Executives Representation of Rural Markets¹

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Rural market potential in India is so huge that a mere one percent increase in India's rural income translates to Rs.100,000 million of buying power (Dobhal, 2002). Trends indicate that rural markets are growing twice as fast as those in urban India (Vaishali, 2007). Infact, rural is already a bigger market than urban in case of FMCG (53 percent) and durables (59%) (NCAER, 2003). Rural consuming class is growing at an annual rate of 3 to 4 percent, which translates into 1.2 million new consumers every year (Financial Express, 2002). The number of middle income and high-income households in rural India is expected to reach 111 million by 2007 from the current 80 million (NCAER, 2003). Money available to spend on FMCG products by urban India is Rs.495,000 million as against is Rs.635,000 million in rural India (Kannan, 2001).

Economic uprising in rural markets has led to the speculation in the business community that rural and urban markets are now increasingly becoming homogenous (Vijayraghavan and Philip, 2005). Among many of the scholars who believe in such trend, Baig (1980) long back proposed that strategies from urban markets could be transplanted to rural markets with little or no modifications. He argues that rural and urban are not two separate market segments and marketing of products can be similar.

However, few argue that such speculation is far from reality. There is a wide disparity between rural and urban markets in terms of standard of living, literacy levels (NCAER, 2003, Bijapurkar, 2003), physical and marketing infrastructural facilities (Sarwade, 2002), social and cultural conditions (Rao, 2000, Jha, 2003). Hence marketing strategies should be different for both urban and rural markets (Das and Sen, 1991, Rao, 2000, Velayudhan, 2002, Jha, 2003).

As most of the discussion as evident above is devoid of any empirical evidences and is opinion driven, ambiguity still exists as to whether executives perceive rural markets and urban markets as homogeneous. Hence, a key question that is worth examining is 'what is the executives' representation of extent of rurality in rural markets'. Answer to the above question would resolve the ambiguity whether the rural and urban markets are really becoming homogeneous or not and should rural and urban marketing strategies be different or same. Though the ambiguity is a wider found phenomenon, given the nature of rural markets in India it is more acute.

This paper attempts to understand the representation of rurality in rural markets of executives of selected product categories. Initially in the paper, discussion revolves around the construct rurality in rural markets followed by methodology, presentation of results, discussion and limitations.

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Rural Market – Dimensions and Approaches

Harish Bijoor (2003) says;

"The definition of rural is largely pastoral. It is ownership oriented and deprivation oriented. The rural home is at times a geographically defined entity...... In the beginning everything was rural. And then developed islands of urban within the large rural mass. As urban centers developed near the ports, near the points of business access and indeed in areas that showed a great deal of potential to house the best of facilities that were to grow, the rural hinterland remained a large mass and urban terrain emerged as a subset of this"

Rural means different to different people (Jha, 1988). A snapshot of several definitions is given in Table I. Arriving at a definition of rural is a huge challenge. Review of literature suggests that rural is a viable analytic, empirically referent in reality (Miller and Luloff, 1981) and multidimensional concept (Redfield, 1947). Though the dimensions and the accompanying content of each dimension is not yet agreed upon, there is a consensus that rural can be operationalised on three broad dimensions; ecological, occupational and socio cultural dimensions (Bealer et al, 1965, Miller and Luloff, 1981, Jacob and Luloff, 1995, Friedland, 2002). Another dimension considered for the study is drawn from marketing literature; 'market' which includes consumers, competitors, and physical conditions.

Operationalisation of rural is broadly done in three ways; Descriptive, Socio – cultural and Social relations (Pandey, 1996, Halfacree 1993). Descriptive and socio cultural definitions are criticized on several grounds (Halfacree, 1993, Smith, 1984) and hailed the social relations approach. Hence, for the study, this approach is followed. As per social relations approach; rurality can be considered as a way of life which rests on peoples' usage of social representations to create a specific kind of world. This approach acknowledges explicitly the difference between space and its social representation. It proposes that the researcher need not abstract causal structures operating at rural level (Falk and Pinhey, 1978). This is because, rural and its synonymous words and concepts are understood and used by people in everyday talk. Halfacree (1995) considers rural as a social representation which is an organisational mental construct that constitutes what is visible and must be responded to, relates appearances and reality. The other part of the construct 'market' consists of customers (actual and potential), needs, products, and competitors (Weinstein, 2006, Buzzell, 1979).

Managers / executives of business organisations who market their products and services in the rural markets form a social group and have their own social representations of rurality. As individuals they continuously build their representations about rural markets over the years either by social interactions or discourses. They share the representations with other executives about what is rurality. As social representations are group specific, it is likely that executives who share a representation, have similar understanding and evaluate rural similarly. Depending on the social representation of rurality; executives and their respective organisations would arrive at a product market fit. Hence, if clusters of how rural markets are represented by executives are identified, strategies can be examined within and across these clusters.

Objectives

With this background, the objectives of the study can be stated as

- 1. Understand the construct 'rurality in rural markets'
- 2. Determine and classify the executives representation of rurality in rural markets

Scope of the study

The present study has the scope defined in the following points;

- 1. Only urban to rural market transactions are considered. Study did not consider rural to urban, rural to rural transactions.
- 2. Only products that are marketed in both rural and urban markets are considered i.e. those products which are marketed exclusively for rural markets are not considered.
- 3. Only four product categories are chosen for the study; viz. pharmaceuticals, financial products (banking and insurance), television and hair care. Number of product categories chosen for the study is few because of the cost and time implications.
- 4. Organisations marketing their products in rural markets of Andhra Pradesh are studied. Choice of Andhra Pradesh is made for optimizing cost and time.

Research Design

The study used an exploratory design and is conducted in three stages. Each of these stages is discussed briefly below.

In the first stage, existing literature drawn from the domains of rural marketing, sociology, and social psychology is reviewed. Sources include journals, books, periodicals, newspapers, company websites and annual reports of various organizations.

As a part of second stage, a pilot survey is conducted which included 15 – 20 minutes interview on ten senior level marketing executives and fifteen middle and lower level executives. This unstructured completely open ended interview included executives from soaps, telecom, dairy, banking, and hair care product categories. Interviews focused on how executives represent rural markets, and what are the various dimensions of rurality in their operating rural markets. A content analysis was done on the interview transcripts. Content analysis revealed that broadly, executives identified rural as; growing potential (25), increasing disposable income levels (22), economy driven by agriculture (20), low quality of infrastructure (15), more traditional and social status driven (13). Figures in brackets indicate the number of executives who expressed their representation of rural markets for the respective item. These dimensions of rural market are similar to what literature on rurality has broadly suggested.

Based on the content analysis 33 items were developed initially. Academic scholars, researchers were involved in the item reduction process. Nine items were removed in the first round and later 11 items were removed in second round of item reduction, thus resulting into 13 item scale to measure social representation of rural markets. These items are constructed on the four dimensions of rural markets viz., ecological, occupational, socio-cultural and market conditions. Each of the items is measured on a five point Likert like scale ranging from strongly agree to strongly disagree. Likert like scale is appropriate here because the measurement is concerned with the reflection of the attitudes of the executives. An item to measure the overall social representation of rural markets is asked on the similar scale.

For further analysis, weightage to each point of the items including the overall social representation item is given as follows; 1- strongly disagree, 2 – disagree, 3 – neither, 4 – agree and 5 – strongly agree.

As a part of the third stage, survey method is employed details of which are discussed below.

Sampling Frame

Product categories identified for the study include; pharmaceuticals, banking, insurance, hair oil, shampoo, and television. Multi product categories are chosen because focusing on a single

product category would have severely limited the sample size and also limit the generalisability of the study.

After identifying product categories; organisations are chosen on the basis of two criteria. Firstly, organisations should have marketed their product in rural markets atleast for the past two years. Two years is considered because; the time period would have possibility given the organisation to understand the rural markets. Secondly, organisations should have direct rural market presence.

Local offices in Andhra Pradesh of each of the organisations listed in the BSNL Telephone Directory and Yellow pages, Hyderabad Edition under the product categories are randomly contacted over phone to verify for the above two criteria. In total, 63 out of 75 organisations contacted are considered for the study. Total sample size is 204. The sample has 60 executives drawn from 20 pharmaceutical organisations. Further, 74 executives representing 25 banking and insurance organisations, 40 executives representing 10 hair care marketing organisations and 30 executives from eight television marketing organisations are interviewed for the study. Detailed sample characteristics can be seen in Table II.

Respondent Selection

As suggested by Bagozzi and Yi (1991), respondents from more than one managerial level are chosen so as to increase the validity of the study. From every organisation at least two respondents were chosen from each category of executives, viz. Type A and Type B. Type A respondents are senior level executives like general managers, marketing heads, regional managers, and product managers. These executives can exert direct influence on the decision to introduce modifications in the product. Type B respondents are the senior and middle level executives who indirectly influence the decisions to introduce modifications in the product. Area sales managers, senior officers incharge for rural markets, and rural marketing executives are some of the Type B executives.

Results

Reliability and Predictive Validity

Alpha value of 0.736 provided in Table III for the thirteen item scale used to measure social representation of rural markets indicates high levels of internal consistency in the items. To assess the predictive validity of the construct, Pearson correlation coefficients are computed between the mean values of the scale and the item used to measure overall perception of the executive for the respective construct. The value of 0.877 provided in Table III indicates a higher level of predictive validity of the scale.

Data Quality

Data quality is examined by using skewness, kurtosis and t test values. A close examination of the sixth column in Table III reveals that Kurtosis of a majority of items is below 1.00. Of the thirteen items, only one item kurtosis value is greater than 1.00, and approaching 2.00, a level beyond which nonnormality of distribution becomes a concern. Also referring fifth column of the table indicates that, skewness for all the items is less than 1.28; far smaller than the lower bound of four or five. Thus, kurtosis and skewness of the items also provide no indication that the variable is distributed nonnormally. T test scores indicate that mean scores of the respondents are significantly different from each other for all the items. Thus, kurtosis and skewness of the items provide no indication that the variables used in this study are distributed nonnormally. T test scores indicate that mean scores of the respondents are significantly different from each other for all the items.

Mean Values of Items

Mean values of the thirteen item scale measuring social representation of rural markets ranged from 3.00 to 4.25, as provided in Table III indicating that respondents agreed to the items either moderately or highly. Mean value of overall social representation for rural markets is 2.49 indicating moderate level of response from the executives.

At the disaggregate level, for most of the items in SRRM, banking and insurance and hair care product categories have higher means when compared to other two product categories (Table IV). Even the total values and overall SRRM has a similar pattern. Average mean values of the four products range 3.52 to 3.71 which indicate a higher level of rurality perceived by all the executives.

Clustering

Cluster analysis is a generic label applied to a set of techniques in order to identify similar entities from characteristics possessed by the entities and is a non dependence technique (Green et al 1967, Punj and Stewart, 1983, Aldenderfer and Blashfield, 1987, Hair et al, 1998). Idea is to generate manageable categories of executives' social representation of rural markets. The study followed two stage clustering process as advocated by Punj and Steward (1983) and Hair et al (1998)

Step 1: Hierarchical clustering

As a first step, hierarchical cluster analysis is employed using Ward's method. This method is generally used to minimize within cluster differences and avoid problems with chaining of the observations if any. As items are metric, squared Euclidean distance is chosen as the similarity measure. Also, no form of standardization is used because all the items are measured on the same scale. Data is checked for outliers and found to have no strong cases for deletion.

Table V represents the last 10 observations of Agglomeration Schedule with first column representing the cluster number, second the stage, third the coefficients, and fourth represents the percentage change in the clustering coefficient from 10 to two clusters. Agglomeration coefficients are used to generate a stopping rule so as to evaluate the changes in the coefficient at each stage of the hierarchical process.

Observing the table shows that the percentage change in the coefficients is large when going from two to one clusters (32.26) followed by when going from three to two clusters (15.03). Table also suggests that cluster solutions beyond seven clusters are not efficient as the percentage change in coefficient values is increasing.

Later, profiling of cluster solutions is carried out to assist in the selection of the final cluster solution. However, idea at this stage is not to interpret the clusters but to ensure that the cluster solutions are truly distinctive. Table VI contains the hierarchical clustering item profiles for both the two and three cluster solutions.

Examination of the two cluster profiles reveals that except for one item mean (i.e. competition), all the item means in cluster two are higher than the cluster one item means. Also, F value indicates that the differences between these two clusters are significant for all the items except for three items; languages, competition and helping nature. If the results were restricted to only this solution, then two quite different categories of executives' perception on rural markets would emerge.

Moving to three cluster solution, increased number of clusters is expected to provide more variation in terms of the clustering variables. Examining the three cluster solution reveals a number of patterns of high versus low values. F value indicates that except for one item (i.e. competition); differences between the three cluster item means are significant for all. This is better result when compared to the three insignificant F values in the two cluster solution. Another significant observation is that while moving from two to three cluster solutions, the split in the number of cases has happened only in cluster one of two cluster solution. Cluster two reincarnated as cluster three in the three cluster solution.

Hence, we can conclude that increased number of clusters exhibit a moderate improvement in representing distinct groups that may reflect an underlying structure.

Step 2: K Means Clustering

Carrying both the cluster solutions forward, in the second step, K-Means clustering (non hierarchical) is employed. Objective of carrying out the second stage is to consider the practical significance of the clusters derived from hierarchical clustering method in meeting the objectives of classification of executives' social representation of rural markets.

K Means clustering method employed centroids of the items as initial seed points from the results in Step 1. For each cluster solution, the centroid on each of the thirteen items along with the univariate F ratios and levels of significance and presented in Table 4

Levels of significance for mean differences across two cluster solution indicates that one item (helping nature) is insignificant, two items (languages and competition) are significant at 0.05 level and all the other items are significant at 0.01 level. Except for the item 'competition', all the item means of cluster one are higher than the cluster two. Differences are more significant with respect to pace, risk and economic conditions.

Levels of significance for mean differences across three cluster solution indicates that one item (competition) is significant at 0.05 level and other items are significant at 0.01 level. Because cluster two and three of the three cluster solution emerged from cluster two of the two cluster solution, it is also expected that they share similar patterns. Mean values of all the items, except for one item (helping nature), is higher in cluster one when compared to two and three clusters. Thus, except for one item, the pattern is almost similar as expected.

As a first validity check for the stability of the cluster solution, a second K means hierarchical solution is performed by allowing the procedure to randomly select the initial seed points for both cluster solutions. Results presented in Table 4 indicate that there is good consistency of solutions when with and without seed solutions are compared. To assess predictive validity a variable having theoretical relationship with the thirteen item scale but not included in the cluster solution earlier is used. ANOVA results indicate that the predictive validity is significant for all the solutions. Thus, cluster solutions are considered stable and hence can be concluded that the perceptions of executives on rural markets differ between/among the cluster solutions.

Profiling Clusters

As both the clusters seem to be stable and different, they are carried further for analyzing product adaptation and other constructs. Before doing that cluster profiles are further built using the company details and presented in Table VII. Following paragraphs elaborate the details given in the table.

Cluster 1: This cluster has maximum representation of executives from hair care and television followed by banking. Most of the executives are from Type B and from organisations with above Rs. 501 crores sales turnover. Also, this cluster has major representation from the organisations with above 250 employees and organisations with more than 10 years of direct product presence in rural markets.

Cluster 2: This cluster has a major representation of executives from pharmaceutical companies and bank and insurance companies. It has also a majority of Type A executives and executives from companies with average sales of Rs. 101 - 500 crores and above Rs. 501 crores; organisations with 100 - 250 and more than 250 employees; and organisations with greater than five years of direct product presence in rural markets.

Overall, F ratio reveals that the two clusters are quite distinct with respect to product type, executive managerial levels and number of years of rural market presence. However, there is no significant difference in mean values on the basis of the number of employees.

Three Cluster Solution

Cluster 1: This cluster is similar to the cluster 1 in two cluster solution and has the maximum representation of executives from hair care and television followed by banking. Most of the executives are from Type B and from organisations with above Rs. 501 crores sales turnover. Also, this cluster has major representation from the organisations with above 250 employees and organisations with more than 10 years of direct product presence in rural markets.

Cluster 2: This cluster has major representation from executives of pharmaceuticals and banking and insurance and executives from Type A. This cluster has higher representation from the executives of organisations with average sales between Rs.101 - 500 crores; organisations with more than 100 employees and between 5 - 10 years of direct product presence in rural markets.

Cluster 3: This cluster also has major representation of executives from pharmaceuticals and banking and insurance and executives from Type A. This cluster has higher representation from the executives from the organisations with average sales above Rs. 500 crores; organisations with more than 250 employees and above 10 years of direct product presence in rural markets.

Overall, F ratio reveals that the three clusters are quite distinct with respect to product type, executive managerial levels and number of years of rural operations. However, there is no difference in the mean values as regards to the number of employees.

Discussion & Limitations

Very few studies are conducted to understand how rural markets are understood by the marketers such as the one proposed here. This is probably one of the few studies on this topic to the best of our knowledge. The study provides evidence that the different organizations and executives represent rural markets different. However, there is a substantial overlap of these representations. Two / three cluster solution that resulted from the data analysis is an indication of the extent of overlap of the representations. To a great extent this is contrary to the actual perception that exists.

Though we do not have any support to our arguments for such a deviation, we can put forward an argument as a mere speculation. The items in the scale aim at capturing the perception of the executive for the construct 'rural market'. These perceptions are broad based understanding of rural markets that executives derived from several sources. However, while operationalising marketing initiatives in rural markets, executive considers several other criteria like company

resources, cost, physical infrastructure and so on. Given that these criteria would differ from organization to organization, there is possibility of different rural market definitions. To imply, definition of rural market of an organization is not just influenced by the representation of executive but probably also several conditions.

This study has contributed a probably alternative, albeit not a complete solution, for understanding rural markets and operationalising it. Further studies can be carried out using this method not just to understand rural markets but also understanding marketing initiatives of several organizations in rural areas.

However, the issues addressed in this work reveal that a broad agenda is ahead for research. Given the absence of any empirical work, attempts should be made to further test, refine and extend the work. Two complementary procedures can be followed in doing so; 1) case studies to guide and refine theory development, and 2) survey research of key informants in the organisations. Between these two, case study designs would be in greater necessity to better understand the construct and prepare for other large scale surveys (Eisenhardt, 1989). Once the nature of the concept is understood, it will represent a fundamental shift in the existing paradigm of rural marketing. It is in this direction that the present study has initiated the process and shed some useful insights. Also, cross disciplinary studies that enhance the understanding of the concept can be conducted.

This study is subject to several limitations. Since a moderate sample of 204 respondents, the findings cannot be generalized widely. All the responses for the study are executive's subjective evaluations about the concept with respect to Andhra Pradesh at large. Hence, there is a possibility of responses being different with respect to the reality that exists out of Andhra Pradesh state. The study has not delved into issues of psychometry such as validity measures (except for predictive validity), or accuracy of ratings. Finally, the study is conducted in the positivist paradigm and hence might have lost certain key insights which post positivist theorists emphasise through the use of multiple methods to explore and understand reality.

References

Would be provided on request

Table I :Defining Rural

Census of India	Village: Basic unit for rural areas is the revenue village, might comprise several hamlets demarcated by physical boundaries Town: Towns are actually rural areas but satisfy the following criteria - Minimum population >= 5000 - Population density >= 400/sq.km. - 75% of the male population engaged in non agricultural activities	- Term 'rural' is not defined. The definition does not specify the population strata - Term 'rural' is not defined. The definition does not rural out 5,000+ population villages
Reserve Bank of India	Locations with population up to 10,000 to 100,000 as semi – urban	- It does not include 10,000+ population villages in rural definition - On the contrary, the definition includes 5,000 – 10,000 population towns in rural
National Bank for Agriculture and Rural Development (NABARD)	All locations irrespective of villages or town, up to a population of 10,000 will be considered as rural	Village and town characteristics are not defined
Planning Commission of India	Towns with population up to 15,000 are considered as rural	Town characteristics are not defined
Sahara India	Locations having shops/ commercial establishments upto 1000 are treated as rural	Population criteria and other characteristics are not taken into consideration
LG Electronics, India	The rural and semi urban area is defined as all cities other than the seven metros	

Source: Kashyap and Raut (2006)

Table II: Sample Details

				Hair		
Charac	eteristics	Pharma	Bank/Insur	Care	Television	Total
	Type A	25	34	15	11	85
Designation	Type B	35	40	25	19	119
Average	> 25	2	0	6	0	8
Sales	25 – 100	14	6	6	0	26
per annum	101 – 500	25	10	10	6	51
(in Rs. Crs)						
	501 and above	19	58	18	24	119
No. of	> 100	8	3	8	0	19
Employees	100 - 250	23	12	18	6	59
	above 250	29	59	14	24	126
Years of	2 – 5	14	8	5	6	33
Rural	5 – 10	29	13	9	18	69
Operations	10 and above	17	53	26	6	102
To	otal	60	74	40	30	204

Table III: Descriptive Statistics – SRRM (Aggregate Level)

		Aggregate								
						Т				
No.	Items	Mean	S.D.	Skewness	Kurtosis	test**				
	SRRM (Cronbac α - 0.736, Predi	ictive Vali	dity {co	orr. a, b} - 0.87	7**)					
1	Population density is low	4.22	0.63	-0.34	-0.08	95.16				
2	Occupational structures are homogeneous	3.64	0.80	-0.43	-0.20	65.13				
3	Pace of Life is slow	3.63	1.31	-0.42	-1.27	39.70				
4	People's risk taking ability is low	3.03	1.04	0.25	-1.00	41.56				
5	Female independence in rural is low	3.63	0.94	-0.78	0.44	55.18				
6	Economic Condition is poor	3.75	0.99	-0.95	0.70	54.75				
7	Infrastructure is poor	3.67	0.98	-0.46	-0.36	53.78				
8	Life Style is traditional	3.72	0.79	-0.39	-0.12	67.70				
9	Languages spoken are few	3.78	0.81	-0.97	1.71	66.40				
10	Consumers are price insensitive	3.69	0.81	-0.37	-0.26	64.82				
11	Values are traditional	3.72	0.72	-0.25	-0.06	73.86				
12	Competition in rural is low	3.51	0.65	-0.20	-0.20	77.48				
13	Rural people are helping natured	3.28	0.74	-0.20	-0.26	63.32				
a	Total	47.28	5.6	-0.21	-0.58	120.58				
b	Overall	2.49	1.17	0.22	-1.07	30.45				

^{**} sig at 0.01 level and * sig at 0.05 level, predictive validity is the Pearson correlation coefficient between overall item and the combined mean of the scale t test conduct is 2 tailed

Table IV: Descriptive Statistics – SRRM (Disaggregate Level)

No.	Items			Bank/		Ha	ir		
		Phai	rma	Insur	ance	Ca	re	TV	
		Mean	S.D.	Mean	SD	Mean	SD	Mean	SD
1	Population density is low	3.98	0.39	4.32	0.69	4.25	0.81	4.43	0.50
	Occupational structures are								
2	homogeneous	3.40	0.76	3.76	0.82	3.88	0.79	3.50	0.68
3	Pace of Life is slow	3.50	1.26	3.84	1.26	3.70	1.44	3.27	1.29
	People's risk taking ability is								
4	low	2.95	1.05	3.26	1.02	3.03	1.05	2.67	0.99
	Female independence in rural								
5	is low	3.30	1.08	3.89	0.79	3.70	0.82	3.57	0.97
6	Economic Condition is poor	3.60	1.20	4.01	0.69	3.73	0.91	3.43	1.07
7	Infrastructure is poor	3.72	1.04	3.58	0.92	3.85	0.95	3.57	1.01
8	Life Style is traditional	3.70	0.93	3.84	0.60	3.63	0.87	3.60	0.77
9	Languages spoken are few	3.80	1.01	3.74	0.76	3.80	0.76	3.83	0.59
	Consumers are price								
10	insensitive	3.57	0.96	3.78	0.75	3.65	0.70	3.73	0.79
11	Values are traditional	3.62	0.80	3.72	0.73	3.80	0.61	3.83	0.65
12	Competition in rural is low	3.52	0.62	3.37	0.69	3.75	0.59	3.53	0.57
	Rural people are helping								
13	natured	3.17	0.79	3.35	0.71	3.60	0.59	2.90	0.71
a	Total	45.82	6.14	48.46	5.08	48.35	5.60	45.87	4.97
b	Overall	2.30	1.18	2.66	1.10	2.63	1.33	2.27	1.02

Table V: Agglomeration Coefficients - Hierarchical Clustering

Cluster No	Stage	Coefficients	Change	% change
10	194	905.24	47.11	5.20
9	195	952.35	48.61	5.11
8	196	1001.00	51.46	5.14
7	197	1052.40	51.75	4.92
6	198	1104.20	53.89	4.88
5	199	1158.00	84.52	7.30
4	200	1242.60	97.35	7.83
3	201	1339.90	201.37	<u>15.03</u>
2	202	1541.30	497.25	<u>32.26</u>
1	203	2038.50	-	=

Table VII: Cluster Profiles On Additional Items

Criteria	Categories		1	Two	Three				
Criteria			2	F	1	2	3	F	
	Pharmaceuticals	5	55		5	19	36		
Product	Bank & Insurance	34	40	204.76**	33	11	30	103.02**	
Type	Hair Care	40	0	204.70	40	0	0	103.02	
	Television	30	0		30	0	0		
Designation	Type A	33	52	13.18**	33	17	35	6.15**	
Designation	Type B	76	43	13.16	75	13	31	0.13	
	> 25	6	2		6	1	1	5.25**	
Average Sales	25 - 100	7	19	6 99**	7	7	12		
(in Rs. Crores)	101 - 500	20	31	0.99	20	14	17		
(in Rs. Crores)	501 and above	76	43		75	8	36		
No. of	> 100	8	11		8	1	10		
	100 - 250	27	32	3.55	27	14	18	1.62	
Employees	above 250	74	52		73	15	38		
37 CD 1	2-5	12	21		12	7	14		
Years of Rural	5 – 10	32	37	9.72**	32	13	24	4.68*	
Operations	10 and above	65	37		64	10	28		

^{**} sig at 0.01 level, * sig at 0.05 level

Table VI: Hierarchical and K Means Clustering

Method		N	X1	X2	X3	X4	X5	Х3	X7	X8	X9	X10	X11	X12	X13
	Т	96	3.93	3.39	2.50	2.47	3.09	3.17	3.22	3.47	3.68	3.49	3.52	3.60	3.25
	Two	108	4.49	3.86	4.63	3.54	4.11	4.27	4.07	3.94	3.88	3.86	3.90	3.43	3.31
Hierarchical	F (SRRM)	29.03**	49.81**	19.75**	404.23**	71.99**	83.79**	94.04**	48.20**	20.45**	3.18	11.17**	14.94**	3.91	0.29
- Ward		67	3.87	3.64	2.03	2.54	3.37	3.37	3.39	3.78	4.01	3.76	3.76	3.66	3.60
Method	Three	29	4.07	2.79	3.59	2.31	2.45	2.69	2.83	2.76	2.90	2.86	2.97	3.48	2.45
		108	4.49	3.86	4.63	3.54	4.11	4.27	4.07	3.94	3.88	3.86	3.90	3.43	3.31
	F (SRRM)	18.89**	26.40**	25.43**	424.61**	36.69**	64.16**	58.1**	29.28**	35.22**	25.71**	21.25**	23.7**	2.7	32.06**
	Two	109	4.52	3.88	4.60	3.56	4.09	4.26	4.07	3.95	3.92	3.89	3.93	3.41	3.30
	1 WO	96	3.88	3.36	2.52	2.43	3.11	3.17	3.21	3.45	3.63	3.45	3.48	3.62	3.25
K Means -	F (SRRM)	29.89**	68.67**	24.31**	352.35**	83.55**	76.74**	90.58**	49.19**	22.96**	6.43*	15.78**	21.09**	5.37*	0.23
With	Three	108	4.53	3.88	4.61	3.56	4.09	4.26	4.07	3.95	3.93	3.89	3.93	3.42	3.30
seeds		30	4.07	2.77	3.63	2.17	2.33	2.70	2.83	2.87	3.00	2.97	2.97	3.47	2.40
		66	3.80	3.64	2.02	2.56	3.47	3.39	3.39	3.73	3.91	3.68	3.73	3.68	3.65
	F (SRRM)	18.19**	38.02**	29.21**	398.53**	44.54**	72.59**	55.93**	29.39**	28.65**	19.28**	17.61**	26.02**	3.61*	41.33**
	True	109	4.52	3.88	4.60	3.56	4.09	4.26	4.07	3.95	3.92	3.89	3.93	3.41	3.30
	Two	95	3.88	3.36	2.52	2.43	3.11	3.17	3.21	3.45	3.63	3.45	3.48	3.62	3.25
K Means –	F (SRRM)	29.89**	68.67**	24.31**	352.35**	83.55**	76.74**	90.58**	49.19**	22.96**	6.43*	15.78**	21.09**	5.37*	0.23
Without		108	4.53	3.88	4.61	3.56	4.09	4.26	4.07	3.95	3.93	3.89	3.93	3.42	3.30
seeds	Three	30	4.07	2.77	3.63	2.17	2.33	2.70	2.83	2.87	3.00	2.97	2.97	3.47	2.40
		66	3.80	3.64	2.02	2.56	3.47	3.39	3.39	3.73	3.91	3.68	3.73	3.68	3.65
	F (SRRM)	18.19**	38.02**	29.21**	398.53**	44.54**	72.59**	55.93**	29.39**	28.65**	19.28**	17.61**	26.02**	3.61*	41.33**

^{**} sig at 0.01 level, * sig at 0.05 level

Here, X1 through X13 indicate the thirteen items used for the scale to measure social representation of rural markets. These are; X1 - Population density is low, X2 - Occupational structures are homogeneous, X3 - Pace of life is fast, X4 - People's risk taking ability is high, X5 - Female independence in rural is low, X6 - Economic condition is poor, X7 - Infrastructure (i.e. roads, electricity etc) is poor, X8 - Life Style is traditional, X9 - Languages spoken are few, X10 - Literacy Levels are low, X11 - Values are traditional, X12 - Competition is low, X13 - People are helping nature