

Skill mapping of production workforce in small scale knitwear units of Ludhiana

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■ **ABSTRACT** : The Indian Knitwear industry has an overwhelming contribution in the GDP of the country. Small firms are an important source of employment in India and employ a sizable share of the labour force. Ludhiana Knitwear Industry is very versatile and is manufacturing various types of products. The production workforce plays an important role in determining the quality and quantity of products being made hence, the present research is focused to find out the existing skill sets and skill gaps in production workforce of ten small scale knitwear units of Ludhiana. Data collected from 150 respondents reveal that the production labour was uneducated and lacked vocational qualification, machine knowledge and self understanding of the work. The skill gaps existed in areas pertaining to qualification, efficiency and machine knowledge.

■ **KEY WORDS**: GDP, Knitwear, Production workforce, Skill sets

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Despite being strong in wovens, the knitwear industry in India is on a rising growth pattern. The knitting industry is organized as well as unorganized or decentralized. The major portion of the knitwear readymade garment industry is concentrated in the northern states, especially Punjab. Ludhiana in Punjab is called the 'Manchester' of India as far as knitwear is concerned. The knitwear industry has a range of firms with different investments in plant and machinery. The Small Scale Industries are the ones whose investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees (Jaswal, 2010). Small industries face a number of problems like inadequate working capital, lack of information to potential markets, lack of trained personnel and obsolete

technology. India has the largest labour resource in the world, but the number of skilled workers comprises approximately around 5 per cent of the total proportion. The labour is mostly unskilled and migratory adding to the woes of the industry owners. To manufacture a vast range of products in a knitwear unit, trained workforce is required. Development does not start with goods; it starts with 'people' and their education, 'organizing' and 'discipline' (Schumacher, 2001).

Technology up gradation alone cannot bring the desired results but success in any field lies in educating and training people. Need based training is an important tool to develop 'human resource' and 'improve job knowledge and skills' but it can only be implemented if the existing skill sets and the gaps are known to the

promoters of the industries. The present study is an effort in this direction.

Objectives :

- To study the existing skill sets of the production workforce of selected industries.
- To find out the gap areas in skill sets of production workforce.

RESEARCH METHODS

An interview schedule was prepared to study the existing skill sets of production workforce of ten small scale knitwear units of Ludhiana city which were randomly selected. The names of the selected units have not been disclosed on their request. A total of 150 respondents (15 from each industry) were purposively selected on the basis of the recommendation of the respective Production Managers and their permanent job profile. The information regarding their educational and vocational qualification, work profile, output per day, employment conditions etc. was collected and analyzed. To gain an insight about standard skill sets of the production workforce, ten Production Managers (one from each selected industry) were personally interviewed to identify the gap areas.

RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Socio-personal background of the respondents :

The age, gender and marital status of the respondents is summarized in the following Table 1.

Data enfolded in Table 1 indicates that majority of the respondents were between 35-45 years of age group and male accounted for a large part of production workforce. It was observed that 77.3 per cent of the production workforce members were married.

Existing skill sets of production workforce:

To study the existing skill sets of production workforce, the respondents were asked many questions regarding their education, qualification, experience, work profile, working hours, employment conditions, remuneration etc. The results are summarized in the following tables and figures.

Table 2 represents the information regarding the

Table 1 : Socio- personal background of the respondents (n=150)

Sr. No	General profile	Respondents	
		f	%
1.	Age (Years)		
	15-25	32	21.3
	25-35	47	31.3
	35-45	55	36.7
2.	45-55	16	10.7
	Gender		
	Male	146	97.3
	Female	4	2.7
3.	Marital status		
	Married	116	77.3
	Unmarried	34	22.7

Table 2 : Qualification of the respondents (n=150)

Sr. No.	Particulars	Respondents	
		f	%
1.	Educational qualification		
	Uneducated	27	18.0
	Primary	68	45.3
	Matriculate	34	22.7
	Intermediate	18	12.0
	Graduate	3	2.0
2.	Vocational qualification		
	No qualification	150	100.0
3.	Experience (Years)		
	1-5	54	36.0
	6-10	69	46.0
	More than 10	27	18.0

educational and vocational qualification of the production workforce. The educational profile of the respondents makes it clear that majority of the respondents were with primary education and a very few of them were matriculates and graduates. There was no member in the production workforce with any kind of formal training or vocational qualification. It was found that majority of the workers had less than ten years of experience.

The data presented in Table 3 reveals that 54.7 per cent of the workers were from tailoring section whereas 18.6 per cent from the over locking section because particularly cut and sew in knitwear manufacturing contains the largest amount of production workers. In tailoring/sewing, 30.5 per cent of the workers were involved in placket making followed by 26.8 per cent of the workers who were involved in attachment of collar.

Table 3 : Work profile of the respondents (n=150)

Sr. No.	Work profile	Respondents	
		f	%
1.	Garment assembly section		
	Complete garment	15	10.0
	Over locking	28	18.6
	Linking	25	16.7
	Tailoring/Sewing	82	54.7
2.	Type of work in tailoring/sewing		
	Shoulder joining	9	11.0
	Placket making	25	30.5
	Collar attachment	22	26.8
	Neck tape attachment	11	13.4
	Pocket attachment	15	18.3

Working hours and remuneration of the respondents (n=150):

The data in Fig 1 revealed that majority of the respondents had to work 9 hours per day to give desired

output. All the respondents were employed as full time workers. Due to seasonal demand of labour, a large part of production workforce works on contractual basis and same trend was observed in the selected units. Seventy two per cent of the respondents worked on piece rate remuneration system rather than fixed salary.

From the data given in Table 4 it was found that majority (82.7%) of the respondents were employed as seasonal labour. When production is very less or sampling takes place, workers are generally not hired. Due to this seasonal shift, 44.7 per cent workers have only 1 to 5 years of experience in the same unit whereas only 16 per cent of the workers were working in the same unit for more than 10 years. Data also revealed that no formal training was provided to any worker by their employers during their job/service in the firm even after knowing that they lack professional knowledge about their work. They were informally trained on job by their co-workers

Table 4 : Employment conditions in the present firm (n=150)

Sr. No.	Particulars	Respondents	
		f	%
1.	Employment conditions		
	Seasonal	124	82.7
	Permanent	26	17.3
2.	Duration of employment (years)		
	1-5	67	44.7
	6-10	59	39.3
	More than 10	24	16.0
3.	Training provided by the employer during service		
	No training	150	100.0

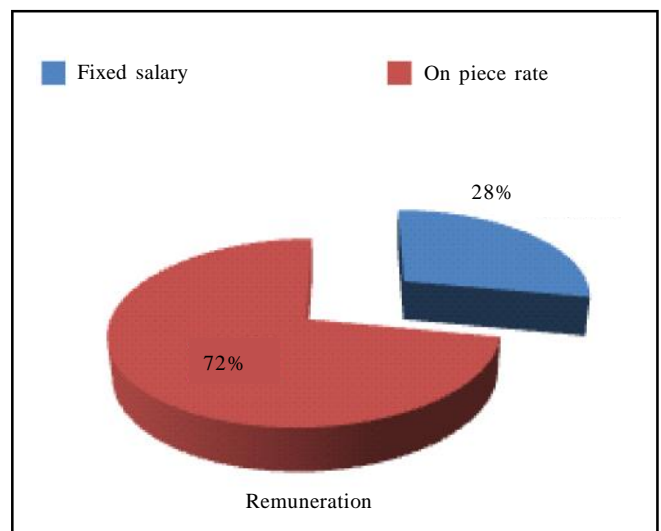
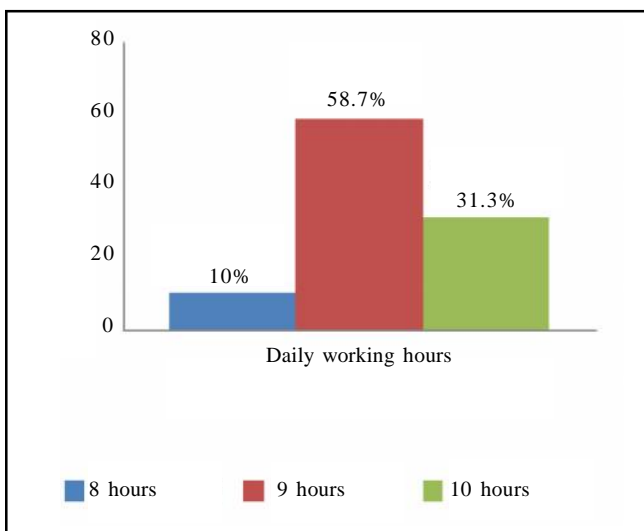


Fig. 1 : Working hours and remuneration

Table 5 : Working efficiency of the respondents		(n=150)	
Sr. No.	Particulars	Respondents	
		f	%
1.	Self understanding of the work		
	Yes	42	28.0
	No	108	72.0
2.	Ability to match the design specifications given by the supervisor		
	Always	65	43.3
	Most of the times	85	56.7
3.	Extra time required to complete the assigned task		
	Always	25	16.7
	Most of the times	75	50.0
	Sometimes	50	33.3
4.	Number of times work has to be repeated due to some alterations		
	0-1	10	6.7
	1-2	97	64.7
	2-3	30	20.0
	3-4	13	8.6
5.	Ability to work on more advanced and computer assisted machines		
	No ability	150	100.0

Table 6 : Skill mapping of the production workforce		
Expected skill sets	Existing skill sets	Gap areas
Minimum matriculation in education.	Primary education amongst majority of workers.	Gap areas in production workforce of selected industries were found in education, vocational qualification/formal training, self understanding of work, ability to work on advanced machines, communication skills etc.
Diploma or certificate course in the concerned area of working.	No vocational qualification.	
Task should be completed in the given time. No overtime to be used.	Most of the times need extra time to complete the assigned task.	
Self understanding of the work	Majority of the things have to be explained twice or thrice to the workers.	
To be able to perform multi tasks to complete the assigned work	Not able to manufacture vast range of products because they work in progressive bundle system and perform one particular task only.	
Able to work on technologically upgraded machines in the concerned field	Not able to work on automated, computer assisted machines.	
Able to repair the small breakdowns in machines	Not able to repair small break downs in the machines.	
Able to communicate their problems/issues with the senior authority to have better understanding of the work	A maximum number of the respondents are not able to communicate their problems with seniors due to language problem.	

or supervisors in that particular line.

The results revealed that seventy two per cent of the workers have no self understanding of the work. Fifty per cent of the workers were not able to finish their work on time and required extra hours. Thirty three per cent of the workers have to spend extra time per day to give the desired output. Due to chain system of production they are able to perform one particular task only like pocket attachment or collar attachment etc. Data also indicated that 64.7 per cent of the workers have to

repeat their work due to some alterations. In almost all of selected units electrically operated garment assembly machines are used so no member of production workforce was able to work on more advanced, automated and computer assisted machines.

As production workforce used one or the other machine, their ability to repair small breakdowns in the machines makes them work smoothly whereas having no such ability affects their productivity and slows down the production. Data in Fig. 2 shows that 64 per cent of

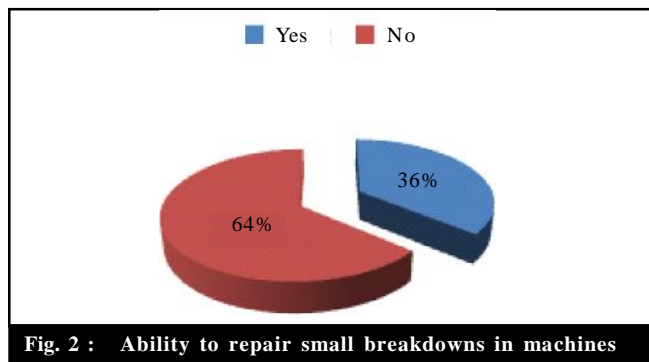


Fig. 2 : Ability to repair small breakdowns in machines

the workers were not able to repair the small breakdowns in machines leading to slow production rates.

Communicating work related problems by the respondents with their seniors is essential during the regular course of production so that work does not suffer. But results show that majority of the respondents (71%) were not able to communicate their problems or issues due to which they wasted a lot of time in solving their problems themselves (Fig. 3)

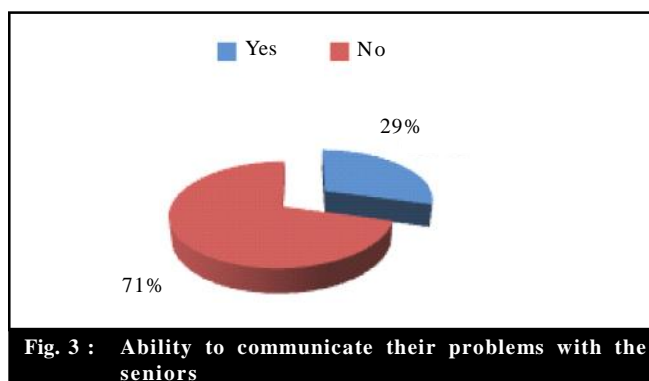


Fig. 3 : Ability to communicate their problems with the seniors

Skill mapping of the production workforce :

As the Production Managers were an integral part of the survey conducted, they were asked about the standard skill sets which should be there in the production workforce for quality work in a stipulated time. The following table summarizes the expected skill sets and skill gaps of production workforce in small knitwear units of Ludhiana district.

Conclusion :

The major findings of the study show that more than fifty per cent of the respondents were either

uneducated or had completed only primary education. They haven't taken any formal training before or during the job to perform various tasks. A maximum number of the workers were from sewing department. They had to repeat their work due to some alterations like skipped stitches, improper stitching of placket, uneven stitch length etc. Seventy five per cent of the workers required extra time to complete the work allocated to them and 72 per cent have no self understanding of the work to be done. Data indicated that majority of the workers were not able to work on advanced computer assisted machinery and lacked technical knowhow to repair small breakdowns and were not able to communicate their problems to their senior staff members. Specific vocational and technical skills, advanced machine operations and better understanding of work are the important skill gaps found in production workforce in small scale knitwear units of Ludhiana.

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