

# Health Indicators for FMCG Distributors: A Quantitative Framework for Evaluation

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## Key Words:

- 1.Channels of Distribution
- 2.Channel Relationships
- 3.Distributor Management
- 4.Marketing Channels
- 5.Marketing in India

## Abstract

This paper reviews the Health Indicators of FMCG distributors in India which determine how the distributor performs in the market. Distributors are the mainstay of FMCG marketing in India. Marketers often grapple with the difficulties in assessing the capability of a distributor and sudden collapses of distribution structures in an area is a common phenomenon. This research is aimed at enabling an FMCG marketer in predicting the performance of a distributor by analysing 7 essential leading factors like investment in stocks, credit in market, godown space, funds-leverage ratio, sales value to investments ratio and sales value to manpower ratio. Ex post facto qualitative as well as quantitative techniques have been used in this research work. A population survey (census) was conducted of 103 FMCG distributors in the state of West Bengal to represent all districts and all cities and represent the population strata in the correct proportions. This is probably the largest distributor survey ever undertaken in India in order to identify the health parameters of this very important link in the chain of distribution. Correlation method has been used to ascertain the relationships. After an analysis of seven factors, it has been observed that the future failure of an FMCG distributor can be predicted by studying the four specific factors of percentage mechanized Routes, Capital Leverage, Warehouse Space and IT usage. As a seminal work, this study provides a framework that is going to work in a country like India and other similar South Asian Countries like Sri Lanka, Bangladesh, Bhutan, Nepal and Pakistan. This research identifies the lead indicators of distribution failure..

## INTRODUCTION

FMCG is the abbreviated form of "Fast Moving Consumer Goods" and is defined as a tangible item that is quickly consumed, worn out or outdated and consumed in single use or a few uses (Dogra and Ghuman, 2011). FMCG is alternatively named as CPG (Consumer Packaged Goods) industry. The FMCG sector consists of consumer non-durable products, which broadly include personal care, household care and food and beverages. The Indian FMCG sector is the fourth largest sector in the economy (NCAER, 2012). The Fast Moving Consumer Goods (FMCG) sector is a corner stone of the Indian economy (NCAER, 2012). Dannhaeuser (1987) has discussed about consumer good distribution, marketing systems and rural development of countries belonging to the Third World (like India). Dannhaeuser (1987) has further written about use of distribution channels as a component of markets in relation to rural development and the reasons why it is important to study distribution of consumer goods. The FMCG sector touches every aspect of human life. Characteristics of FMCG

companies are as follows (IBEF, 2012):

1. Heavy launch costs of new products
2. Majority of the product classes require very low investment in fixed assets
3. Existence of contract manufacturing
4. Extensive distribution networks and logistics are key to achieving a high level of penetration in both the urban and rural markets
5. Low pricing power owing to large number of aggressive competitors
6. Providing good price points is the key to success
7. Large number of SKU's, sometimes going up to thousands
8. Costs of brand building is very high

The various categories of FMCG products sold in India are shown lucidly in Table 1.

Distribution may be defined as an operation, or a series of operations, which physically bring goods manufactured or produced by any particular manufacturer into the hands of the final consumer or user (Pandey, 2009). A distribution or a marketing channel is a group of interdependent organizations or service providers working collectively to make a product or service available to the end user

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(Bhattacharyya, 2008). Objective of timely placement of the right product to right customer group brings challenges for attainment of efficiency in the system of distribution (Mandal et al, 2011). Highlighting the importance of distribution, Farris et al (1989) has written that when a preferred brand is not well distributed, consumers buy next preferred brand which is well distributed and this phenomenon is known as compromised demand. Each element of the chain has its own specific needs, stimulus, and ability to deliver in a unique operating environment, which the producer must take into account, along with the needs of the end user. As per Mishra (2008), FMCG manufacturers in India have to grapple with fragmented markets and a plethora of channel forms in a constant state of flux - in particular, numerous street-side vendors, hawkers, and roughly 12 million unregulated neighbourhood mom-and-pop stores create strong institutional forces that cannot be ignored. The exhaustive qualitative research through in-depth interviews led to the development of the framework shown in Figure 1 which describes the distribution systems followed by all FMCG companies in India. This structural diagram is the first major output of this research project and can be used as a framework of FMCG distribution in India and other South-East Asian countries.

In the modern marketing scenario, distribution is an important component of the marketing mix since power has moved to the consumers and products have to be

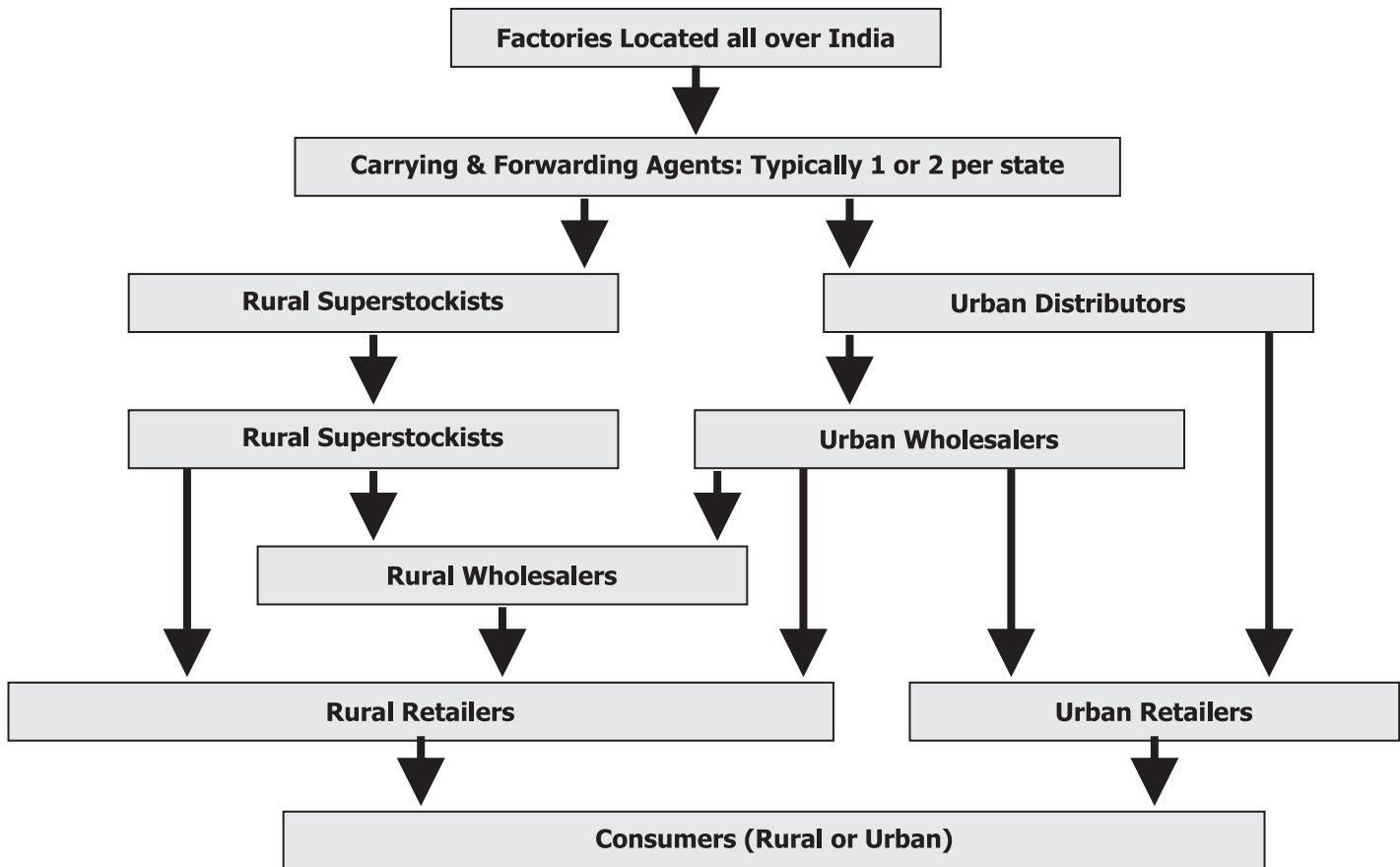
distributed to the neighbourhood store. Marketing channels deliver every product and service that customers and business buyers purchase everywhere in the world but, in many cases, these end-users are unaware of the richness and complexity necessary to deliver to them what seems like everyday items (Coughlan, 2010). A consumer is no longer willing to go miles for his purchases unlike yester years when the demand was more than the supply. A point to note is that the concept of distributors as third party intermediaries does not exist in the western world. In the western world, a company directly services retailers and consumers through its own supply network. Hence, literature available from the western world is woefully devoid of good research material on distributors. For example, Bhattacharya and Pani (2012) have provided an example of a western brand, Reebok, which initially failed to get its distribution right in India. Reebok all over the world is sold as a sports accessory, and not just as any other shoe. So the distribution is made from good sports outlets, this is followed in USA as well as in Europe. However, when they came to India they did the same but in spite of being a very popular and well known brand very few shoes were sold. Later they realized a simple fact that when an Indian wants to buy a shoe he goes to shoe store and not to a sports store. Pinto (2011) has written about the example of Henkel which failed to get its distribution right in India and eventually sold its Indian operations to an Indian company named Jyoti Laboratories Ltd. Henkel's inability to expand reach beyond the south and the east (of India) had been worrisome. It could set up only 750 distributors which were

Table 1: Categorization of FMCG Products

Category	Products
Household care	Fabric wash (laundry soaps and synthetic detergents), household cleaners (dish/utensil cleaners, floor cleaners, toilet cleaners, air mosquito repellents, metal polish and furniture polish )
Food and beverages	Health beverages, soft drinks, staples/cereals, bakery products (biscuits, bread, cakes), snack food, fresheners, insecticides and chocolates, ice cream, tea, coffee, soft drinks, processed fruits, vegetables, dairy products, bottled water, branded flour, branded rice, branded sugar, juices, etc
Personal care	Oral care, hair care, skin care, personal wash (soaps), cosmetics and toiletries, deodorants, perfumes, feminine hygiene, paper products

Source: NCAER (2012)

Figure 1: Typical distribution structure for FMCG in India



Source: Conceptualized through in-depth interviews with Sales Managers from HUL, P&G, PepsiCo, Marico, Britannia, Parle, Godrej Consumer Products and ITC

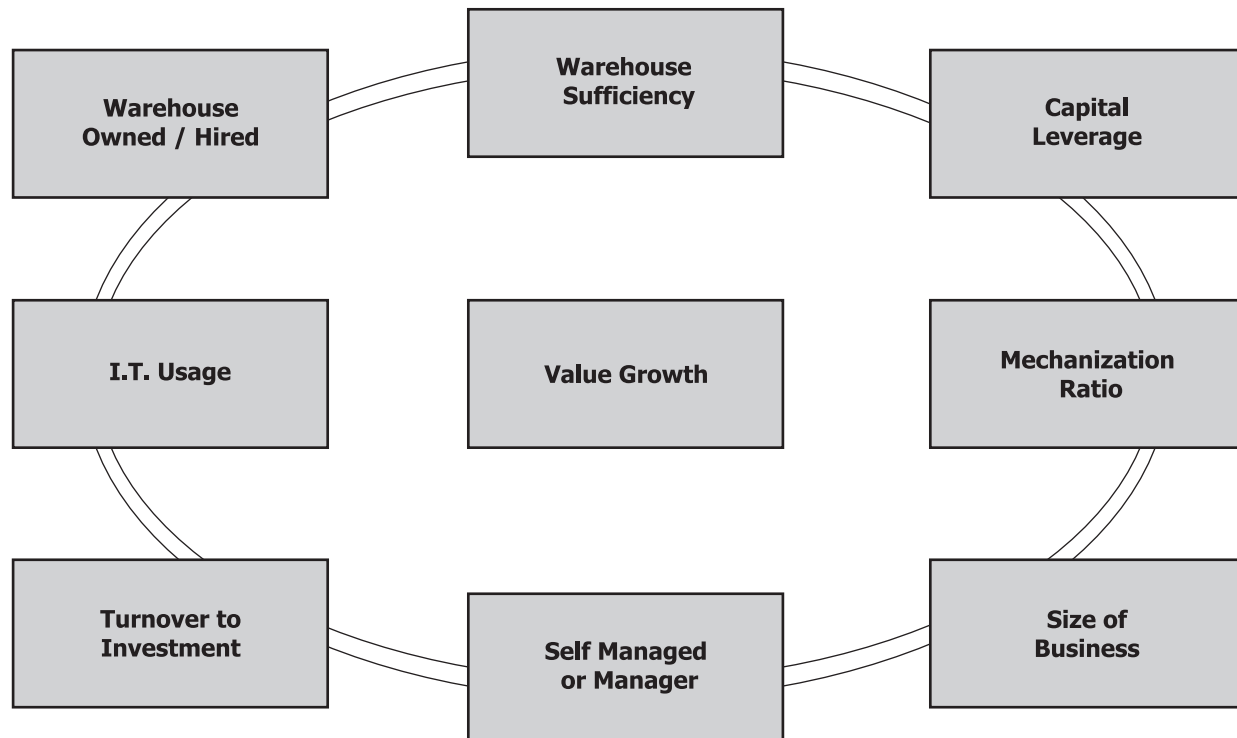
mainly concentrated in the urban pockets of the two regions (Pinto, 2011). Even in the Indian context, most research on FMCG distribution focuses on logistics (e.g Mukhopadhyay and Barua, 2003) and does not cover distributors who are the most important entities in the supply chain of an FMCG company. Mitra and Chatterjee (2004) have researched on inventory management in an FMCG distribution system. Bilgen and Günther (2009) have analyzed the truck loading while dispatching stocks to distributors, which is again a subject related to logistics. Wetzels et al (2000) have measured the perspectives on customer service quality from different layers of the Asian distribution system of a global marketer of fast-moving consumer goods. Some researches like the one by Vyas (2005) have focused on promotion and not on mass scale distribution to every nook and cranny of India. It says that some FMCG companies want to beat the competition by incentives and not by distribution as the real market leaders like HUL, ITC and PepsiCo have done. More and more promotion can never be an alternative to a good distribution system, especially, when we are dealing with FMCG (Vyas, 2005). Given the importance of distribution channels to the Indian economy,

one would expect a considerable body of relevant academic research to be readily available but a careful appraisal of extant research belies this expectation (Mishra, 2008).

#### **MEASURES OF DISTRIBUTOR'S HEALTH: QUALITATIVE ANALYSIS**

Marketers often grapple with the difficulties in assessing the capability of a distributor and sudden collapses of distribution structures in an area is not an uncommon phenomenon. This research is aimed at enabling an FMCG marketer in predicting the performance of a distributor by analyzing various leading factors like investment in stocks, credit in market, godown space, and funds leverage ratio, sales value to investments ratio and sales value to manpower ratio. These leading factors are known in advance to all FMCG marketers. These can be used in predicting the volume and value growths for the distributor. This research identified the evolution map, explained in the previous section, through a series of in-depth interviews with multiple generations of Sales Managers in the FMCG industry (some who have even retired now). This research

Figure 2: Qualitative research brought out the following hypothesized factors affecting performance of an FMCG distributor



then proceeded to identify some probable health indicators (Figure 2) and a survey was conducted. The data collected during survey was statistically analyzed to determine whether the factors identified through the qualitative study hold true when tested through a quantitative study.

The qualitative study threw up the following factors which were studied further using quantitative techniques:

- 1. Growth in Value sales** by organic or inorganic means. This was measured in terms of average monthly sales in full 2011 vs. average monthly sales in full 2010. Average monthly sales has been taken for two complete years in order to average out seasonality factors
- 2. Percentage of sales routes which are mechanized.** A sales route is a set of retailers which one single salesman visits and services. Typically one sales route is a collection of six sales beats corresponding to six working days in a week. A sales beat is a collection or a list of outlets services by a salesman in one single day. As a standard practice, an FMCG distributor services each outlet once a week.
- 3. Capital Leverage** is the ratio of borrowed working capital to the owned working capital which a distributor uses.
- 4. Warehouse space:** Is it owned by the distributor or rented by him?

- 5. Warehouse Space as a ratio to Sales in Rs in lakhs.**

6. **I.T. Usage** by the distributor as indicated by use of computerized billing and availability of internet connection (both).

7. Does **Business Manager** manages the distribution or does the owner himself manage it?

#### **MATERIALS AND METHODS: QUANTITATIVE ANALYSIS**

A population survey (census) was conducted of 103 FMCG distributors in the state of West Bengal to represent all districts and all cities and represent the population strata in the correct proportions. This is probably the largest distributor survey ever undertaken in India in order to identify the health parameters of this very important link in the chain of distribution. **A full geographical representation was ensured by covering all distributors of a prominent MNC which has a good coverage and distribution.** This makes it a census survey.

#### **RESULTS AND DISCUSSION**

All analysis has been done using a fully functional version of

SPSS Statistics Desktop 20.0 software. Each of the factors identified through qualitative research and later quantified through the survey, have been put through a correlation analysis in order to find out how the independent variables (Value sales and growth percentage) can be predicted through the independent variables.

**A correlation analysis for all hypothesized factors** against the percentage value growths of distributors was requested from the **SPSS Statistics Desktop 20.0** software and the result is given in Table 3. For the hypothesis testing, a **2-tailed test** has been used with a **0.01 level of significance** for stringency. **The independent variable** is the value growth and the independent variables are the **factors identified** through the qualitative study and for which data has been collected during the survey process.

**Null Hypotheses (H0) is that all the factors enumerated below are predictors of value growth of a distributor:**

- Percentage Mechanized Routes
- Capital Leverage

•Turnover to Investment Ratio

•Warehouse Space as a ratio to Sales in Rs lakhs

#### **Explanation for the correlation analysis:**

Only the following factors have been found to be highly correlated to the value growth of distributors as tested using Pearson correlation coefficient with a 2-tailed test of significance at a level of 0.01. It implies that the factors listed below are good predictors of how a distributor will perform since value growth of distributors is highly correlated to these factors.

#### **Percentage Mechanized Routes:**

Value growth is positively correlated to the percentage of routes which use mechanized vehicles for delivery. This simply means that distributors having more number of vehicles for delivery (as a ratio of its number of routes) will do better than those delivering using cycle-vans, bicycles and head-loads.

#### **Capital Leverage:**

Table 2: Sampling Plan of distributors to correctly represent population

Town Name	No of Distributors	Town Name	No of Distributors	Town Name	No of Distributors
Alipurduar	2	Domjur	1	Konnagar	1
Amta	1	Dunlop	1	Krishnanagar	2
Asansol	2	Durgapur	3	Liluah	1
BAGDOGRA	1	Gangtok	1	MALDA	2
Balurghat	1	Gelephu	1	Maslandapur	1
BANGAON	1	Ghatal	1	Midnapore	2
Bankura	2	Habra	1	Naihati	1
Barackpore	1	Haldia	1	Pankhabari	1
Barakar	1	Halisahar	1	Panskura	1
Barasat	1	Howrah	4	Phuentsholing	1
Baruipur	2	JAIGAON	1	Purulia	2
Belghoria	1	Jalpaiguri	1	RAIGANJ	1
BERHAMPORE	2	Jhargram	1	Rampurhat	1
BOLPUR	1	Jorethang	1	Ranaghat	1
Burdwan	3	Kalimpong	1	Raniganj	1
Chuchro	1	KALYANI	1	Serampore	1
Contai	2	Kharagpur	1	Siliguri	4
COOCHBEHAR	2	Kharda	1	SONARPUR	1
DANKUNI	1	Kolaghat(WB)	1	Suri	1
Darjeeling	1	KOLKATA	22	Tamluk	1
Tarakeswar	1			<b>Total</b>	<b>103</b>

Table 3: Correlation Analysis of Quantitative Hypothesized factors with the value Growth percentage

		Distributor Gr 2011
%age Mechanized Routes	Pearson Correlation	.819**
	Sig. (2 -tailed)	.000
	N	103
Capital Leverage	Pearson Correlation	-.803**
	Sig. (2 -tailed)	.000
	N	103
Turnover to Investment Ratio	Pearson Correlation	.247*
	Sig. (2 -tailed)	.012
	N	103
Warehouse Space as a ratio to Sales in Rs lakhs	Pearson Correlation	.997**
	Sig. (2 -tailed)	.000
	N	103

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

N is number of cases (rows in data)

Value growth is negatively correlated to Capital leverage. It simply means that a distributor who is working on a higher level of borrowed capital will be delivering a poorer value growth than a distributor working on a higher degree of self-owned capital. The qualitative study brought out the view that a distributor working on higher levels of borrowed capital provides lesser credit to retailers and takes lesser risks. Hence, these distributors get lesser growths from their markets.

#### Warehouse Space as a ratio to Sales in Rs lakhs:

Warehouse space as a ratio of sales (warehouse sufficiency) is positively correlated to the value growth. It is natural that more stock holding space would lead to a better sales growth since it implies that the distributor will never run out of any particular stock keeping unit. Of course, warehouse space is a typical case of law of diminishing returns. Lesser than appropriate space will lead to low sales growth. As discovered during the qualitative leg of the research, too much of warehouse space is wasteful and causes an erosion of returns.

The factors which were not correlated to the value growth in sales are as follows:

#### •Turnover to Investment Ratio:

The total investment of a distributor (own plus borrowed capital) has not been found to have any significant correlation. It does have a correlation if we use a 2-tailed test at a significance level of 0.05. However, this study rejects this hypothesis since we are using a more stringent 0.01 level of significance.

An understanding of these correlations between the lead indicators and the revenue growth of distributors would help Sales Managers in understanding the lead indicators of distributor collapse. A tracking of these lead indicators would help the Sales Manager take corrective steps for the survival of distributors. Alternatively, poor leading indicators would enable a Sales Manager to keep a back-up plan ready, in case the distributor collapses.

A **regression analysis** with only the accepted factors from the correlation testing above was requested from the SPSS Statistics Desktop 20.0 software and the result is given in Table 4.

#### Explanation of regression analysis:

The R squared value of 0.995 denotes a very good fit and indicates that the 4 identified factors together have the ability to predict the sales growth to a great extent. The F-test value of 5079 (high value) also indicates that the model is highly significant at a significance level of even 0.00. The equation for prediction of sales value growth can be formulated as follows;

**Sales value growth in percentage = - 86.9 - 0.3 x (percentage of mechanized routes) - 0.18 x (ratio of borrowed funds to own funds) + 0.97 x (ratio of warehouse space to sales value in Rs lakhs)**

The above formula can be used by FMCG marketers to rank all distributors and focus on the ones for which a lower value is obtained. This focus on the lower value distributors

Table 4: Regression Analysis with only the accepted factors from correlation analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.998 <sup>a</sup>	.995	.995	2.2100%
a. Predictors: (Constant), Warehouse Space as a ratio to Sales in Rs lakhs, Capital Leverage, %age Mechanized Routes				

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ANOVA <sup>a</sup>					
Model	Sum of Squares	Df	Mean Square	F	Sig. <sup>b</sup>
Regression	99227.214	4	24806.803	5079.074	.000
Residual	478.644	98	4.884		
Total	99705.857	102			

a. Dependent Variable: Distributor Gr 2011

b. Predictors: (Constant), Warehouse Space as a ratio to Sales in Rs lakhs, Capital Leverage, %age Mechanized Routes

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-86.887	2.300		-37.772	.000
%age Mechanized Routes	-.030	.013	-.036	-2.353	.021
Capital Leverage	-.182	.079	-.035	-2.292	.024
Warehouse Space as a ratio to Sales in Rs lakhs	.970	.013	.972	75.031	.000

[ a. Dependent Variable: Distributor Gr 2011

will help nip the problem in the bud and not result in a surprising bust later on

•Warehouse Space

## OBSERVATIONS AND CONCLUSIONS

It has been observed that a distributor is often weak on basic factors like own investment capability, warehouse space, managerial capability or IT-usage. This causes the distributor to start failing in his basic job of pushing stocks into the retail shelves in his area. He often complains about slackness in market demand in order to cover up his own shortcomings. A Sales Manager needs to be aware of these leading factors. There is no such handy framework/model available today to help a Sales Manager understand the performance of a distributor. This study is unique in the sense that it suggests a framework for understanding the health of a distributor. The factors identified as leading predictors of distribution failure are as follows:

- Percentage Mechanized Routes
- Capital Leverage

Neglecting these early signs of failing health often leads to sluggish growths and the resulting loss in market share for the company in that particular market. This research paper is to serve as a lighthouse for academicians and practitioners alike so that they allow enough weightage to the more important leading health indicators and take timely corrective action in order to avoid total collapse at a later stage. Corrective action may be in the form of coaching the distributors back to health or parting ways amicably before both principal and franchisee start suffering the consequences.

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