A Study on Equity Research on Paint Sector in India

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Abstract : The main purpose of this research is to evaluate the correct price of the stock and compare that with the current market price which helps to decide whether the stock has been over-valued or undervalued. That study helps the investors that they should invest in short term or long term in the companies. One of the expected outcomes is that how much it relation with GST and whether the rates of GST are impacting the consumption and profitability of paint sector. This report is major on performance of the companies and who is the leader of the market. So, from the research we have found that Asian paints is far better than Berger Paints**.**

IndexTerms –Per capita, Investor, Stakeholder.

1. INTRODUCTION

Equity Research basically means analysing company's financial statement, performing ratio analysing and use financial modelling to explore scenarios with an objective of making buying/selling decision. Working on a particular sector and analysing that sectors past performs and estimating the future of the sector and share the report with fund manager. Sharing of all the financial analysis and recommendation whether to buy, hold or sell a particular investment.

This research is on qualitative technique done by collecting the data from selected companies financial statement and formulating hypothesis to analyse whether the objective of the research are been achieved or not. For the purpose of achievement of the objective ratio like operating profit, EBIDTA (Earnings before Interest Depreciation and Taxation) and EPS (Earning per Share). It also studies historical data as well as present data as to forecast future performances of the companies. Whether the industry is booming or falling after the impact of GST.

The main purpose of this research is to evaluate the correct price of the stock and compare that with the current market price which helps to decide whether the stock has been over-valued or undervalued. That study helps the investors that they should invest in short term or long term in the companies. One of the expected outcomes is that how much it relation with GST and whether the rates of GST are impacting the consumption and profitability of paint sector. This research is done on the basic of the past data and present company scenarios. This scenarios helps in deciding the market leader of this sector. Majorly it is decide on the base of market capitalization. Looking at one of the leaders of paint sector, Berger Paints which has a turnover of around 60 lakhs, But its business revenues is more than 4000 crores.

The industry did feel the impact of demonetization as well as GST and demand as a whole for the industry was subdued in both the segments. The organized players are expected to perform better than the small and medium scale players. The industry however views GST as positive and beneficial in the long run.

Under the make in India initiative, the government of India aims to increase the share of the manufacturing sector to the gross domestic product (GDP) to 25% buy 2022 from existing 16%. Manufacturing sector has the potential to reach US$ 1 trillion by 2025 and India is expected to rank amongst the three growth economies and manufacturing destinations of the world by 2020. These factors expected to significantly boost industrial paint consumption.

2. Objective, Scope and Limitation

2.1 Objectives of this study:

For this research, Researcher have taken few objective and that are related to the research methodology. And on this bases hypothesis have been created and research is conducted on this objective. This are important as the research have some objective and the research is performed on it.

Following are the major objectives of the research:

1. To analyse financial performance of the selected paint companies.
2. To assist the investors for making investment decisions in this sector.
3. To determine the market leader of Indian paint sector.
4. To evaluate the performance of the paint companies on the basis of cost management and competitiveness.

2.2 Scopes of this study:

For this research, Researcher have taken scope and that are related for proving of research hypothesis. This scope helps in research work and try's to put a clear picture in front of the reviewer regarding the research, which is helpful for both the reviewer as well as for researcher.

Following are the major scope of this research:

1. In this study, two major paint companies of this sector have been taken. i.e. Asian Paints and Berger Paints. This study examines the strengths, weaknesses, opportunities and threats (SWOT) faced by this companies with respect to their management and core competencies.
2. This study covers assess the key factors, competitive dynamics and other related aspects of this industry.
3. This study includes products, costs, profitability which leads to domestic and global leaders.
4. This study also covers, performance of the paint companies on the basis of cost and competitiveness.

2.3 Limitations of the study:

For this research, Researcher have taken few limitation and that are related to this research. Every research has its limitation and the researcher have to consider this and keeping this in mind, Researcher should try to overcome this or should see that its impact is minimum on the research.

Following are the major limitations of this research:

1. The results of this study may be or may not be applicable, as it has been seen from respondent point of view and they may be biased towards a brand, like having a bad experiences with one of the brands or a brand loyal customer.

2. There are large number of small and med cap paint companies in India. It was not possible to cover every company. So the main focus is on this two companies from organized sector. So assuming this two companies as the basis of the paint market.

3. Time constraint was one of the major limitation of this study. And that lead to only few respondent and wouldn't cover a mass of population.

3. LITERATURE REVIEW

Fundamental analysis helps to evaluate the correct stock price in the market. The shareholders can invest their money in the companies through use of fundamental. The main purpose of this analysis is to identify over-priced or under-priced securities. The fundamental analysis has a proper framework. For this research, researcher has used Top Down approach has been adopted. The Indian paint industry is growing in Multifood and innovation in products like friendly, odour free, and dust & water resistant paints have attracted large customers.

India's Gross Domestic Product (GDP) grew only by 5.7 per cent year-on-year in April-June 2017 quarter as report by Organization for Economic Co-operation and Development (OECD) Economic Survey of India, 2017. The rate of GDP has increased in the second quarter which was 6.3% but it was not as per the outlooks. As per the report of to IMF World Economic Outlook Update.

The Demand for paint industry is depend upon the growth of housing, auto, engineering & consumable things. As the Govt. has taken intuitive in housing Facilities & infrastructural Facilities to auto industry it is expected the progress of paint industry. There are ample of opportunities for paint industries due to increased spending capacities of consumer, availability of disposable income and rise of nuclear of Families. The Govt. initiative in bringing reforms in GST, infrastructure and power will benefit the paint industry.

The first thing to stress is that a paint scraper, or 'scrapist', will not be able to provide any meaningful evidence about the classification of paint layers applied to a surface. Pigment identification, the dating of individual schemes, and the ability to find (for example) exactly which cornice elements were gilded, and at what stage, are not possible by scraping through layers of paint.

Puting more stress on white-coated lab technician, on the other hand, may be able to provide an essential analysis of each of the components within a paint layer, but will not understand the appearance of a scheme, nor the purpose behind its use.

A good paint researcher will probably have been doing the job for ten years or more and will have some role in the field, and must have carried out a hundred or so developments. In other words, he will be

somebody who knows exactly what he is supposed to do. The client should listen to the researcher, who has experience and knowledge about the market.

Working knowledge and has established skills with stereo and polarized light microscopy and micro chemical testing techniques, demonstrated through detailed study and experience. True understanding and observation of colour, how pigments and paint colours are affected by aging professional willingness and ability to evaluate the findings and techniques with others.

The weak point of corporate governance is perhaps the most important factor responsible for the corporate failure expenditures from the economics and corporate crises. There is much that can be done to improve the integrity of financial reporting through accountability, the restoration of resources devoted to audit function, and better corporate governance policies. It has been recognised that investors require audited financial report of companies for investment purpose.

Study focus on corporate governance on the quality of financial reporting mention companies on the floor of the Nigeria stock exchange under Nigerian chemical and paint industry. However, in other words, by-pass certain foreseen limitations, the scope of this study has been modernised and structured in such a way that it covers, a period of five years, the five years is selected to enable meaningful contribution to the knowledge and tie the gap of previous researches on this topic.

Massive benefit to these users of financial statement for they will be able to assess the effectiveness and efficiency of the corporate governance framework.to analyse the level of agreement which is laid down by statutory regulations and code of conduct. It will also give them the occasion to compare the quality of financial reports with other industries and countries to ensure compliance with global standard of their country.

4. RESEARCH METHODOLOGY

4.1 Statement of Problem

With the introduction of new taxation system in India in 2017 which impacted the performances of the paint companies. With this the price of the paint went high and impacted the consumption. Due to this the growth of the sector come to a stead path. Investment in this sector was a doubt. So whether the investor can invest in this sector or not. How hard has the GST impacted the financial performance of the paint companies?

4.2 Research Hypothesis

On the basis of literature review and a discussion with research guide. Researcher has collected several aspects and facts related to the topic.

H0: Financial performance of the companies determined the investing decision of the investors as it is related to price of the stock. Investing decision also depends on market capitalization and management of the company.

H1: Financial performance of the companies doesn't determined the investing decision of the investors nor is it related to price of stock. Investing decision neither depends on market capitalization and management of the company.

4.3 Research Design

In this study, Researcher has used Experimental studies to test the financial performances which determined the investing decision of the investor, whether to buy a share in the company or not. This ultimate the aim of performances of the paint sector.

Hypothesis-testing is general used to test the hypotheses of the causal relationship between market capitalization and investing decision. As there are big market cap company which attracts huge investors through their management skills and giving returns to their investment.

For this research, researcher has used Bottom to Top. For this the researcher has started from company then to technical which is the market then followed by the nation which is fundamental.
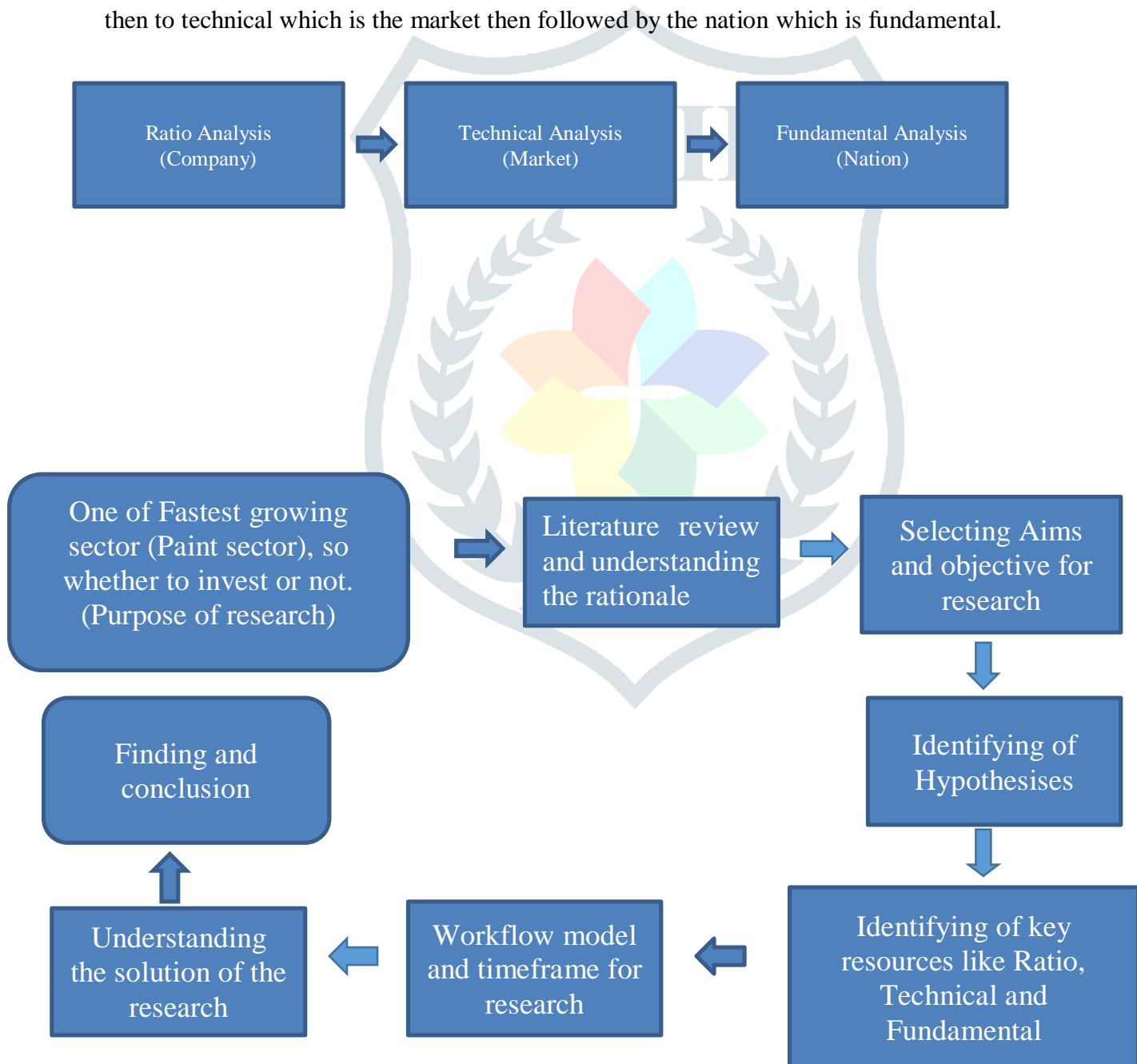
4.4 Sampling

Simple Random sampling technique is used in this study, as it is one of the simple technique were a part of the population is selected or targeted for doing sampling. It can be small population or from the total population of an area.

The research will be based on following parameters.

- Sample (Respondents)– General Public

- Universe-1000

- Sample size- 100

- Sample - 56

- Sampling Technique- Questionnaire

- Type of Data – Primary data and Secondary data

- Data Collection Tool – Questionnaire, Annual Reports, Financial Report.

- Data Analysis Tool - – Ratio Analysis. Financial Analysis, Technical Analysis.

4.5 Data Collection Source

This study is Qualitative Research as the main focus was on collecting maximum primary data from the general public through opened ended and conversational communication.

There are two type of data collection tool:

Primary Data: Questionnaire

Secondary Data: Annual Report of Asian Paints of 2017-18,

Annual Report of Berger Paints of 2017-18.

4.6 Data Analysis Tool:

Data analysis is used for getting to a conclusion about the variables that are present in the research. There different type of data analysis technique, it depends on the type of data available.

In this study researcher have used quantitative approaches. In quantitative approaches two types are correlational design and Quasi-Experimental design.

For objective number 1, 2 and 4 secondary data is used for meeting the research and in case on objective number 3 primary data is used.

There are some parameter on basic of which a company's performance is measured and whether the company is dominating the market or is being dominated by some other company in the market.

There two type of parameter on the basic of which we analysis the companies, they are qualitative and quantitative nature.

Qualitative includes the top management, company structures, strategies and future plans.

Quantitative includes study of efficiency and profitability. It mainly is taking into consideration Income Statement and Balance Sheet of the companies.

Following Ratios are taken into consideration for Asian paints and Berger paints, as this ratio are applicable as per the objective of this research. There are more ratio but are not applicable to our objective. So the research have used this ratio for this research work.

1. Return on Equity.

2. Book value per share.

3. Earnings per share.

4. Dividend per share.

5. Asset Turnover Ratio.

6. Inventory Turnover Ratio.

7. Gross Operating Ratio.

8. Operating Profit Margin Ratio.

9. Return on Investment.

10. Operating Cash Flow.

11. Receivable Turnover Ratio.

5. DATA ANALYSIS, HYPOTHESIS TESTING AND INTERPRETATION

From the data collected in the Research Methodology which includes both primary and secondary data. Here the researcher have used that data to analysis whether the ratio are able to prove the objective and that is helping researcher obtain it research work to the success.

Ratio Analysis

1. Following data is collected "To analysed the financial performance of selected Paint Companies"

This ratios focus on the financial performance of the companies and helps to analysed companies past performances with current performances and even comparison with its peers.

1) Operating Profit Margin Ratio

Operating Profit Margin Ratio is generally found to analyse the operating activates of the companies. It analysed the past and current operating activates and help in knowing that company is incurring more on operation or less more a period of time. This helps in knowing whether the company is wasting more funds on operating that reduced the profit on operating activates. It also helps in comparing it with peers in the same sector.

Fig. 1 Operating Profit Margin Ratio

Asian Paints			
Financial year	Revenue	operating Profit	Operating Profit Margin
2018-19	16,670.59	3588.69	21.53
2017-18	14,445.36	3200.76	22.15770323
2016-17	12947.28	2974.45	22.9735512
2015-16	12871.18	2664.61	20.70214231
Berger Paints			
Financial year	Revenue	operating Profit	Operating Profit Margin
2018-19	5569.18	835.22	14.99718091
2017-18	4770.32	789.93	16.55926646
2016-17	4273.63	769.1	17.99641055
2015-16	4167.31	643.81	15.44905467

Source- Annual Report of Asian paints & Berger Paints
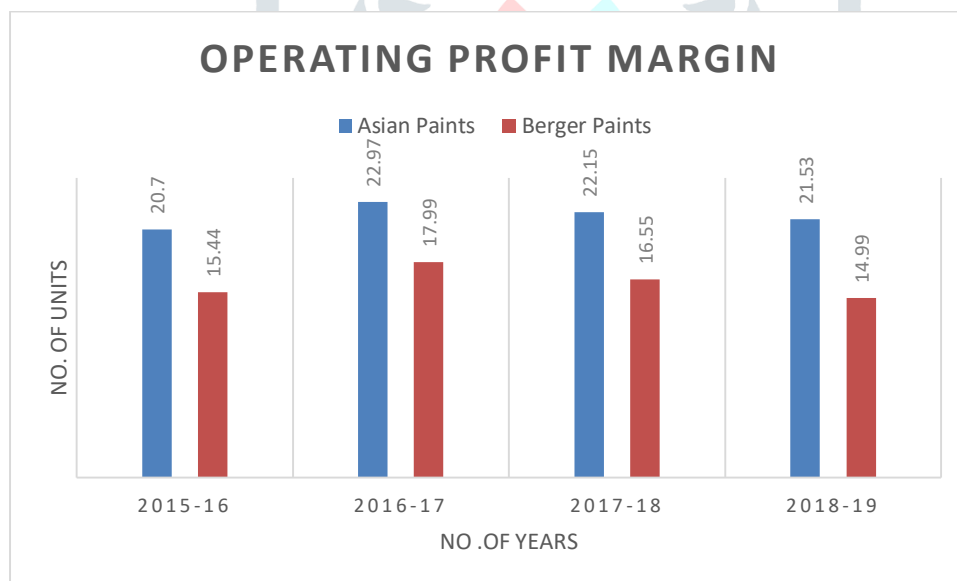
Source- Annual Report of Asian paints & Berger Paints

Analysis

It can be analysed that Asian Paints Operating Profit have increased over the period of four years from 20.72 in 2015-16 to 21.53 in 2018-19 and in case of Berger Paints Operating Profit have shown a rise but it is a steady growth from 15.44 in 2015-16 to 14.99 in 2018-19. But even with this steady growth the market cap of Berger Paints have grown over four years of time.

Talking about the fall of Asian Paints and Berger Paints is due to implication of GST in the Indian Economy. With introduction of GST, paint sector have faced a downfall as the cost of raw material have increased and even the cost of labour have raised. So that lead to fall of operating profit as the cost of operation have increased.
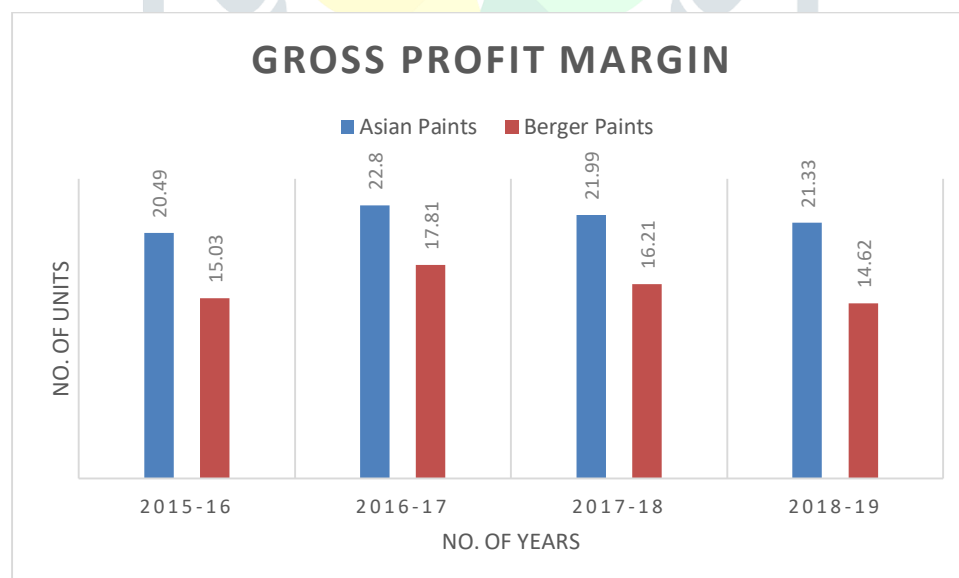
2) Gross Profit Margin Ratio

After calculating the operating profit companies try to remove other cost to reach to gross profit and it included cost like cost of goods sold. Gross profit helps companies to know the profit before deducting taxes and interests. This is important as the company should know how much they are earning after deducting expenses. It also helps in reducing unwanted expenses and increase the gross profit.

Fig. 2 Gross Profit

Margin Ratio

Asian Paints				
Financial year	Revenue	COGS	Gross Profit	GPM
2018-19	16,670.59	13113.84	3,556.75	21.33548
2017-18	14,445.36	11,268.42	3176.94	21.99281
2016-17	12947.28	9995.13	2952.15	22.80131
2015-16	12871.18	10233.57	2637.61	20.49237
Berger Paints				
Financial year	Revenue	COGS	Gross Profit	GPM
2018-19	5569.18	4754.75	814.43	14.62388
2017-18	4770.32	3996.59	773.73	16.21967
2016-17	4273.63	3512.29	761.34	17.81483
2015-16	4167.31	3540.55	626.76	15.03992

Source- Annual Report of Asian paints & Berger Paints

Analysis

It is said that higher the gross profit margin higher is the value of the company. It is good for a company to have a good gross profit. In this Asian Paints have maintained their growth over the years from 2015-16 (20.49) to 2018-19(21.33). In Berger Paints they have struggle to maintained their growth has the ratio shows a fall from 2015-16(15.03) to 2018-19(14.62).

From the graph it can be interpreted that Asian Paints has manage to maintain it ratio due to introduction of new products which has help them optimised the cost and Berger Paints have not able to maintain as they are not able to keep it with the new product.

3) Book Value per share.

Book value is important for companies as it helps to compare the value (which are written in the books of companies which is generally historical) with the market value which helps to analyse which is higher. Book value is taken for tax saver. It generally taken at the time of selling or merger of the company.

Fig. 3 Book Value per share

Asian Paints			
Financial year	Paid Up Capital	Reserves & Surplus	Shareholders fund	B.V
2018-19	95.92	8983.387	96.95	92.66
2017-18	95.92	7893.417	97.09	81.3
2016-17	95.92	7190.624	97.21	73.97
2015-16	95.92	4788.537	92.55	51.74
Berger Paints			
Financial year	Paid Up Capital	Reserves & Surplus	Shareholders fund	B.V
2018-19	97.11	2469.384	101.08	24.43
2017-18	97.1	2240.899	101.49	22.08
2016-17	97.1	2009.794	102.02	19.7
2015-16	69.35	1578.978	72.53	21.77

Source- Annual Report of Asian paints & Berger Paints
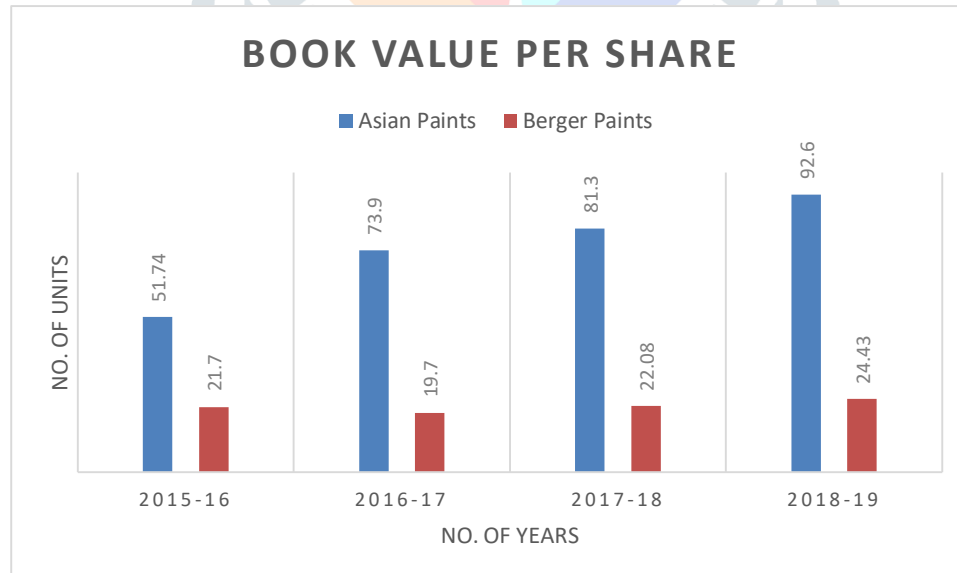
Source- Annual Report of Asian paints & Berger Paints

Analysis

It can be analyse that Asian Paints has grown its book value over the period of four years. In 2015-16 it was 51.74 and in 2018-19 it reached 92.66 which shows that the value has appreciated which is a good sign for company. In case of Berger Paints it has a growth but in comparison to Asian Paints it is minor. In 2015-16 it was 21.77 and in 2018-19 it was 24.43.

The major reason is adding of new product like kitchen and bath paints and texture, but Berger Paints have not added any new product as such which help them maintain but not grow over the period.

4) Return on Equity (ROE)

Return on Equity (ROE) indicates the level of efficiency of the company to generate profit in the given resource by the stakeholder.it is important because the major stakeholder have put their funds in the business. So they will try to get maximize returns and cover the investment with profit.

Asian Paints			
Financial year	Net Income	Shareholders' Equity	ROE
2018-19	2303.039	95.92	24.01
2017-18	2310.713	95.92	24.09
2016-17	2435.409	95.92	25.39
2015-16	3086.706	95.92	32.18
Berger Paints			
Financial year	Net Income	Shareholders' Equity	ROE
2018-19	1796.535	97.11	18.5
2017-18	1955.594	97.1	20.14
2016-17	2253.691	97.1	23.21
2015-16	1629.725	69.35	23.5

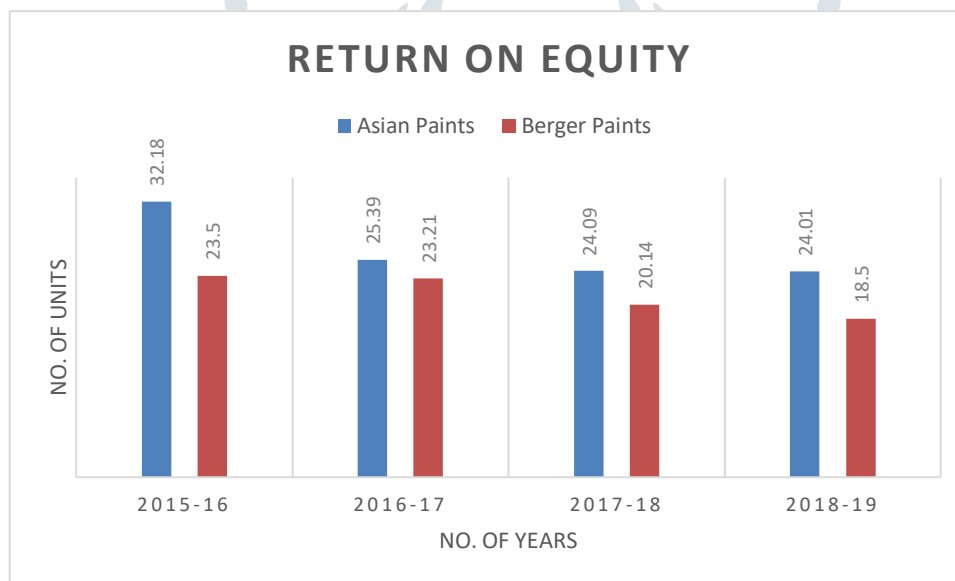*Source- Annual Report of Asian paints & Berger Paints*


Fig. 4 Return on Equity

Source- Annual Report of Asian paints & Berger Paints

Analysis

Higher the ratio good for the company as it indicates the growing performance of the company. As from the above graph it is observed that Asian paints is far better than Berger paints in all the 4 years from 2015-16 to 2018-19.

The major reason is that Asian Paints have out played Berger Paints in Quarterly-on-Quarterly results. And the number of product in Asian Paints is more than Berger paints. The growth in Asian Paints is because of the huge investor with huge market cap.

Interpretation
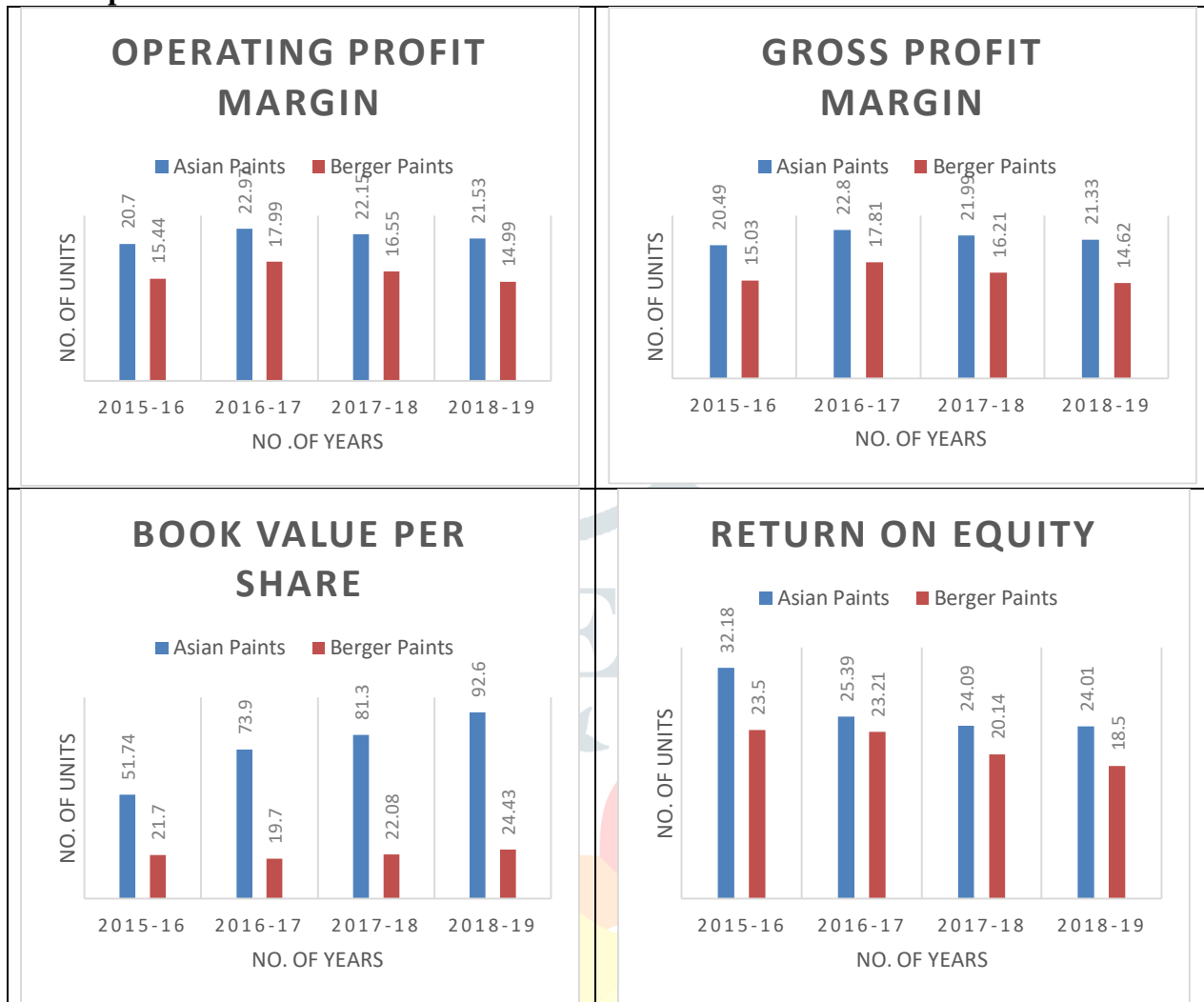
From the above table it can be said that Asian Paints have good performance ratio and that have grown over the years. Even the impact of GST was not able to impact must. It hit and it was a one-time impact. In case of Berger they have grown but at a steady rate and they cannot be compared to Asian Paints as the size of operation is having variation.

2. Following data is collected "To assign whether the investors can investment in Paint Industry"

1. Dividend per share.

Dividend is internal matter of the company and when a company gives regular dividend, which is not good for the company. It means that company is not growing or has not expanded in the past or in the current period. That may disappoint Investors from investing. Company should give dividend but not on regular bases.

Asian Paints			
Financial year	**Shareholders fund**	**Dividend**	**DPS**
2018-19	95.92	1007.16	10.5
2017-18	95.92	834.504	8.7
2016-17	95.92	987.976	10.3
2015-16	95.92	719.4	7.5
Berger Paints			
Financial year	**Shareholders fund**	**Dividend**	**DPS**
2018-19	97.11	184.509	1.9
2017-18	97.1	174.78	1.8
2016-17	97.1	169.925	1.75
2015-16	69.35	114.4275	1.65

Source- Annual Report of Asian paints & Berger Paints
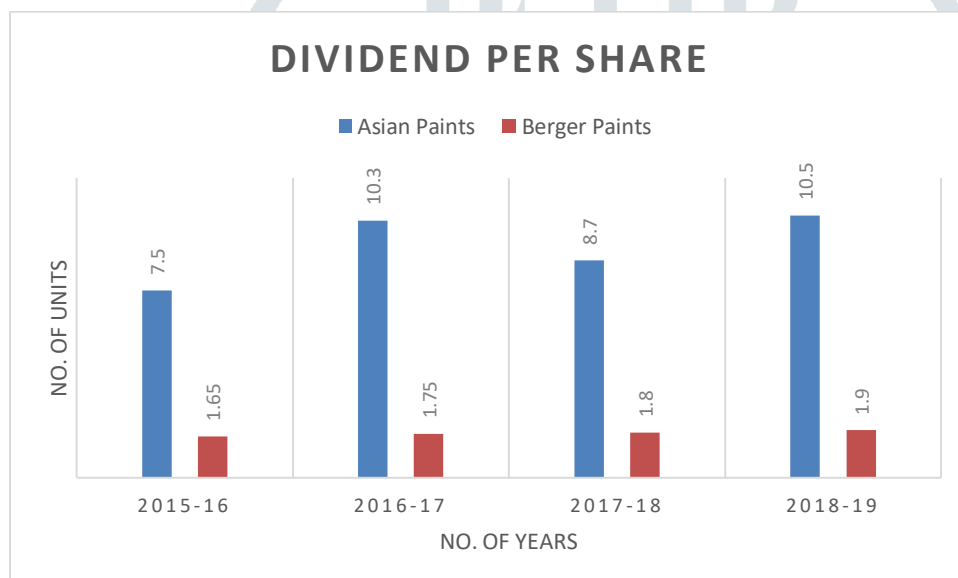

Fig. 5 Dividend per share

Source- Annual Report of Asian paints & Berger Paints

Analysis

As the graph shows that Asian paints DPS was 7.50 in the year 2015-16 which as increased to 10.50 by 2018-19. As said higher the ratio higher the benefit. Even Berger paints have look to grow and have shown positive growth as it had DPS as 1.65 in year 2015-16 and now it has 1.9 in 2018-19.

Now days both the companies are taking contract to paint individual house and the contract are usually for 15% to 20% higher than other but that gives brand and a quality of work and this helps in boosting to the earning. Asian Paints has more product and variety so that gives them advantage over Berger Paints.

2. Earnings per share.

It his ratio is important for both investor as well as company because investor want that their investment should increase and company wants more and more investor for raising capital. This ratio is analysed by

all the investor before investing. They compare it with the past and try to analyse whether the investment would grow or not.

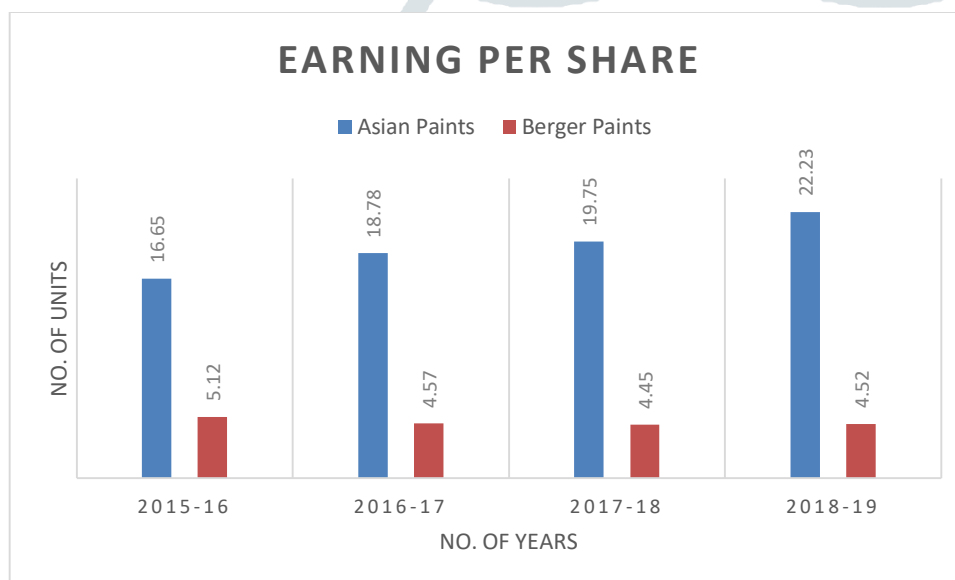| Asian Paints			
Financial year	**PAT**	**Shareholders fund**	**EPS**
2018-19	2132.302	95.92	22.23
2017-18	1894.42	95.92	19.75
2016-17	1801.378	95.92	18.78
2015-16	1597.068	95.92	16.65
Berger Paints			
Financial year	**PAT**	**Shareholders fund**	**EPS**
2018-19	438.9372	97.11	4.52
2017-18	432.095	97.1	4.45
2016-17	443.747	97.1	4.57
2015-16	355.072	69.35	5.12

Fig. 6 Earnings per share

Source- Annual Report of Asian paints & Berger Paints

Analysis

Higher the ratio or earnings which attracts more investors as the company is giving more returns on stock price than others. So company's try to give high return on earning. In this case Asian Paints have given far more returns then Berger paints. Berger has not able to keep it up.

Company giving more returns are always preferred by investor, they want their funds to grow and not fall. In case of Berger Paints, investors would sell their share as the company has shown a fall in EPS which hurts sentiments of investor.

3. Return on Investment

This ratio is used to measure the performance of the company. It is used to evaluate the efficiency of an investment. It also compare the efficiency of a number of different investment. Investor use this to analyse that the investment of the company and how much return they are getting from that investment or asset.

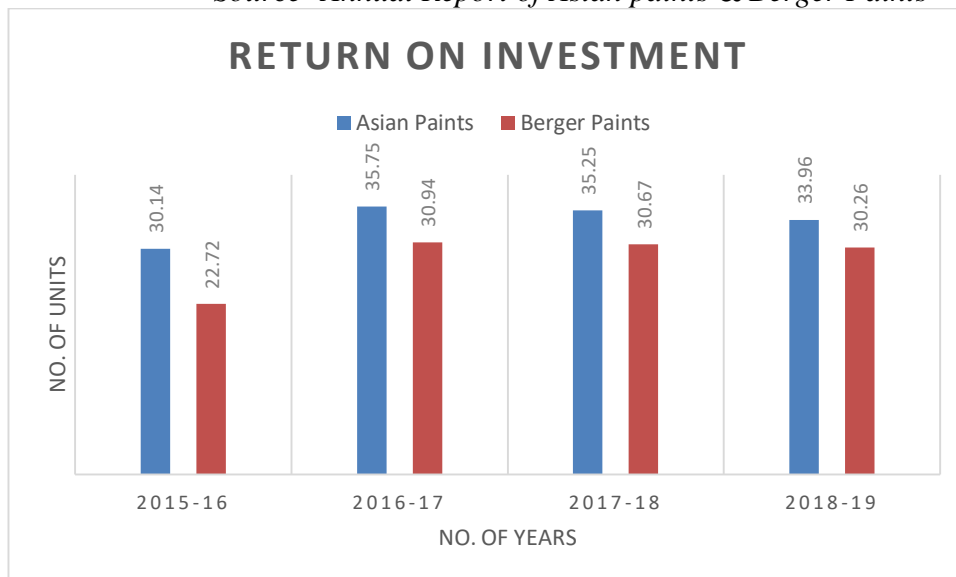*Source- Annual Report of Asian paints & Berger Paints*

RETURN ON INVESTMENT

Fig. 7 Return on Investment

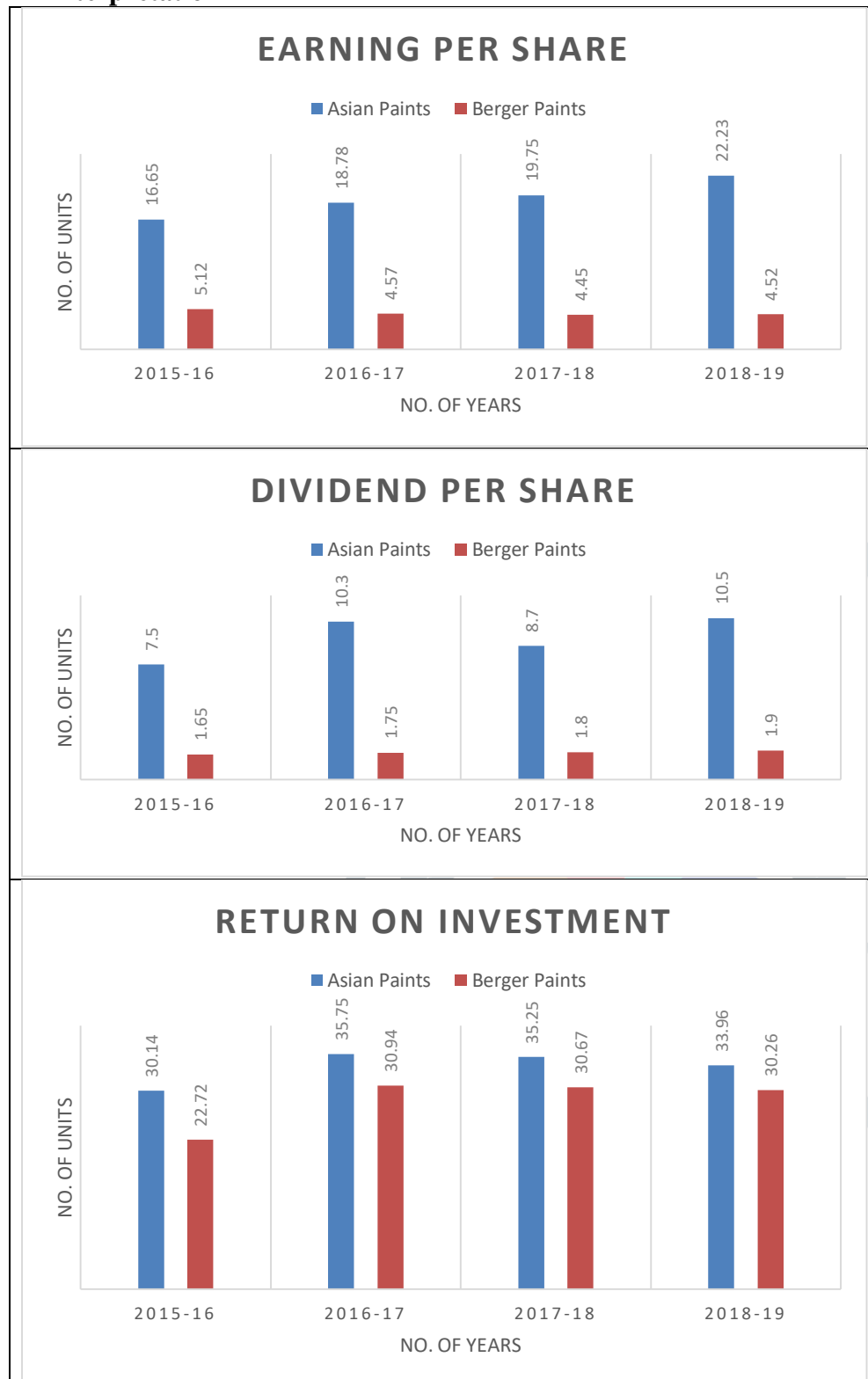| Asian Paints			
Financial year	**Net Income**	**Total Investment**	**ROI**
2018-19	1,00,657.44	2964	33.96
2017-18	90,851.24	2577.34	35.25
2016-17	104161.2	2913.6	35.75
2015-16	73531.955	2439.68	30.14
Berger Paints			
Financial year	**Net Income**	**Total Investment**	**ROI**
2018-19	17469.401	577.31	30.26
2017-18	16278.716	530.77	30.67
2016-17	17871.563	577.62	30.94
2015-16	9414.9408	414.39	22.72

Source- Annual Report of Asian paints & Berger Paints

Analysis

Higher the returns high chance of attracting more investors. Asian Paints have shown a fall in 2017-18 from 2016-17 and even in 2018-19. But here Berger Paints have not shown must change in EPS. This means Berger is getting good returns on investment.

From the above graph it can be interpreted that Asian Paints is not able to recover must from its investment and that can be because of more and more of expansion in order to capitalization of market. But Berger have grown but have look to get good returns year-on- year.

Interpretation

EARNING PER SHARE

■ Asian Paints   ■ Berger Paints

NO. OF UNITS	2015-16	2016-17	2017-18	2018-19
Asian Paints	16.65	18.78	19.75	22.23
Berger Paints	5.12	4.57	4.45	4.52

NO. OF YEARS

DIVIDEND PER SHARE

■ Asian Paints   ■ Berger Paints

NO. OF UNITS	2015-16	2016-17	2017-18	2018-19
Asian Paints	7.5	10.3	8.7	10.5
Berger Paints	1.65	1.75	1.8	1.9

NO. OF YEARS

RETURN ON INVESTMENT

■ Asian Paints   ■ Berger Paints

NO. OF UNITS	2015-16	2016-17	2017-18	2018-19
Asian Paints	30.14	35.75	35.25	33.96
Berger Paints	22.72	30.94	30.67	30.26

NO. OF YEARS

From the above graph it helps investor to make decision whether to invest or not in the share. One of the important ratio is earning per share which is referred by the investor before investing. As this ratio gives in site of the company and whether the investor will get his investment with high return or less. And in this Asian Paints has performed far better than Berger Paints. Other ratio are Dividend per share and Return on investment which are considered for research which are also important from investor's view point. And here also Asian Paints have performed better than Berger Paints.

3. Following data is collected" To determine the market leader of Paint Industry in India"

1. Market Capitalization.

    Market capitalization means the aggregate value of the company represented in the market or in the dollar terms. It is computed based on the current market price of its shares and the total number of outstanding shares. It is generally refer to as market cap, where cap denotes capitalization which indicates sizes of the company.

   Market cap= current market price (per share) * total number of outstanding shares

Competition   Standalone   Consolidated

| Name	Last Price	Market Cap. (Rs. cr.)	Sales Turnover	Net Profit	Total Assets
Asian Paints	1,508.75	144,718.97	19,341.52	2,171.09	10,498.75
Berger Paints	332.40	32,280.35	6,061.86	498.35	2,960.08
Kansai Nerolac	435.00	23,443.01	5,388.47	447.66	3,537.28
Akzo Nobel	1,724.70	7,854.34	2,918.35	211.00	1,139.18
Sirca Paints	177.90	487.52	-	-	-
Shalimar Paints	67.10	364.35	287.62	-81.74	450.22

Source- moneycontrol.com

So from the graph it is clear that market cap of Asian paints far more than then Berger paints, if we compare between this company and other peers in the market and Asian paints have grown at pace then Berger paints. Even Berger have grown but still far behind then Asian paints. Even if we look at different factors like sales turnover and net profit which are far more than any other companies in that list. And talking about asset it has most number of asset which gives investor a hope that even if the company dissolve then they would get there investment back.

2. Questionnaire

From the Questionnaire and the interaction with the respondent it was clear that by far   Asian paints is the market leader of the paint industry in India. And the other analysis is the people have brand loyalty towards the brand they use. People more frequently use paint for house and for office purpose.

Source- Researcher

Preferences
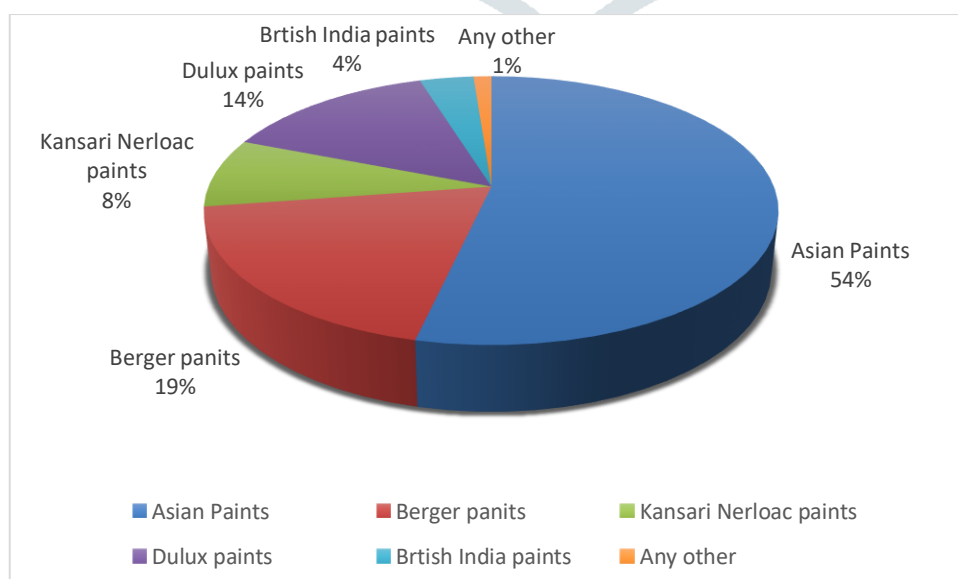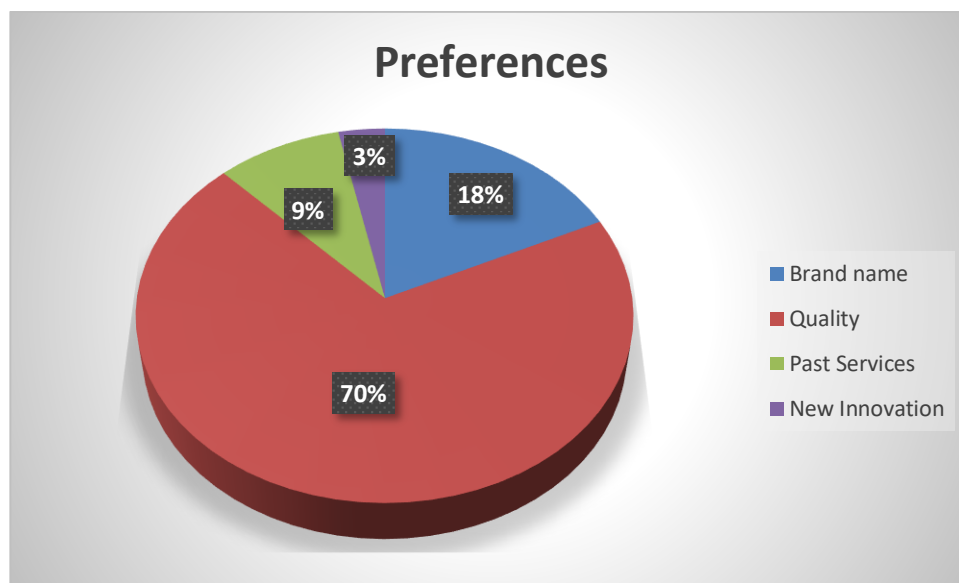
Source- Researcher

From the Questionnaire it is also clear that before painting customer take into consideration the above factors. From this factors, the one which is seen more often than not is quality. Quality is most important and has 70%. Some customers, who are brand loyal. Never leave the brand which they are using as the have truth and faith that brand is better than brand. 18% of the customer are brand loyal or see brand before buying. Remaining customer see the past service and new innovation.

4. Following data is collected "To evaluate the performance of the paint companies on the basis of cost management and competitiveness"

1. Operating cash flow

This ratio means that the amount of cash the company is bring in the through revenues, it excludes associated with long term investment on capital items or investment in securities. It show the amount of cash which is flowing through operation activities. Company has to maintain the cash flow high as the operation is done on the bases of daily bases.

Fig. 8 operating cash flow

Asian Paints			
Financial year	**Operating cash flow**	**Total debts**	**OCFR**
2018-19	16816.8	146810.7	8.73
2017-18	15208.96	115436	7.59
2016-17	12119.73	98412.21	8.12
2015-16	13090.27	86264.88	6.59
Berger Paints			
Financial year	**Operating cash flow**	**Total debts**	**OCFR**
2018-19	5601.66	31929.46	5.7
2017-18	4839.31	25503.16	5.27
2016-17	4230.67	23480.22	5.55
2015-16	4098.1	16802.21	4.1

Source- Annual Report of Asian paints & Berger Paints
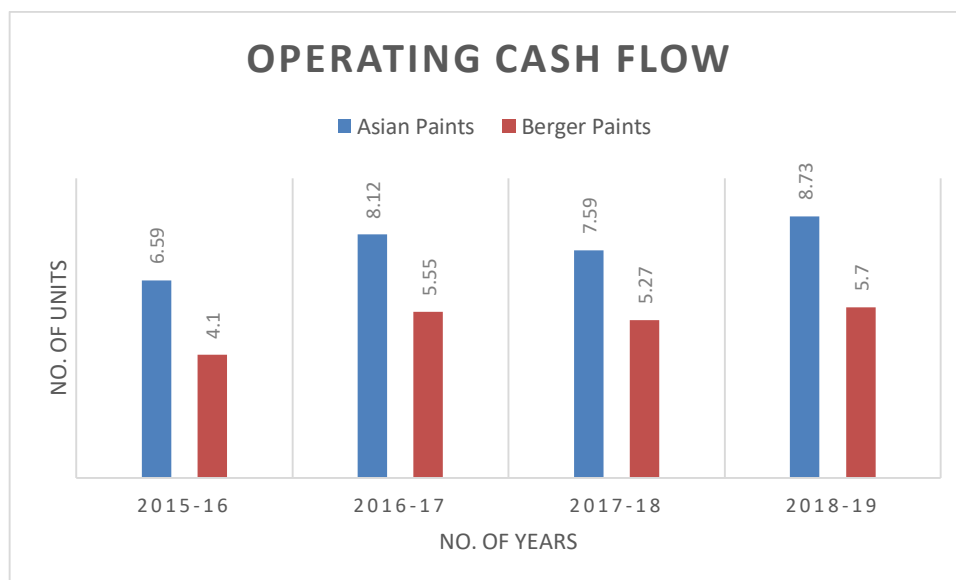
Source- Annual Report of Asian paints & Berger Paints

Analysis

It can be observed that both the company face down fall in 2018, as there ratio got a boost in 2019, and one of the reason behind may be reduced in the rate of the GST from 28% to 18%. While they had a steady growth in 2017 and 2016. There operating cash flow was increase but in 2018 it saw a down fall and that seems to be a reason of price of oil and gas, which were high during this period.

2. Asset Turnover Ratio.

This ratio means how fast a company can change its asset into cash or money form. Asset turnover ratio means a lot for the investor as the want to play safe. They want that when company close or dissolve, they should get their money back or investment back.

Asian Paints			
Financial year	Net Sales	Average Total asset	Asset turnover Ratio
2018-19	1541568	3021473.28	1.96
2017-18	1341227	2548331.3	1.9
2016-17	1142895	2388650.55	2.09
2015-16	1182105	3227146.65	2.73
Berger Paints			
Financial year	Net Sales	Average Total asset	Asset turnover Ratio
2018-19	527556.5	1128970.91	2.14
2017-18	444006.9	883573.731	1.99
2016-17	389874.7	873319.328	2.24
2015-16	396772.7	1039544.474	2.62

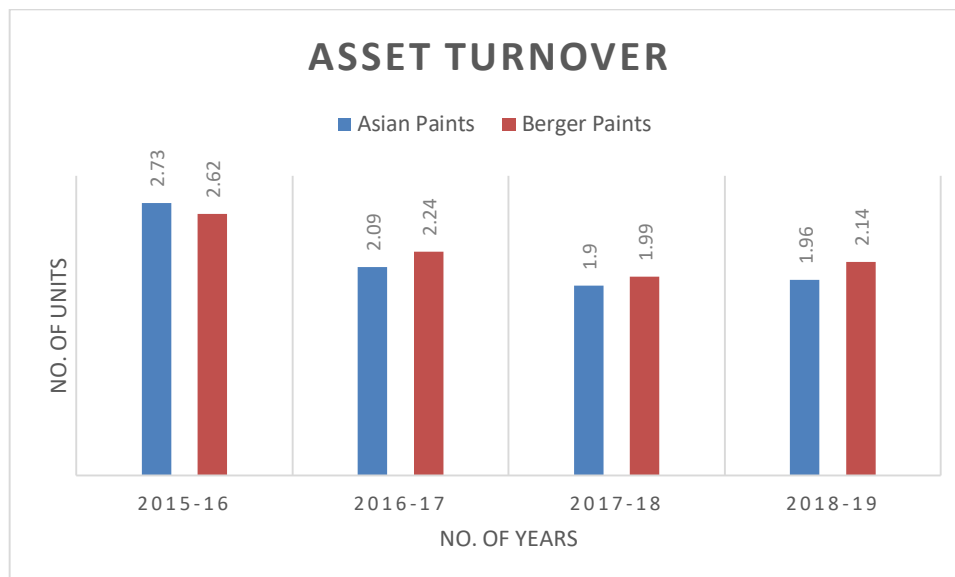*Source- Annual Report of Asian paints & Berger Paints*

Fig. 9 Asset Turnover Ratio

Source- Annual Report of Asian paints & Berger Paints

Analysis

It is clear that Berger paint has higher Asset turnover ratio, which means it is using it asset more efficiently. In all the 4 years Berger has more turnover ratio then Asian paints. This means that Berger paints is using its asset more efficiently than Asian paints. Berger has a control over its asset and Asian Paints in expanding have lost control over their asset.

3. Receivable turnover ratio

This ratio is used to measure how effective the company is converting it debtor or credit recovery or collecting debt. The higher the ratio means that company is having a good collection of credit and having a control over their debtors. Low means that debtors are not making timely payment and that means company is not having control over their debtors.

Asian Paints			
Financial year	**Net receivable Sales**	**Average receivable**	**RTR**
2018-19	16,396.00	1191.57	13.76
2017-18	14,172.59	1066.41	13.29
2016-17	12644.0328	876.84	14.42
2015-16	12647.32	743.96	17
Berger Paints			
Financial year	**Net receivable Sales**	**Average receivable**	**RTR**
2018-19	5515.8597	586.17	9.41
2017-18	4723.3169	553.73	8.53
2016-17	4223.415	485.45	8.7
2015-16	4134.3939	447.93	9.23

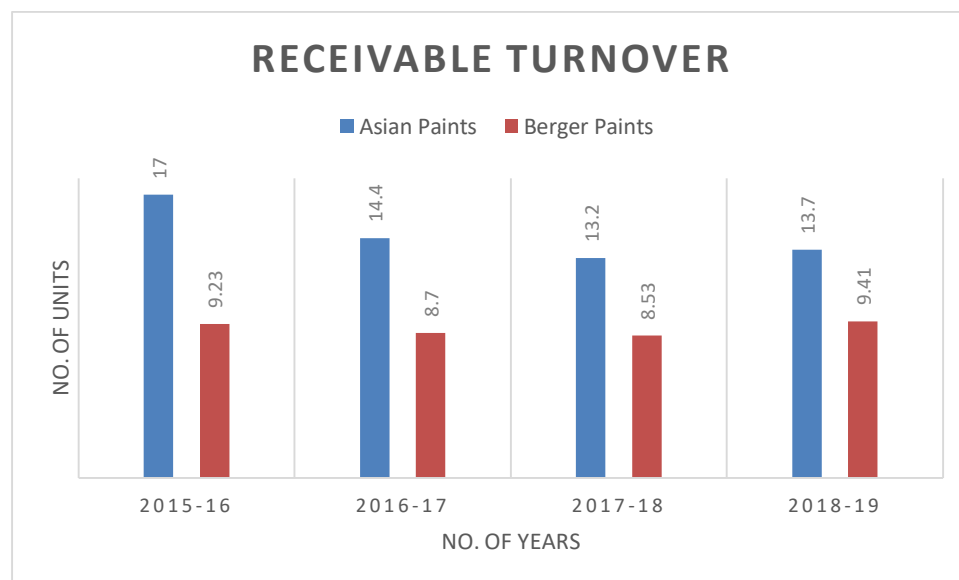*Source- Annual Report of Asian paints & Berger Paints*

Fig. 10 Receivable turnover ratio

Source- Annual Report of Asian paints & Berger Paints

Analysis

Asian paint have been not able to maintain its receivable turnover ratio, where in case of Berger paints it is steady. It has shown fallen but not a huge one. But still they have manage to keep it on track. So Berger paint shave out played Asian paints in this department.

4. Inventory Turnover Ratio

It is used to measure how effective companies asset can be convert into liquid when were required. It show how well a company manages its inventory levels and how frequently a company replenishes its inventory.it is better to have higher inventory turnover because they have least liquid form of asset.

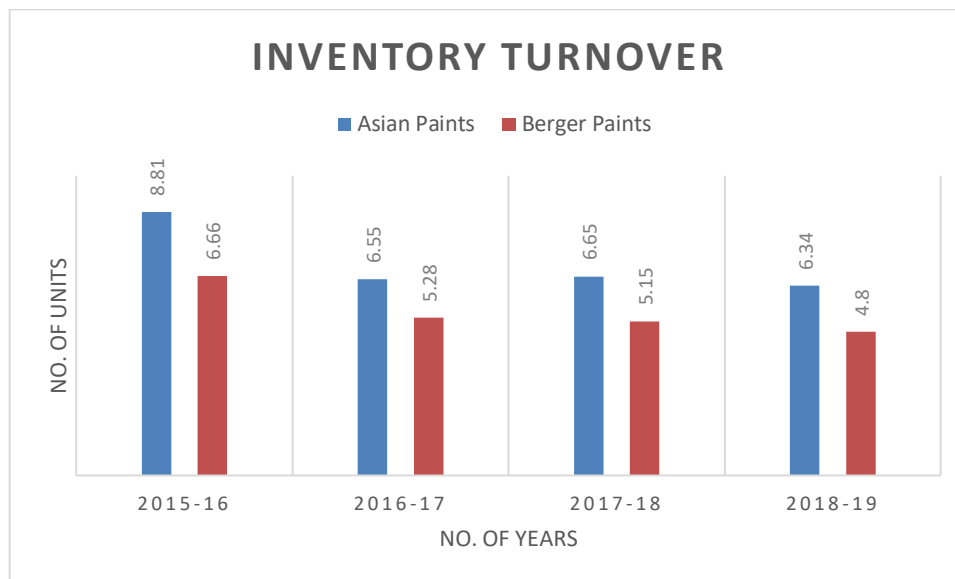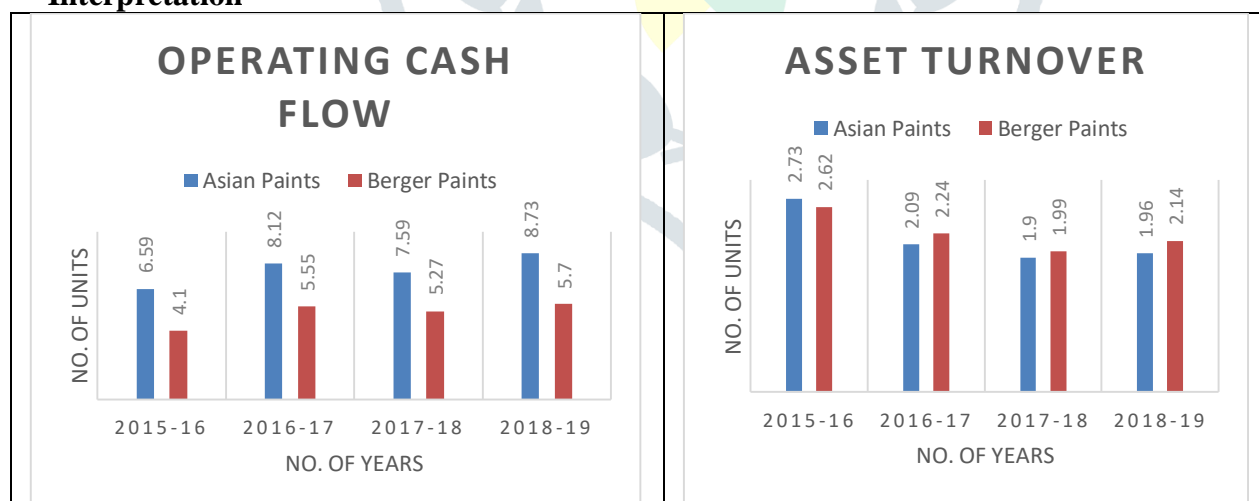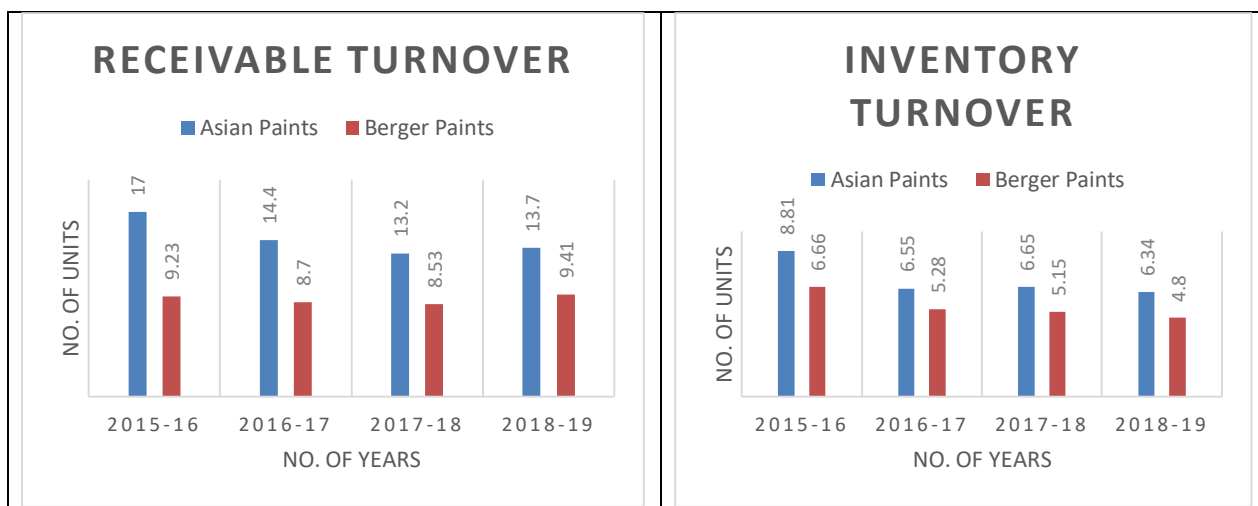| Asian Paints			
Financial year	**COGS**	**Average Inventory**	**ITR**
2018-19	15100.42	2381.77	6.34
2017-18	14604.22	2186.26	6.68
2016-17	12458.82	1902.11	6.55
2015-16	15031.18	1706.15	8.81
Berger Paints			
Financial year	**COGS**	**Average Inventory**	**ITR**
2018-19	5012.4	1044.25	4.8
2017-18	4721.675	916.83	5.15
2016-17	4177.853	791.26	5.28
2015-16	4444.618	667.36	6.66

Fig. 11 Inventory Turnover Ratio

Source- Annual Report of Asian paints & Berger Paints

Analysis

It can be interpreted that after implication of GST, paint sector has not able to maintain its inventory turnover ratio. Both the company had a high inventory ratio in 2016 in comparison to other years. They still have tried to maintain the ratio at a steady way. In years after implication of GST the ratio for Asian paints is around 6 with a change in it with a here and there. But in case of Berger Paints they have seen a fall after GST. There ratio have fallen from 5.28 to 4.8, which signal a issue which company is facing and notable to use its inventory up to mark.

Interpretation

RECEIVABLE TURNOVER

■ Asian Paints ■ Berger Paints

NO. OF UNITS

2015-16: 17, 9.23
2016-17: 14.4, 8.7
2017-18: 13.2, 8.53
2018-19: 13.7, 9.41

NO. OF YEARS

INVENTORY TURNOVER

■ Asian Paints ■ Berger Paints

NO. OF UNITS

2015-16: 8.81, 6.66
2016-17: 6.55, 5.28
2017-18: 6.65, 5.15
2018-19: 6.34, 4.8

NO. OF YEARS

From the graphs it can be interpreted that Asian Paints have managed their ratio other than asset turnover ratio. Berger Paints have maintained their asset and they have a good turnover of their asset to liquid. Asian Paints have more of fixed asset that blocks the fund of the company. Berger has more proportion of current asset than fixed asset. Other than that Asian Paints managed their asset and cost.

Technical Analysis

1. Technical Analysis of Asian Paints

   There are different studies tools for analysis the market. Like

   A) Bar Graph
   B) Line Graph
   C) Candle Stick
   D) Mountain

   We have used Candle Stick for analysis for our purpose. This is the chart of Asian Paints of last 4 years. The period covered are from 2016 to 2019. This chart shows a bullish trends as mark by an arrow. Bullish Trend means that the market share of this company or stock of this company is moving upwards and this is the real return an investor would like to see. When a company is giving good returns it attracts more and more investor and that increase the market share of that company in the market.

   There are different reading used to analysis like Doji, Long-legged Doji, Three Black Crows, Three White Solider, Hammer, Hanging Man, Morning Star, Evening Star, Bearish Harami, Bullish Harami, Shooting Star and Engulfing.

Graph- Asian Paints 4 years Graph

This Graph shows A Long-Legged Doji which mean that market is going to fall and that is seen in the market. There is a Bullish Engulfing which means that market is going to change its trend. Bearish Harami is also seen and with that it is also showing three black crows. So from a long term purpose it is a good investment as the trend is in a bullish trend.

Graph- Asian Paints 6 months Graph

Source- Investing.com

The above graph is of 6 months, which covers from March to August. It has given dividend in last quarter. Divined was issued on 13th June, 2019 and the payment was made on 28[th]June, 2019. The amount of dividend per share was rs 10.50.

If we look at this graph then it shows Six Months high and Six Months lows. Six months high for Asian Paints was 1546.21 and its Six month low is 1289.78, and its current price as on 1st of August was 1504.66. This share has been overbought and has been oversold in the recent working days. So this company have seen almost all the trends and is in a growing company in paint sector and one of the leaders of the market.

This graph also shows Support and Resistance which helps the investors to indicate whether the price would go up or down. And this indicate helps that an investors can have a control over their investment. So an investor can earn by investing for a short term or in futures.

2. Technical Analysis of Berger Paints

This is the technical analysis of Berger Paints. Berger Paints have made their name in the Indian market. They are one of the leaders of their sector. This charts shows performance of last 4 years of Berger paints. The period covered are 2016-2019.

Graph- Berger Paints 4 years Graph
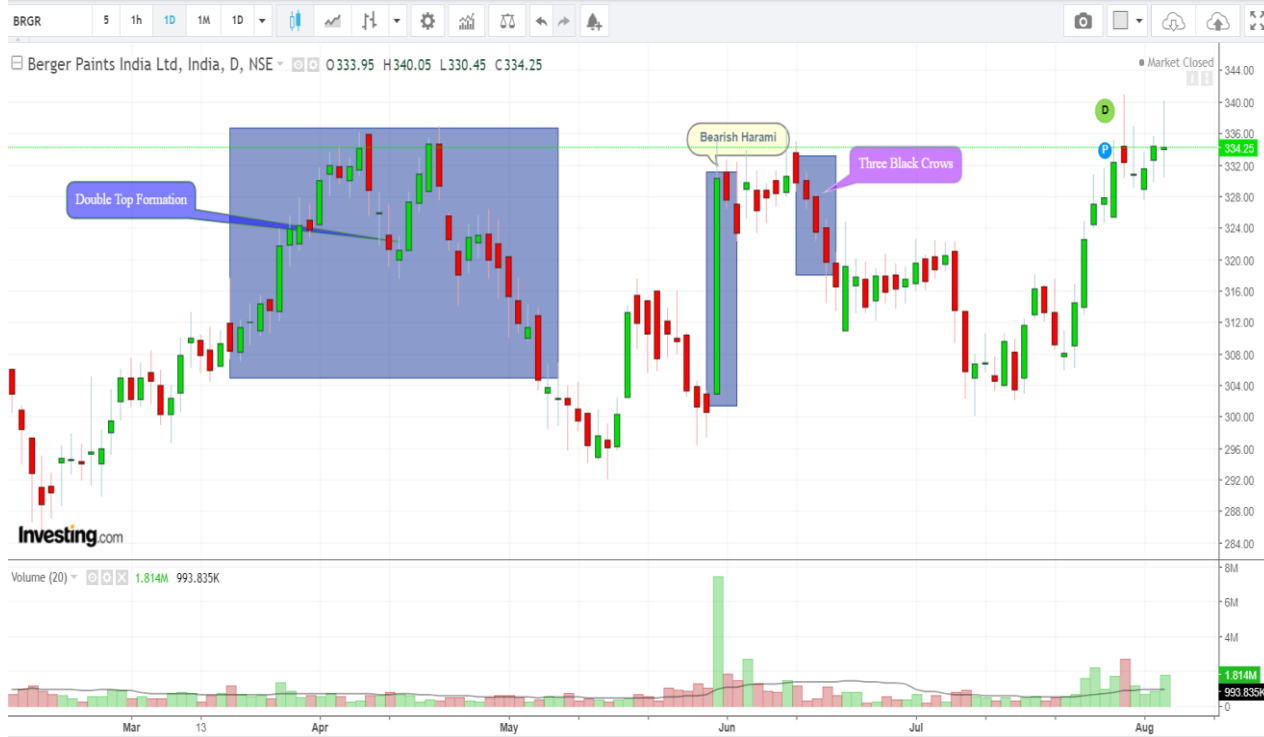

Source- Investing.com

From this graph it can be seen that it is also following Bullish trend in long run. The sign showing s in yellow which means that company on that day have declared a spite share. And it was done on 15th July 2019 and the share was spite in the ratio of 1.4:1.

This graph has also shown dragonfly which indicate that it's going to reverse the market trend. Even sign like inverted hammer, Doji, long-Legged Doji, and Engulfing can be seen easy. Experienced investor can invest in this stock as it has shown a violate graph and new investor would not like to invest in such stocks, as the risk is higher than normal stock.

The below graph is of Six months and the trend in the short term. It covers period of March to August. Company have declared dividend on 26th July, 2019 and the payment date is 20th August, 2019. The amount per share of dividend is 1.90 rs.

It starts with a double top formation. Which means it is forming a M shape which indicate that the market is going towards bearish trend.

Graph- Berger Paints 6 months Graph

Source- Investing.com

There are many reading tools but only some are shown like bearish harami, three black crows and other are engulfing bearish, evening doji star and doji star bearish.

So looking at the graph it is the right time to invest as it has touch its high and is looking that it's going to come down, so here the investor can make profit by investing in intra-day. It also seem that it's going to break its resistance and would go up, so here the investor can take a risk and as the risk is high then the returns will also be high.

Fundamental Analysis

All the investor carry out fundamental analysis to determine the future of his investments. So the first condition is that investor have to determine the economic condition and if the condition are favourable to the performance of that industry then only the investor will invest. And if the conditions are unfavourable then the stock price of that industry are general declining as conditions affect the performance of the industry in which it has to operate.

Economic Analysis starts with country analysis which included factors like GDP, Inflation, Unemployment and FDI. All this factors affect the performance of the company or industry which cause change in stock price and that makes the investors change their decision of investing.

So for this research the factors used are:-

1. GDP

2. Inflation

3. Unemployment

1. GDP of the country.

   The economy of any country is measured by GDP or Per Capita Income. GDP is the total value of goods and service produced in an economy in a given period of time. The income earned by an individual staying within the boundaries of a country is considered for GDP.
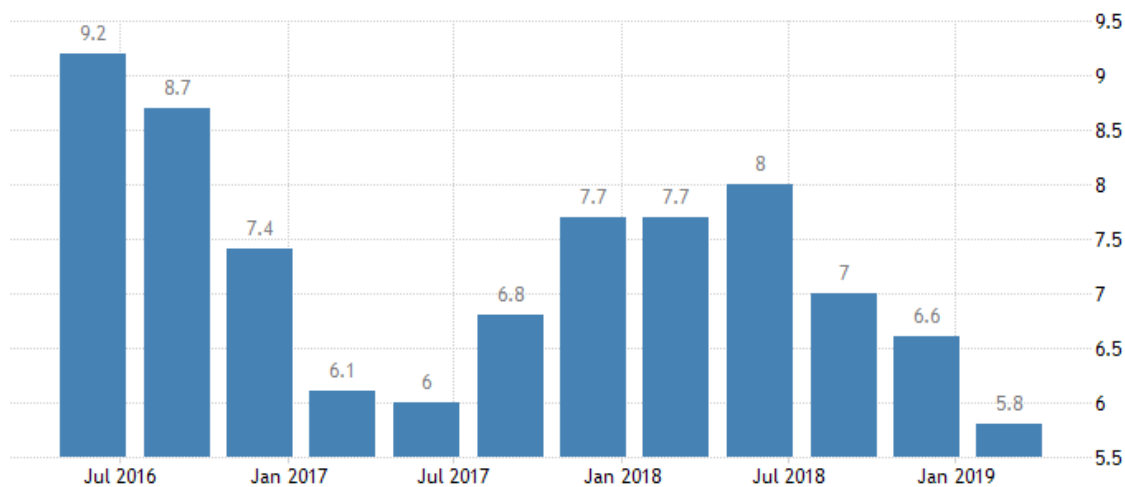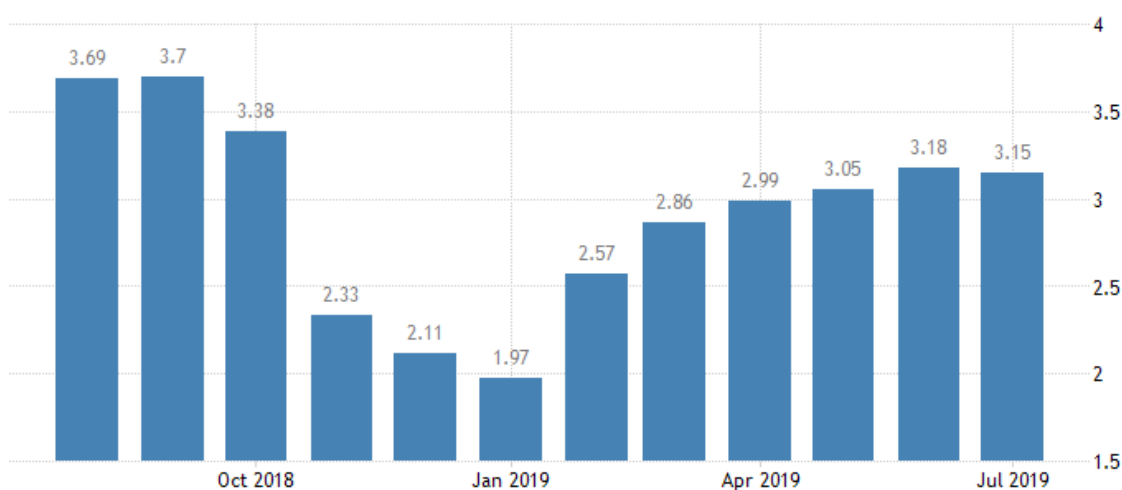

SOURCE: TRADINGECONOMICS.COM | MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION (MOSPI)

   The above graph is about India's GDP annual growth rate. It can be seen that for 2016 it was at pick which was 9.2%. But from 2017 it starts to decline as it is the impact of GST in the Indian economy. But from 2018 it maintains at 7.7%. but from end of 2018 the growth rate has decline and the effect can be seen in the first quarter of 2019. And in the recent quarter it was around 6% and by the end of third quarter it is expected to reach 7%. Paint sector contribute 11% to GDP and is 50000 billion which is estimated to be 70000 billion a growth of 10%.

2. Inflation rate of the Country.
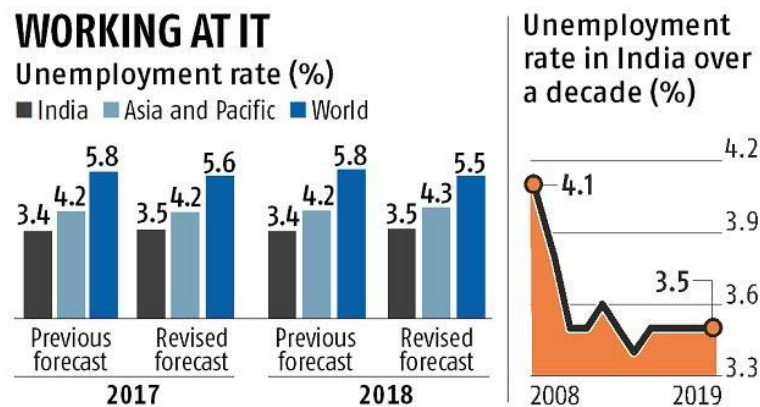
   Inflation Rate is measured with the help of consumer price index and wholesale price index. India's Inflation rate as per May 2019 was 3.05% which means it has fallen from 3.15% of July 2019. It has been playing around 4% for the last 1 year. It is expected to grow on year on year bases by 2.5%.

SOURCE: TRADINGECONOMICS.COM | MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION (MOSPI)

3. Unemployment of the country

Unemployment level in India has increased in recent 1 year. According to the report of Pew Research Centre unemployment in number is in millions and rate is 6.1% all-time high for 4 decade. This is one of the biggest problem faced by India. About 18.6 million Indians are jobless and another 393.7 million work in poor-quality jobs vulnerable to displacement. Labour cost has increased to 12% which has cost companies to move to new technology and that has led to increase in unemployment.

WORKING AT IT
Unemployment rate (%)
■ India ■ Asia and Pacific ■ World

	India	Asia and Pacific	World
2017 Previous forecast	3.4	4.2	5.8
2017 Revised forecast	3.5	4.2	5.6
2018 Previous forecast	3.4	4.2	5.8
2018 Revised forecast	3.5	4.3	5.5

Unemployment rate in India over a decade (%)

4.2 — 4.1 (2008) — 3.9 — 3.5 — 3.6 — 3.3 (2019)

Source: ILO's *World Employment Social Outlook Report – Trends 2018*

6. OBSERVATIONS AND FINDINGS

6.1 Observation

This research was done to find the performance of the paint sector on the basic of profitability, market leader and cost management. For this purpose researcher have used ratios to evaluate the companies on the basis of profitability, market, activity and debts.

1. From the ratios used it can be seen that Asian Paints is having a bigger market cap then Berger Paints. Asian Paints have beaten Berger Paints in all the ratios. But one factor that affect Asian Paints is the volatility in the ratios and the prices in the market. In case of Berger Paints the ratios have been stable and the change in minimum. Investors have to take this, for investment purpose. Big investor who can take big risk, would like to invest in Asian Paints ignoring the volatility factor as the company has a market cap and it would not betrayed their investment.

2. Investors who want to be sure and on safer side would like to go with Berger Paints as the volatility is less and its movement is upwards trend. Berger Paints have also been growing its market cap and is giving a tough peers to Asian Paints. Berger Paints have done spite share and that has worked in their favour. They have done spite share twice in 4 years. One was in 2016 and other was in 2019. And seeing the market trend of Berger Paints it has formed M-formation which means it was going to be a bearish trend and in recent months it was shown a bullish trend.

6.2 Findings

This is to evaluate the risk exposure of investors and their investment decision based on the market risk and cost of equity. For this purpose research have calculated intrinsic value for both companies and decision is on the bases of that value.

Measuring stock's volatility is very difficult as the stock price are based on sentiments and on demand and supply factors. So for this purpose stock's volatility is in relation to market. Market has Beta and Market Risk. Beta is compared to the stock, so when the stock price swing more than market which means beta is more than 1, it means it has more risk or is more risky but it also means, it has more potential of giving high returns. In case of less or slow swing in the price means beta is less than 1 and potential it would give less or an average return.

So we have computed Beta for Asian Paints and Berger Paints based on the market movement and BSE Sensex price over a period of time. So the Beta for companies are

Asian Paints = 1.20

Berger Paints = 1.07

Volatility of n Return Equity= Range of return over Equity/ Average Return on Equity

Range Of Return on Equity is highest observation – lowest observation of equity

Estimation of Intrinsic Value

Sr.no	Particulars	Asian Paints	Berger Paints
1	Range of Return over Equity	0.0817	0.05
2	Average Return on Equity	0.26	0.21
	Volatility of Equity	0.31	0.23

Required ROE	Asian Paints	Berger Paints
Risk Free Return	0.07	0.07
Beta	1.2	1.07
Market Risk	0.09	0.09
Cost Of Equity	0.178	0.1663
Average dividend Pay-out Ratio	0.45	0.33
Retention Ratio	0.55	0.67
Expected Growth	0.143	0.1407
Expected P/E	132	12.890625
Historical analysis of P/E	67.4	66.68
weighted P/E	92.7	43.94
Intrinsic Value	1793.745	204.7604

Decision Rule for investor for Asian Paints

The value range for intrinsic value of share of Asian Paints will be from1775 to 1805. So on the base of this range the decision that an investor would take,

Market Price Decision

Less than Rs.1175 Buy

Between Rs.1775 to 1805 than hold

More than Rs.1805 Sell

Market value as on July 2019 is Rs.1537.99. It means intrinsic value of Asian Paints is more than its market price.

Intrinsic value > market Value

Rs.1793.75 > Rs.1537.99

The market price of security should be equal to fair price. But in this case market value is less than intrinsic value, which means the share is undervalued. Hence the market is expected to increases in future. So as an investor buying this share at current price will benefit.

Decision Rule for investor for Berger Paints

The value range for intrinsic value of share of Berger Paints will be from190 to 220. So on the base of this range the decision that an investor would take,

Market Price Decision

Less than Rs.190 Buy

Between Rs.190 to 220 than hold

More than Rs.220 Sell

Market value as on July 2019 is Rs331.92. It means intrinsic value of Berger Paints is more than its market price.

Intrinsic value < market Value

Rs.204.76 < Rs.331.92

The market price of security should be equal to fair price. But in this case market value is higher than intrinsic value, which means the share is overvalued. Hence the market is expected to decline in future. So as an investor selling this share at current price will benefit.

6.3 Testing of Hypothesis

As per the chi square test with a very minor change in profit there is no major change in the investment decision of the shareholder. The financial performance of the company does not determine the investment decision of the investors. Thus proving the alternative hypothesises to be true. This is of Asian Paints.

years	Profit	mean	Share Capital	mean
2018-19	2134.76	1857.178	95.92	95.92
2017-18	1894.8	1857.178	95.92	95.92
2016-17	1801.72	1857.178	95.92	95.92
2015-16	1597.43	1857.178	95.92	95.92
	1857.178		95.92	

As per the chi square test with a minor change in profit there is no major change in the investment decision of the shareholder. The financial performance of the company does not determine the investment decision of the investors. Thus proving the alternative hypothesises to be true. This is of Berger Paints.

year	profit	mean	share price	mean
2018-19	690.21	638.0175	97.11	90.165
2017-18	662.97	638.0175	97.1	90.165
2016-17	661.9	638.0175	97.1	90.165
2015-16	536.99	638.0175	69.35	90.165
	638.0175		90.165	

7. CONCLUSION

This project help in understanding the paint sector and the major player in the sector. This report is major on performance of the companies and who is the leader of the market. So, from the research we have found that Asian paints is far better than Berger Paints. We use fundamental, technical and Ratio analysis for the purpose of this research. Researcher have found intrinsic value and on that bases he has given investment decision.

So form this research, Ratio analysis is the major one out of three as the ratios helps in deciding which company is performing better and its helps in analysing the company both towards inside employee and towards outside stakeholder. Investors use ratio for investment purpose and it helps in knowing the better one and make their investment grow over a period of time

Next is Technical which give aside that how a company have performed and what it's likely to perform in the future. It shows the market position of the companies. As the stock price is determined by many factors and is generally based on sentiment.

Fundamental like, GDP, inflation and Unemployment are used which are important for equity research. It is important for analysing the country because this effect the performance of the company and its stock price.

So from this research it can be clearly said that investment in Asian Paints is beneficiary and investment in Berger Paints is good for short term or for intraday.

8. LIMITATIONS

One of the most important thing is limitation to the research. There are limitation to the research and the researcher have tried to cover come them. But there are some limitation such are mentioned and are major one,

1. One of the limitations is that this research is having a time bond and is not able to cover all the aspect as the time is one of the major limitation.

2. Other one is that taking two companies of the sector and estimating them as the major one or taking them as base for their sector. That may be true and may not be true.

3. One of the limitations is that the beta used for calculating the estrinc value may differ and the value may be approx.

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This section will provide references taken from the books, journals and web sites while doing the research.

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