**ISSN (Print): 0976-013X**

**ISSN (Online): 0976-0148**

**DOI: 10.47914/jmpp.2017.v9i1.000**

# Journal of Management & Public Policy

**Vol. 9 No. 1** **December 2017**

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Journal of Management & Public Policy (JMPP) is a biannual peer-reviewed journal published in June and December every year by Management Development Research Foundation, New Delhi (India).

**JMPP** seeks to create a body of knowledge around the interface of various functional areas of Management and Public Policy. It is likely to serve as an independent forum for the academia, industry, civil society and the State to carry forward a candid and objective discussion on common issues having a bearing on economy, business, community, environment and the quality of life of the people.

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**JMPP** is indexed in EBSCO, ProQuest and Indian Citation Index

**Editorial Queries:** editor.jmpp@gmail.com



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Published online by Liberal Press, New Delhi.

# Content

Journal of Management & Public Policy
Vol. 9, No. 1, December 2017, Pp. 5-16
ISSN 0976-0148 (Online) 0976-013X (Print)
DOI: 10.5958/0976-0148.2017.00005.1

# FDI in India: Understanding the Implications for Growth and Job Creation

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**Abstract**

Backed by progressive economic reforms, India has been performing very well in terms of FDI inflows. However, FDI inflow in India is extremely skewed across the major sectors of the economy with the services sector accounting for more than half of the total FDI equity inflows. Having emerged as an attractive destination for FDI, the services sector contributes more than half of India's GVA but its contribution to job creation although significant has been less than proportionate to its contribution to GVA and also lacks in quality. The manufacturing sector on the other hand has not been able to generate employment adequately owing to the capital-intensive mode of production that has been adopted in this sector. This paper while trying to counter the prevalent view that FDI inflow in India has failed to generate employment, also highlights some of the pressing issues that need to be addressed towards harnessing the employment-generating potential of the economy.

**Keywords:** foreign direct investment; economic growth; gross value added; employment

## Trending FDI Flow into India

A news that hit the headlines recently is the US$13 billion all-cash investment from Russia's State controlled oil major Rosneft and its partner taking over India's second biggest private oil firm Essar Oil's refinery, port and petrol pumps, marking the largest ever inflow of foreign direct investment (FDI) into the country (PTI, 2016a). Led by such investments backed by a slew of reforms, FDI inflows into India reached a record US$60.1 billion in 2016-17 (as per estimates based on international best practices). As per the Department of Industrial Policy & Promotion's (DIPP's) database based on equity capital components only, FDI equity inflows into India touched US$43.5 billion in 2016-17 (DIPP, 2017).

Based on data provided by DIPP (Figure 1), the period 2000-01 to 2008-09 saw an increasing trend of FDI equity flows to India, and doing particularly well in the between 2004-05 and 2008-09 period, but thereafter declined for a couple of years in the aftermath of the global economic crisis of 2008-09. The inflows once again started an upward trend from 2012-13 onwards, growing rapidly in 2014-15 and 2015-16. Thus, strong FDI flows to India has been largely influenced by prospects of a strong economic growth in an open progressive emerging economy, only slowing down when faced with global crisis and stagnation of domestic reforms compromising its comparative advantage and competitiveness.

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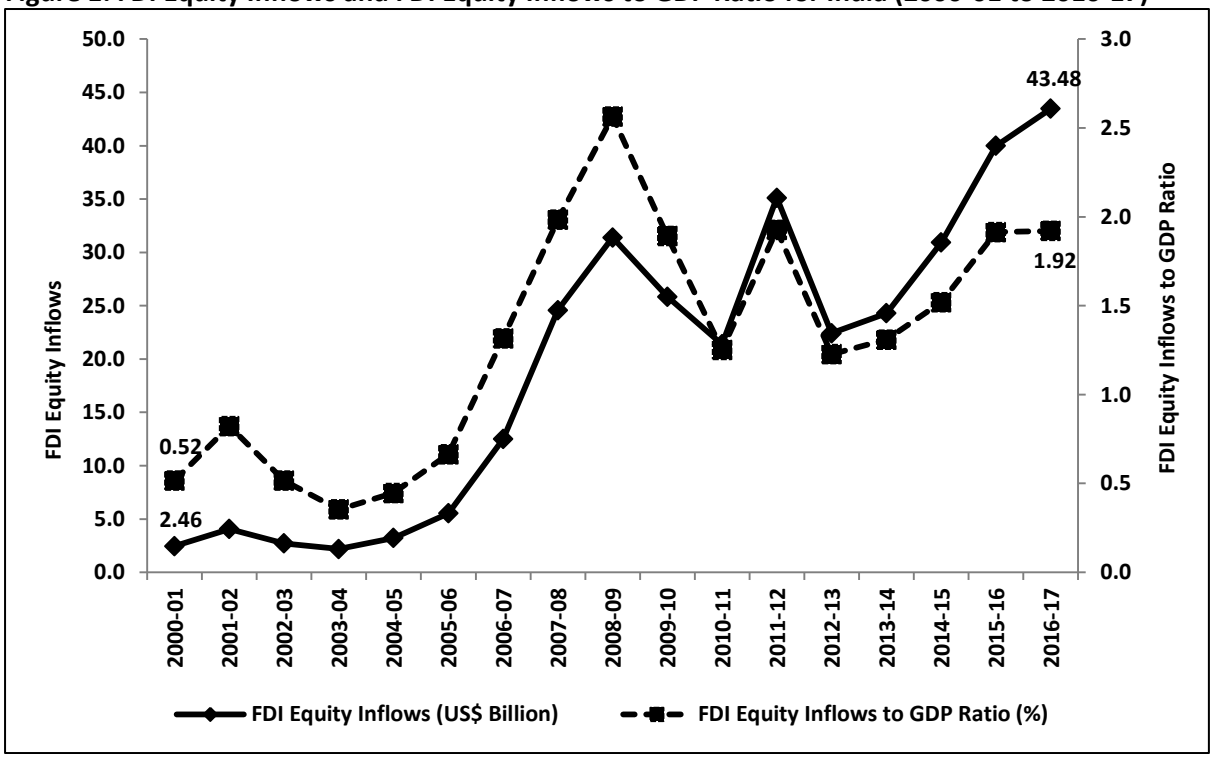
**State-wise Shares in FDI Equity Inflows**

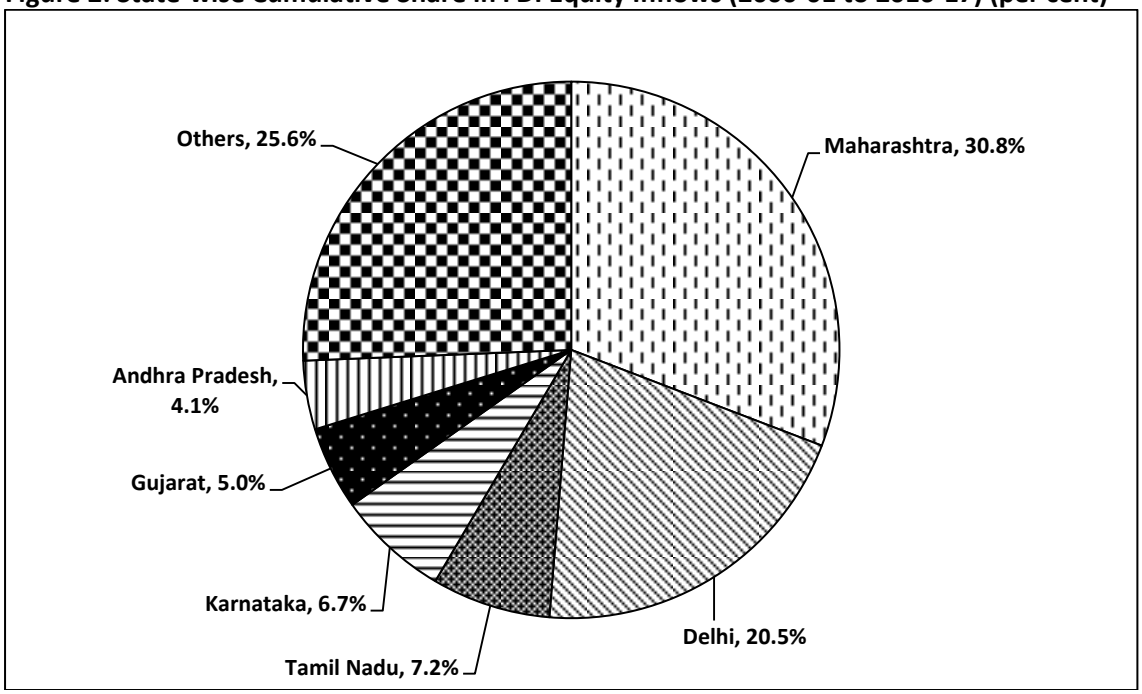
It is observed that Maharashtra, Delhi, Tamil Nadu, Karnataka, Gujarat and Andhra Pradesh (the States mentioned include other peripheral States / regions) account for about three-fourth of the total FDI flows cumulatively for the period 2000-01 and 2016-17 (Figure 2).

**Figure 1: FDI Equity Inflows and FDI Equity Inflows to GDP Ratio for India (2000-01 to 2016-17)**




**Sources:** DIPP (2017); RBI (2017).

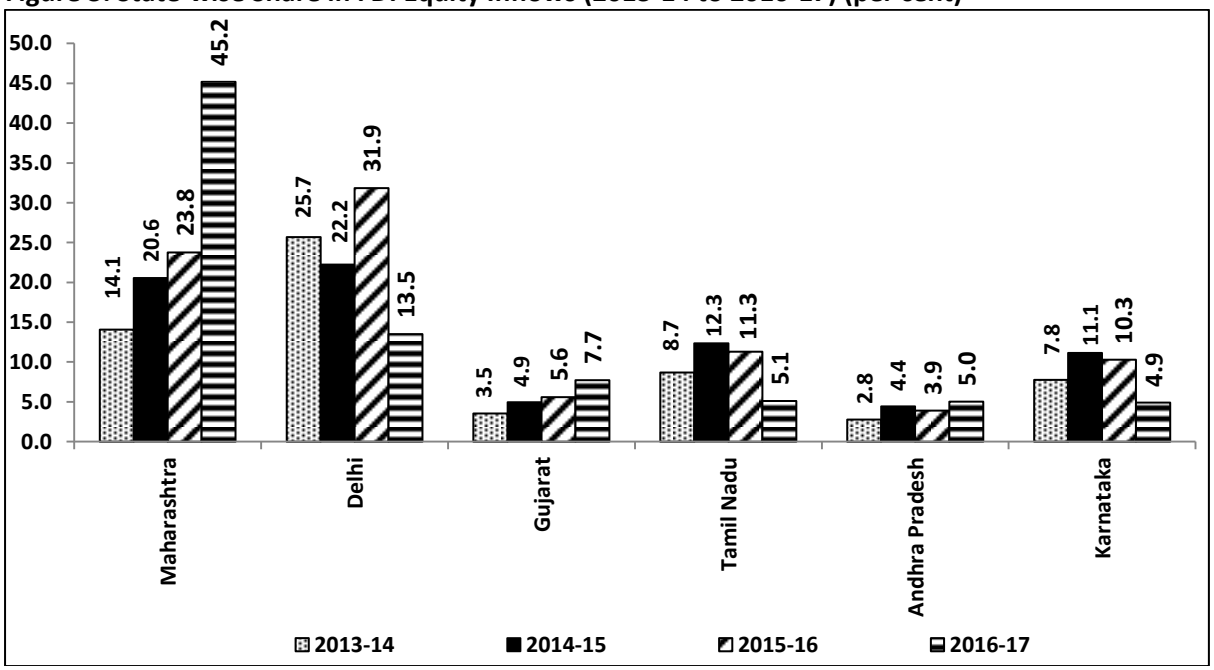
**Figure 2: State-wise Cumulative Share in FDI Equity Inflows (2000-01 to 2016-17) (per cent)**




**Source:** DIPP (2017).

Maharashtra has traditionally been the highest recipient of FDI equity followed by Delhi. But from 2013-14 till 2015-16, Delhi outpaced all other States in terms of share of FDI equity received, followed by Maharashtra (DIPP, 2016). In 2016-17, the trend got reversed again with Maharashtra accounting for about 45 per cent of total FDI equity inflows followed by Delhi at 14 per cent only (Figure 3).

**Figure 3: State-wise Share in FDI Equity Inflows (2013-14 to 2016-17) (per cent)**




**Source:** DIPP (2016; 2017).

FDI inflows into Maharashtra are mostly for development of infrastructure (transportation, energy, electrical equipment, and telecommunication) or for services sectors (Chatterjee, Mishra & Chatterjee, 2013). The same is the case with Delhi which attracts FDI inflows mainly in sectors like transportation, electrical equipment, telecommunications, and services. The States with comparatively high FDI inflows are either known for their strong industrial base or as software hubs. High FDI inflows can also be attributed to the States' better resources, infrastructure like power and roads, investment promotion schemes like special economic zones (SEZs), and investor-friendly policies like single-window clearances (NCAER, 2009).

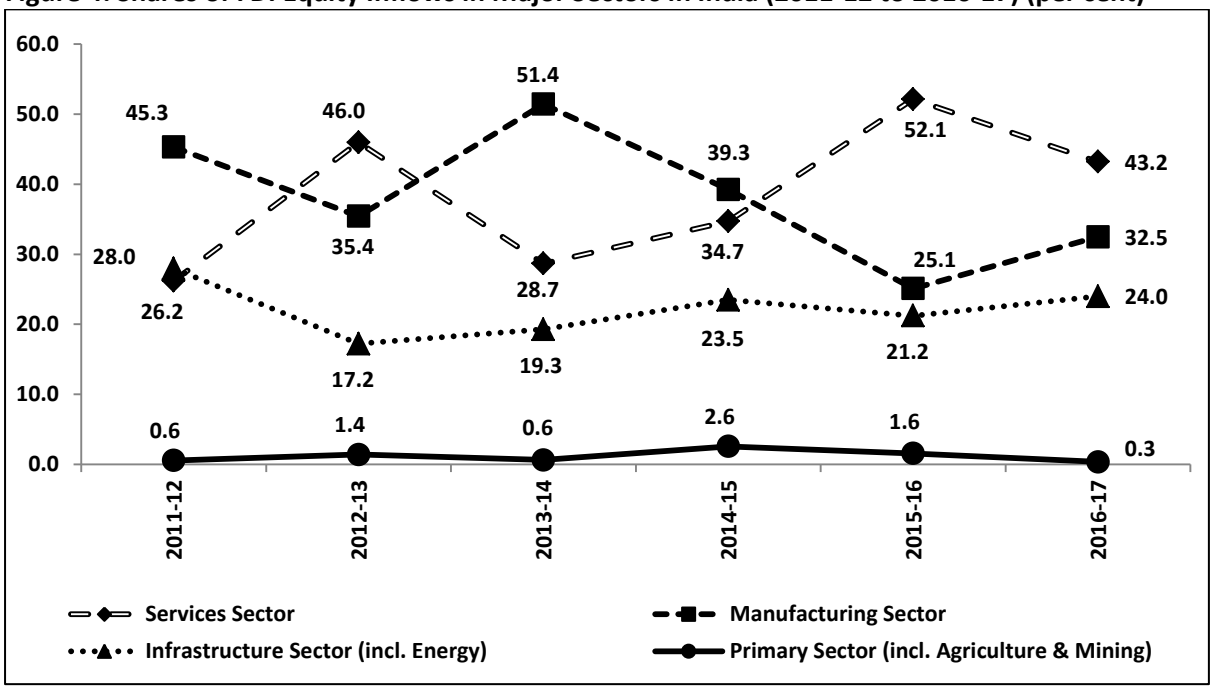
**Sector-wise Shares in FDI Equity Inflows**

FDI equity inflow into India for several years has been extremely skewed across the major sectors of the economy. Notably, the share of services sector in FDI equity inflows doubled from about 26 per cent in 2011-12 to 52 per cent in 2015-16, but dropping to 43 per cent in 2016-17. On the other hand, the manufacturing sector lost its share from about 45 per cent 2011-12 to 25 per cent in 2015-16, but recovering to more than 32 per cent in 2016-17 (Figure 4). The share of infrastructure sector (including energy) in total FDI equity inflows also dipped from about 28 per cent in 2011-12 to 24 per cent in 2016-17. The primary sector (including agriculture and mining) never really picked up in terms of FDI equity inflows.

Further, the skewness in FDI destination is tilted towards few sectors. DIPP data shows that the top 10 FDI equity receiving sectors accounted for more than 71 per cent of the total FDI equity inflow in 2016-17 with the services sector (as per DIPP classification) along with computer software and hardware, trading, and information broadcasting accounting for over 37 per cent of the total FDI equity inflow (Table 1). The manufacturing sector represented by electrical equipment, cement and

gypsum products, automobile and metallurgical industries in the list of top 10 sectors accounted for 17 per cent of the FDI equity inflow.

**Figure 4: Shares of FDI Equity Inflows in Major Sectors in India (2011-12 to 2016-17) (per cent)**




**Sources:** Secretariat of Industrial Assistance (SIA) Newsletter, DIPP (various years).

**Table 1: Sector-wise FDI Equity Inflows (2016-17)**

| Sector | Amount (US$ Billion) | Share (%) |
|---|---|---|
| **Services (as per DIPP classification)** | 8.68 | 20.0 |
| **Telecommunications** | 5.56 | 12.8 |
| **Computer Software & Hardware** | 3.65 | 8.4 |
| **Trading** | 2.34 | 5.4 |
| **Electrical Equipment** | 2.23 | 5.1 |
| **Cement and Gypsum Products** | 2.13 | 4.9 |
| **Construction (Infrastructure) Activities** | 1.86 | 4.3 |
| **Automobile Industry** | 1.61 | 3.7 |
| **Information & Broadcasting (incl. Print Media)** | 1.52 | 3.5 |
| **Metallurgical Industries** | 1.44 | 3.3 |
| **Total of Top 10** | **31.03** | **71.4** |
| **Grand Total** | **43.48** | **100.0** |

**Sources:** DIPP (2016, 2017).

Cumulatively, between 2000-01 and 2016-17, the top 10 FDI destination sectors accounted for about 64 per cent of the total FDI equity inflows. The services sector (as per DIPP classification) along with computer software and hardware, and trading featured in the list of top 10 recipients of FDI equity flows accounting for about 30 per cent of the total FDI equity inflow. The manufacturing sector represented by automobile, drugs and pharmaceuticals, chemicals (excluding fertilisers), and metallurgical industries in the top 10 sectors accounted for 17 per cent of the total FDI equity inflow (DIPP, 2017).

**FDI, Growth and Job Creation**

The impact of FDI inflow on growth of the host country varies with the sector to which it flows. While FDI inflow to the manufacturing sector may have a positive impact on growth, FDI flow to the primary (agriculture and mining) sector may not be as impactful, and flow into the services sector could be somewhat ambiguous (Alfaro, 2003). Impact also depends on the nature of FDI in terms of the extent of localisation of the output, its export orientation, vintage of technology used, orientation of research and development (R&D) for productivity enhancement, etc. In the case of India, services sector which contributes about 54 per cent of India's gross value added (GVA) (Table 2), has emerged as an attractive destination for FDI.

**Table 2: Share and Growth of India's Major Sectors (2011-12 to 2016-17) (per cent)**

| Year | Agriculture & Allied | | Industry (incl. Construction) | | Manufacturing | | Services (excl. Construction) | |
|---|---|---|---|---|---|---|---|---|
| | Share of GVA | Growth Rate | Share of GVA | Growth Rate | Share of GVA | Growth Rate | Share of GVA | Growth Rate |
| 2011-12 | 18.5 | - | 32.5 | - | 17.4 | - | 49.0 | - |
| 2012-13 | 18.2 | 1.5 | 31.8 | 3.3 | 17.1 | 5.5 | 50.0 | 8.3 |
| 2013-14 | 18.6 | 5.6 | 30.8 | 3.8 | 16.5 | 5.0 | 50.6 | 7.7 |
| 2014-15 | 18.0 | -0.2 | 30.2 | 7.5 | 16.4 | 8.3 | 51.8 | 9.7 |
| 2015-16 | 17.5 | 0.7 | 29.6 | 8.8 | 16.6 | 10.8 | 52.9 | 9.7 |
| 2016-17 | 17.4 | 4.9 | 28.8 | 5.6 | 16.5 | 7.9 | 53.8 | 7.7 |

**Source:** RBI (2017).

Given the nature of sectoral growth and the flow of FDI experienced so far, commentators have been questioning the employment potential of FDIs. Indeed, there are challenges, but to over-emphasise the role of the FDI or even belittle the role it had played in creating jobs would be inappropriate. It may be noted from the results of the latest Employment and Unemployment Survey of the National Sample Survey Office (NSSO) that the services sector has contributed more to employment compared to the manufacturing sector. The survey shows that the share of services sector in total employment stands at about 27 per cent for 2011-12, while that for the manufacturing sector and the industrial sector (including construction) are about 13 per cent and 24 per cent respectively (Table 3).

**Table 3: Employment Share of India's Major Sectors (1972-73 to 2011-12) (per cent)**

| Sectors | 1972-73 | 1977-78 | 1983 | 1987-88 | 1993-94 | 1999-2000 | 2004-05 | 2009-10 | 2011-12 |
|---|---|---|---|---|---|---|---|---|---|
| **Agriculture & Allied** | 73.9 | 71.0 | 68.6 | 64.9 | 64.0 | 60.3 | 56.3 | 51.3 | 48.9 |
| **Manufacturing** | 8.9 | 10.2 | 10.7 | 12.2 | 10.6 | 11.0 | 12.3 | 11.5 | 12.6 |
| **Industry (incl. Construction)** | 11.3 | 12.6 | 13.8 | 17.0 | 15.0 | 16.2 | 18.8 | 22.0 | 24.3 |
| **Services (excl. Construction)** | 14.8 | 16.5 | 17.6 | 18.1 | 21.1 | 23.4 | 24.9 | 26.7 | 26.9 |

**Sources:** Papola & Sahu (2012); NSSO (2014).
**Note:** Employment data is according to usual (principal + subsidiary) status.

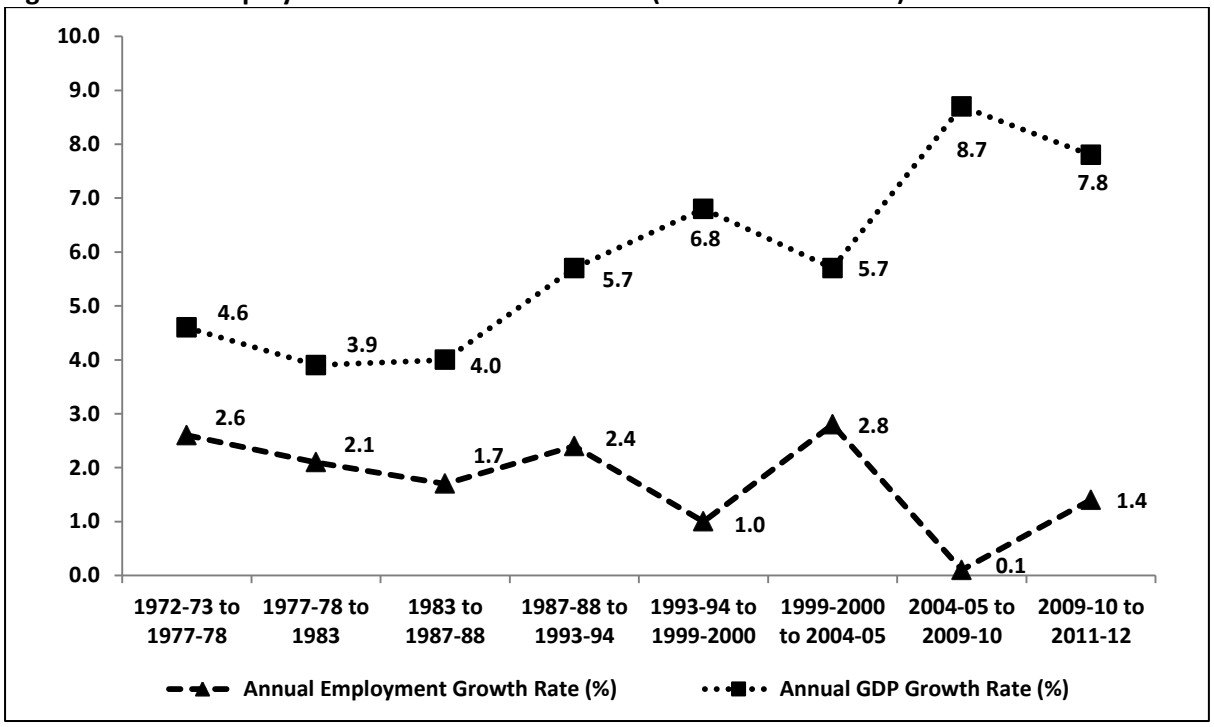
The share of services sector in total employment has systematically increased from 1972-73 to 2011-12 (Table 3). On the other hand, the share of manufacturing sector in total employment, traditionally more job creating, has remained stagnant at the pre-liberalisation levels notwithstanding high growth rates triggered by economic reforms in 1991. Studies have attributed this to a sustained

decrease in labour intensity of the organised manufacturing sector, including the traditionally labour-intensive industries, due to an increase in the real wage to rental price of capital ratio. This was largely due to decline in the relative price of capital goods attributable to trade reforms and sustained decline in import tariffs on capital goods post 1991 (Sen & Das 2015).

Increasing capital intensity also reflects technological transformation and progress which is capital augmenting in nature. Researchers have documented that Indian manufacturing companies having easier access to foreign technology in the globalised era post 1991 adopted more capital-intensive (and labour replacing) techniques of production (Kapoor, 2016). The overall impact can be seen in terms of the number of jobs created in the organised sector vis-à-vis the increase in the size of the working-age population in the post 1991 period of high growth. The size of the working-age population of India increased by 300 million between 1991 and 2013, while the number of jobs increased by only 140 million (UNDP, 2016). The Indian economy had thus absorbed less than half of the new entrants into the labour market.

The relationship between growth and employment is murky as can be observed from the annual employment growth rate which slipped from above 2 per cent between 1972-73 and 1993-94 to less than 1.5 per cent between 1993-94 and 2011-12. During the same periods, annual GDP growth increased from less than 5 per cent between 1972-73 and 1993-94 to more than 7 per cent between 1993-94 and 2011-12 (Figure 5).

**Figure 5: India's Employment and GDP Growth Rates (1972-73 to 2011-12)**




**Sources:** Himanshu (2011); Papola & Sahu (2012); Misra & Suresh (2014); RBI (2017).
**Note:** Employment data is according to usual (principal + subsidiary) status.

The decline in employment growth rates coinciding with high GDP growth rates explains the phenomenon of jobless growth as experienced by India post 1991. This poses a serious challenge from the point of sustainability, given the estimated expansion of the working-age population from approximately 761 million in 2011 to 869 million in 2020 (EY & FICCI, 2013); that is the need to create 1 million new jobs per month.

The gravity of the situation is discernible from the estimated quarterly growth in employment across eight selected sectors comprising manufacturing, construction, trade, transport, accommodation and restaurants, information technology (IT) / business process outsourcing (BPO), education, and health based on the quarterly data on employment generation of the Labour Bureau, Ministry of Labour & Employment (MoLE), Government of India (GoI) (Table 4).

**Table 4: Estimated Growth in Employment in Eight Selected Sectors in India in 2016-17 (in thousand)**

| Sectors | 1st Jul 2016 over 1st Apr 2016 | 1st Oct 2016 over 1st Jul 2016 | 1st Jan 2017 over 1st Oct 2016 | 1st Jan 2017 over 1st Apr 2016 |
|---|---|---|---|---|
| **Manufacturing** | -12 | 24 | 83 | 95 |
| **Construction** | -23 | -1 | -1 | -25 |
| **Trade** | 26 | -7 | 7 | 26 |
| **Transport** | 17 | 0 | 1 | 18 |
| **Accommodation & Restaurant** | 1 | -8 | 0 | -7 |
| **IT / BPO** | -16 | 26 | 12 | 22 |
| **Education** | 51 | -2 | 18 | 67 |
| **Health** | 33 | 0 | 2 | 35 |
| **Total** | 77 | 32 | 122 | 231 |

**Source:** MoLE (2017).

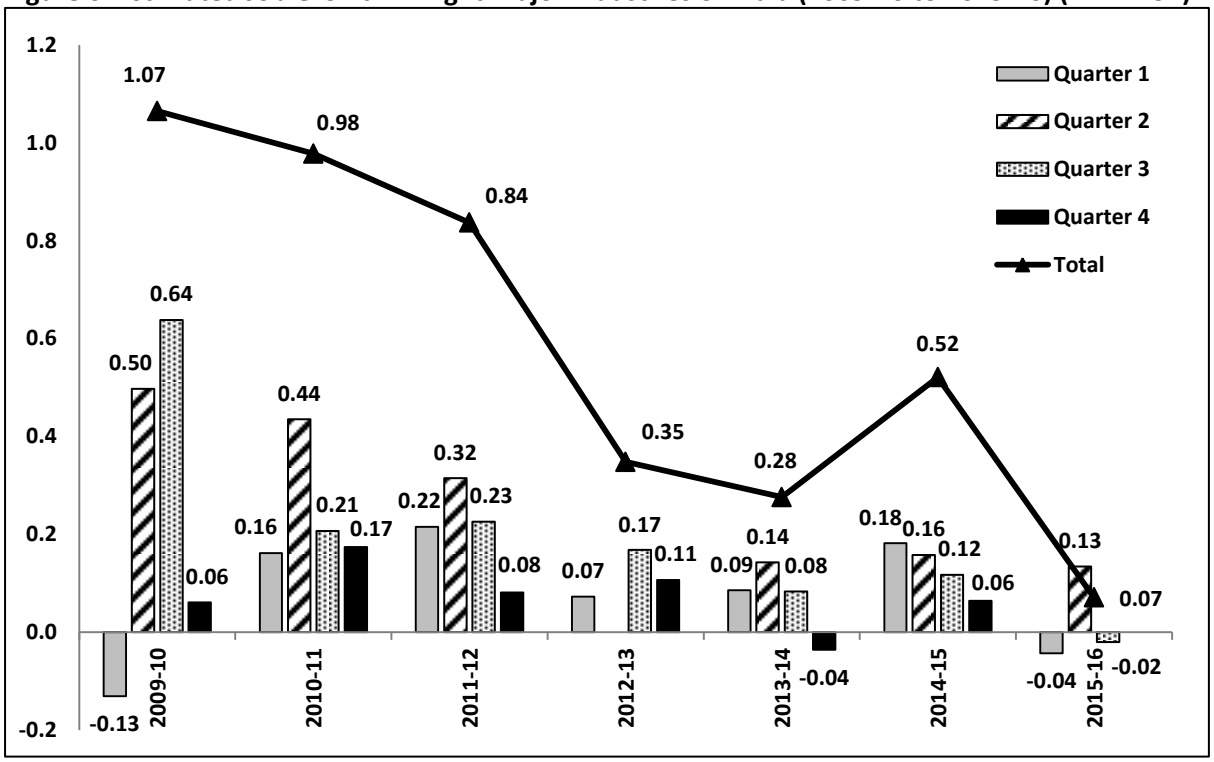
Table 4 shows that there was an overall increase of only 0.23 million workers over a period of 9 months between 1 April 2016 and 1 January 2017 based on a sample of around 10,610 units across the eight sectors at the all-India level. The earlier methodology of sampling around 2,000 units across eight major labour-intensive industries comprising textiles (including apparels), leather, metals, automobile, gems and jewellery, transport, IT / BPO, and handloom / powerloom gravity showed a declining trend in the number of jobs created from 1.07 million in 2009-10 to 0.07 million across three quarters in 2015-16 (Figure 6 on next page).

Thus, it appears that the Indian growth story in a globalised era has not been able to create enough jobs for a rapidly burgeoning working-age population. On the other hand, data also reveals increased informalisation of workforce in the organised sector. As per the latest estimates for 2011-12, about 92 per cent of the workforce in India is informal, with the unorganised sector contributing 82 per cent (down from 86 per cent in 2004-05) and informal workers in the organised sector contributing 10 per cent. The share of informal workers in the organised sector has increased notably because of increased hiring of contract workers and casual labourers (ILO, 2016). A large section of the informal workforce is found to be engaged in sectors such as computers, information technology enabled services (ITES), construction, real estate, hotel and tourism, transport and logistics, etc. where FDI has been largely flowing in India. Therefore, FDI, inspite of flowing mainly to States having favourable legislations and regulations, and infrastructure, and preferentially to high value-added sectors, has been contributing towards job creation.

**Challenges and Issues**

Faced with the dual challenge of attracting FDI flows into sectors having potential for generating growth and employment, and coping with a rapidly evolving economic and technological landscape, it is important to address some of the challenges and issues and understand the implications of recent government initiatives.

**Figure 6: Estimated Job Growth in Eight Major Industries of India (2009-10 to 2015-16) (in million)**




**Source:** Quarterly Report on Changes in Employment in Selected Sectors, MoLE (various years).

**Aligning Policies**

The GoI on June 20, 2016, announced an amended FDI policy to facilitate ease of doing business, attract investment, and promote growth in income and employment. The amendments are designed with a focus on spurring the GoI's flagship programme – Make in India, which has been launched to transform the manufacturing sector into a key engine of growth for the economy. These amendments have resulted in India becoming the most open economy for FDI with majority of the sectors coming under the automatic approval route (PMO 2016). The Make in India programme is showing some early positive signs of attracting FDI towards establishing manufacturing facilities in India (Singh & Sasi, 2016). To illustrate, the Chinese mobile manufacturing giant Xiaomi after its foray into India in July 2014, has started manufacturing smartphones locally from August 2015 onwards in partnership with Taiwanese contract manufacturer Foxconn, and plans to ramp up manufacturing capability in the country (TNN, 2017). However, due to the capital-intensive nature of production and the disruptive advancements in technology, it is suspect whether such manufacturing units will be able to accommodate and sustain a large workforce.

Further, with the advent of 3D printing, artificial intelligence and robotics, the manufacturing sector is going to bear the brunt in terms of replacement of labour in which India has comparative advantage. Thus, it is imperative to align various policies and programmes in a holistic manner keeping with the broader objective of employment generation. One such area is the small and medium enterprises (SMEs) which employ about 40 per cent of the workforce, and contribute about 45 per cent of India's manufacturing output and 40 per cent of India's total exports (Jaffrelot, 2016). Government policy should support the well-performing SMEs to become globally competitive and increase their exports, and protect them from the threat of dumping in the context of low global commodity prices and the economic slowdown in countries like China (Mishra, 2015).

**Archaic Labour Laws**

The government should ensure an enabling environment for FDI flow to the relatively labour-intensive industries including leather and leather products, textiles and readymade garments, and light machine tools, with units / plants set up in small towns close to rural and suburban areas, as these industries have high employment-generating potential (NCAER, 2009). The labour-intensive industries shifting to capital-intensive modes of production, being driven significantly by inflexible and cumbersome labour laws apart from diminishing relative price of capital goods. It is noteworthy that in the organised manufacturing sector, real wage growth has not grown much due to the declining bargaining power of the labour unions as firms found a way around by engaging contract workers. The government should focus on simplifying the existing labour laws and make them more flexible as this would not only help in attracting FDI, but also generate employment opportunities, particularly in the manufacturing sector (ET, 2014, 2016).

**Informal Employment**

Informal, including contractual, employment is growing in both the organised and the unorganised sectors. But compared to manufacturing, in emerging India, a large proportion of this is taking place in the high value-added services sector. Unlike the manufacturing sector in India, where developed economies globally have a large market share vis-à-vis developing countries, services sector is expanding steadily, with ample catching-up opportunities, and with scope for entry for all (Ghani & O'Çonnell, 2014). The emergence of a sizable middle class across countries is spurring growth of the services sector which is now accounting for a greater share of FDI inflows.

The GoI recognising the importance of supporting informal workforce seeking livelihood has launched initiatives such as MUDRA (Micro Units Development & Refinance Agency Ltd.) and Stand-Up India focusing on the unorganised sector. With such initiatives geared towards promoting self-employment – i.e., transforming job seekers into job creators – a lot of informal employment opportunities will be created.

**Skill Development**

In order to tide over the problem of employability for maximum employment gains, appropriate skilling should take place particularly in the sectors with high employment elasticity (with regard to GDP) and should be placement linked. The Economic Survey 2014-15 indicates the size of the formally skilled workforce in India as only 2 per cent, while 6.8 per cent of persons in the age group 15 years and above have either received or are receiving vocational training (MoF, 2015). The situation is grim when it comes to developing the skills of the vast numbers of those already employed or are seeking employment in the organised industrial sector. With labour displacing technological innovations estimated to result in job losses for about 200 million Indians by 2025 (PTI, 2016b), re-skilling of the existing workforce along with skilling of the fresh job seekers is a mammoth task. Low education base in terms of poor education attainment status of the students at the school level along with high drop-out rates also plays a hindering role vis-à-vis technical trainings (of large number of such candidates) (Jaffrelot, 2016).

Government focus on the Skill India programme is aimed at encouraging the development of a skilled labour force through the National Skill Development Mission, National Policy for Skill Development and Entrepreneurship 2015, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), and the Skill Loan Scheme. However, the Skill India programme will be successful if it is geared towards skilling in areas having the desired number of jobs and ensuring job placement (Maira, 2016; Jagannathan, 2016), and constantly evolves to meet the challenge of reskilling workforce rendered redundant or unproductive by technological change.

**Regional Inequality**

FDI flows in India have a strong regional concentration (Mukherjee, 2011) with a handful of States accounting for a major chunk of the total inflow. In the age of co-operative federalism, in order that regional inequality does not get escalated by such skewed FDI inflows, it is necessary that FDI-related policies, rules and regulations are designed taking into consideration the regional issues and adapted if necessary by all the States and Union Territories (Malhotra, 2014). A necessary requirement for this is political will both at the Centre and State level.

**Conclusion**

It is common knowledge that FDI flow can only play the role of supplementary investment to domestic (public and private) investment required for growth and development of the economy. Domestic public investment should be channelised to such sectors delivering public goods, having long gestation periods, like infrastructure, having greater employment potential, and those where private sector investments and specifically FDI may not be attractive. FDI should never be over-emphasised in its role of creating jobs for a large pool of unemployed workforce waiting to be inducted or re-employed with new and more relevant skills. However, FDI, besides primarily contributing to the GVA of the economy, has been contributing significantly to job creation in the rapidly emerging and growing sectors in India. Thus, to state that FDI inflow in India has failed to create employment may be inappropriate. The services sector, which has been the biggest recipient of FDI equity flows for several years now, has notably contributed to job creation though somewhat lacking in quality and less than proportionate to its contribution to GVA.

The manufacturing sector on the other hand has not been able to generate employment adequately for the masses mainly due to the capital-intensive mode of production that has been adopted in this sector. The share of FDI equity flows to the manufacturing sector, however, has been going down over the years along with its dwindling contribution to GVA. A lot of expectation has been placed on the Make in India manufacturing sector to attract foreign investment and generate employment. But with so much technological innovation / advancement and use of capital-intensive (and labour displacing) mode of production, it remains to be seen how far the manufacturing sector can generate employment along with economic growth. India is faced with a huge army of unskilled and inappropriately skilled workforce. Skilling of a huge unskilled labour force is going to be an arduous task. Re-skilling of the existing workforce too requires a minimum time during which a new pool of job seekers would join the labour force. But mere skilling of people as envisaged by the Skill India initiative without the availability of requisite number of employment opportunities will intensify the problem of joblessness that can lead to social unrest. With one million new entrants in the labour force per month, joblessness can take up epic proportions that might transform India's much-hyped demographic dividend into a demographic disaster.

**Endnotes**

[1] Maharashtra includes Maharashtra, Dadra & Nagar Haveli, and Daman & Diu; Delhi includes New Delhi and parts of Uttar Pradesh and Haryana; Tamil Nadu includes Tamil Nadu and Puducherry; Andhra Pradesh includes Andhra Pradesh and Telangana.

[2] Services sector includes sub-sectors as per DIPP classification (financial, banking, insurance, non-financial / business, outsourcing, R&D, courier, and technical testing and analysis) plus computer software and hardware, trading, hospitals and diagnostic centres, consultancy services, hotel and tourism, information and broadcasting, and printing of books. Construction is being considered as part of the industrial sector.

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Journal of Management & Public Policy
Vol. 9, No. 1, December 2017, Pp. 17-30
ISSN 0976-0148 (Online) 0976-013X (Print)
DOI: 10.5958/0976-0148.2017.00006.3

# Determinants of Interest Subsidy on Education Loans in India: Who Gains and Who Loses?

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**Abstract**

This paper examines whether the means-tested interest subsidy on education loans in India reaches poor students across different groups. We seek to understand the determinants of interest subsidy in a stratified society India, using a unique data availed from the bank which operates the scheme. It covers students who received subsidy during 2009-10 to 2012-13. The blanket equal subsidy, 'one size fits for all' approach promotes inequity in reality. Mean interest subsidies and education loans are progressive. Also better off male students benefit higher amount of subsidies across social, religious, location and course groups. The underrepresentation of less affluent socioeconomic, religious, rural children and female in higher professional education has important implications for social policy, economic efficiency and social justice.

**Keywords:** Education Loan; Interest Subsidy; Economic Groups; Social and Religious Groups

## Introduction

The Government of India in its Union Budget 2009–10 introduced a supplementary scheme to provide interest subsidy during the period of moratorium to cover loans taken from scheduled commercial banks under the Educational Loan Scheme of the Indian Banks' Association (IBA). Department of Higher Education, Ministry of Human Resource Development, Government of India has launched this interest subsidy scheme with the purpose of helping the economically weaker sections with parental income of less than Rs. 0.45 million per annum. The details of the scheme include:

(i) Interest payable for professional courses for the period of moratorium (i.e., course period, plus one year or six months after getting job, whichever is earlier) is subsidised.

(ii) Interest subsidy is available to the eligible students only once, either for the first undergraduate course or post graduate degrees/diplomas or for combined post graduate courses;

(iii) It is not available for those students who either discontinue or are expelled on disciplinary or academic grounds but available for discontinuation on medical grounds; and

(iv) Students who availed interest subsidy will get one per cent concession in interest rates. The details of educational loan are given in annexure I.

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**Interest Subsidy on Education Loans**

The basic objectives of an education loan program influence the choice and design of various parameters viz., choice of administering and funding agency; who is eligible to get the loan; security or guarantee required; loan amount covered – whether tuition or living or both expenses; rate of interest charged – a significant lever in deciding the subsidy; extent of grace and repayment period; repayment modalities: repayment incentives and waivers (Ziderman, 2002; Johnston, 2006; Chapman, *et al*. 2010). Of all these, interest rates and repayment modalities received much attention in the literature. The level, nature and size of interest subsidy depends on the basic objective of a loan program whether it aims at addressing (i) access and equity, (ii) cost recovery, (iii) expansion and (iv) easing financial burden (government or for students or both).

Interest rate is a significant parameter in deciding implicit subsidy. Usher (2005) while reviewing the global debt burdens in OECD countries suggest three basic approaches to deal with interest rates: 'zero-nominal' 'zero-real', and 'cost of government borrowing'. In the zero-nominal interest approach, loan does not grow in nominal terms for the duration of the study period. In real terms, the loan shrinks while the student is in school, reaps the largest government subsidy. No real interest is charged under the zero-real interest approach, but loans are allowed to grow with inflation so as to remain in constant value. This too enjoys a larger government subsidy but less than zero nominal type. But the interest rate is charged as per the cost of government borrowing, there is no subsidy.

In a similar vein, Asplund *et al*, (2008) in their review categorize three groups of European countries. In the Netherlands and the Nordic countries where the vast majority of students are entitled to take loans, students pay an interest rate that is close to the market rate, like 'zero-real'. In the Netherlands, whenever a loan is not converted into a grant, it has to be repaid subject to an interest rate that is around 2 per cent on top of the rate on long-term government bonds. So they cover the cost of government borrowing and hence there is no hidden grant to the student. In Germany, France and Italy, interest-free loans are targeted at students from low-income families. This is similar to the interest subsidy scheme in India, which is 'zero-nominal'. In Denmark and Finland, students pay all or some of the interest on their loans while studying, like 'cost of borrowing'. India adopts a similar approach for those students who are not covered under interest subsidy scheme.

Though interest subsidy is primarily a debt management tool, the provision of it is often based on the principles of equity and efficiency:- (i) Should interest rates be charged on student loans? There are two contrary views; both base their arguments on equity. A zero nominal or real interest rate is a subsidy to the borrower. Those advocating positive interest rates argue that such subsidy increases inequality because of over-representation of students from higher socio-economic backgrounds. Those defending zero interest rates emphasize the longer repayment period of students from lower-income families, induces an equity-enhancing re-distributive effect between borrowers from different socio-economic backgrounds (Biffl & Isaac, 2002).

Should interest rates on student loans be subsidised or not? It is opposed primarily on mitigating adverse selection and moral hazard problems. Equity aspects also arise. Interest-rate subsidies, if targeted at students from poorer backgrounds, are seen to have an equalizing impact on attitudes towards borrowing (Asplund *et al*, 2008). Others argue that this effect should be aimed at through repayment arrangements viz., risk sharing type of income contingent loans (Chapman, 2006).

Interest subsidies can benefit college attendance and or completion and making loan payments more manageable or less default rates. A lower interest rate reduces lifetime costs of college, so a rational decision-maker in human capital framework would include this price subsidy in a calculation of lifetime, present-discounted value of schooling. However, there is no empirical evidence on this

cost-benefit approach. It appears that interest-rate subsidies are not tangible when students decide whether to enrol in college. It is because students obtain same funds irrespective of interest rates, though influence of interest subsidy on enrolment seems to be unknown (Dynarski, 2014). Hence, she argues that interest subsidy is therefore a poorly targeted and expensive tool for reducing loan default in a mortgage-style repayment system. However, implementing income contingent plan would require good collection system.

The foregoing discussions suggest that interest subsidy can serve the objective of equity if targeted. In the present paper, we examine whether the means-tested interest subsidy on education loans in India reach poor students across different sections of the student population. We seek to understand the determinants of interest subsidy in a diverse and a highly stratified society, India.

Studies hardly examine the equity aspects of financing higher education focusing on social and religious groups. Few studies examine the distribution of government expenditures on education across expenditure groups. They conclude that the well-off benefit more than proportionally than their population share (Mahal, 2004; Geetha Rani, 2014). The present paper is an attempt to fill this gap and adds value in multiple counts. It examines the consequences of equal interest subsidy to all means-tested students despite their unequal experiences and prior educational opportunities in professional higher education. We examine a number of aspects viz., economic, gender, social, religion and location advantage or disadvantage of students in getting access to interest subsides. While doing so, we examine their participation in professional education especially among the lower strata of the society. The primary focus of the paper is to estimate the determinants of interest subside on education loans. This is an unexplored area in the Indian context.

**Data and Methodology:**

The paper uses possibly a unique data availed from the bank which operates the Central Sector Interest Subsidy Scheme (CSIS). It covers all students who received interest subsidy during 2009-10 to 2012-13 (Table 1).

**Table 1: Details on Interest Subsidy on Education Loans in India**

| Period | Interest Subsidy Accounts* | Education loan Accounts | % of interest subsidy beneficiaries in Education Loan availed | Interest Subsidy (Rs in 10 Millions) |
|---|---|---|---|---|
| 2009-10 | 618860 | 1928350 | 33.41 | 296.86 |
| 2010-11 | 838655 | 2235532 | 40.18 | 735.49 |
| 2011-12 | 698316 | 2287843 | 42.99 | 1198.88 |
| 2012-13 | 854728 | 2509465 | 34.06 | 1295.47 |

**Source**: Based on data from Canara Bank; Banking Statistics Relating to Banks India, Reserve Bank of India, relevant reports.

Students who claimed interest subsidy constitute around 30 to 40 per cent of education loans. It does not cover all students who took loans hence suffer from selection bias. Each observation corresponds to a loan profile, viz., loan limit, interest rate and year of sanction. Parental income is available and is self-reported incomes ratified from a designated Government official. However, there is no way of verifying this claim in the Indian context. Characteristics of individual borrowers include gender, social groups, religion, and location. Social group is referred as caste in India, similar to race in developed nations. They are broadly categorised as General or the upper case, Other Backward Caste (OBC). Scheduled Caste (SC) and Scheduled Tribe (ST). SC\ST are the most deprived caste groups and benefit meagrely compared with OBC. Religious affiliation is yet another categorical variable defined as Christian, Muslim, Other Minority and Hindus. Location or area is defined as Metro, Urban, Semi-urban and Rural.

Course choice indicates the expected earnings, affordability and marketability. The most popular course among students is the engineering (above 60 per cent of total beneficiaries), management (around 8 per cent) and medical (around 6 per cent). The rest of the courses are spread over. Hence, we regrouped them in six broad categories as Medicine, Engineering, Law/science, Paramedical, Diploma with reference category of Medicine and used in the regression as a categorical variable.

**Methodology**

The paper estimates the determinants of interest subsidy by estimating a series of regressions applying OLS. Since the objective of interest subsidy is to ease out credit constrained students, it may be more meaningful to investigate the effect of income and other variables at different income quintiles. Our dependent variable is log of interest subsidy. The independent variables are log of parental income, log of loan size, gender; caste or social groups -: General, OBC and SC/ST; area-: metro, urban, semi urban and rural; religion-: Christians, Muslins, Other minorities and non-minorities and courses classified in sixteen groups. However the model includes six major groups -: Medicine, Engineering, Law/science, Paramedical, and Diploma with reference category of Medicine. Accordingly, we specify the equation for the log of interest subsidy for individual i as follows:-

$$ISi^* = \beta 0 + \beta 1\, LS + \beta 2' Yi + \beta 3\, Gi + \beta 4\, Si + \beta 5\, Ai + \beta 6\, Ri + \beta 7\, Ci + ui \quad ....(1)$$

where IS denotes interest subsidy, LS is log of loan size, Y refers to log of income, G is for gender, S for social group, A for area, R for religion and C for courses taken by students. Gender, caste, area, religion and course groups are categorical variables. We estimate them as categorical variable in the regression. So that it compares the parameter value of the reference category with the next category of the mean of the dependent variable. The reported results indicate the difference between the base category and the compared category. For instance, in Table A1, a reported parameter value under Gender is interpreted as difference in male students to that of female students (Ender *et al*, 2003).

**Description of Beneficiaries of Interest Subsidies**

Despite the fact that this data correspond to interest subsidy on students loans, it represents a microcosm of the participation and financing of higher education in India. The pattern of demographic characteristics clearly indicate that male students dominate (two third of total students) in acquiring interest subsidy across years (Table 2).

**Table 2: Socio-economic Characteristics of the Student Beneficiaries of CSIS**

| Characteristics | Sub-Groups | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|---|---|---|---|---|---|
| *Gender (in %)* | Male | 65.13 | 66.15 | 64.71 | 64.78 |
| | Female | 34.87 | 33.85 | 35.25 | 35.22 |
| *Location (in%)* | Metro | 7.98 | 7.20 | 6.73 | 6.19 |
| | Urban | 25.99 | 24.80 | 25.05 | 23.9 |
| | Semi Urban | 35.56 | 35.74 | 35.51 | 35.88 |
| | Rural | 30.48 | 32.24 | 32.68 | 34.01 |
| *Social group (in %)* | General | 55.72 | 55.20 | 56.92 | 50.82 |
| | OBC | 36.63 | 37.72 | 36.05 | 37.50 |
| | SC/ST | 7.65 | 7.08 | 7.02 | 11.67 |
| *Religion (in %)* | Christian | 8.80 | 8.35 | 8.97 | 8.78 |
| | Muslim | 4.30 | 4.41 | 4.76 | 4.43 |

| | | | | | |
|---|---|---|---|---|---|
| | Other Minorities | 25.74 | 24.33 | 23.40 | 25.32 |
| | Hindu | 61.13 | 62.84 | 62.86 | 61.47 |
| *Parental Income (in Rs.)* | Poorest | 6877 | 18109 | 17428 | 12342 |
| | Quintile 2 | 30195 | 37204 | 37319 | 32922 |
| | Quintile 3 | 60591 | 68855 | 67484 | 53817 |
| | Quintile 4 | 139329 | 145590 | 142758 | 122119 |
| | Richest | 315281 | 610632 | 335091 | 458821 |
| | Income Gap | 46 | 34 | 19 | 37 |
| *N* | | 6,18,452 | 8,97,918 | 9,83,377 | 8,83,741 |

**Source**: based on unit data

This is not the case in terms of enrolment of women, which is 45 per cent of the total enrolment in 2012-13 (AIHS, 2013). Since interest subsidy is available for the professional courses, the participation is biased towards male students. In terms of location, the students residing in semi-urban followed by urban areas dominate. Together, these two areas predominate in acquiring interest subsidy over years. In social groups, upper castes constitute around fifty per cent of the students, followed by OBC over the years. Socially deprived section (SC/ST) constitute a very small proportion around ten per cent. The picture is no different from their participation trends by social groups in 2012-13 (AIHS, 2013).

In the religious affiliation Hindus dominate with 60 per cent and Muslims represent the least, yet both groups under represent their population share. Income of the poorest quintile is Rs.6,877 while among the richest quintiles, it is Rs.3,15,281, the income gap estimated as ratio of income of the richest to that of the poorest is 46, declined to 19 in 2011-12 and further increased to 34 by 2012-13.

Preference of courses by students and family indicate choice, affordability, expected future earnings and labor market signals. Course wise education loans and interest subsidy indicate that highest loan to medical course, followed by architecture, law, fashion, management. Both medical and architecture get more than Rs.3,00,000 on an average. While courses like Diploma, Commerce and Education obtained the least amounts less than Rs. 100 thousands. Also in that hierarchy those courses which acquired highest loans were served with highest interest subsidy. Interest subsidy for medicine, the high cost course gets the highest subsidy over the years. Gap between education loans across the high cost course Medicine and for instance one of the low cost courses, Education widens from 5.17 in 2009-10 to 7.98 by 2011-12 and marginally declined to 7.61 in 2012-13. Gap between the same courses across interest subsidy increased from 2.32 in 2009-10 to 7.08 by 2012-13 (Table 3 on next page).

Students who opted for market oriented courses enjoy an edge over others. This potentially creates new inequalities where students from poorer backgrounds qualify for a diploma and those from affluent backgrounds achieve professional degrees. Courses such as medical and engineering are not only long duration and high cost courses but also high paying degrees, would perpetuate the inequality across life time earnings. Unlike the students from upper income strata, these students would be looking for employment just after completing their course work. Such competition would result in imbalance in the course structure across market oriented and conventional courses.

**Discussion of Results**

The OLS results are reported in Tables A1 to A4 in annexure correspond to 2009-10 to 2012-13 respectively. Interest subsidy is expected to exert negative relationship with income as per the scheme. Since both variables are in logs, it informs us about the income elasticity of interest subsidy.

It does exert a negative relationship as expected in 2009-10 across models of sub-samples. The co-efficient value is less than one indicating less elasticity.

Table 3: Average Education Loan and Interest Subsidy by Disciplines in India (in Rs.)

| Course Name | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | |
|---|---|---|---|---|---|---|---|---|
| | Education Loan | Interest Subsidy | Education Loan | Interest Subsidy | Education Loan | Interest Subsidy | Education Loan | Interest Subsidy |
| Medical | 335077 | 5726 | 326511 | 10568 | 333370 | 17095 | 344461 | 21642 |
| Architecture | 291815 | 4795 | 248745 | 5097 | 313408 | 9410 | 314137 | 11744 |
| Law | 232654 | 4052 | 181779 | 5708 | 252480 | 11546 | 278437 | 15208 |
| Fashion | 271637 | 4739 | 300749 | 14230 | 297536 | 14367 | 274430 | 15104 |
| Management | 269925 | 7785 | 261922 | 13130 | 274918 | 18811 | 259212 | 19069 |
| Nursing | 231394 | 3503 | 249507 | 7421 | 239743 | 10683 | 237839 | 10699 |
| Engineering | 231024 | 4378 | 225797 | 7640 | 232726 | 11440 | 234054 | 14620 |
| Pharmacy | 228000 | 4813 | 229268 | 7447 | 233133 | 10528 | 233495 | 12410 |
| Hospitality | 225602 | 4770 | 230876 | 8662 | 226708 | 11642 | 231271 | 13827 |
| Others | 194762 | 4198 | 190731 | 7359 | 193005 | 11167 | 205557 | 14357 |
| Physiotherapy | 215592 | 3493 | 99630 | 3170 | 196133 | 6886 | 205438 | 8948 |
| Science | 178799 | 3560 | 159277 | 5459 | 176742 | 7875 | 172293 | 9392 |
| BCA/MCA* | 157131 | 3326 | 220669 | 7315 | 155837 | 6633 | 157227 | 8374 |
| Diploma | 117078 | 2968 | 145851 | 5069 | 124348 | 6122 | 125821 | 8203 |
| Commerce | 115713 | 2404 | 151124 | 5127 | 99255 | 4274 | 97502 | 5348 |
| Education | 64860 | 2467 | 66123 | 2767 | 41776 | 2793 | 45265 | 3057 |
| All | 233949 | 4708 | 229907 | 8188 | 235692 | 12261 | 238322 | 15162 |
| Gap^ | 5.17 | 2.32 | 4.94 | 3.82 | 7.98 | 6.12 | 7.61 | 7.08 |

Note: * BCA - Bachelor of Computer Applications; MCA- Master of Computer Applications; ^ refer foot note 6; ^Gap is measured as the ratio of Loan Size (interest subsidy) of Medicine to that of Education.
Source: Unit data

So, interest subsidy declines less than proportionally for a given change in income. On the contrary, it reports positive relationship with interest subsidy in 2011-12 to 2012-13. Co-efficient value is less than one that interest subsidy increases less than proportional to change in income. This is true across all models. The irony is that interest subsidy which is means tested but based on the principle of equal subsidy for all favours the ones who have taken higher amounts of loans. *The blanket equal subsidy, 'one size fits for all' approach promotes inequity in real sense.*

Such income gap starts at schools and widens at higher education. For instance, using the second Demographic and Health Survey for 1998-99, that 82 percent of children from the richest 20 percent of households complete grade 8 but only 20 percent of children from the poorest 40 percent of households do so (Filmer and Pritchett, 1999). In the poorest quintile one per cent of the population attain higher education but above ten per cent attainment in the richest quintile during 1999-2000 as noted by Central Advisory Board of Education (CABE, 2005).

Loan size and interest subsidy apparently are positively related across all years and models. The value of co efficient is greater than one at the lowest, Q2 and Q4, indicate that it benefits more than proportionately. However in Model Q3, it is little less than one while in Q5 it is 0.95. Higher the size of the loan, higher is the interest subsidy. However, this is not the case from 2010-11 onwards. The co-efficient values are less than one, around 0.8 across models.

Gender is a categorical variable with the reference category Male. The results indicate that the co-efficient value compares the mean of the dependent variable (log of interest subsidy) for female and male yielding the difference -0.46 and statistically significant. In all models and over years women get lesser interest subsidy than male students. There is clear gender discrimination in the

access to interest subsidy. Many studies on India categorically reveal that households prefer to invest more in the education of boys rather than girls (Saha, 2013, etc.). Yet another related disadvantage for women is education loans being treated as *negative dowry* in the marriage market. Marriages in India are characterized by payments of dowries of huge amounts which broadly connotes a transfer of wealth made by the family of the bride to that of the groom at the time of 'arranged' marriages. Numerous instances can be cited where rising dowry levels have been associated with higher education and hence better employment of the grooms.

Though dowry is a social evil and Dowry Prevention Act is in force since, 1961, it is still practiced. For example, upper-middle-class doctors, engineers and Indian Administrative Service officers claimed the highest dowries, followed by lawyers, company executives and senior bureaucrats. In this socio cultural milieu, education loans operate differentially for men and women. Student loans obtained by men for higher studies and eventually for a better employment are expected to bring in higher dowry. On the contrary, women who borrow and subsequently marry whose loan commitments constitute a form of negative dowry.

Stratification based on social group one belongs to is deep rooted and about 3000 years old. It is acknowledged among social scientists that caste, determined by birth, is a persistent determinant of power, economic inequality, and poverty and hence lack of access to quality education in contemporary India. This is true in the access to interest subsides on education loans. Social group is a categorical variable with General, OBC and SC/ST. General or upper caste is the highest in the hierarchy and hence the reference category. OBC benefit marginally better than general caste category and the co-efficients are statistically significant across models in 2009-10 except at Q4. On the contrary, since 2010-11, the OBC category exert lesser benefits from interest subsidy across Qs and statistically significant.

Another interesting pattern that emerge that the SC/ST among the poorest Q1 and Q2 sub-samples are statistically insignificant while middle to upper quintiles are statistically significant in 2009-10. But results exhibit significantly less benefit than general caste in 2010-11, 2011-12 and 2012-13. The mean difference from general caste is much higher compared to OBC across Qs over the last three years. The least beneficiary groups are SC/ST as found in other sectors and reported in studies and committee reports. That only 7 per cent of the students' benefits from interest subsidy while their share in the population is little over 20 per cent.

Affirmative action or Reservation polices as called in India make special provisions for the promotion of the educational, social, political and economic interests of these deprived SC/ST and OBC population. These positive discriminatory measures encourage the participation of SC/ST and OBC in the form of seat reservation in higher educational institutions and in political bodies and employment reservation in Government services. The needy SC/ST population is yet to benefit from such reservation policies adequately to represent in higher and professional education. Education policy is supposed to break this cycle given its objective of access to equality of opportunity. On the contrary, unutilised funds under SC/ST components were surrendered almost every year under interest subsidy. This is not only with regard to interest subsidy; it is a regular feature in the SC/ST sub-component plans under various Ministries budget outlays. Such discrimination for the socially deprived section is not only in interest subsidy but in every walk of life.

India is predominantly a rural society, as over two third of her population live in villages. But, access to interest subsidies is primarily an urban phenomena that two thrids of interest subisdy beneficiaries live in metro, urban and semi urabn areas (Table 2). Area is a categorical variable with a reference category metro. Urban students benefit marginally lesser than students in metro. This holds well across different income groups and over years except 2012-13. However, no co-efficient

value is statistically significant. Students residing in semi-urban areas over metro benefit lesser across Qs and all years and the co-efficients are highly statistically significant. Rural students benefit lesser over metro areas and benefit lesser across Qs over all years.

There could be many reasons for this persisting pattern. Culture for acceptance of loans in urban India and among the educated may pervade, but not among rural and uneducated for any loans. 'Buy now and pay later' mechanism as a mode of financing assets and consumer durables is a recent decades' phenomenon. Urban educated and banks prefer such customers who can show their salaried income as security to access loans. Also availability of banking services play a significant role. Further non-availability of good quality higher educational institutions in the locality would add to the challenges. As revealed by Chankseliani (2014) while examining the admission to colleges in Georgia, rural applicants to colleges are unlikely to apply to prestigious universities which are located in the capital. In India, many good quality institutions are located in metros and or capital cities of states. She further confirms with the qualitative data that financial consideration related to living and tuition costs are prohibitive for rural families when selecting a higher education institution. In India, a procedural impediment is that banks cannot mortgage / securitize the agricultural property for education loans. This is one of the biggest challenges for students applying for education loans from rural areas.

Studies and reports establish the religious affiliation does influence the educational attainment in India (Bhaumik and Chakrabarty (2007); Bhushan (2012); Government of India, (2005); Government of India, (2008); Government of India, (2013)). It is more pronounced at higher education. The major share of beneficiaries of subsidy is Hindus with about 60 per cent (Table 2). However, it is much less compared to their share in the population of 80 per cent Hindus as per Census 2011. Muslims, with less than five percent, are severely underrepresented compared with their share of 20 per cent in the total population.

Religion is a categorical variable and the reference category is Christians. The lowest income category Muslim students benefit much lesser than Christian students. However, better off income group students benefit marginally better than Christians in 2009-10, while in 2010-11, consistently lesser benefit for Muslims across Qs and are statistically significant. Similar pattern can be found in 2011-2 and 2012-13 though not statistically significant except at Q5. Other minorities benefit marginally better than Christians. Other minorities benefit meagrely over Christians but statistically insignificant. Hindus have an edge over all other religious affiliation.

Course group is a categorical variable with a reference category Medical. Compared to medical, the courses such as Education, Fashion and Hospitality got the marginal benefit. Besides social, economic and religious groups, tuition charges and student loans across course structure does promote inequity and imbalance in the overall course requirements at the macro level. For instance, the cost / education loan for medicine are six times more than low-cost courses such as education. Given the structure of course costs (education loan) equal interest subsidies across courses essentially create unequal interest subsidy across courses.

Course group on education get marginally better subsidy than medicine in all models during 2009-10 and 2010-11. But, the same group got lesser subsidy than medicine during 2011-12 and 2012-13. Paramedical obtain lesser subsidy than medical and statistically significant across years and almost across models. Unexpectedly Law, Science etc got considerably better than medicine and statistically significant across all years and almost across Qs. Engineering and Computer report marginally better than medical and statistically significant in 2009-10. But these groups lesser benefit than medical in the rest of the three years and statistically significant. Other is a category unidentifiable as reported in data. It obtains marginally better and statistically significant subsidy across Qs during all years.

**Concluding Remarks**

The Indian context with multi-level deprivation exhibit that female students, socially deprived section of the population - SC/ST students, children residing in rural areas; Muslim students across economic group represent less and access lesser subsidies than their counterparts. These results implicitly indicate that banks tend to discriminate against the more default-prone students - the poorer students among the deprived sections of the population. From the perspective of a lender, asymmetric information and difficulty in collection of payments may be deterring while sanctioning loans. The problem of asymmetric information arises because lenders may know little about the ability of students seeking loans, their ambitions and intended career paths. This leads to the associated problem of adverse selection because it discriminates against students from not only economically challenged sections but also other forms of social, religious and location deprivations.

Hence, we argue that the blanket equal subsidy, 'one size fits for all' approach promotes inequity in real sense. Not only the mean interest subsidies and education loans are progressive as income increases. But also the subsidies are progressive across better social, religious, location and course groups. That socioeconomic privilege confers many direct benefits, both through home culture which tends to reinforce the goals of formal education and through the capacity to fund access to education in private schools for a later capture of access to higher education in. In other words, children from better off families exit from publicly provided low quality school education to capture the freely provided or highly subsidized high cost and high quality public higher education. The underrepresentation of less affluent, less privileged social, religious, rural children and female in higher education has important implications for social policy, economic efficiency and social justice.

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***Annexure I:*** **Education Loans by State Bank of India**

| Criteria | Details |
|---|---|
| Eligible Courses | All courses having employment prospects;<br>Graduation / Post Graduate / Professional and Other courses approved by UGC/Government/AICTE etc. |
| Expenses covered for loan | Tuition Fees; hostel and mess charges; Exam/Library/Laboratory fees; Purchase of Books etc; Caution Deposit/Building Fund/Refundable Deposit (maximum 10% tuition fees for the entire course); Travel abroad, Purchase of computers, etc, Cost of a Two-wheeler up to Rs. 50,000/-; Any other expenses required to complete the course like study tours, project work etc. |
| Amount of Loan | For studies in India, maximum Rs. 1 Million<br>Studies abroad, maximum Rs. 2 Million |
| Interest Rates (with effect from 27th June 2008) | For loans up to Rs.4,00,000 - 0.50% below SBAR i.e.12.25% p.a. Floating<br>For loans above Rs. 4,00,000 and up to Rs.7,50,000 - 1.00% above SBAR 13.75 % Floating<br>For loans above Rs.7,50,000 - SBAR - 12.75% p.a. Floating |
| Processing Fees | No processing fee/ upfront charges<br>Deposit of Rs. 5000/- for education loan for studies abroad which will be adjusted in the margin money |
| Grace period | one year after completion of course or 6 months after securing a job, whichever is earlier |
| Repayment Period | Same 5 to 7 years, now extended to 10 years for studies in India for Rs. 1 Million and for Studies in abroad for Rs. 2 Million |
| Collateral | Up to Rs. 4,00,000, there is no security required. From Rs. 4,00,000 to Rs. 7,50,000, collateral security is in the form of suitable third party guarantee; Above Rs.7,50,000, tangible collateral is the security |
| Margin | No Margin for loans up to Rs. 4,00,000 For loans above Rs.4,00,000 - Studies in India: 5% and Studies Abroad: 15% |

Source: based on www.sbi.org downloaded as on 31.5.2010

***Annexure II***

**Table A1: OLS Regression Results across Income groups in 2009-10**

| Dept. Variable: lInt_Subsidy | All | | Q1 | | Q2 | | Q3 | | Q4 | | Q5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** |
| lIncome | -0.178*** | 0.004 | -0.191*** | 0.010 | -0.196*** | 0.012 | -0.169*** | 0.011 | -0.185*** | 0.009 | -0.147*** | 0.009 |
| lEd_Loan | 1.018*** | 0.007 | 1.053*** | 0.017 | 1.009*** | 0.021 | 0.982*** | 0.018 | 1.008*** | 0.014 | 0.949*** | 0.012 |
| Gender-Girls | -0.048*** | 0.002 | -0.074*** | 0.005 | -0.038*** | 0.005 | -0.032*** | 0.005 | -0.042*** | 0.005 | -0.035*** | 0.005 |
| Caste_OBC | 0.029*** | 0.002 | 0.050*** | 0.005 | 0.059*** | 0.005 | 0.040*** | 0.005 | 0.007 | 0.005 | 0.027*** | 0.006 |
| Caste_SC/ST | -0.043*** | 0.004 | -0.009 | 0.008 | -0.010 | 0.009 | -0.032** | 0.010 | -0.073*** | 0.009 | -0.067*** | 0.009 |
| Area_Urban | -0.043*** | 0.004 | 0.008 | 0.009 | -0.075*** | 0.016 | -0.106*** | 0.010 | -0.070*** | 0.008 | -0.036*** | 0.008 |
| Area_Semi-Urb | -0.049*** | 0.004 | -0.035*** | 0.008 | -0.025 | 0.015 | -0.076*** | 0.010 | -0.050*** | 0.008 | -0.047*** | 0.008 |
| Area_Rural | -0.061*** | 0.004 | -0.016 | 0.008 | -0.071*** | 0.015 | -0.084*** | 0.010 | -0.057*** | 0.009 | -0.014 | 0.009 |
| Minor_Muslims | 0.023*** | 0.006 | -0.014 | 0.012 | -0.030* | 0.014 | 0.019 | 0.014 | 0.041** | 0.015 | 0.005 | 0.017 |
| Minority_Others | 0.020*** | 0.004 | 0.000 | 0.007 | 0.000 | 0.009 | -0.009 | 0.010 | 0.031** | 0.011 | 0.015 | 0.012 |
| Minority_Hindus | 0.085*** | 0.004 | 0.061*** | 0.007 | 0.015 | 0.008 | 0.047*** | 0.009 | 0.080*** | 0.010 | 0.063*** | 0.012 |
| Course_Edn | 0.254*** | 0.009 | 0.270*** | 0.018 | 0.281*** | 0.018 | 0.299*** | 0.021 | 0.208*** | 0.022 | 0.162*** | 0.026 |
| Course_Paramedic | -0.025*** | 0.006 | 0.016 | 0.012 | -0.001 | 0.012 | -0.016 | 0.014 | -0.056*** | 0.015 | -0.020 | 0.017 |
| Course_Law/Science | 0.473*** | 0.005 | 0.429*** | 0.012 | 0.397*** | 0.013 | 0.449*** | 0.013 | 0.453*** | 0.012 | 0.494*** | 0.011 |
| Course_Engg/Comp | 0.156*** | 0.005 | 0.183*** | 0.009 | 0.225*** | 0.011 | 0.190*** | 0.011 | 0.088*** | 0.011 | 0.081*** | 0.010 |
| Course_Others | 0.189*** | 0.005 | 0.150*** | 0.010 | 0.234*** | 0.012 | 0.237*** | 0.013 | 0.185*** | 0.012 | 0.186*** | 0.012 |
| Constant | -3.890*** | 0.068 | -4.369*** | 0.171 | -3.745*** | 0.218 | -3.455*** | 0.182 | -3.640*** | 0.144 | -3.064*** | 0.122 |
| N | 6,18,452 | | 1,28,969 | | 1,21,381 | | 1,18,819 | | 1,29,801 | | 1,19,482 | |
| Adjt. R^2 | 0.243 | | 0.259 | | 0.189 | | 0.201 | | 0.220 | | 0.237 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

**Table A2: OLS Regression Results across Income groups in 2010-11**

| Dept. Variable: lInt_Subsidy | All | | Q1 | | Q2 | | Q3 | | Q4 | | Q5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se |
| lIncome | 0.033*** | 0.001 | 0.018*** | 0.003 | 0.050*** | 0.012 | 0.014 | 0.012 | 0.012 | 0.011 | 0.007 | 0.008 |
| lEd_Loan | 0.830*** | 0.002 | 0.814*** | 0.004 | 0.851*** | 0.004 | 0.810*** | 0.004 | 0.830*** | 0.004 | 0.815*** | 0.004 |
| Gender-Girls | -0.029*** | 0.002 | -0.025*** | 0.005 | -0.036*** | 0.005 | -0.007 | 0.005 | -0.054*** | 0.005 | -0.032*** | 0.005 |
| Caste_OBC | -0.045*** | 0.002 | -0.057*** | 0.005 | -0.038*** | 0.005 | -0.027*** | 0.005 | -0.053*** | 0.005 | -0.039*** | 0.005 |
| Caste_SC/ST | -0.050*** | 0.004 | -0.060*** | 0.009 | -0.061*** | 0.010 | -0.020 | 0.011 | -0.045*** | 0.010 | -0.039*** | 0.009 |
| Area_Urban | -0.023*** | 0.005 | -0.058*** | 0.016 | -0.019 | 0.012 | -0.020* | 0.010 | -0.031*** | 0.009 | -0.013 | 0.008 |
| Area_Semi-Urb | -0.082*** | 0.004 | -0.173*** | 0.015 | -0.048*** | 0.012 | -0.076*** | 0.009 | -0.082*** | 0.009 | -0.076*** | 0.008 |
| Area_Rural | -0.117*** | 0.004 | -0.233*** | 0.015 | -0.084*** | 0.012 | -0.102*** | 0.010 | -0.093*** | 0.009 | -0.075*** | 0.009 |
| Minor_Muslims | -0.035*** | 0.006 | -0.011 | 0.014 | -0.037** | 0.014 | -0.026 | 0.014 | -0.050*** | 0.015 | -0.053*** | 0.016 |
| Minority_Others | 0.000 | 0.004 | -0.005 | 0.009 | 0.009 | 0.009 | 0.001 | 0.010 | -0.004 | 0.011 | 0.005 | 0.011 |
| Minority_Hindus | -0.008* | 0.004 | -0.009 | 0.008 | -0.019* | 0.009 | -0.012 | 0.010 | -0.010 | 0.010 | 0.010 | 0.011 |
| Course_Edn | 0.205*** | 0.008 | 0.058*** | 0.017 | 0.140*** | 0.019 | 0.250*** | 0.019 | 0.285*** | 0.016 | 0.275*** | 0.015 |
| Course_Paramedic | -0.088*** | 0.006 | -0.124*** | 0.012 | -0.101*** | 0.014 | -0.082*** | 0.015 | -0.096*** | 0.015 | -0.051*** | 0.015 |
| Course_Law/Science | 0.283*** | 0.006 | 0.116*** | 0.014 | 0.201*** | 0.014 | 0.288*** | 0.014 | 0.344*** | 0.012 | 0.389*** | 0.011 |
| Course_Engg/Comp | -0.038*** | 0.005 | -0.072*** | 0.011 | -0.068*** | 0.011 | 0.003 | 0.012 | -0.028** | 0.011 | -0.027** | 0.010 |
| Course_Others | 0.123*** | 0.006 | 0.090*** | 0.012 | 0.104*** | 0.013 | 0.142*** | 0.013 | 0.137*** | 0.013 | 0.122*** | 0.012 |
| Constant | -1.847*** | 0.025 | -1.360*** | 0.058 | -2.286*** | 0.140 | -1.423*** | 0.145 | -1.616*** | 0.136 | -1.385*** | 0.113 |
| N | 8,74,977 | | | | 1,82,598 | | | | 1,86,160 | | | |
| Adjt. R^2 | 0.2390 | | | | 0.2353 | | | | 0.2116 | | | |

Note: *** p<0.001, ** p<0.01, * p<0.05

**Table A3: OLS Regression Results across Income groups in 2011-12**

| Dept. Variable: lInt_Subsidy | All | | Q1 | | Q2 | | Q3 | | Q4 | | Q5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** | **coef** | **se** |
| lIncome | 0.039*** | 0.001 | -0.023*** | 0.003 | -0.106*** | 0.011 | 0.056*** | 0.013 | 0.026** | 0.009 | -0.061*** | 0.007 |
| lEd_Loan | 0.827*** | 0.002 | 0.793*** | 0.004 | 0.857*** | 0.003 | 0.824*** | 0.004 | 0.809*** | 0.004 | 0.821*** | 0.004 |
| Gender-Girls | -0.059*** | 0.002 | -0.061*** | 0.005 | -0.075*** | 0.005 | -0.060*** | 0.005 | -0.058*** | 0.005 | -0.046*** | 0.005 |
| Caste_OBC | -0.118*** | 0.002 | -0.143*** | 0.005 | -0.112*** | 0.004 | -0.095*** | 0.005 | -0.089*** | 0.005 | -0.109*** | 0.005 |
| Caste_SC/ST | -0.148*** | 0.004 | -0.169*** | 0.008 | -0.196*** | 0.008 | -0.127*** | 0.011 | -0.095*** | 0.009 | -0.117*** | 0.008 |
| Area_Urban | -0.035*** | 0.004 | -0.122*** | 0.018 | -0.120*** | 0.011 | -0.016 | 0.010 | -0.021** | 0.008 | 0.001 | 0.007 |
| Area_Semi-Urb | -0.079*** | 0.004 | -0.152*** | 0.017 | -0.144*** | 0.010 | -0.057*** | 0.009 | -0.056*** | 0.008 | -0.059*** | 0.007 |
| Area_Rural | -0.128*** | 0.004 | -0.207*** | 0.017 | -0.205*** | 0.010 | -0.085*** | 0.010 | -0.088*** | 0.008 | -0.099*** | 0.008 |
| Minor_Muslims | -0.040*** | 0.006 | -0.015 | 0.012 | -0.031** | 0.011 | -0.013 | 0.013 | -0.038** | 0.013 | -0.088*** | 0.014 |
| Minority_Others | 0.008* | 0.004 | -0.021** | 0.008 | 0.008 | 0.008 | 0.045*** | 0.009 | 0.025** | 0.009 | 0.016 | 0.010 |
| Minority_Hindus | -0.040*** | 0.004 | -0.074*** | 0.007 | -0.076*** | 0.007 | -0.015 | 0.009 | -0.003 | 0.009 | -0.002 | 0.010 |
| Course_Edn | -0.031** | 0.010 | -0.027 | 0.018 | -0.016 | 0.021 | -0.090** | 0.028 | -0.078** | 0.027 | -0.065* | 0.032 |
| Course_Paramedic | -0.087*** | 0.006 | -0.082*** | 0.011 | -0.101*** | 0.012 | -0.088*** | 0.015 | -0.119*** | 0.015 | -0.047** | 0.016 |
| Course_Law/Science | 0.242*** | 0.005 | 0.173*** | 0.012 | 0.213*** | 0.012 | 0.254*** | 0.012 | 0.240*** | 0.010 | 0.295*** | 0.010 |
| Course_Engg/Comp | -0.077*** | 0.004 | -0.091*** | 0.009 | -0.082*** | 0.009 | -0.066*** | 0.010 | -0.086*** | 0.009 | -0.055*** | 0.008 |
| Course_Others | 0.139*** | 0.005 | 0.114*** | 0.010 | 0.178*** | 0.010 | 0.127*** | 0.012 | 0.112*** | 0.011 | 0.140*** | 0.011 |
| Constant | -1.411*** | 0.023 | -0.272*** | 0.059 | -0.185 | 0.120 | -1.623*** | 0.151 | -1.065*** | 0.116 | -0.158 | 0.097 |
| N | 962794 | | 187646 | | 220099 | | 164042 | | 198973 | | 192034 | |
| Adjt. R^2 | 0.266 | | 0.256 | | 0.252 | | 0.225 | | 0.218 | | 0.226 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

**Table A4: OLS Regression Results across Income groups in 2012-13**

| Dept. Variable: lInt_Subsidy | All | | Q1 | | Q2 | | Q3 | | Q4 | | Q5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | coef | se | coef | se | coef | se | coef | se | coef | se | coef | se |
| lIncome | 0.017*** | 0.001 | -0.007** | 0.002 | -0.376*** | 0.022 | 0.061*** | 0.014 | 0.033*** | 0.008 | -0.131*** | 0.006 |
| lEd_Loan | 0.857*** | 0.002 | 0.830*** | 0.004 | 0.849*** | 0.005 | 0.875*** | 0.004 | 0.857*** | 0.004 | 0.845*** | 0.004 |
| Gender-Girls | -0.063*** | 0.002 | -0.064*** | 0.005 | -0.093*** | 0.006 | -0.070*** | 0.005 | -0.056*** | 0.005 | -0.049*** | 0.005 |
| Caste_OBC | -0.102*** | 0.002 | -0.059*** | 0.005 | -0.084*** | 0.006 | -0.119*** | 0.005 | -0.105*** | 0.005 | -0.075*** | 0.005 |
| Caste_SC/ST | -0.107*** | 0.004 | -0.043*** | 0.008 | -0.135*** | 0.010 | -0.121*** | 0.009 | -0.093*** | 0.008 | -0.111*** | 0.008 |
| Area_Urban | 0.001 | 0.005 | 0.029 | 0.019 | 0.022 | 0.017 | -0.007 | 0.011 | 0.002 | 0.009 | -0.003 | 0.008 |
| Area_Semi-Urb | -0.079*** | 0.005 | -0.017 | 0.018 | -0.064*** | 0.017 | -0.090*** | 0.011 | -0.063*** | 0.009 | -0.095*** | 0.008 |
| Area_Rural | -0.110*** | 0.005 | -0.040* | 0.018 | -0.134*** | 0.017 | -0.125*** | 0.011 | -0.083*** | 0.009 | -0.101*** | 0.009 |
| Minor_Muslims | -0.014* | 0.006 | -0.011 | 0.013 | -0.027 | 0.016 | -0.010 | 0.014 | 0.023 | 0.014 | -0.044** | 0.015 |
| Minority_Others | -0.032*** | 0.004 | -0.061*** | 0.008 | -0.036** | 0.011 | -0.026* | 0.010 | -0.001 | 0.010 | -0.032** | 0.011 |
| Minority_Hindus | -0.043*** | 0.004 | -0.048*** | 0.007 | -0.081*** | 0.010 | -0.066*** | 0.009 | 0.002 | 0.009 | -0.030** | 0.010 |
| Course_Edn | -0.178*** | 0.015 | -0.288*** | 0.024 | -0.148*** | 0.034 | -0.168*** | 0.035 | -0.207*** | 0.037 | -0.128** | 0.045 |
| Course_Paramedic | -0.372*** | 0.008 | -0.428*** | 0.013 | -0.392*** | 0.018 | -0.365*** | 0.018 | -0.351*** | 0.018 | -0.314*** | 0.021 |
| Course_Law/Science | 0.014* | 0.006 | -0.122*** | 0.013 | -0.002 | 0.016 | 0.009 | 0.014 | 0.053*** | 0.012 | 0.069*** | 0.011 |
| Course_Engg/Comp | -0.132*** | 0.004 | -0.187*** | 0.009 | -0.144*** | 0.012 | -0.159*** | 0.011 | -0.109*** | 0.009 | -0.075*** | 0.009 |
| Course_Others | 0.046*** | 0.005 | -0.008 | 0.010 | 0.076*** | 0.014 | 0.053*** | 0.012 | 0.042*** | 0.011 | 0.041*** | 0.011 |
| Constant | -1.207*** | 0.026 | -0.633*** | 0.058 | 2.950*** | 0.243 | -1.914*** | 0.157 | -1.434*** | 0.111 | 0.747*** | 0.090 |
| N | 8,05,198 | | 1,58,261 | | 1,22,696 | | 1,72,757 | | 1,74,997 | | 1,76,487 | |
| Adjt. R^2 | 0.248 | | 0.253 | | 0.232 | | 0.215 | | 0.219 | | 0.2103 | |

Note: *** p<0.001, ** p<0.01, * p<0.05

Journal of Management & Public Policy
Vol. 9, No. 1, December 2017, Pp. 31-39
ISSN 0976-0148 (Online) 0976-013X (Print)
DOI: 10.5958/0976-0148.2017.00007.5

# Discrimination against Women Labourers in the Unorganised Sector: A Study in Dindigul District of Tamil Nadu

**Sonkhogin Haokip[*] and S. Gandhimathi[**]**

**Abstract**

Women constitute a significant part of the workforce of India but they lag behind men in terms of level and quality of employment. Over 96 per cent of women work in the informal/unorganized sector. The informal sector constitutes 93 per cent of the workforce of the population of India. These workers contribute 62 per cent to the gross domestic product (GDP), and 50 per cent to the national income. This sector includes workers employed in a wide range of economic activities, from street vendors and casual workers to permanent workers and temporary workers in factories. However, unlike workers in the formal sectors, they do not have access to regular incomes or welfare benefits, making them extremely vulnerable to change and insecurity. The informal sector includes jobs such as domestic servant, small trader, artisan, or field labourer on a family farm. Most of these jobs are unskilled and low paying and do not provide benefits to the worker. The women workers in the informal sector constituted about 91.38 per cent. Similarly, among rural workers, about 92 per cent were in the informal sector. The National commission for women estimates that 94 Per cent of the total female workforce is to be found in the unorganized sector. The growth of small and cottage industries has depended heavily on female labour. This paper attempts to examine some of the pressing issues faced by spinning mills women workers such as discrimination in service conditions, wages, position, the security provided to women workers, violence against them, and their access to health and other basic facilities at the work place.

**Keywords:** Women labourers, Unorganised Sector, Tamil Nadu, India

## Introduction

Labour policy in India has been evolving in response to specific needs of the situation to suit requirements of planned economic development and social justice and has two-fold objectives, viz., maintaining industrial peace and promoting the welfare of labour. Women constitute a significant part of the work force of India but they lag behind men in terms of level and quality of employment. Over 96 per cent of women work in the informal unorganized sector. The informal sector constitutes 93 per cent of the workforce of the population of India. These workers contribute 62 per cent to the gross domestic product (GDP), and 50 per cent to the national income. This sector includes workers employed in a wide

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range of economic activities, from street vendors and casual workers in a mill workers permanent workers and temporary workers.

However, unlike workers in the formal sectors, they do not have access to regular incomes or welfare benefits, making them extremely vulnerable to change and insecurity. The informal sector includes jobs such as domestic servant, small trader, artisan, or field labourer on a family farm. Most of these jobs are unskilled and low paying and do not provide benefits to the worker. The women workers in the informal sector constituted about 91.38 per cent. Similarly, among rural workers, about 92 per cent were in the informal sector. The National commission for women estimates that 94 Per cent of the total female workforce is to be found in the unorganized sector. The growth of small and cottage industries has depended heavily on female labour.

The main focus of the policies of the Government with regard to women labour has been to remove the handicaps under which they work, to strengthen their bargaining capacity, to improve their wages and working conditions, to enhance their skills and to open up better employment opportunities for them. A separate cell, namely Women Labour Cell is functioning in the Ministry of Labour to address these problems. The Maternity Benefit Act, 1961 and equal Remuneration Act, 1976 are the protective and anti-exploitative legislations which have been enacted to protect and safeguard the interests of women workers at the workplaces. The Equal Remuneration Act stipulates payment of equal remuneration to men and women workers for same and similar nature of work. The Act also prohibits any gender discrimination in recruitment and service conditions. Under the Act, a Committee has been set up at the Centre to advise the Government in providing increasing employment opportunities for women and generally reviewing the steps taken for effective implementation of the Act. Similar committees have also been set up at the state level along with competent authorities to oversee the process of implementation of the Equal Remuneration Act.

The Supreme Court of India in its landmark judgment dated 13 August 1997 in the matter of Visakha and others versus the State of Rajasthan and others laid down detailed guidelines/norms for prevention of sexual harassment of women workers at work-places. These guidelines have the force of law under Article 141 of the Constitution of India.

The government has taken a number of initiatives to give effect to the guidelines laid down by the Supreme Court, these include circulation of the guidelines for action as indicated therein to all Secretaries to the Government of India/Chief Secretaries of the State Governments/Union Territories, Heads of Central Public Sector Undertakings and employees/employees organisations. Conduct Rules applicable to Government employees and officers of All India Services have been amended to incorporate Supreme Court guidelines. To make the guidelines applicable to employees in private and unorganized sectors, the industrial Employment (Standing Orders) Act, 1946 has also been amended accordingly.

Article 47 of the Indian Constitution require that the state should regard the raising of the level of nutrition and the standard of living of public health, as among its primary duties.

- The elimination of all forms of forced or compulsory labour.
- The effective abolition of child labour.
- With a view to stimulating economic growth and development raising levels of living.

**Review of Literature**

According to Singh (2002), women workers suffer vital disadvantages comparative to men in their search for employment opportunities and irregularities employment. They do not possess much of skill training and education for the type of work they perform. Society as they live under subdued conditions with family children, devoid of proper living and working conditions even they receive humiliating treatment from the contractors.

**Objectives**

- To study the Socio – economic and demographic characteristics of women workers.
- To examine the nature of gender discrimination in terms of wages, position and violence at the work place.
- To understand the nature of security provided to women workers and their access to health and other basic facilities at the work place.

**Measurement Procedure**

Data pertaining to development in terms of spinning mill workers problems Socio- demographic, economical aspects, occupational, health aspects, Awareness Programme were collected from the respondents through different area scale consisting of different indicators. It is however, recalled here that awareness were measured through the degree of frequency and individual Percentage in this context was measured in terms of awareness Programme.

To assess the relationship between unorganized sector and development a composite score was calculated based on different as mentioned above “one” is given for unorganized sector.

**Different Variables and Measuring Indicators**

**Variable:** Socio- demographic, economical aspects, Health aspects, Awareness Programme.

**Socio – Demographic:** It helps to understand the respondents and their living conditions more clearly.

**Economic Aspects:** The earnings income, savings of individuals and their family have the greater impact on the health, education and other aspects of their life.

**Awareness Programme:** Legal awareness is a very essential thing now days because people those who are not aware about law they are more exploited now. So, awareness about laborer laws have significant role in protection from exploitation of unorganized spinning mill workers by middle women and employers.

**Problems of Women Labourers in the Unorganized Sector**

Unorganized sector work is characterized by low wages that are often insufficient to meet minimum living standards including nutrition, long working hours, hazardous working conditions, lack of basic services such as first aid, drinking water and sanitation as the work side, and the like. Education of women leads to occupational diversification. Education helps women to move away from spinning mill workers.

**Data Analysis**

The present chapter deals with the analysis and interpretation of the data. It has been divided in to eight sub sections. Each section explains different aspects of the study.

First section begins with the socio – demographic details of the unorganized spinning mills women workers who participated in the research study. Second sections explains the economical aspect of the respondents, it includes income savings and other related aspects, third section deals with the occupational related aspects of the respondents. The fourth section is about the health aspects of the respondents.

The fifth section explains the social aspects of the respondents. Sixth section deals with the health aspects of the respondents. The seventh section deals with the awareness level of the respondents regarding their rights, welfare programme, for explaining all these aspects, the data has been presented with the help of different tables.

Socio-demographic details include basic on about the respondents Age, Marital Status, Educational status, religion, Community etc. It helps to understand the respondents and their living conditions more clearly.

**Table 1: Age of the Respondents**

| S. No. | Categories | Number of Respondents | Percentage |
|---|---|---|---|
| 1 | 18 – 28 | 34 | 34. 0 % |
| 2 | 29 – 38 | 35 | 35. 0 % |
| 3 | 39 – 48 | 20 | 20. 0 % |
| 4 | 49 - > | 11 | 11. 0 % |
| | **Total** | **100** | **100** |

Table 1 shows the age-wise distribution of the respondents. The minimum age of the respondents was 18 years and 58 years was the highest age of the respondents. 35 per cent of the respondents belongs to the age group of 29 – 38 and only 11 per cent of the respondents are above 49 years.

**Table 2: Marital Status**

| S. No. | Categories | Frequency | Percentage |
|---|---|---|---|
| 1 | Married | 74 | 74.0 |
| 2 | Unmarried | 21 | 21.0 |
| 3 | Widow | 5 | 5.0 |
| 4 | Separate | 0 | 0 |
| | **Total** | **100** | **100** |

**Source:** Primary Data

The table 2 results shows that majority (74 per cent) of the unorganized labour twenty one (21 per cent) of the respondents are unmarried and remaining few of them are widow from their family there were no separated respondents in the sample.

Education is on important indicators to analyze the social status. Here the level of respondents helps to understand the relationship between the education and unorganised labour.

**Table 3: Educational Status**

| S. No | Educational | Frequency | Percentage |
|---|---|---|---|
| 1. | Illiterate | 10 | 10.0 |
| 2. | Primary | 12 | 12.0 |
| 3. | Middle | 23 | 23.0 |
| 4. | Secondary | 28 | 28.0 |
| 5. | Higher Secondary | 27 | 27.0 |
| | **Total** | **100** | **100** |

**Source:** Primary data

Education status of the respondents is most important determinant for the measure the awareness level about unorganized sector. Table 4.3 result shows that nearly (10 per cent) of the respondents are illiterate, 12 per cent of the respondents are studied up to primary level 23 per cent of the respondent are studied up to middle and 28 per cent of the respondents are studied up to secondary level. Only 27 per cent of the respondents studied higher secondary level. This show that (22 per cent) of the unorganized laborers are studied below the primary school education. It shows the existence of lack of awareness about education. It shows existence of lack of awareness about education and accessibility.

**Family Details**

Family is the one of the primary social institution of the society, where an individual start her life and the learning, begin from the socialization takes place here. It has its vital role in the development of women. The each and every aspect related to family such as the family type and size has its influence on the personality development and designing of their future.

**Table 4: Family Details of the Respondents**

| Particulars | Categories | Frequency | Percentage |
|---|---|---|---|
| Family type | Joint family | 12 | 12.0 |
| | Nuclear family | 88 | 88.0 |
| Number of Family members | 1-3 | 46 | 46.0 |
| | 4-7 | 43 | 43.0 |
| | 8-> | 11 | 11.0 |

**Source**: Primary Data

Table 4 above shows that 88 per cent of the respondents were living in nuclear family and only 12 per cent of them were living in joint family. This table revealed that the joint family system was gradually breaking down and nuclear family system is increasing in the Indian society. 43 per cent of the respondents were having 4- 7 members in their family consisted of 1- 3 members. Only 11 per cent of them were having 8-7 member in family.

**Economic Condition**

Economic aspects plays important role in every individuals life. The earnings income, savings of individuals and their family have the greater impact on the health, education and other aspects of their life. The details of the economic aspects of the respondents are given below in table.

**Table 5: Income details of the Respondents**

| S. No | Monthly Income | Frequency | Percentage |
|---|---|---|---|
| 1. | 1000 – 5000 | 11 | 11. 0 |
| 2. | 5100 – 10, 000 | 57 | 57. 0 |
| 3. | 10100 - > | 32 | 32. 0 |
| | **Total** | **100** | |

**Source:** Primary data

The head of the Family's income plays important role in the family. The head of the family's earnings and savings of the family has a greater impact on the family expenditure, health, education and other aspects of their life. The detail of the economic aspects of the head of the family is given below in the table.

The table shows the income status of the respondents in unorganized spinning mill women workers 11.0 per cent of the respondents earn 1000 – 5000 as monthly income. The income level of 5100 – 6500 is for 57.0 per cent of the respondents monthly income of 10100 - >. It is observed that the earning level of women is affordable in unorganized spinning mill women workers.

**Table 6: Source and Purpose of Borrowed**

| S. No | Source | Purpose | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | House construction | Education | Marriage | Medical Expenses | Festival | Purpose of durable items | Agriculture |
| 1 | Bank | 4 (4.0) | 5 (5.0) | 1 (1.0) | 1(1.0) | - | - | 1 (1.0) |
| 2 | Co-operative | 1 (1.0) | - | 1 (1.0) | - | - | - | 11 (11.0) |
| 3 | SHG | 1 (1.0) | 20 (20.0) | 1 (1.0) | 6 (6.0) | 4 (4.0) | 8 (8.0) | - |
| 4 | Finance | 1 (1.0) | 5 (5.0) | 1 (1.0) | 13 (13.0) | 14 (14.0) | 6 (6.0) | - |
| 5 | Chit fund / LND | - | - | - | 4 (4.0) | 2 (2.0) | 8 (8.0) | 3 (3.0) |
| 6 | Surya trade | - | 2 (2.0) | 1 (1.0) | 4 (4.0) | - | 13 (13.0) | 1 (1.0) |

The table explains sources and purpose of the borrowed money by the respondents. The money is borrowed from the bank, cooperative, SHG, Finance, chit fond/LND and surya trade. The purpose of borrowing the money is for house construction, Education, marriage, medical expenses, festival, purpose of durable items and Agriculture. The source and purpose of the borrowed money is given below.

**Bank:** 4 Per cent of the respondents borrows money from the bank for construction of the house, 5 per cent of the respondents have borrowed for the educational purpose of the children and 1 per cent for the purpose of marriage, 1 per cent of the respondents for medical expenses and 1 per cent agriculture related purpose.

**Cooperative:** The majority (11 per cent) of the respondents borrowed money from the cooperative for agriculture purpose and 1 per cent for house construction and 1 per cent for marriage purpose.

**Self Help Group:** 1 Per cent of the respondents borrow money from SHG's. The majority of 20 per cent of the respondents borrowing money from SHG uses the money for educational purpose. 8 per cent of the respondents borrowed to purchase durable items. Remaining 6 per cent borrows money for medical purpose. 4 per cent for festivals and 1 per cent for house construction.

**Finance:** One per cent of total borrows money from finances and out of it 4 per cent of the respondents borrow money for festival purpose. 13 Per cent for medical expenses, 6 Per cent for the purchase of durable items, 5 Per cent for educational purpose and 1 Per cent for the house construction and remaining 1 Per cent for the purpose of marriage. The finances are the easiest way of getting money for respondents.

**Chit Fund/ LND:** One Per cent of the respondent borrows money from chit fund/LND. 4 Per cent of the respondents use this money for medical expenses. 2 Per cent for festival, 8 Per cent for purchase of durable items and 3 Per cent of the respondents for agricultural purpose.

**Surya Trade:** It is a private micro finance institution. 2 Per cent of the respondents borrow money for educational purpose. 1 Per cent for marriage, 4 Per cent for medical expenses, 13 Per cent for the purchase of durable items (house using things and Jewells etc). and 1 Per cent of the respondents agricultural Purpose.
Awareness about minimum wage help the unorganized spinning mill women workers to get reasonable wages for work and it also make them free from exploitation in terms of wages.

**Table 7: Distribution of Respondent face Health Problem**

| S. No | Opinion | Frequency | Percentage |
|---|---|---|---|
| 1 | Yes | 33 | 33.0 |
| 2 | No | 67 | 67.0 |
| | **Total** | **100** | **100.0** |

**Source:** Primary data

The table 7 shows some health problem faced by the respondents has displayed in the 33 Per cent respondents were suffered blood pressure, sugar and white discharge asthma joint pain 67 Per cent of the respondents it's not affected any health problem.

Insurance is integral part to ensure the social security of the workers, especially for those who are working in hazardous and risky work environments. Majority of the unorganized spinning mill workers working this type of situations, so health insurance is very important to them. Here the table shows the distribution of insurance in unorganized spinning mill women workers.

**Table 8: Distribution of Respondents Awareness about Minimum Wage Act**

| Particulars | Opinion | Frequency | Percentage % |
|---|---|---|---|
| Minimum wage act | Yes | 11 | 11.0 |
| | No | 89 | 89.0 |

**Source:** Primary data

Minimum wage is a right of the workers. Awareness about minimum wages among unorganised spinning mill workers is essential to end the exploitation of workers by the employers. The table 7 shows that only 11 Per cent of the respondents know about minimum wages and 89 Per cent of them do not have any idea about minimum wages.

Most of the unorganised Spinning mill workers did not know minimum wages is a right. Ignorance about minimum wages prevents them do demand reasonable wages for work from the employers and they don't get sufficient wages. This indicated that they are exploited by their employers.

Legal awareness is a very essential thing now days because people those who are not aware about law they are more exploited now. Legal awareness is a very essential thing now days because people those who are not aware about law they are more exploited now. So, awareness about labourer laws have significant role in protection from exploitation of unorganized spinning mill workers by middle women and employers.

**Table 9: Distribution of Respondents Awareness about Labour Act**

| Particulars | Opinion | Frequency | Percentage |
|---|---|---|---|
| Labour Act | Yes | 12 | 12.0 |
| | No | 88 | 88.0 |

**Source:** Primary data

The table shows that 88 Per cent of them don't know anything about the labourer laws and only 12 Per cent of them have awareness about workers and rights. Majority 88 Per cent of the respondents there is no awareness about labour Act.

The unorganized workers form a major portion in the general work force and they are the major contributors to the development of the economy too. But the care and privileges enjoyed by them are very low when compared with the organized workers. Their physical as well mental problems draw the attention of the researchers besides their financial problems. In order to tap their fullest potentialities, the unorganized workers are to be taken care of in both aspects.

**Economic Problems**

Low payment, hard work, Irregular employment, Health problem, Lack of security, and Non – Co – operation are the filtered variables here and they can be community termed as economic problems.

**Raw Material Problems**

This may interrupt the smooth production as well as the work of the women folk which in term make the women to become unemployed till the shortage is recouped. Hence, it can be concluded that economic problems are the major problems encountered by the women folk in the unorganized sector.

The women in the unorganized sector are able to manage the family by way of mental satisfaction, savings, educating the children, and are able to take decisions. They could able to derive satisfaction by the proper utilization of time and are able to manage the family. Through savings, they could manage the family, educate the children, gain self-confidence and economic independence. Education of children is possible by managing the family, savings and economic independence.

**Conclusion**

Contrary to common perception, a large number of women in India work. The National Data collection agencies accept the fact that there is a serious under-estimation of women's contribution as workers. However, there are fewer women in the paid workforce than there are men. In urban India, women have impressive number in the workforce. As an example at software industry 30% of the workforce is women. They are at par with their male counterparts in terms of wages, position at the work place. In rural India, agriculture and allied industrial sectors employ as much as 89.5% of the total female labour. In overall farm production, women's average contribution is estimated at 55% to 66% of the total labour. One-third of the almost 92 per cent of the work force in the unorganized sector are women and their dependents. Though the Indian Constitution guarantees equality of opportunity related to work, equal rights for livelihood, equal pay for equal work etc., The condition of women in the unorganized sector is deplorable. The most serious hazard faced by the working class in the ear of globalization is the increasing threat to job security. The informal sector is fast expanding, while the organized sector is shrinking. Contract, casual, temporary, part-time, piece-rated jobs and home based work etc., decreasingly replacing permanent jobs.

Gender disparity manifests itself in various forms, the most obvious being the trend of continuously declining female ratio in the population in the last few decades. Social stereotyping and violence at the domestic and societal levels are some of the other manifestations. Discrimination against girl children, adolescent girls and women persists in parts of the country. The underlying causes of gender inequality are related to social and economic structure, which is based on informal and formal norms and practices.

Consequently, the access of women particularly those belonging to weaker sections including Scheduled Castes/Scheduled Tribes/Other Backward Classes and minorities, majority of whom are in the rural areas and in the informal, unorganised sector – to education, health and productive resources, among others, is inadequate. Therefore, they remain largely marginalized, poor and socially excluded.

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Journal of Management & Public Policy
Vol. 9, No. 1, December 2017, Pp. 41-52
ISSN 0976-0148 (Online) 0976-013X (Print)
DOI: 10.5958/0976-0148.2017.00008.7

# Moderating Effect of Gender on the Relationship between Role Stress and Job Satisfaction among Nurses in Mumbai

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**Abstract**

Nursing is a very demanding profession that involves both, physical as well as emotional labour. Nurses are more prone to role stress than many other professions due to multitasking. There is a huge exodus of nurses from India to other developing countries for economic, social and work profile reasons. This loss of qualified paramedical personnel can cripple an already dismal healthcare system in India. Past research studies have considered various demographic factors in the context of role stressors in nurses. No study in the recent past has considered the moderating effect of gender on the relationship between role stress and job satisfaction in nurses, in India. This paper aims at testing the moderating effect of gender on the said relationship in nurses of municipal and private hospitals in Mumbai. Hospitals were grouped into clusters according to administrative zones of Mumbai. Three clusters were selected at random. Hospitals were selected at random from these clusters using the random number table and all nurses from the selected hospitals responded to a questionnaire that was used as a survey instrument. The sample consisted of 450 nurses and the response rate was 94.7%. An exploratory factor analysis was conducted followed by confirmatory factor analysis for establishing the reliability and validity of the scales used. Path analysis showed significant relationships between role ambiguity and intrinsic satisfaction, and role conflict and extrinsic satisfaction. Gender moderated the relationship between role ambiguity and intrinsic satisfaction but did not moderate the relationship between role conflict and extrinsic satisfaction.

**Keywords:** Role stress, Job satisfaction, Nurses, Mumbai, India

## Introduction

Nurses are the most important people in any healthcare system. Nurses, irrespective of the country in which they work, face many challenges in their jobs and have to multi-task most of the times. Nurses experience long working hours, unpredictable actions from patients and their kin, deeply emotional situations like death and pain and dangers of contracting communicable diseases from patients (Khamisa, Oldenburg, Peltzer, & Ilic, 2015). India is one of those countries from which there is a huge exodus of qualified nurses to developed countries for social, economic and role profile reasons. The nursing environment in India and world over has become extremely challenging due to the emergence of terrorist attacks, frequent occurrences of natural calamities, and the development of mutant varieties of difficult-to-cure diseases. These sudden impact events require an immediate demand for many

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healthcare workers especially nurses, to provide for a well-coordinated, wide spectrum care for a large number of patients (Doraiswamy & Deshmukh, 2015).

Many organizational and individual factors cause a nurse to quit the profession, but, one of the most important factors seems to be job satisfaction (Chan, Tam, Lung, Wong, & Chau, 2013). Nurses who report high levels of dissatisfaction and burnout are more likely to quit the profession (Chan et al., 2013; Cai & Zhou, 2009). Since nurses play multiple roles, they are more likely to experience role stress (a situation of discrepancy between what is expected to be done and what is actually being done on the job) as compared to other job holders. When nurses are stressed, they are prone to suffer from various physiological as well as psychological problems that range from mood disturbances, unhealthy lifestyles, depression, and in worst cases harbour suicidal tendencies (Tully, 2004). Hospitals also suffer due to high turnover among nurses, in terms of costs of recruitment and training of new nurses, loss of senior nurses and their invaluable experience, reduced productivity and decreased morale among other nurses (Mosadeghrad, 2013).

Men choose the profession of nursing either by choice or for convenience or as a second career (Moore & Dienmann, 2014). Some studies suggested that male nurses experience greater levels of stress as compared to female nurses (Lee & Cho, 2016), whereas some exactly the reverse (Yada, Abe, Omori, Matsuo, Masaki, Ishida,& Katoh, 2014). Although there have been various studies conducted to explore the relationship between role stress and job satisfaction of nurses, the moderating effect of gender on the said relationship is very scarce in the Indian context.

**Literature Review**

Job satisfaction among nurses is a good indicator of the quality of life of nurses and also gives an indication of the quality of service rendered for patient care, thereby projecting the overall prosperity of the hospital. The current study is based on Herzberg's two-factor theory, which focuses on two aspects: Hygiene factors(related to the context of work) and Motivation factors (related to the work per se).

The study of job satisfaction among nurses is important because of the relationship of job satisfaction to negative outcomes like absenteeism and intention to quit (Masum et al., 2016; Chan et al., 2013). Research studies have suggested that, in general, job satisfaction among nurses is low (Andrews & Dziegielewski, 2005; Moyle, Skinner, Rowe, & Gork, 2003). Role stress has been a topic of interest among researchers because employees invariably face discrepancies in what is expected of them and what they actually do. Most hospitals are facing huge costs and big demands for quality care by patients suffering from newer and more chronic diseases. Healthcare sector globally is emphasizing on cost cutting measures that have (Minich-Pourshadi, 2011), resulting in changes in work arrangements, reporting styles and job specifications, which in turn, results in confusion in roles leading to role stress.

A large number of demographic factors have been suggested to affect the job satisfaction of nurses like age (Curtis & Glacken, 2014), gender (Torkelson & Seed, 2011) marital status (Jahan & Kiran, 2013) and educational level (Chan et al., 2009). Previous studies have not focused on gender with respect to job satisfaction (Mendiratta, 2016). Some research studies show no significant relationship between employees' gender and job satisfaction (Oshagbemi, 2003). In others, it was found that women, were more satisfied with their job (Wharton, Rotolo, & Bird, 2000), while in some studies, it was exactly the reverse that was true (Forgionne & Peeters, 1982). Past studies have suggested that various aspects of the job like co-workers, supervisory relationships and the work itself were considered more valuable by women, unlike men who looked at the more visible aspects of the job like salary, perks and promotions

(Mendiratta, 2016). Some studies have suggested greater job satisfaction among women who have the company of other women co-workers (Oloko, 2002) or work in female occupations ( Bender, Donohue, & Heywood ,2005). Men experienced greater job satisfaction in places where opportunities to grow were higher and/or women were least preferred as employees . In the Indian context, especially in the nursing sector, studies concerning gender differences in job satisfaction among nurses are scarce. India is a patriarchal society and there is a typical stereotyping of roles played by women. A woman is expected to pay more attention towards her roles in the family as compared to men and their economic contribution towards family expenses is lesser than men. Gender differences in job satisfaction are also affected by social values and roles (Bender et al., 2005). In this study, it is proposed that gender moderates the relationship between role stress and job satisfaction among nurses in India.

*$H_1$: Gender significantly moderates the relationship between Role stress and Job satisfaction among nurses in India.*

**The Study**

**Objective:** The aim of the study was to explore the moderating effect of gender on the relationship between role stress and job satisfaction in nurses in Mumbai, India.

**Design:** The study is quantitative, cross sectional and non-experimental.

**Population:** The study population consisted of all nurses working in municipal and private hospitals in Mumbai. The criteria for inclusion in the current study were: 1) hospitals should have at least 100 beds and 2) nurses should be well versed with English as a language.

**Sampling:** Hospitals were grouped into clusters according to administrative zones of Mumbai. Three clusters were selected at random. Hospitals were selected at random from these clusters using the random number table and all nurses from the selected hospitals responded to the questionnaire. The study was conducted in 2014 and data were collected over a period of 6 months. Before the start of the study, requisite permissions were obtained from the Dean (Academics) of the various hospitals and 475 questionnaires were distributed of which 450 nurses returned the questionnaires yielding a response rate of around 94.7%.

**Data Collection Instrument:** The survey questionnaire was chosen as a data collection instrument. The questionnaire had a general section that contained statements eliciting demographic details from respondents (type of hospital, length of working experience in the present hospital, total tenure as a nurse, gender, age, number of dependents, highest educational qualifications and number of hours of work). The first section sought information on role stress and the second section focused on aspects of job satisfaction. There was an assurance of anonymity provided to the respondents.

**Data Analysis**

**Pre-testing of questionnaire:** The Rizzo, House and Lirtzman (1970) scale for role conflict and role ambiguity was used. This scale consisted of 8 items of role conflict and 6 items of role ambiguity. Role overload consisted of 5 items that were taken from the expanded nursing stress scale and organization role stress scale (French, Lenton, Walters, & Eyles, 2000; Pareek, 2010). Job satisfaction consisted of 6 items each in intrinsic satisfaction and extrinsic satisfaction that were developed from the literature review. Both the scales were measured on a 5 point Likert scale ('1' = strongly disagree, '5' = strongly agree).

This questionnaire was pretested by 7 nursing experts (nursing directors, superintendents and nursing managers) who had more than 20 years of experience in the field. A few changes were suggested to ensure easy administration of the instrument. 2 items from the role conflict scale, "I receive an assignment without the manpower to complete it" and "I receive an assignment without adequate resources and materials to execute it", were asked to be combined into a single statement "I receive assignments without adequate resources, men and material to do the work". The researcher was also asked to omit an item from the role conflict scale "I do things that are apt to be accepted by one person and not accepted by others". There were no issues raised in the job satisfaction items or items of the role ambiguity scale. So the final questionnaire consisted of six items of role conflict, six items of role ambiguity, five items of role overload (a total of seventeen items measuring role stress), six items of intrinsic job satisfaction and six items of extrinsic job satisfaction (twelve items measuring job satisfaction).

**Exploratory factor analysis**

**Factor analysis of the role stress scale:** Since items of role stress scale were modified during the pre-testing stage, and, job satisfaction consisted of items that were developed from literature review, it was essential to conduct a factor analysis of the new questionnaire. A principal axis factor method with a varimax (orthogonal) rotation was separately conducted on 17 Likert scale questions from the role stress survey questionnaire and 12 Likert scale questions from the job satisfaction scale was conducted on data gathered from 450 nurses. The two scales were analysed separately.

An initial examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO=.861). On checking the communalities it was seen that two items ("The amount of work I do interferes with the quality I want to maintain" and "I feel certain about the authority I have") had values less than 0.3 and hence were removed and the analysis was run again. The KMO value was 0.854. It was seen that Items, "I have to make decisions under pressure" and " I have too many non-nursing tasks such as clerical work", were cross loading on two factors with a difference of less than 0.2 between the values. hence they were removed. Further analysis saw the removal of items " I have to work even during breaks" and "There is not enough time to complete all of my nursing tasks", due to very low communalities (<0.3). After the removal of items, the analysis was run again and the KMO value was 0.824. The results of Varimax rotation shown in Table 2, yielded a two-factor simple structure (see Table 1)

**Table 1: Orthogonally rotated component loadings for items of the Role Stress scale***

| | Role ambiguity | Role conflict | Communality |
|---|---|---|---|
| I know what my responsibilities are (a3) | .953 | | .913 |
| I know exactly what is expected of me on the job (a4) | .799 | | .640 |
| I have clear, planned goals and objectives for my job(a1) | .760 | | .596 |
| I know that I have divided my time properly for various work (a2) | .670 | | .455 |
| I get clear explanations of what has to be done on the job(a6) | .569 | | .324 |
| I receive important incompatible requests from 2 or more people (c4) | | .801 | .645 |
| I do unnecessary work(c6) | | .723 | .528 |

| | | | |
|---|---|---|---|
| I have to break a rule or policy in order to carry out an assignment(c1) | | .690 | .476 |
| I work with 2 or more sections that operate differently (c3) | | .581 | .339 |
| I receive assignments without adequate resources, men and material to do the work(c5) | | .579 | .343 |
| I have to do things that should be done differently (c2) | | .549 | .319 |

* Loadings>0.3

The factor labels (factor 1: Role ambiguity, factor 2: Role conflict), as proposed by Rizzo et al.(1970), suited the extracted factors.

A confirmatory factor analysis (CFA) was performed using AMOS, version 23, to assess the factor structure of the Role stress scale. All items were measured at a continuous level. One of the assumptions of CFA is that variables are measured at the continuous level (Kline, 1998) which was satisfied with the scales used in the current study. All items loaded significantly onto their respective factors (loadings ranging from 0.57 to 0.95 on the role ambiguity scale and between 0.55 to 0.80 on the role conflict scale). The estimate correlations between the two factors (r = -.16) are not significant, supporting the independence of the two scales. The Chi-square value for the overall model fit was significant, $\chi^2$ (43)= 155.08, p<0.001. However, due to the sensitivity of $\chi^2$ in large samples(here n= 450), other fit indices were assessed (Kline, 1998).The normed $\chi^2$ ($\chi^2$/ df) = 3.6, that is below the threshold of 5 (Schumacker & Lomax, 2004). An examination of these indices showed acceptable model fit with GFI = .941, CFI = .946, RMR = .06 and RMSEA = 0.076.

**Factor analysis of the job satisfaction scale:** An initial examination of the Kaiser-Meyer Olkin measure of sampling adequacy suggested that the sample was factorable (KMO=.824). It was seen that items, " I am satisfied with the salary I get for the amount of work that I do", " I can work comfortably under existing rules and regulations", and " My supervisor shows concern for feelings of subordinates", were removed from further analyses due to low communalities(less than 0.3). After the removal of items, analysis was run again and the KMO value was 0.833. The results of Varimax rotation shown in Table 2, yielded a two-factor simple structure (see Table 2).

**Table 2: Orthogonally rotated component loadings for items of the Job Satisfaction scale***

| | Intrinsic satisfaction | Extrinsic satisfaction | Communality |
|---|---|---|---|
| I am proud of my job (IS2) | .781 | | .610 |
| I find my job meaningful (IS6) | .769 | | .606 |
| I am satisfied with opportunities for self-improvement from my job (IS4) | .761 | | .624 |
| I can derive a sense of achievement from my job (IS3) | .746 | | .572 |
| My job helps me utilize all my abilities (IS1) | .672 | | .456 |
| I have enough chances of growth on my job (IS5) | .602 | | .438 |
| I get along well with my colleagues (ES4) | | .828 | .686 |
| My work is well appreciated (ES5) | | .748 | .601 |
| I am satisfied with the working conditions(cleanliness, toilet, washing, changing and | | .719 | .540 |

| | | | |
|---|---|---|---|
| restroom facilities) (ES1) | | | |

* Loadings>0.3

The factor labels (factor 1: Intrinsic satisfaction, factor 2: Extrinsic satisfaction) suited the extracted factors.

A confirmatory factor analyses (CFA) was performed using AMOS, version 23, to assess the factor structure of the Job satisfaction scale. The Chi-square value for the overall model fit was significant , $\chi^2$ (26)= 195.31, p<0.001. However, due to sensitivity of $\chi^2$ in large samples(here n= 450), other fit indices were assesed. The normed $\chi^2$ ($\chi^2$/ df) = 7.512, that is above the threshold of 5 (Schumacker & Lomax, 2010). An examination of these indices showed an unacceptable model fit with GFI = .906, CFI = .908, RMR = .06 and RMSEA = 0.12. Items that loaded less than 0.6 were deleted ("My job helps me utilize all my abilities", "I have enough chances of growth on my job") as keeping these items led to a poor model fit. An examination of modification indices showed an acceptable model fit with a normed $\chi^2$ ($\chi^2$/ df) = 4.723, GFI = .964, CFI = .963, RMR = .045 and RMSEA = 0.091.

Internal consistency for the scales was examined using Cronbach's alpha (see Table 3).

**Table 3. : Descriptive statistics for the factors of role stress scale and job satisfaction scale (n =450)**

| | **No of items** | **M** | **SD** | **Skewness** | **Kurtosis** | **Cronbach alpha** |
|---|---|---|---|---|---|---|
| Role ambiguity | 5 | 8.16 | 3.94 | 1.953 | 3.471 | .86 |
| Role conflict | 6 | 18.45 | 5.58 | -.031 | -.883 | .818 |
| Intrinsic satisfaction | 6 | 20.35 | 3.40 | -1.16 | 2.43 | .866 |
| Extrinsic satisfaction | 3 | 14.60 | 2.95 | -.046 | -.807 | .816 |

It can be seen from Table 3 that the maximum absolute values of skewness and kurtosis are less than 2 and 7 respectively, hence data is not suspected of deviating too much from normality conditions ( Kim, 2013).

**Results**

**Sample description:**

The sample consisted of nurses whose ages ranged between 21years and 68 years with a mean of 32 years(SD = 9.92). Around 31.3% belonged to municipal hospitals (these are hospitals run by Municipal Corporation of Greater Mumbai) while 68.7% belonged to private hospitals. The sample consisted of 86% females and 14% males. The nurses in the current sample had on an average 5.48 (SD 8.5) years of experience in the current hospital and on an average 7.38years (SD 9.4) of total experience as a nurse. The average working hours of the nurses was 9.4 hours (SD 1.53). The nurses had 3 dependents on an average. In the current sample, 43.6% nurses were married while 53.8% were never married.

**Hypothesis testing**

*$H_1$: Gender significantly moderates the relationship between Role stress and Job satisfaction among nurses in India.*

AMOS version 23 was used to check the moderating effect of gender on the relationships between role ambiguity and role conflict with intrinsic and extrinsic satisfaction. Model estimates using the

unconstrained and fully constrained model showed that groups differ from each other on these relationships. The $\chi^2$ difference was significant, $\chi^2$ (2)= 25.631, p<0.001. Further path by path analysis showed that gender differences were significant in the relationships between role ambiguity and intrinsic satisfaction, and role conflict and extrinsic satisfaction (see Table 4).

**Table 4: Comparisons of Path Coefficient and T-value (CR) Males and females (n = 450)**

| Paths | Male | | Female | |
|---|---|---|---|---|
| | Est(β) | t-value | Est(β) | t-value |
| Role ambiguity → Intrinsic satisfaction | -..036 | -.76 | -.380 | -9.3*** |
| Role ambiguity → Extrinsic satisfaction | .009 | .19 | -.034 | -.830 |
| Role conflict → Extrinsic satisfaction | -.24 | -4.18*** | -.247 | -11.30*** |
| Role conflict → Intrinsic satisfaction | .079 | 1.295 | .016 | .72 |

***p<0.001

It can be observed from Table 5, that female nurses show a steeper fall in intrinsic satisfaction as compared to males, with an increase in role ambiguity. Gender does not moderate the relationship between role conflict and extrinsic satisfaction.

Table 5 : Comparisons of Path Coefficient and T-value (CR) Males and females (n = 450)

| Paths | Male | | Female | | Comparison |
|---|---|---|---|---|---|
| | Est (β) | t-value | Est (β) | t-value | |
| Role ambiguity → Intrinsic satisfaction | -.06 | -1.37 | -.38 | -9.47*** | Females show steeper fall in satisfaction with increase in role ambiguity |
| Role conflict → Extrinsic satisfaction | -.24 | -4.69*** | -.24 | -11.26*** | There is no difference between males and females |

* **p<0.001

H1 is partially supported.

**Discussion**

It can be seen from Table 6 that, for the sample, role conflict is significantly negatively correlated with extrinsic job satisfaction (r = -.446, p< 0.01 ), and role ambiguity was significantly negatively correlated with intrinsic job satisfaction (r = -.406, p<0.01) in the current study.

**Table 6: Correlations between role stressors and job satisfaction**

| | Intrinsic satisfaction | Extrinsic satisfaction |
|---|---|---|
| Role ambiguity | -.406** | -.055 |
| Role conflict | .06 | -.446** |

** Correlation significant at 0.01 level(2-tailed)

Role conflict is a result of simultaneous demands from the same role that are not mutually exclusive. It can be argued that when a nurse perceives that these conflicting demands could result in his/her performance being appraised in different ways by the different role senders, it can be a distressing situation that is threatening for his/her rewards, appreciation or promotions, thereby resulting in decreased satisfaction. This can be a difficult situation especially if the role senders are hierarchically superior and competing with one another.(Montgomery, 2011). Hence the significant negative correlation with extrinsic job satisfaction.

Role ambiguity is a situation where the nurse is uncertain about what is expected of him/her on the job and there is no feedback on whether the behaviours and actions exhibited are appropriate or not. So nurses may always be on a tenterhook wondering whether they are doing the right thing or not. When an individual is informed about the various tasks and his duties, it helps in better performance at work. Previous studies have also shown that when individuals do not possess clear ideas about what needs to be achieved and the various conditions and constraints while achieving goals, it can result in decreased satisfaction(Marginson, 2006). In a situation of role ambiguity, the nurse would not be in a position to utilize all of his/her skills or find his/her job meaningful because he/she is unsure of what is expected of him/her and hence will work at lower than his/her best abilities. Hence the significant negative relationship of role ambiguity with intrinsic satisfaction.

*H1 is only partially supported.*

It was observed from Table 5, that gender moderates the relationship between role ambiguity and intrinsic satisfaction. but not the relationship between role conflict and extrinsic satisfaction. Nursing is a profession that involves providing care and empathy to sick people and helping them patiently in their recuperative process. Caring for another person requires a lot of intrinsic motivation and inner strength in the process of providing care itself and it needs to come in as an innate part of service orientation in the care provider (Folbre, 2012). It has been proposed that females are satisfied when they can work in a supportive and cooperative environment, whereas males look at jobs as a means of self-expression, expansion and learning (Mason, 1995). The current study predominantly consists of females (86% of the sample). Nursing profession suffers from ambiguities because it is a shared one (with a physician or previous shift nurses). So, if a nurse were to lack information or about the line of treatment or any special needs of a patient, there could be confusion on the next steps. Many times nurses have to respond quickly and alone to several emergency situations, like, reacting to violence from the patient and his kin or tackling the psychological issues of a patient. The absence of enough support and communication from superiors and colleagues would only lead to anxious moments of what needs to be done and whether what has been done is right (Camuccio, Chambers, VÄlimÄki, Farro, & Zanotti, 2012). The nurses in the current study have tenure of 5 years in the current hospitals where they work, and are

aged around 32 years on an average. They are comparatively junior and new in the current hospitals. Thus, in the lack of information or support, it may be possible that they are unable, or, not confident enough to utilize their innate strengths and skills on their jobs resulting in a situation of decreased satisfaction. Although male nurses also experience a fall in satisfaction with increase in role ambiguity, the fall is not as steep as females because possibly men do not have instant reactions to ambiguous situations, are more tolerant to ambiguity and do not get into panic situations as easily as females do (Ahmed & Alshraideh, 2007). Several studies have shown that women tend to become depressive and anxious during any stressful moment whereas men tend to be more problem focused (Bennett, Compas, Beckjord, & Glinder, 2005) and this could possibly explain why women show a steeper fall in satisfaction as compared to men in the face of role ambiguity.

While discussing job satisfaction, it may be worthwhile understanding that intrinsic factors like autonomy, freedom for self-direction, opportunities to use one's skills, job variety, information about the job and sufficient feedback about one's effectiveness on the job are associated with effective performance. Past studies have suggested that women are tuned to values and attitudes and behaviours that are social and communal in nature and thus their satisfaction on the job also is related to these aspects (Eagly, 1987). Women in workplaces find satisfaction working with good coworkers, support and the work itself while men look at aspects of work like money, perks and promotions. Thus, women on jobs tend to be more concerned about maintaining harmony in the group. When there is role ambiguity, women find their work itself loosely defined with vague expectations. Culturally, Indian women may worry that explanations/ clarifications sought from supervisors or colleagues, or arguments with seniors, would spoil their image or threaten their otherwise secure relationships and friendships at work and hence, they refrain from clarifying the situation, and continue to work in the same vagueness causing a sharp fall in satisfaction. Men, on the other hand, are more practical in nature and get into a problem-solving mode and seek clarifications, explanations and any other course of action that would reduce the ambiguity, without worrying about relationships. Hence female nurses show a steep fall in satisfaction due to their inability in resolving such a situation, as compared to males in face of role ambiguity.

The current study also shows that gender does not moderate the relationship between role conflict and extrinsic satisfaction. Qualified nurses from developing countries like India migrate to other developed countries for social as well as financial reasons (Buchan & Scholaski, 2004; Gill, 2011) India is a country steeped in the hierarchy of classes, caste system and religious beliefs and ideologies of untouchability. Even today there is a social and religious stigma associated with the profession of nursing and hence individuals from well-to-do families rarely take this up as a profession and most of the nurses (males or females) in India belong to very poor backgrounds (Srinivasan & Samuel, 2014) and take huge loans (greater than 8400 US Dollars, USD) to obtain a nursing degree from reputed institutions in the hope of getting a good job after completion of the course (Naganur, 2012). To repay the loans the minimal installment amount comes to around 152 USD a month but their salaries range from 137 USD to 228 USD a month (Mishra & Sarkar, 2014). In many cases nurses have to sign a contract for a couple of years of service with the hospital, breaking of which would cost them around a lakh INR for the release of their professional certificates from the hospitals (Naganur, 2012). The current study shows that these young nurses in the age group of 32 years, having around 3 dependents and almost 54% of them being unmarried would primarily be worried about how to repay their loans and get rid of their debt, how to save money for the upkeep of dependents or save money for their marriages. When there are conflicting demands, it becomes difficult for nurses to perform to their best levels and to keep all competing hierarchical superiors satisfied. Every superior would have his/her own standards of performance and a benchmark for rewards and promotions. It is possible that nurses perceive that their

rewards, compensation and promotions would get affected due to the conflicting and different demands thereby affecting their financial and social burden. This could possibly be the reason why the decrease in satisfaction is almost the same for both males as well as females**.**

**Conclusion**

The current study clearly indicates that job satisfaction of nurses could be significantly improved with clarity in roles. Intrinsic motivation is essential for any human intensive, service oriented behaviour. India is facing a huge exodus of female nurses to other countries for social, economic as well as work profile reasons, so, it is essential to address the issues of role stress in order to ensure satisfaction for nurses. It is essential that nurses get clear and non-conflicting information about their responsibilities and tasks at work. Hospitals should provide clarity to nurses about the specific job oriented behaviours that could yield them rewards. Since nurses multitask, it is natural to step over one's role boundaries doing much more than what is actually assigned to them. In many cases, there are no induction or mentoring programs that would help new nurses understand their roles thus leaving them to explore their roles by trial and error on the jobs adding to their already existing vagueness of the job This could result in conflicts and ambiguous situations. With newer diseases being discovered, it is essential that roles of nurses get revised regularly to fit in with the requirements of patients as well as hospitals. Hospitals should conduct induction programs where senior nurses, can help clarify roles and gray areas in nurses' jobs. Small group meetings, with senior nurses as facilitators, could help junior nurses discuss their role related issues. Mentoring programs are also great ways in which senior nurses could help in providing role and goal clarity.

**Limitations and future research**

The study is cross-sectional in nature and provides respondents' views at a particular point of time. A longitudinal study is suggested to obtain responses over a period of time to understand the situation holistically. A triangulation method that involves quantitative data along with in-depth interviews can be conducted by future

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Journal of Management & Public Policy
Vol. 9, No. 1, December 2017, Pp. 53-58
ISSN 0976-0148 (Online) 0976-013X (Print)
DOI: 10.5958/0976-0148.2017.00009.9

# Cutback Management Decisions

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**Abstract**

The aim of this paper is to review the evolution of the literature of cutback management and discuss its impact on the budget theory. To study the relevant cutback issues, this article discusses and reviews several studies related to this issue. The review showed that several tactics have been used to cope with the fiscal stress. Moreover, scholars found that the rules of the incremental budget theory were still operative under fiscal conditions.

**Keywords:** Cutback Management, Budget, Fiscal Stress

## Introduction

Cutback management means managing organizational change toward lower level of resource consumption and organizational activity (Levine 1979). Cutback management scholars have shown that local and state government use wide variety of cutback management policies to close their budget deficit during recessions. Cutback management addresses processes and strategies used by policymakers when their organization faces a situation of resource scarcity. One of the major causes of resource scarcity is what Levine (1978) calls, environmental entropy. It is based on external economic forces that cause the deterioration of a government's economic base that does not allow a government to extract the necessary taxes for at least the maintenance of the status quo. One of the development emanating from the cutback management literature was the rational approach framework developed by Levine, Rubin and Wolohojian (1981). Their framework addressed on what rational basis cutback management policies would be implemented. The rationality of the framework is based on the idea that policymakers are forced to manage their organization's decline during an economic recession and therefore budget decisions are based on efficiency versus political needs.

## Literature Review

The literature on decision-making, discusses budgeting as a decision-making process promises to be of assistance in explaining behavior in declining organizations. Levine (1978) has set two basic decision criteria for allocating cuts which are equity and efficiency. Equity-based decision rules such as across-the-board cuts were characterized as politically expedient and likely to minimize conflict, but also as being uncontrollable and in many cases directly counter to efficiency. Efficiency-based decision rules were characterized as very costly, because they require substantial analysis which is often not available due to time and resource limitations, and because they are likely to generate considerable turmoil.

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Levine argues that equity-based allocation or decision rules which combine analysis with political bargaining and partisan adjustment are the most likely to be employed.

Hills and Mahoney (1978) found that in times of abundance, precedent was the greatest determinant of a department's budget. They also found that a department's ability to generate external matching funds had a positive effect on their allocation, while the generation of grants had no effect at all. Ferlie and Judge (1981) found that budgetary retrenchment does not appear to have resulted in greater 'rationality' in social services departments budgeting, but quite the reverse as recurrent crisis budgeting tends to be neither synoptic nor rational but aims solely at preventing total collapse. Glennerster (1980) argued that in a period of restraint it is likely that 'strategic' rationality is likely to be overwhelmed by modes of decision making which are based on the vested interests of local and central politicians, professional or consumers. Moreover, he suggested that social service planning must come to term with greater uncertainty and abandon long term targeting. He believes that it should use instead incremental planning methods which are more appropriate to the world of economic crisis.

Greenwood's study (1983) appeared to support the above explanation and attempts to identify whether local authorities experiencing sustained fiscal stress find it necessary to adapt their budgetary procedures. He relies on Wildavsky's conception of budget preparation as an essentially incremental process, and indicates: (1) the extent to which activities and existing expenditures were reviewed each year, (2) the mode of analysis employed during the review and the time-scale of the budget. Greenwood believes that the political acceptable strategy through "percentage cuts across the board" is commonplace.

Lewis (1984) examined changes in the revenue and expenditure patterns of twelve major cities between 1964 and 1979, to determine whether resources scarcity results in significantly expenditure pattern. He found that incremental budgeting was operationalized as similar budget cuts for different city departments, regardless of their importance to the provision of core city services. The results of this analysis support the incidence of decremental budgeting by cities experiencing revenue declines.
Rickards (1984), in an analysis of 105 West German cities over nine years, found incrementalism more likely in certain fiscal conditions. More populous cities are more likely to follow incremental budgeting patterns. The author speculates this is due to the larger size of the budget and the increased demands by interest groups that result in decision-makers relying more on "fair-share" rules.

Downs and Rocke (1984) operationalized three incremental theories of budgetary decision-making: bureaucratic process theory, interest group politics theory, and managerial theory. While all three theories resulted in similar incremental outcomes during times of fiscal growth, they result in divergent outcomes in times of fiscal stress. This study tests how incrementalism in a fiscally stressed setting operates. They found that budgeting is essentially incremental and that the fair share principle applies with no consistent departmental winners or losers – although this is not operationalized as across-the-board cuts. Furthermore, their findings showed that in response to fiscal stress, budget cutting tends to take the path of least resistance.

Behn (1980) offered the following options for leader behavior during the time of fiscal stress:

1. Cut the fat tough guy. This type of leader adopts a combative approach to managing decline. The "tough guy" drastically pares overhead and holds down labor costs through tough negotiations with employees;

2. Revitalizing entrepreneur. The leader adopting this approach attempts to redirect the organization into a narrower scope of activity, in hopes of recreating equilibrium between resources and expenditure;
3. Receiver in bankruptcy. This leader is not concerned with organizational maintenance; rather, he or she is interested in enhancing his/her own image by smoothly managing the elimination of the organization.

Behn (1996) identified the basic tasks facing the public manager a cutback environment:

1.Deciding what to cut
2.Maintaining morale
3.Attracting and keeping quality people
4.Rallying the support of key stakeholders
5.Creating opportunities for innovation
6.Avoiding disasters

Jimenez (2014) examined whether the use of rational management approaches, in information gathering, analysis and use in decision-making can help local governments adapt to a fiscal crisis by facilitating targeted cuts in expenditures that preserve administrative capacity, and avoiding across-the-board cuts that trim both the organization's muscle and fat. He used a large sample of city governments to examine if rational management approaches such as strategic planning and performance management, increase the probability that city governments will adopt targeted cuts to expenditures. The results of this research show that rational analytic techniques can help local governments target cuts to expenditures. The results also suggest that rational analysis and politics are not necessarily mutually exclusive. Analysis can be used as a tool to minimize political opposition, as when performance information is used to justify targeted cuts.

During the 1980s, local authorities in UK were in a bad financial situation due to a high rate of inflation and the drastic changes introduced by the central government, ( cutting expenditure, setting targets, introducing a penalty system, applying rate capping system) have increase uncertainty in those authorities. Ibrahim (1993) found that three county councils (Staffordshire, Shropshire and Derbyshire) were living with three types of uncertainties: state, effect and response uncertainty, due to the dire economic condition and the intervention of central government in the 1980s. Such uncertainty had led these authorities to use incremental budget approach to manage the depression and achieve their objectives by proceeding in small moves (Ibrahim and Proctor, 1992).

**Intervention of Central Government (1980-1988):**

In the 1980s the United Kingdom Central Government had two basic objectives towards local government (Meadows 1986). The first, central to its economic policy, was to secure a sustained reduction in local authority expenditure. The second was to lift the burden of detailed central control off local government, and where possible for local government to lift unnecessary controls off citizens and business.

**Strategies to cope with fiscal stress**

1. Buying Time

   As theorized by Wolman (1984) the immediate reaction of an organization to a period of widespread fiscal contraction is to rely on methods that avoid destabilizing the organizations internal and external equilibrium. These methods protect the internal and external equilibriums that exist within

and without the organization by avoiding the implementation of unpopular strategies such as tax increases and layoffs. This time purchase has the benefit of buying the organization sufficient time to plan and implement longer-term strategies.

2. Revenue Enhancement

Organizations may then begin to employ strategies that bring in additional revenue in order to maintain the uninterrupted provision of existing services. Levine et al (1981) and Wolman and Davis (1980) put forth several sources of additional funding that cities increasingly rely on during times when available public resources are inadequate.

3. Productivity Improvement

When under great financial difficulty cities must avoid relying on politically sensitive tax increases to protect revenues. They must therefore rely on alternative means of alleviating their financial pain. Enhanced focus should be placed on improving the productivity of the department so that cuts that create antagonism and mistrust among internal and external actors, namely employees and taxpayers are not resorted to.

4. Cutting strategies

The last resort cuts, should only be made if all other strategies to deal with fiscal stress have been exhausted. According to Lewis and Logalbo (1980), when cuts become an inevitability, they should be preceded by a review of municipal services. This review is conducted by preparing a detailed schedule that provides a thorough outline of the current services provided by the organization, with services being categorized according to the output and cost levels of each service. The managers should then determine what possible adjustments to service levels might be explored. An examination of current population trends may reveal areas where the ability of the organization to terminate services or shift resources comes at minimal harm to service recipients.

**Cutback and Incrementalism**

Some authors believe that incrementalism is insufficient and inappropriate to explain what is going on in the times of fiscal stress. Their concerns relate to several of the following conceptual usages.

1. The base. In periods of cutback, budget policymakers may focus more on the budget base rather than the increment to balance the budget. (Bozeman and Straussman, 1982).
2. Fair shares. Budgeting in cutback period can be considered as a redistributive tool of funds rather than distributive as is the case in growth period, (Schick, 1983).
3. Budgetary roles. In periods of cutback, the role of the policy makers becomes more important (Bozeman and Straussman 1982). As a result, Budgeting tends to be top-down rather than bottom-up, since spending departments are unlikely to volunteer to make cuts. Negotiations between the spending departments and the policy decision body become less necessary (Knott 1981).
4. The Role of the budget. The control function of budgeting will be dominant in a period of fiscal stress more than the planning function. (Schick 1980).

However, with these objections in mind, there remains a strong case for why incrementalism will still be the dominant form of budgetary decision making in a cutback era. This is mainly due to the fact that managers often expect crises and perceive them to be a natural phase of the economic and political cycle and consequently made accommodating for them an important part of their budgetary routine. A secondary reason why incrementalism will remain the dominant decision making strategy is that

incrementalism inherently places a restriction on substantial cut-making and thus allows cuts to be made in the fringes of discretionary spending. This is a safe strategy as it minimizes conflict between program managers and policy makers.

The rationalism and incrementalist models of budgeting are not diametrically opposing viewpoints. The two models are competing and alternative strategies of cutback budgeting but they do have some commonalities between them. Firstly, the more scientific of the two, the rationalist model, places an emphasis on the value of analysis and comprehensiveness, while the incremental model regards interaction and selectiveness in decision making as of upmost importance. However, there exist many links between the two models that are self-evident. Secondly, the attainability of comprehensiveness in budgeting is considered an unrealistic goal and thus differentiating comprehensiveness, an ideal, and selectiveness, a realistic goal, is of little use in cutback theory. Incrementalists see the utilization of a variety of simplifying strategies as necessary in countering the high degree of complexity in decision-making. The third link between the two theories of budgeting is the shared assumption that both rationalists and incrementalists make in regarding decision makers as goal-oriented actors.

**Conclusion**

Cutback management theory studies the various possible strategies that governments employ when faced with a period of significant fiscal contraction. Cutback management examines the various strategy adjustments that state and local governments make when revenues are stagnant and budgets are squeezed. The study of cutbacks also help scholars gain a better understanding of the political landscapes within which governments operate as well as the many factors and forces responsible for creating fiscal stress.

The core objective of this research work has been to further explore the underlying reasons for implementing chosen cutback decisions and the strategies that different organizations devise to cope with fiscal stress. A study of the literature showed that management in public organizations often responded inappropriately to the issue of fiscal stress by avoiding a review of the structural features that form the backbone of the public services that these organizations provide. Instead, they responded by protecting their own service packages to the best that current resources allowed, using incremental theory rules and employing a combination of the popular four cutback management strategies discussed above.

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