only two input variables (Labour and number of post offices) were used. More inputs, number of equipments especially computers could have been considered. In fact, as
computerization of postal operations is taking place across the board in all postal administrations, an attempt to analyze the effects of computerization on productivity and efficiency would be an interesting study. Normally, any study on postal services must include both multiple outputs and inputs. Review reveals that the choice of output has been too restrictive. The study should, therefore, have been more comprehensive in the sense that it should be based both on multiple –outputs as well as multiple-inputs. Researcher has considered the research gap in past studies made and in order to find out more accurate results related to efficiency of postal administration, taken two input variables (Labour, Capital (Includes number of computers and furniture and equipments)) and two output variables i.e. all postal service’s i.e mail services, premium services and financial services including the new services (like Speed Post, Western Union money transfer, Mobile money order, Instant money orders, Business Parcel, Cash on delivery) launched by India Post.

2.7 SUMMARY:

From the above analysis, the picture which clearly emerges is that a comprehensive study on administrative and operational efficiency of India Post is singularly missing and that study should incorporate multiple outputs and multiple inputs. To give completeness to the study opinions of customers as regards to the service quality and their satisfaction have also been considered. It also needs to be emphasized that as India Post is facing diminished reserve areas due to opening of postal market, higher productivity and efficiency of India Post has become critical for its survival. Competition from private courier operators in the market has also made innovation issues critical. Because of these considerations a study on administrative and operational efficiency of India Post with reference Solapur District was necessitated and has been undertaken.
REFERENCES:
1. Anand M.B. and others (2013) In their article on “Performances of Indian Postal Services” Published in Innovare Journal of Business Management Vol-I Issue 2 , pp-5-10.


70
25. Riyat Sonia (2008) "Globalization of Indian Postal Service.” Article in Faculty Column, Indian MBA.Com.
33. Steve Borgia (2011) “Pigeons to Post”: This book describes the evolution of postal services in India since 2000 BC.
34. Tyagi Alkesh (2009) "Changing face and Role of post offices” Researcher is a Deputy Director of press information Bureau of India.