

ISSN 0970-5260

Panjab University
Research Journal (Arts)

Volume XLVI

No 2

July-December 2019



Editor-in-Chief
Krishna Mohan

Editor
Anju Suri

Panjab University
Chandigarh (India)

Patron: Vice-Chancellor, Professor Raj Kumar

Editor-in-Chief, Krishna Mohan, Professor, Department of Geography

Editor, Anju Suri, Professor, Department of History

Editorial Board

Prof. Sanjay Chaturvedi, Department of Political Science

Prof. (Retd.) M. Rajivlochan, Department of History

Prof. Archana R. Singh, Department of Mass Communications

Prof. Deepti Gupta, Department of English & Cultural Studies

Prof. Meena Sehgal, Department of Psychology

Prof. Smita Bhutani, Department of Geography

Prof. Asha Moudgil, Department of Philosophy

Shri Jatinder Moudgil (Technical Production Advisor), Manager, Panjab University Press

Advisory Board:

Prof. M.M. Puri, Former Vice-Chancellor, Panjab University

Prof. (Emeritus) Gopal Krishan, Department of Geography

Prof. Romila Thapar, Professor Emeritus of History, Centre for Historical Studies,
School of Social Sciences, JNU, New Delhi

Prof. Roger Wettenhall, Professor Emeritus in Public Administration and Visiting Professor,
ANZSOG Institute for Governance, University of Canberra ACT, Australia

Prof. Paul Giles, Oxford University, UK

Dr. Pramod Kumar, Director, Institute for Development and Communication (IDC), Chandigarh

Prof. Makarand R. Paranjape, Professor, Department of English, School of SLLCS, JNU, New Delhi - 110067

Professor Paramjit Singh Judge, Department of Sociology, GNDU, Amritsar

Prof. P. Vinod, Dean Central University, Hyderabad

Prof. R.K. Mishra, Director, Institute of Public Enterprise, O U Campus, Hyderabad

Dr. Rammanohar Reddy, Former Editor, Economic and Political Weekly

Prof. M.P. Bhardwaj, 744, Sector 12, Panchkula

Prof. S.L. Sharma, 739, Sector 2, Panchkula

Office Staff

Rajni Bala

Office

Panjab University Research Journal (Arts)

Department of Public Administration, Arts Block-III

Panjab University, Chandigarh - 160014

Web: purja.puchd.ac.in and **Emails:** purja@pu.ac.in ; purjaeditor@gmail.com

Copyright 2019: Panjab University Research Journal (Arts)

It is hereby asserted that all the rights with respect to the material published in this journal are vested in the publisher. Therefore, no part of this publication may be reproduced, stored in or introduced into a retrieval system or translated, in any form, or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher.

Inquiries regarding reproduction in any manner, in whole or part, in English or any other language may be addressed to the Editor-in-Chief, *Panjab University Research Journal (Arts)*.

However, the Editor-in-Chief takes no personal responsibility for the facts, opinions or views expressed in the articles published in this Journal.

PURJA is a liberal journal and often publishes opinions and views of the writers that are not strictly in consonance with those of its editorial policies.

ISSN 0970-5260

Panjab University
Research Journal (Arts)

Volume XLVI

No 2

July-December 2019



Editor-in-Chief
Krishna Mohan

Editor
Anju Suri

Panjab University
Chandigarh (India)

Contents

Page	Article	Author	Page
1.	Determinants of Farm Accidents in Punjab: A Comparison of Agricultural Productivity Regions	Varinder Sharma	1-12
2.	Factors Affecting Choice of Monetary Policy Frameworks: Evidences from Emerging and Advanced Countries	Mridul Mehndiratta	13-23
3.	The Emergence of Hindustani Music: A Cultural Investigation into the Syncretic Nature of Hindustani Music	Barnashree Khasnobis	24-33
4.	Demonetisation in India: A Push For Digitalisation	Nikhath Khalid Saba Ismail	34-53
5.	Comparative Analysis of Emerging Disability Laws in India from Human Rights Perspective	Namita Gupta Pardeep Kumari	54-65
6.	Education and Poverty Reduction in India	Jaspreet Kaur Anupama	66-77
7.	Indian New Wave Cinema: An Alternative Vision	Manmeet Sodhi	78-92
8.	Intertemporal and Interstate Variations in Technical Efficiency of Indian Leather Industry	Supreet Narang Nisha Bhargava	93-107
9.	Kotgarh and the Early Colonial Constructions in the 19 th Century	Manpreet Kaur	107-117

Determinants of Farm Accidents in Punjab: A Comparison of Agricultural Productivity Regions

VARINDER SHARMA

Abstract

The mechanization of agriculture in Punjab completely changed the working conditions of agricultural labourers and cultivators. It greatly increased the risk of farm machinery related accidents while working on the farms. The Punjab government has fully implemented the Dangerous Machine Regulation Act 1983. The state was the first in India to launch a financial assistance scheme to the victims of farm accidents. In Punjab, the main reason behind the farm accidents is farm machinery and then the electric tube wells. In majority, the farmers face the farm accidents on farms during various farm operations. Among the landless agricultural labourers, the local labourers are adversely affected with farm accidents than migrant agricultural labourers. The migrant labourers are the main victims of these accidents among agricultural labourers in high agriculture productivity region (HPAR). In total Punjab and all productivity regions the number of non-fatal accidents is more. Further, the incidence of farm accidents remains the highest in the high agriculture productivity region in Punjab than low and medium agriculture productivity regions.

Keywords: HPAR, LPAR, MPAR, Farm Accidents, Agricultural machinery.

Introduction

The new agriculture technology in Punjab raised the production and productivity in agriculture. This new agriculture technology which started in Punjab during 1960s was mainly the combination of agricultural machinery, tube wells, high yielding variety seeds, fertilisers, herbicides and pesticides. On the one side, manifold changes came in agriculture productivity on the other side this technology generated many social ill effects. Many researchers and social activists tried to study the impact of these ill effects on the employment, wages of agriculture labourers, rural poverty and income gaps among small and large farmers etc. Ironically, the protagonists of farm workers did not pay attention to the problem of farm accidents which rapidly increased on farms after the adoption of new agriculture technology. Many times, these accidents resulted into severe injuries and sometimes became fatal. During the early period of green revolution, the farm workers' unions in Punjab and other states demanded compensation to the victims of farm accidents and pressurised the governments to regulate the production of safe farm machinery of prescribed standards. With the result, the Dangerous Machine Regulation Act was passed by the Indian parliament in 1983 and is fully implemented in Punjab.

In the literature, very few studies are available pertaining to farm accidents in India and outside India. The available studies are either field studies or are based on hospital records of the victims. Many available studies on farm accidents have been conducted by agriculture engineers and medical professionals. Most of these studies tried to capture the work drudgery, causes of fatal and non-fatal farm accidents in different regions of India. The victims in majority faced farm accidents with tractors and threshers (Nag and Nag, 2004, and Chhuneja and Singh, 2004). Further, the fast mechanization in agriculture in India and China reduced the use of animal draft power on the farms due to economies of scale. The rapid use of agriculture machinery increased the farm accidents on farms in these two nations. The tractors and combine harvesters are the major causes of these accidents (Mukherjee and Ping, 2008).

Some scholars tried to study the farm accidents resulting from the use of agrochemicals on the farms. In district Ahmednagar (Gujarat), it was found that most of the agricultural workers were not using any protective measures to avoid the farm accidents at time of spraying on crops (Singh & Gupta, 2009). Further, some social scientists and activists tried to study the social implications of the farm accidents in agriculture of developed regions like Punjab. These studies are synoptic and are not based on any theoretical and empirical model. All these studies concluded that in Punjab, Haryana and Uttar Pradesh the mechanization increased the fatal and non-fatal farm accidents. The accidents adversely affected the agricultural labourers. The main reasons behind these accidents is agriculture machinery especially threshers. These studies demanded the compensation from government to the victims (Singh, 1980 & Dhanagare, 1987). Contrary to these studies some theoretical and empirical studies have undertaken on farm accidents outside India. The studies conducted on farms accidents in USA came to conclusion that major causes of farm accidents remained agriculture machinery and a large proportion of victims are aged (above 40 years). The income of hired farm workers drastically reduced after farm accidents due to injury or physical disability to do the farm work (Smith, 1983, Kelsey, 1990 & Meyer, 2005). On British farms the author estimated 8500 farm accidents from June, 1981 to July, 1982. The half of the accidents occurred while operating tractors (Morgan, Morris and Radley, 1986). In Sweden, the majority of farm accidents occurred due to farm machines (Janson, 1987). In Australia, the author found 90 percent of the victims of farm accidents are male and half of the victims (58 percent) are hired farm workers (Mather & Lower, 2001). In Bangladesh, the author found out that out of 800 farm households, 87 per cent farmers did not adopt any protective measures while spraying on crops. Half of the farmers faced acute poisoning while using chemicals on farms. Similarly, in Sri Lanka the author studied two groups of farmers who faced injury on farms. First group did not remain in hospitals to get treatment but second group remained in hospitals for treatment. Each group's monthly income fall on an average by Rs. 500 per month (Wasantha, 2012).

To conclude all the studies conducted on farms in India and outside India came on same findings like in majority the main cause of farm accidents is farm machinery. Further all the above reviewed studies have mainly conducted by the medical professionals and the agriculture engineers. All the studies are descriptive and quantitative in nature. Moreover, the studies suggest the preventive measures to reduce the farm accidents in future. The studies don't reflect the socio-economic implications of the farm accidents.

Keeping in view the objectives and methodologies of the reviewed studies, this present study aims at studying the type of farm accidents in Punjab and how these farm accidents are determined by characteristics of farm workers and technology adopted on the farms in different productivity regions.

Data and Methodology

The data on farm accidents is lacking not only in India, but all over the world (Lama et. al., 2012). The existing studies are based upon the primary data collected by researchers or information collated from hospital records pertaining to the victims of farm accidents (Morgan et al., 1988). Similarly, in Punjab there is no availability of published data on farm accidents, and hospital records of treated farm accident victims are not accessible due to certain ethical constraints. Here, in this study we used the complete unpublished data of the 124 agricultural market committees of Punjab on the victims of farm accidents. The study period of this study is 2011-12. In Punjab, the agricultural market committees are providing compensation to victims of farm accidents and their dependents since 1984. No other source exists on the data of farm accidents. The whole Punjab on the basis of average value productivity (Rs./Hectare) may be divided into three agriculture productivity regions (Grewal and Rangi, 1983). First, region comprising of the districts (Ludhiana, Jalandhar, Nawanshahr, Patiala, Fatehgarh Sahib, Sangrur and Barnala) and this is high agricultural productivity region (HPAR) where average value productivity per hectare estimated is Rs.6408. Second, region is medium agricultural productivity region (MPAR) consisting of districts (Kapurthala, Gurdaspur, Pathankot, Ferozepur, Fazilka, Faridkot and Mukatsar) in this region average value productivity per hectare estimated is Rs.5322. Third, region is low agricultural productivity region (LPAR) comprises of districts (Rupnagar, Mohali, Amritsar, Tarn Taran,

Hoshiarpur and Bathinda) in this region average value productivity per hectare came to Rs.4457. Further, on the basis of these productivity regions we divided the agricultural market committees into three regions i.e. high agricultural productivity region (HPAR); medium agricultural productivity region (MPAR) and low agricultural productivity region (LPAR). Thus, in this study the data of 900 victims of farm accidents have used. The data pertains to year 2011-12. The types of accidents and reasons behind these accidents in the agricultural productivity regions of Punjab.

Definition of the Variables

On the basis of the relevant past studies on farm accidents (Mitra, 2007), we selected the following variables:

Dependent Variables

- (i) High Agricultural Productivity Region (HPAR): This variable is in the dummy form denoting '1' for this region and '0' for other regions;

- (ii) Medium Agricultural Productivity Region (MPAR): This variable is again in binary form '1' for the MPAR and '0' for other regions;
- (iii) Low Agricultural Productivity Region (LPAR): Lastly, this variable is again in dummy form '1' for the LPAR and '0' for other regions.

Independent Variable

- (i) Age (Years): This is a continuous variable and capturing age of a victim of a farm accident.
- (ii) Agricultural Machinery: This variable is in dummy form '1' for an accident if occurred with agricultural machinery (tractor and its related implements, a combine harvesting machine, thresher and chaff-cutter etc.);
- (iii) Electric Tube well: This variable is again in dummy form '1' if a farm accident victim faces accident with electric tube well;
- (iv) Agro Chemicals: This variable is in dummy form '1' and it shows if accidents occurred while spraying chemical on the crops;
- (v) Well: This variable is in dummy form '1' for the occurrence of a farm accident while a victim digging a well and working inside it etc.;
- (vi) Type of Farm Workers: This variable divides the farm workers into two categories, for agricultural labourers it is '1' and for a farmer it is '0';
- (vii) Residential Status of an Agricultural Labourer: This variable is in dummy form '1' for a local agricultural labourer and '0' for a migrant;
- (viii) Impact of a Farm Accident: This variable notes the final outcome of a farm accident '1' for an accident resulted into death and '0' for the multiple injuries;

Data Analysis and Model Used: Many studies on the farm accidents have used the logistic model to analyse the data (Kim et al., 2012). In this study, we also relied on this model. The model may be expressed as:

$$Y = \hat{\alpha}_0 + \hat{\alpha}_1 X_1 + \hat{\alpha}_2 X_2 + \dots + \hat{\alpha}_n X_n \dots \dots \quad (i)$$

Here Y denotes dependent variable in the binary form '1' and '0'. The independent variables are X₁ to X_n. The value of Y can be minus or larger than one; a logistic regression model has a form of equation (ii). So that Y has a value between zero and one.

$$Y = \frac{e^{-\alpha_0 - \alpha_1 X_1 - \alpha_2 X_2 - \alpha_3 X_3 - \dots - \alpha_n X_n}}{1 + e^{-\alpha_0 - \alpha_1 X_1 - \alpha_2 X_2 - \alpha_3 X_3 - \dots - \alpha_n X_n}} \quad (ii)$$

After rearranging equation (ii) finally we derive the equation (iii)

$$\ln [Y/1-Y] = \hat{\alpha}_0 + \hat{\alpha}_1 X_1 + \hat{\alpha}_2 X_2 + \dots + \hat{\alpha}_n X_n \dots \text{(iii)}$$

Characteristics of Farm Accidents and Victims in Agricultural Productivity Regions

In this section, the characteristics of farm accidents and the victims of these accidents have been discussed. First, the characteristics of these accidents and affected victims in total Punjab have discussed in table 1. In Punjab, 83.22 percent of farm accidents are related with different types of farm machinery like threshers, harvesters and chaff cutters etc. Next, 11.44 per cent farm accidents occurred with electric tube wells and remaining five per cent with wells and agro-chemicals. The main affected category with these accidents is of farmers (75 per cent) and around 25 per cent are agricultural labourers. The reason behind this is in majority accidents occurred with farm machinery. Still, in Punjab especially tractors and other machinery is operated by farmers themselves on farms. The labourers have less skill to operate it or not preferred by farmers to operate in their presence.

Table 1
Characteristics of Farm Accidents in Punjab, 2011-12

Sr. No.	Characteristics	Number	Percentage
Type of Farm Accidents:			
1.	Agricultural Machinery Related Accidents	749	83.22
2.	Electric Tube wells related Accidents	103	11.44
3.	Wells related Accidents	20	2.22
4.	Agro Chemicals (Pesticides/ Insecticides) related	28	3.11
	Total Farm Accidents (N=900)	900	100
Occupation of Victims:			
5.	Farmers	676	75.11
6.	Agricultural Labourers	224	24.89
	Total Victims	900	100
Residential Status of Agricultural Labourers:			
7.	Migrant Workers	35	15.62
8.	Local Workers	189	84.38
	Total Agricultural Labourers	224	100
Number of Fatal/Non-Fatal Accidents:			
9.	Fatal	222	24.67
10.	Non-Fatal	678	75.33
	Total Accidents	900	100

Source: Unpublished Data of Agricultural Marketing Committees of Punjab (2011-12)

After the farmers, the local landless labourers are more affected with farm accidents (84 per cent). The migrant labourers are just 16 per cent out of 224 victims of farm accidents. Sometimes, the migrant labourers who face farm accidents are not supported by farmers and village community to get medical treatment and compensation. Due to their residential status, they cannot get compensation also from agriculture market committees. Lastly, the majority of the farm accidents, 75.33 per cent are non-fatal in nature. The victims lost their limbs which results into many types of physical disabilities. In remaining twenty- five per cent of farm accidents the victims lost their lives. Further, in table 2 the characteristics of the farm accidents and victims in three productivity regions have compared. In three productivity regions, 900 farm accidents (Table-2) occurred due to various reasons. The maximum farm accidents (40 per cent) faced by farm workers in the HPAR, 35.33 percent in the MPAR and the lowest number (24.67 per cent) in the LPAR. Out of these total accidents, in each productivity zone the various type of agriculture machinery is the major cause of farm accidents. Eighty percent of the farm accidents are agricultural machinery related.

The remaining twenty per cent of the farm accidents met with electric tube wells, wells and agro-chemicals. Interestingly, in each zone mean age of a farm accident victim is under 25 years. In HPAR,

Table 2

Characteristics of Farm Accidents and Victims in Three Productivity Regions, 2011-12

Sr. No.	Characteristics	Productivity Regions		
		HPAR	MPAR	LPAR
1.	Total Farm Accidents (N=900)	360(40)	318(35.33)	222(24.67)
Type of Farm Accidents:				
2.	Agricultural Machinery Related Accidents	288(32)	263(29.22)	198(22)
3.	Electric Tube wells r elated Accidents	46(5.11)	42(4.67)	15(1.67)
4.	Wells r elated Accidents	12(1.33)	3(0.33)	5(0.56)
5.	Agro Chemicals (Pesticides/ Insecticides) related	14(1.56)	10(1.11)	4(0.44)
6.	Mean Age of a Victim (Years)	23	17	17
Occupation of Victims:				
7.	Farmers	229(25.44)	270(30)	177(19.67)
8.	Agricultural Labourers	131(14.5 6)	48(5.33)	45(5)
9.	Migrant Workers	26(11.61)	5(2.25)	4(1.79)
10.	Local Workers	105(46.87)	43(19.20)	41(18.30)
Number of Fatal/Non-Fatal Accidents				
11.	Fatal	73(8.11)	125(13.89)	24(2.67)
12.	Non-Fatal	287(31.89)	193(21.44)	198(22)

Source: Unpublished Data of Agricultural Marketing Committees of Punjab (2011-12).

Note: Figures in parentheses are percentages out of total number of accidents.

it is 23 years and in other zones, it is 17 years. If we look at occupational category of victims, we find 75 per cent of the victims are farmers and 25 per cent are agricultural labourers. In the MPAR, 30 per cent victims are farmers whereas in the HPAR this figure is 25 percent and in the LPAR, it is 19 per cent. Out of total agricultural labourers, maximum victims (14.56 per cent) are in the HPAR, and in other two regions, it is 5 per cent each. In the HPAR, the number of agricultural labourers is the highest while it is lowest in the LPAR. In the HPAR, migrant labourers are more affected with these accidents than local labourers. The maximum non-fatal accidents occurred in the HPAR while number of fatal accidents is highest in MPAR. In the LPAR, the non-fatal accidents are almost same to the MPAR region.

Further, the above characteristics of farm accidents in three agricultural productivity regions have compared in table 3 with the univariate regression analysis. The coefficient of variable Age is significant in all three regions. But it is positive only in the HPAR, it means in this region a farm worker works on the farm even at an advanced age. It is true also because in the HPAR, there is more need of family labour and hired labour for various operations throughout a year. Even an aged person gives his services to manage and supervises the farm, if he can't do physical labour. Next, the agriculture machinery related accidents prevail in all three productivity regions and in the MPAR and LPAR this variable is highly significant. Further, in HPAR and MPAR, the farm workers do not seem prone to the accidents relating to electricity operated tube wells. In the LPAR this variable is significant at 1% level but again here farm workers are facing fewer accidents with electricity operated tube wells. Many times, farm workers face accidents at time of digging the wells or deepening the wells etc. No doubt such accidents have reduced in Punjab with the introduction of the submersible pumps. But still in the HPAR, accidents happen with the temporary wells especially at time of irrigation and where water table is not deep.

Here in the HPAR, a variable well is positive and significant at 5% level. In other regions, this variable is not significant even at 10% level. Lastly, many times farm workers face accidents with agro chemicals at time of spraying at the crops or mixing the chemicals etc. But in the HPAR and MPAR this variable is insignificant. In the LPAR, this variable is negative and significant at 5% level. It means in the LPAR there is less chance of agrochemical related accidents. After discussing These reasons of farm accidents, now we have tried to study the impact of these accidents on the farmers, agriculture labourers, local and migrant agricultural labourers and final outcomes of the accidents in terms of fatality (death) and non-fatality (injury). Here in table 3, it is visible that in the HPAR the landless agricultural labourers are more affected by accidents and in the MPAR the affected group is of farmers. In the LPAR farmers and agricultural labourers are equally affected.

The affected group of landless agricultural labourers is of local belonging to the same village or nearby villages in the MPAR and LPAR. Contrary to this in the HPAR, they are migrants who have migrated from other states especially from Uttar Pradesh and Bihar. Lastly, the farm workers in majority faced multiple injuries during accidents in the HPAR and LPAR. In the MPAR a majority of the farm accidents are fatal.

Table 3
A Comparison of Characteristics of Farm Accidents in Three Productivity Regions

(Univariate Analysis)									
Dependent Variables	Independent Variables								
	HPAR (Dummy)			MPAR (Dummy)			LPAR (Dummy)		
	Intercept	Slope	t_{values}	Intercept	Slope	t_{values}	Intercept	Slope	t_{values}
	(a)	(b)		(a)	(b)		(a)	(b)	
Age (Years)	16.89	5.87	4.04***	20.15	-3.31	2.21**	19.77	-3.09	1.85*
Agricultural Machinery (Dummy)	0.73	0.07	2.49**	0.79	0.04	4.82**	0.70	0.19	6.03***
Electricity Operated Tubewell (Dummy)	0.14	-0.01	0.28	0.12	0.01	1.06	0.16	-0.09	3.45***
Wells (Dummy)	0.01	0.02	2.50**	0.02	-0.02	1.55	0.03	-0.01	0.51
Agro-Chemicals (Dummy)	0.03	0.01	0.69	0.02	0.01	0.12	0.22	-0.20	2.21**
Type of Agriculture Workers: Labour=1Farmer=0	0.28	0.18	4.12***	0.39	-0.24	3.97***	0.35	-0.15	1.01
Residential Status of an Agricultural Labourers (Dummy):Local=1 Migrant=0	0.85	-0.05	4.16***	0.86	0.03	2.51**	0.90	0.01	1.74*
Impact of Farm Accident (Dummy):Death=1 Injury=0	0.30	-0.09	3.22***	0.20	0.19	6.97***	0.32	-0.21	6.25***
N=900 (100)	360 (40)			318 (35.33)			222 (24.67)		

Source: Unpublished data of agriculture marketing committees of Punjab (2011-12).

Note: t_{values} are significant at: *** 1%; ** 5% and *10% level.

Productivity Region-wise Determinants of Farm Accidents in Punjab: Discussion and Results

From table-4, it is clear that the variable age is insignificant in two regions i.e. HPAR and MPAR. Here in the LPAR region, it is negative and significant. It means a majority of the victims of farm accidents are of younger age groups. Next, when we compare the occurrence of agricultural machinery related accidents in three regions; it is clear from table-4 in all three productivity regions this variable has a significant coefficient with positive sign. In the LPAR, the chances of the occurrence of agricultural machinery related accidents are the highest. In the LPAR due to

geographical locale and small farm sizes there is still more use of threshers at time of threshing wheat and maize which is the major cause of accidents too in this region.

Table 4
Main Determinants of Farm Accidents in Punjab: Comparison of Agricultural Productivity Regions

Independent Variables	Dependent Variables					
	HPAR=1, Other=0		MPAR=1, Other=0		LPAR=1, Other=0	
	Coefficient (b)	Exp (b)	Coefficient (b)	Exp (b)	Coefficient (b)	Exp (b)
Age (Years)	0.003(0.90)	1.00	-0.002(0.66)	0.99	-0.01(4.48)**	0.99
Agricultural Machinery (Dummy)	0.47(5.93)**	1.60	1.03(3.96)**	0.36	1.79(4.23)**	5.96
Electricity Operated Tubewell (Dummy)	0.96(7.33)***	2.48	-1.08(10.05)***	0.34	1.49(3.60)*	4.41
Wells (Dummy)	2.36(8.70)***	10.59	-2.16(3.88)**	0.12	0.41(0.09)	1.51
Agro-Chemicals (Dummy)	1.09(4.03)**	2.99	-1.37(6.79)***	0.25	-19.06(0.06)	0.00
Type of Agriculture Workers: Labour=1 Farmer=0	0.48(7.55)***	1.65	-0.62(8.96)***	0.54	-0.28(0.75)	0.84
Residential Status of an Agricultural Labourers (Dummy) Local=1Migrant=0	-1.37(8.33)***	0.25	1.94(3.52)*	6.93	0.77(1.91)	2.13
Impact of Farm Accident (Dummy): Death=1 Injury=0	-0.80(8.20)***	0.45	1.69(37.93)***	5.42	-1.29(11.60)***	0.28
Intercept		0.72		-2.83		1.37
Chi Square	52.64***		70.11***		46.22***	
N=900 (100)	360(40)		318(35.33)		222(24.67)	

Source: Unpublished Data of Agricultural Marketing Committees of Punjab (2011- 12).

Note: *Figures in brackets are wild chi-square; * significance level at: ***1%, **5% and *10%.

Next when we compare the other causes of farm accidents viz; electricity operated tube wells, wells and agro-chemicals across three productivity regions, we found these variables have positive coefficients and are significant in the HPAR. Out of these three variables in the HPAR, the highest probability of the occurrence of farm accidents is with wells, agro-chemicals and then electricity operated tube wells.

In the MPAR, more chances of the occurrence of farm accidents are again with wells, agro-chemicals and then with electricity operated tube wells. In the LPAR, comparatively to other two regions viz., the HPAR and MPAR except the variable electricity operated tube well two variables are insignificant. After discussing the causes of farm accidents, now we will discuss the immediate impact of these accidents on farmers and labourers in three productivity regions. In the HPAR, the demand of hired labour is always more on the farms.

During busy seasons in agriculture there is always a shortage of labour on the farms and migrant labourers generally come to this region in search of work. These migrant agricultural labourers are not familiar with various mechanical agricultural operations and there is a high chance of them meeting farm accidents, relatively to local agricultural labourers. Contrary to this, in the MPAR a majority of the victims of farm accidents are farmers and local landless agricultural labourers. In the LPAR, it seems equal involvement of farmers and labourers in farm operations. Here this variable is not significant even at 10% level. Lastly, in the HPAR, a majority of the farm workers faced multiple injuries during farm accidents relatively to fatal accidents. This may be due to more burden of the work on the farms because here farms demand more labour throughout a year. Similarly, in the LPAR, there are more injuries comparatively to death. On the other hand, in the MPAR, there are more deaths relatively to injuries. It may be due to the reason that in this region there are some districts in which cotton cultivation dominates. In these districts farmers and labourers are more involved in spraying agro chemicals on this crop to protect it from frequent attacks of insects. The frequent sprays on crops without any safety measures many times results into deaths of farm workers on farms. Another reason is that in cotton growing districts temporary open wells are generally established for irrigation which also cause many fatal accidents. Therefore, in all regions the agriculture machinery and electric tube wells are common causes of farm accidents. But the agriculture labourers are adversely affected in the HPAR which represents big peasantry hires more labour in this region. The use of agro-chemicals seems more in this region because accidents relating to this are higher in this region comparatively to the MPAR and LPAR.

Conclusion

The mechanisation of agriculture in Punjab increased the number of farm accidents. Around 80 percent of farm accidents occurred in Punjab with farm machinery. The incidence of farm accidents is the highest in the HPAR in Punjab. In this region mean age of a victim is higher by six years than other two regions i.e. MPAR and LPAR. In all the three productivity regions, the main cause of farm accidents is the agriculture machinery. In the LPAR, still many farm accidents occur with threshers. In the HPAR, wells, agro-chemicals and electricity operated tube wells are also other main causes of

farm accidents. In the HPAR, the worst affected farm accident victims are migrant agricultural labourers and in the MPAR the victims are farmers. In total Punjab 75 per cent of farm accidents are non-fatal. In the HPAR and LPAR, the farm accidents are non-fatal whereas in the MPAR these are fatal.

References

- Chhuneja, K.N. and Singh, Santokh. "Agricultural Accidents in Punjab – A Bird's Eye View." *A Conference Paper of Indian Society of Ergonomics*, 2004, pp.1-7.
- Dhanagare, D.N. "Green Revolution & Social Inequalities in Rural India." *Economic And Political Weekly* 22.19. (1987): AN137-AN144. Print
- Grewal, S.S. & Ranghi, P.S. "An Analytical Study of Growth of Punjab Agriculture." *Indian Journal of Agricultural Economics* 38.4. (1983): 509-19. Print
- Janson, Bijarne. A. "The Yield of Systems for Continuous and Periodic Injury surveillance in Emergency Case with Emphasis on Farm Work Related Accidents." *Scandinavian Journal of Social Medicine* 15. (1987): 247-252. Print
- Kim, Byounggap & Shin, Seung-geoub et al. *Factors Influencing the Occurrence of Agricultural Machinery Accident*, Rural Development Administration, National Academy of Agricultural Science. Republic of Korea, 2012. Print
- Mather, Carey and Lower, Tony. "Farm Injury in Tasmania." *Australian Journal of Rural Health* 9. (2001): 209-215. Print
- Mitra, "Risk Factors Associated with Farm Injuries in Canada." Working Paper No. 21-66, MIE, Statistics, Govt. of Canada. (2007). Print
- Meyer, S. "Fatal Occupation Injuries to Older workers in Farming (1995-2002)." *Monthly Labour Review* 128.10(2005): 38-48. Print
- Monk, A.S., Morgan, D.D.V., Morris, J. and Radley, R.W. (1986). "The Cost of Accidents in Agriculture." *Journal of Agricultural Engineering* 35. (1986): 245-257. Print
- Morgan, D.D.V. and Monk, A.S. "Sampling Farm Accidents." *The Statistician* 37. (1988): 69-79. Print
- Mukherjee, Amitava & Chang, Ping. *Agricultural Machinery Safety- A Perpetual Theme of Human Society*. Global Agricultural Safety Forum (GAS), Rome, 2008. 1-11. Print
- Nag, Pranab Kumar & Nag, Anjali (2004). "Drudgery, Accident and Injuries in Indian Agriculture." *Industrial Health* 42.2 (2004): 149-162. Print

- Singh, Bhoopendra and Gupta, Mudit Kumar, "Pattern of Use of Personal Protective Equipments and Measures during Application of Pesticides by Agricultural Workers in Rural Area of Ahmednagar district, India." *Indian Journal of Occupational and Environmental Medicine* 13.3(2009): 127-130. Print
- Singh, Master Hari. *Agricultural Worker's Struggle in Punjab*. New Delhi: *People's Publishing House*, 1980. Print
- Smith, J.D. "Farm Tractor Associated Deaths- Georgia." *Morbidity and Mortality Weekly Report* 32. (1983): 481-482. Print
- W. Kelsey, Timothy." Farm Accidents in New York Estimates of their Costs." *North Eastern Journal of Agricultural and Resource Economics* 20.2(1990): 202-207. Print
- Wasantha, A. "Determinants of Health Costs Due to Farmers' Exposure to Pesticides: An Empirical Analysis." *Journal of Agricultural Economics* 63.1(2012): 158-174. Print
- Wansa, M.D. Lama et al. "Incidence of Physical Injuries in a Rural Communities in Sri Lanka." *Indian Journal of Community Medicines* 33.4(2012): 238-42. Print

Factors Affecting Choice of Monetary Policy Frameworks: Evidences from Emerging and Advanced Countries

MRIDUL MEHNDIRATTA

Abstract

The practice and theory of conduct of monetary policy has evolved in last decades in response to several critical and complex macroeconomic events and advancements in macroeconomic thought. In the due course of its evolution, the monetary policy frameworks that contextualize the conduct of monetary policy have also undergone changes and the choice of framework globally is determined by multiple economic, technological, institutional and political factors. The paper seeks to assess the current understanding of the factors that affect the choice of monetary policy framework. This is done by conducting systematic review of the available single country and multi-country scientific and empirical evidences. The literature points out different factors: technological, economic, political and institutional conditioning the framework choice for advanced and emerging economies.

Keywords: Monetary Policy Frameworks, Monetary Policy, Monetary Targeting, Inflation Targeting.

Introduction

Monetary Policy has been called upon to work in an increasingly complex and unpredictable domestic and international economic and geo-political environment that has presented a conundrum for the central bankers across the world. In the last decades, there has been a radical transformation of perspectives on monetary policy: the challenges and opportunities. Traditionally, monetary policy, as an arm of public policy broadly serves the key mandate of maintaining price stability and channelizing credit for the productive sectors. However, it is difficult to maintain a perfect balance between the two which keeps on shifting depending upon the evolving macroeconomic environment. For the smooth conduct of monetary policy, it is desirable that monetary policy must work within well- defined framework.

Cobham (2015) defines Monetary Policy Framework as 'the objectives and the context that condition monetary policy decisions: primarily the objectives pursued by the monetary authorities, and also the constraints and conventions within which monetary policy decisions are taken'. According to Adam (2008), most monetary frameworks are built around three pillars: a. Institutional structure and mandate of central bank which defines its relationship as a regulator of the financial sector and as a banker to the government. b. Monetary policy objectives, instruments and operating procedures

employed to meet these objectives. c. Central bank's role in regulation of financial sector, precautionary risk management, promotion of innovation and financial market development. Extending beyond the central banking, Monetary Policy Frameworks globally have evolved in last decades conditioned by varied macroeconomic events and risks under considerations., emergence of new complex challenges and traditional challenges becoming more complex and equally by non-economic factors like form of government, its financial and legal sector.

The framework chosen by each central bank is conditioned by the unique context and circumstances of each country. The frameworks and operational processes tailored to each country's circumstances enhance the effectiveness of central banks policies (IMF, 2019). The frameworks can vary on several aspects like whether central banks follow some specific target or exercise discretion; and in case of former, the choice of target: exchange rate, monetary aggregate and inflation, whether the target are specific points or a band and how well defined is the framework. Each monetary policy framework is based on a choice of unique nominal anchor (Krugman, 2003) for monetary policy as a single variable or device which central bank can use to articulate the expectations of private agents about nominal price level, the path to it and the probable actions taken by central banks. International Monetary Fund (2015) puts forth that certain aspects of central banking have been asserted globally and are common principles for all central banks: transparency, accountability, predictability and clarity.

Monetary Policy Frameworks and Conceptual Underpinnings

While each country decides, conducts and implements its monetary policy differently given its own unique institutional features and macroeconomic circumstances. But, broadly following monetary policy frameworks can be identified which have been adopted by advanced and emerging countries alike.

a. Framework based on Managed Exchange Rate

Exchange Rate as a nominal anchor is significantly helpful for the countries with lower levels of financial and institutional development and where central banks lack credibility. The rationale for adopting the exchange rate as a nominal anchor and managing it to the different degrees is that for the emerging markets that have high trade openness, volatile nominal exchange rate system can complicate the macroeconomic management and adversely impact investment, employment and economic growth. Exchange rate management can be very strict or of intermediate versions. A highly strict version of Managed Exchange Rate is 'Hard Peg' which involves pegging the domestic currency to the currency of the country whose central banks hold the credibility in maintaining lower and stable inflation. While this may help keep the domestic inflation low, but on the other hand, it involves the loss of monetary autonomy and 'import' of monetary policy. A form of hard peg is the monetary union which involves linking monetary policy among a group of countries so as to enunciate common response to common shocks.

Also, adoption of nominal exchange rate as a nominal anchor requires an array of capital controls since large volumes of capital inflows can make the management of exchange rate very difficult, specifically for the developing countries that have weak policies and underdeveloped financial markets.

b. Monetary Targeting Framework

This framework was adopted by developed countries in mid 1970s after the collapse of Bretton Woods System such as U.K, Australia, U.S.A and Canada and in 1980s was adopted by developing countries such as Brazil, China, Indonesia, Korea, Malaysia, Peru, Russia and Venezuela. Monetary Targeting involves three elements: i.) Reliance on information conveyed by monetary aggregates to conduct monetary policy. ii.) Announcement of targets for monetary aggregates. iii.) Some accountability mechanism to preclude large and systematic deviation from monetary targets (Mishkin, 1997).

An advantage of monetary targeting over exchange targeting is that it enables central bank to cope up with domestic considerations

Monetary Targeting was adopted by India in 1985 on recommendations of Sukhamoy Chakrabarty Report (1985), despite its abandonment by central bankers across the world in favour of focus on final target of inflation control. The reason for abandonment is breakdown of relationship between monetary aggregates and inflation rates and demand function becoming unstable. In economies where the rate of productivity growth is highly volatile, there is no stable relationship of monetary aggregates with economic growth and inflation. Monetary Targeting may also be adopted along with Managed Floating Exchange Rate System. This usually involves management of Floating Exchange Rate System within a relatively tight band, although the size of the band may vary for countries.

c. Inflation Targeting Framework

Financial innovations that have happened over the years specifically since early 1990s have made monetary targeting ineffective and steered the shift towards inflation targeting (IT) approach. Inflation Targeting is a monetary policy strategy used by central banks for maintaining inflation at a certain level or within a specified range. The policy was initially adopted by New Zealand in 1990, followed by growing number of developing countries. The core proposition of inflation targeting is that when inflationary expectations are anchored, actual inflation tends to remain moderated too.

Inflation Targeting comprises five main elements: i. public announcement of medium term numerical targets for inflation; ii. an institutional commitment to price stability as primary goal of monetary policy to which other goals are subordinate; iii. an information inclusive strategy in which many instruments and not just monetary aggregates and exchange rates are used for setting policy instruments; iv. increased transparency of monetary policy strategy through communication.

Inflation Targeting maybe fixed or Flexible. Flexible Inflation Targeting (FIT) implies a monetary policy that aims at stabilization of inflation around inflation target and real economy. In contrast, strict inflation targeting aims at stabilizing inflation only, without any consideration to stabilizing real economy.

Adoption of inflation targeting requires the essential institutional framework as well, that involves a clear mandate and functional autonomy of central bank to be able to steer the monetary policy. The framework should also guide central banks towards transparency, accountability and policy rule that minimizes the societal losses. (Bean, Paustian, Penalver, & Taylor, 2010) put forth that since FIT (explicit or implicit) allows monetary authority some constrained discretion in accommodating temporary price shocks in articulating its stance. This is believed to be a suitable framework for conduct of monetary policy and that globally existing policy frameworks have aligned towards price level targeting.

A limitation of Inflation Targeting Framework is that it is an insufficient guide for Monetary Policy in view of today's environment of deregulated, liberalized and globally integrated financial markets, given their ability to generate credit and asset price liabilities. It can be argued that Monetary Policy pays little attention during the upswing but are compelled to protect the asset values during the downturn, which complicates the adoption of FIT.

A challenge for FIT is that post the Global Financial Crisis, central banks are also called upon to maintain the price stability along with financial stability by providing sufficient liquidity so that financial system can function uninterruptedly. Thus, safeguarding financial stability has become an increasingly significantly objective of monetary policy.

The countries that have adopted inflation targeting, may also manage the 'short term exchange rate volatilities' through appropriate interventions in the exchange rate market. These countries are classified as 'Inflation Targeters with managed float' and include Colombia, Ghana, Thailand, Romania and Indonesia. India has explicitly adopted this approach since 2015.

However, even prior to the adoption of Inflation Targeting Approach by several countries, a range of inflation was informally accepted as desirable range to anchor inflationary expectations alongside managing exchange rate volatilities Adoption of Inflation Target may also be adopted with full exchange rate flexibility. Many countries view this as the final step in the evolution of their frameworks. This is because the increasing openness of capital accounts, irrespective of the capital control regime makes the management of exchange rates over a sustained time period increasingly difficult. Thus, this approach defines a clear anchor for monetary policy, while fully floating exchange rate systems facilitates independent monetary policy.

Objective of the Study

The paper seeks to examine the current understanding on factors playing a key role in choice of monetary policy frameworks in advanced and emerging markets by reviewing key scientific

literature. The paper is organized in three sections:

Section I presents the search strategy and methodology to locate the literature and evidences, **Section II** presents the literature and evidences on factors affecting choice of monetary policy frameworks. **Section III** concludes the paper by highlighting the key inferences.

Section I: Search Strategy For Systematic Literature Review

Systematic literature review in its methodology and representativeness is different from traditional literature review. Rousseau, Manning, & Denyer (2008) put forth that while systematic literature review aims to provide full, systematic overview of research conducted on a specific field over time till latest, the traditional reviews tend to 'cherry-pick studies'. The literature review is based on journal articles primarily. However, to widen the understanding and make the review more comprehensive, the grey literature has also been considered. The term grey literature refers to the unpublished literature or the literature that has been published in non-commercial form viz. government reports, conference proceedings, and research reports. The inclusion of grey literature is generally considered to be important so as to develop a comprehensive view of the research topic even though inclusion of grey literature does not satisfy the research aim of presenting an overview of scientific literature only. Only limited grey literature has been considered for the review of literature given that it can be difficult to locate and the fact that it can be abundant. The section includes literature that is both India specific and international. And the international studies include both single country and multi country focussed studies.

The database Google Scholar and Repec were referred. Searches are limited to English articles published between January 1, 1993 – December 30, 2018 were searched and referred to. Search results were assessed for relevance in a three-step process of comparing title, abstract and keywords. The literature included has been analysed for its spatial and temporal scope. The studies reviewed include: single and multi-country case studies, quantitative and qualitative.

Section II: A Survey of Empirical Evidences: Single And Multi-country Studies

The factors that have conditioned the choice and evolution of frameworks globally can be understood by assessing multi country and country specific evidences. Quite a few central banks of Switzerland, Japan, Germany, France and United Kingdom adopted monetary targeting in 1970s. In 1980s, however, financial innovation imparted much volatility to behaviour of monetary aggregates. Hence, the weakening of stable relationship among money, output and prices led to some countries moving away from monetary targeting towards signalling monetary policy stance through setting of interest rates. However, some European countries like Germany, France and Switzerland continued monetary targeting in spirit by redefining monetary aggregates.

Simultaneously, as monetary targeting spread to developing countries, monetary targeting proved less effective. A search for new monetary framework led to adoption of inflation targeting in 1990s by both developed and developing countries. More recently Adam (2008) makes an analysis of

alternative monetary policy frameworks and provides background evidence on factors guiding choice of monetary policy frameworks. The study puts forth that virtually all contemporary monetary policy frameworks can be thought of as 'inflation targeting' in the strict sense that a central, if not a dominant, the objective of monetary policy is to establish a credible nominal anchor for domestic prices. Thus, different regimes are characterized in terms of choice of nominal anchor, which shapes the entire monetary framework and states that choice of nominal anchor is a much constrained and tricky one since other economic concerns compete for attention. The degree of discretion over choice of anchor and degree of commitment to chosen anchor would be central choice of monetary policy framework.

Previously, Masson, Savastano & Sharma (1997) analysed the wider applicability of IT to developing countries and identify two major prerequisites for adopting IT framework: a degree of independence of monetary policy (free of fiscal dominance or commitment to any other nominal anchor, like the exchange rate) and a quantitative framework linking policy instruments to inflation. They argued that a country satisfying these two factors could choose to conduct its monetary policy in a manner consistent with IT, defined as a framework containing an explicit target for inflation, a commitment to that target as an overriding objective, a model for predicting inflation and an operating procedure for adjusting monetary instruments in case forecasted inflation differs from its target. In many developing countries, however, these requirements for effective IT strategy are not present, either because seignior age is an important source of financing or because there is no consensus on low inflation as an overriding objective, or both.

In industrial countries, IT has only been adopted from a starting point of low inflation, considerable exchange rate flexibility and substantial operational independence of central bank- conditions rarely found. Building upon argument that the monetary policy framework depends upon the choice of nominal anchor, Bhattacharya & Patnaik, (2014) present a model for policy analysis in India that provides an insight in the setting of an IT framework to anchor inflationary expectations. The model offers an understanding of the extent to which accommodative monetary policy, among other factors, explain growth and inflation in India. Forecasting and Policy system (FPAS) is used to evaluate the monetary policy stance appropriate to the expected inflation in India. The underlying framework of FPAS model is a standard new Keynesian model with rational expectations, nominal and real variables with aggregate demand having a role in output determination. It does not model micro-foundations in detail in contrast to Dynamic Stochastic General Equilibrium (DSGE) Models. The benefit of this is that simulation or estimation models are independent of deep parameters of an economy, reliable estimates of which are often not available due to lack of good quality data. Their analysis point out that high positive domestic demand following post global crisis fiscal stimulus coupled with accommodative monetary policy and negative supply shocks kept inflation above acceptable range of 5-5.5% for last period 2009-14 in India. The lack of a nominal anchor has contributed to inflationary expectations and state that anchoring inflationary expectations is one of the major challenges of central bank.

Earlier, Ireland (1998) explored the choice for various alternative nominal targets in developed countries by using a model to judge each alternative on its welfare effects. The analysis is conducted in a context that allows both money demand and money supply shocks to influence aggregate output as well as price level. In the model, aggregate shocks to a firm's production function – the technology shocks represent an additional source of business fluctuations which implies that monetary authority face the additional challenge of selecting a nominal anchor that provides the best response to both money shocks and technology shocks. His results show that nominal income targeting is preferable to money supply targeting, since it provides an appropriate response to money demand shocks. Price level targeting also dominates nominal income targeting, since it also provides an appropriate response to technology shocks. His results conclude that price level targeting represents the optimal monetary policy.

Keller and Richardson explore the underlying choice of nominal anchors in Commonwealth of Independent States (CIS). They put forth the argument that while fiscal dominance has subsided in most countries, and monetary policy has begun to play a critical role, However, financial markets remain seriously underdeveloped, interest rates or more sophisticated policy instruments play at best a secondary role, confidence in banking system is slow, and there is political pressure on the authorities to lend or to politicize banking supervision. While all CIS countries target price stability-at times in conjunction with other objectives, but now since the inflation is at low levels, the choice of an appropriate nominal anchor in the face of the persistence of constraints make the choice of nominal anchor quite a critical one. Gould (1999) examines whether choice of nominal anchors, by itself, matters in affecting a nation's short run growth, the primary concern being whether choice of nominal anchor alters the path of real output in periods following stabilizations (Does the nominal anchor really matters?). He points out that the choice of nominal anchor may be endogenously determined by state of the economy. The countries with ample international reserves, higher credibility and better prospects for economic growth can pursue exchange rate based stabilizations. Countries with fewer international reserves, diminished credibility and weaker prospects for future may have the option of only monetary based stabilizations. Fry. et.al (2000) put forth that monetary framework except in few countries where they are exclusively determined by central bank, are politically determined and may well depend on country's financial institutions, degree of expertise in monetary policy and institutional factors.

On the basis of data collected through a questionnaire from central banks of 94 countries to draw inter country comparisons, monetary policy frameworks are found to be depending on structural differences (structure of financial sector, financial discipline, openness to trade etc.), transmission mechanism (factors affecting nature and pace of transmission); institutional arrangements and analytical constraints. (Vasudevan) Analyses the conduct of monetary policy from 1992 till 2002 against the background of issues concerning objectives, institutional and operational changes and concludes that the stance of RBI focuses on interest and exchange rates to pursue allocative efficiency of resources over medium term. It is argued that the institutional arrangements put in place since 1992 have facilitated reduction of information asymmetry and enhance technical analyses.

Gokarn and Singh (2011) seek to identify and explore the sensitivity of monetary policy to external factors. It is argued that financial linkages and globalization have led to faster transmission shocks. It has been put forth that globalization has manifested itself in monetary policy by making it increasingly challenging to maintain price stability given the global supply shocks as the global commodity prices that have a significant causal effect on domestic prices which is evident from the trend in imported inflation remaining above domestic inflation. Thus, the significant impact of global developments on domestic prices calls for monetary policy to take into account international price shocks to maintain domestic price stability.

Similar factors have been highlighted by Mihaljek who states that monetary policy frameworks have been influenced by Economic and financial integration as the global economic linkages have become stronger. This has led to greater synchronization of business cycles across emerging market economies. It has been argued that globalization has led to opening up of number of transmission channels and has multiplied the associated risks through which external factors influence domestic macroeconomic conditions which complicates the assessment of inflationary and stability risks. Kwakye (2012) analyses Monetary Policy Frameworks for Ghana for which the frameworks have evolved from monetary targeting to inflation targeting but inflation management has been challenged by supply constrained economy, fiscal dominance and underdeveloped financial sector. The paper also asserts the importance of complementary fiscal policy, allowing sufficient flexibility in exchange rate so as to allow it to absorb exchange rate, pursuing financial sector development and deepening. However, it states that exchange rate and monetary aggregates continue to be an important determinant of inflation in Ghana and must be considered in whatever framework is adopted. Wong & Chong (2014) assess the monetary policy regimes for post Bretton Woods period from 1974-2009 for 228 countries and attempt to put all the observations into two clearly defined categories i.e. exchange rate targeting and inflation targeting explore the factors affecting the choice of monetary policy regime. They put forth that choice of monetary policy regime is endogenous and is determined by economic structures. The size of the economy as represented by the real GDP, trade openness and concentration and capital openness (measured by total flows of portfolio investment as a share of GDP). Finally, Cobham (2015) addresses the recurring question since 2007-08 about the monetary policy notably which variables the central bank should target and how. He puts forth the argument that monetary policy faces an unresolved question about the inadequacy of monetary instruments available and hence states that monetary targeting was made infeasible not so much by money demand instability as by the lack of precise instruments for control of money supply. Hence, unfolding of the Global Financial Crisis of 2008 have pointed towards the inadequacies in monetary policy frameworks. (Wilkins) puts forth that choice of monetary policy framework should be such which allows clear focus on objectives of monetary policy and should also be determined by the fact that how it affects people via distributional effects and financial stability. The framework should also allow use of supporting policy tools and measures available for extraordinary circumstances.

Section III: Summarizing the Evidences

There has been emergence of cross country and country specific literature that tracks the evolution of monetary frameworks in many developed countries and some developing countries and explore the circumstances that have conditioned the choice and evolution of frameworks. Over the years, a consensus has been attained on fact that there has to be a systematic conduct of monetary policy so as to understand its affects, which allows economic analysis to shed light on potential effects of alternative monetary policy strategies in supplying a nominal anchor. The choice of framework and hence that of nominal anchor is a much constrained and tricky one since other economic concerns compete for attention. The degree of discretion over choice of anchor and degree of commitment to chosen anchor would be central to the choice of monetary policy framework. There is no consensus on factors that condition and affect the evolution of monetary policy frameworks. Ireland (1998) and Gould (1999) argue that demand-supply side shocks, technology and endogenous shocks play a key role; Keller and Richardson (2003) assign a key role to extent of development of financial sector; Adams (2008) argues that it is the degree of commitment to nominal anchor that determines the monetary policy framework and according to Gokarn and Singh (2011), monetary policy framework is heavily influenced by financial linkages and globalization.

The various factors that affect choice of frameworks have been highlighted in the following table:

Table Showing Factors Affecting Choice of Frameworks In Developed/ Developing/Both Countries

Factors affecting choice of frame works in developed countries	Factors affecting choice of frame work in developing countries	Factors common to both Developed and developing countries
* Technology Shocks to business cycles (Ireland, 1999)	* Degree of independence of monetary policy, commitment to any other nominal anchor, fiscal dominance (Masson et. al, 1997)	* Quantum of international reserves, credibility and prospects of economic growth (Gould, 1999)
	* Development of financial sector, Political Pressure on authorities (Keller and Richardson, 2003)	* Degree of discretion and degree of commitment to nominal anchor (Adam, 2008)
	* Institutional Factors; degree of expertise and analytical constraints; financial discipline, openness to trade and nature; pace of transmission mechanism (Fry et.al 2006)	* Sensitivity to external factor: financial linkages and globaliz-ation (Gokarn and Singh, 2011)
		* Size of the economy, trade openness and concentration and capital openness (Wong and Chong, 2014).

Source: Authors' compilations

It can be concluded that given that monetary policy frameworks vary across the country and is influenced by varied factors given the differences in institutional, financial and technological context. The diversity in the policy conduct and factors affecting conduct is manifested in the research conducted globally on the theme which arises from the fact that 'one size does not fit all' in terms of monetary policy frameworks and approaches. It can also be inferred that central banks need to possess dexterity to take into account multitude of shocks and factors while defining their monetary policy framework and monetary policy.

References

- Adam, Christopher. "Factors in choice of monetary policy regime." *Monetary Policy and Inflation Targeting*. Abuja: Central Bank of Nigeria, 2008.
- Bean, Charles, et al. "Monetary Policy after the fall." *Federal Reserve of Kansas' City Annual Conference*. Jackson Hole, Wyoming, 28th August 2010.
- Bhattacharya, R and I Patnaik. "Monetary Policy Analysis in an inflation targeting framework in emerging economies: The case of India." *India Macro Policy Review*. New Delhi: National Institute of Public Finance and Policy, 2014.
- Cobham, David. "Multiple Objectives in Monetary Policy: A De-facto analysis for 'Advanced' countries." *Heriot-Watt Conference 2014*. Manchester, 2015.
- Fry, Maxwell, et al. *Key Issues in Choice of Monetary Policy Framework*. 2000.
- International Monetary Fund. *Evolving Monetary Policy Frameworks in Low-Income and other developing countries*. Background Paper. Washington D.C, 2015.
- Keller, P and T Richardson. "Nominal Anchors in CIS." *International Monetary Fund Working Paper No. WP/03/179*. 2003.
- Kwakye, J.K. "Key Issues in the choice of Appropriate Monetary Policy Framework." *IEA Monograph No. 32*. Accra: Institute of Economic Affairs, 2012.
- Masson, P, M Savastano and S Sharma. "The scope of inflation targeting in developing countries." *IMF Working Paper 97/130*. October 1997.
- Mihaljek, Dubravko. "How have external factors affected monetary policy in EMEs?" *BIS Papers No 57*. September, 2011.
- Rousseau, Denise, Joshua Manning and David Denyer. "Evidence in management and organizational science: Assembling the field's full weight of scientific knowledge through syntheses." *The Academy of Management Annals* (2008): 475-515.

- Vasudevan, A. "Evolving Monetary Policy in India: Some Perspectives." *Economic and Political Weekly* 37.11 (2002): 1055-1061.
- Wilkins, Corlyn. "Choosing the Best Monetary Policy Framework for Canada." Montreal, 20 November 2018.
- Wong, Ming, Kin and Terence Chong. "A Tale of Two Regimes: Classifying and Revisiting the Monetary Policy Regimes." 24 November 2014.

The Emergence of Hindustani Music: A Cultural Investigation into the Syncretic Nature of Hindustani Music

BARNASHREE KHASNOBIS

Abstract

The Hindustani tradition of music is a result of assimilation of Perso-Arabic music genres with indigenous Indian music genres over a period of five centuries. Since the advent of Delhi Sultanate, there was a gradual cultural synthesis in arts and culture between Hindu and Muslim communities. This process of assimilation led to the creation of Parsi-u Hindavi tradition. It indicates that there was an evolution of composite culture during medieval India. There are certain genres of art forms in which the syncretic culture of Hindus and Muslims can be observed such as architecture, painting, literature, Hindustani music, etc. In the repertoire of Hindustani music, khayal is a brilliant example of syncretic culture. In this paper, the evolution of Hindustani music is discussed from historical perspective. This study will reveal different ways in which motifs of syncretic culture can be seen present in Hindustani tradition of music.

Keywords: Hindustani Music, Syncretic Culture, Hindustani Tradition, Medieval Indian Period

Introduction

The cultural contact between Hindus and Muslims began with the arrival of Arab traders by the 7th century to the South and South-Western coasts of India activating the course of cultural synthesis. With the emergence of Delhi Sultanate in the Northern part of India, the pace of cultural confluence between Hindus and Muslims accelerated which gradually brought an epoch of social and political changes. The rise of the Delhi Sultanate marked the beginning of assimilation of certain cultural practices and art forms between Hindus and Muslims. By the 14th century, the dominion of Delhi sultanate had extended its territory from Sindh to Bengal. In the period of Delhi sultanate, Indian society received several immigrants from eastern Iran, North Eastern Iran and Afghanistan. Among these immigrants, there were artistes and craftsmen, scholars and Sufis who introduced their art and culture in the Indian subcontinent. There are several instances of cultural assimilation in the genres of literature, architecture, painting and music which ascertain the formation of a syncretic culture.

Brief Reflection of Composite Culture in Genres of Arts

The Mughal emperors used regional languages along with Persian to express their emotions in writing. Kavisvara, a court poet, translated Mahabharata, Ramayana and certain Vedic texts into Persian for Akbar. Dara Shikoh, the eldest son of Shah Jahan, was actively involved with Hindu

scholars, saints and Sufis in quest of enlightenment. Hindu-Muslim cultural confluence in architectural crafts can be seen present in certain Mughal constructions covering the North-Western and even in Eastern regions of India. Mosques of Jaunpur represent the admixture of Indian and Perso-Arabic techniques of architecture. The Mughal School of painting made an impact upon Indian artists and they adopted their techniques of colouring, themes and motifs of communication. The assimilation of Persian and Indian art forms is also present in themes of Bikaner painting, the Deccani style and the school of Kishangarh. The gradual process of acculturation never ceased and entered the Mughal era starting with Babur by the early 16th century. The synthesis of art forms of the Hindus and the Muslims continued till the 18th century. The medieval Indian society experienced incessant modifications in culture due to the evolution of a syncretic society.

Changing Course of Indian Music due to Perso-Arabic Influence

Tenth century onwards, the course of Indian music started taking over a new leaf due to the changing cultural scenario of Northern India as the Islamic rulers started expanding their dominion.

Important developments took place in the realm of musical arts during the reign of Delhi Sultans which show a transition from Turko-Persian traditions at court level and their synthesis with Indian classical and desi (regional) traditions at popular level. In fact, by the beginning of the fourteenth century, a synthesized *Parsi-u Hindavi* tradition began to emerge which laid the foundation of Hindustani music. It is remarkable that its vigour of synthesizing variant elements never came to an end; it was an ever-developing phenomenon (Trivedi Introduction).

The confluence of Persian and Indian art forms also influenced evolution of musical instruments. The origination of Sitar in medieval India has probable links with Persian *sehtar* or a long lute. In southern region of India, “the appearance of long-necked lutes” (Miner, 373) in temples suggest that this form of musical instrument is related to India since centuries. “Sea routes from the south-west coast of India to and from the Arab world were early passages of cultural exchange. It is possible that the Indian long lutes had their source in the Arab world” (374) which determines that integration of Hindu and Muslim cultures led to the revision and introduction of new forms of art and crafts in the medieval period. “The Muslim age proved to be a period of cultural metamorphosis. The Islam and the emergence of regional languages and culture as the medium of popular expression affected the total ethos of Indian music. (Singh, 29)”. The Muslim rulers turned to music for gaining entertainment but the concept of *sangeet* in India was fundamentally based on religious or devotional aspects.

After the establishment of Delhi sultanate, the local musicians of India started learning Perso-Arabic styles of music for getting recruitment in the royal courts, to gain social acclamation and to maintain their lifestyle. They combined their knowledge of the foreign music with local Indian music which attracted the Islamic rulers. Fusion of musical modes encouraged scholars and musicians to know more about indigenous Indian musical modes which led to translations of musical treaties, interaction with regional musicians and scholars. The Muslim scholars inculcated the arts of Indian

music which in turn activated the trajectory of fusion of Perso-Arabic music with Indian music, paving way towards syncretism in music.

Before the conquest of Northern and North western region of medieval India by Islamic rulers, music in India was centralised to religious setting or devotional aspect of culture. But this status of Indian music started to transform as the political conditions changed which modified thematic contents and words of songs. Musicians started to have an orientation towards entertaining the Mughal elites, fusing Perso-Arabic words and musical techniques with regional musical elements. Gradually, devotional context in songs not only included expression of devotion towards god but also towards the Mughal rulers which denote that the artistes aimed to gain royal patronage and a status in royal courts.

Emergence of *Dhrupad*

The genre of Hindustani music emerged from *Parsi-u Hindavi* tradition over a period of five centuries transmitted through oral performances. It is a result of improvisations done through assimilation of different styles of music into *marga sangeet* (based on traditional *ragas*) and *deshi sangeet* (folk music) by scholars and musicians who sought to bring evolution and synthesis in the genre of music. Before the introduction of Perso-Arabic music into Indian culture, music performances chiefly catered to devotional hymns for god and regional folk songs depicting lifestyle of the masses. The chanting of hymns in specific rhythm and tune in temples used to be the most dominated genre of *sangeet*. Such performances included performances of musical instruments, dances and songs in religious settings. The hymns were the *mantras* of Vedic scriptures which were uttered by a fall and rise of voice sounds, maintaining a variation in pitch, tune and rhythm. Such style of performance was replete in the ancient musical mode of *Prabandha*. The context of *Prabandhas* was primarily devotional. They used to be performed for devotional or religious rituals and in the praise of god.

The devotional context expanded its orbit and they started to be sung in the praise of kings. A special kind of *prabandha* survived through the ancient period known as *dhruva prabandha* which evolved as *dhrupad* in the medieval period. “*Druvapad* or *dhrupad* evolved as the greatest force of North India's musical regeneration. It reflects an era of the great awakening and suggests a decisive breakthrough in the musical revolution. [...] *Dhrupad* assimilated the features of both the Hindu and Muslim cultures” (Singh, 46). The cultural status of *dhrupad* as a genre of music rose to glory in the courts of Raja Man Singh Tomar of Gwalior (1486-1516), who indulged in musical sessions and had deep knowledge of Indian music. His aim was to revitalize the ancient way of *dhrupad* to socially integrate the Hindu masses. “When Raja Mansingh Tomar sat on the throne of Gwalior in 1486, the Muslim influence was prevailing on all aspects of music. He thought of popularising the traditional Sanskrit form of composition called *prabandh* being sung at that time” (Kaul 68). But the appeal of Sanskrit was fading and the local languages were leading the way of Indian music because of regional influences stirred by the songs in local dialects by Krishna Bhakti saints and Sufis. “The Bhakti saints denounced the traditional *prabandh* form and adopted *chhand*, *pad* and *doha*. They also began to

compose in regional languages” (Trivedi, 26). In the courts of Raja Man Singh Tomar of Gwalior where Gwaliri language was used to compose song texts of *dhrupad* “which came to be known as Braj Bhasha in its courtly (*darbari*) variety” (Delvoye, 42). The sway of songs in Braj Bhasha by Bhakti saints was so impactful upon the masses that gradually *dhrupad* songs started to be composed in Braj Bhasha in the royal courts.

Hindu-Muslim Cultural Syncretism in *Dhrupad*

In the court of Akbar, *dhrupad* attained a new flavour because the Muslim musicians decorated it with Perso-Arabic lexical, Persian musical modes and newly emerged *ragas*. Syncretism in *dhrupad* can be observed from its compositions “explicitly or implicitly celebrating Hindu or Islamic deities or saints, or discussing philosophical issues [...]. If there is a continuous tradition of spirituality connected with *dhrupad*, it is likely to have been carried at least partly by Sufi practitioners and composers of the genre” (Widdess, 119) as the Sufis held *samas* for mystical experiences where musicians and Sufis performed *dhrupad* along with popular musical genres to attain mysticism. Due to *dhrupad's* direct association with the Sufis, it is highly probable that during such *samas*, they incorporated Perso-Arabic words and modelled *dhrupad* performances with Persian musical modes.

The Sanskritized form of *dhrupad* or its homogeneity was no longer maintained and a synthesized form of *dhrupad* music emerged in royal courts of the Mughals. The most significant contributor in this aspect is Tansen (d.1610) who belonged to the court of Akbar. He invented new *ragas* like *darbari kanara* which he rendered in *dhrupad* performances. The song texts or compositions of *dhrupad* can be found in Braj Bhasha and Persian terms. Francoise 'Nalini' Delvoye presents a *bandish* of Tansen in her essay 'Collections of Lyrics in Hindustani Music: The Case of Dhrupad' – “*Hom gunahagaru tero, tum rahim karim kahiyatu hai, kitom kadhom gunah merau*” (Delvoye, 149) which she translates as “I have offended you, you are known as the Merciful One, the Compassionate One/ and I don't know how much offence I have committed?” (149). This instance shows that the devotional context was abundantly present in the genre of *dhrupad* at the Mughal courts. Delvoye presents an intriguing composition of *dhrupad* by Tansen– “*ghar ghar gheru mathamu suniyatu he ri maai, kaun mamtru padhi dayaum kanhai*” (150) and she translates this line as – “Oh my friend, in every house, the churning of restless minds can be heard/ What a magic spell Krishna has cast on everyone!” (150). This composition depicts the presence of devotional context again and more importantly expressing devotion for Krishna, the Hindu deity who is considered to be a lover-god by many saints and Sufis of medieval India. It is clear that the Mughal kings enjoyed *dhrupad* performances because it remained as a favourite genre of music in their courts until the mid-eighteenth century when *khayal* rose to popularity in the reign of Muhammad Shah (1719-1748) due to contributions of Ne'mat Khan 'Sadarang' and Feroze Khan 'Adarang' towards *khayal gayiki*.

Hindu-Muslim Cultural Syncretism in *Khayal*

Khayal became the most popular genre of Hindustani music in the last phase of medieval Indian period. It is replete with motifs of Hindu-Muslim composite culture. *Khayal's* developmental phases reveal its emergence through fusion of Hindu and Muslim cultural contexts. Katherine -Butler Brown in her seminal essay, 'The Origins and Early Development of *Khayal*' forges a link between *Qawwali* and early form of *khayal*. Present form of *Qawwali* has its roots in *Qaul* form of singing as “there is a direct genealogical link between the *Khusravi* 'school' of *qaul* and *tarana* in Delhi prior to 1700, and the later singers of '*qawwali*' who are so often cited as having been instrumental in the development of *khayal*” (Brown, 163).

Through historical sources, Brown ensures that musicians who specialized in performing *khayal*, *qaul*, *tarana* and *farsi* were called as *qawwal* around 17th century. Basing on Mughal literature, the author deduces that “around 1637, *khayal* was considered an integral part of the repertoire of the *Qawwals* of Delhi. By the late-seventeenth century, the *Qawwals* were classified as *khayal* specialists. *Khayal* shared with the other genres of the *Qawwals*' repertoire a distinctive musical style, the '*ravish of Amir Khusrau*', which came to be known in the early-eighteenth century as *Qawwali*” (171). The author engages in deducing the Indo-Persian historical records to present confirmation that Amir-Khusrau created certain styles of music such as *Qaul* (can be rhymed/unrhymed in Arabic/Persian), *Farsi* (poems with *tarana*), *Tarana* (nonsensical text composed in a *tala*) and *Khayal* (composed in Hindustani language). “Amir Khusrau's intensive knowledge of Indian and Persian musical systems resulted in the fashioning of many new melodies and tunes in which he combined Indian ragas and Persian *muqams*, or blended different Indian or Persian airs (*ahang*)” (Trivedi, 25) which suggests that the early form of *khayal* or *khusravi khayal* had a blend of Perso-Arabic musical modes and Indian *ragas*.

Historical sources mention names of Sultan Muhammad Sharqui (1401 – 40) and Sultan Hussain Shah Sharqui (1458-1499) of Jaunpur as instigators of *khayal's* development, renovating *Khusravi* style of *khayal* as a next developmental phase of *khayal* after Khusrau. In their reign, a genre called *chutkula* in which the *Qawwals* of Delhi were quite expert along with their flair in music genres of Amir Khusrau. It is highly probable that the *qawwals* of Delhi might have fused certain styles of *qawwal* music into *khayal* as they were proficient in both forms and took interest in performing both. They “continued to perform *chutkula* in the late seventeenth-century given that *chutkula* was by this time a variant of *khayal*” (Brown,172). Katherine Brown observes that “*khayal* developed in this period from the adaptation of the regional-language genre *chutkula* to the stylistic traditions of Amir Khusrau. This would explain the significant similarities of form and subject matter between seventeenth-century *chutkula* and *khayal*” (171).

Shaikh Sher Muhammad renovated the older form of *khayal* which was dominant with *Khusravi* style, fusing the *chutkula* style leading to the renovation of the *Khusravi* tradition of *khayal* and converting it to a regional genre of music. Through this musician, Sufi linkages with the tradition of *khayal* can also be observed. Shaikh Sher Muhammad's mentor was Shaikh Bahauddin Barnawi

(d. 1628/9) who was a Chishti Sufi saint “renowned for his *jikri* (*zikr*), his enthusiasm for the innovations of Amir Khusrau, and his invention of new, classical-style melodies for the *vishnupad* of Kabir and Surdas” (Brown, 176) which unequivocally suggests that Sufis were inclined towards experiencing Hindu devotional music. It can be affirmatively said that regional influence on *khayal* started from early 17th century. Within the repertoire of *khayal*, “by 1698 Ras Baras Khan lists seventeen different varieties of *khayal* including *farsi*, a folk genre called *jangli*, and Arabic *qaul*” (Brown,179). These records aid in understanding the emergence of a syncretic form of *khayal* through musicians, chiefly belonging to the Muslim community.

The reign of Muhammad Shah (1719-1748) is considered to be the last transformative period of *khayal* due to the contributions of a talented *dhrupad* singer and 'veen' (*vina*) player Ne'mat Khan 'Sadarang' who performed at the king's court. “It is important to note that Ni'mat Khan had significant connections with the *Qawwals* of Delhi. His first patron was Muhammad Azam Shah (d.1707), Aurangzeb's third son” (Brown, 163) and through historical records it is known that during his employment under Muhammad Azam Shah, he “had close associations with Tatari *Qawwal*, who appears to have been one of his teachers. Alongside *dhrupad* and *khayal*, Ni'mat Khan was remembered as a peerless composer of *tarana*, previously considered a *Qawwal* specialist” (Brown,163). Ni'mat Khan used to take part in *urs* ceremonies, conducted at his house on every eleventh day of a month. *Urs* ceremonies were held for Sufi saints remembering their day of death which was considered to be a union with god. This *urs* ceremony was like a Sufi *sama* or association of *Qawwals*.

It is quite probable that he used to perform *dhrupad* and genres related with *Qawwals* in these *sama* gatherings. Basing on these records, two points can be inferred which highlights *khayal's* composite nature again. (1) Ne'mat Khan's association with Sufis and *Qawwals* indicate that he must have been involved in their music performances, getting influenced by performance styles of their musical modes and fusing such styles in *khayal*. (2) Ne'mat Khan was a proficient *dhrupad* performer which leads to an assumption that he might have fused certain performance styles of *dhrupad* into *khayal*. Surveys of historical sources by various authors attribute Ne'mat Khan for modernising *khayal* fusing *dhrupad's* elements. “Niamat Khan is sometimes credited with having classicised *khayal* by introducing *dhrupad* elements” (Magriel & Perron, 14). Ne'mat Khan contributed heavily in the genre of *khayal*, fusing it with *dhrupad* elements, renovating its form which is regarded as the modern version of *khayal*, converted from the older form of *khayal* which was primarily associated with the *khusravi* techniques and later had fusion of *chutkula* of Jaunpur. Ne'mat Khan 'Sadarang' and his nephew as well as disciple Feroze Khan 'Adarang' composed many *bandishes* of *khayal* under their pen name or *takhallus* 'Sadarang' and 'Adarang' respectively.

The lyrics of their compositions are luminous examples of presence of syncretic culture of Hindus and Muslims. There are certain cultural contexts like celebration of Holi festival in *bassant* (spring), invoking the Chishti Sufi saint Nizamuddin Auliya, praising Krishna and enacting as his lover are some thematic contents of their compositions which speak of *khayal's* composite nature. Attention

towards few instances of *khayal's* compositions would aid in understanding the existence of motifs of syncretic culture. In the following *bandish*, it can be seen that Ne'mat Khan 'Sadarang' urges people to utter the name of 'Hari' and to be devoted to him.

*Arre mann Hari sumiran chitt kar le
Nis-Nis, ghari-ghari, pal-pal, chin-chin,
Hari charanan chitt dhar le
It-ut, jit-tit, kahe tum bhatakat,
Sadarang rass bhar le. (Goswami, 63).*

From the domain of language and thematic content, *khayal* started to evolve as an example of syncretic tradition of music integrating the Muslim and Hindu artistic forms. “From the thirteenth century onwards, as a result of significant interactions with local literary traditions and *Vaishnava* practices, Hindavi devotional songs were welcomed into Sufi *sama* gatherings as effective vehicles for Indian Muslim devotional expression (Brown, 180)”. The Sufis regarded that realizing the love between Krishna and Radha as a medium of spiritual ecstasy and included this theme in their compositions. “The *Vaishnava* theme most prominently cherished in Sufi devotional contexts was the Radha-Krishna story. Thus, it is possible that the devotion to Krishna so closely associated with modern *khayal* texts was already part of the *khayal* aesthetic as its genesis (187)”.

A *khayal* composition by Feroze Khan 'Adarang' communicates his plea to god to be merciless and reduce human suffering. “*Karim naam tero tu sahib sattar./ Dukh-dalidra dur kijey, such deho saban ko./ Adarang vinati karat sun ley ho sattar*” (Goswami, 64). He has combined words from Perso-Arabic dialect like '*karim*', '*saheb*' and '*sattar*' (words used in appreciation for god) and rest of the words are in Braj Bhasha. It is important to repeat that Braj Bhasha had a strong impact upon the masses of medieval India as Bhakti saints and Sufis used this language to communicate their love for god and egalitarian messages. Braj Bhasha was the most popular medium to express emotions for poets as its regional impact was high.

Another composition of *khayal* narrates Sadarang's devotion towards Nizamuddin Auliya. It has been discussed earlier that Ne'mat Khan was actively involved with the Sufis and participated in sessions of *samas*.

*Ghar mere mehboob Nizamuddin aayo
Maai ghar mere ayo ri
Aaj suhaag ki raat ri
Sadarang Nyamat layo ri. (65).*

The two examples cited above describe that Ne'mat Khan had faith towards Hindu deity, Krishna and Nizamuddin Auliya, the leading Chishti Sufi saint. His adherence towards Hindu deities, not only Krishna but other deities and reverence for the Sufis make it explicit that he believed in a syncretic culture and expressed such feelings in his *khayal* compositions. Ne'mat Khan and Feroze Khan

composed *khayal* compositions in Braj Bhasha fusing some Persian words like '*mehboob*' and '*mubarak*' which are commonly used by Indian folks since medieval period.

It is of great importance to note that 'Sadarang' and 'Adarang' belonged to the Muslim community but did not restrict themselves in expressing devotion towards Hindu deities and fondness for Hindu festivals like Holi. Sadarang's expression of devotion towards Krishna/ Hari is deep rooted in the context of Indian culture. Indian literary texts, oral and written, propagated legendary love between Radha and Krishna. Such sentiments are also expressed by contemporary *khayal* performers of the modern period. Alladiya Khan (1855-1946), founder of Jaipur-Atrauli gharana, used pen name as 'Ahmad Piya' to compose *bandishes* of *khayal*. One of his *bandish* represents similar devotion towards Krishna as a lover when compared with Ne'mat Khan's composition.

*Banwari Shyam more
Aaj ki rain yahi rahiye.
Badar garje mohe darr laage
Ahmad piya ki binate suniye.* (Perron, 125)

Lalita Du Perron translates its meaning as – “My Krishna, garlanded with forest flowers/ stay here tonight. / Clouds are thundering, I am frightened/ Listen to Ahmad Piya's request” (125). There are plenty of *bandishes* composed by musicians belonging to Hindu and Muslim communities which are endowed with cultural themes from both communities.

Hindu-Muslim Cultural Syncretism in Other Genres of Hindustani Music

Due to synthetic approaches, Hindustani music diversified into '*Drupad*', '*Khayal*', '*Thumri*', '*Tappa*', '*Ghazal*', '*Qawwali*', etc. and they had distinctive formal patterns and styles of presentation. Genres such as *Tappa*, *Thumri*, *Dadra*, *Ghazal*, etc. fall in the category of light classical music due to their short duration of performance and less complexities of rendering *ragas*. But these genres also have traces of Hindu and Muslim cultural confluence. For instance, *Tappa* originated from the fusion of Indian and Persian musical modes as Miyan Shori, son of Ghulam Rasul, a renowned *qawwal* of Delhi “devised a unique blend of Indian classical and folk traditions with techniques used in Persian *muqams* [...]. Miyan Shori travelled to Punjab and selected those *dhuns* which particularly suited the *tappa* structure and modulated the *tappa* compositions in numerous *rags-raginis* in Punjabi and Multani dialects” (Trivedi, 123). *Thumri*'s development is commonly associated with Wajid Ali Shah but it existed before his time period. Musical records such as *Rag Darpan* (1665-66) by Faqirullah Saif Khan indicate that *Thumri* might have evolved from a genre called *birwa* which had a fusion of Persian *muqams* and Indian *ragas*.

As a genre, *Thumri* flourished in Lucknow during the mid-nineteenth century.

Both *Thumri* and *Ghazal* gained “unprecedented prominence in the *nawabi* era and further that their efflorescence in that milieu is much better documented than that of previous epochs” (Manuel, 242). Wajid Ali Shah used to compose *bandishes* of *thumri* and created an integrated style of dance and

drama called *rahas* which had “two *Qissas* of *Radha-Kanhayya* having almost identical themes and titles, *Radha-Kanhayya ka Qissa*; and a *masnawi* [...]. The *thumri*, *dadra*, *ghazal*, *sawan* were rendered along with these dances” (Trivedi, 116). This detail of his creative faculty leads to make a “note that in these *Qissas*, Wajid Ali Shah blended the Indian and Persian conventions (117). His interest towards the arts of music initiated popularity of the semi-classical genres of Hindustani music which continues to remain popular till date.

The syncretic nature of Hindustani music can be witnessed primarily in *Khayal* and *Qawwali* as popular genres of Hindustani music. Shah Niyaz balrevi (1742-1834), a Sufi saint belonging to the last phase of medieval India, can be seen articulating his fascination towards Hindu culture by conveying his celebratory mood for Holi or the arrival of *bassant* (spring). “Even to this day, this festival is celebrated in all the monasteries of the Chishti order particularly in the Dargah Sharif at Ajmer where the following spring song written by Shah Niyaz Barelvi is sung with great gusto” (Akbarabadi, 237).

*Khawaja Moinuddin ke ghar aaj dharti hai Basant
Kya ban bana, aur saj saja mujrey ko aarti hai Basant,
Phoolon ke gagwey hath ley, gana bajana sath ley
Joban ke mad men mast ho ho rag gaati hai
Bassant Chatiyen umang se bhar rahin, naina se naina lad rahin
Kis tarz-e-mashuqana se jalwa dikhati hai Basant.*

*Ley sang sakhiyan gul badan, rang-e-basanti ka baran
Kya hee khushi aur aiysh ka samaan lati hai Basant. (237).*

It is an explicit reference of a Sufi saint adhering towards syncretic culture. From the context of themes and languages, this song represents the assimilative cultural practices of Hindu and Muslim communities. It is also remarkable to note that *khayal* maestros belonging to the Muslim community in the modern period compose *bandishes* on themes of love between Radha-Krishna, expressing admiration or reverence towards Krishna and also Prophet Muhammad. The syncretic nature of Hindustani tradition has been in continuation through its performers since its emergence.

Conclusion

Out of all the genres of Hindustani classical music, *khayal* is dominated with motifs of *Parsi-u Hindavi* tradition. Combination of musical modes, thematic and linguistic elements of Perso-Arabic and indigenous Indian cultures led to the emergence of Hindustani tradition of music. It cannot be denied that there was no social discord between medieval Indian masses belonging to Hindu and Muslim cultures. But cultural confluence took place in genres of arts due to intellectual interactions and exchange of artistic devices among scholars from both cultures and Hindustani music is a brilliant illustration of this confluence at the level of culture, primarily originating from integration of devotional practices of Hindu and Muslim saints of medieval India.

References

- Akbarabadi, Maikash. "Characters of the Chishtiya Order of Sufism." *Life, Times and Works of Amir Khusrau Dehlavi*, edited by Zoe Ansari, National Amir Khusrau Society, 1991, pp. 234-237.
- Brown, Katherine Butler. "The Origins and Early Development of Khayal." *Hindustani Music Thirteenth to Twentieth Centuries*, edited by Joep Bor, et.al, Manohar Publishers and Distributors, 2010, pp. 159-194.
- Delvoye, Francoise Nalini. "Collections of Lyrics in Hindustani Music: The Case of Dhrupad." *Hindustani Music: Thirteenth to Twentieth Centuries*, edited by Joep Bor, et.al, Manohar Publishers and Distributors, 2010, pp. 141-158.
- Goswami, Shailendra Kumar. "Khayal Bandish ke Vishesh Sandarbh mein Sadarang-Adarang ki Bandisho ka Sahityik Vivechan." *Hindustani Sangeet ke Mahaan Rachnakar: Sadarang Adarang*, Kanishka Publishers, 2004, pp. 39-83.
- Kaul, Divya Manshingh. "Raga: The Hindustani Melodic Mode." *Hindustani and Persio-Arabian Music: An Indepth, Comparative Study*, Kanishka Publishers, 2007, pp. 64-78.
- Magriel, Nicolas and Perron, Lalita du. "Background." *The Songs of Khayal Book One*, Manohar Publishers and Distributors, 2013, pp. 1-46.
- . "The Subject Matter of Khayal." *The Songs of Khayal Book One*, Manohar Publishers and Distributors, 2013, pp. 99-199.
- Manuel, Peter. "Thumri, Ghazal, and Modernity in Hindustani Music Culture." *Hindustani Music Thirteenth to Twentieth Centuries*, edited by Joep Bor, et.al, Manohar Publishers and Distributors, 2010, pp. 239-252.
- Miner, Allyn. "Sources on the Early History of the Tambur, Rabab, Sitar, and Sarod." *Hindustani Music Thirteenth to Twentieth Centuries*, edited by Joep Bor, et.al, Manohar Publishers and Distributors, 2010, pp. 373-389.
- Singh, Nivedita. "Social History of Music." *Tradition of Hindustani Music: A Sociological Approach*, Kanishka Publishers, 2004, pp. 19-69.
- Trivedi, Madhu. "Musical Arts." *The Making of the Awadh Culture*, Primus Books, 2010, pp. 108-144.
- . Introduction. *The Emergence of the Hindustani Tradition*, Three Essays Collective, 2012, pp. 3-10.
- . "Tradition and Transition: The Performing Arts in Medieval India." *The Emergence of the Hindustani Tradition*, Three Essays Collective, 2012, pp. 11-52.
- Widdess, Richard. "The Emergence of Dhrupad." *Hindustani Music Thirteenth to Twentieth Centuries*, edited by Joep Bor, et. al, Manohar Publishers and Distributors, 2010, pp. 117-140.

Demonetisation in India: A Push For Digitalisation

NIKHAT KHALID
SABA ISMAIL

Abstract

Demonetisation is a process in which the prevalent form or forms of currency ceases to be legal tender. Demonetisation has been adopted by different countries for myriad purposes such as to counterbalance the prevailing economic condition, control inflationary situations, reduce the flow of cash, dig out black money and to boost economy. India has demonetised its currency thrice. On 8th November 2016, the Government of India demonetised Rs. 500 and Rs.1000 banknotes, which comprised about 87% of the total circulation. This was a major exogenous shock for the economy. One of the major stated objectives of demonetisation was digitalisation of economy in order to have a less cash economy. Digitalisation is carried out through different ICT portals in banks, manufacturing, supermarkets, telecommunications, Electronic Point of Sale (EPOS) and e-commerce. With digitalisation, the key economic agents start using digital technologies routinely. The current paper aims at exploring how equipped the Indian economy was for this push and the extent to which digitalisation has been achieved so far. To ascertain that, this paper examined various components required for a digital economy and analysed credible data of various macroeconomic variables pertaining to digital payments and currency in circulation. The study reveals that digital infrastructure, which is a sine qua non for a digital economy is lacking, the tools required for digitalisation are deficient and people are not connected to these tools as expected of a digital economy.

Keywords: Money Supply, Digitalisation, Digital infrastructure, ICT, e-payments

Introduction

When the current or prevalent form or forms of currency loses monetary-value and ceases to be a legal tender, it is called demonetisation. In this process, the old currency is replaced with a new form of currency. While demonetising, the old currency notes of certain denomination are withdrawn and remonetised with the new ones. It is used as a measure to counterbalance the prevailing economic condition or control inflationary situations and to boost economy. (Prabhat and Jain, 2018) Demonetisation is sometimes undertaken to replace the entire currency in circulation or a part of it. Traditionally, demonetisation has been used as an instrument of monetary policy aimed at different objectives. For instance, on introduction of Euro in European Union in 2002 for trade purpose, German mark, French franc and Italian lira had been demonetised. Similarly, in 2015, Zimbabwean dollar was demonetised in order to combat the country's hyperinflation (Kumar, 2017, 7311-24).

Historically, one of the earliest demonetisation took place in United States in 1873 when the Coinage Act was passed, leading to removal of silver and adopting of the gold as the legal tender. Later on, several countries exercised the policy of demonetisation to strengthen their country's failing economy. Britain demonetised its old currency in 1971 to bring uniformity in its currency by introducing coins of 5 and 10 pounds. In 1982, Ghana demonetised its 50 cedi note to tackle tax evasion and black market. Nigeria demonetised its old currency and introduced new currency in 1984. Philippines demonetised its old peso bills in 1985. In 1987, Myanmar demonetised around 80% of its currency to curb black market. Soviet Union demonetised 50 ruble and 100 ruble notes in 1991. North Korea demonetised its bank notes in 2010 as a reform measure to tackle black market. The countries which went for demonetisation had its different implications. While some barely had any impact on their economies while others faced worst nightmare on its accounts. Many of the economists argued that such measures can be hazardous and potentially lethal to a country's growth and economy (Mallick).

It has also been argued by some economists that demonetisation can be used to reduce the circulation of currency. It can be done by introducing and encouraging digital transactions which reduce dependence on hard currency. However, digitalisation needs to be understood in its entirety. Digital technologies, when incorporated into the routine life of people, are called as digitalisation. When digitalisation becomes pervasive, key economic agents i.e. consumers, producers and governments adopt digital technologies in the activities they carry out. Digital payments, which involve transactions which materialise devoid of cash, are an imperative part of digitalisation. ICT (Information and communication technology) and digitalisation are complementary to each other and development of ICT is a necessary condition for digitalisation. Laudon & Laudon (2001) discovered that ICT, particularly internet, is altering the manner in which business and daily life transactions are being carried out. Agboola (2006) found that due to adoption of ICT and the subsequent transformation of payment system, the volume of cash transactions has decreased significantly, particularly in developed countries. Jehangir et al (2011) found that ICT has remarkable impact on society, particularly on organizations, businesses and purchasers and is a pre-requisite for a digital economy. Parvathamma (2013) confirms that use of ICT is crucial for digital literacy and online transactions. ICT can thus be called as a foundation on which a digital economy is built.

ICT, which encompasses unified communications i.e. all those forms of communications that take place via a network, telecommunication devices such as telephone, satellites, fibre optics, internet and computer has virtually and deterministically changed every field, more so the economy and its various nuances. Without the development of ICT, digitalisation of the economy will fail to occur.

Digitalisation of the economy helps to change the transaction behaviour of people and alters the way people conduct business. Since its inception, digitalisation has been introduced by various countries in their economies with limited or substantial levels of adoption. Nevertheless, this process is growing across the world. The digital economy makes transactions and payments easier, and has the potential to create new market opportunities and jobs.

The concentration of use of ICT is mainly confined to countries of developed and industrialized world such as Europe, North America, Australia and New Zealand. Developing countries of Asia, Africa and Latin America have also shown some progress in use of ICT. However, a large number of African countries have little to show so far as use of ICT is concerned. This indicates that such economies which are lagging behind in the use of ICT cannot go for digitalisation of their economies, thus causing a digital divide across the globe. This also means that any effort of demonetisation aimed at digitalisation by any of such country cannot fructify until ICT and its use is developed.

Indian Economy and Demonetisation

India is the 6th largest economy in the world with GDP of 2.6 lakh crores USD (2017). It is also one of the fastest growing large economies. Most Indians traditionally prefer financial transactions in cash rather than in digital mode. This is due to the fact that most adult Indians either do not have access to digital transaction modes or are not literate in their use. According to a survey in South Asian countries, only about 25% adults are financially literate. Financial literacy in India is at a nascent stage as almost 76% of the adult population is unable to understand even the basic financial concepts. (S &P Global FinLit Survey, 2015). This shows that financial literacy in India is abysmal as compared to the rest of the world. As stated earlier, digitalisation cannot pick up or become successful in financial transactions unless people know the use of ICT and its infrastructure is strong enough in the nook and corner of the country. Demonetisation, as a harbinger of shift from cash to cashless transactions is bound to fail because ICT availability and its literacy is prerequisite to it. This term paper is an attempt to understand digitalisation as an objective of demonetisation, its suitability to the given structure of the economy and its impact on various digitalisation payment options.

India has a history of demonetisation of its currency. In 1946, the currency notes of Rs. 1,000 and Rs. 10,000 were removed from circulation. Such currency notes were not in the reach of common man at that time so this move did not affect general public. In 1978, when Janta Party government came to power under the leadership Morarji Desai, currency notes of Rs. 1000, Rs. 5000 and Rs. 10,000 were demonetised with a sole aim to curb the generation of black money in the country. Third time, on 8th November 2016, the Government of India demonetised all Rs. 500 and Rs.1000 banknotes, withdrawing their legal validity. It also announced issuance of new Rs. 500 and Rs. 2000 currency notes in exchange of the demonetised currency notes. (The Indian Express, 2018) In India, total currency in circulation is worth Rs. 17.82 lakh crore as of February 23, 2018, according to the latest Reserve Bank of India (RBI) data. This is about 99.17 per cent of pre-note ban levels of Rs. 17.97 lakh crore on November 04, 2016. Reserve Bank of India report of 2018 observed that about 99.3% of the demonetised notes, which amounted to Rs.15.30 lakh crore out of Rs.15.41 lakh crores were deposited in the banks. (RBI Report, 2018) As per RBI directions, demonetised currency could be deposited in the banks within fifty days, until 30 December 2016. Government allowed exchange of Rs. 4,000 per person per day from 8 to 13 November, which was increased to Rs. 4,500 from 14 to 17 November. It was again reduced to Rs. 2,000 from 18 to 25 November. (Ministry of Finance, 2016) Daily limit on withdrawals from ATMs was put on Rs. 2,000 until 14 November, and

Rs. 2,500 until 31 December. Limit was increased to Rs. 4,500 per day from 1 January, and to Rs. 10,000 from 16 January 2017. Families were allowed to withdraw Rs. 2,50,000 for wedding expenses after 17 November, 2016 farmers could withdraw Rs. 25,000 per week against crop loans. (RBI, 2016)

Demonetisation of high value currency which comprised about 87% of total cash in circulation was a huge exercise and an economic decision which touched the life of each individual in the country. It caused the upsetting of banking system, RBI had to issue notifications time and again to give directions to public and the banks in the country, the people had to line up in banks to exchange the old with new currency while availability of new currency was scarce. Bank ATMs had not been calibrated to dispense the new currency and people stood in long queues for hours without getting cash. The entire country was virtually in financial chaos for months after demonetisation.

Review of Literature

After India demonetised its currency, the economists in the country studied its theory and practice as well as its positive and negative fallout. In this context, some of the representative studies on demonetisation, digitalisation and their relationship are reviewed to find out the literature gaps between the earlier studies and the study at hand.

Kabir, Saidin and Ahmi (2015), assert that E-payment systems are being adopted increasingly in the current business environment by individuals and organizations, who find it as a secure and convenient way of making payments. It is an emerging issue in developing countries due it being vital in modern electronic commerce.

Gaur and Padiya (2017), have found that demonetisation provided a new impetus to digitalisation and that digitalisation should penetrate into grass root levels for which computer literacy is necessary. They also suggest negative impact of demonetisation on GDP in the first two quarters but anticipate a positive result in the long run.

Chandrasekhar and Ghosh (2017), argue that policy attempts to push a quick transition from cash to cashless may be both infeasible and regressive. They assert that globally, the transition into a cashless economy is a slow and gradual process, and is influenced by the spread of banking services. They also contend that digital payments are inherently costlier because they involve profit for the financial intermediaries which are usually private.

Munjal (2017), analysed the effects of demonetisation on digital payments and sale of various categories of consumer goods. The study found that demonetisation pushed millions of new users to digitalisation, causing surge in alternative forms of payments, digital transaction systems —E wallets and apps, online transactions using E banking, usage of plastic money. The study also found that demonetisation had a negative impact on the sale of daily use consumer goods.

Reddy and Jayalaxmi (2017), found out the effects of demonetisation on digital banking services.

They found that demonetisation became a pathway to digital India due to lack of liquid cash available for transactions and found that after demonetisation, there was a slight rise in online banking whereas ATM usage remained the same. Faster services and ease of use were the two major factors acting as a catalyst in promotion of digital banking services.

Kaur (2017), established that an increasing number of people moved to cashless system with the globalization of market and growth of banking sector. Post demonetisation, since there were restrictions on withdrawal of cash due to which, the usage of cards on PoS/e-Commerce doubled. Immediate Payment Service (IMPS) and Unified Payments Interface (UPI) usage also doubled post demonetisation.

Singh (2017), suggests that digital modes of payments have a natural potential to formalize the economy. By extinguishing money out of the economy, digitalisation would witness a surge and that would help to monitor the black economy. Further that demonetisation itself is not sufficient for pushing digitalisation, the government should focus on the digital infrastructure to increase the digital system in the economy and provide more access to digital facilities in the rural areas.

Waknis (2017), argues from monetary theorists' perspective that economic wellbeing of Indian people was reduced overnight due to demonetisation as the total set of allocations achievable is much larger with money than without money. Through segmented markets model, the author proposes that Indian economy would be depressed for a few quarters. As the money supply is restored, the economy will not bounce back until all the adjustments are made by the economic agents.

Kumar and Chaubey (2017), discuss the impact of demonetisation on digital payments and conducted an age wise demographic analysis using primary survey. They found that digital payment habit had significantly changed after demonetisation. They discover that 83 per cent of the respondents shifted to digital transactions and only 9.3 per cent shifted for some time after demonetisation. They also found that transaction charges and lack of technological trust were major hindrances in adoption of digital transactions.

Roy (2018) conducted a SWOC analysis and found that transition to cashlessness makes transactions easier, economical, leads to saving of resources, and has an overall positive impact on the economy.

Nithin, Jijin and Baiju (2018), studied the level of digitalisation after demonetisation empirically by using Intervention Analysis in Time Series (ITSA) using step-function and pulse-function intervention variables and found that digital payments did not increase much after demonetisation. They found that while debit and credit card usage as a percentage of total transactions has increased, the share of point of sale transactions (PoS) and mobile transactions reduced after demonetisation. It found that demonetisation had negative net impact on digitalisation.

On the basis of literature review, the present study views demonetisation and its linkage with digitalisation differently, i.e., in a society that is lagging behind in adoption of ICT and digital technologies, demonetisation with an aim to digitalisation of economy is bound to show

lacklustre results. Digital financial transactions are linked to infrastructure, awareness, education and computer literacy for which society as a whole has to be prepared to shift from cash to cashless transactions.

Objectives of the Study

1. To determine the extent of the use of ICT by Indian population and its relationship with digitalisation of financial transactions.
2. To understand digitalisation as an objective of demonetisation.
3. To analyse the extent to which digitalisation of transactions in the country were achieved after demonetisation.

Data and Methodology

The present study is based on secondary data. Data is collected from Ministry of Finance (Government of India), RBI database, Report of the Parliamentary committee on demonetisation and World Bank database. Books, journals, newspaper articles and relevant content from different websites are used to meet the objectives of the study.

The study is descriptive as well as analytical wherein the already conducted surveys and research have been used. Various global indexes and maps have been used to analyse the objectives. Graphs have been prepared and diagrams have been used on the basis of data taken.

Monthly Growth Rate of the macroeconomic variables used in the study has been found by using the following formula: $(\text{Current Year} - \text{Previous Year}) \div \text{Previous Year} \times 100$

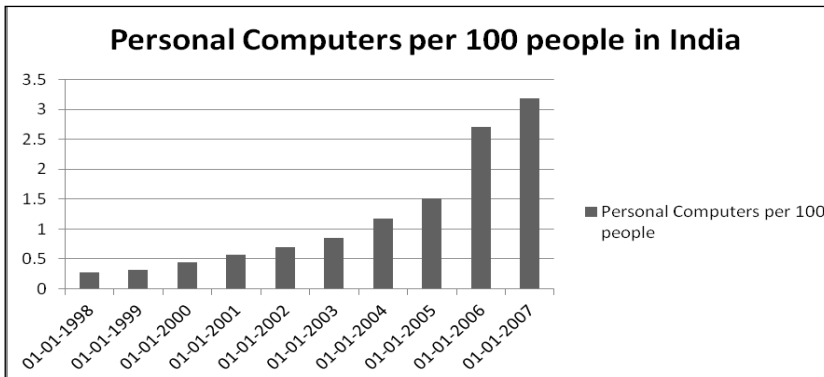
Information and Communications Technology (ICT) and Digitalisation

Information and communications technologies (ICTs) refer to technologies that provide access to information through telecommunications. The ICTs are used in banks, manufacturing, digital media, publishing, food design and production, medicine, supermarkets, telecommunications, Electronic Point of Sale (EPOS) and e-commerce. ICTs today are considered as greatest facilitator of innovation, productivity and growth. These technologies have influenced every sector of economy. The ICTs have tremendously contributed to the GDP growth in some countries in the recent years. Since 2000, ICTs have contributed about 25% to Kenya's economic growth, 20% of China's and 34% to Japan's economic growth. (Kwang)

Over the last three decades India has made many efforts to introduce ICTs in different sectors of its economy. In spite of that, the country still ranks 91st on the Networked Readiness Index (NRI) 2016, which is a major component of the World Economic Forum's 'The Global Information Technology Report 2016'. (Networked Readiness Index, 2016). In fact, India has slipped down two positions, despite improvements in its political push and regulatory environment and in its emphasis on

technology driven business and innovation environment. According to ICT Development Rankings 2017, India stands at 134 out of 176 countries. As per 2008 figures, a little more than 3 persons had personal computers (PCs) per 100 people in India, shown in Bar Graph-I below.

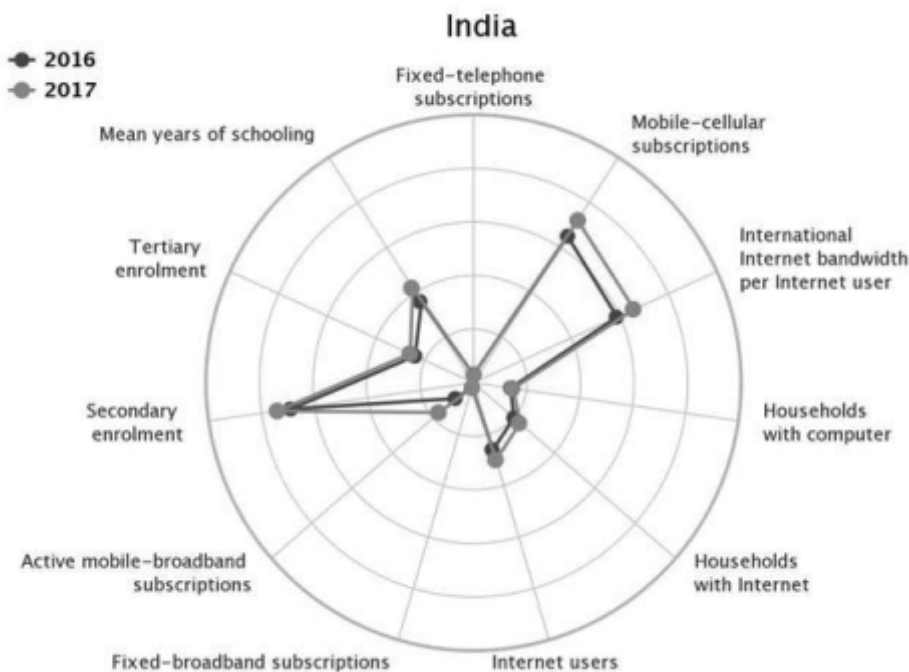
Bar Graph I



Source: World Bank data available at <https://tradingeconomics.com/india/personal-computers-per-100-people-wb-data.html>

As per The Telecom Regulatory Authority report, there were 36.74 crore (367.48 million) internet subscribers in India in September 2016. Based on a population of 7 crore, it converts into 28.77 Internet subscribers per 100 population. (The Telecom Regulatory Authority of India's Report) According to IDI (ICT Development Index) 2017, India had 86.95 Mobile-cellular telephone subscriptions per 100 persons, percentage of households with computer was 15.20, percentage of households with Internet access was 22.64, percentage of individuals using the Internet at 29.55, fixed (wired)-broadband subscriptions per 100 inhabitants only 1.44 and active Mobile-broadband subscriptions per 100 inhabitants was 16.76. Component wise presence of ICT in India is shown the diagram below.

Figure 1



Source: ICT Development Index, 2017, United Nations publications, New York, 2018. available at <http://www.itu.int/net4/itu-d/idi/2017/index.html> accessed on 01/01/2019

The above diagram shows ICT growth of India in 11 components required for ICT development. In three components, i.e. Secondary enrolment, Mobile cellular subscriptions and International Internet bandwidth per Internet user, India is doing fairly well while the country has very less active mobile broadband subscriptions, internet users and households with internet, which are crucial for a digital economy. As a focus of this study, it can be inferred from the data that unless these components are strengthened, it is difficult to spread digital adaptation among a large section of the population.

India is also far behind in creating digital infrastructure, which is available to less percentage of population. The efforts of government in providing ICT infrastructure are becoming minimal and this area has been left for the free play of market forces. This has led to perceptible under provision of digital infrastructure. More than three years have passed since Digital India campaign was launched in July 2015 and mobile services still remain unavailable in many parts of India. The TRAI data shows that during April 2017 and November 2017, 0.68% to 0.75% call drop rate was there. The

situation was notably poor in Delhi, Mumbai, Uttar Pradesh and Bihar, while it was termed as bad in the Andhra Pradesh, Telangana, Chennai and Tamil Nadu circles. (Kala, 2018). These trends show that digitalisation of India's financial sector has to go a long way to become ready to push country's economy into digital mode.

Digitalisation as an Objective of Demonetisation

Many countries have declared different objectives while demonetising their currency in the past. While some were successful, others were partially successful and some failed in achieving those objectives. While addressing the Nation on 8th November 2016, Prime Minister of India, Narendra Modi spelled out the objectives of Demonetisation as: (Wani; Modi's Speech)

1. To weed out fake currency.
2. To terminate the money supply, arms and ammunition to terrorism.
3. To bring tax evasion to halt.
4. To unearth and curb black money.
5. To curb illegal and unethical business activities such as, black marketing, marketing of spurious goods, human trafficking, smuggling of gold and drugs.

In his speech announcing demonetisation, the Prime Minister did not include digitalisation as an objective of demonetisation. In this speech, Modi used the phrase “black money” 18 times, which seemed to be the major objective behind the move. However, on November 27, 2016 while speaking on *Mann Ki Baat* (the radio show), the prime minister said that objective of demonetisation was to make India a cashless economy. He emphasised more on digitalisation as the objective of demonetisation.

He said: (Full Text of Speech, 2016)

Scrapping these notes has opened other avenues to make payments. Download apps of banks and e-payment options. Shopkeepers can keep card swiping facilities and everyone can ensure they pay safe using their credit and debit cards. If not a 100% cashless society, I request you to make India 'less-cash society.

India was the first country to take to demonetisation as a measure to digitalise the economy. Digital financial transactions, online banking, mobile payments are few tools of digitalisation. After demonetisation, Government of India made all efforts to bring its cash-intensive economy into the digital mode and enable millions of Indian citizens to have access to financial services and banking applications. The Government propagated that digital economy could be a major growth enabler. To achieve that objective, several key measures such as Point of Sale (PoS), Debit and Credit purchases, National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate

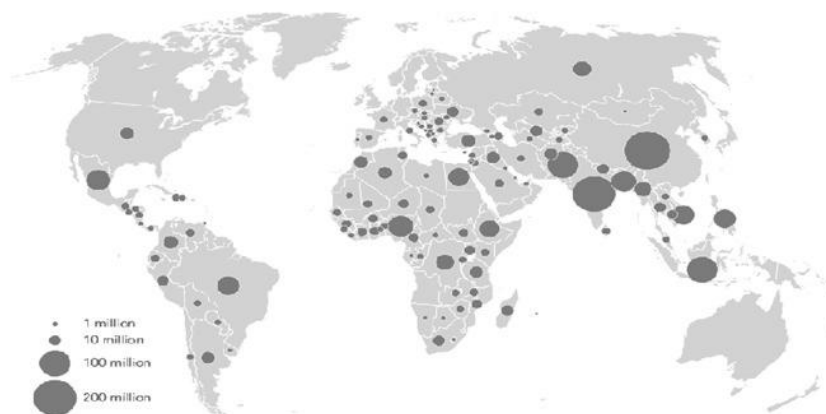
Payment Systems (IMPS) and Mobile banking were popularised and incentivised. To achieve this goal government adopted two-pronged strategy. On the one hand, it created paucity of cash in ATMs and banks and on the other encouraged electronic transactions. In order to understand the success or failure of demonetisation to digitalise financial transactions, there is need to analyse the effectiveness of tools and techniques used to digitalise Indian financial system. A digital economy requires four major components, which include, financial literacy, banking penetration, access to technology and access to internet, as shown in the figure below.



Source: Author's own figure

It is understood that banking penetration is a very significant component for digital transformation of the economy. Without financial inclusion, digital transformation is not possible. In this component, India continues to see under-penetration of basic financial services as shown in the map below.

**Map Showing
Adults without an account, 2017**



Source: Global Findex database.

Source: Global Findex Database, 2017 downloaded on 5/01/19 available at [https:// globalfindex.worldbank.org](https://globalfindex.worldbank.org)

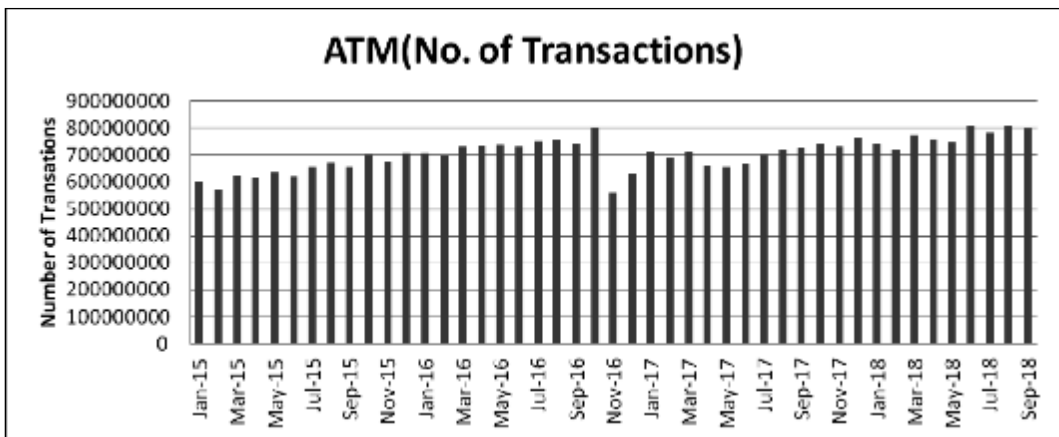
Global Findex database, 2017 indicates that India is still home to one of the largest number of unbanked individuals in the world which consists of 11% of the world's unbanked population. India's financial inclusion levels are still among the worst in the world. In 2017, merely 5% of Indians accessed a bank account from their phone or the Internet, and only 2% of the population had a mobile money account. (The Global Findex Database, 2017). Digital Transformation is far beyond just shifting from a cash intensive economy to a digital economy. Each and every segment of the population needs to be taken together to transform the economy into a digital economy, and the digital dualism which exists in the form of digital divide between rural and urban areas needs to be addressed. Such transformation requires strengthening of the components mentioned above and this requires the government to come forward to strengthen as well as widen each component necessary for digital economy.

Extent of Achievement of Digitalisation of Transactions after Demonetisation

In order to analyse the extent to which digital transactions were adopted by the common Indian, each tool of e-payment has been separately taken up. It comprises of the period from January 2015 i.e., before the demonetisation till September 2018 i.e., after the demonetisation. The comparison between the two periods, i.e. approximately 2 years before and after demonetisation will help us understand the negative and positive trends. To give authenticity to the information, information is based on RBI monthly data.

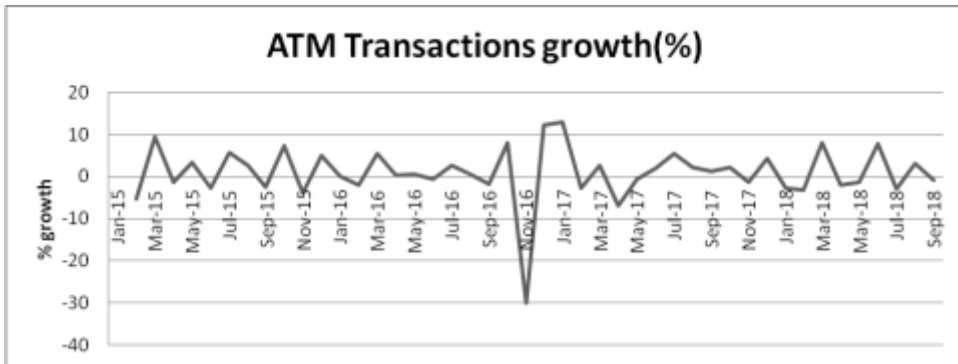
ATM Transactions

Bar Graph II



Source: Author's calculation based on RBI database collated from: <https://rbi.org.in>

Line Graph I

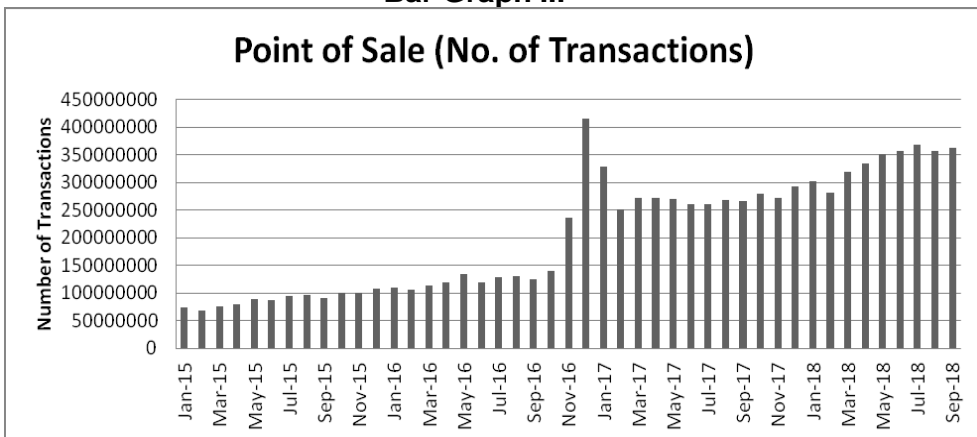


Source: Author's calculation based on RBI database collated from: <https://rbi.org.in>

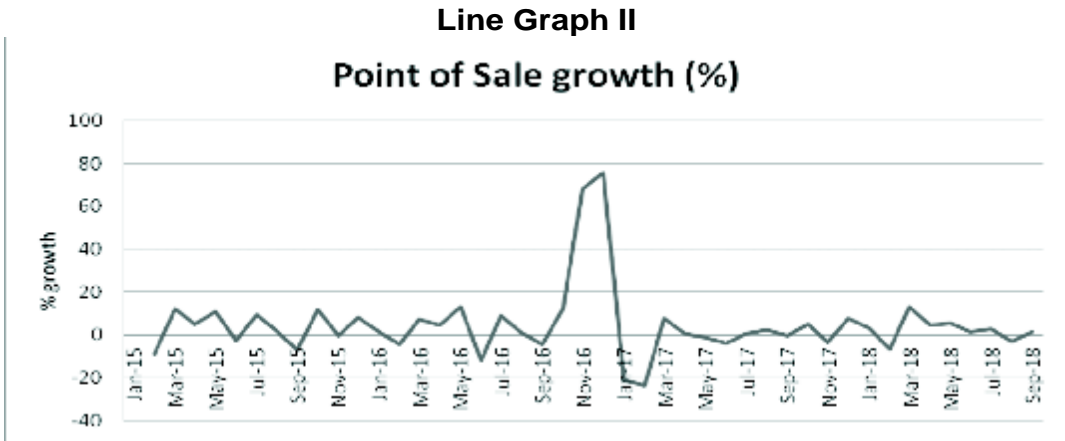
Numbers of ATM transactions indicate the extent of cash people used in their daily financial transactions. On the basis of the data, Bar Graph-II above shows that before and after demonetisation the trend of ATM withdrawal remains at the same level. There is indication of slide down immediately after the demonetisation but picked up as the new cash became available in the ATMs. An analysis of the percentage growth of number of ATM transactions also indicates (line graph-I) that the difference between average growth rate of the number of ATM transactions is not significant. This shows that people remain committed to cash financial transactions and are more comfortable in using cash rather than e-payments.

Point of Sale (POS) e-payments

Bar Graph III



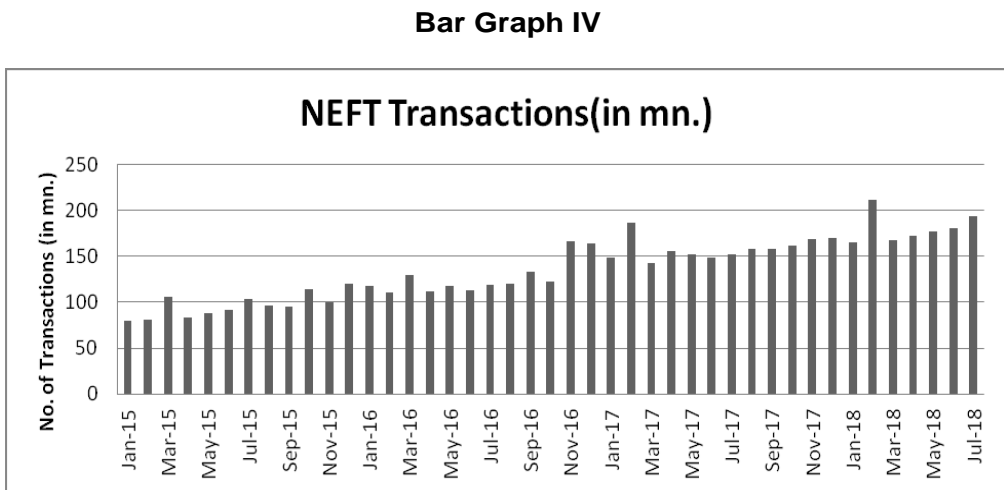
Source: Author's calculation based on RBI database collated from: <https://rbi.org.in>



Source: Author’s calculation based on RBI database collated from: <https://rbi.org.in>

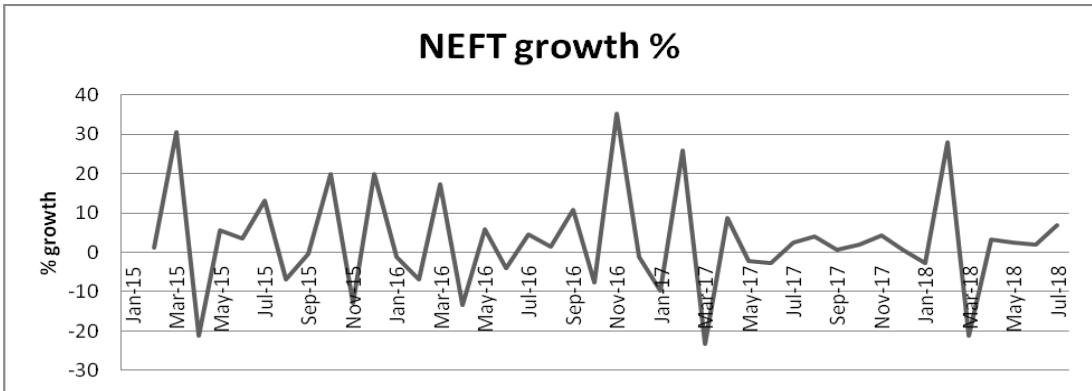
The e-payments made in Point of Sale (POS) indicate the time and place where a retail transaction is completed. This is done by using debit or credit cards. Data shows that the number of transactions increased significantly from November, 2016 to January, 2017. After that, they declined but the number of transactions has certainly increased after demonetisation (bar graph-III). However, in terms of the percentage growth of POS transactions the average rate of growth has actually decreased compared to pre-demonetisation growth rate i.e. 2.04% compared to 3.35% from Jan, 2015 to October, 2016. (Line graph-II)

National Electronic Funds Transfer (NEFT)



Source: Author’s calculation based on RBI database collated from: <https://rbi.org.in>

Line Graph III

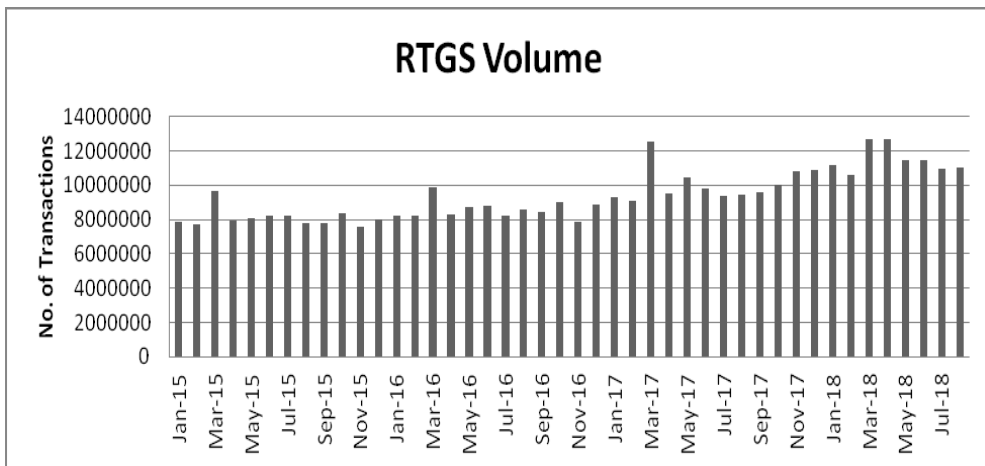


Source: Author’s calculation based on RBI database collated from: <https://rbi.org.in>

The National Electronic Funds Transfer (NEFT) service started in India in November 2005 and has been successfully handling significant volumes, ever since its launch. Transactions through NEFT are an important component of digital payments. The NEFT transactions from Jan, 2015 to July, 2018 indicate that NEFT transactions rose in the months of November and December, 2016 but slumped in January, 2017. Overall, as shown in line graph-III, the increase in NEFT transactions post demonetisation is not very significant. It seems that demonetisation is not a factor behind the rise in transactions after note ban as these transactions were increasing at almost the same rate as in the pre-demonetisation period.

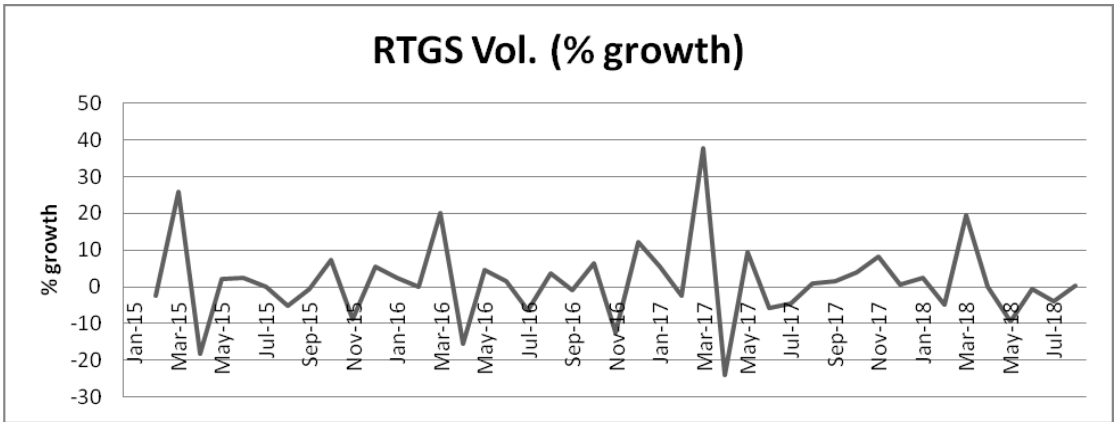
RTGS (Real Time Gross Settlement systems) payments

Bar Graph V



Source: Author’s calculation based on RBI database collated from: <https://rbi.org.in>

Line Graph IV

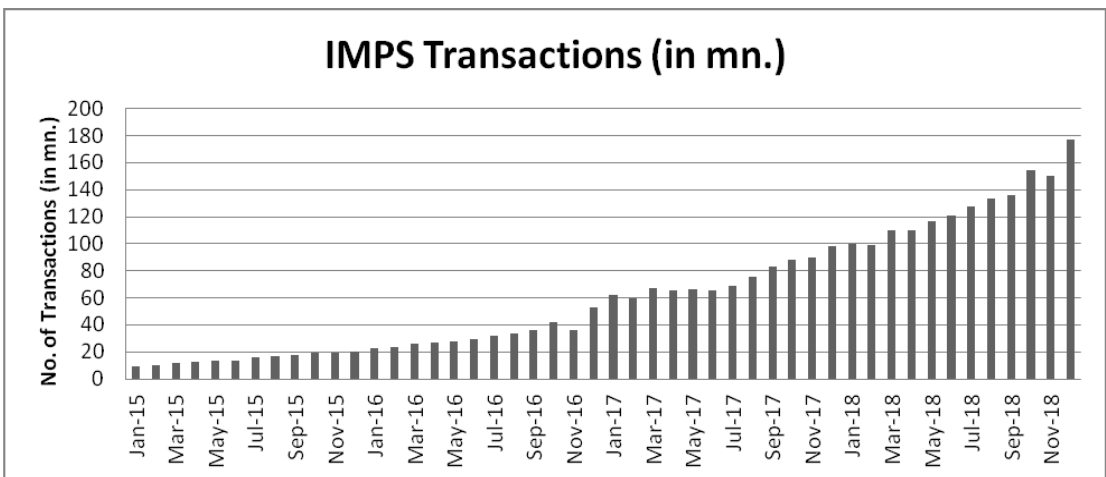


Source: Author’s calculation based on RBI database collated from: <https://rbi.org.in>

The RTGS transactions, data from January, 2015 to August, 2018 as shown in bar graph-V indicates that these transactions did not rise even during the time of demonetisation. This shows no impact of demonetisation on RTGS volume whatsoever. However, in the months of February and March each year there is surge in RTGS transactions that may be due to more transactions near annual financial closings. (Line graph-IV)

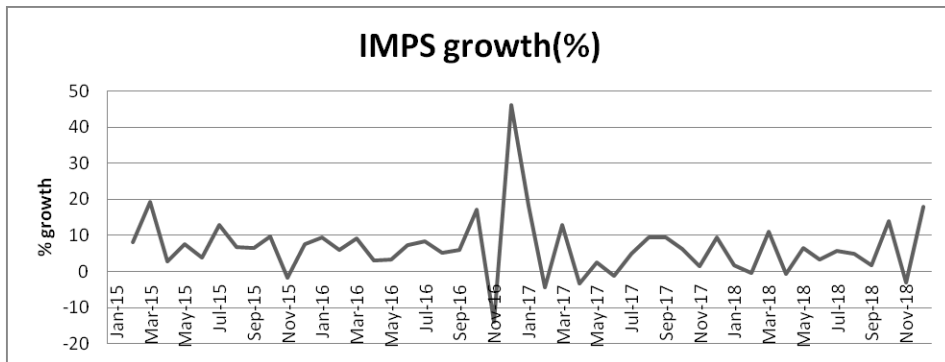
Immediate Payment Service (IMPS)

Bar Graph VI



Source: Author’s calculation based on National payment corporation India (NPCI) monthly data on IMPS Volume collated from <https://www.npci.org.in/imps-volumes>

Line Graph V

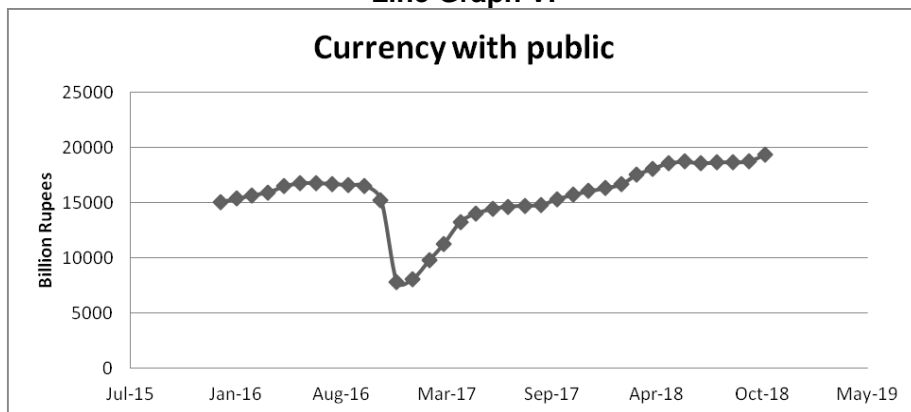


Source: Author’s calculation based on National payment corporation India (NPCI) monthly data on IMPS Volume collated from <https://www.npci.org.in/imps-volumes>

Immediate Payment Service (IMPS) was launched in 2010 and provides an emphatic service which allows transferring of funds instantly within banks across India. The IMPS transactions data during January 2015 to November 2018 shows that number of transactions has increased after demonetisation (bar graph-VI) but the rate of growth of IMPS transactions as worked out in line-graph-V has been similar before and after note ban and hence the impact of demonetisation is insignificant.

Currency with public

Line Graph VI



Source: Authors calculation based on RBI monthly data on Money supply collated from: <https://rbi.org.in>

Currency with public includes notes and coins in the physical form with public as a component of money supply. The RBI data from January, 2016 to November, 2018 shows that the currency with public decreased drastically between October, 2016 and December, 2016. It was at its lowest, at

merely Rs. 7809.5 billion in December. This was less than half of the currency people possessed just two months ago. However, from January 2017 onwards it has seen a continuous rise. In fact, Currency with public surpassed the pre-demonetisation level in February, 2018 and is currently well above the pre-note ban level.

Conclusion and Policy Implications

Demonetisation has traditionally been used by different countries with different objectives. In some cases, it was successful to meet the objectives and at times it met with failures. India has demonetised its currency thrice with different aims including checking the accumulation of black money. India is a large economy and demonetising its currency and remonetising it with new currency is a herculean task which requires a bold decision making and proper mechanism to meet its requirements. In November 2016, Indian government demonetised Rs. 500 and Rs. 1000 Mahatma Gandhi series bank notes and introduced new Rs. 500 and Rs. 2000 notes. It was a sudden move for which neither the public nor banks were prepared, nor about 1,50,000 ATM machines of the country were recalibrated to dispense new currency. It caused a lot of financial chaos in the country.

The demonetisation of November 2016 was first such move in the world and on such a large scale with many objectives which kept on shifting as the aftermath of demonetisation process unfolded. One of the major objectives of demonetisation was declared as digitalisation of Indian economy. As India has cash intensive economy, the purpose was to make it a “less cash economy”. This term paper has attempted to analyse the success and failures of demonetisation as a tool to digitalise the economy.

The study hypothesizes on the premise that unless digital infrastructure is not strengthened in the entire country digitalisation will not be adapted by the people. The study has found that tools of digitalisation in India are poor and people are not connected to these tools as expected of a digital economy. Even the banking system is not well penetrated in our economic system. Poor internet services, frequent call drops, very less use of Mobile-based financial transactions, very less percentage of personal computers per capita, abysmal computer literacy etc. are a big hindrance in digitalisation of economy and financial transactions.

The study analyses six variables of digital economy in India before and after demonetisation. In ATM transactions, there is no change in number of transactions and growth percentage. In point of sale (POS) while number of payments has increased, the growth pattern has not changed substantially. Growth in NEFT and RTGS modes of bank transactions has also remained at the similar level before and after demonetisation. In IMPS, the number of transactions have increased after demonetisation but the rate of growth remained similar before and after the demonetisation. Above all while aim was to have a less cash economy, currency with public has surpassed the pre-demonetisation level. This shows that love for cash with the public has not waned and India remains a cash intensive economy.

Some lessons can be drawn from the study which has policy implications. To digitalise Indian economy, it is incumbent that banking penetration in rural and remote areas needs to be increased. Mobile services need to work without flaws and there needs to be zero tolerance to call drops etc. Internet connectivity needs to be increased substantially so that people can easily use their devices for digital financial transactions. People need to be educated in the use of ICTs and be made aware of the utility of adopting digital technologies for financial transactions. Forceful imposition of policies will not bring any results. A secure environment needs to be created for digital payments in order to minimise the frauds associated with it. Thus, unless digital infrastructure is strengthened in the country, financial digitalisation will not spread whatever be the policy including demonetisation.

References

- Pankaj, Prabhat and Jain, Sheenu. *The Demonetization Phenomenon*. Bloomsbury India, New Delhi, 2018.
- Kumar, Dinesh. "Demonetization: issue and challenges". *International Journal of All Research Education and Scientific Methods*, Vol. 15, No. 2, 2017, pp. 7311-7324.
- Mallick, Sovan Kumar. "The history of Demonetization around the world and its impact on the Church and history", a paper presented at a Senior Colloquium, <https://www.academia.edu/30986953/The-history-of-Demonetization-around-the-world-and-its-impact-on-the-Church-and-history.docx>
- Laudon, Kenneth C. & Laudon, Jane P. *Management Information Systems: ganisation Technology in the Network Enterprises*, 4th edition, Prentice Hall International, US, 2011.
- Agboola, A. A. "Electronic Payment Systems and Tele-Banking Services in Nigeria". *Journal of Internet Banking and Commerce*, Vol. 11, No. 3, 2006.
- Jehangir, Muhammad, Dominic, P.D.D, Naseebullah & Khan, Alamgir. "Towards Digital Economy: The Development of ICT and E-Commerce in Malaysia". *Modern Applied Science, Canadian Center of Science and Education*, Vol. 5, No. 2, 2011, pp. 171-178.
- Parvathamma, N. and Pattar, Danappa. "Digital literacy among student community in management institutes in Davanagere District". *Annals of Library and Information Studies*, Vol. 60, No. 3, 2013, p. 159-166. S&P Global FinLit Survey 2015, http://gflec.org/wp-content/uploads/2015/11/3313-Finlit_Report_FINAL-5.11.16.pdf?x87657
- "Demonetisation: Three times India faced the big move". *The Indian Express*. 16 November 2018. RBI Report, 2017-18, cited in, *The Economic Times*, Aug 30, 2018.
- Ministry of Finance, Government of India. 14 November 2016; "17 November Government press release", Ministry of Finance, Government of India. 17 November 2016.

- Withdrawal of Legal Tender Status for ₹ 500 and ₹ 1000 Notes: RBI Notice (Revised)". Reserve Bank of India. 8 November 2016; "Demonetisation rule modified, families can withdraw Rs 2.5 lakh for weddings from one account". India Today. 17 November 2016
- Kabir, Mohammad Auwal, Saidin, Siti Zabedah and Ahmi, Aidi. "Adoption of e-Payment Systems: A Review of Literature". Conference paper presented in International Conference on E-Commerce, Kuching, Sarawak, Malaysia. 2015.
- Gaur, Ashutosh D. and Padiya, Jasmin. "From demonetisation to digitization of Indian economy: A road ahead" Proceedings of International Conference on Strategies in Volatile and Uncertain Environment for Emerging Markets Indian Institute of Technology Delhi, New Delhi. July 14-15, 2017.
- Chandrasekhar, C.P. and Ghosh, Jayati. "The Financialization of Finance? Demonetization and the Dubious Push to Cashlessness in India". *Development and Change*, Vol. 49, No. 2, 2017, pp. 420-436.
- Munjal, Divya. "Digitalisation – Solution of demonetization". *International Journal of Applied Research*. Vol. 3, No. 7, 2017, pp. 823-825.
- Reddy, Sreelata K. and Jayalaxmi, S. "Demonetization – Transformation to Digital India – A Study". *IOSR Journal of Business and Management*, Vol. 6, No. 9, 2017, pp. 46-54.
- Kaur, Manpreet. "Demonetization: Impact on Cashless Payment System". *International Journal of Science, Technology and Management*, Vol. 6, No. 1, 2017, pp. 144-149.
- Singh, Ombir. "Demonetisation and Digitalisation in India". *International Journal of Academic Research and Development*, Vol. 2, No. 4, 2017, pp. 283-287.
- Waknis, Parag, "Demonetisation: Some Theoretical Perspectives", *Munich Personal RePEc Archive*, MPRA Paper No. 76391, 2017
- Kumar, Piyush and Chaubey, Dhani Shanker. "Demonetization and its Impact on Adoption of Digital Payment: Opportunities, Issues and Challenges". *Abhinav National Monthly Refereed Journal of Research in Commerce & Management*, Vol. 6, No. 6, 2017, pp.1-14.
- Roy, Prasenjit. "The Digitization Wave in India: A SWOC Analysis with Special Reference to the Demonetization and a Leap towards Cashless Economy". *IRA-International Journal of Management & Social Sciences*, Vol. 10, No. 1, 2018, pp. 54-62.
- Nithin, M., Jijin, P. and Baiju, P. "Has Demonetisation Pushed Digitalisation in India? Some Counter Evidences". *Journal of Business Thought*, Vol. 9, 2019, pp. 58-69.
- Kwang, T.W., "The impact of ICT on the global economy", *eGovinnovation*, <https://www.enterpriseinnovation.net/article/impact-ict-global-economy-1388124773>

Networked Readiness Index 2016, World Economic Forum, [http:// reports.weforum.org/global-information-technology-report 2016/networked-readiness-index/](http://reports.weforum.org/global-information-technology-report-2016/networked-readiness-index/) The Telecom Regulatory Authority of India's quarterly Performance Indicators Report.

Kala, Rishi Ranjan. "Call drop situation worsens in April". *Financial Express*, June 15, 2018.

Wani, Showkat Ahmad. "Demonetisation in India: Its Objectives and Effects on Indian Economy". Edupedia Publications Pvt, Ltd. accessed at [https:// www.pen2print.org/2017/04/demonetisation-in-india-its-objectives.html](https://www.pen2print.org/2017/04/demonetisation-in-india-its-objectives.html)

PM Modi's 2016 demonetisation speech that shocked India https://www.business-standard.com/article/economy-policy/full-text-pm-modi-s-2016-demonetisation-speech-that-shocked-india-117110800188_1.html

Full text of PM's '*Mann Ki Baat*' address on All India Radio on 27.11.2016, Press Information Bureau, Government of India, Prime Minister's Office website <http://pib.nic.in/newsite/PrintRelease.aspx?relid=154433>

The Global Findex Database, 2017, World Bank Group, [https:// globalfindex. worldbank.](https://globalfindex.worldbank)

Comparative Analysis of Emerging Disability Laws in India from Human Rights Perspective

NAMITA GUPTA
PARDEEP KUMARI

Abstract

The disability rights deliberate not much about the enjoyment of specific rights as it is about ensuring an equal and effective enjoyment of the basic human rights. In India, the protection of differently abled has been a crucial issue. India has witnessed a drastic revolution as far as rights of differently abled are concerned. We have moved far away from the charity model of disability to a human rights' based approach. The same is reflected in the introduction of new legislations and policies for differently abled in India. The present paper is a study on the evolution of legislative and policy measures formulated for the protection and promotion of human rights of the differently abled in Indian society historically. Besides this, it seeks to critically analyse the current legislations enacted to ensure the inclusive growth of differently abled persons in India and effectiveness of these legislations in ensuring the same.

Keywords: Disability, Differently abled, Emerging legislations, Human rights

Introduction

In India and much of South Asia, disability is largely seen as a product of cultural impediments such as beliefs and stereotypes as well as structural impediments like poverty, lack of development, illiteracy, unemployment and caste, class and gender barriers. Persons with disabilities are marginalised in education, employment, mobility and other significant life areas. The meaning of disability in India is embedded in this basic struggle for survival and cultural understanding. The apathy towards their problems is so pervasive that even the number of differently abled persons existing in the country is not well documented. As per an estimate of the World Health Organization, ten percent of the world's population suffers from one or the other disabilities and almost one-fifth of the differently abled persons of the world lives in India. The number of persons with special needs in the age group of 0-29 years who need access to education is 1.23 billion out of which, 53.4 million are girls and women with special needs (Kumar). There is an increase in the number of differently abled from 2.19 billion 2001 to 2.68 billion in 2011 (General).

This substantial portion of the population needs equal services and opportunities for their overall development, which is also an essential attribute for their inclusive growth (Gupta and Kumari). With internationalization of human rights by the International Bill of Rights, human rights became the

subject matter of global concern. People with disabilities were not specifically covered in all aspects; thus, gradually differently abled persons across the globe organized themselves and undertook their struggles to ensure their basic human rights of equality and dignity. International efforts in the form of declarations, covenants, and conventions played a significant role in this regard by recognizing and promoting human rights of the differently abled with emphasis on the inclusion and respect for diversity.

Two significant United Nations' Declaration worth mentioning here are: Declaration on the Rights of Mentally Retarded Persons (1971) and the Declaration of the Rights of Disabled Persons (1975). These two declarations specifically discussed the rights of the differently abled in detail. Another landmark was achieved in this direction in 1981, as United Nations declared it the 'International Year of Disabled Persons', followed by declaring year 1983-92 as the 'Decade for Disabled Persons'. Though international documents played a significant role as far as ensuring rights to differently abled was concerned, the intended objective could not be achieved due to prevalent conventional individualistic notions of disability and medical rehabilitation. The Convention on the Rights of Child, 1989 while elaborating the rights of child in general specifically emphasized on the rights of the disabled children. Salamanca Declaration (1994) endorsed that inclusive education for children with special needs is an essential human right (Kumar). United Nation's Convention on the Rights of Persons with Disabilities 2006, (UNCRPD) and its optional protocol recognized persons with disabilities as subjects having human rights and fundamental freedoms and not as objects needing mere medical care and social protection. Millennium Development Goals (2000-2015) while endorsing the fundamental principles of human dignity, equality and equity; emphasized on equal rights to persons with disabilities. Sustainable Development Goals (2015-2030) moved a step further by making references with regard to persons with disabilities at seven places with specific emphasis on education, employment, reducing inequalities, inclusive cities, and disaggregation of data by disability and implementation of data.

The above discussion clearly shows the efforts that have been made at the international level which entitles various rights to all the differently abled persons. India is a signatory to all the major international documents which mentions the rights of differently abled. India in order to comply by the norms and standards advocated in these international instruments, initiated various laws for the protection of the rights of the differently abled. However, what is important to ascertain is whether they have been adequate and effective enough to cater to the needs of the differently abled. Through an analysis of the legal framework, the extensive infrastructure, the welfare plans and the reality that exists, it would be convenient to cull out how much has been done and what more can we do. Disability legislations in India are still evolving. However, before critically analysing the current legislations for differently abled, it will be interesting to study the laws and policies prevalent for the protection and promotion of human rights of the differently abled in Indian society historically. The next section endeavours to identify various such measures.

Indian Approach Towards Differently Abled Persons: Historical Perspective

The primitive societies were based on the Darwinian concept of 'survival of the fittest'. Bhat, (1963) in her study made a reference to the practice of abandoning physically challenged child by many primitive tribes. She also stated that some tribal chiefs supported the killing of these unfortunate children (Bhatt). Karna (1999) (Karna) refers to the practice of throwing of differently abled children in River Ganga in ancient India. The blind, deaf, crippled and the idiots (mentally ill) had to perform the ritual of '*Bandhayana*' where the kings were supposed to provide food, clothing and shelters to these incapable persons (Karna). These charity measures continued during the ancient and medieval period as well, where though, there is no vivid evidence of killing of differently abled children; however, the stigma and marginalization still continued.

Despite these sporadic instances of violence and discrimination; the general concern for welfare of all was always prevalent in Indian society. One of the vivid examples of the same can be found in Kautilya's (350-275 BCE) *Arthashastra* in which various measures have been indicated that should be observed by any king to make their state better for every citizen. This document also emphasized on the welfare and protection of vulnerable sections of the society (Rangarajan; Kautilya). The *Arthashastra* further defined the vulnerable segments of the population to include “*minors, aged, sick, disabled, insane, Brahmins and ascetics.*” He further asserted that the vulnerable “*are to enjoy priority of audience before the king, maintenance at state expense, free travel on ferries and given special consideration by judges* (Rangarajan).” Although the underlying principle of such measure were not based on the human rights approach; however, it is still relevant as it acknowledged the needs of differently abled and mentions the role of the welfare state to provide needed protection to them. Emperor Ashoka's edicts (268-232 BCE) also mentions about the prevalence of a well-developed and elaborate public health system to provide care for the ill, infirm and those in need of help (Smith). The reign of Chandra Gupta Maurya (321-298 BC) stands to be unique in its arrangement of workshops for the rehabilitation of the physically disabled as well as other socially and economically disadvantaged members of society (Commission). Even during the Mughal period, institutions established for the welfare continued to survive under *Zakat*, a system by which part of the income of every individual was set apart for the central fund for maintaining social institutions to do charity for the needy persons. The Mughals instituted a separate department with a head to supervise and manage *Zakat* (Chopra).

Hence, it can be surmised that charity measures were always prevalent in Indian society for the persons with disabilities; however, their right to equality with other able persons in the society was never recognized. The various religious reform movements in the nineteenth century raised various issues of social relevance including widow remarriage, child marriage and sati. Despite this, the issue of disability was still guided by the religious practices of ancient and medieval periods. Very few social reformers challenged the prevalent theory of *Karma*, (Burch and Rembis) which believed that the people became disabled because of the sins they have committed in their past lives.

The pre-colonial India with *gurukul* system of education had few special education services due to its inflexible nature. During this period, the majority of children with disabilities were not in school. A major shift in the approach towards differently abled was witnessed with the arrival of the Christian Missionaries during the latter part of the colonial era (1880-1940). These evangelists played a crucial role in initiating services that promoted educational and employment opportunities for people with disabilities. In this way, Christians Missionaries transplanted their charity-based approach to disability in India. This was the period when certain other NGOs (majorly religion based) also started working for the welfare of the differently abled (Hegarty and Alur).

The first special school for people with disabilities in India was a school for the blind, established by Jane Leupot in the year 1869, with the support of the Church Missionary Society. Fourteen years later, in 1883, a school for the deaf was opened in Bombay followed by the school for the blind in Amritsar in 1887. It is noteworthy that all these special schools for people with disabilities accommodated people with physical disabilities only; however, it was in 1918 that the first school for people with intellectual disabilities was established. It is also worthy to mention that all these schools exemplified the type of special education services offered during the 1800s and 1900s: as 'specialized and segregated'. By the year 1900, special schools were springing up throughout the country. Until the 1970s, these schools were the primary method of service delivery for the children with disabilities. Most of them were for the children who were blind or visually impaired, and the majority were funded by non-governmental organizations or private funders (Kalyanpur).

Till India got independence in 1947, the issues of welfare of differently abled were never a prime concern (Verma et al.). Though certain measures were initiated by British government such as inclusion and education for differently abled by introducing a bill under the Indian Council Act of 1909 to make primary education compulsory; however, it was voted down. In the year 1940s, the government of India began setting up special segregated schools for differently abled; hence separating them from students without disabilities. The purpose was to equip children with disabilities with certain skills to enter the workforce. In addition, this decade was marked by a large increase in the amount of money given to voluntary organizations to establish special schools. Most of these segregated schools were expensive and were located in urban areas, which further marginalised people with disabilities in rural areas.

India gained independence in the year 1947. The Constitution of India ensured equality, freedom, justice and dignity to all individuals and implicitly mandated an inclusive society for all including the persons with disabilities. The special emphasis was laid on the right to education for all. The Directive Principles of State Policy (Part IV, Article 45) of the Constitution states, "The state shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years". The 86th amendment to the Constitution of India made right of children to free and compulsory education for 6-14 years' age group, a fundamental right under Article 21A. Article 51A (k) also has also been added as Fundamental duty of parent and guardian to send their children to the schools.

Indian courts have time and again upheld the rights of persons with disability and the Supreme Court of India, in *D.N. Chanchala v. State of Mysore and Ors* (AIR, 1972) advocated the right-based approach to disability and extended “equitable principle” of “preferential treatment” under Article 15(4) to persons with disabilities in order to bring them into mainstream of the society by giving them equal opportunity in the field of education. Besides the constitutional measures and judicial pronouncements, various legislations have also been enacted for the protection of the rights of persons with disabilities in India. Some of these legislations have been critically analysed in the following section.

Emerging Legislations: A Critical Analysis

The concern for the rights of the differently abled in India became visible in the public domain in the 1990s when a cluster of legislations was enacted by the Parliament. These were: Rehabilitation Council of India Act, 1992, Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999. During this period, many outdated legislations were replaced and repealed to assert rights based approach in Indian legislations. For example, Indian Lunacy Act, 1912 was replaced by Mental Health Act of 1987, which was further repealed and replaced by Mental Health Care Act, 2017. The rise of the disability rights movement and the proactive role of United Nations propelled these legislative developments and laid the foundations for nascent disability jurisprudence in the country. This section will deal with two such legislations in India i.e. Mental Health Care Act, 2017 and Rights of the Persons with Disabilities, 2016. Besides this, it will also endeavour to compare the key features of current legislations with the earlier ones to understand the change in approach or ideology, if any in these legislations.

A. Mental Health Care Act, 2017

The independent India continued with the Indian Lunacy Act, 1912 which considered the mentally ill person as an 'idiot or that who is of unsound mind and as an insane' and used the terminology of *Lunatic or Lunatic* criminals. However, gradually it was realized that the Act is outdated and inadequate as it failed to ensure the rights to those suffering from mental illness. Hence, it was repealed and Government of India enacted the Mental Health Act of 1987 (Rastogi). The Act redefined the term which is more humane in nature that is '*Mentally ill Persons*' and '*Mentally ill Prisoners*'. The Mental Health Act (1987) also consolidated and amended the law relating to the treatment and care of mentally ill persons, to make better provision with respect to their property and affairs and for their inclusion in the society. However, despite the Act being come in to force in 1993, the condition of mentally ill persons in India was far from satisfactory. Until 1995, many of the persons with mental illness were confined to jails; and the conditions of the prisons and mental institutions were below the required standards. The National Institute of Mental Health and Neurosciences (NIMHANS) found in their studies that at least 13.7 per cent of India's general population has been projected to be suffering from a variety of mental illnesses; and 10.6 per cent of this requires immediate intervention. But many of them failed to get basic facility to overcome their

problems in India. Furthermore, nearly 150 million Indians are in a need of active medical intervention. But the ground reality is different because the mentally ill persons are the poorest in getting the medical facilities. The situation of mentally ill was very pathetic and they were chained in different asylums and special institutions. Taking the cognizance of issue, the Supreme Court of Indian the case of *Chandan Kumar Banik v. State of West Bengal*, ordered the discontinuation of the practice of using iron chains on patients who were unruly or not physically controllable and instead ordered drug treatment for these patients (Chopra). The Court further gave the directions to remove other deficiencies in the care system to ensure that the patients would be rehabilitated in the mental asylums and would receive appropriate attention in all aspects in a humane manner.

Besides poor implementation of the Act, there were certain other shortcomings in the Act. The Act failed to provide a provision for after discharge care and rehabilitation of patients. Furthermore, there was no mention of any punishment for the family members and guardians who unnecessarily detained their mentally ill family member in psychiatric hospitals (Kohama). The new Mental Health Care Act, 2017 endeavoured to overcome these shortcomings. Table 1 discusses the key features of all these legislations in India.

Table 1
Comparison of Certain Key Features of Mental Health Legislations in India

Provisions in the Acts	Indian Lunacy Act, 1912	Mental Health Act, 1987	Mental Health Care Act, 2017
Terminology	Used the terms such as Lunatic, Criminal Lunatic- Used the term Asylum for housing and treatment	Replaced the word Lunatic with Mentally Ill Persons, Mentally Ill Prisoner and Used the term Psychiatric Hospital/Nursing Home.	Retained the same terminology such as Mentally Ill persons, The term Psychiatric hospital has been changed to mental health establishment
Definition	Defined Lunatic as an Idiot or person of unsound mind	Defined mentally ill person as <i>“those who is in need of treatment by reason of any mental disorder”</i> .	Broadened the definition of mentally ill person by including those <i>“...who have substantial disorder of thinking, mood, perception, orientation or memory ...and mental conditions associated with the abuse of alcohol and drugs...”</i>
Primary Focus	Criminalized Lunacy	Focus on legal rights of property and its management guardianship and judicial inquisition	Focus on Mental Healthcare of Person suffering from mental illness
Guardianship	Not mentioned	Not mentioned clearly	It has a provision for the appointment of individuals as nominated representative for guardianship in the case of no parents which includes; care giver, advance directive, relative.

Mode of Treatment	Segregated treatment in asylum homes	Segregated treatment in psychiatric hospitals	Provision of home based treatment for the mentally ill to treat them while keeping them with their family and also allows for Electroconvulsive Therapy (ECT) only with muscle relaxants and anaesthesia
After Care and Rehabilitation	Not mentioned, rather it talks about the arrest of the lunatic so that he/she won't hurt the society at large.	Focus on medical treatment; however lacks in adequate provisions of after care and rehabilitation.	The Act mainly focuses on the rehabilitation and mental health care and services for mentally ill persons
Approach towards Mentally Ill	Emphasised on Bio-centric Model which focussed on treatment and procedures of admission and discharge of diagnosed individuals and regulations for psychiatric institutions	The focus was same as Indian Lunacy Act	Emphasised Rights based approach by ensuring the right of every individual without discrimination to access affordable and good quality mental health services.
Suicide by Mentally ill	Not mentioned in the Act	Attempt to commit suicide was considered as an offence under the Act	It decriminalises suicide
Penalty and Punishments for Discrimination	<i>One month</i> imprisonment which can be extended to <i>two years</i> and fine up-to <i>rupees five hundred</i> will be charged or both can be imposed to the person who discriminates with the Lunatics.	? Three months imprisonments and fine of rupees One thousand will be charged from the persons who detain or discriminate with mentally ill persons. ? In the case of subsequent offence the imprisonment can be of <i>Six months</i> and fine can be <i>One thousand</i> rupees and both can be imposed.	Imprisonment of <i>Six month</i> and extended up-to <i>Two years</i> and fine of <i>rupees Ten thousand</i> which can further be extended to <i>Fifty Thousand</i> for <i>First contravention</i> and can be increased in every subsequent contravention.
Provisions for Minors	There was no separate provisions made for the minors	? In the case of minors there is provision for the nomination of legal guardian ? Minor is treated separately which takes in to account his/her age and developmental needs ? Electroconvulsive therapies (ECTs) are prohibited for minors	The same provisions were there as mentioned in Mental Health Act, 1987

Source : Comparative analysis of various legislations done by the Authors

The above comparison of key features of various mental health legislations in India clearly shows that we have moved a long way as far as protection and promotion of mental health care is concerned. The new legislation ensures that every person have a right to access to mental health care and treatment from mental health services run or funded by the appropriate government. It further assures free treatment for such persons if they are homeless or belong to Below Poverty Line, even if they do not possess a BPL card. The Act also provides mentally ill people a right to confidentiality in respect of mental health, mental healthcare, treatment and physical healthcare. The Act has tried to fill the gaps of the earlier enactment and focuses on the basic human rights of the mentally ill persons; however, as the enforcement of the Act has just begun, the efficiency of the legislations to ensure the same will be tested in the years to come.

B. Rights of Persons with Disabilities Act, 2016

India under its international commitment (Convention on the Rights of Persons with Disabilities, 2006) enacted Rights of Persons with Disabilities Act, 2016 which replaced the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995 (Act). The earlier legislation of 1995 enlisted seven categories of disability i.e. (1) blindness, (2) low vision, (3) leprosy cured, (4) hearing impairment, (5) loco-motor impairment, (6) mental retardation, and (7) mental illness. The 1995 Act was quite comprehensive in providing certain rights to the differently abled persons such as integration of students with disabilities into regular schools (Das) provisions for grievance redress machinery established at the central and state levels to prevent any kind of discrimination against persons with disabilities; provision of preventive and pro-motional aspects of rehabilitation; creation of a barrier-free environment and reha-bilitation of persons with disability etc. It further focused on securing unemployment allowance, providing special insurance and establishment of homes schemes (such as low interest loan for home and subsidy in land and property) for the differently abled employees.

Though the PWD Act of 1995 guaranteed the most comprehensive and exhaustive framework amongst all disability laws for the protection of the differently abled and provides certain positive obligations which the state must fulfil, (Baquer and Sharma). The Act had various loopholes that had an adverse effect on ensuring the minimal entitlements and protections to the persons with disabilities. One of the major limitations of the Act was related to education for children with disabilities. The Act put the onus on the states to ensure that all the differently abled children have access to education; however, the private schools in the country, were not obligated to admit children with disabilities or to provide appropriate and accessible education for them (Kothari). Besides this, the definition of disability was not comprehensive enough to include all categories of differently abled persons. Various provision made under the Act used terms like “within the limits of economic capacity” which allowed the authorities to get away without effectively implementing the provisions of the Act. To over-come these shortcomings, the PWD Act, 1995, was repealed and replaced by Rights of Persons with Disabilities Act, 2016. The newly enacted legislation consists of 17 chapters with 102 Articles and is much centric to the definition of Person with benchmark disability, which is

elaborated as a person with not less than 40 per cent of a specified disability. The key features of both the legislations have been compared in Table 2.

Table 2
Comparison of Certain Key Features of Rights of Persons with Disabilities Acts in India

Provision in the Act	Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995	Rights of Persons with Disabilities Act, 2016
Terminology	The term ' <i>Disabled</i> ', has been used.	The terms like ' <i>Persons with disabilities</i> ', ' <i>Children with special needs</i> ' have been used in the act.
Definition	Defined "Disability" as (1) blindness, (2) low vision, (3) leprosy cured, (4) hearing impairment, (5) locomotor impairment, (6) mental retardation, and (7) mental illness and not less than 40 per cent certified by a medical practitioner .	? Broadened the definition of the persons with disability to include 21 forms of disabilities. ? The Act categorized the persons with disabilities into three categories i.e. Person with disability; person with benchmark disability and person with disability having high needs
Primary Focus	It mainly focused on civil right and on the integration of PWD's in societal mainstream.	It explicitly envisages civil and political rights of persons with disabilities in addition to envisaging their economic, social, and cultural rights.
Approach towards Disability	Primarily based on the medical approach of disability rather than rights based approach	It adopts a social and human rights-based approach to disability and recognizes that persons with disabilities are entitled to human rights and fundamental freedoms on an equal basis with others.
Redressal Mechanism	The redressal mechanism was not so strong; the PWDs have to face problems in availing judicial remedies.	? It has strengthened the regulatory, monitoring, and grievance redressal mechanisms in terms of their functions and composition. ? It also stipulates designation of special court at the district level for fast tracking of the cases of persons with disabilities.
Provision of Education	The right to education has been ensured in the act which provided free and compulsory education to differently abled children till the age of 18 years.	The provision of free and compulsory education has been retained with an addition of the term ' <i>inclusive education</i> ' to ensure quality education for differently abled children in the regular schools.
Provision for Women	No specific mention of the rights of women with disabilities.	? The act provides for representation of persons with disabilities including representation of women with disabilities in the various bodies to be created under this act ? It enabled women with disabilities to enjoy their reproductive rights without any discrimination.
Reservation	The Act had the provision of 3 per cent reservation for differently abled in educational institutions and in government jobs.	It increased the provision of reservations from 3 per cent to 5 percent in educational institutions and 4 per cent for government jobs.
Penalty and Punishments	The provision for imprisonment under the act has been for two year and minimum fine of Rupees Twenty Thousand or both.	<i>Two years imprisonment</i> and fine of <i>Ten thousand</i> and can be extended to <i>One lakh</i> will be imposed.

Source : Comparative analysis of various legislations done by the Authors

The major shift in the new legislation is recognizing the different forms of disabilities which have increased from 7 to 21 type i.e. Blindness, Low-vision, Leprosy Cured persons, Hearing Impairment (deaf and hard of hearing), Locomotor Disability, Dwarfism, Intellectual Disability, Mental Illness, Autism Spectrum Disorder, Cerebral Palsy, Muscular Dystrophy, Chronic Neurological conditions, Specific Learning Disabilities, Multiple Sclerosis, Speech and Language disability, Thalassemia, Haemophilia, Sickle Cell disease, Multiple Disabilities including deaf blindness, Acid Attack victim, Parkinson's disease. The new legislation is in consonance with the principles of Convention on the Rights of Persons with Disabilities, 2006. The Act besides increasing the percentage of reservation for persons with disabilities from 3 per cent to 5 per cent in Government institutions of higher education and government-aided institutions; also mandates the upper age relaxation of 5 year for admission in institutions of higher education for persons with disabilities. Furthermore, for jobs in public sector, not less than 5 per cent of the total number of vacancies are meant to be filled with persons with benchmark disabilities of which, one per cent shall be reserved for persons with following benchmark disabilities: Blindness and low vision, Deaf and hard of hearing, Locomotor disability, Autism, intellectual disability, specific learning disability and mental illness, Multiple disabilities.

The Government and the local authorities are mandated to make schemes in favour of persons with benchmark disabilities, to provide five per cent reservation in allotment of agricultural land and housing in all relevant schemes and development programmes, and in allotment of land on concessional rate, where such land is to be used for the purpose of promoting housing, shelter, setting up of occupation, business, enterprise, recreation centres and production centres. In all such cases priority has to be given to women with disability. The Act is landmark as it lays emphasis on infrastructural accessibility of public buildings within the period of five years since the notification of the Act.

Hence, it can be stated that the various provisions of the Act are quite inclusive in nature, however, the proper implementation of this act will be very crucial. It is hoped that the new law, a robust rights-based legislation with a strong institutional mechanism, shall ensure enjoyment of rights by persons with disabilities on an equal basis with the non-disabled citizens of India. The disability sector has been waiting for this law patiently for the last several years. The new law would be a game changer if implemented in letter and spirit.

Conclusion

India has come out with various legislations for the uplift of differently abled persons, but a wide gap between the laws and reality still exists the major reason for the same is that the mind-set of large section of the people who claim themselves to be 'able' persons still needs to be changed towards differently abled persons.

Persons with disabilities are still not able to enjoy their basic rights such as right to education. The global estimates suggest that fewer than 5 per cent of children with disabilities achieve the goal of

primary school completion (Peters, 2003). The reason behind that is the improper facilities and lack of assistive technologies in the schools which hinder their active participation. Their ability to realise their full potential is hampered by the inability of society to meaningfully assimilate them into the mainstream. To ensure better implementation of the laws, effective time frames and deadlines for strict compliance should be mentioned. Also provisions for alternate or temporary arrangements (like unemployment allowance, scholarships, etc.) should be made until the main provisions of the act are complied with. The concerned authorities under the acts must be provided proper training and awareness of the rights of the differently abled, and must be made punitively liable in case of violations of the act.

While formulating law and policies, some representation of the differently abled people must also be taken into account. Use of technology must be encouraged to surmount the difficulties and hindrances that affect the functioning and development of the capabilities of the differently abled. Improvements in health care must be made to provide for early and effective detection and treatment of diseases. Furthermore, emphasis must be laid on making our transport and other infrastructure universally accessible and human-friendly. Differently abled persons by virtue of being a human have the right to enjoy life, liberty, equality, security, and dignity. These rights have been recognized internationally as third-generation group rights. India partly because of its international commitments and partly because of the pressure of the various movements for the rights of the differently abled has enacted a slew of legislations to protect the rights of the differently abled. However, the struggle is not over, until these statutes are implemented in letter and spirit. Holistic support systems have to be scaled to provide services such as job analysis, workplace solutions, inclusion, awareness and sensitization, leadership development and more. This is critical for skilling initiatives to be successful. Various schemes like 'Accessible India Campaign' and 'Make in India' will be successful only then when there is "Change in India" which will be inclusive to all sections of society.

References

- Act, P. W. D. *The Persons with Disabilities. (Equal Opportunities, Protection of Rights and Full Participation) Act*. India, New Delhi, Ministry of Law, Justice and Company Affairs, Government of India, 1995.
- Baquer, Ali, and Anjali Sharma. *Disability: Challenges vs Responses*. Concerned Action Now, 1997.
- Bhatt, Usha. *The Physically Handicapped in India: A Growing National Problem*. Popular Book Depot, 1963.
- Burch, Susan, and Michael Rembis. *Disability Histories*. University of Illinois Press, 2014.
- Chopra, Tushti. "Expanding the Horizons of Disability Law in India: A Study from a Human Rights Perspective." *The Journal of Law, Medicine & Ethics*, Vol. 41, no. 4, Wiley Online Library,

- 2013, pp. 807–20. Commission, National Human Rights. “Disability Manual.” *New Delhi, India: National Human Rights Commission*, 2005.
- Das, Ajay Kumar. *Perceived Training Needs of Regular Primary and Secondary School Teachers to Implement Inclusive Education Programs in Delhi, India*. University of Melbourne, Faculty of Education, 2001.
- General, Registrar. “Census Commissioner, India.” *Census of India*, Vol. 2000, 2011.
- Gupta, Namita, and Pardeep Kumari. “Right to Special Education for Mentally Ill in Punjab: A Study of District Hoshiarpur.” *Asian Journal of Research in Social Sciences and Humanities*, Vol. 7, No. 10, Asian Research Consortium, 2017, pp. 27–41.
- Hegarty, Seamus, and Mithu Alur. *Education & Children with Special Needs: From Segregation to Inclusion*. Sage, 2002.
- Kalyanpur, Maya. “Equality, Quality and Quantity: Challenges in Inclusive Education Policy and Service Provision in India.” *International Journal of Inclusive Education*, Vol. 12, No. 3, Taylor & Francis, 2008, pp. 243–62.
- Karna, G. N. *United Nations and the Rights of Disabled Persons: A Study in Indian Perspective*. APH Publishing, 1999.
- Kautilya, V. C. *The Arthashastra, Edited, Rearranged, Translated and Introduced by LN Rangarajan, 1992*. New Delhi, New York: Penguin Books.
- Kohama, Angela. “Inclusive Education in India: A Country in Transition.” *Unpublished Undergraduate Honours Thesis, Department of International Studies, University of Oregon*, 2012.
- Kothari, Jayna. *The Future of Disability Law in India: A Critical Analysis of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995*. Oxford University Press, 2012.
- Kumar, Dev Nandan. *Empowerment of Persons with Disabilities through Institutional based Rehabilitation Services*.
- Rangarajan, L. N. *The Arthashastra*. Penguin Books India, 1992.
- Rastogi, Prateek. “Mental Health Act 1987: An Analysis.” *Journal of Indian Academy of Forensic Medicine*, Vol. 27, No. 3, Indian Academy of Forensic Medicine, 2005, pp. 176–79.
- Smith, Vincent Arthur. *The Oxford History of India: From the Earliest Times to the End of 1911*. Clarendon Press, 1920.
- Verma, Gajendra K., et al. *International Perspectives on Educational Diversity and Inclusion: Studies from America, Europe and India*. Routledge, 2007.

Education and Poverty Reduction in India

JASPREET KAUR
ANUPAMA

Abstract

Human capital is one of the multidimensional processes; it enhances the economic growth on one hand and assists in reduction of poverty by increasing the productivity on the other. One of the Millennium Development Goals, 'Universal Primary Education for All', considers that education is a crucial weapon for fighting with poverty. The present paper attempts to analyse the effect of different levels of education on the poverty in India by using the unit level data from NSSO for the time period 2004-05 and 2011-12. The results of binary logistic regression model have shown that size of household, social group, absence of regular salary earner and the source of livelihood were positively associated with the probability of being poor whereas age and education level of the head of household have negative relationship with poverty..

Keywords: Education, Human capital, Poverty

Introduction

Poverty in any nation is a serious impediment on the path of achieving faster and sustainable economic development. Poverty is usually considered as a situation in which human beings lack sufficient resources to fulfil their minimum basic needs necessary for their survival. Traditionally, the poverty is described in income/ expenditure terms, which considers a person as poor if he/she is unable to procure a minimum level of calories with the available income/expenditure. With the passage of time definition of poverty undergone changes. With the official recognition of the Millennium Development Goals (MDGs) in 2000, it is widely accepted that poverty is a multidimensional phenomenon. This declaration has been further extended under the name Sustainable Development Goals (SDGs) according to which poverty have to be eliminated till 2030 in all its forms. Thus, the removal and reduction of poverty in its all forms has been an imperative goal of development strategies in modern societies. Many national and international development institutions namely UNDP, World Bank and UNICEF etc. are working on this agenda. There have been various methodologies in practice for curtailing the poverty, important among them are direct and indirect measure. Direct methods include provision of food, employment, even cash transfers to the poor persons, whereas indirect methods comprise provision of education, health facilities etc. which enables the person to increase his/her earnings in order to break the poverty trap. The indirect measures especially education may be of long-term nature and effect, making the benefits of poverty reduction more effective and sustainable (Tilk, 2001).

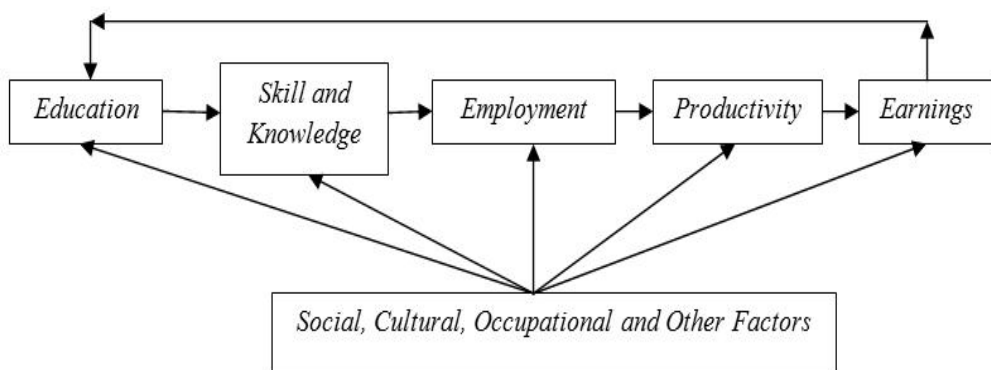
Human Capital Approach to Poverty Reduction:

According to this approach one of the important component of human capital i.e., education is an effective policy tool for the poverty reduction in any economy. Investment in the education leads to the formation of human capital, which is crucial component of the economic growth. The term 'human capital' was popularised by Mincer (1958), Schultz (1961) and Becker (1975); which mean the stock of knowledge, habits, social and personality attributes, including creativity, embodied in the ability to perform labour so as to produce economic value. Lucas (1988) and Romer (1989) also focused on the human capital accumulation in their endogenous growth theories. It is widely believed fact that higher level of human capital leads to the higher rates of economic growth. Human capital is composed of education, health, on job trainings, skills, aptitudes and migration to better job etc., among them education is most important component. Education along with training programmes enhances the productivity of the people and consequently their earnings.

There are several studies which confirmed the positive association between the level of education and earnings (Duraisamy, 2002; Agarwal, 2011 and Rani, 2014), in case of general population as well as sub-groups of people like males, females, rural, urban, social groups etc. We can observe relationship between education and earnings from the Figure 1. Figure demonstrates that education along with skills and productive knowledge enhances the productivity which further helps in securing better and most paid jobs. This leads to increase in productivity and consequently the earnings and finally increased earnings helps in reducing poverty. However, the whole process of education to earnings is also influenced by the social, cultural, occupational and other factors.

Education and Poverty Reduction:

Figure 1: Relationship between Education and Earnings in the Human Capital Framework



Source: Tilak (2001): Education and Poverty.

It has been established that investment in the education and human capital formation are crucial factors for the economic growth and poverty reduction. The inter-relationship between education and poverty can be perceived in two ways: firstly, investment in education enhances the skills and productivity of poor households, which have positive impact on the wages as well as on standard of living of the population. Secondly, in the educational attainment, poverty may prove to be major barrier in the three forms- lack of resources may handicap the attainment of learning and other pedagogic materials, poverty may create social pressures which dismember the mind-set of the poor students and the institution suffering from poverty may have deteriorating teaching standards (Njong, 2010). Since it is confirmed that there is negative relationship between education and poverty, at the same time it raises the question that which level of education is more effective in poverty reduction and removal. Whether the primary level of education is sufficient for reducing poverty or all other levels of education should be under consideration. In this context, MDGs put forward by the UNDP in 2000 have favoured the 'Universal Primary Education for all'. The Goal2 of MDGs focused on the achievement of universal primary education and particularly on the education of girl child, which is gateway out of poverty. According to Colclough (2005), in the developing nations, returns of the primary level of education in social terms were much higher as compared to the secondary and higher levels of education. But the provision of primary education without giving due importance to secondary and higher level of education will limit the development process because of absence of up-to-date curriculum, lack of skills and knowledge in the administrative posts and in management (Njong, 2010).

As we have already discussed that investment in human capital particularly education yields benefit to the economy, but it does not intend that investment in human capital should be in willy-nilly manner. Since developing world have limited resources, so it is imperative to identify that investment in which level of education is more fruitful and consequently most pro-poor. India is also among one of the developing countries. In India, there has been considerable emphasis on all the MDGs and the nation has witnessed significant progress towards the MDGs, with some targets already having been met well ahead of the 2015 deadline (GOI, 2015). Though India has made serious efforts towards ending poverty but still it is having largest number of poor in the world. 269.3 million persons are still living below poverty line in India (Planning Commission, 2013). On the education front, in year 2014, literacy rate was found to be 76 per cent among persons (aged 5 years and above). In rural areas, literacy rate was 71 per cent as compared to 86 per cent in urban areas in the same year. We can also see gender bias in the education through these literacy rates i.e. in 2014, it was observed that male literacy rate was 83 per cent, higher than the female literacy rate i.e. 68 per cent (GOI, 2016).

Since India is presenting a vast scale of poverty at global landscape it becomes essential to analyse the effect of different levels of education on the poverty in the country. Thus, the purpose of the present study is to analyse the impact of different levels of education on the poverty so as to identify the level of education which is most effective in poverty reduction. Along with this objective, study has also tried to identify the key determinants of poverty such as age of head of household, household size, occupation, ethnicity etc. For achieving these objectives, we have employed logistic technique on the

consumer expenditure data provided by the NSSO for the years 2004-05 and 2011-12. The paper is structured as follows, besides this introductory part, section II discusses the data and methodology used, section III sheds light on the disparities in earnings and the level of education, section IV deals with the empirical findings of the logistic regression model and finally the paper concludes with the section V.

II. Data and Methodology: Consumer Expenditure Survey (CES) conducted by the National Sample Survey Organisation (NSSO) provides detailed information of consumption expenditure on household level in India. Study has used unit level data of two quinquennial rounds of CES, in order to have a comparative analysis. The two years considered under study are 2004-05 and 2011-12 (61st and 68th rounds). These two rounds are comparable on basis of Mixed Recall Period (MRP). In previous rounds of CES data was based on Uniform Recall Period (URP). Further 2009-10 was drought year, therefore we have not considered this round's survey. Binary logistic regression technique has been applied on this data. For identification of the crucial determinants of poverty, paper has firstly estimated the dichotomous dependent variable i.e. whether the household is poor or not. Accordingly, dependent variable has two possible outcomes 1 and 0 i.e. if the household is poor, it will take value '1' and '0' otherwise. So, the first step is to identify the criteria through which the person is considered as poor or non-poor. There are different methodologies for this purpose such as basic needs approach, nutritional intake approach (calorie based), income or expenditure based approach etc. In India, we have extensive datasets on the consumer expenditure not on the income, so we will be using the consumer expenditure data to classify a person as deprived or non-deprived. Poverty lines determined by the Planning Commission of India are used for rural and urban areas separately for the year 2004-05 and 2011-12. Thus, the person having monthly per capita expenditure (MPCE) below the poverty line will be considered poor and accordingly our dependent variable will take value '1' for that person, while for the persons above poverty line will take value '0'.

The predictor variables which are supposed to affect the standard of living of the household are: age, gender and education level of the head of household, number of members of household, whether any member in the household is engaged in regular salary employment or not, type of household i.e., principle source of livelihood of the family and social group to which household is related. All these variables are important determinants of poverty. After identifying the predictor and predicted variables we develop binary logistic regression model, as follows

$$\text{Poverty}_i = \hat{\alpha}_0 + \hat{\alpha}_1 \text{Age}_i + \hat{\alpha}_2 \text{HHSize}_i + \hat{\alpha}_3 \text{Sex}_i + \hat{\alpha}_4 \text{Edu}_i + \hat{\alpha}_5 \text{RegSal}_i + \hat{\alpha}_6 \text{HHType}_i + \hat{\alpha}_7 \text{Social Group}_i + U_i$$

Where poverty is binary dependent variables and variables on right hand side are independent variables in the model. Description of variables is shown through Table 1.

The results of the logistic regression model will not be expounded by the coefficients values but by the odd ratios in order to scrutinize that the presence of any particular feature will increase or decrease

Table 1
Description of Explanatory Variables used in the Modelling Poverty

Age of the Head of Household	Age of the Head of Household (continuous variable)
HH Size	Household Size (continuous variable)
Sex	Sex of head of Household (Male -0, Female -1)
Edu	Education level of Head of Household (Illiterate-Reference category) - Categorical Variable
Reg Sal	Regular Salary Earner in the Family (Yes -0, No -1)
HH Type	Household Type -In rural areas , Casual Labour in Agriculture and Other Labour are reference categories (=1) whereas Self -employed in Agriculture, In non -Agriculture and Other household types takes value '0' -In urban areas , Casual Labour is reference category (=1) and Self -employed in Agriculture, Salaried Worker and Other household types take value '0'
Social Group	Social Group to which household belong -STs and SCs are reference category (=1) -OBCs and Others (=0)

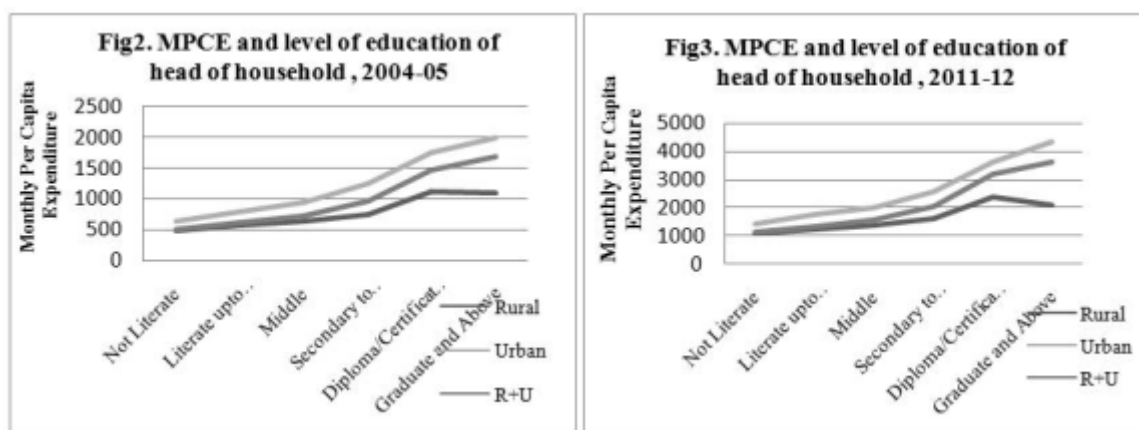
Source: Authors' calculations.

the probability of being poor and to what extent as compared to the reference category. The odd ratios were defined as just two odds that are compared to determine whether one group has higher or lower odd ratios of binary outcome. In odd ratios, a number, whose value is greater than one, point towards a positive association between an explanatory and explained variable, whereas if its value lies between zero and one then it shows a negative relationship. Along with this logistic regression technique, this paper has also attempted to show the head count ratio and average MPCE by the different levels of education of head of household in India.

III. Disparities in Earnings and Levels of Education:

Profitability of investing in education can be estimated with the help of rates of return to education. The approximation of rates of return to investment in education has proven to be a useful measure of reward for education in the labour market. This indicator also guides public and private investment in education (Rani, 2014). Studies on 'rates of return to education' by Blaug (1972), Psacharopoulos (1995), Tilak (1987) and Kingdon (1998) believed that rate of returns to education specifically for the primary standards are high and diminishes for the successive levels of education. While the empirical

work by Duraisamy (2002), Agarwal (2011) and Rani (2014) shows that rate of returns to education tends to rise with the level of education across location, caste-religion and English language ability. Present study attempts to look at the disparities in average MPCE as a proxy to earnings within the rural-urban stratification. The perusal of Figure 2 and 3 shows a positive association between education level of household head and monthly per capita expenditure. In these figures, we tried to capture the disparities in rural and urban areas by the different levels of education on the basis of average monthly per capita expenditure. We can observe from these figures that as the level of education of the head of household improves the average monthly expenditure incurred by the household also rises in both the rural and urban areas and for both the years.



Source: Author's calculations

Further we can also see that same level of education is contributing differently in rural and urban areas e.g. in year 2011-12, head of household having education level up to primary was incurring on an average expenditure of Rs. 1219 in rural areas, whereas Rs. 1769 in urban areas. This clearly indicates that being literate in urban areas may also act as determining factor of earnings.

Similar results can be observed from Table 1A (in Appendix) which analysed poverty by level of education of the head of household. One can observe three major findings from this table, firstly higher the level of education of household head lesser was the prevalence of poverty in both rural and urban areas as well as in both the years under study. Secondly, among head of household having education level upto primary level, poverty reduction in percentage points was higher in urban areas than rural areas. Overall reduction in poverty ratios during 2004-05 to 2011-12 shows that poverty has declined significantly, which may be the result of growth process not necessarily the impact of education level of the head of household. Lastly, rural-urban differences i.e. for any level of education of head of household, incidence of poverty was found to be higher in rural areas than that in urban areas, which may be regarded as the reflection of more and better job opportunities in urban areas. In short, these findings induce us to verify whether or not education is an important factor for

poverty reduction along with other factors. In the following section, we will check this by discussing the results of the logistic technique.

IV. Determinants of Poverty: Results of Logistic Regression Model

The results of binary logistic regression for rural and urban areas for time period 2004-05 to 2011-12 are shown in Table 2. Among the determinants of poverty, size of household, social group to which household belongs, absence of regular salary earner in the family and the source of livelihood are positively associated with likelihood of household being poor. Whereas age and education level of the head of household have negative relationship with poverty. Although gender also plays an important role in determining the poverty status of the household, but this variable found to be insignificant in the model. All variables were found to be statistically significant at 1 per cent level of significance except the gender, which was insignificant, on whole model was significant. As it has been generally believed that more the age of the head of household lesser would be chances of being poor, it has been shown in model that higher age of household head reduces the odds of household being poor by 0.028 and 0.022 during 2004-05 and 2011-12 respectively. It has been observed that household size is one of the important demographic indicators which have significant impact on the standard of living of household. The coefficient for household size was found to be positively associated with the poverty and is statistically significant at 1 per cent level of significance. This shows that larger family size tends to raise the chances of household being poor as compare to smaller family size. This result is in line with the findings of Panagriya & More (2013).

Absence of regular salaried employed person in the family has positive bearing on poverty. It has increased the chance of household being poor by 1.01 and 1.20 odds in year 2004-05 and 2011-12 respectively. We have data on the source of livelihood of the household as well i.e. the major source of income of the household. On this basis households are classified by National Sample Survey Organisation (NSSO) in different categories, this classification has been described in Table 1. Accordingly, if type of household is casual labour in agriculture and other types of casual labour in both rural and urban areas than the probability of household being poor also increases. This relationship became stronger in the urban areas as compared to rural areas in both years under study. This may be due to urbanisation of the poverty.

Table 2
Determinants of Poverty: Logistic Regression Model

Variable	Rural			Urban			Rural-Urban					
	â Coefficient	Odds - Ratio	â Coefficient	â Coefficient	Odds-Ratio	â Coefficient	Odds-Ratio	â Coefficient	Odds-Ratio			
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12		
Year	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12		
Intercept	-1.197	-2.120	0.302	0.120	-0.578	-2.079	0.561	0.125	-0.962	-2.126	0.382	0.119
Age	-0.027	-0.022	0.973	0.978	-0.029	-0.019	0.971	0.981	-0.028	-0.022	0.972	0.978
Household Size	0.203	0.216	1.225	1.241	0.240	0.229	1.271	1.258	0.211	0.221	1.234	1.247
Gender	0.025*	-0.034*	1.025	0.966	0.129*	-0.168*	0.878	0.845	0.010*	-0.059*	1.010	0.943
Regular Salary	0.885	0.802	2.422	2.230	0.488	0.702	1.630	2.018	0.695	0.788	2.005	2.198
Household	0.817	0.537	2.264	1.712	0.886	0.571	2.425	1.769	0.802	0.547	2.230	1.728
Social Group	0.577	0.608	1.780	1.837	0.453	0.551	1.573	1.734	0.553	0.603	1.739	1.827
Education level of Head of Household: Not Literate(Reference Category)												
Literate upto	-0.499	-0.313	0.607	0.731	-0.668	-0.564	0.512	0.569	-0.512	-0.353	0.599	0.702
Primary Middle	-0.904	-0.681	0.405	0.506	-1.297	-0.869	0.273	0.419	-0.962	-0.713	0.382	0.490
Secondary to	-1.191	-1.079	0.304	0.339	-1.975	-1.509	0.138	0.221	-1.386	-1.193	0.250	0.303
Higher Secondary												
Diploma/ Certificate Course	-2.290	-2.725	0.101	0.066	-2.870	-2.619	0.057	0.073	-2.439	-2.578	0.087	0.076
Graduate and Above	-1.611	-1.386	0.199	0.250	-3.179	-2.666	0.042	0.069	-2.213	-1.923	0.109	0.146

Notes: All the coefficients are statistically significant except Gender.

*Found insignificant at all level of significance

Source: Calculated from the Unit Level Data of 61st and 68th rounds of CES, NSSO

Similarly, ethnicity (caste, religion) of the household is an important determinant of poverty. India is featured by plural society i.e. society divided into different castes and religions. Scheduled Castes and Scheduled Tribes (SCs and STs) among the social groups and Muslim community on religion front are found to be poorest one if we see the horizontal aspect (society divided into different castes and religions) of the poverty (Panagariya & More, 2013). This fact can be observed from the table that if the household belongs to STs/SCs then the odds of household being poor increases by around 0.84 odds in rural areas and by 0.73 odds in urban areas during 2011-12. For overall India intensity of this factor has increased from odds of 0.739 in 2004-05 to 0.827 in 2011-12. Although government has made several efforts, both constitutional and developmental, a hefty proportion of SCs/STs among the poor continued to face multiple disadvantages and is trapped in the vicious circle of poverty (Biradar, 2012).

Further, the impact of education on the poverty reduction has been highlighted in detail. It can be observed from the Table 2 that for both years (2004-05 and 2011-12) the values of the odds ratio of all levels of education are less than one, which tends to show that there exists negative association between poverty and levels of education. In 2004-05, the different levels of education namely primary, middle, secondary to higher secondary and graduate and above decreases the likelihood of being poor by 40.1, 61.8, 75 and 89.1 per cent respectively in contrast to the reference category of 'illiterate'. While for the year 2011-12, the same order of the educational levels is reducing the likelihood of being poor by 29.8, 51, 69.7 and 85.4 per cent respectively as compared to the same reference category. One interesting fact one can observe from the table that diploma/certificate course which generally includes the vocational education training programmes, reduce poverty more effectively than the other levels of education. Though graduation and above has the same impact on poverty but this level of education requires more time to accomplish than the time needed for diploma/certificate courses. Further the yearly contrast of different levels of education clearly shows that particularly for lower levels of education, the negative impact of education upon poverty remains there but its potency lessens with the passage of time. While the findings of both time periods individually verified that as the level of education improves the proportional decline in the likelihood of being poor also increases. Rural and urban areas have shown the same picture as explained above for the overall India. However, if we compare the odd ratios of the rural areas with that of urban areas, it clearly indicates that in rural areas the impact of education is less on poverty reduction as compared to the urban areas.

V. Concluding Remarks: From above we can conclude that human capital is one of the multi-dimensional processes, as it enhances the economic growth on one hand and assist in reduction of poverty by increasing the productivity on the other. One of the Millennium Development Goals (MDGs) related to education i.e. 'Universal Primary Education for All', which consider that education is a crucial weapon for fighting with poverty. Moreover, education also helps in improving the socio-economic conditions of the individual as well as of society as a whole. Findings of this study are in accordance with the commonly accepted phenomenon that attainment of education plays a crucial role in curbing poverty. It has been found that there is negative relationship between the level of education and the poverty incidence. Further, the yearly contrast (2004-05 to 2011-12) of different levels of education have clearly shown that particularly for lower levels of education, the negative impact of education upon poverty remains there but its potency lessens with the passage of time. Among all the determinants of poverty considered under study education seems to important one on which government can work to curtail poverty. Education can be regarded as an important policy tool for eradication of poverty. Overall results establish a negative association between the probability of being poor and the different levels of education. Simply, we can say that chance of being poor gradually decreases with the improvement in the level of education. Which gives us an important policy implication that government must invest in improving the level of education of masses and particularly focus should be on the provision of vocational education in order to curb the poverty in the country.

References

- Afzal, Muhammad, et al. "Relationship among Education, Poverty and Economic Growth in Pakistan: An Econometric Analysis". *Journal of Elementary Education*, Vol. 22, No. 1, 2012, pp. 23-45. Retrieved from http://pu.edu.pk/images/journal/JEE/PDFFiles/3_Afzal_malik_ishrat%20final_2012JEE_Vol._22_No._1.pdf.
- Agrawal, Tushar. "Returns to Education in India: Some Recent Evidence". Working Paper No. WP-2011-017, 2011. Mumbai: Indira Gandhi Institute of Development Research. Retrieved from <http://www.igidr.ac.in/pdf/publication/WP-2011-017.pdf>
- Becker, Gary. *Human Capital*. Chicago: The University of Chicago, Press, 1975, 2nd Edition.
- Biradar, R.R. "Incidence of Poverty among Social Groups in Rural India: Who are the Poorest and Why?" *Social and Economic Change Monographs* 24, 2012. Bangalore: Institute for Social and Economic Change (ISEC). Retrieved from http://www.isec.ac.in/Monographs_24.pdf.
- Blaug, Mark. "Educated Unemployment in Asia: A Contrast Between India and the Philippines". *The Philippine Economic Journal*, Vol. 11, No. 1, 1972, pp. 33–35.
- Colclough, Christopher. "Does Education Abroad Help to Alleviate Poverty at Home?: An Assessment". *Pakistan Development Review*, Vol. 44, No. 4, 2005, pp. 439-454.
- Duraisamy, P. "Changes in Returns to Education in India, 1983–94: By Gender, Age-cohort and Location". *Economics of Education Review*, vol. 21, 2002, pp. 609–622. Retrieved from [http://dx.doi.org/10.1016/S0272-7757\(01\)00047-4](http://dx.doi.org/10.1016/S0272-7757(01)00047-4).
- Government of India (GOI), Ministry of Statistics and Programme Implementation (MOSPI), Central Statistics Office(CSO), Social Statistics Division. *Millennium Development Goals: India Country Report 2015*. Government of India, 2015.
- Government of India (GOI), Ministry of Statistics and Programme Implementation (MOSPI). *Education in India. Report No. 575(71/25.2/1)*. National Sample Survey Organisation (NSSO), 2016.
- Kingdon, Geeta Gandhi. "Does the Labour Market Explain Lower Female Schooling in India?" *Journal of Development Studies*, Vol. 35, No. 1, 1998, pp. 39–65.
- Lucas, Robert Emerson (1988). "On the Mechanics of Economic Development". *Journal of Monetary Economics*, Vol. 22, No. 1, 1988, pp. 3-42.
- Mincer, Jacob. "Investment in Human Capital and Personal Income Distribution". *Journal of Political Economy*, Vol. 66, No. 4, 1958, pp. 281-302.

- Njong, Aloysius Mom. "The Effects of Educational Attainment on Poverty Reduction in Cameroon". *Journal of Education Administration and Policy Studies*, Vol. 2, No. 1, 2010, pp. 1-8.
- Panagariya, Arvind. and More, Vishal. "Poverty by Social, Religious & Economic Groups in India and its Largest States: 1993-94 to 2011-12". School of International and Public Affairs & Institute for Social and Economic Research and Policy (ISERP). *Working Paper No. 2013-0*, 2013.
- Planning Commission. *Press Note on Poverty Estimates, 2011-12*. Government of India, Planning Commission, 2013.
- Psacharopoulos, George. "The Profitability of Investment in Education: Concepts and Methods". Working Paper. *Human Capital Development and Operations Policy*, 1995.
- Rani, Geetha. "Disparities in Earnings and Education in India". *Cogent Economics & Finance*, 2014. Retrieved from <http://dx.doi.org/10.1080/23322039.2014.941510>.
- Romer, Paul Michael. "Human Capital and Growth: Theory and Evidence. NBER Working Papers 3173, National Bureau of Economic Research, Inc, 1989.
- Schultz, Theodore William. "Investment in Human Capital". *American Economic Review*, vol. 51, no.1, 1961, pp. 1-17.
- Tilak, Jandhyala. *The Economics of Inequality in Education*. New Delhi: Sage, 1987.
- Tilk, Jandhyala. "Education and Poverty." *Education - A Way Out of Poverty?*, edited by Melin, Mia, Swedish International Development Cooperation agency (SIDA), 2001, pp. 12-23.

APPENDIX

Table 1A: Incidence of Poverty by Different Levels of Education of Head of Household in India (in percentages)

Level of Education	Share in population		Incidence of Poverty		Percentage point reduction
	2004 - 05	2011 - 12	2004 - 05	2011 - 12	2004 -05 to 2011 -12
Rural					
Illiterate	44.85	39.40	53.91	34.34	19.57
Upto Primary	26.40	26.86	39.87	26.68	13.19
Middle	14.60	15.11	29.91	19.72	10.19
Secondary to Higher					
Secondary	10.86	14.70	21.54	12.32	9.22
Diploma/Certificate					
Course	0.50	0.43	5.25	1.82	3.43
Graduate and Above	2.79	3.50	11.58	6.96	4.62
All	100.00	100.00	41.75	25.73	16.02
Urban					
Illiterate	20.08	17.86	54.32	32.29	22.03
Upto Primary	21.33	19.94	36.40	18.76	17.64
Middle	17.83	14.83	22.26	13.88	8.38
Secondary to Higher					
Secondary	23.22	27.02	11.15	6.66	4.49
Diploma/Certificate					
Course	1.91	1.95	4.11	1.77	2.34
Graduate and Above	15.64	18.40	2.74	1.56	1.18
All	100.00	100.00	25.73	13.69	12.04
Rural+Urban					
Illiterate	38.57	33.25	53.96	34.03	19.93
Upto Primary	25.11	24.88	39.13	24.86	14.27
Middle	15.42	15.03	27.67	18.07	9.6
Secondary to Higher					
Secondary	14.00	18.22	17.17	9.92	7.25
Diploma/Certificate					
Course	0.86	0.86	4.61	1.79	2.82
Graduate and Above	6.04	7.8	5.78	3.30	2.48
All	100.00	100.00	37.69	22.29	15.4

Source: Author's calculation from the Unit Level Data of 61st and 68th rounds of CES, NSSO

Indian New Wave Cinema: An Alternative Vision

MANMEET SODHI

Abstract

The purpose of the research article is to map the contours of Indian Alternative Cinema (1960-80), its preoccupation with a changing society and how it alters the possibilities of thinking and imagining social and cultural issues in the society. The primary concern in the paper is to read and take into account the aforementioned aspects through the selected films of four representative directors of Alternative Cinema: Satyajit Ray, Mrinal Sen, Muzaffar Ali, Shyam Benegal. The selected films of this genre represent vivid depiction of communities, regions, and aspects of Indian life in a variety of cultural settings.

Keywords: New Wave Cinema, Andre Bazin, Satyajit Ray, Mrinal Sen, Shyam Benegal, Muzaffar Ali

Introduction

Cinema is an art form that can be used to make people see the reality around them that they choose to ignore every day. Our everyday seeing of the world is always seeing from our interested and embodied perspective. However, cinema can present images or perceptions liberated from the organising structures of everyday life and it does this by maximising its own internal power - by intensifying its connections, cutting and sequencing of images. Henceforth, it offers a challenge to the whole way of life by enabling us to look at things from different vantage points.

There are many cinematic genres and styles in the rich history of cinematic culture that alter the possibilities of thinking and imagining social and cultural issues in the society. However, Alter-native Cinema creates new affects as it produces new possibilities for the human eye and perception. This is a kind of cinema where filmmakers have consciously sidestepped the formulaic cinematic codes of the mainstream commercial cinema, with respect to the film language and thematic exploration. As a cultural text, Alternative Cinema relates to distinct aspects of life, somewhat ethnographic, in a society. It is a means to seek an understanding about the lives of people, their experiences within their socio-cultural contexts, and how they situate themselves against or in the transitional and transformative events. At the same time, it is an effective medium to reclaim ideas of power, nationhood, identity and oppression. Therefore, Alternative Cinema is an apt medium for the investigation of cultural practices and ideologies.

Keshari N. Sahay points out at the lack of research in the genre of Alternative Cinema. He asserts that films of this genre have so far remained unaddressed from cultural perspectives. He further

emphasises that there is a need for research on the films to look at the social-cultural changes and to re-arrange an alternative vision of society (18). Sangeeta Datta claims that Alternative Cinema seeks to present a faithful and vivid depiction of communities, regions, and aspects of Indian life in a variety of cultural settings. She further asserts that they bring to the screen the experiences of the lives rendered invisible by the mainstream commercial cinema (24).

Here, I would like to draw attention that Alternative Cinema goes under various names, principally Indian New Wave Cinema, New Cinema, and Parallel Cinema. I will be using the first three terms interchangeably. These three terms are used to refer to filmmaking that rejects the values and practices of the mainstream commercial cinema of Bombay industry. However, Parallel Cinema emerged in the late 1960s. It is stated in Sangeeta Datta's *Shyam Benegal* that the term *samantar* or Parallel Cinema was coined by a journalist, Arvind Mehta. It is a distinct type of new cinema that draws on the praxis of both the commercial and New Cinema (24). Further she asserts that Parallel Cinema is characterised by its serious content and naturalism as well as by its use of certain 'audience-pleasing' conventions from mainstream cinema (24-5). It is important here to mention that the 'audience-pleasing' conventions in Parallel Cinema are not reduced to falsification of what is true.

In order to promote and nurture politically responsible and socially progressive cinema, the Indian State established three film institutions in the early nineteen sixties - the Film and Television Institute of India (FTII), the National Film Archives of India (NFAI) and Film Finance Corporation (FFC). The goal of the institutions was to provide technical training, access to large cinema world and financial support to filmmakers whose ambitions went beyond purely commercial purpose. These State agencies were part of a strategy of cultural intervention and commitment to realism. Madhava Prasad asserts that the films of Indian New Wave Cinema emerged as one of the projects of a new, bourgeois aesthetic, a developmental vision of cultural production and state-backed capitalist growth (36). He further asserts that these films are "committed to a progressive social goal and disengaged the spectator from his habitual, pre-designated location in the dominant cinematic apparatus through the process of unravelling of the apparatus and to produce political conscious society" (2). He also claims that the ideological position of the State drawn within Indian New Wave Cinema was to produce a "spectatorial point of view coinciding with the gaze of the State" (24). In other words, Indian New Wave Cinema was in conformity with the model of socio-economic and cultural progress that was emerging in India in the second half of the twentieth century. Here, it is also important to mention the facts registered by Chidananda Das Gupta in "The New Cinema: A Wave or a Future?" that after the linguistic division of Indian States in 1956, regional States offered subsidies to the filmmakers, instituted awards for good films, reduced entertainment taxes to shoot films within the region (Vasudev and Lenglet, 41). The result was that several films attempted to present an authentic landscape and milieu of the region. Adding to it, out-door shooting partly made possible by the development of technology gave filmmakers newer cinematic themes producing newer regional imaginaries. Consequently, the New Cinema was able to 'forge a new aesthetic of state realism' by using regional dialect and new cinematic techniques (Prasad, 196).

Along with coming up of the above-mentioned film institutions, the film festivals in India were also patronised by the Indian State during the same period. The First International Film Festival of India was held in Bombay, Madras and Calcutta by the Film Division in 1952. This Film Festival provided a common platform for the world cinema and exposed the Indian Film Industry for the first time to a vast range of outstanding post-war era films. The festival introduced Italian Neo-Realist Cinema which included films of Vittorio De Sica's *Bicycle Thieves* (1948), Roberto Rossellini's *Roma, Open City* (1945) and many more. Here, it is pertinent to add that the film societies also contributed in spreading the alternative film culture in post-independence period of India. The film societies began in 1947 as private organisations, but they grew into a movement only after State support was extended to them in the early nineteen sixties. In fact, the State support was needed in order to save film societies from the State itself in terms of entertainment tax, censorship and import license requirement. These societies filled and created a demand for wider access to foreign films. They played an important educational role and acted as a stimulus in the development of the filmmakers. Many New Cinema directors learned about the potential of the world cinema at the film society screening (Binford, 40-42).

As noted above, all this made an impact on many Indian viewers and film enthusiasts who in turn gave impetus to the Indian filmmakers to employ the neo-realistic narrative and cinematic technique to present realities of contemporary socio-political issues. The filmmakers brought on to the screen the lives of ordinary people, without embellishment and limited editing. Satyajit Ray's films of the late 1950s are strongly marked with the tenets of neo-realism. He is widely considered to have launched the Alternative Cinema with his debut film *Pather Panchali* (Song of the Little Road, 1955). He combined neo-realist filmmaking techniques with an Indian narrative, synthesizing the two to produce masterpieces of cinema - *Jalsaghar* (1958), *Mahanagar* (1963), *Charulata* (1964), *Aranyer Din Ratri* (1970) and many more.

Earlier in 1953, Cesare Zavattini articulated the theory of neo-realism in a manifesto titled, "Some Ideas on the Cinema." In his manifesto, Cesare Zavattini called for the use of reality in cinema. He proclaimed, "life is not what is invented in 'stories,' life is another matter" (53). The crux of Cesare Zavattini's argument is that the moral question lies in being able to observe reality, not to extract fiction from it. The purpose of the cinema is to awaken people to the actualities of the world around them. Zavattini advocates a cinematic technique to support his argument for drawing the stories from real life. He states about neo-realism, "... today, when we have thought out a scene, we feel the need to 'remain' in it, because the single scene itself can contain so many echoes and reverberations, can even contain all the situations we may need (52)." It indicates that the emphasis on the spatio-temporal integrity of a singular situation creates an understanding of life.

Another radical movement in cinema, French New Wave has an immense influence on the Indian New Wave Cinema. This movement effectively changed the way one thinks about and understands film narratives as an art form and ultimately as a cultural construct that shapes lives. The movement was initiated by a group of French intellectuals and filmmakers, namely, François Truffaut, Jean-Luc

Godard, and Claude Chabrol. They followed André Bazin's theory of objective reality, which is an extension of Cesare Zavattini's concept of reality, to reflect life as it is happening. André Bazin expounds that the true continuity of *mise-en-scène* (spatial and temporal continuity) through the long shots (the camera is placed at a distance to take in the whole scene), long take (the shot is of lengthy duration and camera movement rather than editing creates relational meaning among scenic elements), deep focus (the lens focal length allows clear focus in both foreground and background of the shot), and camera movements allow the viewer to choose what exactly they are looking at. In other words, André Bazin claims that the spectator has the opportunity in the realist aesthetics to direct his or her own control over the viewing process i.e. the freedom to choose what to see, in what order and for how long (34-35). Madhava Prasad has also aptly stated that within a realist narrative, the symbolic, in its contractual link, is represented by the citizen-spectator, whose interpretive authority brooks no challenge from within the frame of representations (20).

Further, Ashish Rajadhyaksha states that the Film Finance Corporation (now National Film Division Corporation) had by early nineteen sixties funded over fifty films, mostly unknown, but also Satyajit Ray's *Charulata* (1964), *Nayak* (1966) and Goopy Gyne *Bagha Byne* (1968). Later, it struck a completely new path with a movement of New Cinema inaugurated by three films in 1969: Mrinal Sen's *Bhuvan Shome*, Mani Kaul's *Uski Roti* and Basu Chatterjee's *Sara Aakash*. The State also extended its support to an independent and politically vocal cinema which includes: poly-vocal voices of independent documentary films by Tapan Bose, Goutam Ghose and Utpalendu Chakraborty; productions addressing the New Cinema movement from the perspective of a fragmented left (Ritwik Ghatak's *Jukti Takko aar Gappo*, 1974); films set against the grim political context of the time are Satyajit Ray's *Pratidwandi* (The Adversary, 1970) and *Jana Aranya* (The Middleman, 1975) set within the Naxalite ferment, and also Buddhadeb Dasgupta's later *Dooratwa* (The Distance, 1978) and *Neem Annapura* (Bitter Morsel, 1979). Other crucial engagements that derived political commentaries of the times are playwright and film scenarist, Vijay Tendulkar's *Ghashiram Kotwal* and his film scripts such as for Jabbar Patel's *Samna* (1974), and other important screen-plays like Shyam Benegal's *Nishant* (1975) and Govind Nihalani's *Aakrosh* (1980) ("The Indian Emergency" 233-239).

The 1970s was a period of rising workers, peasants, and students' unrest. The overall unrest in India - the global oil crisis, wars with China (1962) and Pakistan (1965), and a huge influx of refugees from the former East Pakistan after the Bangladesh war of 1971, augured a difficult start to the decade of the 1970s. Further, Indian democracy reached the lowest point when Prime Minister Indira Gandhi announced the country ungovernable and declared a state of Emergency on 26 June 1975. Yet, during this decade of political turmoil, economic stagnation, and civic despair, India's cinema ushered into a new beginning.

Here, it is viable to put forth that the socio-political situations of India during this time triggered the filmmakers to comment on the contemporary situations through the medium of communication they had - the cinema. New Cinema fulfilled public spaces of debate and thought to express their anger

against the contemporary situation by employing the new cinematic techniques which include neo-realistic style, long takes, deep focus, long shots and jump cuts among others.

In the changing political climate, New Cinema became more strident in addressing endemic corruption and the State's inability to uproot it. The injustices, inequalities and contradictions of the social system and the hold of the power elite came into sharp focus. In 1967, widespread armed peasant insurgency in the Naxalbari district of Bengal grew against the landlords, as shown in Ritwik Ghatak's *Jukti Takko aar Gappo* (Reason, Debate and a Story). The Naxalite rebellion took a new turn in 1970 with student uprising in Calcutta. They protested against the government and tried to seek solutions outside the democratic system. The documentary footages in *Bhuvan Shome* reveal the anger and turbulence that gripped the city of Calcutta, in which different parts of society started a war against the government that eventually flared up in massive demonstrations in Calcutta. The films of the decade of 1970s reflect different aspects of interpersonal relationships and shortcomings in the social structure. *Pratidwandi* is based on Naxalite Movement; Interview is based on the issue of unemployment; *Dooratwa* is about the city-scape, a space of disillusionment and unfulfilled dreams; *Gaman* breaks the utopia of the new nation-state; *Aranyer Din Ratri* reveals the dilemma of Indian society, in which the new generation is grappling with the new value systems. The restlessness among the youth is demonstrated through irreverence towards society and its values. Many other issues like patriarchy and gender inequality are also touched upon to reflect degradation of value system in the turbulent decades of 1970s. New cinema was born in the immediate context of political strife and protest, in which the government failed to provide the basic requirements to the upcoming generation.

The films of Satyajit Ray, Mrinal Sen, Shyam Benegal and Muzaffar Ali have contemporary social and political relevance as they respond to the socio-political situations of the 1970s India, when India was undergoing massive political and social changes: widespread corruption, collusion, self-aggrandisement, growing unemployment, crushed ideals, disenchantment of the youth and nepotism created misery among people. I have chosen four films to deliberate on: Mrinal Sen's *Bhu-van Shome*, Satyajit Ray's *Aranyer Din Ratri*, Muzaffar Ali's *Gaman*, and Shyam Benegal's *Manthan*. These films can be called political as the characters are not individuals but represent a larger section of the society. At the same time, the films are realistic in character, ethnographic in orientation as well as record sounds, sights and moods of India. Aesthetically, the films utilise various strategies of staging and framing components - on-screen and off-screen incidental sound, limited dialogue, long takes, on location shooting, natural lighting, the use of non-professional actors, editing which is functional rather than expressionistic. Thematically, they offer an alternative history of India and re-arrange an alternative vision regarding misconceived cultural forms and practices. The aforementioned filmmakers stand out in the league of their contemporaries as far as their approach towards their concept and style of filmmaking is concerned. Their films also explain the connections of filmmakers' social and political ideologies with the camera - a device for educating, communicating and informing people about realities.

To begin with Mrinal Sen, who became closely associated with the Indian People Theatre Association (IPTA) in the 1940s, has remained inspired by socialist ideals throughout his life. *Neel Akasher Neeche* (Under the Blue Sky, 1959), *Baishey Sraavan* (The Wedding Day, 1960), *Akash Kusum* (Up in the Cloud, 1965) are amongst his important Bengali films. His political films of the Calcutta trilogy - *Calcutta 71* (1972), *Interview* (1973) and *Padatik* (The Guerrilla Fighter, 1973) - were made in the wake of the dissolution of the United Front Ministry in West Bengal and the suppression of the Naxalite Movement in the early 1970s. Mrinal Sen is definitely recognised all over the world with *Bhuvan Shome* which is perhaps the most idiosyncratic film about an idiosyncratic bureaucrat meeting a match in another idiosyncratic village girl. Every frame of the film is ripe for multiple viewing and analysis because of its rich aural and visual texture.

Bhuvan Shome inaugurated New Wave Cinema movement in India. It had a budget of Rs. 1,50,000 sponsored by the Film Finance Corporation (Sen, *Always Being Born*, 104). The film is based on a Bengali story by Banaphool (a pseudonym for Balai Chand Mukhopadhyay). It is a satirical comedy about the upright Bengali railway officer, Bhuvan Shome, who goes on a bird-shooting expedition in Gujarat. In the dunes of Saurashtra, he meets the village girl Gauri who turns out to be the wife of the man, he sacked. He has a long, unstated, erotic and/or cultural encounter with her, enjoying the attention she lavishes upon him even as he remains anxious about his sudden loss of authority. And this tense situation depicted cleverly on the poster of the film (see in figure 1.1) remains the main focus of the film. K.K. Mahajan, the cinematographer of the film, captures the land-scape of the vast and barren Saurashtra in its lustre and brings out the texture of the sand dunes vividly. The shots are taken almost entirely with natural light (Sen, *Always Being Born*, 100).

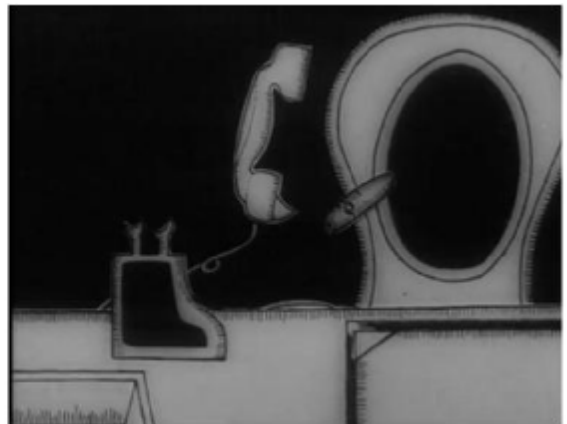


Figure 1.1: Poster of *Bhuvan Shome* (Wikimedia. Web. 12 Apr. 2017).

The cinematic experimentation and the new form of narration in the film is in some ways similar to the French New Wave Cinema initiated by the avant-garde filmmakers such as Jean-Luc Godard who made *Breathless* (1960) and François Truffaut who made *400 Blows* (1959). *Bhuvan Shome* reveals completely new vision of social reality by employing wide variety of camera angles that break the linearity and reveal the unexamined patriarchal myths of the rural spaces. Mrinal Sen employs varied techniques like documentary/news-reel type of footage, mask shots, montage, animation, freeze frame, jump cuts, discontinuities, artificially accelerating or decelerating the frames, sound-visual disjunctions, hand-held camerawork, improvisation on location, reflexivity and inner monologue among others. Mrinal Sen's use of self-reflexive technique and editing technique of jump cut breaks continuity and jolts the audience in recognising that they are looking at something that has been constructed. Robert Stam states that reflexivity points to its own mask and invites the public to examine its design and texture. He further adds that reflexive works break with art as enchantment and calls attention to their own factitiousness as textual constructs ("Self-Reflexivity in Films"). Similarly, the documentary footages of procession, speeches and demonstrations on the streets of Calcutta in the film, are all commentary on reality. Here it is important to mention that the significant technical innovation in the film is the animated portion. For instance, to emphasise that Bhuvan Shome was also an aspiring ornithologist, animated birds are shown flying over his head (as seen in frame 3). Further, the opening and closing of files, swinging of doors, telephone calls, are also animated (as seen in frames 1&2). Furthermore, synchronisation of sound and image are intentionally included in the film. The sound of the railway track is a leitmotiv of the film, accentuating not only Bhuvan Shome's regimented personality that begins to wane as the film progresses, but also calls attention to the transition and transformation incurred in the rural setting. At the same time elements of regional performing arts are used throughout in the soundtrack of the film. For instance, in a sequence of shots, in which Bhuvan Shome approaches his hunt on the sand dunes in the tree costume (as seen in frame 4), with the background of the beat of drums, recalls a folk dance (01:17:32-01:18:22). Another instance is, in the scene, in which the girls carrying



Frame 1



Frame 2



Frame 3



Frame 4

pots on their heads and singing their folk songs (00:22:20-40). Mrinal Sen in one of his interviews stated that the songs were recorded in the original voices of these girls (Montage, 122). In one of the scenes, Gauri sits on a ledge and holds her hands where the rope would be and the camera zooms in and out on her, miming the swing (01:05:41-50). All these techniques are intended to draw audience attention to the filmmaking process itself and thereby make them conscious of the constructed reality in the film.

However, *Bhuvan Shome* is a remarkable perspective in filmmaking, using humour and wit - an element of social satire to project a certain social milieu - to poke the frail moralities which dominate our society, determines it, and continues to build on it. The film projects the colonial attitudes and norms that exist through bureaucracy in India after independence - major impediments to growth and development of the nation-state. The pictorial reportage and documentary aspects underline the broad cultural pattern, in which myths of nation-state as a homogenised entity and coherent identity of place is ruptured. It is pertinent to point out that the voice-over in the film has a fluid relationship with the images of Swami Vivekananda, Rabindranath Thakur, Satyajit Ray and Ravi Shankar, followed by documentary footages of agitation on Calcutta streets. On the one hand, the voice-over reflects upon what is in the frame, by commenting *Shonar Bangaal*, *Mahaan Bangaal* and *Vichitra Bangaal*, on the other hand, it is an ironic comment on the parochial attitudes to-wards Bengal. This signifies two temporal rhythms (of voice and image) as being interwoven, creating disjunction. It is also important to point that the filmmaker improvised as much political and aesthetic choices as the narrative due to budgetary constrain. He also breaks the regionalism by directing the film in Hindi, a subtle contestation against the State which was promoting regionalism by funding such films.

On the other hand, Satyajit Ray's films are known for humanism, lyricism, subtlety and depth. Questions related to masculinity, false middle-class values, rural-urban divide, colonial remnants and lost utopian idealism are some of the pertinent issues that Satyajit Ray dealt in his films with humanistic approach. In other words, the films are about things that make up the human race - relationships, emotions, struggle, conflicts, joys and sorrows. His films such as the Apu trilogy – *Pather Panchali* (1955); *Aparajito* (1956) and *Apur Sansar*

(1959); *Jalsaghar* (1958); *Kanchenjunga* (1962); *Charulata* (1964); *Nayak* (1966); *Pratidwandi* (1970); *Goopy Gyne Bagha Byne* (1969); *Seemabaddha* (1971), *Jana Aranya* (1975); *Shatranj Ke Khilari* (in Hindi, 1977); *Ghaire-Baire* (1984); and *Agantuk* (1991) are acknowledged classics of world cinema.

However, *Aranyer Din Ratri* [Days and Nights in the Forest] is not widely considered as his best work or even gets much scholarly attention. But it is my contention that the film is multi-layered with rich subtext and meanings embedded in it which makes it for rewarding viewership and analysis.

Aranyer Din Ratri is about a journey undertaken by four young urbanites to the jungles of Santhal *Pargana* in the remote area of Bihar. The narrative develops through a series of encounters they have with people from different social and ethnic backgrounds, who constitute a microcosm of Indian society - Palamau's poor low-caste villagers, the Bengali middle-class society and the tribal Santhals. Based on a Sunil Gangopadhyay's novel, Ray combined neo-realist filmmaking techniques with an Indian narrative to produce *Aranyer Din Ratri*. The film is a social and political allegory about India, what India is and what those in power would like it to be. Of the four middle-class males, Ashim, the most affluent, slightly dominating and conceited is a successful executive; Sanjay is a high-ranking labour officer in a jute mill; Hari, the wildest and the most impulsive, is a famous cricket player; and *Sekharies*, the group's self-appointed clown and a gambler with no steady profession. Their journey into forest turns out to be journey of their self-discovery - their fear of society, the discovery of cowardice within oneself and lack of responsibility.

The 'picnic sequence' as on the poster of the film (see in figure 1.2), in which, the six young urbanities sit together to choose the names of famous persons, is an allegory of the nation-state. This sequence reflects the disintegration of a vision of platitude surrounding the birth of a new nation-state.



Figure 1.2: Poster of *Aranyer Din Ratri* (Wikimedia. Web. 12 Apr. 2017).

Elegantly structured, the sequence unfolds an array of emotional and psychological details, with each character revealing itself. Ray used not less than seventy-three cuts for a scene that lasts nearly six minutes on-screen. The camera glides in a circular motion in one of the shots where Sanjay recalls the names "Rabindranath, Karl Marx, Cleopatra, Atulya Ghosh, Helen of Troy, Shakespeare..." The shot has the camera placed at the centre of the circle, showing each of the six urbanities with incredible cinematographic precision and dexterity. Sanjay and Jaya Tripathy are shown together in 15 shots, as if to establish the physical proximity developing between them. Ashim's attraction towards Aparna, on the other hand, is distinctly intellectual in nature. They are never in the same frame. The innumerable reaction shots used in the film are pregnant with tendrils, tread into interiorities as well as exteriorities of the characters. The subtle moments between the sexes are source of study for human behaviours, identities, subjectivities. There is a constant physical tension between Hari and Duli, a latent emotional bond between Sanjay and Jaya Tripathy and intellectual and sensitive play between Aparna and Ashim.

Aranyer Din Ratri clearly reflects Satyajit Ray's admiration for French master Jean Renoir with whom he had experience of working with in *The River* (1951) prior to *Pather Panchali*. *Aranyer Din Ratri* might well be termed as a remake of Jean Renoir's *Une Partie de Campagne* (1946), though with different settings and treatment. The staging of the 'Memory Game' also re-minds of Jean Renoir's *La Règle du Jeu* (*The Rules of the Game*, 1939), in which a small set of elite French community is entangled in a web of lies, false pleasures and delusive love.

However, Muzaffar Ali's ethnographic experiences of Avadh (Uttar Pradesh) reflected in the aesthetic frames of his films, give a new dimension to the understanding of life. In his films, he documents the plight of the marginal in the society. His films *Gaman* (1978) and *Anjuman* (1986) are about breaking down of the society in the post-independent India. *Anjuman* is about the condition of the *chikankari* workers of Lucknow who eventually organize embroiders' union. The film gives political identity to the dispossessed and disenfranchised. *Gaman* is about the social realities of the migrants in Bombay and a certain documentation of the human predicament.



Figure 1.3: Poster of *Gaman* (Wikimedia. Web. 13 Apr. 2017).

Gaman means departure or migration. The film follows the desperate plight of people who are forced by economic circumstances (breakdown of the agrarian society) in leaving their families and homes to migrate towards cities in order to earn their livelihood. Bombay emerges as a 'callous' city which traps the migrants in an inescapable predicament. The helplessness, the daily struggle, the desperate holding on to minimal dreams of normality, the expected as well as systematic threats to their dreams, the dejection and despair on the faces of the city's working population, are combined here with the inevitable memory of elsewhere, where Khairun, Ghulam Hasan's wife, awaits his return at the threshold of her home only to find that her husband might not return ever as seen on the poster of the film (as in figure 1.3). The narrative of the film moves between the city and the village showing parallel depiction of fluid spaces. *Gaman* can be viewed as a cultural geography of Bombay: it raises question about how migrants live, experience, and shape a particular environment; about what this living and reshaping the environment means; about how that environment is changing in various ways.

Realist mode is traced through the staging and framing components of the film that include: use of real locations (with the recurrent incorporation of documentary footage of Bombay's slums and in the by-lanes and fields of director's own village, Kotwara, in the district Kheri, Uttar Pradesh); claustrophobic interiors (Bombay's cramped inner city spaces); transitional border areas (*bustees*, and railway platforms); and closed framing forms (through the employment of high, low and irregular camera angles) that emphasise a sense of urban dystopia. This can be understood through scenes in which Ghulam drives taxi through the city. The scenes are constructed through a series of shots constituted by documentary footages, a play of depth, panning, tracking shots and long shots. The drive is a kind of guided tour for the spectator, a walk we might take through the city in which there are certain 'must see' locations but also those things which we would encounter entirely by chance and which would create a kind of temporal continuity in accord with that of the film. On the level of the incidental, chance and coincidence, we come across the prostitutes, children in the street outside, the flute-player in the train and beggar lingering in the backdrop of the film. Whereas, the long shots in the film function to create a sense of depth, consuming large spaces and revealing the city's waste grounds, its shanty suburbs, the growth of urban poverty and so on (as in frames 5, 6 & 7). This gives the spectator to direct his or her own control over the viewing process i.e. the freedom to choose what to see, in what order and for how long. Rather losing ourselves in the narrative, such cinematic techniques make us think and develop new ways of seeing. The spectators are constantly reminded that we are watching a film. Hence, such shots are engaged with this power or potential to free images from a fixed point of view. This is where the power of cinema, among other things, opens life and makes cinema cinematic.



Frame 5



Frame 6



Frame 7

The powerful music in the film gives a certain cultural dimension to the characters and also highlights their alienation in the city. Shahryar's lyrics: *Seene mein jalan; Ajeeb sa neha mujh par gu-zar gaya yaaron; Woh kaun ttha woh kahan tha kya hua tha ussey? Suna hai aaj koi shaqs mar gayaa yaaron....*, sum up the pathos of city's dark side poetically and the working class angst. The *ghazals* are mournful, meditative and have nostalgic tone. Khairun's state of mind, helplessness and longing is captured vividly in Shahryar's ghazal '*Aapki yaad aati rahi.*'

Yet, Shyam Benegal's films attempt to understand the social milieu that include elements of change in context to socio-economic and political relationships. Benegal was the first major film-maker who was not financed by Film Finance Corporation to be identified by New Cinema: *Ankur* (1974) and *Nishant* (1975) were financed by the Blaze Advertising Enterprises, *Manthan* (1976) was jointly financed by the farmers belonging to the Gujarat Co-operative Milk Manufacturers' Federation and *Kondura* (1978) had an Andhra Pradesh Producer. Benegal's films have created a new genre in the New Cinema - Parallel Cinema. His works provide an important insight into the post-independence imagination of India. His films touch the pertinent chords of the contemporary life of the 1970s India-

the power of sexual undertones, gender inequality, rural exploitation, development of worker's co-operative and so on.

Manthan is set against the background of the White Revolution of India which started in 1970. It is a story of dismantling of old institutions and the emergence of new ones. The political and ideological contexts, in this film, open up the possibilities of a substantive engagement with arguments for or against the state, developmental ideologies and realism. *Manthan* is a microcosmic picture of transformative politics. The film is a powerful social critique of how an outside agency can act as a catalyst for change in the social and economic perceptions of the people in the village.

Here, the land is removed as the primary means of production and replaced by cattle in the film. The milk co-operative is a metaphor for a new structure which challenges existing hierarchies and power equations. At the initiative of Government, a team of experts is sent to the village in Gujarat with a view to mobilise the people to form a Consumers' Milk Co-operative Society. The film is about the trials and tribulations of the villagers, their persecutions, power politics as well as the ordeals of the team members in the process of establishing the Milk Co-operative Society. The four-cornered struggle between - the untouchables, the traditional middle class, the rising rural capitalists and the new co-operative led by middle-class agents of change - tells us about caste dominance, caste politics, politics of violence, village factions, conditions of *harijans* and their persecution at the hands of higher and dominant castes to serve their own vested interest. This can be seen in the poster of the film, in which the *harijan* woman articulates an acute consciousness of her caste and gendered marginality (as in figure 1.4).



Figure 1.4: Poster of *Manthan* (Wikimedia. Web. 13 Apr. 2017).

The screenplay of the film is written by Marathi playwright Vijay Tendulkar on idea developed of Dr. Verghese Kurien, one of the architects of the White Revolution in India. Shyam Benegal turns documentary material into an absorbing drama with assured handling of mise-en-scène. The film was shot on actual location. It is a new wave low-budget film, in which actors and actresses wore costumes and also their get up was such that make them part and parcel of the local milieu and real characters. They spoke in the rural Gujarati dialect local to the area. The style of the story is realistic. It was sponsored by 5,00,000 farmers of the Gujarat Co-operative Milk Marketing Federation (GCMMF), every farmer donated two rupees. The political contestation of the village through a hybrid style of neo-realist cinema and alternative cinematic experimentation serve to dignify the poor farmers as new, egalitarian citizens and explores the possibilities of change in rural society. It is observed in the film, power is not only possessed by one group and levelled against another, but network of practices, institutions, that sustains positions of dominance and subordination in a particular domain.

To conclude, Indian Alternative Cinema is a critical site of interpretation, in which social spaces act as vital nodes in the re-articulation of a range of competing discourses- tourism, recreation, migration, developmental societal changes. These discourses are intercalated and evolve into new sites of meaning. Hence, it expands thinking, reflects new sites of expressions, finds alter-native narratives about one's own life, enhances cultural understanding and builds culturally responsive awareness. It also reflects that cinema is not about representing a world we already have. It creates new worlds.

References

Aranyer Din Ratri (Days and Nights in the Forest). Directed by Satyajit Ray. Shradha Home Video, 1970.

Bazin, André. *What Is Cinema?* Edited and translated by Hugh Gray. University of California Press, 1967- 1971.

BhuvanShome. Directed by Mrinal Sen. Ultra, 1969.

Binford, Mira Reym. "State Patronage and India's New Cinema." *Critical Arts*, Vol.2, No. 4, 1983, pp. 33-46.

Datta, Sangeeta. *Shyam Benegal*. British Film Institute, 2002.

Gaman. Directed by Muzaffar Ali. Integrated Films, 1978.

Manthan. Directed by Shyam Benegal. Amul, 1976.

Prasad, Madhava. *Ideology of the Hindi Film: A Historical Construction*. Oxford University Press, 1998.

Rajadhyaksha, Ashish. "The Indian Emergency." *Indian Cinema in the Time of Celluloid: From Bollywood to the Emergency*, Indiana University Press, 2009, pp. 231-254.

Sahay, Keshari N. *Visual Anthropology in India and its Development*. Gyan Publishing House, 1993.

"Self-Reflexivity in Films" N.P., n.d., Web. 15 Apr. 2013.

Sen, Mrinal. *Always Being Born: A Memoir*. Stellar Publishers, 2004.

---. *Montage: Life, Politics, Cinema*. Seagull Books, 2002.

Vasudev, Aruna, and Philippe Lenglet, (ed.), *Indian Cinema Superbazaar*. Vikas Publishing House, 1983.

Zavattini, Cesare. "Some Ideas of Cinema." in Howard Curle and Stephen Snyder (ed.), *Vittorio De Sica: Contemporary Perspectives*. University of Toronto Press, 2000. pp. 50-61.

Intertemporal and Interstate Variations in Technical Efficiency of Indian Leather Industry

SUPREET NARANG
NISHA BHARGAVA

Abstract

Leather industry is one of the oldest and the most prominent industries of India. Owing to its massive potential for employment, growth, exports and high total linkage effects for both rural and urban India, it becomes imperative to analyse the status of Indian leather industry. The objective of this paper is to study intertemporal and interstate variations in the technical efficiency and its components in this industry. The study uses longitudinal data for nine leather producing states of India which account for 90.5 per cent firms of the total firms in the said industry. The required data has been collected for 31 years i.e. from 1985-86 to 2015-16 through various volumes of Annual Survey of Industries (ASI). Window Data Envelopment Analysis has been applied with four inputs and one output with window size of 16. The major findings of this study show that the managerial inefficiencies of the laggard states are mainly responsible for their overall technical inefficiencies while scale inefficiency has a marginal role to play. On an average the Indian leather industry is working under increasing returns to scale and needs a substantial expansion to avail various economies of scale

Keywords: Leather Industry, Technical Efficiency, Data Envelopment Analysis

Introduction

Leather industry is one of the oldest and the most prominent industries in India. This industry has undergone a complete metamorphosis and is on the forefront of net foreign exchange earners for the country since 1980. The trade component of the value chain of leather products knows no boundaries whether national or continental. Hides from South America are processed in India and end products are sold in Europe and the United States (US). Garments made from New Zealand goatskins are manufactured in the Indian subcontinent and sold in the US. The leather industry occupies a significant place in the Indian Economy. This sector has been making consistent export earnings and is among the top ten foreign exchange earners for the country. There has been an increasing emphasis on its planned development and optimum utilization of available raw material for maximizing the returns, particularly from exports. The leather industry has undergone a dramatic transformation from a mere exporter of raw materials in the sixties to that of value added finished products in the nineties. In the wake of globalization of Indian Economy, supported with liberalized economic and trade policies since 1991, the industry is poised for further growth to achieve greater share in the

global trade. Apart from a significant foreign exchange earner, leather industry has tremendous potential for employment generation. The leather industry is an employment intensive sector and is providing employment to approximately 2.5 million people. The workers working in the Indian leather industry are mostly from the weaker sections of the society. Another significant feature is that women employment is predominant in leather product sector and their share is around 30 percent of the total employed force. The skilled and semi-skilled workers constitute nearly 50 percent of the total work force. This industry is bestowed with skilled man power, mechanization, innovative technology, ample support of allied industries and is continuously growing compliance to international environment standards. Besides, Indian economy is endowed with 21 percent of world's cow & buffalo and 11 percent of world's goat sheep population. India is the second largest producer of footwear and leather garments in the world; still the share comes out to be only 3.05 percent of the global leather import trade of US. On account of all these factors the annual turnover of leather and leather products in India is over US \$ 12.50 billion while the exports are US \$ 6.5 billion (2014-15). Thus, this industry is exhibiting cumulative annual growth rate of about 13.10 per cent for the last five years (CLE, 2014-15).

The major production centres for leather and leather products in India are located in Tamil Nadu (Chennai, Ambur, Ranipet, Vanijanbadi, Vellore, Pernambut, Trichy, Dindigul and Erode), West Bengal (Kolkata), Uttar Pradesh (Kanpur, Agra, Noida, Saharanpur), Maharashtra (Mumbai), Punjab (Jalandhar), Karnataka (Bangalore); Andhra Pradesh (Hyderabad), Haryana (Ambala, Gurgaon, Panchkula and Faridabad), Madhya Pradesh (Dewas) Kerala (Calicut and Cochin), and Delhi. The Indian Government, realizing the growth potential of this industry, has been making significant efforts for its advancement. The Central Government has laid down a number of programmes, schemes as well as incentives for the expansion and growth of Indian leather industry:

- i) Leather has been declared as one of the 'focus sectors' under the Foreign Trade Policy of India;
- ii) There are provisions for export promotion and market development activities by providing funds for technological upgradation, modernization of production units, environment safety measures, human resource development and other projects;
- iii) The entire leather sector is delicensed which facilitates expansion along modern lines;
- iv) There is a provision for 100percent FDI through the automatic route;
- v) Specified machinery to be used in the leather and footwear industry has been allowed a 5per cent concession on import duty;
- vi) The government permits duty free import of raw hides and skin, wet blue chrome tanned leather, crust leather and finished leather of all kinds except splits and sides;
- vii) Specialized critical inputs for manufacture of leather garments and other leather products including footwear can be imported under the Duty Free Import Scheme (DFIS);
- viii) Basic customs duty is exempted on machinery and equipment for effluent treatment plants in the leather industry;
- ix) Duty neutralisation, exemption / remission schemes are in place, including Duty Drawback Advance Authorization, Duty Entitlement Passbook, Duty Free Import Authorization, etc.;
- x) The government has been gradually lowering the import tariff. The current top customs duty is 10 per cent;
- xi) There are specified import- export procedures ensuring quick customs clearances.

Therefore, the Indian leather industry has a huge potential in terms of growth, employment and exports. This industry can play a pivotal role in the '*Make in India*' and '*Skilled India*' initiatives of the Indian Government. However, this industry hasn't received any major investment in the recent years due to high taxation and lack of infrastructure. Owing to its massive potential for employment, growth, exports as well as high total linkage effects for both rural and urban India, it becomes imperative to analyse the status of Indian leather industry.

In the existing literature on Indian leather industry, attempts have been made to analyse the performance of the said industry with a single performance indicator approach or through the frontier based approach. The major attempts in analysing the performance of leather industry using single indicator approach are Kumar (1997), Sankar (2006) and Damodaran and Mansingh (2008). However, Goaid and Mouelhi (2000) analysed the technical efficiency of textile, clothing and leather industries of Tunisia and concluded that these industries witnessed technical regress at the rate of 1 percent per annum under decreasing returns to scale during 1983- Chakraborty and Chakraborty (2007) used DEA based frontier analysis to evaluate technical efficiency performance of leather industry of Tamil Nadu. A study by Manonmani and Geeta (2009) calculated efficiency of Agro based consumer goods industry of Tamil Nadu and leather was one of the component industries classified under Agro-based industry category by the author. This study found that technical inefficiency was the highest at 45.6 percent and the scale inefficiency was also higher, 53.6 percent, for leather and leather products. The contribution of Bhandari (2010) is also noteworthy in the field of performance evaluation of leather industry of India in which overall average technical efficiency has been calculated at 56 percent. Under longitudinal framework, Trivedi (2004) computed inter-state difference in productivity in organized manufacturing sector with special emphasis on employment and output. The inter-state inter-industry data have been used in the study to conclude that total factor productivity (TFPG) of leather industry (one of the many industries selected for study) is 1.1 percent that contributes to output growth by 11.2 per cent. There have been studies by Tewari and Pillai (2005), Dixit *et al.* (2015) and Gupta *et al.* (2018) which have significantly highlighted the other side of this industry pertaining to environmental standards, environmental compliance and environmental pollution and how the available technology can transform this industry from an environment threatening to an environment friendly one.

Thus, a scant in literature on measuring performance of Indian leather industry does exist in terms of the frontier analysis. To the best of our knowledge, few Indian studies have been conducted to evaluate the technical efficiency performance of Indian leather industry from inter-state perspective. The present analysis tries to fill up the existing gap in literature and attempts to test the hypothesis that the Indian leather industry is plagued by dismal technical efficiency performance over the period from 1985 to 2016.

Data Source/ Methodology/ Construction of Variables

The objective of this paper is to study the Technical Efficiency of Indian leather industry. This study uses longitudinal data for nine states which accounts for 90.5 percent firms of the total firms in the

Indian leather industry. The time period covered under the study is of 31 years i.e. from 1985-86 to 2015-16. The main source of data is Annual Survey of Industries (ASI). As a matter of fact, the leather industry has made its presence felt in the reports of ASI since 1974-75. It has been observed that this industry was present only in a limited number of states. While only a few states have been able to retain this industry since 1974-75 like Punjab, Tamil Nadu, Uttar Pradesh and West Bengal; states like Andhra Pradesh, Gujarat and Rajasthan have witnessed this industry to sustain at a marginal level. There are some states like Delhi, Haryana, Kerala and Karnataka in which this industry had no existence in the early years but at present leather industry is significantly contributing to their gross domestic product. One thing which has remained consistent throughout the study period is that there are only a few states where this industry has tended to concentrate.

The present study is an attempt to analyse data related to nine states which represent Indian leather industry. While the data for Punjab, Tamil Nadu, Uttar Pradesh and West Bengal is available since 1974-75, the same is available from different years for Delhi, Haryana, Maharashtra, Karnataka and Kerala. Thus, on account of restricted availability of data the span of this study is from 1985-86 to 2015-16. The year 1985-86 becomes more and more significant as this year marks the beginning of mild liberalization in India and thus makes the study more dynamic. The ASI data related to Indian leather industry is available under different NIC codes. Thus, proper concordance was ensured while compiling the same. The partial static equilibrium framework is assumed with four inputs; capital, labour, material consumed and fuel consumed to produce single output i.e. gross output. However, the variables required to carry out empirical estimation are not directly available from ASI. The variables were constructed and then deflated to make them comparable over the given period of time.

Technical Efficiency

Technical Efficiency (TE) refers to a firm's ability to transform physical inputs into outputs in relation to the best-practice frontier. Technical Efficiency is indicative of the fact that a firm uses minimum quantity of inputs to produce a given volume of output. Calculation of TE with constant returns to scale signify overall technical efficiency. On the other hand, calculation of TE with variable returns to scale is a measure of pure technical efficiency which represents managerial performance. Technical efficiency calculated using DEA is a relative term which represents the ability of a firm to transform its physical inputs into output in relation to the benchmark firm/s. A firm is said to be technically efficient if it produces the maximum possible level of output from a given basket of inputs. A technically efficient firm is also one which is able to produce a given level of output with the least quantity of inputs. A firm which is operating at the best practice frontier and acquires efficiency score equal to 1 is regarded as technically efficient. Other firms which have an efficiency score less than 1 are said to operate below the efficiency frontier and are regarded as technically inefficient ones.

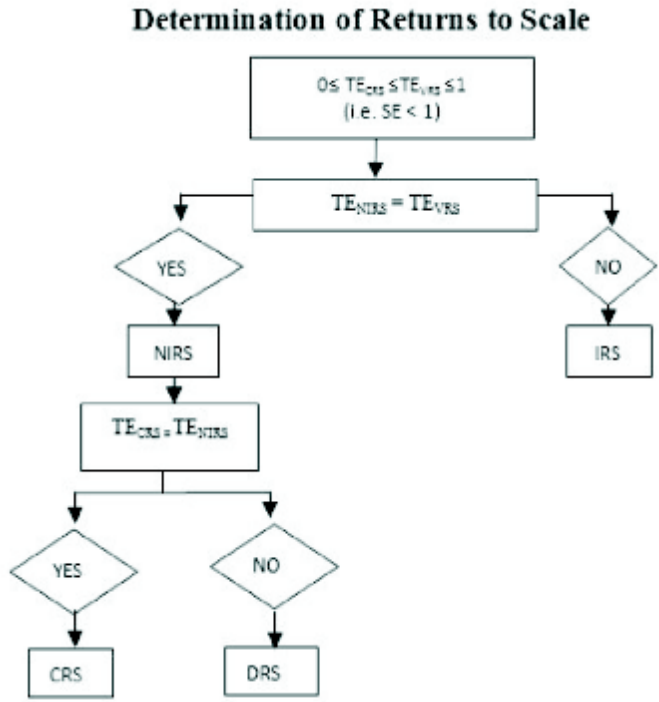
Many studies have been carried out to measure efficiency alongside absolute performance and total factor productivity (TFP) of DMUs. Mitra (1999) estimated technical efficiency and total factor productivity using Cobb-Douglas and Translog specifications for 17 industries across 15 states of India. Ray (2002) used Tornqvist and Malmquist indices to study annual rate of change in productivity and technical efficiency in manufacturing sector of India from 1986-87 to 1995-96. Mukherjee and Ray (2005) made an attempt to construct Super Efficiency rankings of the states and Union Territories of India. The main objectives of their study were to verify whether the industrially developed states are more efficient and whether these rankings were stable. Singh and Agarwal (2006) made a significant attempt to examine the growth of total factor productivity, technical efficiency change and technology change in the sugar industry of Uttar Pradesh by applying SBM-DEA based Malmquist Productivity Index on the panel data of 36 sugar mills from 1996-97 to 2002-03. Pusnik and Tajnikar (2008) measured efficiency with DEA indicators to conclude that financial indicators including technical efficiency determine the probability of bankruptcy of Slovenian firms. Bae and Chang (2012) made a theoretical as well as empirical contribution by analysing the impact of innovations on the efficiency of manufacturing firms of South Korea to conclude that firms with open innovations show higher level of efficiency than the closed innovation firms. Abegaz (2013) examined total factor productivity in the form of technical efficiency, technical efficiency change and allocative efficiency of Ethiopian manufacturing industrial groups.

It was concluded that TFP growth may be strengthened by improving technical efficiency and scale efficiency. Arora (2013) made a noteworthy contribution by studying whether innovations determine TFPG in Indian sugar industry with Non-Parametric Analysis. The author concluded that in the pre-reform phase, the overall technical efficiency change was mostly attributed to managerial efficiency change while scale efficiency had no role to play. In the post-reform phase, innovations occurred mainly as Hicks-neutral type of technological progress while scale efficiency had no role again. TFPG increased due to significant innovations. Ohlan (2013) employed firm level secondary data collected from ASI for the period 1980-81 to 2008-09 to examine efficiency and TFP growth in Indian Dairy Sector. This study concluded that the Indian Dairy Sector is 81 percent efficient, mainly due to technical efficiency than scale efficiency. Afza and Asghar (2014) used parametric Stochastic Frontier Analysis (SFA), Distribution Free Approach (DFA), Thick Frontier Approach and non-parametric Data Envelopment Analysis (DEA) and Free Disposal Approach (FDA) approaches; to estimate profit efficiency, cost efficiency and technical efficiency of modaraba and leasing companies of Pakistan.

The following output-oriented CCR (Charnes, Cooper and Rhodes, 1978) model has been used to obtain a scalar measure of technical efficiency. In the given equations m represents number of inputs and q represents number of outputs. Where n denotes number of states and in the present study technical efficiency scores of nine leather producing states have been calculated.

$$\begin{aligned}
 &\text{Maximize TE}_{CRS}^k = \theta_k \\
 &\text{subject to : } \bullet \lambda_j \sum_{i=1}^m x_{ij} = x_{ik} \quad i = 1, 2, \dots, m; \\
 &\quad \bullet \lambda_j \sum_{r=1}^q y_{rj} \geq \theta_k y_{rk} \quad r = 1, 2, \dots, q; \\
 &\quad \lambda_j \geq 0 \quad j = 1, 2, \dots, n
 \end{aligned} \tag{1}$$

As per Cooper, Seiford, & Tone, (2007), the application of DEA technique requires that the sample size should be $3 \times m + q$. Since n in this study is small, Window DEA technique has been employed for the calculation of technical efficiency scores. Since the time period (k) under consideration is that of 31 years, the length of window (p) has been taken as 16. The length of window is calculated as $p = \{(k+1)/ 2\}$ (Cooper, Seiford & Tone, 2007). The CCR model facilitates to decompose overall technical efficiency (OTE) into pure technical efficiency (PTE) and scale efficiency (SE). The nature of scale inefficiency for a given state may be determined by introducing an additional DEA program, shown as follows;



Source: Kumar and Arora (2007)

Empirical Results

In this study, non-parametric Window DEA analysis has been applied to calculate OTE, PTE and SE scores. The production function may be estimated with the assumption of constant returns to scale (CRS) and variable returns to scale (VRS). Efficiency performance evaluated with the assumption of CRS is a measure of overall technical efficiency (OTE). On the other hand, efficiency calculated with the assumption of VRS is indicative of pure technical efficiency, devoid of scale effect, representing managerial efficiency of the given state. Scale efficiency can be measured as the ratio of OTE to PTE or in simple terms ratio of technical efficiency with CRS to technical efficiency with VRS. The measure of scale efficiency is used to check whether the leather industry of the given state is operating at optimum or sub-optimum production scale. SE score equal to 1 indicates that the state is operating at the most productive scale size and any value less than 1 signify that it is operating at either sub-optimal or supra-optimal scale size. Bauer (1990) advocated the use of frontier models as it satisfies the basic assumption of economic theory i.e. optimum behaviour. The knowledge about the structure and deviations from the frontier guide the policy makers as to how the DMUs should pursue their technical and behavioural objectives.

Results of Overall Technical Efficiency

The results of overall technical efficiency (OTE) scores computed with MaxDEA Ultra 7.0.0, with window size of 16, are shown in table 1. The all India average score of OTE in leather production is 0.6340 which represents that the Indian leather industry is 63.4 percent overall technically efficient. This score varies from a minimum of 0.5119 for the state of Punjab to a maximum of 0.7779 for Delhi. There are only three states namely Delhi, Maharashtra and Kerala which can be regarded as star states as their OTE scores are above the third quartile i.e. 0.7779, 0.7037 and 0.6615 respectively. The states of West Bengal, Karnataka and Haryana fall in the category of average states with scores 0.6543, 0.6417 and 0.6201 respectively. The OTE scores for these states vary between the lower (Q1) and the upper (Q3) quartiles. The remaining three states namely Tamil Nadu, Uttar Pradesh and Punjab may be called as the laggard states as they score 0.5835, 0.5518 and 0.5119 respectively, lying below the lower quartile (Q1) of OTE scores.

Table 1
Overall Technical Efficiency Scores of Leather producing States of India

Year	Average#	Rank	C.V.	CAGR
Delhi	0.7779	1	16.27	-0.34
Haryana	0.6201	6	15.35	0.98
Karnataka	0.6417	5	13.38	0.21
Kerala	0.6615	3	35.61	3.20
Maharashtra	0.7037	2	24.25	1.93
Punjab	0.5119	9	24.56	2.19
Tamil Nadu	0.5835	7	10.73	0.53
Uttar Pradesh	0.5518	8	17.83	0.96
West Bengal	0.6543	4	13.48	0.44
Average*	0.6340		11.97	1.01
Maximum Score	0.7779			
Minimum Score	0.5119			
Lower Quartile				
Score (Q1)	0.5835			
Upper Quartile				
Score (Q3)	0.6615			
Coefficient of				
Variation (C.V.)	12.6212			

Notes: Average* represent all India average OTE score. Average# represent average OTE score of the given state throughout the study period.

Source: Authors' own calculations applying Window DEA Technique with MaxDEA Ultra 7.0.0

The cross-sectional analysis among all the states show that on an average Delhi has registered the highest average OTE score of 0.7779. The state of Maharashtra is ranked second with average OTE score of 0.7037. Kerala occupies the third place with an average OTE score of 0.6615. West Bengal has an average OTE score of 0.6543 and is ranked fourth. Karnataka occupies the fifth place with average OTE score of 0.6417. The state of Haryana's average OTE score is 0.6201 and is placed at sixth position. Tamil Nadu gets the seventh rank by scoring an average of 0.5835. Uttar Pradesh is ranked eighth as its average score is 0.5518. The state to be placed at the last rank i.e. the ninth position is Punjab with the lowest average score of 0.5119. The laggard state Punjab not only has the lowest OTE score but also has the most inconsistent performance among all the states with coefficient of variation (C.V.) equal to 24.56 percent. When we analyse the performance of these states by comparing the Compound Annual Growth Rate (CAGR) of OTE, it is observed that Kerala tops the list with 3.2 percent followed by Punjab with that of 2.19 percent and Maharashtra with 1.93 percent. All the other states have a lower CAGR, less than 1 percent. The star states Kerala and Maharashtra, with a positive and higher CAGR, also have a higher coefficient of variation equal to 35.61 and 24.25 per cent respectively; while the C.V. of other states is lesser. It is also observed that Delhi, in spite of registering the highest OTE score, is the only state with a negative CAGR. Other star states i.e. Maharashtra and Kerala have a higher CAGR. Punjab is a state which is the poorest in its performance but has a higher CAGR.

Bifurcation of OTE into its Components

After analysing the OTE score, it becomes mandatory to check the source of overall technical inefficiency (OTIE) in the Indian leather industry. The overall technical efficiency could be divided into two non-additive mutually exclusive components-pure technical efficiency (PTE) and scale efficiency (SE). It is important to note that efficiency scores calculated from VRS (BCC model) represents pure technical efficiency. The scale efficiency can be separated by calculating scale efficiency score as the ratio of TE to PTE. Table 2 shows the PTE scores of different leather-producing states of India. The table also displays the interstate variations, ranks and other descriptive statistics for the purpose of analysis.

Table 2
Pure Technical Efficiency Scores of Leather producing States of India

State	Average#	Rank	C.V.
Delhi	0.8422	3	13.15
Haryana	0.7080	4	18.52
Karnataka	0.6902	6	13.33
Kerala	0.9476	1	8.18
Maharashtra	0.8680	2	15.65
Punjab	0.6083	8	28.32
Tamil Nadu	0.6525	7	9.22
Uttar Pradesh	0.6073	9	16.23
West Bengal	0.7027	5	9.95
Average*	0.7363		7.42
Maximum Score	0.9476		
Minimum Score	0.6073		
Lower Quartile Score (Q1)	0.6525		
Upper Quartile Score (Q3)	0.8422		
Coefficient of Variation (C.V.)	16.4443		

Notes: Average* represent all India average PTE score. Average# represent average PTE score of the given state throughout the study period.

Source: : Authors' own calculations applying Window DEA Technique with MaxDEA Ultra 7.0.0

It is observed that throughout the study period, the Indian leather industry has operated with an average managerial efficiency of 73.63 percent. Thus, it can be concluded that 26.37 percentage points of 36.6 percent OTIE has been explained by managerial inefficiency. In sum, scale inefficiency is a smaller source of overall technical inefficiency in the Indian leather industry. Therefore, managerial improvements can help the Indian leather industry to improve its overall efficiency performance. Though the dominance of managerial inefficiency has been noticed at all India level, yet it cannot be generalized for all the individual states. There may exist some states in the sample for which the other source (scale inefficiency) may dominate the managerial inefficiency. It is observed that the state of Kerala ranks first with pure technical efficiency score of 0.9476 with 8.18 percent variations throughout the study period. It simply means only 5.24 percentage points of 33.85 percent OTIE is attributed to improper managerial practices. That means OTIE in the leather producing firms of Kerala is on account of their non-optimal scale size. As a matter of fact, the scale inefficiency dominates the managerial inefficiency in case of state of Kerala.

Maharashtra gets the second rank as its PTE score is 0.8680 with 15.65 per cent variations. It implies that 13.2 percentage points of 29.63 percent OTIE is attributed to the faulty management decisions and the remaining to scale inefficiency. In this case both the managerial inefficiency and the scale inefficiency are creating OTIE in the leather producing firms of Maharashtra. The state of Delhi is at the third rank as its PTE score is 0.8422. This score has 13.15 percent variations. It explains that 15.78 percentage points of 22.21 percent OTIE is on account of managerial inefficiency of the leather producing units of Delhi. In this case, the managerial inefficiency dominates the scale inefficiency in determining the OTIE of leather producing units of the state of Delhi. The state on the fourth rank is Haryana. The PTE score of Haryana is 0.7080 with 18.52 percent variations. It represents that 29.2 percentage points of 37.99 percent OTIE in the leather producing firms of Haryana is attributed to the inappropriate management practices while the remaining to the non-optimal size of their operations. Again, the managerial inefficiency has played a dominant role in determining the overall technical inefficiency of the leather producing firms of Haryana. The same trend is observed in case of West Bengal which is the next in the ranking with PTE score of 0.7027 and 9.95 per cent variations. It means 29.73 percentage points of 34.57 percent OTIE in the leather producing states of West Bengal is on account of faulty management policies.

Similarly, in case of state of Karnataka, which is on rank sixth with PTE score of 0.6902, 30.98 percentage points of 35.83 percentage OTIE in leather producing states of Karnataka is on account of managerial inefficiency. The PTE scores of the laggard states vis-a-vis. Tamil Nadu, Punjab and Uttar Pradesh are 0.6525, 0.6083 and 0.6073 respectively. Hence, it can be concluded that the inappropriate decisions of the managements of leather producing units of these laggard states are responsible for their overall technical inefficiencies while scale inefficiency has a marginal role to play. While Punjab had the maximum variations to the tune of 28.32 percent, Kerala scores were consistent with only 8.18 percent C.V.

Table 3
Scale Efficiency Scores of Leather producing States of India

State	Average#	Rank	C.V.
Delhi	0.9202	3	6.37
Haryana	0.8921	6	9.40
Karnataka	0.9320	1	6.76
Kerala	0.7035	9	35.24
Maharashtra	0.8080	8	15.09
Punjab	0.8603	7	12.56
Tamil Nadu	0.8946	5	5.37
Uttar Pradesh	0.9131	4	5.83
West Bengal	0.9283	2	5.23
Average*	0.8724		4.96
Maximum Score	0.9320		
Minimum Score	0.7035		
Lower Quartile Score (Q1)	0.8603		
Upper Quartile Score (Q3)	0.9202		
Coefficient of Variation (C.V.)	8.53		

Notes : Average* represent all India average SE score. Average# represent average SE score of the given state throughout the study period.

Source : Authors' own calculations applying Window DEA Technique with MaxDEA Ultra 7.0.0

The scale efficiency scores are calculated as the ratio of OTE to PTE scores. The results displayed in table 3 supplement and compliment the results of OTE and PTE in the Indian leather industry. The all India average scale efficiency scores of leather-producing firms is 0.8724 which means 12.76 percentage points of 36.6 percent OTIE is attributed to scale inefficiency. Thus, all the states are working at a scale away from the most productive scale size (MPSS). The cross-sectional analysis of this table enables us to understand that the state which secured the first rank in PTE is the last in the ranking of scale efficiency and vice versa. However, the coefficient of variation in these scores among different states is maximum 35.24 per cent for the state of Kerala and minimum 5.23 per cent for the state of West Bengal.

Table 4
Returns to Scale in Leather producing States of India

Year	Delhi	Haryana	Karnataka	Kerala	Punjab	Maharashtra	T.N.	U.P.	W.B.	Average#
1986	CRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1987	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1988	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1989	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1990	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1991	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1992	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1993	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1994	CRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS	IRS	IRS
1995	CRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1996	DRS	DRS	IRS	IRS	IRS	DRS	IRS	IRS	DRS	IRS
1997	DRS	DRS	DRS	IRS	IRS	DRS	IRS	IRS	IRS	IRS
1998	DRS	DRS	DRS	IRS	CRS	DRS	IRS	IRS	IRS	DRS
1999	IRS	DRS	IRS	CRS	IRS	IRS	IRS	IRS	IRS	IRS
2000	IRS	DRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
2001	IRS	DRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
2002	IRS	DRS	IRS	CRS	IRS	IRS	IRS	DRS	IRS	IRS
2003	IRS	DRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2004	IRS	DRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2005	IRS	IRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2006	IRS	DRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2007	IRS	DRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2008	IRS	DRS	IRS	IRS	IRS	IRS	DRS	DRS	IRS	IRS
2009	IRS	DRS	DRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2010	IRS	DRS	IRS	IRS	IRS	DRS	IRS	DRS	IRS	IRS
2011	IRS	DRS	DRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2012	IRS	DRS	IRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
2013	IRS	DRS	DRS	DRS	IRS	IRS	IRS	DRS	IRS	IRS
2014	IRS	DRS	IRS	CRS	CRS	IRS	IRS	DRS	IRS	IRS
2015	IRS	DRS	DRS	IRS	CRS	IRS	IRS	DRS	IRS	IRS
2016	IRS	DRS	DRS	IRS	IRS	IRS	IRS	DRS	IRS	IRS
Average	*IRS	D R S	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS

Notes: (i) IRS represents Increasing Returns to Scale, CRS represents Constant Returns to Scale and DRS represents Decreasing Returns to Scale. (ii) Average# represent all India average returns to scale in the given year. Average* represent average returns to scale of the given state throughout the study period.

Source: Authors' own calculations applying Window DEA Technique with MaxDEA Ultra 7.0.0

As per the documented texts of microeconomics, the principal objective of a firm is to operate at the most productive scale size corresponding to constant returns to scale. While the returns may be increasing, or decreasing, in the short run, the units will either expand or contract in size to become the MPSS.

Table 4 shows the intertemporal as well as cross-sectional comparison of working of Indian leather producing states in the long run. It is observed that the Indian leather industry has been operating under increasing returns to scale. The interstate comparison show that except Haryana all the states have been operating under increasing returns to scale. In simple words, the fixed factors of production in these states are under-utilised and have a negative marginal productivity. The leather producing states must expand their scale of production to realize the objective of optimum utilization of resources and factors of production and get the best returns to their investment.

Summary of Conclusion and Policy Implications

The intertemporal and interstate variations in the technical efficiency of Indian leather industry have been studied by calculating overall technical efficiency scores and bifurcating the same into two mutually exclusive and non-additive components namely pure technical efficiency and scale efficiency. The three scores have been computed through Window DEA technique. Besides average scores other descriptive statistics have also been calculated for a comprehensive analysis and interpretation of the results. States have been ranked as per their efficiency scores for a better perspective.

The observations thus derived enable us to conclude that the state of Delhi might have reached to its potential capacity realization; that's why in spite of having a negative CAGR, it has been ranked amongst the top place in terms of OTE, PTE and SE scores. However, the leather manufacturing units in Delhi must check their inconsistent performance to continue to remain a star state. Maharashtra needs to improve its performance on both the fronts of managerial efficiency and scale efficiency. The state of Kerala with the highest CAGR of OTE is the only state which has the highest managerial efficiency and experiences OTIE only on account of working at improper scale of production. Thus, Kerala may become number one state if it expands its production scale to MPSS and continue with its efficient management practices. The states such as Tamil Nadu, Punjab, and Uttar Pradesh; known to be the oldest centres of leather industry with a legacy, have been identified among laggard states in terms of OTE scores. These states need to catch up with the benchmark practices in all the respects. Among these states the managerial inefficiency dominants while scale inefficiency is found to be a scant source of OTIE. Therefore, managements of these states should improve their working to enable them improve their overall technical efficiency performance. The all India average shows that the Indian leather industry has been operating under increasing returns to scale for the last 31 years. Thus, in order to be, in the rational stage of production, Haryana must downsize while all the other states must upsize their production scales to avail positive marginal product of all (i.e., fixed and variable) factors of production. These measures may enable the Indian

leather industry to look into its weaknesses and strengthen itself to improve its prospects for growth, employment and exports.

References

- Abegaz, Melaku T. *Total Factor Productivity and Technical Efficiency in the Ethiopian Manufacturing Sector*. No. 010. 2013.
- Afza, Talat, and Muhammad Jam-e-Kausar Ali Asghar. "Efficiency of Modaraba and Leasing Companies in Pakistan." *Procedia-Social and Behavioral Sciences* 109, 2014, pp. 470-482.
- Arora, Nitin. "Does "Catching-up" or "Innovations" Drive Total Factor Productivity Growth in Indian Sugar Industry? A Non-Parametric Analysis." *Indian Economic Review*, 2013, pp. 351-379.
- Banker, Rajiv D., Abraham Charnes, and William Wager Cooper. "Some models for estimating technical and scale inefficiencies in data envelopment analysis." *Management science* 30.9, 1984, pp. 1078-1092.
- Bae, Youngim, and Hyunjoon Chang. "Efficiency and effectiveness between open and closed innovation: empirical evidence in South Korean manufacturers." *Technology Analysis & Strategic Management* 24.10 2012, pp. 967-980.
- Bauer, Paul W. "Recent developments in the econometric estimation of frontiers." *Journal of Econometrics* 46.1-2, 1990, pp. 39-56.
- Bhandari, Anup Kumar. "Global crisis, environmental volatility and expansion of the Indian leather industry." 2010.
- Chakraborty, Pavel, and Debashis Chakraborty. "Environmental Regulations and Indian Leather Industry." *Economic and Political Weekly*, 2007, pp. 1669-1671.
- Charnes, Abraham, William W. Cooper, and Edwardo Rhodes. "Measuring the efficiency of decision making units." *European Journal of Operational Research*, 2.6, 1978, pp. 429-444.
- Cooper, W. W. "Seiford. LM and Tone, K. (2000) Data Envelopment Analysis: A Comprehensive Text with Models, Applications, References and DEA-Solver Software." (2007).
- Damodaran, Sumangala, and Pallavi Mansingh. "Leather industry in India." Report, Centre for Education and Communication, India, March 2008.
- Dixit, Sumita, et al. "Toxic hazards of leather industry and technologies to combat threat: a review." *Journal of Cleaner Production* 87, 2015, pp. 39-49.
- Exports, Council for Leather, Exports of Leather and Leather Products: Facts and Figures 2014-15. Chennai, Council for Leather Exports, 2015.
- Goaied, Mohamed, and Rym Ben Ayed-Mouelhi. "Efficiency measurement with unbalanced panel

- data: evidence from Tunisian textile, clothing and leather industries.” *Journal of Productivity Analysis* 13.3, 2000, pp. 249-262.
- Kumar Gupta, Sandeep, Sanjeev Gupta, and S. Gayathiri. “Pollution prevention” is the key to drive sustainability: Preliminary findings from a tannery unit in India.” *Management of Environmental Quality: An International Journal* 29.3, 2018, pp. 416-426.
- Kumar, Subas C. *Indian Leather Industry: Growth, Productivity, and Export Performance*. APH Publishing, 1997.
- Kumar, Sunil, and Nitin Arora. “An evaluation of Technical Efficiency of Indian Capital Goods Industries: A Non-Parametric Frontier Approach.” 2007, pp. 182-197.
- Manonmani, M., and K. T. Geetha. “Efficiency in agro-based consumer goods industries of Tamil Nadu.” *Indian Journal of Industrial Relations*, 2009, pp. 487-508.
- Mitra, Arup. “Total factor productivity growth and technical efficiency in Indian industries.” *Economic and Political Weekly*, 1999, M98-M105.
- Mukherjee, Kankana, and Subhash C. Ray. “Technical efficiency and its dynamics in Indian manufacturing: an inter-state analysis.” *Indian Economic Review*, 2005, pp. 101-125.
- Ohlan, Ramphul. “Efficiency and total factor productivity growth in Indian dairy sector.” 2013.
- Pušnik, Ksenja, and Maks Tajnikar. “Technical and cost efficiencies as determinants of business failures of small firms: the case of Slovenia.” *Eastern European Economics*, 46.1, 2008, pp. 43-62.
- Ray, Subhash C. “Did India's economic reforms improve efficiency and productivity? A nonparametric analysis of the initial evidence from manufacturing.” *Indian Economic Review*, 2002, pp. 23-57.
- Sankar, U. “Trade liberalisation and environmental protection: responses of leather industry in Brazil, China and India.” *Economic and Political Weekly*, 2006, pp. 2470-2477.
- Singh, S. P., and Shivi Agarwal. “Total factor productivity growth, technical progress and efficiency change in sugar industry of Uttar Pradesh.” *The Indian Economic Journal*, 54.2, 2006, pp. 59-82.
- Tewari, Meenu, and Poonam Pillai. “Global standards and the dynamics of environmental compliance in India's leather industry.” *Oxford Development Studies* 33.2, 2005, pp. 245-267.
- Trivedi, Pushpa. “An inter-state perspective on manufacturing productivity in India: 1980-81 to 2000-01.” *Indian Economic Review*, 2004, pp. 203-237.

Kotgarh and the Early Colonial Constructions in the 19th Century

MANPREET KAUR

Abstract

Kotgarh, a hamlet situated in the western Himalayas, currently in the northern state of Himachal Pradesh was a part of British Punjab in the nineteenth century. The town about 70 kilometres ahead of Simla, on the old Hindustan-Tibet road was occupied much before the annexation of Punjab in 1849. The early years of British settlement came in 1814 in the form an army garrison that was stationed in Kotgarh right after the English force defeated the Gorkhas. With the passage of time, Kotgarh drew attention from various quarters largely due to the British presence. Certain developments occurred that brought visible socio-cultural changes in this area. In this paper, those elements that distinguished itself as being 'colonial' have been touched upon. Christianity, categorically falling into this bracket came to Punjab as to the rest of the country under the imperial umbrella. Hence, for a small town like Kotgarh it wasn't any different either. Kotgarh's interface with Christianity becomes the pivotal point of this study. It explores various Christian institutes that were constructed and certain stories that were penned down which stretched a period extending from the early advent of the British right up to the end of the nineteenth century. Both, tangling and untangling those social spaces that experienced the appropriation of Christianity. The paper focuses on how Kotgarh was hewn out of the missionary interest bringing the minutest of changes in the society that would probably go unnoticed had it not been for the architectural and literary evidences that made those fine transformations large enough to catch one's attention.

Keywords: Kotgarh mission, Christian spaces, Missionary school, Missionary society.

Introduction

The Beginning

Captain Gerard, a well-known traveller, who for a time lived in Kotgarh (often referred as Kotgur in the mission records) in 1845, wrote,

Kotgarh is free from fogs, has good water, a population close together of 1,200 souls; and is just opposite to Kulu, a populous district just opposite the other side of the Sutledge. The people are very simple, and show a great anxiety to be educated by us, and fairs are held in the neighbourhood, which greatly help the spread of Gospel to distant nations. It is a most interesting tract and a better field could not offer itself for a Missionary establishment (Clark, *The Punjab and Sind Missions*, 128).

Figure showing location of 'Kotgarh'



Source: Proceedings' Church Missionary Society for Africa and the Far East, 1909-10, London, 1910

Kotgarh, bound in the north by river Sutlej, is surrounded by the native states of Kullu, Bushahr and Kotkhai. In the early decades of the nineteenth century, Kotgarh remained a bone of contention for all the three and was finally ceded to Rampur Bashahr. The town population chiefly composed of the Hilly Rajputs and the Kanets, both of upper caste followed by the Dalits forming the lower strata of the hierarchical order. During the times of Maharaja Ranjit Singh (1799-1839) the Gorkhas had become a formidable force in this part of the Himalayas. After defeating the Bashahris, the Gorkhas occupied Kotgarh. It was at that time, the chiefs of the hill states invited the already awaiting British to drive away the Gorkhas. Considering it their 'moral duty' the British invaded Kotgarh to 'restore affairs to the status the natives occupied prior to the Gurkha invasion, and, when that objective was achieved, to withdraw altogether from this part of the country.' (*Gazetteer of the Simla District*)

It was occupied by the British in 1814, after the latter defeated the Gorkhas to place the town under the protection of a small garrison. In 1843, the British evacuated the town when the Gurkhas were no longer considered a domineering threat. Among the British officers stationed in Kotgarh, the civil administrator, Mr Gorton's name stands out, who before leaving the station handed over their buildings and property for the establishment of a mission station in Kotgarh. The administration of this newly acquired region was entrusted under the general superintendence agent in Delhi, to the officer commanding the troops in it, who was desired to lose no time in making a settlement with the people for the payment of the revenue. (Punjab District Gazetteer, 18). This coincided with the establishment of various sanatoriums and cantonments in the Simla hills. (Kanwar, 25-26). One such station was Sabathoo in the lower Himalayas that served as an important cantonment. Sabathoo was also home for lepers, established in 1837 by the American Presbyterians, who were the pioneers in the plains and this part of the hills. However, it was the Church Missionary Society (CMS) that called for the first committee in 1840 in Simla to establish a Christian Mission in the Himalaya. It consisted of Mr. Gorton and a few more residents of Simla. (Clark, *The Punjab and Sindh Missions*, 126). The outcome was the founding of the Simla and Kotgarh Missions in 1843, hence, being acknowledged as the oldest missions of the Church of England in the Punjab. It was the enthusiasm of the early supporters of the Himalaya Mission that helped in the Christianizing efforts of Kotgarh. 'Gorton Fund' raised by Mr. Gorton became the chief contributor for the Kotgarh Mission. The old mess house at Kotgarh was bought as premises for the Mission.

The story so far happened before the annexation of Punjab. Ranjit Singh's death in 1839, followed by political chaos resulted in British occupation within a decade. Lord Dalhousie's efforts were seen in strengthening military posts and erecting roads and rails for a better communication network for soldiers. He further recognized the importance of the trade route to Tibet and commenced the construction of the famous 'Hindustan- Tibet Road' in 1850. It was then that Kotgarh became distinguishable on the map of British Punjab. The road 'never more than seven or eight feet wide, zig-zagging from Simla to Theog, Narkanda, Kotgarh, along the right bank of river Satlej to Rampur Bushahr across the river at Wangtu bridge, to follow the left bank of the Satlej to Chini.' (Kanwar, 28).

The initial years of British rule in Punjab saw a good deal of evangelical persuasion from the authorities. It is a well-known fact that the authorities adopted a policy of religious neutrality, yet in Punjab the early administrators were men of great missionary zeal.¹ This attitude however did not persist for long. For obvious reasons, things changed after the Mutiny of 1857. A constant tug of war took place between religious neutrality and the willingness of Government's participation in missionary activities. Yet, the persistent contradiction did not hinder missionary work who did well for themselves in establishing number of mission stations in rapid succession,² some in the remotest of upper Himalayas. The German missionaries took the lead and in association with the CMS, both worked in coherence for the spread of Gospel. Once the Himalayan Mission came up, they sent a request to Rev. Gossner, founding member of the Berlin Mission Society, to dispatch help. A list of German missionaries appeared on mission record. Dr. Prochnow, a Prussian missionary, was among the first to be sent to Kotgarh (Richter, 197-98). He was joined by Rev. Merk from Kangra.

Along with him were Hoerule, Keene, and Rev. W. Rebsch, who was then stationed here for more than twenty years. (*Punjab District Gazetteer*, 48) It was through his efforts that the church at Kotgarh was built. The Moravian Brethren had two Tibetan speaking stations in Bashahr, namely Pui and Chini. C.M.S. hoped to establish a centre here but unfortunately abandoned the idea. (*Punjab District Gazetteer*, 48). The reason for the Moravians' success was their fluency in Tibetan language. They had translated portions of the Bible, Barth's Bible Stories and a Harmony of the Gospel and several other tracts in Tibetan. (Sherring, 231). Nonetheless, it was the CMS that took the lead in this part of the Himalayas.

The 'Kotgarh Mission'

The synthesis of western and indigenous culture was well fabricated within Christian institutions like the Mission School and Church. These 'Christian spaces' created points of convergence and dismissal between the natives and the missionaries. When viewed amidst historical setting, these institutions nevertheless had public importance integral to British colonialism. In context to the reports of the ecclesiastical establishments in Kotgarh, two crusading missionaries stand out – Robert Clark and C F Andrews. Both are significant, as they not only produced effective literatures in understanding the challenging situations they faced, but they interpreted an honest and highly moral engagement of the areas they worked in.

To get that radical change, schools were seen as an effectual space for disseminating the so called 'rational' Christian knowledge. For the missionaries, it was a good starting point. Western education camouflaged with Christianity would have more receptivity than the direct discourse of Gospel preaching. Reasoning the validity of mission-education, Rev. Wilkinson as English missionary at Kotgarh (later in Simla) stated, 'As it was easy to gather students at one place than to gather people for public preaching. It also helped to have regular contacts with the persons through their wards. The schools provided an atmosphere where students could spend the daytime away from the social evils in the society and in homes.' (Jhishtu, 175-76).

In 1843, the school at Kotgarh was opened primarily due to the efforts of Mr. Gorton, who provided regular financial assistance. The school, aptly, was called Gorton Mission School that at present day Kotgarh stands as the epitome of Christian perseverance. Having survived challenges of running the school in a sparsely populated town like Kotgarh and acute financial strain, Gorton Mission School became a popular education institution in the region of Kotgarh. Any news of its success was immediately put across in the mission reports. Rev. J H Pratt, an accompanist to Rev. Prochnow, on his visit to Kotgarh reported on the advantage the school had in this area. Reaching out to the people, scattered in numerous villages was an impossible task but the school played an excellent medium in getting the youth together to hear about the Christian education. (*Proceedings of the Church Missionary Society*, 1845, 55-56). The usefulness of the mission school was further pointed out when some wealthy and influential men including Kanawurs (Princes) from distant places came to study here. On this, Robert Clark writes,

During the winter of 1864-65, eleven youth arrived from the snow regions of Kanawur to study in Kotgarh. They were lodged and boarded in the Mission; and in the short winters learned to read the Bible; which they took back from their return to their home. One of these lads had been trained to be school master but on his return the Rajah claimed his services as a Munshi.' (Proceedings of the Church Missionary Society 1845, 55-56). The school started at the primary level was upgraded to the Middle Standard in 1910. (*Proceedings of the Church Missionary Society*, 1910, 188).

In the following three decades, more than a dozen schools were established in and around Kotgarh. To name a few, the neighbouring town of Matiana opened its school in 1871 having 18 students, Rampur in 1872 had 25 students, and Kotgarh itself had 32 students in the year 1873. (Jhistu, 175). Interestingly, the Gorton School till date maintains a record of the newly founded branch schools opened around Kotgarh. It was one thing to establish schools and yet another to get the desired result the missionaries were looking for. Conversions remained rather bleak but the 'Christian' influence showed among the students. It took almost two generations to reflect in their lives and the surroundings, as to what it meant to be a product of the mission school. The difference was not only seen among the students but also among the indigenous people of Kotgarh who when compared to the rest of the non-mission villages and towns, were more receptive to western education disseminated in the mission run schools and moreover, upon interrogation it was found that almost every household had at least one member educated from the mission school, making it one of the more literate hamlets of the region.

Adjacent to the Gorton School, the Mission opened its church in the campus that was once occupied by the military garrison. With the mighty Himalayas as the backdrop and river Satluj flowing in its valley, the church stood in the most picturesque setting of Kotgarh. The work for building the Church commenced in 1870, when a little congregation floated a Church Building Fund to which each community contributed to his ability, in kind or in cash. Robert Clark found the generosity from the Hindus too, who came forward to add their contributions. Rich or poor, they did all in their power that they might have a Church of their own. (*The Missions of the Church Missionary Society*, 152). Completed in 1873, the Church at Kotgarh was consecrated as St. Mary's Church by Bishop Milman. (Punjab District Gazetteer, 74). Described in the words of Clark, the pretty church was sixty feet long and twenty feet broad and was intended to accommodate about 200 persons.' (*The Missions of the Church Missionary Society*, 47). One of the significant features of the Church was its cemetery. As of date, it is surrounded by a number of apple trees, the graves that lay are that of missionaries and children seen as a part of the missionary journey in Kotgarh. Almost nameless in missionary records, these graves represent the work of Christian workers amidst 'harsh' conditions, laying down their lives as heroes of the mission field. The character of Kotgarh in the last years of the nineteenth century became defined. The Church and the mission school prominently standing out as the base of mission activities, Kotgarh, with its toing and froing of missionaries became a destination much visited upon by them. It figured in the itinerary of renowned missionaries travelling in this part of British Punjab. C F Andrews in his early years in India, visited Kotgarh in 1904 and made the following observation,

Last year I walked out from Simla with the Bishop of Lahore, who was to hold at Kotgur a confirmation. On the way, we passed the shrines of the Gods and Goddesses. The hill folk are steeped in superstition and are very backward, each hill or corner is supposed to be inhabited by some demon, cries and shouts and beatings of gongs were heard from time to time betokening their worship: we passed a great tree which was still famous as the scene of the last human sacrifice. Then suddenly beneath us we saw the little Christian Church with its cross and wooden belfry and heard the children's voices singing a Christian hymn. The peacefulness of the scene, and the sense of the sweet beauty of our Christian faith in the midst of the gross heathenism all around were beyond description (154).

It was in his initial travels that C F Andrews made his impressions about India, and to reflect the meaning of mission here that he felt had the conventional touch of religious imperialism, "the conditions created by the British imperial presence was nowhere else with a greater sharpness than in Punjab" (O'Connor, 26).

Kipling's *Lispeth*

While discussing areas where missionary movements encountered indigenous society, fiction set within the colonial framework cannot be ignored. Hence, making the relationship between both, history and literature very special. Literature written during the British Raj waded its way into the minds of readers in numerous aspects. Greenberger in his excellent study unfolds how literature of the late nineteenth century on colonial India, not only shaped opinions then but further affected policies too (1-7). Rudyard Kipling's 'white man's burden' outlines the definition with which the colonial state worked. Such fictionalised work might fall short of literary value, nevertheless the historical setting of such writings reveal the dynamics of play of the colonial history of both, India and Britain. In this context, Kipling's writings on Punjab and the Himalayas coincided with nineteenth century imperialism as well as the annexation of Punjab. Kipling reveals his fascination for this part of India using it generously in his stories. Punjab fitted in perfectly with the rest of the British image. Unlike Bengal with which the British had more to do with bureaucracy, in Punjab it was to a great extent to do with military affairs. As pointed out by Kushwant Singh in his introductory note on Kipling, Bengalis to him were effeminate and cunning people where as it was in Punjab, Kipling could make terms with the people. (11). It fitted well with the martial image of the nineteenth century Englishman with that of the militaristic races of Punjab- be it Pathans, Sikhs or the Punjabi *Mussulmans*. It was the narrative of similarity that attracted scholars like Kipling to make Punjab the backdrop of story writings for the simple reason that it was here that the British were doing what seemed best to express the then imperialistic ideals and ethics. Kipling falling into, what Greenberger calls as the 'era-of-confidence' writers, where he along with others of this period believe in the values of British civilization to the extent that creates a hierarchy in their position as rulers and the Indians as subordinates (5).

Christianity evolved under the colonial rule, hence becoming an intrinsic part of the imperial process, so deep was the connection between the two that it was often difficult to talk about one without

mentioning the other. Imperialistic values were often interwoven with Christian values. *Lispeth* (<https://ebooks.adelaide.edu.au/k/kipling/rudyard/plain/chapter1.html>) is one such extra ordinary story set upon the background of the Kotgarh Mission that deals with the notions of what defined Christianity and heathenism. It is the opening short story of Kipling's *Plain Tales from the Hills*, one of his earlier works that mirrors the constructions of not only Christianity and culture but gender as well. This part of study comes up at a length by Indrani Sen, who focuses on Kipling's early writings to fabricate the gender perspectives of both, the white woman and the 'native' girl. the narrative scripts the tragedy of acculturation as well as of race/class/ gender exploitation. (176).

Lispeth is about a *Pahari* (belonging to the mountains) girl who as an infant, after the death of her parents, is entrusted to the Christian mission. She is christened Elizabeth, by the Chaplains but throughout the story is referred by the *Pahari* pronunciation of the name, Lispeth. The warped pronunciation of the name by the locals unintentionally express a part of her identity. The very title speaks a lot in itself about the story. The duality of Lispeth's character, as a native and a Christian convert and the dichotomy between both unfolds in the story. Lispeth experiences the two worlds namely Christianity and heathenism and yet is not accepted by either one of them. Lispeth grows up into a beautiful girl, living and working for the Chaplain's wife. Three characters form the story line, Lispeth, the chaplain's wife and a British officer and in their literary imagination all of them define the relationship between the colonisers and the colonised. After a brief acquaintance, the British officer promises to marry her after returning from his visit to England. Not surprisingly he never returns, leaving Lispeth heartbroken. It's here that a rather patronising 'European' attitude towards 'the natives' surfaces. Hence, making the story seemingly important to understand the exact flavour of the period in which *Lispeth* was written. Despite of the fact that the tale revolves around Lispeth, yet she is not the central character. It is British Raj that directs the story and the destiny of Lispeth.

Lispeth returns to her 'own' people. Kipling emphasizes this change in her character by her dramatic announcement, of the English having 'killed Lispeth'. The rhetoric of Christianity surfaces when the two Christian English characters of the story hide their true feelings behind the rhetorical artifices of Christian mannerisms, whereas Lispeth, in comparison, is blunt and honest about her feelings. After reverting she marries a wood-cutter 'who beats her after the manner of *paharis*'. 'There is no law whereby you can account for the vagaries of the heathen,' said the Chaplain's wife. Lispeth is metaphorically dead when she is seen in the 'infamously dirty clothes of her tribe', having nothing to do with the English Christians and their idiosyncrasies. Lispeth lived long enough to be remembered as an old 'bleared wrinkled creature' who when drunk, would often share the story of her first love affair. It appears that Kipling was one such visitor, who having met her in the present state found it hard to imagine that she could ever have been the 'Lispeth of Kotgarh Mission'. So much effective was Lispeth's presence that when Kipling wrote his novel *Kim*, not only his bond with the Himalayas is evident but Lispeth's reminiscences is noticeable (although very briefly).

There can be no doubt that writings of Kipling were associated in creating a typical cultural paradigm

that revolved around gender and race, making the connection between the two highly complex and inseparable. In historical context, the period of Kipling's early works appeared in the 1880s is a brief one. However, when seen through the lens of the British Empire, these years cover huge transformations from an empire in its hey days to its dissolution.

Conclusion

The Mission School, the Church and written narratives of nineteenth-century Kotgarh are images of a bygone era of the British rule. Such representations help us to understand the social and cultural milieu of the times. In its spatial context, Kotgarh, a tiny domain was very much a part of the larger composition. All the forces that were enacting in rest of India were operating at the grass root level in Kotgarh, as well. Conversions were too bleak to occupy any significant space in the pages of history, yet Christianity deserves a special mention while addressing the social impact. The CMS Church at Kotgarh was the focal point of missionary activities that played a dominant role in opening the Mission School as well. Education, one of the strongest endeavours of the missions, was well accepted by the locals. As the years rolled by, it became clear that the Mission School had come to an understanding over matters of conversion. If evangelization did not yield Christian converts among the indigenous community then Christianity could well be reached through mission education. The missionaries compromised over the question of baptism and were more than satisfied at the rate in which the mission school became popular. The Gorton Mission School at Kotgarh acquired the status of being the only English speaking school of the region, became acceptable with the locals who didn't have to send their children to Simla to study in an English medium school. Moreover, once the indigenous community saw a less domineering side of the missionaries on conversion related methods, the former felt 'secure' sending their children to school. Threat from the missionaries on religious grounds for baptism receded in the times to come. The 'trust' of the indigenous society could be seen in the gradual rise of the number of students attending the school. It became one of the most sought-after local schools of the area. As a consequence, present day Kotgarh has households where at least one member is formally educated and is an alumnus of Gorton Mission School. The Church was always seen as structural part of the School that was only meant to gather the Christian congregation of the area for prayers. Despite the fact that it doesn't have any successful tales of baptism to share, the Church that is run presently by a modest number of Indian Christians, is in itself the most effective colonial expression of Kotgarh and its hinterland. Becoming a part, of what I would call 'the Christian landscape', the Church and the school stands tall for its unravelling tales of Christianity woven in the intrinsic folds of the British era. To add to these narratives, Kipling's books were an excellent informant to get the story from the perspective of the colonisers. In *Lispeth* we find the most interesting description of the differences between the East and the West that was within the framework of the then heathen and the Christian worlds.

Kotgarh of the nineteenth century, had a perfect setting of the beginning of the British rule in this part of Punjab. As years rolled by, post-independence period gave a new profile to Kotgarh as one of the highest apple producing areas of Himachal Pradesh, a change that is attributed to Samuel Stokes, an

American missionary, who arrived here in the early decades of the twentieth century (Sharma 2008). Presently, the narratives of the primary settlements of the British have become blurred. Nobody seems to talk much about it. All that remains to form a linkage to the British occupation is the architectural heritage in Kotgarh. Yet at a closer look, Kotgarh mirrors subtle effects of the result of colonial times in its present-day society. The socio-cultural change that followed was striking in contrast to its neighbouring towns. And it is in this transformation that time and again makes the imperial connection with Kotgarh alive.

Notes

1. In 1862, in the Punjab Missionary Conference, the Christian officials attending showed a strong keenness towards issues pertaining the missionary movement during that time. The participation of both, the missionaries and the British administrators, gave a direction for the missionary movement in the years to come. (*Report of the Punjab Missionary Conference*, n.d.)
2. CMS opened its mission centres in Amritsar in 1852, Kangra in 1854 and Peshawar in 1855. (*Proceedings of Church Missionary Society*, 1909, p. 134).

References

Andrews, Rev. C.F. *North India*. A. R. Mowbray: London, 1908.

Clark, Robert. *The Punjab and Sindh Missions of the Church Missionary Society, Giving an account of their Foundation and Progress for Thirty-Three Years, from 1852-1884*, London, Church Missionary Society, 1885.

_____. *The Missions of the Church Missionary Society and the Church of England Zenana Missionary Society in the Punjab and the Sindh*. Church Missionary Society: London, 1904.

Gazetteer of the Simla District. Compiled and published under the authority of the Punjab Government, 1888-89.

Greenberger, Allen J. *The British image of India, A study in the Literature of Imperialism 1880-1960*. Oxford University Press: London, 1969.

Jhishtu, Vipin. *The Socio Economic Metamorphosis of Kotgarh Ilaqa*, Ph.D Thesis, Himachal Pradesh University, 2013.

Kanwar, Pamela. *Imperial Simla, The Political Culture of the Raj*. O.U.P.: New Delhi, 2003.

Andrews, Rev. C.F. *North India*. A. R. Mowbray: London, 1908.

Clark, Robert. *The Punjab and Sindh Missions of the Church Missionary Society, Giving an account of their Foundation and Progress for Thirty-Three Years, from 1852-1884*, London, Church

Missionary Society, 1885.

_____. *The Missions of the Church Missionary Society and the Church of England Zenana Missionary Society in the Punjab and the Sindh*. Church Missionary Society: London, 1904.

Gazetteer of the Simla District. Compiled and published under the authority of the Punjab Government, 1888-89.

Greenberger, Allen J. *The British image of India, A study in the Literature of Imperialism 1880-1960*. Oxford University Press: London, 1969.

Jhishtu, Vipin. *The Socio Economic Metamorphosis of Kotgarh Ilaqa*, Ph.D Thesis, Himachal Pradesh University, 2013.

Kanwar, Pamela. *Imperial Simla, The Political Culture of the Raj*. O.U.P.: New Delhi, 2003.

O'Connor, Daniel. *A Clear Star, C. F. Andrews and India 1904-1914*. Chronicle Books: New Delhi, 2005.

Proceedings of the Church Missionary Society for Africa and the Far East, 1844-45. London, 1845.

Proceedings of the Church Missionary Society for Africa and the Far East, 1867-68. London, 1868.

Proceedings Church Missionary Society for Africa and the Far East, 1908-1909. London, 1909.

Proceedings Church Missionary Society for Africa and the Far East, 1909-10. London, 1910.

Punjab District Gazetteer, Volume VIII A. Simla District. Lahore: Civil and Military Gazette Press, 1904.

Report of the Punjab Missionary Conference held at Lahore, December and January, 1862-63. Lodiana, Printed at the American Presbyterian Mission Press, n. d.

Richter, Julius. *A History of Missions in India*. Translated by Sydney H. Moore, Edinburgh and London, 1908.

Sharma, Asha. *An American in Gandhi's India, The Biography of Satyanand Stokes*, Indiana University Press: Bloomington, 2008.

Sherring, Rev, M.A. *The History of Protestant Missionaries in India, From their Commencement in 1706 to 1871*, Trubner & Co: London, 1875.

FORM-IV

(SEE RULE 8)

1. Registration No. : ISSN 0970-5260
2. Place of Publication : Panjab University, Chandigarh (India)
3. Periodicity of its Publication : Biannual
4. Publisher & Editor-in-Chief's Name : Krishna Mohan
Nationality : Indian
Address : Professor
: Deptt. Of Geography
Panjab University,
Chandigarh.
5. Printer's Name : Jatinder Moudgil
Nationality : Indian
Address : Manager, Panjab University, Press
6. Name and addresses of
Individuals who own the
Newspapers and partners
of share holders holding more
than one per cent of the total
capital : Panjab University, Chandigarh

I, Krishna Mohan, hereby declare that the particulars given above are true to the best of my knowledge and belief.

(Krishna Mohan)
Signature of Publisher

DECLARATION OF ORIGINALITY

This is to declare and certify that the research paper entitled, _____

submitted for PANJAB UNIVERSITY RESEARCH JOURNAL (ARTS), written by _____

is my/our original work. It does not infringe on the rights of others and does not contain any libelous or unlawful statements.

This is to further declare and certify that the said paper and, or its part/parts are not plagiarized. I/We take full responsibility of originality of this work and shall be liable for action, if found guilty at any stage.

Also, I/We declare and certify that the said paper and, or its part/parts have not been published or sent for publication anywhere else.

I/We hereby authorize you to edit, alter, modify and make changes in the article to make it suitable for publication

1.
(Name with designation/position) (Signatures with date)

2.
(Name with designation/position) (Signatures with date)

3.
(Name with designation/position) (Signatures with date)

4.
(Name with designation/position) (Signatures with date)

About the Journal

Panjab University Research Journal (Arts) earlier known as Panjab University Research Bulletin (Arts), PURJA is the mother journal of Panjab University, Chandigarh (India) Started in early 1950s, it is a bi-annual *refereed* journal of international repute and publishes research papers/articles/reviews/survey papers duly assessed and reviewed by a panel of experts. It is included in UGC CARE list. It is devoted to the publication of original research papers/articles/reviews of a very high standard in various disciplines of humanities, languages and arts. One of the objectives of this journal is to create a forum for the dissemination and exchange of ideas among the scholars within the country and outside. Though the journal primarily focuses on theoretical issues of wide contemporary relevance, it also announces special issues drawing attention toward well-defined thematic areas in humanities, languages and arts in general. The journal seeks to propagate and stimulate philosophical, critical and interpretative dialogue across the national and international frontiers. For this reason, we look forward to receiving contributions from scholars working in diverse areas covered broadly under the disciplines of humanities, languages and arts.

Guidelines for submission of Research Papers:

1. The research paper should embody the results of original research and give ample evidence of scholarship, which should be creative, independent in character and fundamental in nature.
2. The research paper should be neatly typed, double spaced with broad margin on sunlit bond paper and submitted in duplicate along with one soft copy and an **abstract** of the paper in about 100-150 words.
3. All notes and references should come at the end of the paper.
4. The research paper should preferably be between 3000 to 5000 words.
5. The format should be in accordance with the latest API Handbook. Sample entry for works cited :
Books: Das, Gurcharan, *The Difficulty of Being Good: On the Sublime Art of Dharma*, New Delhi, Penguin, 2009
Articles: Jameson, Frederic "Postmodernism." *New Left Review* 7.2 (July 1989); 6-14
6. **Graphs, Tables and Charts** in MS Office (Word /Excel format-**Black and White**) or equivalent format are preferred. Fonts for special characters also be provided.
7. A short biographical sketch in duplicate should accompany the paper.
8. The author must give an undertaking that the paper has not been published wholly or partly, in any other journal, and that it has not been submitted to any other journal for consideration or publication.
9. All articles submitted for publication shall be used subject to the positive reports from neutral and objective experts in relevant fields of specialization. Only in case of rejection shall the reports of the experts be made available to the contributors. Research papers not found suitable shall not be returned unless accompanied by a self-addressed, stamped envelope. With regard to the acceptance or rejection of the research papers, the decision of the editorial board shall be final and binding. In this regard, the editorial board shall not entertain any correspondence from the contributors.
10. Copyright of the articles published in this journal rests solely with the *Panjab University Research Journal (Arts)*.

11. Ten reprints of each article and one copy of the issue in which it is published shall be sent free of cost to each contributor. Additional copies of the journal shall be supplied at the usual rates, plus the necessary postal charges.
12. Annual subscription is offered at a flat rate of Rs. 500/- (£ 40 or \$ 80 US). However, a single copy of the current issue or back issues may be obtained for Rs. 500/-. All these rates are exclusive of the postal charges.
13. Subscriptions may be sent only in form of a Bank Draft drawn in favour of the Registrar, Panjab University, Chandigarh. No other form of transaction is acceptable.
14. The contributors may send all their articles / reviews/research papers directly to: Editor-in-Chief, Panjab University Research Journal (Arts), Panjab University, Chandigarh 160014 (India). They may also be e-mailed to purja@pu.ac.in

AUTHORS FOR THIS ISSUE

Anupama is Professor of Economics, Department of Economics, Punjabi University, Patiala.

Barnashree Khasnobis is Research Scholar, School of Humanities & Social Sciences, Guru Gobind Singh Indraprastha University, New Delhi.

Jaspreet Kaur is Research Scholar, Department of Economics, Punjabi University, Patiala.

Manmeet Sodhi is Assistant Professor in English Lyallpur Khalsa College, Jalandhar.

Manpreet Kaur is Assistant Professor, Department of History, DAV College, Chandigarh.

Mridul Mehndiratta is Research Scholar, Department of Economics, Panjab University Chandigarh.

Namita Gupta is Assistant Professor, Centre for Human Rights and Duties Panjab University, Chandigarh.

Nikhath Khalid is Research Scholar, Department of Economics Jamia Millia Islamia, New Delhi.

Nisha Bhargava, is Principal, MCM, DAV College, Chandigarh.

Pardeep Kumari is Guest Faculty, Centre for Human Rights and Duties Panjab University Chandigarh (India).

Saba Ismail is Assistant Professor, Department of Economics, Jamia Millia Islamia New Delhi.

Supreet Narang is Associate Professor & Head, Department of Economics, Apeejay College of Fine Arts, Jalandhar.

Varinder Sharma is Research Associate, Development Studies Unit, Institute for Development and Communication, Chandigarh.

List of Reviewers

1. Archana R. Singh
Professor
Department of Mass Communications
Panjab University, Chandigarh.
2. J.S. Bedi
Professor
Institute for Development and Communication,
Sector 38-A, Chandigarh.
3. Kirandeep Singh
Professor
Department of Education,
Panjab University, Chandigarh.
4. Pankaj Mala
Professor
Department of Music
Panjab University, Chandigarh.
5. Renu Thakur
Professor
Department of Ancient History
Panjab University, Chandigarh.
6. Satish Kumar
Professor
Centre for Research in Rural and Industrial Development,
Sector-19 A, Madhya Marg, Chandigarh.
7. Sucha Singh Gill
Professor
Centre for Research in Rural and Industrial Development,
Sector-19 A, Madhya Marg,
Chandigarh.
8. Suman Makkar
Professor
Department of Evening Studies,
Panjab University, Chandigarh.

Contents

Page	Article	Author	Page
1.	Determinants of Farm Accidents in Punjab: A Comparison of Agricultural Productivity Regions	Varinder Sharma	1-12
2.	Factors Affecting Choice of Monetary Policy Frameworks: Evidences from Emerging and Advanced Countries	Mridul Mehndiratta	13-23
3.	The Emergence of Hindustani Music: A Cultural Investigation into the Syncretic Nature of Hindustani Music	Barnashree Khasnobis	24-33
4.	Demonetisation in India: A Push For Digitalisation	Nikhat Khalid Saba Ismail	34-53
5.	Comparative Analysis of Emerging Disability Laws in India from Human Rights Perspective	Namita Gupta Pardeep Kumari	54-65
6.	Education and Poverty Reduction in India	Jaspreet Kaur Anupama	66-77
7.	Indian New Wave Cinema: An Alternative Vision	Manmeet Sodhi	78-92
8.	Intertemporal and Interstate Variations in Technical Efficiency of Indian Leather Industry	Supreet Narang Nisha Bhargava	93-107
9.	Kotgarh and the Early Colonial Constructions in the 19 th Century	Manpreet Kaur	108-117