

Sex Stereotype based Occupational Pattern in India

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“Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured” – Dr. APJ. Abdul Kalam.

Sex stereotyping in society leading women to be placed in limited and low paying occupations that require, for example, caring, household-related skills and absence of a supervisory role and men to subjugate high value adding occupations requiring supervision, physical strength and mental abilities (e.g., supervisors, construction workers, entrepreneurs, scientists and engineers etc.). Occupations have been segregated on the basis femininity or masculinity purported to be tagged with each occupation. Segregation in workplace is usually to be found in practices based on entrenched sex stereotypes, cultural and social norms, beliefs and prejudices. Various constraints like differentials in opportunities, powers, patriarchy, skills, asset holdings, quality of human capital endowments etc. that has clenched the females in a vicious circle. The females are however subjected to both social exclusion and economic discrimination over the centuries. The paper will be emphasising to study the impact of sex stereotyping discrimination on employment structure in India.. The analysis of present study shall be based on nationally represented secondary and unit level data from Employment and Unemployment Survey, conducted by National Sample Survey Office (NSSO). The occupational classification will be based on census data, National Industrial Classification (NIC) and the National Classification of Occupations (NCO).

Keywords: *Economic Discrimination, Human Capital, Occupations, Sex Stereotype*

I. INTRODUCTION

Sex stereotyping in the workplaces is based on the ability, attributes, physical strength, power and tendencies of gender and thus depends on the human characteristics. In general, sex stereotyping has resulted in the exclusion of women in patriarchal societies and therefore segregated the occupations that divide's the labour market into 'feminine' (Female) and 'masculine' (Male). Segregation of the labour market from a gender perspective has been frequently presented as one of the prevailing characteristics of global labour markets that is usually found in practices based on entrenched stereotypes and prejudices concerning the roles of various groups in society, including indirect discrimination in education systems, an expression of inequality, as it implies differentials in asset and land holdings, power, skills, income and opportunities. The patriarchal patterns and social hierarchies' exhibit the male dominance that is reinforced by their physical force and consequently expressed in the gender division of labour with different values, places and positions of male and female's labour (Huws, 2012).

Romer (1984) justified that productivity equal, it may be felt that some labourers deserve more than others. This belief might take form of social code that specifies different just wages for different labourers. Employers often make lower wage offers to females based on higher productivity variance, even though average productivity may be identical to male employee productivity (Dickinson and Oaxaca, 2006; Heinze and Wolf, 2010). According to Arrow's (1973) discrimination model, gender earnings differentials may be attributed to direct discrimination by employers, employees, and customers against women. Employers with a "taste for discrimination" against women will hire fewer than the profit-maximizing number of women. Furthermore, the model predicts that men are paid above and women below their marginal product. According to Global Gender Gap Report (2015) countries such as Yemen, India, Pakistan, and Mauritania have large education as well as economic gender gaps.

Various feminist and empirical studies analysed the determinants of male-female pay differentials. The standard wage decomposition technique of Oaxaca and Blinder (1973) has been widely used to decompose the average difference in wages between two demographic groups to examine discrimination in the labour market. Gunderson (1989) identifies various sources of male-female pay differentials; i.e. differences in human capital endowments such as education and experience, differences in pay within the same occupation caused by pure discrimination and dual labour markets, differences in pay for work of "equal value" caused by relationship between pay level in an occupation and the degree to which it is feminized.

Goldin (1994) examined the U-shaped female labour force function in economic development and economic history. The labour force participation rate of married women first declines and then rises as countries develop. The initial decline is due to the movement of production from the household, family farm, and small business to the wider market, and to a strong income effect. When women are poorly educated their only wage

labour outside the home and family is in manual work. But when women are educated, particularly at secondary level, they enter white-collar work, against which no social stigma exists. The reasons for the downward portion of the U are probably found in a combination of an initially strong income effect and a weak substitution effect, and a change in the locus of production from the home to the factory. As the substitution effect begins to swamp the income effect, the upward portion of the U is traced out, and women's labour force participation enters the modern era.

II. RELATED LITERATURE

Various studies related to the gender stereotypes and job segregation, are reviewed to have a deep insight of the gender issues in the labour market. The "job competition model" states that the remuneration of an individual is linked to the job to the relative position in hierarchy (Thurow 1975, 1979). An individual with a high level of human capital will have higher position job with high wages. Employers select the skilled and productive workers, who require the lowest training cost therefore; females are less preferred by the employers. An attempt to investigate gender and ethnic wage structure and wage differentials among professional workers in the Israeli labour market, taking into account differences in entrance probabilities was made by (Neuman and Oaxaca, 2003). Professional workers include scientific and academic workers; other professionals, technical and related workers; and administrators and managers. Anupama (2007) analysed gender segregation and quality of employment in the unorganised manufacturing sector of India. Karmal and Maclachlan Index (KM Index) showed that very small proportion of labour force is needed to be shifted to reach zero gender segregation.

"Mix effect" depicts the change in the segregation index that would have occurred if the sex composition within each occupation had remained constant so that the only source of changes in the indexes would be due to changes in the size of occupational categories. Similarly, the "composition effect" was regarded as the change in the index that would have occurred if the size of each occupation had remained fixed at its initial level (Blau and Hendrick, 1979). Dynamics in income distribution are analysed through human capital and productivity growth in a class of economies with economy-wide linkages such as complementary skills, knowledge spillovers etc. In India, the main constraints to these disadvantaged groups are segregation in economic activities, gaps in asset ownership and earning differentials in both public and private spheres.

Methodology and Objectives

The present study contemplates to delve out the structure and scenario of occupational segregation in Indian labour market. The analysis is based on nationally represented unit level secondary data of 68th round (2011-12) from Employment and Unemployment Survey, conducted by National Sample Survey (NSS). The occupational classification is based on National Industrial Classification (NIC-2008) and National Classification of Occupations (NCO-2004). This study will figure out the magnitude of discrimination in Indian labour market by gender. Nine divisions of various occupations are being scrutinized to study the occupational pattern of India. Furthermore, the subdivisions of these nine occupations as classified under NCO-2004 are analysed to observe the discrimination among females in all the given occupations at all India level. Additionally, various economic activities and sectors are classified into sections from A to T as given in NIC-2008, to analyse the share of male and female workers in different sectors.

The distinctive objectives of this study are as follows:

1. To examine the occupation pattern among males and females.
2. To study the human capital characteristic of males and females in India.

Occupational Pattern among Males and Females

The sex stereotyping in the workplaces is based on the ability, attributes, physical strength, power and tendencies of gender and thus depends on the human characteristics. In general, sex stereotyping has resulted in the exclusion of women in patriarchal societies and therefore segregated the occupations that divide's the labour market into 'feminine' (Female) and 'masculine' (Male). In all the skilled works, females are under-represented and over-represented in lower level jobs, thus the bimodality in wages is associated with occupational segregation and women's position is inferior in labour market and within family (Allen et al, 1991).

Table1: Share of rural and urban workers in various occupations (In per cent)

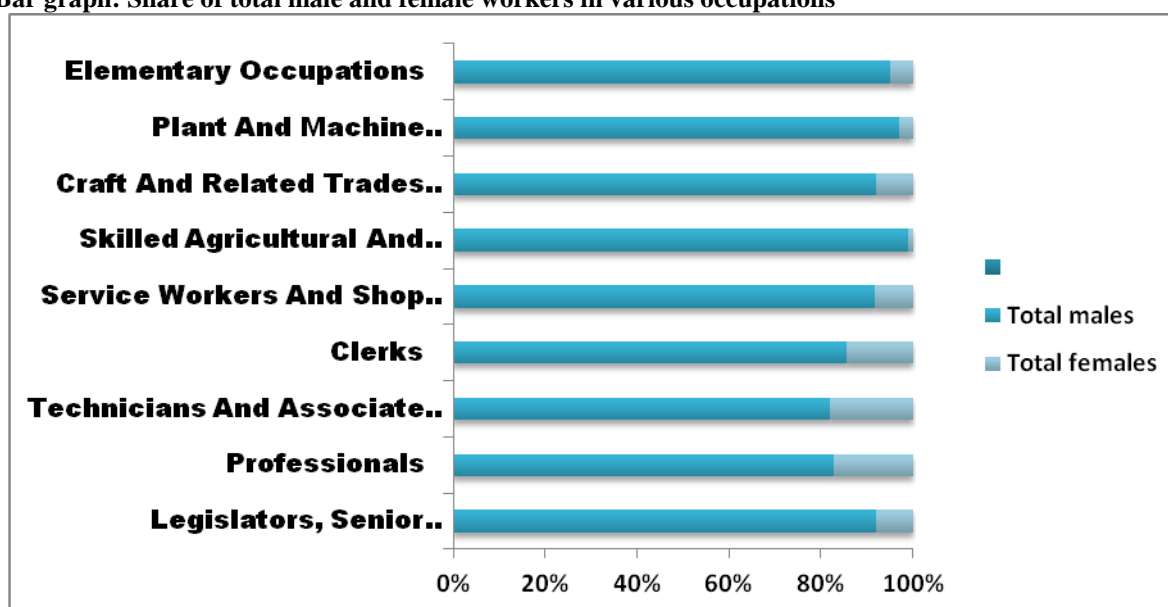
Sr. No	Occupations	Rural Females	Urban Females	Rural Males	Urban Males
1	Legislators, Senior Officials And Managers	6.19	7.57	32.80	53.44
2	Professionals	6.35	15.98	28.44	49.23
3	Technicians And Associate Professionals	12.83	15.75	30.36	41.06
4	Clerks	3.36	13.86	26.74	56.03
5	Service Workers And Shop & Market Sales Workers	7.66	7.75	40.28	44.30

6	Skilled Agricultural And Fishery Workers	26.90	0.75	69.32	3.02
7	Craft And Related Trades Workers	12.03	7.04	48.45	32.48
8	Plant And Machine Operators And Assemblers	2.85	2.82	45.18	49.15
9	Elementary Occupations	24.70	3.71	60.82	10.77

Source: Calculated from unit level data, 68th Round, (NSSO 2011-12)

The urban and rural nature of the region is influential in determining the occupational pattern and the availability of the job opportunities of the labour market. In general the rural region has various constraints, hence affects the women differently in occupational choices. The rural/urban differentiation in occupational structure is depicted in Table 3. This table examines the occupational structure in India based on divisions of occupations as classified under NCO-2004. The fundamental differences are observed in the job composition of rural and urban areas. The urban workers have a much smaller fraction of workforce in agriculture, forestry and fishing, as only 3.02 per cent urban males and 0.75 per cent females are engaged in these occupations, and for rural males the comparable figure is 69.32 per cent and for rural female is 26.90 per cent. The proportional share of urban workers is much higher in occupations such as professionals, legislators, senior officials and managers, technicians and associate professionals. The figures for these corresponding occupations are 49.23, 53.44 and 41.06 per cent respectively for urban males and 15.98, 7.57 and 15.75 per cent respectively for urban females. In comparison the rural workers have a less share in these occupations; that is only 28.44, 32.80 and 30.36 per cent respectively for rural males and 6.35, 6.19 and 12.83 per cent respectively for rural females. In comparison the rural workers have much larger fraction of workforce engaged in sectors such as agriculture, fishing, forestry, mining and quarrying and construction. Therefore, the degree of residential segregation is indicating the degree of occupational segregation between the groups.

Bar graph: Share of total male and female workers in various occupations



Source: Calculated from unit level data, 68th Round, (NSSO 2011-12)

The figures are indicating that the percentage share of female workers is lesser than their male counterparts in each occupation. With 86.64 per cent male workers are legislators, senior officials and managers, 77.67 per cent are professionals, and 71.42 per cent are technicians and associate professionals. In comparison this corresponding figures for female workers are just 7.57, 15.98 and 15.75 per cent. Similar comparison can also be studied in other occupations, therefore females are tending to underrepresented in formal sector and high value adding jobs and overrepresented in informal sector and low paid occupations.

Table2: Distribution of workers by Occupation and Gender in India (In per cent)

NCO Sub division Code 2004	Occupation description NCO-2004	Share of Each Occupation in Employment by Gender			Employment Share in Each Occupation by Gender	
		Males	Females	Total	Males	Females
11	Legislators and Senior Officials	0.10	0.02	0.11	85.74	14.26
12	Corporate Managers	5.43	0.87	6.30	86.15	13.85
13	General Managers	0.10	0.01	0.11	91.82	8.18
21	Physical, Mathematical and Engineering Science	0.51	0.07	0.58	87.96	12.04
22	Life Science and Health Professionals	1.22	0.09	1.31	93.29	6.71
23	Teaching Professionals	0.65	0.41	1.06	61.01	38.99
24	Other Professionals	1.17	0.16	1.33	87.88	12.12
31	Physical and Engineering Science Associate Professionals	0.36	0.03	0.39	91.95	8.05
32	Life Science and Health Associate Professionals	0.22	0.18	0.40	54.81	45.19
33	Teaching Associate Professionals	0.95	0.53	1.48	64.33	35.67
34	Other Associate Professionals	0.95	0.09	1.04	91.09	8.91
41	Office Clerks	1.26	0.25	1.51	83.38	16.62
42	Customer Services Clerks	0.20	0.05	0.25	79.16	20.84
51	Personal and Protective Service Workers	1.83	0.55	2.39	76.78	23.22
52	Models, Sales Persons and Demonstrators	4.14	0.53	4.67	88.58	11.42
61	Market Oriented Skilled Agricultural and Fishery Workers	20.17	7.44	27.62	73.05	26.95
62	Subsistence Agricultural and Fishery Workers	0.92	0.62	1.54	59.70	40.30
71	Extraction and Building Trades Workers	5.65	0.57	6.22	90.81	9.19
72	Metal, Machinery and Related Trades Workers	1.90	0.05	1.95	97.55	2.45
73	Precision, Handicraft, Printing and Related Trades Workers	0.60	0.14	0.73	81.48	18.52
74	Other Craft and Related Trades Workers	2.36	1.72	4.09	57.85	42.15
81	Stationary-Plant and Related Operators	0.48	0.04	0.52	91.88	8.12
82	Machine Operators and Assemblers	1.36	0.21	1.58	86.40	13.60
83	Drivers and Mobile Plant Operators	2.55	0.01	2.56	99.72	0.28
91	Sales and Service Elementary Occupations	1.84	0.94	2.78	66.26	33.74
92	Agricultural, Fishery and Related Labourers	13.01	6.58	19.59	66.40	33.60
93	Labourers in Mining, Construction, Manufacturing and Transport	6.83	1.08	7.91	86.32	13.68
TOTAL		23.26	76.74	100.00	-----	-----

Source: Calculated from unit level data, 68th Round, (NSSO 2011-12)

If we look at Table 2, representing the occupational distribution and gender composition of employment, explores that occupational distribution for males is mainly skewed towards the high earning occupations. This analysis is based on sub-division of various occupations classified under NCO-2004. In legislators and senior officials, corporate managers and general manager the proportional share of male workers is 85.74, 86.15 and 91.82 per cent respectively and these corresponding figures for female workers are only 14.26, 13.85 and 8.18 per cent respectively. Furthermore the proportional share workers in the physical, mathematical and engineering science, life science and health professionals and teaching professionals is 87.96, 93.29 and 61.01 per cent for male workers and 12.04, 6.71 and 38.99 per cent for female workers respectively. Therefore the figures are depicting that in the teaching profession females are performing much better and hold a major share in this job.

On the other hand, the occupations having downward mobility and low payments absorbs large female workers, as for sales and service elementary occupations, agriculture, fishery and related labourers the proportional share of female workers is 33.74 and 33.60 per cent and that for male workers it is 66.26 and 66.40 per cent respectively. These occupations mainly constitutes the low value adding occupations like street vendors, shoe cleaning, domestic and related helpers, cleaners, launders, building caretakers, garbage collectors, mining and construction workers, manufacturing labourers, messengers etc. The male and female workers are mainly discriminated in occupations like machine operators and assemblers, drivers and mobile plant operators as the proportional share of male workers is 86.40 and 99.72 per cent for these given occupations, and only 13.60 and 0.28 per cent female workers are engaged in the same.

Sectoral Distribution of Workforce

Transformation of an economy from a dominance of subsistence-oriented economic activities, agriculture and informal mode to the capitalist, industrial and formal sector is likely to lead a change in labour categories and employment structure. There is decline in agriculture's share of Gross Domestic Product (GDP), and to a lesser extent in employment. The services sector has increased its share in GDP sharply but its share in employment has only marginal impact over the years. India seems to have shifted from agricultural sector to the service sector without intermediate industrial phase.

Table 3 displays the sectoral distribution and the gender composition of employment in each sector. The sectors are classified as given in NIC-2008. In agriculture, forestry and fishing 28.24 percent are female workers, whereas 71.76 are male workers. In comparison, the occupational distribution for males is mainly skewed towards the high earning occupations; manufacturing (76.56 per cent), professional, scientific and technical activities (88.35 per cent), construction (89.75 per cent) and transportation (98.71 per cent) respectively; whereas the corresponding figures for females are 23.44, 11.65, 10.25, 1.29 per cent respectively. Therefore in all the above given high status occupations it can be observed that the share of male workers is greater than that of their female counterparts. If we look at the sectoral share, 59.89 per cent females and 43.29 per cent males are engaged in agriculture, forestry and fishing; 0.64 and 0.37 per cent males and females are mainly confined in mining and quarrying. The percentage share of female workers in occupations of education (5.88 per cent) and human health and social work activities (0.74 per cent) is larger than that for males is 2.31 and 0.74 per cent respectively.

The major factors that contribute to the workplace diversity can be locational or spatial characteristics (urban/rural) and differences in personal traits mainly in terms of human capital. Historically, women are considered physically weak in comparison to their male counterparts and thus are preferred mainly for raising the children and to over-perform the domestic responsibilities.

Table3: Distribution of Workers by Employment and Gender in India, 2011-12 (In per cent)

NIC-2008 SECTIONS	SECTORS DESCRIPTION	Sectoral Share		Gender Distribution of Employment	
		Male	Female	Male	Female
A	Agriculture, forestry and fishing	43.29	59.89	71.76	28.24
B	Mining and quarrying	0.64	0.37	85.91	14.09
C	Manufacturing	12.36	13.30	76.56	23.44
D	Electricity, gas, steam and air conditioning supply	0.34	0.11	91.34	8.66
E	Water supply, sewerage, waste management and remediation activities	0.28	0.20	82.92	17.08
F	Construction	12.50	5.02	89.75	10.25
G	Wholesale and retail trade, repair of motor vehicles and motorcycles	11.38	4.57	89.75	10.25
H	Transportation and storage	5.58	0.26	98.71	1.29
I	Accommodation and food service activities	1.92	1.10	85.93	14.07
J	Information and communication	0.90	0.58	84.63	15.37
K	Financial and insurance activities	1.05	0.66	84.79	15.21
L	Real estate activities	0.26	0.03	96.76	3.24
M	Professional, scientific and technical activities	0.67	0.31	88.35	11.65
N	Administrative and support service activities	0.82	0.29	90.95	9.05
O	Public administration	2.05	0.99	87.98	12.02
P	Education	2.31	5.88	57.97	42.03
Q	Human health and social work activities	0.74	1.79	59.16	40.84
R	Arts, entertainment and recreation	0.27	0.06	93.59	6.41
S	Other service activities	2.26	2.11	79.03	20.97

T	Activities of household	0.38	2.48	34.81	65.19
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Source: Calculated from unit level data, 68th Round, (NSSO 2011-12)

Consequently, the pressure of domestic responsibilities and patriarchy system has always segregated the females to get quality education and there exists the educational imbalances among males and females. Even the literate women lack the skills as compared to their male counterparts due to educational attainment differences. Males have always dominated the powerful and technical fields of academia like science and technology, mathematics, engineering and therefore there prevails significant educational attainment gap. Furthermore, these factors put together the constraints in hiring females, earning higher wages and to adopt occupations according to their choice.

Table4: Human Capital Characteristics of Male and Female Workers (In per cent)

NIC-2008 SECTIONS	RURAL				URBAN			
	Share of Male Workers	Share of Female workers	Males with technical training	Females with technical training	Share of Male workers	Share of Female workers	Males with technical training	Females with technical training
A	69.06	27.33	0.31	0.01	2.70	0.91	0.05	0.00
B	52.02	11.25	0.43	0.00	33.89	2.84	2.91	0.00
C	35.76	13.10	1.46	0.02	40.80	10.34	3.44	0.24
D	37.42	0.93	6.96	0.00	53.92	7.73	14.85	1.52
E	23.44	4.94	3.26	0.00	59.48	12.14	1.42	0.09
F	67.21	8.30	0.62	0.02	22.53	1.96	1.02	0.06
G	38.81	5.15	0.71	0.06	50.94	5.09	1.50	0.20
H	51.14	0.41	0.61	0.00	47.57	0.88	1.71	0.05
I	32.77	6.33	0.28	0.06	53.16	7.75	1.18	0.23
J	11.29	1.49	2.01	0.21	73.34	13.88	32.59	7.50
K	23.83	2.68	1.32	0.59	60.96	12.53	7.21	1.98
L	24.89	0.19	0.47	0.00	71.86	3.05	4.79	2.23
M	20.55	1.42	2.27	0.06	67.80	10.23	15.59	2.36
N	23.59	1.11	0.42	0.07	67.36	7.94	4.39	0.86
O	30.93	3.76	2.06	0.10	57.05	8.26	5.11	0.40
P	31.94	19.28	3.00	1.96	26.03	22.74	4.27	3.69
Q	21.63	14.97	5.86	2.24	37.53	25.87	15.47	9.53
R	37.88	1.56	1.66	0.00	55.71	4.85	2.04	0.00
S	44.94	7.93	1.11	0.32	34.08	13.04	1.57	0.35
T	12.09	13.66	0.03	0.00	22.72	51.53	0.34	0.00

Source: Calculated from unit level data, 68th Round, (NSSO 2011-12)

The figures in Table 4 are indicating that female workers have lower level of technical training in all the sectors as compared to their male counterparts and also the rural workers have lower level of technical education when compared to urban workers. The percentage share of females is lesser than males for non-agricultural sector that are professional and technical occupations. The females are tending to underrepresented in formal sector and overrepresented in informal sector. If we look at administrative activities, only 0.07 per cent rural females, 0.86 per cent of urban females, 0.42 per cent of rural males and 4.39 per cent of urban males are technically trained.

Furthermore in the sectors of information and communication 2.01 per cent of rural males, 0.21 per cent of rural females, 32.59 per cent of urban males and 7.50 urban females have technical training. Similarly, the proportional share for financial and insurance activities 1.32 per cent (rural males), 0.59 per cent (rural females), 7.21 per cent (urban males) and 1.98 per cent (urban females) are technically educated. Likewise, the percentage share for real estate activities 0.47 per cent (rural males), 4.79 per cent (urban males), 2.23 per cent (urban females) are technical educated, but rural female has no technical training in this sector. In professional, scientific and technical activities technically educated rural males, females and urban males, females are 2.27, 0.06, 15.59 and 2.36 per cent respectively. On the other hand, 6.96 per cent (rural males), 7.73 per cent (urban males) and 1.52 per cent (urban females) are technically educated in the sector of electricity, gas, steam and air conditioning supply. Likewise, among all other sectors of human health and social work activities, entertainment and recreation females have lower level of technical training. A relative gap is also seen in the education attainment between the rural and urban workers.

III. CONCLUSION

This study therefore provides a deep insight that, Indian labour-surplus economy is characterized with the persistence of dual labour market, as one labour market for the poor and another for the better-off. Indian

labour market also tends to segregate female labour market and the male labour market. The unpaid work, domestic works of females are not valued and these types of occupations are neglected as an economic indicator. In the studied occupations and sectors males are dominating the large share as compared to their female counterparts in this dualistic labour market. The reason studied so far is the relative gap is also seen in the education attainment between male and female workers.

Therefore, the percentage share of females is lesser than males for non-agricultural sector that are professional and technical occupations. The females are tending to underrepresented in formal sector and overrepresented in informal sector. Various other constraints like differentials in opportunities, powers, patriarchy, skills, asset holdings, quality of human capital endowments etc. are also responsible for this discrimination in the Indian labour market.

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