Competitive Perception of Small Indian Manufacturers: A study of Punjab Units

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Abstract

The paper aims at identifying the main competitors and competitive advantages of small scale manufacturers. The manufacturers were selected from four manufacturing industries producing textiles, bicycle and bicycle parts, food products and beverages and leather and leather products in the state of Punjab, India. The data were collected from 200 units out of which 173 units were considered for data analysis purposes. In this study, a number of statements indicating the relevant quality certification, competition and cluster association were developed and the respondents were asked to respond to the statement on a five-point likert scale. The Kruskal-Wallis test was applied to know the significant differences among the respondents with regards to different industries, age, and turnover groups with respect to the impact of cluster association. The test was applied at an assumed p-value =0.05. The statements with less than 0.05 p-value are considered significant and those with p-value more than the assumed p-value are considered to be insignificant. The weighted rankings were also calculated for the purpose of data analysis in respect to competitive advantages by assigning the weights 4, 3, 2 and 1 to ranks 1, 2, 3 and 4 respectively.

Key words: Competitive advantages, small units, cluster association, quality certification.

1. INTRODUCTION

Indian manufacturing sector, comprising small, medium and large firms is successfully competing in the global market place.But, in the era of globalization all countries are being exposed to the fierce competition from domestic as well as international markets. According to Pushpangadan and Shanta (2006), the outcome of globalization and reforms is to increase competition and efficiency in the economy in all the areas. Competition being multidimensional in nature needs to be looked from different angles. Therefore, stability of size of units may not capture the extent of competition. Some rigidity exists in the expansion of competitive forces in the manufacturing sector.The manufacturing sector of India registered highest growth rate (14.9%) in the year 2006-07, but cyclical slowdown began in the manufacturing sector which lead to declining trends in the growth of this sector. The sector registered growth rate of 3.2% and 8.9% in the years 2008-09 and 2009-10 respectively (Economic survey, 2010). There may be various reasons of declining trends in the sector but still large sections of Indian manufacturing sector suffers the bottlenecks like: a) poor infrastructure facilities b) use of out-dated/ old technology c) inadequate staffed operations and d) expensive financing and bureaucracy. pointed out that The business can compete on cost, quality and products at domestic and international level only if ideal investment in technology production process, R&D and marketing are made. Infrastructure bottlenecks are not completely solved. The promotional activities for SSI in India need to concentrate on improved credit flows, human resource development, appropriate technology and funds for modernization. (Suresh & Shashidhar, 2007).

2. COMPETITION AND SMALL INDUSTRY

The small-scale sector is one of the most vibrant, dynamic and vital sectors of the Indian economy. This sector is significantly contributing to gross domestic product, employment generation and strong entrepreneurial base. The small- scale sector of Punjab is significantly contributing to the state economy and is the second largest employer after agriculture sector. Small-scale sector in Punjab has shown significant growth over the years despite its constraints of natural resources, minerals, energy resources and geographical situation.

During last few years, the small industry has been feeling the pressure of the liberalized economic regime. Resultantly, there has been a declining trend in the industrial growth during the past five years. Small manufacturing sector is not enjoying the protection from the state and central governments anymore and facing fierce competition directly or indirectly from national and multinational companies of all sizes. The small scale industries are largely suffering on marketing front, because of inadequate demand and poor marketing practices. Fillis (2001), observed that adopting appropriate marketing methodology will not only help the small units in entering the international market but this then acts as a catalyst for internationalization development. Anantha and Vishwanatha (2004), advocated improving the marketing competency, prompt supply of raw material, timely finance, technological up gradation of small-scale industries. A deeper understanding of the current strategic marketing decision making process in small businesses is necessary to raise the acceptance rates of interventions to improve the quality of strategic marketing decisions and consequently firm performance (Jocumsen, 2004). The main constraints of small firms were customer dependency, skills and knowledge acquisition through training, poor learning attitude and networking because of their tradition of being autonomous(Laforet & Jannifer, 2006). Indian firms are now coming forward to accepting professional management. Competition has been greatly acknowledged. The respondent firms are becoming outward-looking from inward-looking. Quality of product is playing great role to satisfy the customers, to capture the market, and meeting the competition challenges. The world market is becoming more and more quality conscious and creating pressure on the manufacturers to maintain quality standards (Muthiah, 2006). In order to overcome some of the inevitable managerial limitations within small companies, new product development activities should seek to promote a more systematic approach to design (Millward &Lewis, 2005).

The small and medium firms give less attention to planning and control methods than the large companies. Small firms are less satisfied with the methods applied ; less concerned with methods supporting supply chain management on product quality, rationalization of operations and capital cost rationalization ; less focused on system integration with other actors in the supply chain; and less focused e-based solutions. The small units needs to understand that they have to compete not only among themselves but also to bear the brunt of competition from large and medium sector. In these circumstances, the competitive capacity of the small units is seriously impaired which finally affects the sales adversely. The weak bargaining power of the units compels them to sell their products at the terms and conditions of the buyers. The small units could not perform well with regard to the management of demand because of their poor practices and strategies (Vaaland & Heide, 2007).

Hence, it is important for the industry to design highly competitive strategies relating to all business operations especially production and quality issues, sales and marketing, advertising and marketing research. Small entrepreneurs should also explore the possibilities for cluster association and must identify their competitive advantage to remain competitive in the market. Naryana (2004) mentions that poor quality and high cost infrastructure, lack of technology upgradation, and absence of market information affect competitiveness. The Indian small industry facing delays in getting credit sanctioned from banks and claiming incentives from other government agencies. All these delays effect competitiveness of firms and add more costs.

3. RESEARCH METHODOLOGY

For the purpose of present study, selected SSI units manufacturing textiles, bicycle and bicycle parts, leather and leather products, and food products and beverages in the state of Punjab have been considered. The planned sample of 200 units comprised 50 small-scale units each selected from manufacturing areas such as textiles, leather and leather products, bicycle and bicycle parts, and food products and beverages. However, as the data provided by the respondent entrepreneurs of 27 units was not complete, therefore, they were excluded from the final analysis. Thus, the final sample comprised of 173 SSI units of Punjab. The study is based on primary data. The primary data has been collected by a structured non-disguised and pretested questionnaire. The data has been analyzed on the basis of three variables, viz. Industry, Age of the units and Turnover of the units. Industry-wise analysis has been done on the basis of four industries, viz. textiles (TX), bicycle and bicycle parts (BBP), food products and beverages (FPB), and leather and leather products (LLP). On the basis of age, units have been categorized into three age-groups, viz. A1 (up to 10 years), A2 (10 to 20 years), and A3 (above 20 years). Turnover-wise units have been classified into three categories, that is T1 (up to Rs. 2 crore), T2 (Rs.2 to 4 crore) and T3 (above Rs. 4 crore).

The specific objectives of the study are i) to know the main competitors and competitive advantages of small firms ii) to examine the quality certification approach of small units iii) to study the association and impact of cluster on business of the small manufacturers.

4. DISCUSSION AND RESULTS

The sample comprising 173 units includes 43 textiles units, 46 bicycle and bicycle parts units, 43 food products and beverages units, and 41 leather and leather products units. It has been observed that 82 units fall into age group A2, 54 units belong to A1 and 37 units relate to age group of A3. It has also been seen that 66 units relate to turnover-group T1 followed by group T3 (65) and T2 (42). Kruskal-Wallis test has been applied to know the significant differences among the respondents relating to different industries, age and turnover groups with respect to impact of cluster association. The test has been applied at assumed p-value =0.05. The results with less than 0.05 p-value are considered significant and those with p-value more than the assumed value are considered to be insignificant. The weighted rankings have also been calculated for the purpose of data analysis with respect to competitive advantages by assigning the weights 4, 3, 2 and 1 to ranks 1, 2, 3 and 4 respectively.The weights have been assigned as per

ranks given by the respondents in order of their choice. The different rank are calucated like (rank1=4weights, rank2=3weights, rank3=2weights and rank4=1weight).

4.1 Competitors of Small Units

The entrepreneurs of the surveyed units were enquired about the type of manufacturers from whom competition is being faced by them. The industry-wise, age wise and turnover-wise responses of the respondents are presented in Tables 1,2 and 3 respectively. weights have been assigned to the ranks given by the respondents in order of their choice.

Tab. 1 - Competitors of SSI Units (Industry-wise Analysis). Source: own

Competitors	TX	BBP	FPB	LLP	Total
(a) Small manufacturers*	36 (83.7)	44 (95.7)	20 (46.5)	15 (36.6)	115 (66.5)
(b) Large and medium* manufacturers	39 (90.7)	13 (28.3)	30 (69.8)	30 (73.2)	112 (64.7)
(c) MNCs	6 (14.0)	3 (6.5)	15 (34.9)	7 (17.1)	31 (17.9)
(d) Any other	0 (0)	0 (0)	7 (16.3)	1 (2.4)	8 (4.6)
N =	43	46	43	41	173

Industry: Tx-Textile industry, BBP-Bicycle and bicycle parts, FPB-Food products and beverages, LLP-leather and leather Products : (Figures in brackets denotes %)

*Small, medium and large manufacturers differs by investment in plant and machinery in india and all the respondents are aware about the difference.

Table 1 depicts that a majority of the respondents (66.5%) face competition from other small manufacturers, followed by large and medium manufacturers (64.7%). Industry-wise analysis shows that relatively higher number of respondents (95.7%) belonging to bicycle and bicycle parts, followed by textiles (83.7%), food products and beverages (46.5%) and leather and leather products (36.6%) have been facing competition from the other small manufacturers. However, 90.7 per cent respondents belonging to textiles have also been facing competition from the large and medium scale units, and this percentage is quite higher as compared to the respondents relating to other surveyed industries. Interestingly, the entrepreneurs do not perceive MNCs to be giving them strong competition as a very small proportion of respondents (17.9%) have opined them as their competitors.

Findings of the study reveal that large majority of the units face competition from the other small manufacturers, followed by large and medium manufacturers. It has also been found that majority of the units relating to textiles have been facing competition from the large and medium manufacturing units, whereas units relating to bicycle and bicycle parts industry face more competition mainly from other small manufacturers as compared to the units belonging to other surveyed industries.

Tab. 2 - Competitors of SSI Units (Age-wise Analysis). Source: own

Competitors	A1	A2	A3	Total
(a) Small manufacturers	40 (74.1)	51 (62.2)	24 (64.9)	115 (66.5)
(b) Large and medium manufacturers	36 (66.7)	50 (61.0)	26 (70.3)	112 (64.7)
(c) MNCs	8 (14.8)	13 (15.9)	10 (27.0)	31 (17.9)
(d) Any other	4 (7.4)	2 (2.4)	2 (5.4)	8 (4.6)
N =	54	82	37	173

Age of the units : AI -upto 10 years, A2- 10-20 years, A3- above 20 years:(brackets denotes %)

Age-wise analysis in the Table 2 depicts that higher proportion of respondents from age groups A1 (74.1%), A3 (64.9%) and A2 (62.2%) face competition from small manufacturing units. However, relatively more respondents in the category A3 (70.3%) have been facing more competition from large and medium units as compared to units in the categories A1 (66.7%) and A2 (61%). Further, 27 per cent respondents relating to age group A3 have also been facing competition from the multinational companies, and this percentage is quite higher as compared to the respondents belonging to categories A1 (14.8%) and A2 (15.9%).

The foregoing analysis reveal that relatively more units relating to age group A3 and have been facing competition from large and medium units and multinational companies as compared to units in the age categories A1 and A2.

Tab. 3 - Competitors of SSI Units (Turnover-wise Analysis). Source: own

Competitors	T1	T2	T3	Total
(a) Small manufacturers	47 (71.2)	30 (71.4)	38 (58.5)	115 (66.5)
(b) Large and medium manufacturers	39 (59.1)	22 (52.4)	51 (78.5)	112 (64.7)
(c) MNCs	4 (6.1)	7 (16.7)	20 (30.8)	31 (17.9)
(d) Any other	3 (4.5)	2 (4.8)	3 (4.6)	8 (4.6)
N =	66	42	65	173

Turnover of units: TI-upto Rs2 crores, T2, Rs2-4 crores, T3- above Rs 4crores: (brackets denotes %)

The table shows that majority of the respondents relating to turnover categories T1 (71.2%), and T2 (71.4%) face competition from small manufacturers. Proportionately higher number of units (78.5%) belonging to turnover group T3 have been facing competition from large and medium manufacturers as compared to T1 (59.1%) and T2 (52.4%). Further, relatively higher proportion of respondents in the category T3 (30.8%) have also been facing competition from the multinational companies as compared to the respondents relating to turnover groups T1 (6.1%) and T2 (16.7%).

The findings reveal that more number of units relating to turnover group T3 have been facing competition from large and medium manufacturers and multinational companies while groups T1 and T2 have been facing competition from small manufacturers only.

4.2 Competitive Advantages

The weighted rankings have been calculated by assigning the weights 4, 3, 2 and 1 to ranks 1, 2, 3 and 4 respectively to know the competitive advantages. The weights have been assigned as per ranks given by the respondents in order of their choice. The different rank are calucated like (rank1=4weights, rank2=3weights, rank3=2weights and rank4=1weight).

Tab. 4 - Competitive Advantage over Competitors (Industry-wise Weighted Ranking). Source: own

Advantages	TX	BBP	FPB	LLP	Total
(a) Competitive pricing	93	80	110	114	397
(b) Good quality product	103	113	101	102	419
(c) Image of the organization	66	115	81	94	356
(d) Low cost of product	113	87	96	77	373
(e) Effective delivery system	66	71	70	45	252
(f) Better technology	53	21	43	50	167
(g) Any other	2	4	1	1	8
N =	43	46	43	41	173

Industry: Tx-Textile industry, BBP-Bicycle and bicycle parts, FPB-Food products and beverages, LLP-leather and leather Products

It can be observed from the Table 4 that the units have rated 'good quality product' (weighted ranking 419), 'competitive pricing' (weighted ranking 397) and 'low cost of product' (weighted ranking 373) as the important factors of competitive advantage. Industry-wise analysis shows that the respondents relating to leather and leather products considered 'competitive pricing' (weighted ranking 114) and 'good quality products' (weighted ranking 102) as the main competitive advantage over other units. However, the respondents from textiles believed that 'low cost of product' and 'good quality of product' (weighted ranking being 113 and 103) are the important factors of competitive advantage. Further, the respondents from bicycle and bicycle parts industry opined that 'image of the organization', and 'good quality products' (weighted ranking being 115 and 113 respectively) are the competitive advantages over other competitors. Similarly, the respondents belonging to food products and beverages rated 'competitive pricing' and 'good quality product' (weighted ranking being 110 and 101 in that order) as the main advantages over their competitors.

In nutshell, it has been found that majority of the units belonging to all surveyed industries perceived 'good quality products' as the most important competitive advantage over other. Relatively, higher number of units relating to leather and leather products considered 'competitive pricing' as the most important advantage over their competitors. Similarly, the units relating to textiles considered 'low cost of product' as the main competitive advantage over other surveyed industries.

Tab. 5 - Competitive Advantage over Competitors (Age-wise Weighted Ranking). Source: own

Advantages	A1	A2	A3	Total
(a) Competitive pricing	119	194	84	397
(b) Good quality product	122	194	103	419
(c) Image of the organization	107	171	78	356
(d) Low cost of product	121	174	78	373
(e) Effective delivery system	94	114	44	252
(f) Better technology	50	78	39	167
(g) Any other	2	5	1	8
N =	54	82	37	173

Age of the units : AI -upto 10 years, A2- 10-20 years, A3- above 20 years

The respondents relating to age group A2 ranked 'good quality product', 'competitive pricing', 'low cost of product', 'image of the organization', 'effective delivery system' and 'better technology'(weighted score being highest) as the main competitive advantages over competitors as compared to respondents relating to age groups A1 and A3. However, the units relating to category A1 considered 'good quality product', (weighted ranking 122), 'low cost of product' (weighted ranking 121), 'competitive pricing' (weighted ranking 119) and 'image of the organization' (weighted ranking 107) as the important factors of competitive advantages over other competitors. Similarly, the units relating to age group A3 ranked 'good quality product' (weighted ranking 103) as the main advantage over other competitors.

The study revealed that proportionately more units from the age group A2 have considered 'good quality product', 'competitive pricing', 'low cost of product', 'image of the organization' 'effective delivery system' and 'better technology' as the most important competitive advantages as compared to respondents relating to age groups A1 and A3.

Tab. 6 - Competitive Advantage over Competitors (Turnover-wise Weighted Ranking). Source: own

Advantages	T1	T2	T3	Total
(a) Competitive pricing	154	100	143	397
(b) Good quality product	153	96	170	419
(c) Image of the organization	136	84	136	356
(d) Low cost of product	137	88	148	373
(e) Effective delivery system	93	73	86	252
(f) Better technology	59	32	76	167
(g) Any other	5	2	1	8
N = 173	66	42	65	173

Turnover of units: TI-upto Rs2 crores, T2, Rs2-4 crores, T3- above Rs 4crores

Table explicitly explains that the respondents from turnover group T1 as compared to respondents belonging to T2 and T3 attribute greater significance to the reason 'competitive

pricing' (weighted ranking 154). However, the respondents from category T3 considered 'good quality product' (weighted ranking 170), and 'low cost of product' (weighted ranking 148) as the most important competitive advantage in comparison to units relating to other age groups. Further, the units relating to turnover group T2 as compared to categories T1 and T3 do not pay much importance to these factors of competition (mean score being lowest).

It has been found that more units from the category T3 mentioned 'low cost of product', 'good quality of product' and 'better technology' as the important advantages over their competitors as compared to units from category T1 and T2.

4.3 Quality Certification

The entrepreneurs of surveyed units were asked whether they have obtained relevant international or national quality certification for their units. The responses of the respondents have been presented in Tables 7, 8 and 9.

Tab. 7 - Relevant Quality Certification (Industry-wise Analysis). Source: own

Certification	TX	BBP	FPB	LLP	Total
(a) ISO	14 (32.6)	11 (23.9)	18 (41.9)	16 (39.0)	59 (34.1)
(b) ISI	0 (0)	0 (0)	8 (18.6)	0 (0)	8 (4.6)
(c) AGMARK	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
(d) Any other (relevant)	1 (2.3)	0 (0)	10 (23.2)	7 (17.7)	18 (10.4)
Do not have certification	28 (65.1)	35 (76.1)	7 (16.3)	18 (43.9)	88 (50.8)
N =	43	46	43	41	173

Industry: Tx-Textile industry, BBP-Bicycle and bicycle parts, FPB-Food products and beverages, LLP-leather and leather Products (brackets denotes %)

Table 7 indicates that out of the total 173 surveyed units 59 units (34.1%) have an ISO certification, while 8 units (4.6%) have an ISI certification. Industry-wise analysis shows that 41.9 per cent respondents from food products and beverages industry, followed by leather and leather products (39%), textiles (32.6%) and bicycle and bicycle parts (23.9%) have obtained ISO certification. The table further reveals that relatively higher number of units from food products and beverages (23.2%), followed by leather and leather products (17.7%) have also obtained other relevant quality certification.

In brief, it has been observed that only 34.1 per cent units have ISO certification and 4.6 per cent have ISI certification. Most of units having relevant quality certification belong to food products and beverages industry followed by leather and leather products.

Tab. 8 - Relevant Quality Certification (Age-wise Analysis). Source: own

Certification	A1	A2	A3	Total
(a) ISO	18 (33.3)	26 (31.7)	15 (40.5)	59 (34.1)
(b) ISI	6 (11.1)	2 (2.4)	0 (0)	8 (4.6)
(c) AGMARK	0 (0)	0 (0)	0 (0)	0 (0)
(d) Any other (relevant)	3 (5.5)	5 (6.9)	10 (27.2)	18 (10.4)
Do not have certification	27 (50.0)	49 (59.7)	12 (32.4)	88 (50.8)
N =	54	82	37	173

Age of the units : AI -upto 10 years, A2- 10-20 years, A3- above 20 years:(bracket dennotes %)

The above Table reveals that 40.5 per cent respondents from the category A3, followed by 33.3 per cent of A1 and 31.7 per cent from A2 have obtained ISO certification. However, 11.1 per cent respondents from age group A1 have obtained ISI certification as compared to the respondents belonging to age groups A2 and A3. Further, higher proportion of units relating to age group A3 have also obtained other relevant quality certification.

Findings of the study reveal that relatively more units from age group A3 have obtained relevant quality certification as compared to the units relating to other age groups.

Tab. 9 - Relevant Quality Certification (Turnover-wise Analysis). Source: own

Certification	T1	T2	T3	Total
(a) ISO	12 (18.2)	15 (35.7)	32 (49.2)	59 (34.1)
(b) ISI	3 (4.5)	2 (4.8)	3 (4.6)	8 (4.6)
(c) AGMARK	0 (0)	0 (0)	0 (0)	0 (0)
(d) Any other(relevant)	3 (4.5)	4 (9.5)	11 (16.9)	18 (10.4)
Do not have certification	48 (72.7)	21 (50.0)	19 (29.2)	88 (50.8)
N =	66	42	65	173

Turnover of units: TI-upto Rs2 crores, T2, Rs2-4 crores, T3- above Rs 4crores (brackets denote %)

Turnover-wise responses of the respondent entrepreneurs reveals that 49.2 per cent units from category T3 followed by categories T2 and T1 with their respective percentages of 35.7 per cent and 18.2 per cent have obtained an ISO certification. Relatively, higher number of units from category T3 (16.9%) have also obtained relevant quality certification as compared to T1 (3.3%) and T2 (9.5%).

In brief, the study reveals that more units in the category T3 have international quality certification. The study further reveals that majority of the units from categories T1 and T2 do not have international or national quality certification.

4.4 Association with Cluster Program

The respondents of the surveyed units were enquired about their association with the cluster program prevalent in their region. The information is presented in figure 1,2 and 3.

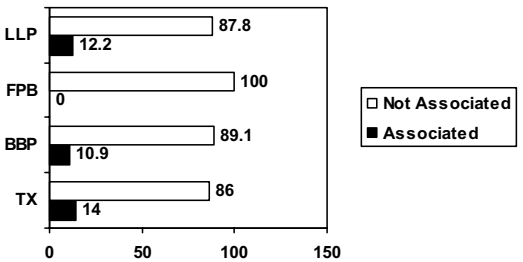

Fig. 1 - In % (Industry-wise anlaysis). Source: own

Tx-Textile industry, BBP-Bicycle and parts, FPB-Food products and beverages, LLP-leather and leather Products

Industry-wise analysis indicates that the respondents relating to textiles (14%), leather and leather products (12.2%), bicycle and bicycle parts (10.9%) have been associated with the cluster program, whereas none of the unit relating to food products and beverages industry is associated with any cluster program.

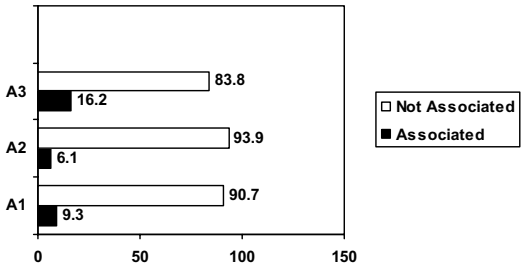

Fig. 2 - In % (age-wise analysis). Source: own

Age of the units : AI -upto 10 years, A2- 10-20 years, A3- above 20 years.

Age-wise analysis shows that 16.2 per cent respondents form age group A3, followed by 9.3 per cent form A1 and 6.1 per cent belonging to A2 have association with cluster program prevalent in their regions.

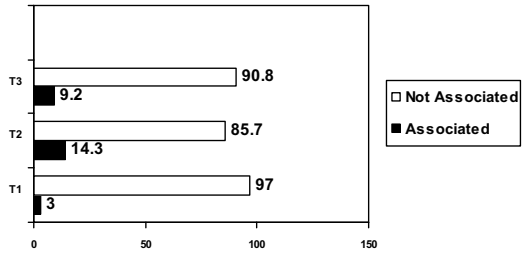

Fig. 3 - In % (Turnover-wise analysis). Source: own

Turnover of units: TI-upto Rs2 crores, T2, Rs2-4 crores, T3-above Rs 4crores

Turnover-wise analysis reveals that relatively more units relating to turnover group T2 (14.3%) have an association with the cluster program as compared to the respondents relating to turnover groups T3 (12.3%) and T1 (3.0%).

4.5 Cluster Program Perceptions

Further, the respondents of the surveyed units (associated with cluster program) were enquired about the impact of cluster on their business on five-point rating scale. Kruskal-Wallis test has been applied to know the significant difference among the respondents relating to different industries, age and turnover groups. The response of the respondents is presented in Tables 10, 11 and 12.

Tab. 10 - Impact of Cluster Program (Industry-wise Mean Scores). Source: own

Impact	Total	TX	BBP	FPB	LLP	K.W. Statistics	P-value
(a) Cluster led to emergence to specialized technical, administrative and financial issues	1.36	1.56	1.33	0	1.56	7.512	.057
(b) Inter-firm cooperation increased	1.27	1.42	1.22	0	1.44	4.546	.208
(c) Collective learning and innovation is more	1.34	1.49	1.33	0	1.56	7.339	.062
(d) It has led to more emergence of partner Institutions	1.35	1.56	1.26	0	1.61	7.600	.055
(e) Cluster has enhanced design production and marketing capacity	1.31	1.51	1.26	0	1.49	7.335	.062
(f) Any other	1.04	.98	1.00	0	1.20	4.098	.251

Industry: Tx-Textile industry, BBP-Bicycle and bicycle parts, FPB-Food products and beverages, LLP-leather and leather Products

Table 10 indicates that all the respondents associated with cluster program from suryed industries differ with the statements 'Cluster has enhanced design production and marketing capacity', 'it has led to more emergence of partner institutions', 'collective learning and innovation is more' and 'cluster led to emergence to specialized technical, administrative and financial issues' (mean score being less than 2).

Findings of the study reveal that most of the units believed that 'cluster has enhanced design production and marketing capacity', and 'it has also led to 'more emergence of partner institutions'.

K-W statistics indicates that there is no significant variation in the perception of respondents relating to different industries with respect to impact of cluster program.

Tab. 11 - Impact of Cluster Program (Age-wise Mean Scores). Source: own

Impact	Total	A1	A2	A3	K.W. Statistics	P-Value
(a) Cluster led to emergence to specialized technical, administrative and financial issues	1.36	1.39	1.21	1.65	6.520	.038
(b) Inter-firm cooperation increased	1.27	1.31	1.18	1.38	.820	.664
(c) Collective learning and innovation is more	1.34	1.37	1.18	1.65	6.551	.038
(d) It has led to more emergence of partner institutions	1.35	1.31	1.18	1.78	7.334	.026
(e) Cluster has enhanced design production and marketing capacity	1.31	1.33	1.15	1.65	8.523	.014
(f) Any other	1.04	1.13	1.00	1.00	.000	1.000

Age of the units : AI -upto 10 years, A2- 10-20 years, A3- above 20 years

The table reveals that all the respondents (associated with cluster program) relating all age groups differs with the statements "Cluster has enhanced design production and marketing capacity', 'it has led to more emergence of partner institutions', 'collective learning and innovation is more' and 'cluster led to emergence to specialized technical, administrative and financial issues' (mean score being less than 2).

The foregoing analysis reveals that relatively more units relating to age group A3 believed that association with cluster program has resulted into 'more emergence of partner institutions', 'enhanced design production and marketing capacity' and 'collective learning and innovation is more' as compared to the units belonging to age-groups A1 and A2.

K-W statistics indicates that there is no significant variation in the perception of respondents relating to various age groups with respect to impact of cluster program.

Tab. 12 - Impact of Cluster Program (Turnover-wise Mean Scores). Source: own

Impact	Total	T1	T2	T3	K.W. Statistics	P-Value
(a) Cluster led to emergence to specialized technical, administrative and financial issues	1.36	1.17	1.48	1.48	6.043	.049
(b) Inter-firm cooperation increased	1.27	1.15	1.33	1.34	3.220	.200
(c) Collective learning and innovation is more	1.34	1.17	1.43	1.46	5.978	.050
(d) It has led to more emergence of partner institutions	1.35	1.15	1.40	1.52	6.196	.045

(e) Cluster has enhanced design production and marketing Capacity	1.31	1.12	1.38	1.46	7.612	.022
(f) Any other	1.04	1.11	1.00	1.00	.000	1.000

Turnover of units: TI-upto Rs2 crores, T2, Rs2-4 crores, T3- above Rs 4crores

Table clearly shows that the units (associated with cluster program) irrespective of turnover differs with the statement such as "Cluster has enhanced design production and marketing capacity', 'it has led to more emergence of partner institutions', 'collective learning and innovation is more' and 'cluster led to emergence to specialized technical, administrative and financial issues' (mean score being less than 2).

Turnover-wise findings reveal that proportionately more units in the category T3 agreed that their association with the cluster program has benefited them as 'collective learning and innovation is more' and 'cluster has enhanced design production and marketing capacity' as compared to the units from the categories T1 and T2. Statistically, there are no significant differences in the perception of units relating to different age and turnover groups with respect to impact of cluster program.

K-W statistics indicates that there is no significant variation in the opinion of the respondents relating to various turnover groups with regard to impact of cluster.

5. CONCLUSION

Small manufacturers are facing stiff competition from all type of industries in the present era. The small entrepreneurs have to compete with large and medium size organizations in terms of product, price, distribution and promotional aspects especially the units from textiles industry. It has been found that units relating to leather and leather products considered 'competitive pricing' and textiles considered 'low cost of product' as the main competitive advantages, but there is urgent need to expand the list of competitive advantages to become highly competitive in the market. In the era of globalization the quality issues cannot be ignored at national and international level, hence small units must obtain relevant national and international quality certification to attract the buyers. It would also be advisable for the small industry to form cluster association to compete with large organizations. The small entrepreneurs should explore the possibilities to form association in the area of production, marketing and other relevant fields as the competition is increasing day by day.

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