

Conceptual Framework for designing a Rural Distribution Model for FMCG products in India: A Situational Guide

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Abstract

This paper reviews the challenges faced by FMCG companies in India in Rural Distribution and provides a concrete conceptual framework for rural distribution in India. Literature available on rural distribution models is sparse and this paper aims to advance that body of knowledge from a practitioner's point of view since the first author is also a practicing General Manager for Sales in a prominent multinational FMCG. Rural markets are very important for FMCG companies today owing to the increasing development of consumerism in the bottom of the pyramid. Rural markets are characterized by the 4 challenges (4A's) of rural marketing which correspond to the 4P's of marketing. This paper deals with the rural marketing challenge of Availability with special focus on a major rural marketing FMCG. The challenge of Availability corresponds to the fourth P of "Place". Qualitative as well as quantitative techniques have been used in building the framework.

Keywords: Rural Marketing, Rural Market, Rural Channel Development, Conceptual Framework for Rural Distribution

1. Introduction

72% of India Lives in Villages [2] and Marketing Organizations are making a beeline to reach into rural markets. Reaching villages pertains to the 'P' named 'Place' in the 4P's of Marketing & the 'A' named Availability in the 4 A's denoting the Challenges in Rural Marketing [4]. Subhash & Amod [1] wrote in their conference paper that the rural markets will expand to Rs 16,70,000 crores by the year 2015 & to Rs 26,48,000 crores by the year 2025 (up from 9,68,000 crore in 2005) which amounts to a 5.1% compounded annual growth rate.

But it is proving to be an unusually difficult job owing to various developmental & socio-economic factors. Choice of a model for rural distribution is a Strategic Decision since the repercussions of a right or wrong choice will stay with the Marketing organization for years at end & any attempt to change the model of distribution will require a sizable financial outlay. Even the best marketing organization today is still searching for better methods to convey their goods & services to the rural retailer and/or the rural customer.

Rural Marketing does not exist as a proper academic or research discipline in the Western World. Though books & articles on

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Rural Marketing exist in India, they are mostly focused on the Brand management aspects in Rural Marketing. The Academic books sometimes have a chapter or a few pages on rural distribution methods but there are hardly any scholarly articles on rural distribution. Since there is so little material on rural distribution & this paper aims to develop scholarly material on rural distribution.

Distribution in Rural Marketing

The position of distribution in rural marketing is aptly explained by the following diagram:

Figure 1: Rural Marketing Tools Vs Marketing Challenges

Marketing Tools	Marketing Challenge
Product	Acceptability
Price	Affordability
Place	Availability
Promotion	Awareness

The Scope of this paper is limited to the Marketing tool of "Place" and the Marketing challenge of "Availability".

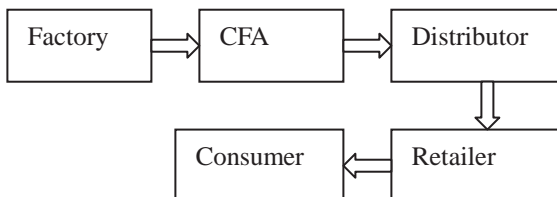
The scope of FMCG distribution in Rural is best represented by the following diagram describing the Domain of Rural Marketing [3]:

Figure 2: Classification of Rural Marketing

		To	
		Rural	Urban
From	Rural	Unorganized Sector (Farm & Non-Farm)	Agricultural Marketing, Artisan Products, Cottage Industry
	Urban	FMCG Distribution (Scope of this paper)	Not in the Realm of Rural Marketing

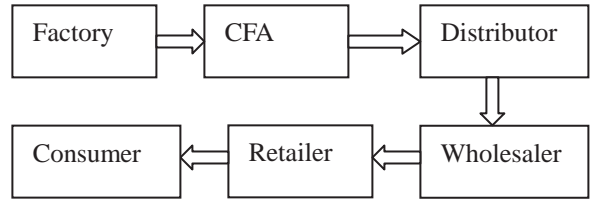
Distribution of FMCG products in rural markets fall in the realm of Urban to Rural marketing as shown in the diagram above. FMCG distribution into rural markets started in the 1980's in the form of a patchwork of distribution methodologies. Most companies simply extended the urban distribution model to the rural markets, only to realize later that the economies of distribution simply did not work out and the retailers as well as the distribution partners ended up feeling dissatisfied. The Urban distribution model is depicted by a flow of goods from CFA to Distributor to retailer as shown below:

Figure 3: Urban Distribution Mechanism in FMCG



Most other FMCG companies initially use a wholesale trickle model to get in rural markets. The rural retailer goes to a wholesaler located in a nearby feeder town and buys stocks from there. However, such a model is uncontrollable and the numeric distribution achieved through wholesale model fluctuates from month to month. A diagrammatic sketch of wholesale model is shown below:

Figure 4: Wholesale Distribution Mechanism in FMCG

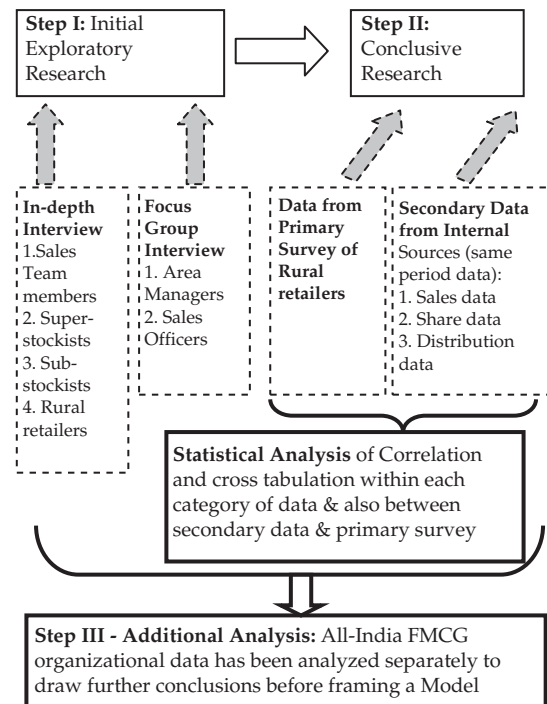


Some other FMCG companies tried to reach the rural retailers through a patchwork of wholesale and direct channels but the results were not consistent across geographies. It was in the 1990's that FMCG companies realized that distribution in rural market requires a fixed model and consistency in purpose & execution. The various models used by FMCG companies are Project Shakti (HUL), e-choupal (ITC), Hariyali Kisan Bazaar (Godrej) etc.

Research Methodology Followed

This research used an Exploratory Research followed by a Conclusive Research Process. The data used for research and development of the choice model was garnered from the Primary research done as well as from secondary organizational sources. The research also involved a pure analysis of organizational data on a national level in order to draw further conclusions before framing a Model. Following diagram denotes the research process in a lucid format:

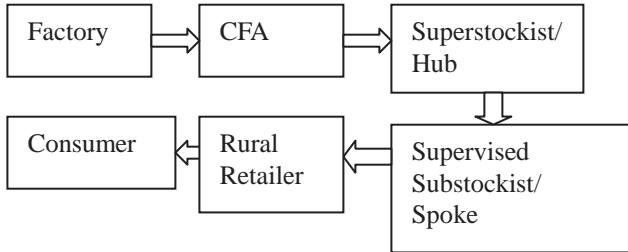
Figure 5: Three-Step Research Process Followed



Distribution Models of FMCG Companies

Following are some of the distribution models followed by FMCG companies for Rural India:

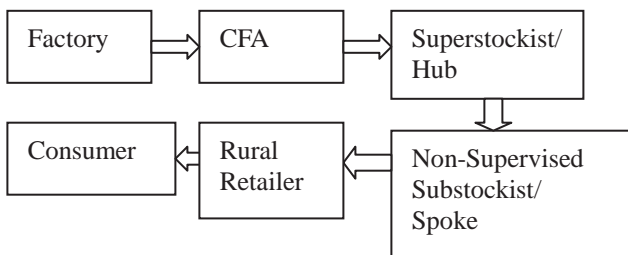
Figure 6: Supervised Rural Hub & Spoke Network for Major FMCG Companies (HUL, P&G, Marico, Perfetti, FritoLay, Nestle etc)



Hub and spoke network is the most popular rural distribution mechanism among the larger FMCG companies like HUL, P&G, Marico, Nestle, FritoLay etc. The difference between this Hub and spoke network and the one shown in the next diagram is the level of control kept by the company on the substockists. These spokes or substockists are generally monitored very closely by company personnel e.g. in FritoLay, these spokes are monitored by Lower Town Class Customer Executives (LTC-CE's) and Roaming Retail Sales Agents (RRSA's). Also these spokes are billed through a company provided billing platform installed at the Superstockist office named SAMNA. Hence, this kind of a distribution channel is heavily supervised by the principle organization. The following network is similar in nature but supervised sparsely.

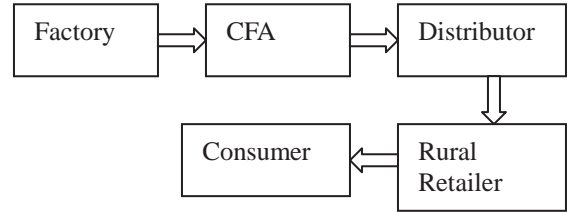
Note: CFA stands for Carrying and Forwarding Agent and the main job of this entity is to break bulk and manage the dispatches of assorted products to the distributors.

Figure 7: Non-Supervised Rural Hub & Spoke Network for Smaller FMCG Companies (Raja Biscuit, Priya, Lehar Foods)



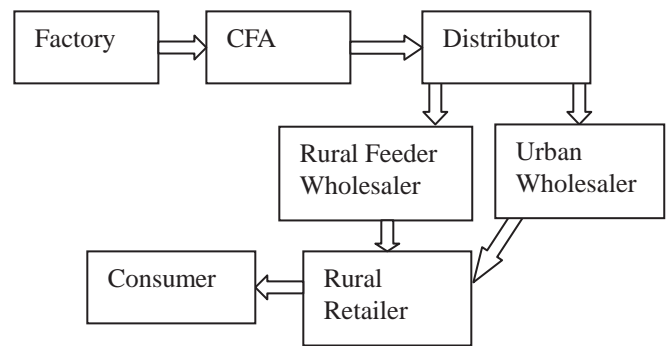
This kind of a non-supervised network is popular in companies (or divisions within companies like the Lehar Foods division of PepsiCo) where manpower is lower and the volume of product is also low. The Superstockists are generally charged with the job of appointing substockists and the company supervision ends at the Superstockist level itself. Billing to substockists is generally in pen and paper format or in any billing package chosen by the Superstockist. In such a model, the transactions are kept at a minimal level by avoiding any reverse logistics like taking back of expiries.

Figure 8: Rural Direct distribution for Premium Products



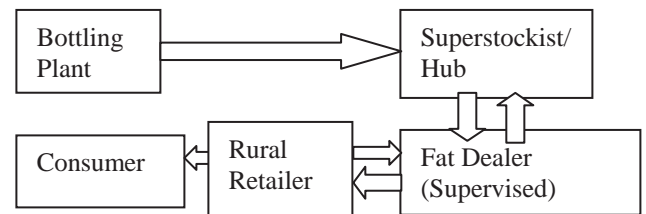
Direct distribution in rural areas is used in case of premium products with a relatively higher Rs/unit e.g. in case of United Breweries, Seagram's, Officer's Choice, Dove Shampoo, Ponds White Beauty, Tropicana, Gatorade, Lipton Ice Tea, Quaker Oats.

Figure 9: Rural Wholesale Distribution for Smaller FMCG players or lesser volume products within larger FMCG Companies



Rural distribution through wholesale channel is popular in case of smaller FMCG companies which cannot afford to have a dedicated distribution channel owing to lower number of company personnel or owing to lower levels of commitment to stay for the long term. Urban wholesalers are based in larger urban towns (greater than 1 lakh population towns) where rural retailers go to make purchases. Feeder wholesalers are based in feeder towns (10 thousand to 1 lakh population) which are based nearer to villages. Feeder town wholesalers are considered very important for FMCG distribution into rural markets. Many smaller FMCG's are highly dependent on rural wholesale distribution for their rural penetration.

Figure 10: Rural Fat Dealer model for FMCG companies with heavy reverse logistics like Coca Cola & PepsiCo Beverages



The fat dealer model is meant to facilitate a reverse logistics of empty glass bottles and plastic crates back from the rural retailer to the bottling plant for washing and refilling. The Fat Dealers (somewhat akin to spokes) are heavily supervised. The number of manpower required in this kind of a channel is typically 3 to 4 times the number required by a supervised Hub & Spoke Model. This model is used to distribute beverage products like Coca

Cola, Pepsi, 7 Up, Sprite, Mirinda, Fanta, Mountain Dew, Limca, Nimbooz etc.

Qualitative Research: Factors Determining Choice of Model

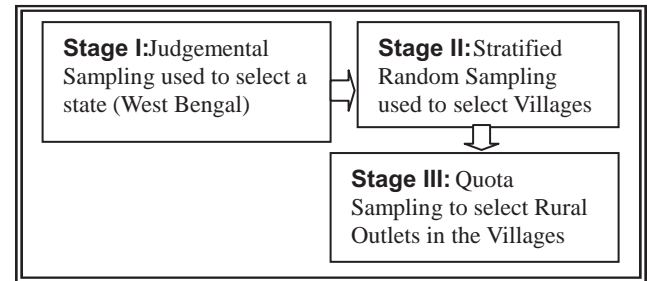
Qualitative Research brought out the following factors determining the choice of rural distribution model:

- I. The expected volume of the product in rural markets. Lower volume product may render a dedicated distribution channel unviable and in such cases wholesale channel may be the best option.
- II. The Sales & Distribution Margin available. A higher distribution margin (upward of 8-9%) allows setting up of a Hub & Spoke network (explained below).
- III. Is there any reverse logistics e.g. return of glass bottles in case of beverages, return of expiries in case of food products? If a return logistics is involved, the cost of distribution goes up and channels like wholesale is unusable e.g. Beverage distribution is not possible through wholesale channel
- IV. Premium value of the product as measured in Rs/kg or Rs/Liter. Premium products have lesser rural penetration aspirations and can even manage with an urban model of direct distribution replicated in rural
- V. Credit requirement for selling the product. A product which requires a higher credit requires a local distribution entity like a Substockist. A party located beyond a 10km radius will find it difficult extending credit and trusting a rural retailer with his money. Direct distribution and wholesale distribution is not a feasible solution in such a situation.
- VI. Number of SKU's (Stock Keeping Units) sold through a channel. A dedicated channel helps in selling a large number of SKU's
- VII. The number of company personnel supervising each district e.g. since Tropicana has only 2-3 Sales Officers supervising each state, they possibly cannot manage a very large network of superstockists and substockists.
- VIII. The time horizon of a product. If a product is not for a very long term or if there is uncertainty regarding the time horizon of the product, then wholesale channel is a good option.
- IX. Experimental launches generally prefer the wholesale channel to test out the demand

Quantitative Research: Factors Determining Choice of Model

The Sampling design used is Multi Stage Sampling in order to obtain the right balance between Cost considerations and the requirement of correct Frame validity. A Multi Stage Sampling is considered the modality of choice in case of big enquiries extending to a considerably large geographical area, say, the entire country.

Figure 11: Sampling Design



Each Strata (District) is proportionately represented to ensure a statistically valid sample. Eg if District X has 100 villages (as per Census) and WB has 1000 villages; then if we want a sample of 50 villages, we will randomly select 5 villages from District X.

SPSS software package has been used to analyze the Primary and secondary data. Cross Tabulations have been done and tested for significance of association using the Pearson Chi-Square test (since we are testing ordinal data) using SPSS. A Significance level of 90% has been used to ascertain the correlation.

The statistical analysis (Canonical Correlation Analysis) resulted in identification of specific factors which determine which model is to be used. These factors have been listed down in the factorial grid given. These factors were then conceptualized as a flowchart to decipher all causal relationships between dependent and independent variables since this research problem is a fairly complex one. This procedure is akin to the procedure of "Path Analysis" propounded by Sewall Wright in 1934 in connection with decomposing the total correlation between any two variables in a causal system.

Figure 12: Retailers surveyed (Stratified Random Sampling)

Districts in West Bengal	Total Villages >3K Population	No of Villages	No of Rural Retailers
Bankura	96	1	10
Barddhaman	363	3	30
Birbhum	165	1	10
Dinajpur	189	2	20
Darjiling	101	1	10
Haora	264	2	20
Hugli	280	2	20
Jalpaiguri	343	3	30
Koch Bihar	211	2	20
Maldah	292	2	20
Medinipur	443	4	40
Murshidabad	530	4	40
Nadia	413	3	30
N24 Pgns	445	4	40
Puruliya	90	1	10
S 24 Pgns	674	6	60
Grand Total	4899	40	400

Figure 13: Sample question from the questionnaire (entire questionnaire could not be presented here for lack of space) - The actual questions were asked in Bengali with examples of each kind of distribution model

Model of Distribution	Supervised Hub & Spoke	Non-Supervised Hub & Spoke	Direct
Number of SKU's (Brand-pack combinations) that this channel supplies to you satisfactorily	High Medium Low Single	High Medium Low Single	High Medium Low Single
	Wholesale High Medium Low Single	Fat Dealer High Medium Low Single	

Figure 14: Cross-Tab Factorial Grid of Models from Statistical Analysis (The option best describing each channel as chosen by the highest number of rural retailers surveyed has been mentioned in the cells below. The percentage of rural retailers who chose the option mentioned in the cell is mentioned below the popular option)

Popular Option (%)	Supervision	No of SKU's	Reverse Logistics
Supervised Hub & Spoke	High (92%)	High (95%)	Low (96%)
Non-Supervised Hub & Spoke	Low (91%)	Low (90%)	None (96%)
Direct	High (93%)	High (90%)	No Correlation
Wholesale	Very Low (94%)	Low (91%)	None (100%)
Fat Dealer	Very High (92%)	High (90%)	High (97%)

E.g. the top left hand corner cell says "High (85%)" which means that 85% of the respondents have said that a Supervised Hub and Spoke Model (as explained by the surveyor through the example of FritoLay distribution or HUL distribution) need a high supervision.

Model Contd....	Premium Value	Volume	S&D Costs (including Discount)
Supervised Hub & Spoke	Low (92%)	High (90%)	>20% (92%)
Non-Supervised Hub & Spoke	Very Low (91%)	Medium (94%)	10%-15% (93%)
Direct	High (93%)	Low (93%)	<10% (96%)
Wholesale	Very Low (97%)	Low (95%)	5%-10% (98%)
Fat Dealer	Low (98%)	High (94%)	>20% (99%)

Model Contd....	Credit to retailers	Experimental/ Time Horizon
Supervised Hub & Spoke	Average (100%)	Long Term for both product & rural (93%)
Non-Supervised Hub & Spoke	Nil (100%)	Medium Term Or uncertain for product (92%)
Direct	Varies (100%)	Uncertain for rural penetration (92%)
Wholesale	Nil (100%)	Experimental/ Uncertain for product (95%)
Fat Dealer	Average (100%)	Long Term for both product & rural (97%)

Conceptual Model & Decision Framework

The factors which have strong correlation with each rural distribution model, as identified through statistical analysis and listed in the factorial grid above, have been arranged in a flowchart format (Figure 15 on next page) to help a decision-maker choose the right model as per his own situation (combination of organizational and product factors). This is to provide a Conceptual Framework for designing a Rural Distribution Model for FMCG products in India. A practicing manager or a decision maker has to just follow the framework-flow-chart and keep making the logic choices in order to decide upon the best possible rural distribution network. This is a seminal work in rural distribution decision theory.

