

Wither Slumdog Millionaire: India's Liberalization and Development Themes in Bollywood Films

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India started its economic liberalization process from 1991 by initiating structural reform policies. Liberalization policy has positive effect on several economic and demographic variables. This paper develops an index using three development criteria: poverty and income inequality; gender equality and individual freedom; democracy and freedom. This index is used to measure the spectrum of development themes and annual average score of 2345 Bollywood films between 1980 and 2010. The value of annual average score represents the level of development has been depicted in the story line. This paper finds that the spectrum of developmental themes has been increased in the post liberalization Bollywood films. This paper also finds that the percentage of films concentrates on the topics of democracy and gender equality have been increased by eighty six percent and four percent respectively, whereas the number of films concentrates on poverty have been decreased by fifty seven percent in the post liberalization period. Finally, this paper finds a positive trend of annual average score which indicates that Bollywood films are successful in presenting the economic and social changes in India.

JEL Classification: O10, I30, J12, J16

1. Introduction

'Bollywood' films are Hindi language commercialⁱ films made in Mumbai film industryⁱⁱ, India. Bollywood is the largest film industry in India as well as in the world in terms of its number of audience. It is the fourth largest film industry in the world in terms of its number of production per annumⁱⁱⁱ. Despite its popularity in India, South Asia, Arab world, Caribbean and several countries in Africa; Bollywood films were often criticized by film makers and intellectual audiences in India for their repetitive and unrealistic story line and melodramatic acting style. With few exceptions^{iv}, the majority of the Bollywood films between 1947^v and 1991 were based on either of these two themes: romance or revenge. This repetitive trend started to change slowly from 1992 and currently Bollywood is making films on diverse socio-economic-political topics.

India started its economic liberalization process from 1991. Liberalization process initiated structural reform policies in the forms of privatization, deregulation and trade liberalization. Several economic and demographic factors started to change significantly in the post liberalization period. Therefore, it is natural to ask whether the changing economic and demographic factors in India are reflected in the post liberalization Bollywood films.

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Ray

I develop an index using three development criteria: poverty and inequality; gender equality and individual freedom; democracy and freedom. This index measures the spectrum of development themes and annual average score of Bollywood films. I use the storyline of 2345 Bollywood films between 1980 and 2010 and examine the spectrum of development themes and average annual score of Bollywood films in the pre and post liberalization period. I find that the spectrum of development themes and average annual score have been increased in the post liberalization Bollywood films.

Bollywood film industry is still an unexplored topic in economics, despite its growing economic importance in terms of production, employment and audience. This paper is the first attempt to examine important economic aspects of Bollywood film industry.

The organization of this paper is as follows. Section 2 provides a review of Bollywood films and the industry in the pre and post liberalization era. Section 3 provides the data source and the methodology to examine and compare the spectrum of development themes and annual average score in the pre and post liberalization Bollywood films. Section 4 discusses the results by providing the stylized facts on socio – economic changes and comparing the spectrum of development themes and annual average score between the pre and post liberalization period. Section 5 concludes.

2. Review of Bollywood Films and the Industry

2.1 Pre-liberalization Period (1913 – 1991)

‘Bollywood’ films are Hindi language commercial films made in Mumbai film industry, located in the state of Maharashtra in India. Bollywood gets its name by combining two names; Bombay (the British name of Mumbai) and Hollywood. Bollywood film debut started in 1913 by releasing its first silent film ‘*Raja Harishchandra*’. Talkies (films with sound) came in 1931 and the first Bollywood talkie is ‘*Alam Ara*’.

Bollywood film industry didn’t get any financial help from the government of Maharashtra and/or central government and considered as an informal industry until late nineties. Bollywood received its formal industry status in 1998, mainly by the initiation of cultural minister Ms. Sushama Swaraj. The industrial development bank of India (IDBI) started to provide loan for film production from 2000. Over time, a diverse group of industries^{vi} become interested to invest money in Bollywood film production^{vii}.

Bollywood films between 1947 and 1991 can be categorized into two separate themes – first the romantic comedies and second the action films. Common elements in the storyline of romantic comedies were – romance between hero and heroine, five to seven songs and dances, mild violence, generally happy ending with an approval from family. Most important element of action films was revenge. The degree of violence was significantly higher in those films compare to the romantic comedies.

Ray

Despite its cliché and repetitive theme there were several film directors who addressed several socio-economic themes in mainstream Bollywood films. Directors like Bimal Roy, Raj Kapoor, Guru Dutt, Hrishikesh Mukherjee addressed various rural and urban problems within the framework of mainstream Bollywood style. For example Bimal Roy's 1953 film *Do Bigha Zamin* (Two Acres of Land) dealt with legal injustice and sufferings of small farmers and rural urban migration of unskilled labors. Roy's 1959 film *Sujata* (Sujata) argued against the taboo of caste system and untouchability. Raj Kapoor's 1955 film *Shree 420* (Mr. 420) was based on unemployment, urban poverty and corruption. Guru Dutt's 1957 film *Pyaasa* (Eternal Thirst) evolved around the love between a poet and a sex worker – which was a rebellious theme against existing social taboos. His 1959 film *Kaagaz Ke Phool* (Paper Flower) discussed about social perception about film industry. Hrishikesh Mukherjee's *Anuradha* (Love of Anuradha, 1960) was about the right of women's economic independence, *Satyakam* (Satyakam, 1969) discussed corruption, rape, professional and moral ethics, *Abhimann* (Pride, 1973) dealt with career conflict between husband and wife and separation. B.R Chopra's film *Nikah* (Marriage, 1982) was about women's social position and freedom in educated Muslim community in India. Shekhar Kapur's film *Masoom* (The Innocent, 1983) dealt with infidelity and child psychology. *Qayamat Se Qayamat Tak* (From Disaster to Disaster, 1988) was block buster hit teenage love story but this story also depicted the issue of honor killing. *Sadak* (Raod, 1991) was based on human trafficking and physical abuse of women.

2.2 Post-liberalization Period (1992 – 2010)

Poverty and class discrimination was a popular subtopic in Bollywood films in the pre liberalization period. Though 33 % people in India live under \$1.25 a day in 2010, very few movies have been made on poverty in the post liberalization era^{viii}. Anusha Rizvi's 2010 film *Peepli Live* (Live from Peepli) is an exception. This film documents the issues like poverty, political corruption and farmers' suicide.

Structural reform in the post liberalization period brings a significant change in the life style of educated youth – specially, in the life style of educated female. Increasing number of female is working outside of their home town and pursuing jobs in historically male dominated fields, like management, engineering and advanced technology^x. Changing structure of gender dynamics in Indian society becomes increasing important theme in Bollywood films in the post liberalization era. *Damini* (Lightning, 1993) documents an ordinary woman's protest against her family and husband to bring justice to a rape victim. *Mrityudand* (Death Penalty, 1997) discusses about women cooperation and protest against social corruption. *Agni Sakshi* (Eternal Promise, 1996) and *Daman: A Victim of Marital Violence* (Suppression, 2001) both deal with domestic violence towards women. *Matrubhoomi: A Nation Without Women* (Motherland, 2003) is based on the issue of sex selective abortion or 'missing women'^x. This is the first film in Bollywood that depicts the severity of natality inequality in India. *Chak De! India* (Come On! India, 2007) argues against the gender discrimination in work place.

Education and health care become new topics in the post liberalization Bollywood films. *Black* is a 2005 Bollywood film that deals with the problem of deaf and blind student. Aamir Khan's film *Taare Zameen Par* (Stars on Earth, 2007) introduces the issues like dyslexia, child depression, social and family taboo towards disable

Ray

student, constitutional right of disable students and teacher student relationship. Block buster hit *3 Idiots* (2010) strongly argues against student suicide, family and institutional pressure on students, lack of encouragement to develop innovative ideas. *Munna Bhai M.B.B.S* (Brother Munna M.B.B.S, 2003) is a Bollywood comedy which appeals for compassionate behavior towards patients and criticizes the lengthy bureaucratic system in health care industry. *My Brother ... Nikhil* (2005) is based on AIDS/HIV awareness. This film deals with the social and professional discrimination towards AIDS/HIV patients.

India is the largest democracy in the world; however corruptions, lack of law enforcement, police brutality, extremist religious activities, communal riots, terrorism are violating the right of people in a democratic country. *Shool* (Spear, 1999) is based on the political corruption in the state of Bihar, India. *Gangaajal* (Holy Water, 2003) is based on real life incidence in Bhagalpur, Bihar where between 1979 and 1980 police force blinded thirty one people under trail by pouring acid on their eyes. *Rang De Basanti* (Color of Sacrifice, 2006) is a beautiful blend of Sahid (Martyr) Bhagat Singh and his associates' protest and sacrifice for India's freedom from British rule and five Delhi University's students' protest on corruption related to MIG aircraft. *Roja* (Roja, 1992)^{xi} is the first film in Bollywood that deals with the terrorism in Kashmir. *Bombay* is based on the destruction of Babri Masjid^{xii} in 1992 and BJP's^{xiii} new Hindutva^{xiv} movement that leads to communal riots between Hindu and Muslim in various parts of India. *New York* (New York, 2009) is based on 9/11 detainee. *My Name is Khan* (My Name is Khan, 2010) is based on an ordinary Muslim man's life before and after 9/11.

3. Data and Methodology

3.1 Data Source

I collect the data on economic and demographic variables from the website of World Data Bank. There is no public and private institution in India that provides the list of Bollywood films. I get the available annual list of Bollywood films from Wikipedia and the plot summary of each film (listed in Wikipedia) from The Internet Movie Database (IMDb). The list of Bollywood films in Wikipedia may not be the complete list^{xv}.

3.2 Index of Bollywood Films

To examine and compare the spectrum of developmental themes and to measure the average annual score in the pre and post liberalization period Bollywood films, I form an index using three developmental criteria. The first criterion is poverty and inequality. Almost thirty three percent people were living under \$1.25 a day in 2010 and the inequality measured by GINI Index was 33.4 in 2005. Therefore, it is very important to know how many films are addressing the issue of poverty and inequality. Female literacy rate, enrollment in education, female labor force participation, life expectancy at birth are increasing and fertility rate, life time risk of maternal death are decreasing in India. However, sex related discrimination and lack of individual freedom are not uncommon in India. To know how many films are addressing the changing structure of gender dynamics, I consider the gender equality and individual freedom as the second criterion. The third criterion of the index is democracy and human freedom. India has a long history of tolerance

Ray

towards diverse groups of people but lack of social equality within and between different groups. The paradoxical nature of Indian society added with *Hindutva* movements is potential threat for the efficient functioning of Indian democracy and human freedom. I include democracy and human freedom in the index to examine whether and what extend Bollywood films are discussing this issue.

Table 3 provides the list of all sub-criteria under each criterion. I develop five situations in each sub-criterion and associate a number in each situation. The range of the number is between one and five. Higher number implies higher level of development and vice versa. For example, there are five situations under 'Natality Inequality' (sub-criterion 2C) - one extreme situation is when female child is aborted. I associate number one for this situation. The best situation is when male and female child are equally preferred. I associate number five for this situation. There are three situations between these two extremes and receive number two, three and four respectively based on how close the situation is in terms of developmental goal.

3.3 Annual Average Score of Bollywood Films

Annual average score measures the level of development in the story line. If a film gets number one on 'Natality Inequality', its score is one on sub-criterion 2C. If a film doesn't consider the issue of 'Natality Inequality', its score is zero on sub-criterion 2C. For example, I have the information of story line of fifty five films in the year of 1997. Only two films in 1997 discuss sub-criterion 2C. The scores are two and four respectively. Therefore, the total score on sub-criterion 2C is six in 1997. The average score on sub-criterion 2C in 1997 is three (six divided by two). I calculate the average score for each sub-criterion for each year. Next, I average the average score on all sub-criteria for each year. I call it annual average score. Annual average score has a range between one and five. Annual average score of five represents highest level of development and vice-versa^{xvi}.

4. Results

4.1 Results on Economic and Demographic Changes between the Pre and Post Liberalization Period

Liberalization policy brings several positive economic and demographic changes in India. Table 1 represents level of several economic and demographic variables and their changes between the pre and post liberalization period. The percentage of people below \$1.25 a day has been decreased from 54% to 41% between the pre and post liberalization period. Inequality has been increased by 1.92%. GDP per-capita has been increased by 87.88%. Growth rate of GDP and GDP per-capita have been increased by 28% and 69% respectively. Export, import and net inflows of FDI have been raised by 140%, 113% and 2625% respectively. Literacy rate of adult and

labor force participation of female have been increased by 36% and 1.56% respectively. Female enrollment in primary, secondary and tertiary sector has been increased significantly. Life expectancy at birth for total population has been raised by 8.5 years. Lifetime risk of maternal death, infant mortality rate and fertility rate have been decreased by 54%, 30% and 26% respectively.

Ray

Table 1: Economic and Demographic Changes in India: Pre and Post Liberalization Period

	Pre Liberalization Period	Post Liberalization Period	Percent Change
Poverty headcount ratio at \$1.25 a day (PPP) (% of population)	54.55	41.24	-24.4
GINI index	31.495	32.1	1.92
GDP per capita (constant 2000 US\$)	271.58	501.81	84.77
GDP growth (annual %)	5.29	6.81	28.73
GDP per capita growth (annual %)	2.98	5.04	69.13
Exports of goods and services (% of GDP)	6.13	14.76	140.78
Imports of goods and services (% of GDP)	7.84	16.74	113.52
Foreign direct investment, net inflows (% of GDP)	0.04	1.09	2625
Literacy rate, adult female (% of females ages 15 and above)	29.7	49.33	66.09
Literacy rate, adult male (% of males ages 15 and above)	58.24	74.3	27.57
Literacy rate, adult total (% of people ages 15 and above)	44.49	61.88	39.09
Labor force, female (% of total labor force)	27.52	27.95	1.56
Ratio of female to male primary enrollment (%)	71.29	89.04	24.9
Ratio of female to male secondary enrollment (%)	54.22	74.9	38.14
Ratio of female to male tertiary enrollment (%)	45.71	65.02	42.24
Expected years of schooling, female	5.35	8.11	51.59
Expected years of schooling, male	8.47	9.84	16.17
Life expectancy at birth, total (years)	57.1	61.97	8.53
Lifetime Risk of Maternal Death	2.6	1.18	-54.61
Mortality rate, infant (per 1,000 live births)	8.98	6.27	-30.18
Fertility rate, total (births per woman)	4.25	3.11	-26.82

4.2 Results on the Spectrum of Development Themes and Annual Average Score between the Pre and Post Liberalization Period

Table 2 provides some stylized facts of Bollywood films in the pre and post liberalization period. I have got the information of story line of 880 and 1465 films in the pre and post liberalization period respectively. 496 and 739 films address at least

Ray

one or more than one development topic(s) in the pre and post liberalization period respectively. The percentage of films concentrates on poverty has been decreased by fifty seven percent, whereas, the number of films concentrates on democracy and gender equality have been increased by eighty six percent and four percent respectively in the post liberalization period.

Table 2: Stylized Facts of Bollywood Films: Pre and Post Liberalization Period

	Total number of films	Number of films address 'Poverty and Inequality'	Number of films address 'Gender Equality and Individual Freedom'	Number of films address 'Democracy and Freedom'
Pre Liberalization Period	880	96 (19.35%)	384 (77.42%)	118 (23.79%)
Post Liberalization Period	1465	62 (8.39%)	594 (80.38%)	218 (44.25%)

Diagram 1 shows the percentage of films on various development sub-criteria in the pre and post liberalization period. The percentage of films has been decreased in every sub criterion under poverty and inequality. The percentage of films has been increased in six sub-criteria (among eleven sub-criteria) under gender equality and individual freedom. The percentage of films has been increased in three sub-criteria (among five sub-criteria) under democracy and freedom.

Diagram 2 represents the annual average score of Bollywood films between 1980 and 2010. The positive trend of annual average score of Bollywood films shows that the level of development in the story line of Bollywood films has been increased over time. Diagram 3 represents the trend of annual average score in the pre and post liberalization Bollywood films separately. The slope of the trend line is steeper^{xvii} in the post liberalization period. This indicates the depiction of level development has been increased at a faster rate in the story line of the post liberalization films.

Ray

Diagram 1

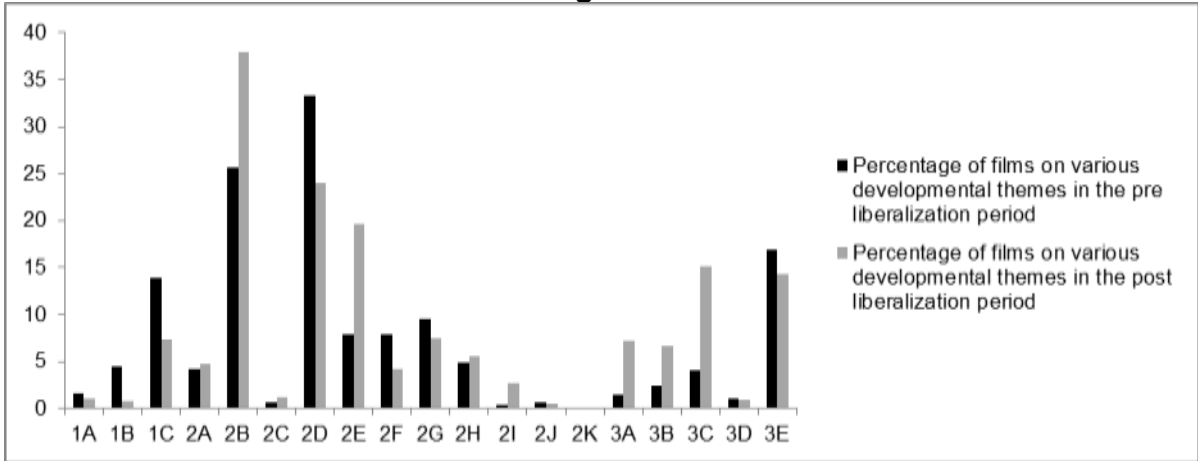


Diagram 2

Annual average score of Bollywood films

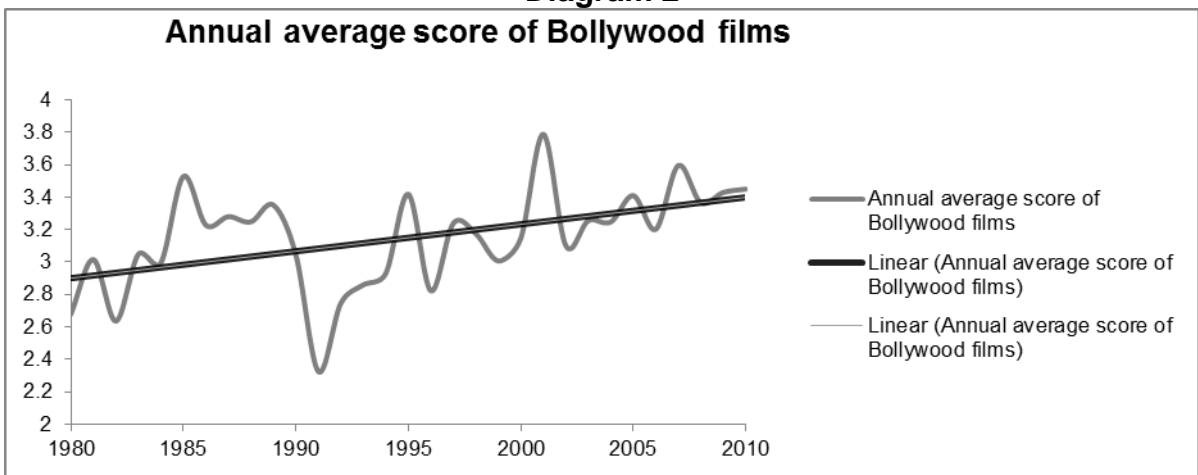


Diagram 3

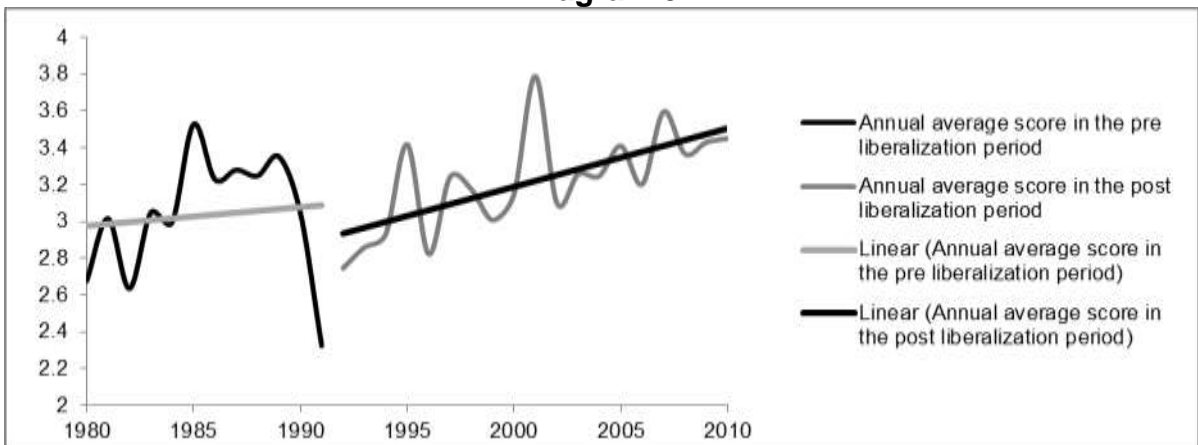


Table 3 provides the average of annual average score by each sub-criterion in the pre and post liberalization period. The average of annual average score in the post

Ray

Table 3: Average of Average Annual Score of Bollywood films and Its Change between Pre and Post Liberalization Period

Development Sub-Criterion	Average of average annual Score (Pre liberalization period)	Average of average annual Score (Post liberalization period)	Change
1A: Death due to hunger and lack of medical facilities	4.87	4	Decrease
1B: Poverty, standard of living and government policies	1.45	1.50	Increase
1C: Economic class difference	2.43	2.52	Increase
2A: Access to Education for women	4.19	3.94	Decrease
2B: Labor force participation and degree of equal opportunity in professional world	3.83	4.07	Increase
2C: Natality Inequality	3	2.78	Decrease
2D: Domestic and Social Violence towards Women	2.41	2.90	Increase
2E: Freedom of marriage, divorce and right to work	3.20	3.20	Same
2F: Pregnancy of unmarried female	2.69	3.13	Increase
2G: Decision making power in the family	3.21	3.47	Increase
2H: Individual freedom in the family	3.62	3.97	Increase
2I: Freedom of women regarding the choice of work place	3.50	4.10	Increase
2J: Individual freedom in the academic institution	3	3.50	Increase
2K: Individual freedom in the work place	NA	4	Undetermined
3A: Democratic Government: Legal system and Media	3.14	3.19	Increase
3B: Democratic Government: Freedom of speech	3.17	3.16	Decrease
3C: Racial, religious and gender discrimination	2.85	3.08	Increase
3D: Child Labor	3.60	3.43	Decrease
3E: Corruption	3.07	3.05	Decrease

Ray

liberalization period has been increased for eleven development sub-criteria, it has been decreased for seven sub-criteria and undetermined for one sub-criterion.

5. Conclusion

This paper is the first attempt in the Economic literature that examines the spectrum of development themes and measures the annual average score of Bollywood films. I construct an index using three development criteria: poverty and income inequality; gender equality and individual freedom; democracy and freedom. I use this index to measure the annual average score and examine the spectrum of developmental themes of 2345 Bollywood films between 1980 and 2010.

India took her liberalization policy in the year of 1991 and started structural reforms. The structural reforms initiated privatization, deregulation and trade liberalization. Liberalization policy reduces poverty, infant mortality rate, fertility rate and increases literacy rate, expected years of schooling, female enrolment rate and life expectancy at birth.

Liberalization policy probably brings highest opportunities and most significant changes in the lifestyle of middle class educated youth specialized in advanced technology, engineering and management. For example, direct employment in information technology and information technology enables services (IT and BPO) have been increased from 230,000 to nearly 2 million between 1998 - 1999 and 2007 – 2008^{xviii}. Large number of educated youth (both male and female) are migrating from their home towns and starting their life outside their family. This is changing the traditional family dynamics in India and bringing changes in the life style of educated youth.

Changing economic and social structure in India in the post liberalization period generates a steady demand for Bollywood films that address diverse social, political and economic issues. Directors, producers and actors in the post liberalization period are also eager to bring new ideas in the mainstream Bollywood films. Changing nature of demand added with changes from supply side start to make changes in the nature of Bollywood films.

I have got the information of story line of 880 films in the pre liberalization period and of 1465 films in the post liberalization period. The number of films addresses the topic of poverty and inequality has been decreased by almost 57% between the pre and post liberalization period. However, the number of films addresses gender equality and individual freedom has been increased almost 4% between the pre and post liberalization period. This increase is 86% for the films that address democracy and freedom. Higher income and lower poverty in the post liberalization period reduce the popularity of poverty as a subject of Bollywood films. Increasing rate of literacy, increasing share of women in education and labor market participation are important factors for the popularity of topics like gender inequality and individual freedom; democracy and freedom in the Bollywood films. The spectrum of development topics has been also increased in the post liberalization period. For example, not a single film addresses the issue of 'individual freedom in work place' in the pre liberalization period. *Paathshaala* (School, 2010) is the first film in Bollywood which discusses the topic of individual freedom in work place'. The annual average

Ray

score of Bollywood films shows a positive trend that indicates the level of development in the story line of Bollywood films has been increased over time. Finally, the average of annual average score in the post liberalization period has been increased for eleven development sub-criteria, it has been decreased for seven sub-criteria and undetermined for one sub-criterion. This finding is largely consistent with the social and economic changes in the post liberalization period. It implies that economic and demographic changes in India are reflected in Bollywood films.

Endnotes

ⁱ Hindi language films are divided into two separate groups; commercial film and parallel film. Commercial films in Bollywood follow a specific style and story line. This style includes songs, dances, colorful costumes, exotic outdoors etc.

ⁱⁱ My paper concentrates only to those films which are directed by Indian Film Directors reside in India and at least 80% of the dialogs are in Hindi. I exclude the films which are directed by non-resident Indian (NRI) film directors, like Mira Nayar, Deepa Mehta or non-Indian film directors like Richard Attenborough, Daniel Boyle. I also exclude English language films have been made in Mumbai film industry, like *Delhi Belly*. I consider joint production and joint distribution between India and other country as Bollywood films. I consider this as joint venture and the produced commodity as Indian commodity.

ⁱⁱⁱ According to the statistics of UNESCO published in 2009, Indian Film industry (Bollywood plus regional films) is the largest in the world in terms of total number of films. India made total 1091 films in 2006, whereas this number was 485 for USA.

^{iv} Director likes Bimol Roy, Raj Kapoor, Guru Dutt, Hrshikesh Mukherjee, Basu Chatterjee, Basu Bhattacharyya, Sai Parānjpye introduced various socio-political-economic issues in Indian popular Hindi films.

^v 15th August, 1947 India became an Independent country from colonial British Raj.

^{vi} Airline industry, Advertisement industry, Media Industry, Food Industry etc.

^{vii} The percentage of formal and organized investment in Bollywood films is still very limited.

^{viii} I am thankful to Ishita Roy for her constant suggestions and updates of Bollywood films in the post liberalized era.

^{ix} Perspective on Women in Management in India: Society for Human Resource Management.

^x Nataly inequality exists in several Asian countries due to the bias in favor of male child.

^{xi} This is a remake of Tamil movie with the same name.

^{xii} Babri Mosque was a mosque in Ayodhay, India. It was destroyed by Hindu extremist in 1992. This incidence created several communal riots in different parts of India.

^{xiii} Bharatiya Janata Party (*Indian People's Party*) is a political party in India. This party was in power in India between 1998 and 2004 with the coalition of other parties.

^{xiv} Hindutva movement is a recent development in Indian politics. The believers of Hindutva movement want India as a Hindu country and argue against her secular belief.

^{xv} UNESCO's Information Sheet 1 (2009) provides the data on total production and regional decomposition of Indian film in the year of 2006.

^{xvi} Relationship between The value of annual average score and the level of development

Value of annual average score	Level of development
1	Lowest
2	Low
3	Moderate
4	High
5	Highest

^{xvii} Slope of the trend line is 0.032 in the post liberalization period compare to 0.016 in the pre liberalization period.

^{xviii} 'Report of the High level Group on Services Sector', Planning Commission of India, March 2008.

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Ray