

# **Informal Learning: Education and Skill Development in India's Informal Sector**

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*"People learn constantly, everywhere and all the time." (Werquin 2010)*

The paper is divided in seven parts. Part I is an introduction, which gives general information about the informal sector. Part II provides the concept of informal learning with different definitions on the informal sector. After giving a brief overview on different definitions, Part III describes forms of the Informal Sector Training. Part IV highlights the learning processes and possibilities to enter the formal sector. Part V is more focused on gender perspectives in terms of the profile of women in the informal sector. Part VI presents a study on skill gaps in informal sector. It deals with the objective of assessing the skill gaps to enable the skill development agencies to bridge this gap (Sodhi 2014). Finally, Part VII concludes the topic on education and skill development in India's Informal Sector.

## **1 Introduction**

The OECD reports that 1.8 billion people, or about 60% of the global labour force, work without a global contract or social security coverage. In terms of informal employment, India ranks first compared with the other South and Southeast Asian countries and fifth among the 49 developing countries studied in this report (Bairagya 2012).

The Indian informal sector is huge; almost more than 90% of India's informal workforce is working as self-employed and casual workers and almost 50% of the national income emerges from this sector (CII 2015). The Sengupta Committee (2009) report had highlighted that only 2.5% of the informal sector workers have received any kind of formal training while 12.5% had received non-formal training (Sodhi 2014). The informal economy is a very important sector of the Indian economy. The National Council of Applied Economic Research estimates that the informal sector or the so-called "unorganised sector" generates about 62% of GDP, 50% of national savings and 40% of national exports (ILO 2002).

Classical economists considered this sector as a transitory phenomenon as the workers shift to the formal sector with economic development. However, the experience of India and many other developing countries has defied this conventional wisdom. In India, there has been a similar trend as its size has marginally reduced from 87.0% in 2004-05 to 82.7% in 2011-12 along with economic development (Table 1).

	Organised	Unorganised	Total
<b>Formal</b>	32.06 (52)	1.35 (0.3)	33.41 (7.3)
<b>Informal</b>	29.54 (48)	396.66 (99.7)	426.20 (92.7)
<b>Total</b>	61.61 (13)	398.01 (87)	459.61 (100)
	Organised	Unorganised	Total
<b>Formal</b>	37.18 (45.4)	1.39 (0.4)	38.56 (8.1)
<b>Informal</b>	44.74 (54.6)	390.92 (99.6)	435.66 (91.9)
<b>Total</b>	81.92 (17.3)	392.31 (82.7)	474.23 (100)

*Table 1:* Formal-Informal Employment across Organised-Unorganised Sectors (in million). Source: Computed from NSSO unit level data (2004-05 and 2011-12)

Many indigenous and tribal people are working in the informal economy. These workers often remain trapped in conditions of vulnerability and insecurity, as a result of discrimination in access to formal labour markets. The reasons for their vulnerability are (a) irregular work, (b) low economic status, (c) little or no bargaining power, (d) lack of control over earnings, (e) need to balance paid work with care for children and homework, (f) little or no access to institutional credit, training and information, and (g) lack of assets (Mohapatra 2012).

As already mentioned, there will be a focus on women, which are also disproportionately represented in the informal economy. Most of the females are contributing family workers, while males work predominately as workers. Additionally most of women earn less than men. Women, however, spend fewer hours in work than men, in part due to the time they spend in unpaid care work. Women's work may be restricted to own-account or home-based employment, besides their work outside their living environment. Women, by and large, are also clustered in traditional female-oriented economic jobs such as tailoring and cooking. All these factors influence women's risk of poverty and marginalisation within the informal economy (ILO 2013).

Out of this, a large demand-supply gap of skilled workforce exists in the country. The current supply is unable to meet the ever-growing labour demands, both in quality and numbers. NSSO shows that the outreach of vocational education was 1% and 5% for rural and urban educated, respectively. 1% and 7% males in rural and urban areas respectively had undergone vocational education and training but in case of females, it was 1% and 3% in rural and urban areas, respectively (NSSO 2010; Gautam and Navin 2014).

## 2 Concept of Informal Learning – Different Definitions on Informal Sector

Breman (2013) explains the concept of Informal Learning as followed:

*“Informality is a concept that does not only concern labour but also intrudes into the domains of politics and governance: employment as well as capital are outsourced from the formal economy”.*

In 1993, the International Labour Organisation (ILO) proposed this general definition of the informal sector:

*“A group of household or unincorporated enterprises that includes informal self-employed workers as well as the business enterprises of informal employers.”*

The informal learning according to UNESCO is defined, as

*“Informal learning is unintentional learning that occurs in daily life, in the family, in the workplace, in communities, and through the interests and activities of individuals. Through the recognition, validation and accreditation (RVA) process, competences gained in informal learning can be made visible, and can contribute to qualifications and other recognitions. The term experiential learning is also used to refer to informal learning that focuses on learning from experience”. (UNESCO 2012)*

Another definition of Mitra (2002) divides the informal sector in three different categories:

- i. The small or micro-enterprise sub-sector is considered the economically stronger and more dynamic element. Typically regarded as an extension of the formal sector, it is held that a significant part of it is usually connected with the formal sector through various types of

- sub-contracting arrangements. A majority of such enterprises, however, have an independent character and cater to markets at the lower end of the economic scale.
- ii. The household-based sub-sector, where most of the activities are carried out by members of the family (largely unpaid female labour). This sub-sector extends to many different markets, activities, seasons and locations. Most households cannot break out of low incomes and poverty but some households catering to strong markets may evolve into more specialised enterprises.
  - iii. The independent service sector, comprising domestic helpers, street-vendors, cleaners, street barbers, shoe-shiners and so on, as well as those referred to as casual labour. Female labour is highly represented in many of these occupations. In terms of size, they constitute the bulk of the informal sector. The occupation is often seasonal, changing, though the change is normally within the boundaries of the sub-sector itself. The skills required by these occupations are the lowest in the informal skill hierarchy.

In addition to the division of Mitra (2002), the International Conference of Labour Statisticians (ICLS) spelled out six different categories based on the expanded concept. It includes the following categories of work:

- i. Own-account workers (self-employed with no employees) in their own informal sector enterprises;
- ii. Employers (self-employed with employees) in their own informal sector enterprises;
- iii. Contributing family workers, irrespective of type of enterprise;
- iv. Members of informal producers' cooperatives (not established as legal entities);
- v. Employees holding informal jobs as defined according to the employment relationship (in law or in practice, jobs not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (paid annual or sick leave, etc.);
- vi. Own-account workers engaged in production of goods exclusively for own final use by their household (ILO 2013).

In the Indian context,

*“Almost all ‘apprenticeship’ in India has historically been informal in nature and practised in micro-enterprise for centuries – totally outside the purview of any law, and beyond the scope of any regulation.” (Mehrotra 2014: 64)*

Recent studies (Mehrotra et al. 2014) estimate that between 2012 and 2022, India’s over 300 million youth people will need to be skilled. It is estimated that more than 100 million young people will be covered in the general academic stream on the lower secondary level (VII and IX standards). Also, there are those who have undergone informal training (e.g. ‘training on the job’). Out of this approx. 55 million will need formal training.

### 3 Informal Sector Training

Informal learning impacts the informal sector training. Informal learning is learning that results from daily activities related to work, family or leisure (see chapter 9). It is not organised or structured in terms of objectives, time or learning support (Cedefop 2008).

When we are talking about informal learning, the greatest challenge India faces, is how to recognise learning that occurs outside the formal education. In a study of “recognition, validation and accreditation (RVA) of learning in formal, non-formal and informal setting settings, Singh and Duvekot (2013: 14) argue that,

*“formal learning is not sufficient to facilitate and utilize the full human potential of any society. RVA is an important instrument for comparing different forms of learning, in order to eliminate discrimination against those who acquire competences non-formally or informally. Individuals who have had limited access to, or low achievement in, formal education and training, or who learned skills predominantly in the workplace or other settings outside the formal system, are often disadvantaged in further learning and training, and in the labour market.”*

And when we are talking about informal training, the focus of skill development based on the needs of the informal sector exists through a range of programmes under the aegis of different ministries of the government. Some of these programmes, which are running besides the formal system, are the following:

- *Informal Apprenticeship*

This is based in the concept of “learning by doing”. Learning by doing can be understood as a process of occurring work of the trainer, practicing and participation in the working process. That means that the informal

apprentice is involved in the production of an unorganised company. On the one hand the apprentice is involved in different processes of work and on the other he undergoes training by a master craftsmen. In this way the apprentice can upgrade his skills (Mehrotra 2014).

- *Community Polytechnic*

These are short-term, non-formal, modular courses of 3-6 months duration, depending on the local needs and commensurate with the available local resources with proper structures (AICTE 2014). The target groups are generally unemployed youth, school and college dropouts and other underprivileged segments of the rural population. They can be skilled in various trades and multiple skills. The scheme of Community Polytechnics was started under a direct central government's assistance scheme in 1978-9 in 35 polytechnics. As per status of 2013 there are 617 AICTE-approved Community Polytechnics (Mehrotra 2014).

- *Jan Shikshan Sansthan (JSS)*

This programme, launched as an Adult Education Programme of MHRD, established to provide vocational training to non-literate, neo-literate, as well as school drop outs by identifying skills as would have a market in the region of their establishment (MHRD 2015). It targets the adults and young people who have migrated from urban and rural areas. This scheme has acted as a district-level resource to organise JSSs were functioning in various states of the country (Mehrotra 2014; Singh 2013).

The scope of work of JSSs include the following:

- Develop/ Source appropriate curriculum and training modules covering vocational elements general awareness and life enrichment components.
- Training equivalent to courses designed by the Directorate of Adult education, National Institute of Open Schooling (NIOS) and Director General Employment & Training.
- Provide training to a pool of resource persons and master trainers for conducting training as also availability of infrastructure and training – specific equipment.
- Administer simple tests and award certificates
- Network with employers and industries for trainees to get suitable placements (MHRD 2015).

- *National Institute of Open Schooling (NIOS)*

The NIOS formerly known as National Open School (NOS) was established in November 1989 as an autonomous organisation in pursuance of National Policy on Education 1986 by MHRD (NIOS 2015). This pro-

gramme imparts education through open and distance modes from primary to senior secondary level. It has the directive to offer vocational education and training programmes to general and prioritised groups (scheduled castes, scheduled tribes, women, rural people, disabled, and disadvantaged groups of the society) through a network of its study-cum-training centres known as Accredited Institutes (AIs). The NIOS offers 82 vocational education courses through its institutes. It has a network of 11 Regional Centres and about 2,067 study centres. In 2012, there were about 1,063 AIs. The cumulative enrolment in VET during the preceding five years is 93,000. The average duration of these courses is shorter than ITIs/ITCs (see chapter 4) (Mehrotra 2014 and Singh 2013).

The vision of NIOS is “sustainable inclusive learning with universal and flexible access to quality school education and skill development”. (NIOS 2015)

The mission can be understood as:

- i. Providing relevant, continuing and holistic education up to pre-degree level through Open and Distance Learning System
  - ii. Contributing to the Universalisation of School Education
  - iii. Catering to the educational needs of the prioritized target groups for equity and social justice (NIOS 2015).
- *Shramik Vidyapeeths*  
The Department of Education has initiated a scheme of non-formal, adult and continuing education for the urban community through the Shramik Vidyapeeths. During 1997-98, 58 such institutes were set up. One Hundred ITIs exclusively provide vocational training for women. The thrust of the scheme is to provide part multidimensional or polyvalent training and education to the urban community through specially tailored programmes aiming at providing knowledge and skills in an integrated manner. Under the scheme, courses of varying duration to develop vocational and technical skills for income generation activities are conducted. Shramik Vidyapeeths offer around 225 different vocational training programmes ranging from candle and agarbatti<sup>4</sup> making to computer courses (Mitra 2002; Krishna 2005).
  - *Khadi and Village Industries Commission (KVIC)*  
KVIC established under the Khadi and Village Industries Commission Act, 1956, it is a statutory organisation engaged in promoting and developing Khadi and village industries for providing employment opportunities in the rural areas, thereby strengthening the rural economy of the country. The broad objectives of the scheme are:

- The social objective of providing employment.
- The economic objective of producing saleable articles.
- The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit (MSME 2008).
- *Krishi Vigyan Kendras (KVK)*  
In 1973 the Krishi Vigyan Kendras scheme was established and implemented. The Indian Council of Agricultural Research (ICAR) is the founder and financer of this programme. KVK places a special emphasis on training and education of farmers, entrepreneurs, farmwomen, rural youth, financial institutions extension functionaries as well as voluntary organisations. As per now, there are 641 training institutes spread out over India (ICAR 2010).
- *Swarnjayanti Gram Swarojgar Yojana (SGSY)*  
The Ministry of Rural Development establishes the Swarnjayanti Gram Swarojgar Yojana scheme. The objective of SGSY is to bring the assisted poor families (Swarozgaries) above the Poverty Line by ensuring appreciable sustained level of income over a period of time. This objective is to be achieved by inter alia organising the rural poor into Self Help Groups (SHGs) through the process of social mobilization, their training and capacity building and provision of income generating assets (see chapter 10) (MRD 2011).
- *Prime Minister Rozgar Yojna (PMRY)*  
Prime Minister of the India established the scheme in 1993 for giving self-Employment to learned jobless Youth in the country. This program is to give self-employed breaks to one million jobless educated adolescents in the country. This scheme is known as PMRY. An objective of the scheme has been intended to give employ to over million People by starting 700,000 micro ventures by the jobless educated youth. It recounts to the starting of self-employment schemes through commerce, service & business means (MSME 2008).

#### **4 Learning Processes and Possibility to enter the Formal Sector**

There are different schemes in the informal training sector, which will support people from rural areas to have the possibility of entering the formal sector. It is important to build skill development schemes, which would help learners to complete secondary school, or to increase their employability. So, that is the reason, why India focuses on school education on the one hand and on skill development



schemes on the other hand. All these skill development schemes mentioned above are run by different institutions and departments under different ministries to support skill training, assessment and certification. These programs are in view of the limitations of people in the informal sector. According to King (2011),

*“the lack of formal qualifications makes workers vulnerable; they earn lower wages, their productivity is low; they are exploited by their employers, and they are often disadvantaged in gaining access to formal education”.*

#### 4.1 Skill Recognition in the Informal Sector

To give informal learners the chance to grow, the first thing which is already done by government, is quality training in different trades, which are created on the needs of the trainees (need-based training). After undergoing the training, it is important to make sure that participants have understood theory and practice of contents. In regard of this point, it is important that the trainer/teacher itself is well trained on pedagogy. When trainings are organised for the rural youth, a trainer/teacher should prepare the content with different media and methods, to get the attendance of the trainees. Also, it is important that the trainees can understand on which they are trained. That means a trainer/teacher should be able to speak the regional language.

Different methods can be used to create a good learning environment. The ability of ‘learning by seeing’ and ‘learning by doing’ are opportunities to make aware of technologies. It is essential to create an action-based learning design by informing, planning, acting, applying, controlling and evaluating.

Evaluating can be understood as self-evaluation of learning processes or certification of training. There is a need to certify the learning outcome to give the trainees the chance to enter the formal education stream or for increasing their employability.

The assurance of knowledge is another significant aspect. Training courses should include post-trainings and follow-up programmes to strengthen the employability (King 2011).

## 5 Gender Perspective in Terms of the Profile of Women in the Informal Sector

Women in the informal sector need a special set of learning for entering into productive markets based on their socio-cultural milieu and low education levels. The

government of India has been providing such learning and training in the informal sector but it has not been sufficient to cater the need of about 200 million workers in this sector. Fortunately there are other private institutions and NGO's, which are complimenting the efforts of the government.

Women in India constitute 48% of the population. There is a significant overlap between being a woman, working in the informal sector and being poor. Women worldwide are under-represented in high-income activities and over-presented in low-income activities notably (Chen et al. 1999).

Women Literacy and Learning: In the last decade the literacy rates for girls have increased faster than the boys'. However, one-third of them are still illiterates and their education levels are not lower than the boys'. But almost two-thirds drop-out before 8<sup>th</sup> standard (GoI 2011). Consequently the Gross Enrolment Ratio (GER) in higher education (12<sup>th</sup> standard and above) is only 16.5%, which is also less than the males. UNESCO (2014) report states that it will take another 56 years for India to provide education to all females.

Skill development of women in the informal sector is provided by the Ministry of Labour and Employment (MoLE) and a number of other ministries. The Modular Employable Skill (MES) program is a program run by MoLE. It provides a minimum of skill set which is required to get basic employment. Also the industry is involved in this program. Now the MES program allows skill-up gradation, multi-entry and exit and lifelong learning in a flexible manner. It also allows recognition of prior learning. Another program called ILO/SIDA provides vocational education exclusively for women. The Department of Education has a scheme called Sharamik Vidyapeet (see above).

However, despite these programs, 95.4% of women workers in the informal sector have not received any vocational training as against about 91% of males. Among the few who had received training, only 0.4% had training through formal and the others from informal channels. So, most of them belongs to the informal sector. In urban areas, the percentage of unorganised sector workers is close to 65-70%. As a result, there has been increasing in formalisation of employment over the years (Mohapatra 2012).

The gender prospects of learning are extremely relevant for India's informal sector. Apart from high levels of illiteracy, almost one-third of women are illiterate compared to less than 18% of illiterate males (2013). India has the lowest female participation rates in the world. Only 25% of the workers employed in India are women (GoI 2011). There are several reasons why more women than men are located in the informal sector.

First, women have low decision-making power and often work as marginalized workers (Grabowski 2013). Also, women have no easy access to formal jobs because of the Indian social system. It dictates that women without education

and those who are locally based can't enter the formal system (Singh 2005; Mehrotra and Biggeri 2002). Second, there is an intergenerational bias against women's learning. Gender discrimination starts at a very early stage in the childhood within families. Third, there is deprivation of enlightenment due to illiteracy and lack of exposure. Therefore a large majority had to live and work under the harshest conditions in poverty (ILO 2010). Fourth, women tend to move more often in and out of the labour force in their economically active lives because of balancing work and family responsibilities. Women, therefore, have less chance for lifelong learning to improve their employability.

The government of India has been providing vocational education and training to women in the informal sector. However, its efforts fall much short of the requirements vocational education is also provided by other private players and the NGO's. The study (Sodhi and Ramanujam 2010) examines in depth the efforts of 39 vocational training providers at 14 locations in eight states of India. Based on experiences of the training providers, the study develops a model of providing vocational training to women in informal sector keeping in mind their special needs.

## **6 The Study**

Informal sector workers may not require total inputs as they have already been working and have acquired some skills. However, little is known about their proficiency of skills or lack of it. A study of this nature will help millions of aspiring and already engaged workers to acquire formal skills in the context of the present and the future needs.

A pilot study was undertaken with the objective of identifying the present level of skills and assesses the skill gaps to enable the skill development providers to bridge this gap. The study was carried out in five trades of Motor Mechanic (Automobile/Auto Component) in Ludhiana- Punjab, Mason (Building & Construction) in Noida-Uttar Pradesh, Plumber in Gurgaon, TV repair (Electronics Hardware) in Gurgaon in Haryana and Carpenter (Building & Construction) in Noida, Uttar Pradesh. In each trade, 100 workers were interviewed with the help of a specially designed questionnaire enumerating the total component of skills required for each trade.

6.1 Findings & Implications

The study results provide information about which not much is known as there are fewer studies on the subject. NSDC has done a few studies but more on the quantitative skill gaps. In terms of their background information the study found that most of the respondents belonged to the younger age group (16-35years) with the implication that such workers are going to be in the labour market for over two decades. A higher proportion of them studied up to the eight standard with more of carpenters and masons being illiterates or studied up to the primary level. These workers will not be able to attain vocational education in the formal streams. Most of the respondents, except for the Motor Mechanics, were willing to undertake formal training to bridge their skill gaps. Majority wished to take up part time training and very few opted for the formal sources of training.

These workers will not be able to attain vocational education in the formal streams.

The respondents were also not able to invest much time on further training as most of the Masons and Plumbers opted for training up to 30 days while others opted to undertake training for up to 100 days (Tables 1-9).

No.	Years	(Fig. in %)								
		15-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	55 & above
Trade										
1.	Motor Mechanic	4	30	18	17	16	8	7	-	-
2.	Mason	17	15	23	18	8	7	12	-	-
3.	Carpenter	16	44	17	15	5	2	1	-	-
4.	Plumber	9	46	24	13	6	2	-	-	-
5.	TV Mechanic	76	20	4	-	-	-	-	-	-

Table 2: Age group of the Respondents

No. of	Days Trade	(Fig. in %)			
		Up to 15	16-20	21-25	26-30
1.	Motor Mechanic	-	-	-	-
2.	Mason	-	12	24	64
3.	Carpenter	7	12	45	36
4.	Plumber	4	21	46	29
5.	TV Mechanic	-	-	-	-

Table 3: Average number of Days employed in a month

No.	State	(Fig. in %)								
		UP	BR	WB	PB	UK	HR	OR	JH	Others
	<b>Trade</b>									
1.	Motor Mechanic	4	-	-	91	-	-	-	-	5
2.	Mason	44	15	19	-	-	-	-	10	12
3.	Carpenter	57	-	-	-	2	29	-	-	14
4.	Plumber	39	15	-	-	-	11	-	19	16
5.	TV Mechanic	2	-	-	-	-	98	-	-	-

Table 4: State wise of origin of the Respondents

No.	Education Level	(Fig. in %)			
		Illiterate	Up to 8th Std.	Up to 10 <sup>th</sup> Std.	11 <sup>th</sup> Std. & above
	<b>Trade</b>				
1.	Motor Mechanic	3	7	41	49
2.	Mason	37	22	27	14
3.	Carpenter	19	13	45	23
4.	Plumber	29	6	54	11
5.	TV Mechanic	-	4	36	60

Table 5: Level of Education of the Respondents

No.	Monthly Income (Rs.)	(Fig. in %)			
		0-5000	5000-10000	10001-15000	15001 & above
	<b>Trade</b>				
1.	Motor Mechanic	11	23	16	25
2.	Mason	7	67	12	14
3.	Carpenter	7	68	21	4
4.	Plumber	12	60	24	4
5.	TV Mechanic	6	26	26	32

Table 6: Average Monthly Income of the Respondents

No.	Monthly Income (Rs.)	(Fig. in %)			
		0-5000	5000-10000	10001-15000	15001 & above
<b>Trade</b>					
1.	Motor Mechanic	5	28	20	47
2.	Mason	7	46	20	23
3.	Carpenter	4	39	15	42
4.	Plumber	3	16	24	57
5.	TV Mechanic	6	26	16	52

Table 7: Average Montly Income of the Family

No.	Willingness	YES	NO
		<b>Trade</b>	
1.	Motor Mechanic	53	47
2.	Mason	93	7
3.	Carpenter	95	5
4.	Plumber	91	9
5.	TV Mechanic	98	2

Table 8: Willingness to Undergo Training

No.	Institution	NIOS	ITI	Part Time (anywhere)
		<b>Trade</b>		
1.	Motor Mechanic	9,4	24,5	72,1
2.	Mason	12,9	31,2	56,9
3.	Carpenter	9,5	26,3	65,2
4.	Plumber	7,9	6,7	85,4
5.	TV Mechanic	10,9	21,7	67,4

Table 9: Institution from Which Willing to Undergo Training

No.	Training days	(Fig. in %)				
		Up to 10	Up to 20	Up to 30	Up to 100	100 days & more
<b>Trade</b>						
1.	Motor Mechanic	9,4	18,9	20,6	26,4	5,7
2.	Mason	-	12,0	88,0	-	-
3.	Carpenter	4,2	12,5	21,1	24,2	6,0
4.	Plumber	3,3	29,7	56,0	4,4	6,6
5.	TV Mechanic	5,7	7,7	12,2	35,6	31,9

Table 10: Desired Number of Days of Training

## 6.2 Skill Gaps

*Motor Mechanic:* The training duration for getting formal certification is entirely a function of the skill gaps. However, the policy makers would also need to orient the curriculum from the perspective of persons wishing to enhance their skills. The data on skill gaps shows overall there was a gap of 48% in their competence of the trade. More specifically, about two thirds had nil or negligible competence of the main parts of and the units attached with the engine of a motor vehicle. Two thirds also had nil or negligible competencies about other aspects like ‘meaning of stroke’, ‘functions of cylinder’ and ‘components of full supply in diesel engine’. 49% did not have knowledge of the ignition system. Further, 36% of the respondents had nil or negligible competency regarding the ‘merits & demerits of the two stroke engine’. One-fourth did not have any competency of the difference between “two strokes and the four Strokes engine”. On other aspects like ‘thermostat’ ‘battery’ ‘reasons and remedies of the injector pressure’ a higher proportion of respondents had no/ negligible competence. While there are competency gaps most of Motor Mechanics were unwilling to take up further training

*Masons:* Their competency levels were checked on aspects like tools, bricks, cement, mortar, masonry technical terms & safety precautions. Their overall competency gap of all these aspects was 55%. About half or more did not have the competence of various masonry terms, tools & knowledge of storage of cement and ratio of various ingredients of mortar. Sixty percent of them also did not have any competence of the safety precautions to be taken up while on the job. Most of them were willing to take up further training to bridge the skill gaps.

*Carpenter:* Their competence was seen on aspects like knowledge of distinction between soft and hard wood, distinction between various units of measurement, knowledge of carpentry technical terms, bugs and worms, tools and instruments and safety precautions. Overall, there was a gap of 39% in their knowledge of various aspects of their trade. The competence gap was the highest on safety norms as about two-thirds had nil or negligible knowledge of this aspect. About half of them also did not have any knowledge of soft and hard wood and tools and instruments like caliper, compass, etc. Over two-thirds had knowledge of bugs & worms and technical terms of their trade.

*Plumbers:* The competence level was drawn out on plumbing terms & systems, conversion of units from FPS to MKS, dimensional tolerance while assembling GI pipes and bending & threading pipes. Overall there was a skill gap of 44% in their knowledge. More specially, about one-fifth had nil or negligible competence of bending & threading pipes, over two-thirds had nil or negligible competence of the conversion of units from FPS to MKS and of dimensional tolerance while assembling the GI Pipes. 39% of the plumbers did not at all know the reasons for overflowing from cistern as well as the method of stopping them.

Most of the respondents showed their willingness for training. *TV Mechanic*: Competence levels were assessed on their knowledge of resistance, finding typical faults, instruments, Wattage and replacing defective parts like transistor, Diode & IC from PCB. Overall, there was a skill gap of 48% amongst the TV Mechanics. 30% did not have any knowledge of various measuring instruments and 28% have no knowledge of Wattage of Electric Soldering iron. There were gaps in competence of finding specific faults (38%) and resistance (48%). All of them were willing to take up additional training.

The study results show that despite skill gaps, willingness of such workforce to take up further training cannot be taken for granted. For example while most of Motor mechanics had skill gaps they showed their unwillingness to take up further training. This finding has two kinds of implications. One there has been a lot of debate on the absolute numbers of persons, which would require vocational training. The figure of training 500 million persons has been arrived simply by projecting the number of persons who are and will enter the labor market till 2022 and the assumption that all of them will require vocational education. Second, the unwillingness of the technical persons raises the basic question of leaving them alone with the present level of skill gaps or to take a call on giving them further training. It is important that the policy makers make an effort to understand of the present gaps of such persons and build some incentives considering that they are going to be in the labor market for over two decades and their present level of skills would become obsolete, due to technological advancements in the years to come. The training capsules thus developed would have to be imparted through part time mode as also of the duration which is in sync with the availability of such persons.

## 7 Conclusion

According to the present status of education and skill development in the informal sector, there is still the need to strengthen the employability in the rural areas. To this effect, the government of India has intensified its efforts and had created a separate Ministry of Skill Development and Entrepreneurship in 2014 with the main objective of co-ordination of all skill development efforts across the country, removal of disconnect between demand and supply of skilled manpower, building of new skills and skill up-gradation and encourage entrepreneurship. In August 2015, the government unveiled the new National Policy for Skill Development and Entrepreneurship 2015 under its National Skill Development Mission, and rolled out on all-India basis the flagship scheme, Pradhan Mantri Kaushal Vikash Yojana (PMKVY). The Yojana is a demand-driven, reward-based skill training



scheme which will incentivise skill training, by providing financial rewards to candidates who successfully complete approved skill training programmes. Along with other initiatives of VET, it will, for the first time, provide skills to young people who lack formal certification, such as workers in India's vast unorganised sector through an initiative known as 'Recognition of Prior Learning' (RPL). These young people will have a chance to be assessed and certified for the skills that they already possess. This task will be taken up by the Ministry of Skill Development and Entrepreneurship created last year especially of women outside the formal system.

The study highlighted in the paper would be of help to the government in understanding the issues of skill formation in the informal sector as well as the nature of skill gaps of the technical persons.

## References

- AICTE (2014): Community College Scheme. All India Council for Technical Education, New Delhi. URL: [http://www.aicte-india.org/downloads/community\\_schema.pdf](http://www.aicte-india.org/downloads/community_schema.pdf).
- Bairagya, Indrajit (2012): Employment in India's informal sector: size, patterns, growth and determinants. In: *Journal of the Asia Pacific Economy*. No. 17, Issue 4. Pp. 593-615.
- Breman, J. (2013). *At Work in the Informal Economy in India – A perspective from the Bottom Up*. Oxford University Press. New Delhi, India.
- Cedefop (2008): *Modernising vocational education and training. Fourth report on vocational training research in Europe: background report. Volume 2. Cedefop Reference Series 70*. Luxembourg: Office for Official Publications of the European Communities.
- Chen, M.; Sebtad, M. and O'Connel, L. (1999): *Counting the Invisible Workforce: The Case of Home Based Workers*. In: *World Bank*. Vol. 27 (3), Confederation of Indian Industry (2014): *National Skills Report*. New Delhi, India.
- Confederation of Indian Industry (CII) (2015): *The India Skills Report 2015*. URL: <https://wheebox.com/logo/India%20Skills%20Report2015.pdf>.
- Gautam, R. S. and Navin, T. (2014): *Challenges in Promotion of Vocational Education among Rural Youth: A Study of Bihar and Rajasthan States of India*. In: *Indian Journal of Vocational Education*. Vol. 19, Issue 1, April-September 2013.
- Grabowski, R. (2013): *Female Autonomy in Rural North India: Impact of Economic, Social and Political Factors*. In: *Journal of Economic Development*. Vol. 38 No.1.
- Government of India (2011): *Census of India*. Ministry of Home Affairs. New Delhi, India.
- Indian Council of Agriculture Research (ICAR) (2010): *Krishi Vigyan Kendras (KVKs)*. URL: <http://www.icar.org.in/en/krishi-vigyan-kendra.htm>.
- International Labour Organisation (ILO) (2002) *Decent Work and the Informal Economy*. International Labour Conference, Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya, Geneva..
- ILO (2010): *Working Out of Poverty*. Report of the Director General. ILO, Geneva.
- ILO (2013): *The Informal Economy and decent work: A policy resource guide supporting transitions to formality*. International Labour Office, Employment Policy Department – Geneva ILO 2013.
- King, K. (2011): *Expanding Opportunities for the Marginalised through Skills Development. Some Modes Proposals for a Strengthened Focus on Technical and Vocation Education and Training*

- (TVET) in the Education for All (EFA) Agenda. Background paper for the GMR 2012 on Skills Development.
- Krishna, V. V. (2005): Institutional support structures and modes of skills transmission. In: Singh, M. (2005): Meeting Basic Learning Needs in the Informal Sector – Integrating Education and Training for Decent Work, Empowerment and Citizenship. Springer, Dordrecht, The Netherlands.
- Mehrotra, S. and Biggeri, M. (2002): Social protection in the informal economy: home based women workers and outsourced manufacturing in Asia. In: Working paper No. 97. UNICEF Research Unit, Florence.
- Mehrotra, Santosh (2014): India's Skills Challenge, Reforming Vocational Education and Training to Harness the Demographic Dividend. Oxford University Press 2014, New Delhi.
- Mitra, A. (2002): Informal Economy - Training and skill formation for decent work in the informal sector: case studies from South India. ILO Working Papers from International Labour Organisation (ILO): URL: [http://www.ilo.org/public/libdoc/ilo/2002/102B09\\_273\\_engl.pdf](http://www.ilo.org/public/libdoc/ilo/2002/102B09_273_engl.pdf).
- MHRD (2015): Jan Shikshan Sansthan. URL: <http://mhrd.gov.in/jss>.
- Mohapatra, K. K. (2012): Women Workers in Informal Sector in India: Understanding the Occupational Vulnerability. In: International Journal of Humanities and Social Science. Vol. 2 No. 21, pp. 197-207.
- Ministry of Rural Development (MRD) (2011): Swarnjayanti Gram Swarozgar Yojana (SGSY). URL: <http://rural.nic.in/sites/programmes-schemes-sgsy.asp>.
- Ministry of Micro Small and Medium Enterprises (MSME) (2008): Khadi and Village Industries Commission (KVIC). URL: [http://msme.gov.in/Chapter%205-Eng\\_200708.pdf](http://msme.gov.in/Chapter%205-Eng_200708.pdf).
- National Statistical Commission (NSC) (2012): Report of the Committee on Unorganised Sector Statistics. Government of India. URL: [http://mospi.nic.in/Mospi\\_New/upload/nsc\\_report\\_un\\_sec\\_14mar12.pdf](http://mospi.nic.in/Mospi_New/upload/nsc_report_un_sec_14mar12.pdf).
- National Institute of Open Schooling (NIOS) (2015): General information about NIOS. URL: <http://www.nos.org/#E3>.
- National Sample Survey Office (NSSO) (2010): NSS 66th Round (July 2009 - June 2010). Ministry of Statistics and Programme Implementation, Government of India. URL: [http://mospi.nic.in/Mospi\\_New/site/inner.aspx?status=3&menu\\_id=31](http://mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=31).
- NSSO (2012): NSS 69th Round (July 2012 - December 2012). Ministry of Statistics and Programme Implementation, Government of India. URL: [http://mospi.nic.in/Mospi\\_New/site/inner.aspx?status=3&menu\\_id=31](http://mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=31).
- Planning Commission (2008): Skill Development and Training. 11<sup>th</sup> Five Year Plan. Government of India. URL: [http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11\\_v1/11v1\\_ch5.pdf](http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11v1_ch5.pdf).
- Singh, M. (2005): Meeting basic Needs in the Informal Sector: Integrating Education and Training for Decent Work, Empowerment and Citizenship. UNEVSCO-UNEVCO, Technical and Vocational Education and Training Series No. 2. Springer Publishing House. New York.
- Singh, R. L. (2013): The NVQF and skills recognition. In: Singh, M. and Duvekot, R. (2013): Linking Recognition practices and National Qualifications Frameworks. UNESCO Institute of Lifelong Learning, Hamburg, Germany.
- Singh, M. and Duvekot, R. (2013): Linking Recognition practices and National Qualifications Frameworks. UNESCO Institute of Lifelong Learning, Hamburg, Germany.
- Sodhi J. S. and Ramanujam, M. S. (2010): Skilling Women For Work in Informal Sector. Shri Ram Centre for Industrial Relations, Human Resources, Economic and Social Development. New Delhi.
- Sodhi, J.S. (2014): A study of skill gaps in the Informal Sector. In: IJIR (2014): A review of economic & social development, The Indian Journal of Industrial Relations, Shri Ram Center. Vol. 49 No. 3, p. 456-470.
- UNESCO (2012): UNESCO Guidelines for the Recognition, Validation and Accreditation of the Outcomes of Non-formal and Informal Learning. UNESCO Institute for Lifelong Learning. URL: <http://unesdoc.unesco.org/images/0023/002326/232656e.pdf>.

- UNESCO (2014): Education for All Global Monitoring Report. Geneva.
- United Nations Development Programme (2013): Human Development Statistical Tables. URL: <http://hdr.undp.org/en/data>.
- Werquin, P. (2010): Recognition of Non-Formal and Informal Learning: Country Practices. OECD. February 2010. URL: <http://www.oecd.org/edu/skills-beyond-school/44600408.pdf>.
- World Bank (2015): Country and Lending Groups. URL: <http://data.worldbank.org/about/country-and-lending-groups>.