The Nexus Between Supply Chain Concerns and Business Profile of Manufacturing Industries

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Abstract

The purpose of this paper is to emperically test the relationship between supply chain concerns and business profile of manufacturing industries. With help of questionnaire survey conducted on executives of manufacturing industries in the Union Territory of Puducherry, India. This research work has explored the relationship between supply chain concerns and business profile of manufacturing industries by using chi-square test, Analysis of Variance (ANOVA), Independent sample t-test, Correspondence analysis and Canonical correlation analysis. A general conclusion is that positive correlation and 18% of the share variance exists between the two sets of variables supply chain concerns factors and the business profile of manufacturing enterprises.

Keywords: Supply chain concerns, Business profile.

1. Introduction

Supply chain management has become the focal point and goal of all the organizations in the global market. This is due to progressive enterprises are focusing on value addition to end customer instead of simply concentration on cost reduction goal. Building competency in management of supply chain has key to enhance the efficiency and effectiveness of the organization (Charu and Sameer, 2000). Many techniques and tools have proposed in course of time to assess the supply chain performance of the organization. Nevertheless, optimal measures that evaluate the holistic SCM is difficult and issues is that traditional techniques spotlighted on financial measure of supply chain, this type of measure is good for simple supply chain process. Unlikely, measurement that relies on financial performance will not be the best for the complex supply chain process. As an outcome of this issue, we aim to explore the relationship between supply chain concerns and business profile of the manufacturing industries.

To accomplish these objectives, a survey was carried out on manufacturing enterprises located in Union Territory of Puducherry. Data pertaining to the supply chain concerns and business profile of manufacturing industries were collected. The results derived from the data analysis have been elaborately discussed in the fourth section of results and discussion. Section two consists of literature review of the present research work through previous research studies and other sources and presented a brief summary of literature review used in this research work.Section three address the research methodology followed in the research work with respect to research design, data collection, instrument design and its rationale, reliability and validity, sample size estimation, sampling methodology followed and statistical tools employed for this research work and finally section five contains conclusions and implications of this research work.

2. Review of Literature

An important element of effective supply chain management (SCM) includes downstream integration and upstream collaboration of firm's partners and customers in effective and efficient manner. However, integration and collaboration of the entire value chain mechanism will be a complicated process. Firms may have to confront complex issues because of excessive dependence on suppliers and this may affect their focus on core capabilities (McMullan, 1996).

Conversely, companies which have developed and implemented supplier evaluation system in order to effectively and efficiently manage suppliers, have failed miserably (Sachan & Datta, 2005).

Ballou (2007) has outline the developments in the logistics and supply chain management (SCM) research by listed out notable events, views of the subject experts and assess the nature of SCM. Finding depicts that nature of the logistics and supply chain has brought new challenges and opportunities to researchers and practitioners of SCM and scope for SCM research is wider.(Stank, Dittmann, and Autry, 2011) have developed set of issues will adversely affect performance of supply chain and firms should focus their attention on these issues to align organizational goal with SCM goal. Similarly, some other supply chain concerns have been explored and presented in the research work of (Chow et al., 2008).Supply chain concerns have been defined as "*The issues that prevent an organization from achieving the full potential of their supply chain management"*(Keah Choon Tan, 2002) and (Chow et al., 2008).Chow et al (2008) found that supply chain competence have very positive effect on organizational performanceUS and Taiwan manufacturing enterprises.

Koh et al (2007) observed in their study that high level of supply chain concerns have high impact on operational performance, while Bhatnagar and Sohal(2008) identified the impact of location decision framework and its resultant effect on the supply chain uncertainties and manufacturing practices.(Keah Choon Tan, 2002) has identified a list of supply chain issues through expert's opinion that exert an impact on supply chain performance and organizational performance. The variables used by this researcher have been utilized in this research to measure the supply chain concerns of the manufacturing enterprises.

3. Research Methodology

The research design of the proposed research work is descriptive in nature. The research work has been conducted mainly based on primary data. The data relating to supply chain concerns variable of manufacturing industries have been collected from executives. The data collection instrument used for this research is a well structured questionnaire. The sample population for this study consists of the manufacturing firms located in the Union Territory of Puducherry including Pondicherry, Karaikal, Mahe and Yanam. Sampling technique adopted in this research work is simple random sampling method and the sample size for the study was 255 manufacturing firms.

The variable needed for the questionnaire was generated through the literature review and Pre-pilot study was conducted to test the content validity of the questionnaire by administering it to subject experts and necessary suggestions were incorporated. The pilot study was conducted among 30 manufacturing firms in the Union Territory of Puducherry and the initial reliability of the questionnaire was tested using Cronbach's- Alpha value, which revealed a good reliability result. The main survey was conducted using final questionnaire and the results are represented in tabular and figurative forms. The statistical tools used in this research work are chi-square test for independence, Analysis of Variance (ANOVA), Independent sample t-test, Correspondence analysis and Canonical correlation analysis and software packages used to analyze above statistical tools are SPSS 16.

4. Results and Discussions

This section presents descriptive and inferential statistical analysis of supply chain concerns using statistical tools. The supply chain concerns of manufacturing enterprises are grouped into three concerns factor namely supply chain coherence, geographical proximity and competition oriented concerns. Manufacturing units segmented into three clusters based on the three supply chain concerns factors. Business profile variables of manufacturing industries and its nature of relevance with supply chain concerns are described in detail in the forthcoming sections.

4.1 Characteristics of Supply Chain Concerns

Supply chain concerns have been classified into three categories namely high supply chain concerned units, moderate supply chain concerned units and low supply chain concerned units on the basis of the three supply chain concerns factors using k-mean cluster analysis. It has also been noticed that the overall performance of the high supply chain concerned units will be good and their supply chain concerns level will be low. To make a strategic, tactical and operational decision in the firm, it is necessary for any firm to understand the nature and characteristics of this supply chain concerns with respect to the profile of manufacturing industries. In this section, the characteristics of supply chain concerns with respect to profile of manufacturing industries variables are analyzed through chi-square test, correspondence analysis, one way ANOVA, Independent sample T-Test and canonical correlation.

The chi-square values along with their level of significance are shown in Table 4.1.

Table 4.1

Chi-Square Test for Profile of Manufacturing Industries Variables

Sl. no	Variable	Chi-Square value	Sig. Value	Significance or not
1	Type of Industry	22.283	0.443	Not Significant
2	**Number of Employees**	**22.763**	**0.012**	**Significant**
3	Total Capital Invested	9.823	0.132	Not Significant
4	Supply Chain Position	11.830	0.066	Not Significant
5	**Nature of Industry**	**16.070**	**0.003**	**Significant**
6	Side of Supply Chain	0.829	0.661	Not Significant
7	Type of Goods Produced	4.587	0.117	Not Significant
8	Type of Business Organization	7.858	0.249	Not Significant
9	Type of Ownership	10.112	0.120	Not Significant
10	**Type of Listing**	**24.059**	**0.001**	**Significant**
11	Kind of Manufacturing	6.596	0.159	Not Significant
12	**Manufacturing Pattern**	**17.811**	**0.007**	**Significant**
13	Type of process	5.275	0.509	Not Significant
14	Annual Turnover	11.606	0.312	Not Significant
15	**Market Coverage**	**9.686**	**0.046**	**Significant**
16	**Area of Market**	**21.180**	**0.007**	**Significant**
17	Business years	1.468	0.962	Not Significant
18	**Software Usage**	**7.332**	**0.026**	**Significant**

To understand the characteristics of these three supply chain concerns segments, association among the segments with profile of manufacturing industries related variables are analyzed. The chi-square test is applied to test the significance of associations. The chi-square values and significant value reveal that type of industry, total capital invested, supply chain position, side of supply chain ,type of goods produced, type of business organization, type of ownership, kind of manufacturing, type of process, annual turnover and business years have no significant association with supply chain concerns segments, while there is a significant association between supply chain concerns segments and number of employees, nature of industry, type of listing, manufacturing pattern, market coverage, area of market and software usage.

4.2 Relationship Between Supply Chain Concerns and Profile of Manufacturing Industries Variables

Chi-square analysis shows significant association between supply chain concerns segments with manufacturing industries profile variables like number of employees, nature of industry, type of listing, manufacturing pattern, market coverage, area of market and software usage. The forthcoming paragraphs shall throw light on a detail analysis of nature of relationship among the profile of manufacturing enterprises and supply chain concerns segments.

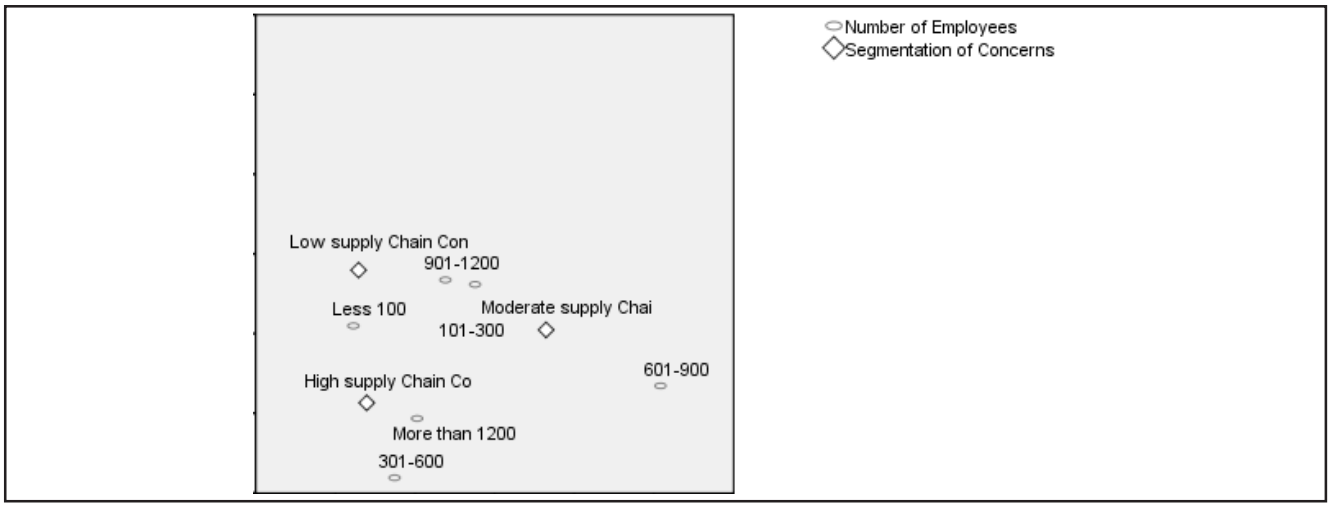
4.2.1 Number of Employees

To test the significance of association, chi-square test is applied. Table 4.1 reveals that the chi-square value is 22.763 and significant value as 0.012. This implies that there is significant association among the number of employees of manufacturing enterprises and supply chain concerns group.

This association is portrayed in the following Figure 4.1.

Figure 4.1

Employees and Concerns- Correspondence Diagram



Correspondence Analysis reveals the association between the number of employees and the different segments of manufacturing enterprises segmented based on supply chain concerns. It can be inferred from the above figure that the manufacturing units with more than 1200 and 301-600 employees are associated with the "Highly supply chain concerned units", while those units with 101-300 and 601-900 employees are associated with the "Moderate supply chain concerned units" and the units employing less than 100 employees and 901-1200 employees category are associated with the "Low supply chain concerned group".

The relationship between number of employees and supply chain concerns is depicted in Table 4.2.

Table 4.2

ANOVA for Number of Employees and Supply Chain Concerns

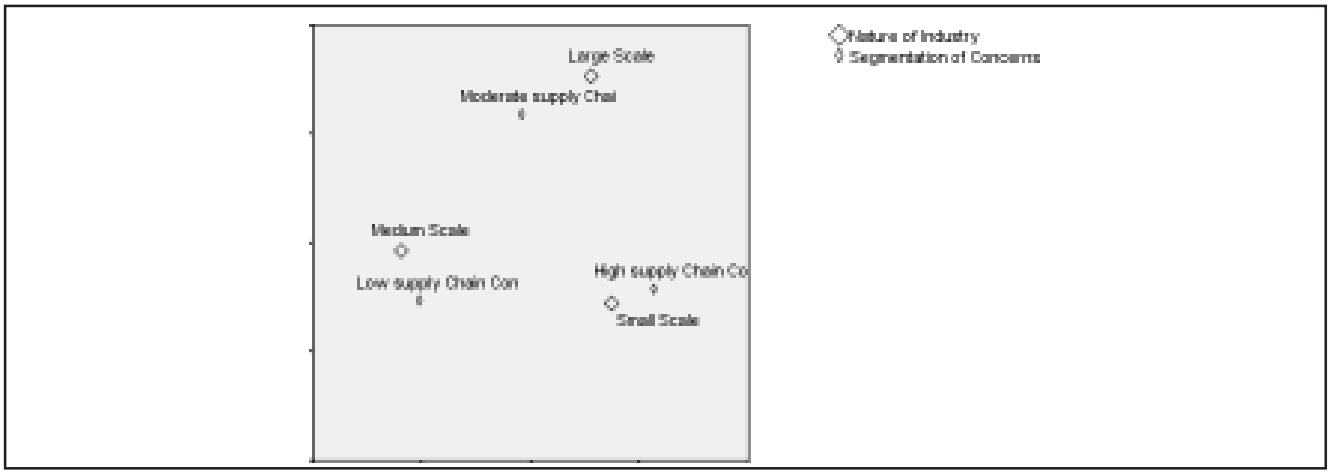
The Analysis of variance is used to know the effect of supply chain concerns factor on the manufacturing units categorized based on number of employees. It can be observed from the Anova Table 4.2 that no significant difference has been found among the manufacturing units grouped on the basis of number of employees, with respect to supply chain coherence, geographical proximity and competition factors.

4.2.2 Nature of Industry

The chi-square value of 16.070 and significant value of 0.003 shown in Table 4.1 clearly indicates existence of significant association between nature of industry of manufacturing units and supply chain concerns segments.

The association between nature of industry and supply chain concerns is portrayed in Figure 4.2.

Figure 4.2
Industry and Concerns- Correspondence Diagram



The association between the nature of industry and supply chain concerns segments can be identified by using correspondence analysis. It can be observed from the figure that the manufacturing units operating in small scale industry are associated with the "highly supply chain concerned group", while the units operating in large scale are associated with the "moderate supply chain concerned group" and the units operating in medium scale are associated with the "low supply chain concerned group".

The relationship between nature of industry and supply chain concerns is highlighted in Table 4.3.

Table 4.3

ANOVA for Nature of Industry and Supply Chain Concerns

Supply Chain Concerns	F	Sig.
Supply Chain Coherence	3.466	0.033
Geographical Proximity	7.936	0.000
Competition	8.802	0.000

The above table indicates that significant difference was found among the units categorized based on nature of industry with respect to supply chain concern factors of supply chain coherence, geographical proximity and competition.

Mean values for coherence concerns of industry category are shown in Table 4.4.

Table 4.4
Mean Values for Coherence Concerns of Industry Category

Nature of Industry	N	Mean Values	
		1	2
Medium Scale	94	2.74	
Large Scale	46	2.84	
Small Scale	115		3.03

The post hoc analysis is carried out with Duncan method to understand inter group difference among nature of industry with respect to supply chain coherence. Table 4.4 indicates that two homogeneous sub groups can be formed among the three categories of manufacturing units grouped on the basis of nature of industry in respect of their supply chain coherence factor. Both the homogeneous groups contain large scale industry group and mean value of that industry category is 2.8 on supply chain coherence. The mean values of medium scale industry segment and small scale industry segment are 2.7 and 3.0 respectively. The difference in mean values between medium scale industry group and small scale industry group is significant at 95% level of confidence (Table 4.3, significant value is 0.033). This means that small scale manufacturing units have high level of supply chain coherence concerns than medium and large scale manufacturing units.

Mean values for geographical proximity of industry category are show in Table 4.5

Table 4.5
Mean Values for Geographical Proximity Concerns of Industry Category

Nature of Industry	N	Mean Values	
		1	2
Medium Scale	94	2.67	
Small Scale	115		3.16
Large Scale	46		3.28

Table 4.5 indicate that two homogeneous sub groups can be formed among the three category of units grouped on the basis of geographical proximity. The mean value in respect of geographical proximity is 2.7 for medium scale units, while the mean in respect of small and large scale units are 3.2 and 3.3 respectively. The difference in mean values between the first homogeneous group and second homogeneous group is significant at 99 percent level of confidence (Table 4.3, significant value is 0.000). This implies that large scale manufacturing units and small scale manufacturing units have high level of geographical proximity concerns than the medium scale manufacturing units.

Mean values for competition concerns of industry category are displayed in Table 4.6.

Table 4.6

Mean Values for Competition Concerns of Industry Category

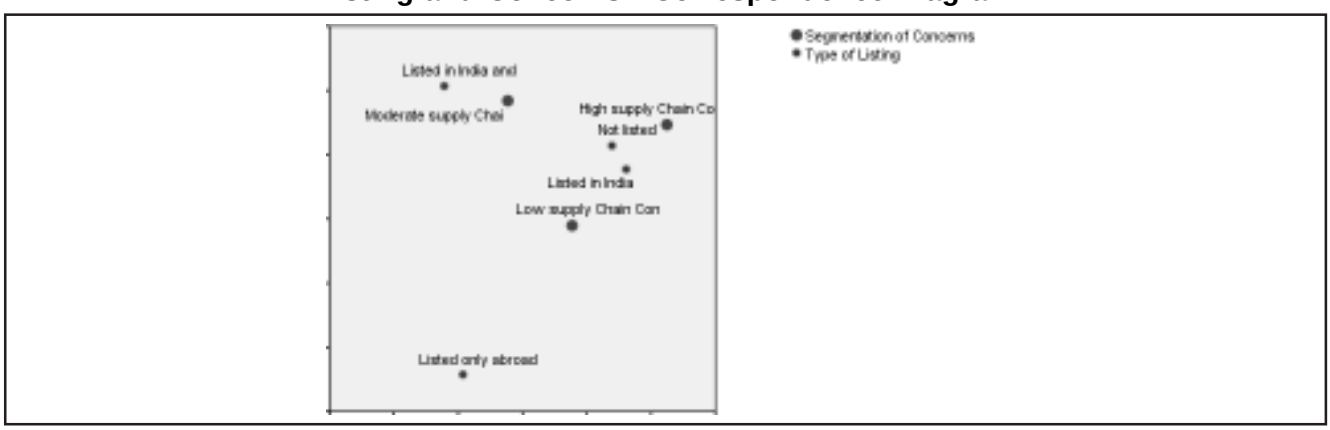
Table 4.6 indicates that two homogeneous sub groups can be formed among the three categories of units grouped on the basis of nature of industry in respect of competition. The mean value in respect of competition among the medium scale, large scale and small scale units segment are 2.9, 3.0 and 3.4 respectively. This confirms that small scale manufacturing units have high level of competition concerns than the other two groups of Industry.

4.2.3 Type of Listing

The value of chi-square is 24.059 and significant value is 0.001 as shown in Table 4.1, which clearly indicates significant association between type of listing and supply chain concerns of manufacturing units.

The association between type of listing and supply chain concerns is shown in Figure 4.3.

Figure 4.3
Listing and Concerns - Correspondence Diagram



The association between the type of listing category and supply chain concerns segments can be identified by using correspondence analysis. It can be noted that the units whose shares are not listed are associated with the "Highly supply chain concerned group", while those units whose shares are listed in India and abroad are associated with the "Moderate supply chain concerned group" and the units whose shares are listed in India are associated with the "Low supply chain concerned group".

The relationship between type of listing and supply chain concerns are shown in Table 4.38.

Table 4.7
ANOVA for Type of Listing and Supply Chain Concerns

Supply Chain Concerns	F	Sig.
Supply Chain Coherence	2.565	0.055
Geographical Proximity	2.515	0.059
Competition	3.202	0.024

The above table indicates prevalence of significant difference (0.024) in mean values of competition with respect to the units categorized based on type of listing, while there is no significant difference (0.059) in mean values of geographical proximity with respect to type of listing and no significant difference (0.055) in mean values of supply chain coherence with respect to type of listing.

Mean values in respect of competition and units categorized based on listing of shares are shown in Table 4.8.

Table 4.8
Mean Values for Competition Concerns of Listing Category

Type of Listing	N	1	2
Listed only abroad	12	2.70	
Listed in India and Abroad	33	2.78	
Listed in India	64	3.16	
Not listed	146		3.24

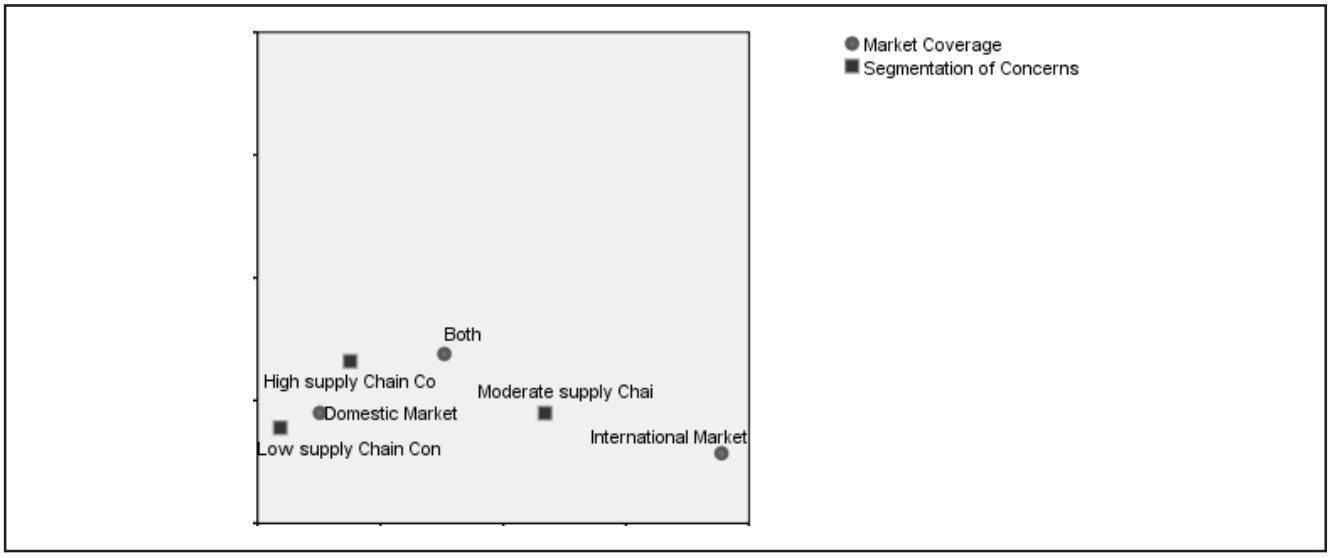
The mean value in respect of competition of those units listed in India and abroad, those units listed in India, those units listed only in abroad, and those units not listed at all are 2.8, 3.2, 2.7 and 3.2 respectively. Mean values in respect of competition significantly differ among the groups of units listed in abroad only and those units not listed at all at 95 percent level of confidence (Table 4.7, significant value is 0.024). This implies that those units not listed have high level of competition concerns than the other type of listing units.

4.2.4 Market Coverage

The value of chi-square is 9.686 and significant value is 0.046 (as shown in Table 4.1) which clearly indicates prevalence of significant association between market coverage and supply chain concerns of manufacturing industries.

The association between market coverage and supply chain concerns is shown in Figure 4.4.

Figure 4.4
Market Coverage and Concerns -Correspondence Diagram



The association between the manufacturing units grouped based on market coverage and supply chain concerns can be identified by using correspondence analysis. Those manufacturing units concentrating on domestic and international markets are associated with the "High supply chain concerned Group", while those units concentrating on international market are associated with the "Moderate supply chain concerned Group" and those units concentrating on domestic market are associated with the "Low supply chain concerned Group".

The relationship between market coverage category and supply chain concerns is shown in Table 4.9.

Table 4.9

ANOVA for Market Coverage and Supply Chain Concerns

Supply Chain Concerns	F	Sig.
Supply Chain Coherence	1.171	0.312
Geographical Proximity	2.856	0.059
Competition	1.319	0.269

It is observed from the above table that there is no significant difference among market coverage with respect to supply chain coherence, geographical proximity and competition orientated supply chain concerns factors.

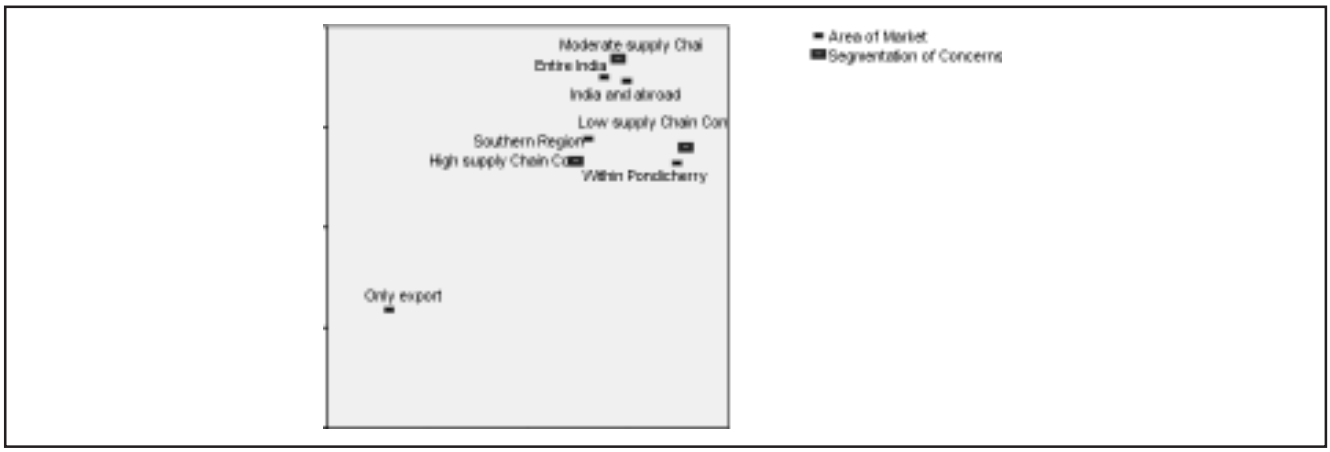
4.2. 5 Area of Market

The value of chi-square is 21.180 and significant value is 0.007 shown in Table 4.1 which clearly depicts significant association between the nature of market and supply chain concerns of manufacturing units.

The association between area of market and supply chain concerns is shown in Figure 4.5.

Figure 4.5

Area of Market and Concerns- Correspondence Diagram



It can be observed from the figure that those manufacturing units possessing market in South India and Export market are associated with the "highly supply chain concerned group" while those units possessing market in entire India and India and Abroad are associated with the "moderate supply chain concerned group" while the units having market within Pondicherry and Tamil Nadu are associated with the "low supply chain concerned group".

The relationship between area of market and supply chain concerns is displayed in Table 4.41

Table 4.10

ANOVA for Area of Market and Supply Chain Concerns

Supply Chain Concerns	F	Sig.
Supply Chain Coherence	3.599	0.007
Geographical Proximity	1.000	0.119
Competition	4.579	0.001

The above ANOVA Table indicates prevalence of significant difference among manufacturing units classified based on area of market in respect of the supply chain concerns factors of supply chain coherence and competition.

Mean values for coherence concerns of area of market category are portrayed in Table 4.11.

Table 4.11

Mean Values for Coherence Concerns of Area of Market

Area of Market	N	1	2
Within Pondicherry and Tamil Nadu	89	2.77	
India and abroad	64	2.78	
Entire India	36	2.87	
Southern Region	62	3.10	
Only export	4		3.95

Table 4.11 indicates that two homogeneous sub groups can be formed among the five categories of manufacturing units classified on the basis of area of market. The difference in mean values between the group of units having market of within Pondicherry and Tamil Nadu and the group of units having merely export market is significant at 99 percent level of confidence (Table 4.10, significant value is 0.007). This signifies that manufacturing units concentrating exclusively on export markets have high level of supply chain coherence concerns than the other units.

Mean values in respect of the manufacturing units classified on the basis of area of market, regarding competition concerns are displayed in Table 4.12.

Table 4.12
Mean Values of Competition Concerns for Area of Market

Area of Market	N	Mean Values	
		1	2
Within Pondicherry and Tamil Nadu	89	3.00	
India and abroad	64	3.00	
Entire India	36	3.02	
Southern Region	62	3.48	
Only export	4		4.12

Table 4.12 indicates that two homogeneous sub groups can be formed among the five categories of manufacturing units classified on the basis of area of market, in respect of competition. The difference in mean values between the group of units having market within Pondicherry and Tamil Nadu and those concentrating exclusively on exports is significant at 99 percent level of confidence (table 4.10, Significant value is 0.001). This signifies that those manufacturing units concentrating exclusively on export markets have high level of competition concerns than the other area of market units.

4.2.6 Software Usage

The value of chi-square being 7.332 and significance value of 0.026 inferred from Table 4.1, clearly indicates prevalence of significant association between software usage and supply chain concerns of manufacturing units.

The relationship between software usage and supply chain concerns is shown in Table 4.13.

Table 4.13
Independent Samples Test for Software Usage and Concerns

Supply Chain Concerns	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Coherence	0.533	0.466	-.878	253	0.381
Geographical	3.420	0.066	1.076	253	0.283
Competition	1.223	0.270	-1.370	253	0.172

It can be observed from the above table that the value of significance is in excess of 0.05 in respect of the group of units classified on the basis of software usage regarding geographical proximity concerns, competition oriented concerns and coherence oriented concerns. This suggests that there is no significant difference in the mean values of the different groups of manufacturing units classified based on software usage regarding geographical proximity concerns, competition oriented concerns and Coherence oriented concerns.

4.3 Canonical Correlation Between Supply Chain Concerns And Profile Of Manufacturing Industries

Canonical correlation is used to predict the shared relationship among two or more set of variables. This analysis establishes the individual relationship among two variables and also explores the overall relationship between two or more set of variables. The forthcoming paragraphs discusses the canonical correlation between two sets of variables. The first set of variables consist of supply chain concerns factors namely supply chain coherence, geographical proximity and competitions, while the second set consist of profile of manufacturing industries variables namely number of employees, nature of industry,type of listing,manufacturing pattern, market coverage, area of market and useage of software.

Canonical Correlations for supply chain concerns is displayed in Table 4.14.

Table 4.14
Canonical Correlation for Supply Chain Concerns

	Variables	Coef.	Std. Err.	t	P>|t|	[95% conf.	interval]
U1	Coherence	.2144754	.2888061	0.74	0.458	-.3542842	.783235
	Geographical Proximity	-.127993	.2093987	-0.61	0.542	-.5403721	.2843856
V1	Competition	-1.10723	.2451288	-4.52	0.000	-1.589975	-.624487
	Number of Employees	.3690427	.1920978	1.92	0.056	-.0092646	.7473501
	Nature of Industry	.9870722	.3678742	2.68	0.008	.2626001	1.711544
	Listing	.2300085	.2083301	1.10	0.271	-.1802658	.6402828
	Manufacturing Pattern	.14388	.2061716	0.70	0.486	-.2621435	.5499035
	Market coverage	.3014798	.3633649	0.83	0.407	-.414112	1.017072
	Market Area	-.820725	.265067	-3.10	0.002	-1.342734	-.298716
U2	software	-.166431	.5466711	-0.30	0.761	-1.243017	.9101536
	Coherence	.4400772	.3136598	1.40	0.162	-.1776279	1.057782
	Geographical Proximity	.8383347	.2274189	3.69	0.000	.3904679	1.286201
	Competition	-.453529	.2662238	-1.70	0.090	-.9778163	.070758

V2							
	Number of Employees	.4838434	.2086291	2.32	0.021	.0729801	.8947066
	Nature of Industry	-.823076	.3995322	-2.06	0.040	- 1.609895	-.036259
	Listing	.3564255	.2262582	1.58	0.116	.0891557	.8020066
	Manufacturing Pattern	.0399343	.223914	0.18	0.859	-.4010302	.4808989
	Market coverage	.3412621	.3946348	0.86	0.388	-.4359111	1.118435
	Market Area	.3846481	.2878778	1.34	0.183	-.1822833	.9515794
	software	.2498602	.5937158	0.42	0.674	-.9193725	1.419093
U3							
	Coherence	1.327923	.4429044	3.00	0.003	.4556904	2.200156
	Geographical Proximity	-.577761	.3211276	-1.80	0.073	-1.210173	.0546506
	Competition	-.106550	.3759222	-0.28	0.777	-.8468723	.6337706
(Continued…)							
		Coef.	**Std. Err.**	**t**	**P>|t|**	**[95% conf. interval]**	
V3	Number of Employees	.5648546	.2945954	1.92	0.056	-.0153063	1.145015
	Nature of Industry	-.830553	.5641608	-1.47	0.142	-1.941582	.2804755
	Listing	-.379173	.3194887	-1.19	0.236	-1.008357	.2500113
	Manufacturing Pattern	.3197423	.3161786	1.01	0.313	-.3029232	.9424077
	Market coverage	-.065072	.5572455	-0.12	0.907	-1.162482	1.032338
	Market Area	-.277275	.4064988	-0.68	0.496	-1.077812	.5232622
	software	.8501017	.8383584	1.01	0.312	-.8009174	2.501121

Canonical correlations: 0.2955 0.2739 0.1977

Tests of significance of all canonical correlations

Vareiables	**Statistics**	**df1**	**df2**	**F**	**Prob>F**
Wilks' lambda	0.8112	21	704.058	2.5343	0.0002 a
Pillai's trace	0 .201442	21	741	2.5399	0.0002 a
Lawley-Hotelling trace	0 .217473	21	731	2.5234	0.0002 a
Roy's largest root	0 .0956764	7	247	3.3760	0.0019 u

e = exact, a = approximate, u = upper bound on F

Two sets of data have been taken for this study. The first set contains the three factors relating to supply chain concerns, while the second set consists of the seven profile of manufacturing industry variables such as number of employees, nature of industry, type of listing, manufacturing pattern, market coverage, area of market and software usage. Based on these two sets of data, Canonical Correlation has been performed. The Canonical Correlation coefficient values in respect of these three factors are 0.2955, 0 .2739 and 0.1977. Other results displayed in the above table such as df1 value of 21, df2 value of 704, f value of 2.5343, Wilks's ë value of 0.8112, and p value of 0.002 which is less than 0.05, reveals that there is significant relationship between the two sets of data. To predict the overall relationship between these two sets of data, Wilk's (ë) value should be deducted from one. From the three canonical function set, the r^2 value is 0.1888. This implies that the entire canonical model explains a considerable portion of about 18% of the variance. Hence, there is a decent positive correlation between the two sets of data namely, the three supply chain concerns factors and the seven variables relating to the profile of manufacturing enterprises.

5. Conclusions and Implications

Supply chain concerns of the manufacturing enterprises have significant relationship between the clusters formed on the basis of supply chain concerns and the demographic variables of number of employees, nature of industry, type of listing, manufacturing pattern, market coverage, area of market and software usage and it found that there is positive correlation and 18% of the share variance exists between the two sets of variables supply chain concerns factors and the business profile of manufacturing enterprises in Union Territorry of Puducherry. Supply chain concerns of manufacturing firm variable shall differ among the manufacturing firms with different nature and demographic characteristics. Hence, this study has made an attempt to analyse the difference existing among the manufacturing firms in the Indian context. The manufacturing firms in the Union Territory of Puducherry have been categorized based on their demographic characteristics to better understand their nature and features using variety of statistical tools. Understanding the characteristics of manufacturing enterprises with respect to supply chain will be useful to the policy makers, and practitioners. The policy makers can frame suitable industrial policies to attract good investment avenues. The practitioners can alter or tailor their strategy to suit to the needs of the manufacturing enterprises in the Indian context.

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