

“A COMPARATIVE STUDY BETWEEN ASIAN PAINTS AND BERGER PAINTS COMPANIES: WITH SPECIAL REFERENCE TO SPRINGATE’S BANKRUPTCY PREDICTION MODEL”

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Abstract:

The main aim of the study is to identify the financial position of the selected Paints Companies. The researcher in the present study has taken two companies for analysis which are Asian Paints and Berger Paints based net sales of 2023. The risk of Bankruptcy of selected companies has been analyzed in the study. For knowing the bankruptcy, the researcher has used Springate’s S-Score model along with independent t-test. The period of the study was 5 years i.e. from March 2019 to March 2023. This research paper is based on the secondary data. It is collected from annual reports of selected paints companies. The result proved that both the selected companies are a good performant company.

Key-Words:

- Financial Distress
- Springate’s Model,
- Prediction,
- Bankruptcy, Fertilizer’s companies,

Introduction:

There are four large Paint Companies with a combined market share of 70% – Asian Paints, Kansai Nerolac, Berger, and Akzo Nobel. Rest 30% is made up of medium and small players totaling nearly 3000 manufacturers. The market shares of the medium and small paint companies actually reduced with the acceptance of the popular Colour Dispensing Systems by paint dealers. The Indian Paint industry is estimated to be Rs 60,000 Crores (2020

estimate) in value terms. The two broad segments are the Decorative/Architectural segment and the Industrial segment. The Decorative / Architectural segment is the largest segment accounting for almost 70% of the paint consumption and the industrial segment accounting for the balance 30%. Maintenance painting or re-painting accounts for 70% of the Decorative / Architectural segment with 30% accounted for by new construction painting. The India Paints And Coatings Market size is estimated at USD 9.56 billion in 2024, and is expected to reach USD 15.00 billion by 2029, growing at a CAGR of 9.38% during the forecast period (2024-2029).



SPRINGATE’S MODEL:

Gorgon L.V. Springate developed this model in 1978. It is a ratio based model which uses multiple discriminate analysis. The four ratios of the model are as follows:

$$S = 1.03X1 + 3.07X2 + 0.66X3 + 0.4X4$$

where,

- **X1 = Working Capital / Total Assets**
- **X2 = Earnings before Interest & Tax / Total Assets**
- **X3 = Earnings before Tax / Current Liabilities**
- **X4 = Sales / Total Assets**

TABLE 1: SHOWING SPRINGATE'S CRITERIA

S – Criteria	Result
S > 0.862	Performant Company
S ≤ 0.862	Bankrupt Company

Review of Literature:

Rahimipoor, Abdolmahdi and Sarokolaei (2012) Due to complex changes in the economy because of changing environment the cases of bankruptcy has been increasing in large enterprises. Now a days the financial decision making has become more complex, which forces managers to make use of advanced methods and techniques. The most reputed and well known bankruptcy model was developed by Altman in 1968 using multivariate discriminant analysis. In present research the researcher has further made use of Fulmer and Springate's model for the purpose of predicting company's bankruptcy. For the analysis 90 firms accepted in Tehran Stock Exchange was considered. The study period was from 2004-05 to 2009-10. The results depicted that there is a meaningful difference between results of two models.

Dietrich (1984) The discussion of Methodological Issues Related to the Estimation of Financial Distress Prediction Models focuses on three areas. First is the rationale for estimating financial distress prediction models. Second is statistical techniques employed in prediction models and last are sample selection procedures. Although the discussion concentrated on bankruptcy prediction models, participants noted similarities between bankruptcy and other research topics that consider dichotomous alternatives. For example, topics such as choice of accounting methods and lobbying activity related to accounting standard setting were mentioned by participants during the discussion.

RESEARCH METHODOLOGY

Title of the Study:

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Objectives of the Study:

- The main aim of the study is to predict the bankruptcy with the help of Springate’s S-Score model Asian Paints and Marico Ltd.
- To examine financial distress of selected Paint companies.
- To compare the result of S-Score of financial performance of Asian Paints and Berger Paints.

Hypothesis of the Study:

- H0: There is no significant difference in Springate’s S-Score of Asian Paints and Berger Paints.
- H1: There is significant difference in Springate’s S-Score of Asian Paints and Berger Paints.

Universe of the Study:

All the paints companies of India which are listed in BSE and NSE.

Sample Size:

Table 2 List of Sample Companies

Company	Net Sales [Rs. In crore]
Asian Paints	30078.40
Berger Paints	9470.62

Source: <https://www.moneycontrol.com>.

Data-Collection:

This study is purely based on secondary data, which was gathered from the annual reports of the sample companies and the website.

Period of Study:

The period covered in this study is five years, i.e. March 2019 to March 2023

Tools and Techniques:

1. Ratios of Springate's Model
2. Independent t-test

TABLE 3: SHOWING SPRINGATE'S S-SCORE OF ASIAN PAINTS

Year	(1.03)X ₁	(3.07)X ₂	(0.66)X ₃	(0.4)X ₄	S-Score	Criteria
March 2023	0.367	0.864	0.621	0.534	2.386	Performant
March 2022	0.367	0.769	0.490	0.506	2.132	Performant
March 2021	0.315	0.848	0.589	0.421	2.173	Performant
March 2020	0.199	0.943	0.703	0.506	2.351	Performant
March 2019	0.166	0.844	0.540	0.479	2.029	Performant
Average S score of Asian Paint- 2.2142						

TABLE 4: SHOWING SPRINGATE'S S-SCORE OF BERGER PAINTS

Year	(1.03)X ₁	(3.07)X ₂	(0.66)X ₃	(0.4)X ₄	S-Score	Criteria
March 2023	0.123	0.590	0.270	0.512	1.495	Performant
March 2022	0.157	0.578	0.264	0.467	1.466	Performant
March 2021	0.243	0.651	0.333	0.449	1.676	Performant
March 2020	0.173	0.779	0.401	0.524	1.877	Performant
March 2019	0.240	0.667	0.329	0.575	1.811	Performant
Average S score of Berger Paint- 1.665						

TABLE 5: SHOWING INDEPENDENT t-TEST

Particulars	Asian Paints	Berger Paints
Mean	2.2142	1.665
Variance	0.0227457	0.0337205
Observations	5	5
Pooled Variance	0.0282331	
Hypothesized Mean Difference	0	
Degree of Freedom	8	
t Stat	5.167985063	
P(T<=t) one-tail	0.000427623	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.000855246	
t Critical two-tail	2.306004135	

Interpretation:

The above table shows the independent t-test assuming equal variances. The calculated value of t-test is 5.17 which is greater than table value 1.85. Here the null hypothesis is rejected and alternate hypothesis is accepted. The researcher proved that there is a significant difference between the two selected samples.

Limitations of the Study:

- The use of S-score models as the sole tool for analysis is perhaps the paper's most significant flaw.
- Only 2 Paints Companies are selected for this research paper.
- The period of research work is only five years that is 2019 to 2023.

Conclusion:

In the present study the researcher has analysed the financial strength of Asian paints and Berger Paints with the help of Springate's model. After working on the given model the researcher reached to a valid conclusion that both the selected companies performed well as the values of S-Score of both the companies during all five years fit to the accepted range of the model. Overall, it is concludes that the researcher that FMCG sector selected paints companies of India i.e. Asian paints and Berger Paints had a very low risk of bankruptcy.

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