# DISTRIBUTION OF SMALL SCALE INDUSTRIES IN PUNJAB: AN EMPIRICAL STUDY

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Abstract: The present study is confined to the industrial base of Punjab. The study is particularly focused on assessing the district wise distribution of number of units of small scale industries in the state of Punjab for the period spanning from 2005-06 to 2013-14. The findings of the study revealed that Ludhiana district recorded highest mean score(40993.22) and Tarn Taran district registered lowest mean score (1325.13) among district wise distribution of the small scale industrial units in Punjab for the period under study. Regarding compounded annual growth rate of the industries, it has been found that number of units in Barnala district increased significantly from 1771 units in 2006-07 to 1877 units in 2013-14 at highest CAGR of 0.91 per cent. Keeping in view trend equation, it has been projected that the number of units of small scale industries in various districts of Punjab may decline significantly by the year 2020-21. Additionally, study depicted that from the perspective of industry wise distribution of number of units of small scale industries in Punjab for the period ranging from 2005-06 to 2013-14, highest mean score has been found in E3 and the lowest mean score was found in E24 indicating less growth in terms of number of units of this industry in Punjab. The results signified that the number of units of E25 increased from 1 unit in 2011-12 to 4 units in 2013-14 at highest rate of CAGR of 100 per cent. Contrary to this, lowest growth rate has been witnessed in E21, where the number of units decreased initially from 4460 units in 2005-06 to 3735 units in 2007-08, then increased to 4027 units in 2009-10, again decreased to 3908 units in 2010-11 to 3908 units and afterwards increased to 4415 units in 2013-14 at CAGR of 0.2 per cent. From the point of view of the trend equation, it has been revealed that the number of units of the majority of the industries is expected to dwindle by 2020-21.

## Key Words: Small scale industries, Number of units, Growth rate, Distribution of industries.

## **Section I-Introduction:**

Industries hold eminent place in development of economies across nations. A number of countries including China, Republic of Korea, Taiwan, Province of China and Indonesia have observed structural changes in their economies due to development of the industries (<u>Kniivilä</u>, 2007). Development of industries in particular country, region or state is affected a number of causes including availability of natural resources, human resources, financial resources among others. Particularly, optimum availability of required resources results in development of industries. Healthy development of industries helps the

countries to become self-reliant and depend less on other countries for imports. In India, small scale industries occupy a significant and distinct place for the growth of the nation, for helping the country to become self-reliant, provide employment opportunities, acting as being ancillary units for large scale industries and so on. In line with this, a number of benefits are offered to these industries to boost their development. What constitutes a small scale industry is defined by the investment made in the plant and machinery or equipment required to set up these industries. Over a period of time, the definition of these industries has undergone numerous changes. In 2006, Micro, small and medium enterprises development Act was passed, that defined the small scale industries operating in manufacturing and service sectors distinctly as shown in table 1.1:

	Criteria for classification: investment in plant and machinery or equipment												
	Classification	Micro enterprises	Small enterprises	Medium enterprises									
nits	Manufacturing	Not exceeding Rs. 25	More than Rs. 25 lakh	More than Rs. 5 crore									
lin	enterprises	lakh	but not more than Rs. 5	but not more than Rs. 10									
lent			crore	crore									
stm	Service enterprises	Not exceeding Rs.10	More than Rs. 10 lakh	More than Rs. 2 crore									
IVe		lakh	but not more than Rs. 2	but not more than Rs. 5									
II			crore	crore									

Table 1.1: Classification criteria and investment limits of Micro, small and medium enterprises

Thus, the above criteria is used for classifying small scale industrial units. In Punjab also, these industries hold great significance. Nearly 1,70,000 industries were operating in the state in financial year 2012-13, that provided employment to 10,77616 persons. In the respective year, these industries showed their remarkable performance by achieving the record numbers in production that crossed Rs. 62,971 crore (Gera, 2014).

## Section II-Objectives of the Study:

The study is focused on the small scale industrial units of Punjab. The concentration of different types of industries in Punjab and in various districts of the state has been probed from the year 2005-06 to 2013-14. The main objective of the present study is to assess the distribution of small scale industrial units in Punjab.

## Section III-Data Base, Sample Size and Research Methodology:

The study is based on secondary data that was collected from the statistical abstracts of Punjab and from the Directorate of Industries, Punjab. The period of the study spans from 2005-06 to 2013-14. In order to achieve the stated objectives, a detailed analysis for assessing the distribution of units in different districts of Punjab and number of units of different types in the state has been carried out. For the purpose, a number of statistical tools including mean, standard deviation, coefficient of variation, Compound Annual Growth Rate (CAGR), t-test and trend coefficients have been applied. For different types of industries, different abbreviations denoting those industries have been used, where E1 denotes Food products, E2 denotes Tobacco Products, E3 Denotes Textiles, E4 denotes Hosiery & Garments, E5 denotes Leather & Leather Products, E6 denotes Wood products, E7 denotes Paper & Paper Products, E8 denotes Printing, E9 denotes Coal,

Coke & Petroleum Products, E10 denotes Chemical & Chemical Products, E11 denotes Rubber & Plastic Products, E12 denotes Non-metallic Mineral Products, E13 denotes Basic Metal Products, E14 denotes Metal Products, E15 denotes Machinery & Equipment N.E.C., E16 denotes Office Accounting & Computer Machinery, E17denotes Electrical Mach. & Apparatus N.E.C., E18 denotes Radio, Television and Communication Equipment, E19 denotes Medical, Precision & Watches, E20 denotes Motor Vehicles, Trailers & Parts, E21 denotes Other Transport Equipment, E22 denotes Furniture, E23 denotes recycling, E24 denotes Elec., Gas, Steam & Hot Water Supply, E25 denotes Collection, Purification & Distribution of Water, E26 denotes Maintenance & Repair of Motor Vehicles NIC 1998, E27 denotes Maintenance & Repair of Household Goods, E28 denotes Other Business Activities, E32 denotes Health & Social Works, E33 denotes Recreational & Social Activities, E34 denotes Other Service Activities. The paper has been organized into five different sections. Section I gives the introduction about the industries, particularly small scale industrial units. Section II outlines the main objectives of the study. Section IV presents the empirical results of the study. Section V summarises and concludes the findings of the study.

#### **Section IV-Empirical Results:**

Table 4.1 depicted district wise distribution of number of units in the small scale industries of Punjab for the period ranging from 2005-06 to 2013-14. Ludhiana (40993.22) recorded the highest mean score during the period under study followed by Jalandhar(22749.44), Amritsar(22213.67), Sangrur(12171), Gurdaspur(9068.56), Patiala(8942.11), Hoshiarpur(6923.33), S.A.S. Nagar(5369.75), Kapurthala(4936.00), Bathinda(4497.33), Ferozepur(4140.33), Moga (3756.44), Nawanshahr(3677.78), Ropar(3638.00), Fatehgarh Sahib(3365.44), Muktsar(3290.11), Faridkot(2272.33), Mansa (2205.67), Barnala(1815.63). During the same period, relatively lower mean scores in terms of number of units was recorded in Fazilka(1450.67) followed by Tarn Taran(1325.13) which showed lowest mean score in terms of number of units in the district. Coefficient of variation is used to describe dispersion of the variable i.e. the per centage variation in the data for a specified period. CV regarding the number of units in various districts of Punjab has been recorded highest in Fazilka(86.60 per cent) followed by Ropar(57.97 per cent), Nawanshahr(49.75 per cent), Taran Taran(45.40 per cent), S.A.S. Nagar (49.92 per cent), Ferozepur(31.10 per cent), Kapurthala(27.33 per cent), Moga(22.47 per cent), Patiala (21.19 per cent), Amritsar(21.03 per cent), Sangrur(19.75 per cent), Gurdaspur(17.95 per cent), Jalandhar(17.57), Bathinda(16.99), Hoshiarpur (13.70), Mansa(13.20), Muktsar(10.35), Fatehgarh Sahib(9.96 per cent), Faridkot(6.45 per cent), Ludhiana(4.87 per cent), Barnala(2.26 per cent). Therefore, maximum variation is found in the data of Fazilka district with 86.60 per cent variation and the least degree of dispersion is found in Barnala district indicating that data is more stable. Table 4.1 exhibited that the number of units in Barnala district registered a significant increase from 1771 units established in 2006-07 to 1877 units in 2013-14 at CAGR of 0.91 per cent which tends out to be highly significant (tvalue 13.05 at five per cent level). Hence, highest growth in the number of small scale units in the Punjab has been registered in Barnala district. The lowest growth in the number of units established during 2005-06 and 2013-14 has been witnessed in the Roopnagar/Ropar district where the number of units decreased

from 9241 units established in 2003-04 to only 2888 units in 2013-14 at CAGR of -8.42 per cent, which has been found to be insignificant (t-value -2.10). Keeping in view trend equation, it can be projected that the number of units of small scale industries in various districts of Punjab may decline significantly by the year 2020-21. The highest rise of the number of units is expected to



District	Amritsar	Barnala	Bathinda	Faridkot	tehgarh Sahib	Fazilka	Ferozepur	Furdaspur	Ioshiarpur	alandhar	Capurthala	udhiana
r												
2005-06	28051	Nil	6532	2598	4031	Nil	6521	11848	9183	28754	7889	43321
2006-07	26080	1771	4199	2445	3789	Nil	4501	11175	7768	28744	6596	42210
2007-08	25425	1771	4196	2190	3050	Nil	4330	9972	6444	25782	4171	38504
2008-09	25364	1788	4209	2188	3087	Nil	4340	9435	6457	22906	4198	38393
2009-10	25370	1798	4227	2195	3125	Nil	4347	8465	6467	20042	4238	39087
2010-11	18905	1815	4241	2203	3189	Nil	4356	7632	6480	19444	4271	40249
2011-12	16701	1841	4262	2206	3268	0	4393	7671	6487	19334	4317	41385
2012-13	16948	1864	4296	2211	3346	2171	2233	7701	6504	19735	4355	42418
2013-14	17079	1877	4314	2215	3404	2181	2242	7718	6520	20004	4389	43372
Mean	22213.67	1815.63	4497.33	2272.33	3365.44	1450.67	4140.33	9068.56	6923.33	22749.44	4936.00	0993.22
Std. dev.	4672.41	41.07	764.13	146.63	335.36	1256.32	1287.83	1627.43	948.71	3996.19	1348.84	1996.44
CV	21.03	2.26	16.99	6.45	9.96	86.60	31.10	17.95	13.70	17.57	27.33	4.87
CAGR	-7.09	0.91	-2.55	-1.91	-3.09	0.46	-10.02	-5.68	-3.09	-0.03	-16.39	0.35
t VALUE	-6.42	13.05	-1.49	-2.45	-1.22	1.73	-4.01	-7.41	-2.55	-5.40	-2.45	0.53
Α	30146.25	1741.54	5198.75	2454.58	3640.36	2161.00	6121.83	11847.47	8117.92	29281.53	6632.50	0289.39
В	-1586.52	16.46	-140.28	-36.45	-54.98	10.00	-396.30	-555.78	-238.92	-1306.42	-339.30	140.77
DICTIONS	1				BAN		ARC					
2020-21	1589	2038	2674	1798	2651	2341	-1012	1843	3817	5766	525	42823

## TABLE: 4.1 SMALL SCALE DISTRICT WISE PUNJAB- UNITS

Contd.

District	udhiana	Mansa	Moga	Muktsar	Nawanshahr	Patiala	athankot	oop Nagar/Ropar	.A.S. Nagar	Sangrur	arn Taran
·						· ·					
2005-06	43321	2819	5400	4038	3973	13070	Nil	9241	0.01	17253	Nil
2006-07	42210	2269	5071	3440	3750	11286	Nil	3383	5953	15281	1928
2007-08	38504	1968	3259	3362	2377	7760	Nil	3047	6249	11937	1928
2008-09	38393	1971	3281	3368	2380	7844	Nil	2816	6063	10636	1835

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2009-10	39087	1974	3297	3369	2384	7926	Nil	2821	6391	10695	1844
2010-11	40249	2392	3327	2922	6610	8009	Nil	2831	1988	10807	912
2011-12	41385	2396	3353	3020	6811	8103	Nil	2839	2000	10892	698
2012-13	42418	2019	3391	3036	2407	8189	Nil	2876	7031	10969	721
2013-14	43372	2043	3429	3056	2408	8292	Nil	2888	7283	11069	735
Mean	0993.22	2205.67	3756.44	3290.11	3677.78	8942.11	0.00	3638.00	5369.75	12171.00	1325.13
Std. dev.	1996.44	291.05	844.24	340.42	1829.78	1895.18	0.00	2109.02	2680.46	2404.27	601.58
CV	4.87	13.20	22.47	10.35	49.75	21.19	0.00	57.97	49.92	19.75	45.40
CAGR	0.35	-1.74	-4.80	-3.02	-0.34	-4.36	0.00	-8.42	-2.93	-4.78	-8.19
t VALUE	0.53	-1.10	-2.41	-4.26	-0.06	-2.26	0.00	-2.10	-0.33	-3.04	-5.31
Α	0289.39	2420.42	4813.94	3812.61	3443.69	11238.11	0.00	5915.83	5550.39	15470.25	2328.46
В	140.77	-42.95	-211.50	-104.50	46.82	-459.20	0.00	-455.57	-40.14	-659.85	-222.46
REDICTIONS					P		3.				
2020-21	42823	1647	1007	1932	4286	2973	0	-2284	4828	3593	-1676

Source: Directorate of Industries and Commerce, Punjab



Industry	E1	E2	E3	E4	E5	E6	E7	<b>E8</b>	E9	E10	E11
r											
2005-06	25295	4	37300	5503	14800	4229	1608	1905	167	4586	3538
2006-07	24270	5	36923	5261	12836	3804	1520	1794	151	4264	3340
2007-08	23579	5	36475	4067	9194	3138	1369	1578	146	3826	2981
2008-09	23145	5	36291	3978	8690	3014	1279	1484	146	3658	2930
2009-10	23145	5	36440	4032	8664	3022	1321	1489	146	3683	2950
2010-11	23413	8	35725	7099	7546	2694	1290	1473	149	3421	2845
2011-12	23339	8	35819	7066	7493	2635	1299	1404	159	3390	2897
2012-13	23560	8	36153	7157	7511	2680	1340	1423	160	3459	2995
2013-14	23833	5	36466	7249	7515	2696	1364	1432	166	3520	3078
Mean	3731.00	5.89	36399.11	5712.44	9361.00	3101.33	1376.67	1553.56	154.44	3756.33	3061.56
Std. dev.	683.83	1.62	495.12	1457.30	2651.32	559.67	112.81	177.34	8.65	411.84	228.98
CV	2.88	27.44	1.36	25.51	28.32	18.05	8.19	11.42	5.60	10.96	7.48
CAGR	-0.56	6.38	-0.34	6.38	-7.79	-5.37	-1.87	-3.40	0.57	-3.27	-1.60
t VALUE	-1.71	2.22	-2.54	2.18	-5.00	-5.50	-2.31	-4.82	0.77	-4.69	-2.07
a	4413.50	4.06	37026.11	3896.53	13499.42	4003.83	1513.45	1833.89	150.11	4405.33	3322.22
b	-136.50	0.37	-125.40	363.18	-827 <mark>.68</mark>	-180.50	-27.42	-56.07	0.87	-129.80	-52.13
EDICTIONS								7			
2020-21	21957	11	34769	10434	-1399	755	1020	825	166	2069	2384

Table 4.2 PUNJAB SMALL SCALE INDUSTRY WISE- UNITS

Contd.

Industry	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22
r											
2005-06	2692	5235	16254	17673	34	2740	962	555	2814	4460	15608
2006-07	2435	4984	15342	16142	33	2575	929	544	2672	4322	11152
2007-08	2167	4596	13769	14158	34	2300	852	434	2201	3735	12920
2008-09	2163	4535	13097	13740	34	2205	822	356	2099	3742	12148
2009-10	2154	4267	12947	13713	35	2137	815	367	1991	4027	11954
2010-11	2149	3778	12835	13592	50	1960	757	232	1990	3908	7195
2011-12	2038	3977	12563	13531	52	1948	758	227	2040	4056	7122
2012-13	2111	4115	12956	13894	52	2005	779	228	2078	4250	7165
2013-14	2201	4205	13250	14222	52	2043	773	232	2103	4415	7236
Mean	2234.44	4410.22	13668.11	14518.33	41.78	2212.56	827.44	352.78	2220.89	4101.67	10277.78
Std. dev.	202.47	473.91	1271.92	1426.66	9.26	280.31	74.42	134.55	304.90	275.25	3179.40
CV	9.06	10.75	9.31	9.83	22.16	12.67	8.99	38.14	13.73	6.71	30.93
CAGR	-2.25	-3.15	-2.51	-2.34	7.43	-3.88	-2.83	-12.22	-3.48	0.20	-9.69
t VALUE	-2.79	-3.94	-3.37	-2.60	5.26	-5.23	-5.42	-7.80	-3.06	0.21	-5.24
а	2501.78	5137.06	15488.78	16347.50	26.69	2666.47	949.03	584.28	2642.31	4067.33	15444.28
b	-53.47	-145.37	-364.13	-365.83	3.02	-90.78	-24.32	-46.30	-84.28	6.87	-1033.30
PREDICTIONS								7			
2020-21	1539	2520	8934	9763	81	1032	511	-249	1125	4191	-3155

Contd.

Industry	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32	E33	E34
r												
2005-06	420	1	NIL	7088	27380	492	16	253	758	26	6	120
2006-07	379	0.01	NIL	7068	23619	474	16	246	754	17	6	3762
2007-08	214	0.01	NIL	4741	17833	407	15	220	636	16	10	106
2008-09	214	2	NIL	4436	16923	408	15	234	637	16	10	103
2009-10	215	2	NIL	3833	15285	407	16	256	610	17	10	107
2010-11	226	2	NIL	3348	13548	399	15	276	506	17	10	127
2011-12	228	3	1	3352	13233	373	16	296	491	16	10	137
2012-13	234	4	3	3383	13259	374	15	337	512	16	9	191
2013-14	235	5	4	3389	13279	375 -	18	357	526	16	13	167
Mean	62.78	2.11	2.67	4515.33	17151.00	412.11	15.78	275.00	603.33	17.44	9.33	535.56
Std. dev.	78.60	1.69	1.53	1538.03	5110.52	<b>43</b> .03	0.97	46.64	103.25	3.24	2.18	1210.28
CV	29.91	79.89	57.28	34.06	29.80	10.44	6.16	16.96	17.11	18.60	23.35	225.99
CAGR	-5.80	81.67	100.00	-9.72	-8.68	-3.27	0.68	5.27	-5.46	-3.38	7.45	-10.86
t VALUE	-2.16	2.35	2.96	-5.78	-6.35	-5.71	0.87	4.46	-6.07	-1.98	3.22	-0.76
a	57.36	-0.72	-0.33	6991.75	25489.25	482.53	15.19	201.42	776.25	20.94	6.25	1405.47
b	18.92	0.57	1.50	-495.28	-1667.65	-14.08	0.12	14.72	-34.58	-0.70	0.62	-173.98
REDICTIONS												
2020-21	17	9	27	-1923	-4528	229	17	466	154	8	17	-1726

Source: Directorate of Industries and Commerce, Haryana

be seen in Nawanshahr where the total number of units are expected to rise from 2408 units in 2013-14 to 4286 units in 2020-21, followed by Barnala and Fazilka where the number of units are expected to rise to only 2038 units and 2341 units from 1877 units and 2181 units in 2013-14 respectively. On the other hand, number of small scale units in Tarn Taran district are expected to decline significantly by the year 2020-21. Table 4.2 shows industry wise distribution of number of units of small scale industries in Punjab for the period ranging from 2005-06 to 2013-14. During the period E3 (36399.11) highest mean followed by E1 (23731.00), E27 (17151.00), E15 (14518.33), E14 witnessed the (13668.11), E22 (10277.78), E5 (9361.00), E4 (5712.44), E26 (4515.33), E13 (4410.22), E21 (4101.67), E10 (3756.33), E6 (3101.33), E11 (3061.56), E12 (2234.44), E20 (2220.89), E17 (2212.56), E8 (1553.56), E7 (1376.67). In addition to this, E18 (827.44), E31 (603.33), E34 (535.56), E28 (412.11), E19 (352.78), E30 (275.00), E23 (262.78), E9 (154.44), E16 (41.78) have relatively less number of small scale industries in Punjab followed by E32 (17.44), E29 (15.78), E33 (9.33), E2 (5.89), E25 (2.67), E24 (2.11). It shows that highest mean has been scored by E3 and lowest mean has been witnessed in E24 indicating less growth in terms of number of units in Punjab during period under study. Coefficient of variation has been found maximum in E34 (225.99 per cent) signifying highest variation in the number of units over the respective period. On the other hand, less amount of variation has been recorded in E24 (79.89 per cent) E25 (57.28 per cent), E19 (38.14 per cent), E26 (34.06 per cent), E22 (30.93 per cent), E23 (29.91 per cent), E27 (29.80 per cent), E5 (28.32 per cent), E2 (27.44 per cent), E4 (25.51 per cent), E33 (23.35 per cent), E16 (22.16 per cent), E32 (18.60 per cent), E6 (18.05 per cent), E31 (17.11 per cent), E30 (16.96 per cent), E20 (13.73 per cent), E17 (12.67 per cent), E8 (11.42 per cent), E10 (10.96 per cent), E13 (10.75 per cent), E28 (10.44 per cent), E15 (9.83 per cent), E14 (9.31 per cent), E12 (9.06 per cent), E18 (8.99 per cent), E7 (8.19 per cent), E11 (7.48 per cent), E21 (6.71 per cent), E29 (6.16 per cent), E9 (5.60 per cent), E1 (2.88 per cent), E3 (1.36 per cent) units. Thus, least degree of variation to mean has been witnessed in E3 indicating that the data is relatively less variable or more stable as compared to units of other industries. Further, table 4.2 revealed that the number of units of E25 has increased from 1 unit in 2011-12 to 4 units in 2013-14 at the highest rate of CAGR of 100 per cent which tends out to be significant at five per cent level (tvalue=2.96). Hence, E25 has the maximum share in terms of the number of units among all the other industries. The lowest growth rate in the number of units has been witnessed in E21, where the number of units decreased initially from 4460 units in 2005-06 to 3735 units in 2007-08, then increased to 4027 units in 2009-10, again decreased to 3908 units in 2010-11 to 3908 units and afterwards increased to 4415 units in 2013-14 at CAGR of 0.2 per cent which has been found to be insignificant (t-value=0.21). On the other hand, the number of units of E19 decreased from 555 units in 2005-06 to 232 units in 2013-14 at negative CAGR of -12.22 per cent (t-value= -7.79). From the point of view of the trend equation, it has been revealed that the number of units of the most of the industries are expected to dwindle by 2020-21. premier growth has been expected to be seen in E25, number of units of which are expected to increase from 4 in 2013-14 to 27 units in 2020-21 and least increase in the number of units to be established has been witnessed in E33, where the units of this industry are expected to increase from 13 units in 2013-14 to only 17 units expected to be established by 2020-21. On the other hand, a sharp decline in the number of industries is expected to be seen in E34, the units of which are expected to decline significantly by the year 2020-21.

# Section V-Summary & Conclusions:

The present study was confined to the industrial base of Punjab. The study particularly focused on accessing district wise distribution of number of units of small scale industries in the state of Punjab for the period spanning from 2005-06 to 2013-14. The following findings have been obtained from the analysis of the data for number of units over the period of study:

1. Analysis depicted that Ludhiana recorded highest mean score (40993.22) among district wise distribution of the small scale industrial units in Punjab for the period ranging from 2005-06 to 2013-14. Other districts followed Ludhiana, including Jalandhar (22749.44), Amritsar(22213.67), Sangrur(12171), Gurdaspur(9068.56), Patiala(8942.11), Hoshiarpur(6923.33), S.A.S. Nagar(5369.75), Kapurthala (4936.00), Bathinda(4497.33), Ferozepur(4140.33), Moga(3756.44), Nawanshahr(3677.78), Ropar(3638.00), Fatehgarh Sahib(3365.44), Muktsar(3290.11), Faridkot(2272.33), Mansa (2205.67) and Barnala(1815.63).

2. It has been observed that during the same time period, lowest mean score in terms of number of units was recorded in Tarn Taran district (1325.13), signifying existence of least number of small scale industrial units in the district.

3. Study exhibited that the number of units in Barnala district increased significantly from 1771 units in 2006-07 to 1877 units in 2013-14 at CAGR of 0.91 per cent.

4. The lowest growth in number of units established during 2005-06 and 2013-14 has been witnessed in the Roopnagar/Ropar district where number of units decreased from 9241 units established in 2003-04 to only 2888 units in 2013-14 at CAGR of -8.42 per cent.

5. Keeping in view trend equation, projected number of units of small scale industries in various districts of Punjab may decline significantly by the year 2020-21.

6. The highest rise of the number of units is expected to be seen in Nawanshahr where the total number of units are expected to rise from 2408 units in 2013-14 to 4286 units in 2020-21, followed by Barnala and Fazilka where the number of units are expected to rise to only 2038 units and 2341 units from 1877 units and 2181 units in 2013-14 respectively.

7. Study depicted that from the perspective of industry wise distribution of number of units of small scale industries in Punjab for the period 2005-06 to 2013-14, highest mean has been scored by E3 and lowest mean score was found in E24 indicating less growth in terms of number of units of this industry in Punjab during period of study.

8. The analysis signified that lowest growth rate in terms of number of units of different types of industries has been witnessed in E21, where the number of units decreased initially from 4460 units in 2005-06 to 3735 units in 2007-08, then increased to 4027 units in 2009-10, again decreased to 3908 units in 2010-11 to 3908 units and afterwards increased to 4415 units in 2013-14 at CAGR of 0.2 per cent which has been found to be insignificant (t-value=0.21).

9. From the point of view of the trend equation, it has been revealed that the number of units of the majority of the industries is expected to dwindle by 2020-21.

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