

## Article

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# Descent Work and Low-end IT Occupation Workers in Delhi: Work Pathways, Challenges and Opportunities

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### Abstract:

The spectacular growth of ICT in India somehow makes people believe that the average IT professional in India is a graduate from one of the many respected technology schools and employed in a global IT firm. However, a much larger number of people, IT occupation workers, with different levels of skills are employed at the other end of the IT spectrum across the ICT and non-ICT sectors, formal and informal sectors, where very often the wage-rate is negotiated on the basis of verbal contracts in the absence of any standard wage rate. The present paper, based on household survey, carried out in 2009 in Delhi provides an analytical description of low-end IT occupation workers from a “descent work” perspective as conceptualized by the International Labour Organization in order to promote opportunities, in terms of freedom, equity, security and human dignity.

**Key words:** Decent work; Information and Communication Technologies (ICTs); labour; digital divide; Informal economy.

### 1. Introduction

The Information Technology (IT) sector in India is much talked about for its growth both in terms of employment and revenue generation. According to NASSCOM, the domestic IT-BPO segment is expected to grow by 16.9% during the financial year 2010-11. “IT services” is one of the fastest growing segments in the Indian domestic market, rising by 16.8%. Government sector is key catalyst for increased IT adoption – through sectors reforms that encourage IT acceptance and other developments that creates large scale IT infrastructure and promotes corporate participation (NASSCOM 2011).

The rapid growth in IT-BPO industry and IT infrastructure has created large number of jobs for the expanding employable population. The employment provided by the industry increased more than 8 times over 2000-2009 and reached 22 lakhs in 2009, making it one of the biggest job creators in India and a mainstay of the national economy (NASSCOM 2010).

However, beyond the formal IT sectors, there are a large number of people are there in the IT labour markets with different levels of skills. At one end of the spectrum is the IT professional while on the other are workers in the 'business process outsourcing' segment or in the 'data transcription' industry of the IT sector. These IT workers are involved in tasks such as medical and legal transcription, data entry, back office work processing and maintenance of daily accounts for small clients. These IT-enabled services are thought to offer considerable and growing employment opportunities for both women and men across the sectors. These are comparatively low paid jobs. Moreover, very often the wage-rate is negotiated and based on verbal contracts in the absence of any standard wage rate. Added to this there is insecurity of employment—contracts are extremely informal — and sometimes, there are no easy legal remedies if payment is denied by the client.

The above category of "IT workers" often termed as "IT occupation workers" has been a creation of enhancement of IT intensive activities and adoption of IT by different industry groups like manufacturing, trade, retail and finance etc., including the government sector. The shift in favour of IT enabled services has enabled the entry of non-engineer IT occupation workers who had been trained in other disciplines. NSSO (55<sup>th</sup> round, 1999-2000) estimates much higher number of IT occupation workers employed across the sectors (63.4%) than the IT workers employed only in core IT industry (36.6%). This perhaps implies the widening of the labour market in terms of skills and educational background as argued by Basant and Rani (2004).

It also raises questions on the nature of labour processes for the professionals at the lower end of the segment. Concerns have been raised in the literature on how ICTs may have created a dual labour market, with the separation of 'intellectual labour' from 'manual labour' (Vijaybaskar and Parthasarathy 2003). However, there is not much literature on manual IT labours.

## 2. Conceptual Framework

The advent of ICTs will no doubt exert significant influence on other labour-related fields such as wage levels, working process, organization of work, industrial relations and employment. There is, therefore, a growing need for in-depth studies within a systematic perspective of the quality related notion of work. Of the various reconsiderations, the quest for decent work has emerged as a comprehensive category of analyzing the nature of employment in the labour market. The ILO defines decent work as productive work that enables men and women to earn adequate income in conditions of freedom, equality, security and human dignity. The concept of decent work stands on four pillars: access to employment, promotion of rights at work; social protection and social dialogue. (ILO 1999:3).<sup>1</sup>

As far as existing literature in India are concerned, Ramesh (2004) already discussed the insecurities and vulnerabilities of labour in the BPO sector, where

the basic rights at work was found eroded. Sarkar and Mehta (2010) captured the conditions of workers in the ICT sectors using a two-component model of a decent work frontier. However, there is very little literature that captures the ICT workers employed with the ICT-using sectors. In this context, this paper attempts to explore the salient features of employment in IT occupation work across the sectors, using primary data within a decent work framework.

### **3. Diversification of IT and Emergence of Low-end IT**

There is no doubt that the growth and diversification of the ICT industry in India has had significant implications on the labour market and on descent work in particular. Presence of informality is a serious concern regarding IT employment, especially low-end IT occupation workers and the scope for people from the poorer sections of the society. There are indications that among the different IT segments, IT and Enabled Services (IT&ES) are dominated by unorganized enterprises. The NSSO (55<sup>th</sup> round) data shows that more than 38% workers in IT occupations worked in small, informal enterprises in 1999-2000. With the greater integration of ICTs among various sectors, further usage of IT is set to grow further. Consequently there are increasing possibilities of deepening of informality in the IT labour market of India.

At this juncture, it would be crucial to note whether the opportunities created by the expansions of ICTs have really being channeled through to include the larger section of labour-force in a decent manner or not at the lower end. A study focusing on the low-end IT occupation workers would provide insights into the qualities and nature of job in terms from a decent work framework. How far this new sector has widened up the opportunities for the poorer section of the society is also to be looked into. The present paper, based on household survey, carried out in 2009 in Delhi would provide an analytical description of low-end IT occupation workers.

### **4. The City of Delhi: Economy, Employment and Informationisation**

Delhi has emerged as one of the fastest growing economies in the country. The average annual growth rate of Gross State Domestic Product (GSDP) has been recorded at 17.19% at current price for the period of 2007-08 to 2009-10.

City's demography is marked by high population growth due to migration from neighbouring states. The high proportion of immigration also provides a ready pool of resources for the unorganized sector of the City, which constitutes a significant portion of the overall economy of Delhi.

There is strong evidence to suggest the increasing informalization of Delhi's economy. The unorganized sector employment in Delhi has been increasing since the 1990s. The sharpest increase in employment opportunities for men in the unorganized sector was in the services sectors. Between 35 and 43 lakh workers are employed in Delhi's unorganized sector. Trade, hotels,

and restaurants account for one-third of Delhi's unorganized sector employment. Another 27% are employed in the manufacturing sector. (HDR, Delhi 2006).

In last two decades Delhi and NCR has grown into a commercial hub of computer activities (NASSCOM 2010). Delhi gained the top rank in 2006, as far as e-Readiness rank is concerned. Delhi also emerged as the state with most computer intensive manufacturing units. However, there is a lack of detailed data on IT related employment in Delhi. Moreover, there had been a serious under-estimation of low-end IT workers.

Delhi is one of the important cities where a study on low-end IT workers could be carried out. The choice of Delhi as the area for such a study could be rationalized due its recent economic growth, migration from other states, the emergence of service sector jobs and dominance of manufacturing sector as principal job provider which is also the most computer intensive sector in India. The key questions regarding the nature of job opportunities after the IT training, the role of the training institutes in getting employment, wages and conditions of work, social security available for the low-end IT occupation workers and further skills acquired in the job could be explored in Delhi.

A household survey carried out in Delhi among the IT workers from poorer residential colonies in 2009 brings out the nature of low-end IT occupation jobs available in Delhi, its various characteristics including entry and scope for skill up-gradation. The study tries to understand the nature of IT jobs at the lower-end of the spectrum within the descent work framework through the household based survey among the IT workers, residing in the poorer residential areas of Delhi.

## **5. Sample and Methodology**

The study adopts both qualitative and quantitative methods. The household survey was carried out in Delhi in 2009, based on a listing of households covering all nine districts of Delhi, where at least one member of the household was found employed in IT related activities. As the target was the low-end IT workers, the bottom three categories of residential colonies, as certified by the Municipal Corporation of Delhi were selected for the survey. The share of each district in the sample was determined on the basis of pre-existing data sets available through Census 2001 district level data. Census 2001 data on distribution of the low-end IT workers have been used to select the sample size in each district. Approximately, 1200 households were listed out in the selected colonies, where at least one member of the household was found involved in IT related activity. Exactly, 1111 workers were surveyed and analysed in the end, of which 80% are men and 20% are women.

A standard criterion was maintained to identify a worker as IT worker. Only those workers were considered IT workers who were assigned to carry out his/her job through software operated computer and/or communication

device/system or maintenance/repairing of such device. The survey was conducted through face-to-face interviews of the concerned IT worker, using a questionnaire based approach.

## 6. Constitution of low-end IT Workforce of Delhi

The present survey found a wide gender gap in terms of size of the workforce in low-end IT occupation jobs. The case studies with women IT trainees at Delhi clearly show the social restrictions on mobility as the primary barriers to take a job. Moreover, the call centre jobs are particularly considered as odd-hour jobs and hence not considered suitable for young women. Interviews with young women, who are already employed with BPO, show that the time flexibility provided by some employers for the women also enhances the opportunity for women's employment in this sector.

The study finds IT workers between the age group of 16 and 58 years, with an average age of 26.3 years. However, more than 43% of the workers have been reported in the age group between 20 and 24 years. More women (56%) have been found in this age group in comparison with the men (40%). Around 76% of the workers, otherwise, fall in the age group of 15 to 29 years. The nascent stage of the sector is evident in its skewed pattern of age distribution (Table 1). The low-end IT sector is clearly dominated by men and women in their twenties.

**Table 1: Distribution of IT workers by sex and age groups in Delhi**

Age groups	Sex		Total
	Men	Women	
15 – 19	5.5	9.9	6.4
20 – 24	40.4	56.1	43.6
25 – 29	26.8	21.5	25.7
30 – 34	13.6	5.4	12.0
35 – 39	6.1	4.0	5.7
40 – 44	4.5	1.8	4.0
45 – 49	2.4	0.9	2.1
50 – 54	0.6	0.5	0.5
55 – 59	0.1	0.0	0.1
Total	100.0	100.0	100.0

Source: ISST survey, 2008-09

The age profile of low-end IT workforce almost portrays the same picture as one used to see for the high-end IT professionals in the beginning of last decade (Rothboeck et. al. 2001). Low-end IT, which has taken pace only in the following years, is showing a similar kind of trend in social and demographic profile.

The study found that the majority of the low-end IT occupation workers belong to the forward castes (88%). The sample also indicates a much skewed distribution of population as far as their religious affinity is concerned. Almost 88% of the workers belong to Hindu communities.

Upadhyaya (2007) in her study on the IT workforce in Bangalore pointed out the educational system and exclusiveness in recruitment system as reasons behind creating the 'social homogeneity' among IT workers. The findings from the present study too indicate that the "IT" as a field of employment still maintains exclusiveness perhaps due to the complex dynamics of caste bias in the society which is strengthened further by other lacuna in the recruitment system. Moreover, it has already found in case studies that lack of knowledge in basic English and people's perception in respect to the requirement of English for computer education and computer related jobs stop people from entering the IT field. The cost of IT training is another area which further narrows down the scope for a large section of population.

In its attempt to capture the intergenerational mobility among the low-end IT worker, the study has been found that majority of the workers come from at least moderately educated background as far as their fathers' education is concerned. More than 79% of the low-end IT occupation workers reported that their respective fathers are educated at least up to secondary level. More than 35% reported that respective fathers completed higher secondary, whereas 23% of the respondents' fathers have bachelors degree or Masters degree. The trend of having an educated father is common among all social groups, except the STs, where among 33% of them have only completed middle school. Data show that low-end IT occupation work tends to exclude a large section of the society, and limit it to a very exclusive section of educated society. The share of less educated or illiterate father in the sample is very low. There were only 4.5% cases where the father was reported as illiterate and in another 6.5% cases the fathers were reported as primary or below primary educated.

As far as the occupation of the father of the concerned IT worker is concerned, in 59% cases, it was found they were salaried employees. Another 31% were found in business or self employed. About 8% cases they were engaged fully in agriculture. The finding indirectly shows that majority of the workers come from at least a low-middle class background. An assessment of assets of the survey households too corroborates this finding. The affordability of taking an IT course from a private IT training institute is important here. The present scenario is not very inclusive as far as the entry into IT sector for the

people from poorer background is concerned. The present findings indicate that the low-end IT occupation work is dominated by the educated people of the forward caste from non-poor background. However, it was found that 97 % of the workers are the first time IT workers in the family.

Delhi always attracts people from neighbouring states, who come to the city in search of better livelihoods and employment. Around 36% of the IT workers in the present sample are first generation immigrants to Delhi. Among the migrated IT workers, 86% of them report that they have migrated to Delhi for education, employment or better future. For many of them education and better future means an IT training and a placement after training. The largest chunk of the migrants in this sector is from Uttar Pradesh (44.50 %) followed by Bihar (23%). Among the workers, 12.6% have reported that they send remittances to their families in the place of origin. This shows that the labour market mobility in the case of low-end IT work is not as high as it is recorded in IT-BPO sector (NASSCOM 2010).

### **7. Nature and Quality of Employment**

As far as low-end IT related employment is concerned, it is primarily the private sector that employs young people for IT related activities. The study shows that more than 90% IT workers in the present sample are in private sector jobs and about 4% are self employed. The people who are self employed primarily run their own IT related business, ranging from mobile phone repairing to hardware consultancy and DTP jobs. About 6% workers are employed with the government and government undertakings. Among all the workers, 95% have reported them as fulltime workers.

The study has found that majority of workers (68%) employed in non-IT/ITES sectors (see Table 2). The retail and manufacturing are two main sectors for recruiting low-end IT workers. The study finds only 24% workers in core IT sector and 10.6% in domestic Call Centres and BPOs. More women in comparison to men are reported employed in the call centres. The IT firms, employing low-skilled workers, are mostly small IT firms who deal with consultancy, vending and repairing of IT equipments. However, the study certainly found a number of workers at the lower end of IT spectrum in the reputed IT and ITES enterprises.

Interestingly, the NSSO 55th round data shows that more than 38% workers in IT occupations worked in small, informal enterprises in 1999-2000. Several non IT firms are increasingly using IT for various functions which entail hiring of IT occupation workers. Thus the demand for IT occupation workers is not dominated by the large public and private limited firms but small firms who also participate in the IT labour market in a significant manner.

**Table 2: Distribution of IT Workers by Industry Categories**

Profile of Company	%
Govt. and Govt. undertakings	7.7
Private (Manufacturing, construction, wholesale trade, transport)	26.6
Retail trade	20.4
Bank/Insurance/Finance	5.0
School, NGO, Hospitals, Personal Services	8.0
Software/hardware/IT consultancy	21.7
Call Centre / BPO	10.6
All	100.0

Source: ISST Survey, 2008-09

Basic computer operating or data entry is the largest chunk of work as per the data collected in this study. More than 30% of IT workers are employed as computer operator or data entry operator in the above sectors. (Table 3) Apart from that a sizable proportion of the IT workers are employed as cashier, salesperson or accountant (20%). Almost 14% of them are employed as customer care executive, mostly in the call centres.

**Table 3: Distribution of IT Workers in Delhi by designation and sex**

Designation	Sex		Total
	Men	Women	
Comp. Operator/data entry operator	29.2	35.9	30.5
Cashier/sales/accountant	20.2	19.3	20.0
IT supervisor/ Data Manager/IT officer	19.6	6.3	16.9
Customer care executive	12.3	19.7	13.8
Programmer/graphics designer	8.7	5.4	8.0
Teacher / instructor	3.7	11.2	5.2
Owner/self employed	4.1	0.0	3.2
Other	2.4	2.2	2.3
Total	100.0	100.0	100.0

Source: ISST Survey, 2008-09



As far as monthly salary is concerned, around 58% of the IT workers in the current sample, earn between Rs. 3000/- and Rs. 8000/- per month from their current jobs. Among them, more women are in the lower bracket of Rs. 3000.00 – Rs. 5000.00 (37.7%) than the men (20.5%). Through the case studies it has been found that income rises with experience, skills and multi-tasking.

An important finding of this study is that half of these IT workers are employed without any written contract. More women are in this category (64%) than the men (47%). Around 35% workers have reported their job as permanent in nature, but a specific query revealed that majority of those jobs too are without any written contract, however the employee feels secured in the job and they perceive that as permanent job.

More than 95% jobs in the government sector were permanent in nature. Whereas, for the rest of the jobs, no particular trend was found regarding the nature of contract. Specific queries have found that only 9% of the workers receive house rent allowances, 12% of them receive conveyance allowance, 32% of the workers receive medical reimbursement, only 37% of the workers have received annual bonus in the previous year. As far as entitlement of leaves are concerned only 40% of them receive casual leaves, only 72% of them reported that they are entitled to get leave on gazette government holidays and 33% get sick leave when required. The employees, who are receiving most of the benefits, are mostly in the government sector. The employees outside the government sector, who are receiving some of the benefits, are employed across the sectors without any specific concentration in any particular sector.

An important characteristic of work in this sector is the long work hours. It was found that almost 27% of the workers worked for 9 to 13 hours a day. Many of those workers were working overtime, without any extra payment for extra hours. The informality regarding the job and absence of any written job contract force the workers towards unrecorded duty hours without any extra payment, which is common across the informal enterprises.

It is said that availability of a skilled and updated labour force is critical to the sustainability and long term competitive advantage of knowledge-based sectors like software industry. Hence training is important for this sector. In the present study, we have found only 6% IT workers, who have received some kind of IT training on job to use particular software. However, more than 87% workers have reported that they have informally learned something new related to IT and computer operation in the present job. Updating of skills lies entirely with the concerned worker, as there won't be much help from the employer. Workers learn new techniques informally from their colleagues and friends. It is known from the in-depth interviews that workers try to keep their skills updated with the arrival of new information, software and techniques. It's found that a number of workers also opt for multi-tasking for getting opportunities to learn more techniques and gain experiences to be retained by the employer.

### **8. Access to low-end IT Jobs**

Friends, colleagues and the computer training institute play a major role in accessing the jobs for the IT workers. More than 50% IT workers reported that they accessed their current job through the network of the computer institute. Only a very few of them accessed their job through any placement cell or campus recruitment (10%). The study shows that, the sources of information about job availability are largely accessed informally through word of mouth or personal contacts. As far as use of formal source of information is concerned, it's accessed more by women than men.

The lack of information on job opportunities in the public domain and non-transparent entry into the job market is no doubt a serious area of concern. This is the juncture, where biases regarding caste, class play a major role. The instructors and owners of the IT training institutes play a crucial role in facilitating the young job aspirants and their students. An informal network among the employers like small firm owners and the IT institutes majorly control the information regarding the availability of jobs. The instructors of the IT training centres play a major role in placing people once the training is over. The case studies have shown that among the job aspirants, there is a tendency to hang around the training centre even after the training is over. The in-depth interviews have revealed that young men and women after their trainings work free for the institute, to be in the good book of the trainer / instructor of the institute and to be placed by them.

### **9. Skill and Educational Status of Workers**

Knowledge of computer operation is basic minimum requirement for low-end IT jobs. There is a long list of IT training courses, which have been found during the survey. However, a large percentage of low-end IT workers have been found with "diploma in Computer Applications" from private IT institutes (33%). The course duration of diploma in computer applications in a private IT institute is generally between 12 and 18 months. The study also has found a sizable proportion of workers (15%), with an advanced diploma in computer applications, usually cover 24 months of training. The survey has found IT workers with a basic course (13%) which usually takes 6 to 8 months to complete and with DTP course (7%) that takes eight months to an year to complete. Case studies with a few IT workers have revealed that the young job aspirants mostly prefer a normal diploma course in computer application, which they think give wider job opportunities than specific course like DTP. Basic computer training course is opted for a quick IT diploma, which is also less expensive as far as course fees are concerned. Basic courses are also preferred by those who are already in job and looking for a transfer to IT department for both higher salary and status.

Interestingly, this study finds 23% of the low-end IT workers on the job without any formal IT training. More men (25%) have been found in this category than the women (16%). The finding implies that IT/ITES sector provides entry for the people with computer aptitude without even any formal training. A further analysis shows that around 77% of IT workers without any formal training come under the age group of 15 and 34. Case studies with a few IT workers without formal training show us that the employers, especially small retailers and informal enterprises, prefer workers with specific skills like data entry or general computer operating over a 'so called' formal training. A substantial number of workers without formal IT training access jobs in the call centres too. Table 4 provides a detailed list of IT trainings among the IT workers in Delhi.

**Table 4: Distribution of IT workers by IT training/degree**

IT Training	%
Basic Computer Training	13.1
DTP Course	7.8
Diploma in Comp. Application	32.8
Advanced Diploma in Comp. Application	14.9
Graduate in Software/hardware	2.2
All other IT diplomas	6.0
No formal training in IT	23.1
All degrees	100.0

*Source: ISST Survey, 2008-09*

The study has found that majority of IT workers in the sample (61%) were trained at small IT institutes. Around 20% of them were trained at branded IT institutes like NIIT or APTECH. About 4.33% of the workers reported that they have done an IT course in NGO run computer institutes. It is understood that the fee difference between branded IT training institutes and non-branded institutes are huge. Moreover, our sample may be further skewed due to the fact that it was drawn from the comparatively poorer residential areas of Delhi. Table 5 shows the distribution of IT workers by sex and type of IT institute, where they were trained.

**Table 5: Distribution of IT workers by sex and type of IT institute they were trained at**

Sex	Type of IT Institute						Total
	Small IT inst.	Branded IT inst.	ITI	NGO Run centre	University	Open University	Total
Men	59.6	19.8	7.1	4.8	7.1	1.7	100.0
Women	67.0	22.9	1.1	2.7	5.9	0.5	100.0
Total	61.2	20.5	5.7	4.3	6.8	1.4	100.0

Source: ISST Survey, 2008-09

It has been found wide differences between the workers who got training from small private institutes and branded institutes, in respect to the access and the nature of the jobs. For the 57% of the job aspirants, from branded institutes, the information regarding the job availability is sought through the registered placement agencies or advertisements. Whereas, 64% of the job aspirants, from the small private institutes, rely on informal sources for the information on vacancy. Consequently, the job seekers from branded institutes are able to access slightly better jobs, as far as the designation is concerned. Above 50% of the workers who have completed their training from the branded institutes received appointment letters from their employers. Whereas, the figure for the small institutes is 37%. This figure is higher too for the new entrants from ITI (63%) and for the university diploma holders (61%). More than 57% of employees, who are at the highest bracket of salary in the present sample, are from branded institutes. The share of workers from branded institutes is more among those who draw higher salaries.

ICT sector in India is largely a part of the knowledge economy, where education plays an important role in employment and its quality. In the overall employment in ICTs, graduates and those with higher qualifications constituted 45% of the workforce in 2004-5. Moreover the IT-ITES industry had the highest proportion of workers having graduate and above qualifications in 2004-5 (Sarkar and Mehta 2010).

As far as general educational backgrounds of the low-end IT workers are concerned, we have found that most of them (98.6%) have completed at least higher secondary education. The survey has found 39% of IT workers with non technical graduation degree. The study found 26% of workers who had completed higher secondary education but did not complete graduation. Through the in-depth interviews, it has been found that a number of IT job aspirants leave the education in between to enter the job market. However, in the present sample, several workers are there who were continuing the studies

along with their job. Table 6 summarizes the findings of the survey relating to general education of the IT workers.

**Table 6: Educational Qualification of IT Workers**

Educational qualification of the IT worker	Percentage
Up to 10 <sup>th</sup> std.	1.5
Higher Secondary (10+2)	27.0
College Education (but not completed graduation)	25.7
Graduation (general education)	39.0
Masters (General Education)	4.8
Graduation in software / hardware (BE/BCA)	2.2
All	100.0

*Source: ISST Survey, 2008-09*

The present study did not find many people with technical degree in hardware or software. The entire sector of low-end IT occupation work is dominated by people non-technical background.

## 10. Concluding Comments

The paper has tried to provide an analytical description of low-end IT occupation work and the workers in Delhi from a descent work perspective. The low-end IT occupation jobs are on one hand is open to a much wider spectrum of population as far as skills are concerned. However, the present study finds the dominance of traditional power relations and informal social networks in terms of accessing the jobs, and controlling the wage setting and work conditions. This might impose a barrier to the potential of the sector's in promoting inclusive opportunities and employment generation, without strong policy initiatives.

The domination of an urban elite dynamics still play a major role in claiming the training and employment even at the lower end of the sector as it has already been found at the higher end. The low-end IT occupation jobs do not require any sophisticated skill. However, the importance of training school lies in the quick adaptation of fast changing techniques and newer technologies, which is a key criterion to survive in the sector. The skill up gradation is another area of concern in this regard. Without any formal scope for skill up gradation, the workers are continuously being pushed into routine work and finally abandoned.

It is said that ICT industry has already started catalyzing growth beyond today's core markets. The findings of this study confirm that as 70% of the low-end IT occupation workers are employed in the non-IT sectors. The large chunk among the employers fall in the category of small enterprises both in IT related activities and non IT activities. The diversity of the IT using sectors makes it difficult for any targeted intervention.

IT occupation jobs provide a decent income to the workers. More importantly, it brings a tag of higher social status in the society. However, the study shows that a large proportion of workers are employed without any written contract, which invokes lack of job security among the workers. On the other hand, the study has not recorded any form of associations among the low-end IT occupation workers.

The present study has identified several gaps in the sector as far as opportunities for poorer sections of the society are concerned. Training of IT and accessing of IT jobs are the initial barriers for the people from the lower strata of the society. Therefore, the government and other implementing agencies might work towards opening up more inclusive opportunities for them. A more transparent recruitment procedure with some institutional collaboration could be developed linking the IT training institutes, the job aspirants and the employers through a collective mobilisation. Consequently, this would also be a step towards removing the informal nature of the sector and maximization of value addition of this labour intensive sector.

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