



INTRODUCTION TO BUSNIESS FINANCE

FINAL PROJECT REPORT

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NATIONAL REFINERY LTD



INTRODUCTION

National Refinery Limited is a Pakistani oil refinery which is a subsidiary of UK-domiciled oil Attock Company. It is engaged in supplying fuel, lubes BTX etc. and export. National Refinery Limited is the second largest oil refinery of Pakistan in term of crude oil. The company first came in to being in 1963 and first lube refinery was constructed in June 1966. Hydro skimming fuel refinery was in being in April 1977, and the first petrochemical were in being in April 1979.



In 2005, the national refinery company acquire the most shareholders. The most company's purchases were made from Saudi Arabia, up to the financial year 2011 ended in June with no default. State bank of Pakistan act as the sovereign of payment on time between National refinery limited and Saudi oil company (Saudi Aramco).

Now we are going to do ratio analysis of last five fiscal years of National Refinery Limited.

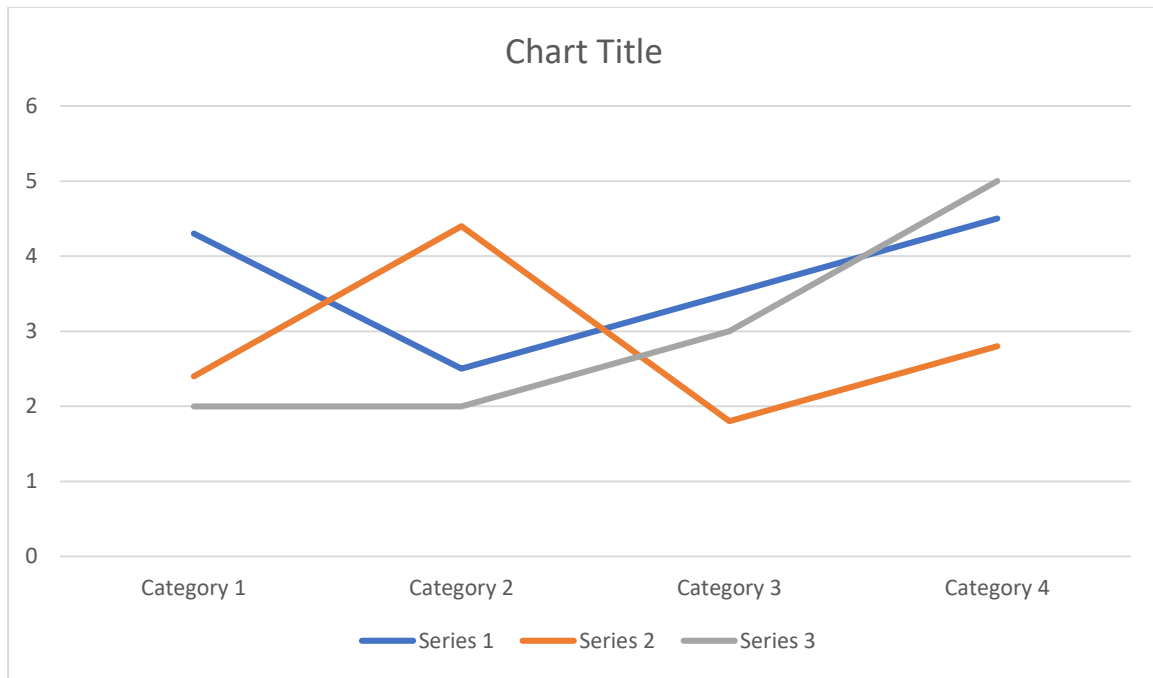
Ratio Analysis

1. Liquidity Ratio:

The ability of firm to pay its short-term obligation. Liquidity ratio is important for company in its tough times because it tells all about short term payments, debts, sales etc. Three ratios discussed in liquidity.

- I. **Current Ratio** = Current Asset/Current Liability
- II. **Quick Ratio** = (Current Asset – Inventory) /Current liability
- III. **Cash Ratio** = Cash and Cash equivalent/ Current Liability

Sr.no	Ratios	Results					Industrial avg	Inter-pretation
		2019	2018	2017	2016	2015		
1.	Current Ratio	37489/42001 =0.89	27548/22206 =1.24times	22752/16683 =1.36times	29957/16241 =1.84times	39901/17163 =2.32times	1.5	The company is facing a decline in its average in past few years In the foam of current assets to pay its liabilities as the current ratio is lower than the industrial average.
2.	Quick Ratio	(37489-27255)/42001 =0.24times	(27548-14168)/22206 =0.60times	(22752-11881)/16683 =0.65times	(29957-12223)/16241 =1.09times	(39901-14646)/17162 =1.47times	0.8	The company is facing a decline in its average in past few years, In the foam of current assets after excluding inventories to pay its liabilities, as the quick ratio of last year is almost nearer than the industrial average.
3.	Cash Ratio	37489-9194-27255)/42001 =0.02times	(27548-10742-14168)/22206 =0.02times	(22752-6746-11881)/16683 =0.17times	(29957-5852-12223)/16241 =0.73times	(39901-7850-14646)/17162 =1.014times	0.3	The company is paying its liability in the foam of cash equivalent as the ratio is again decreasing but closer than industrial average .



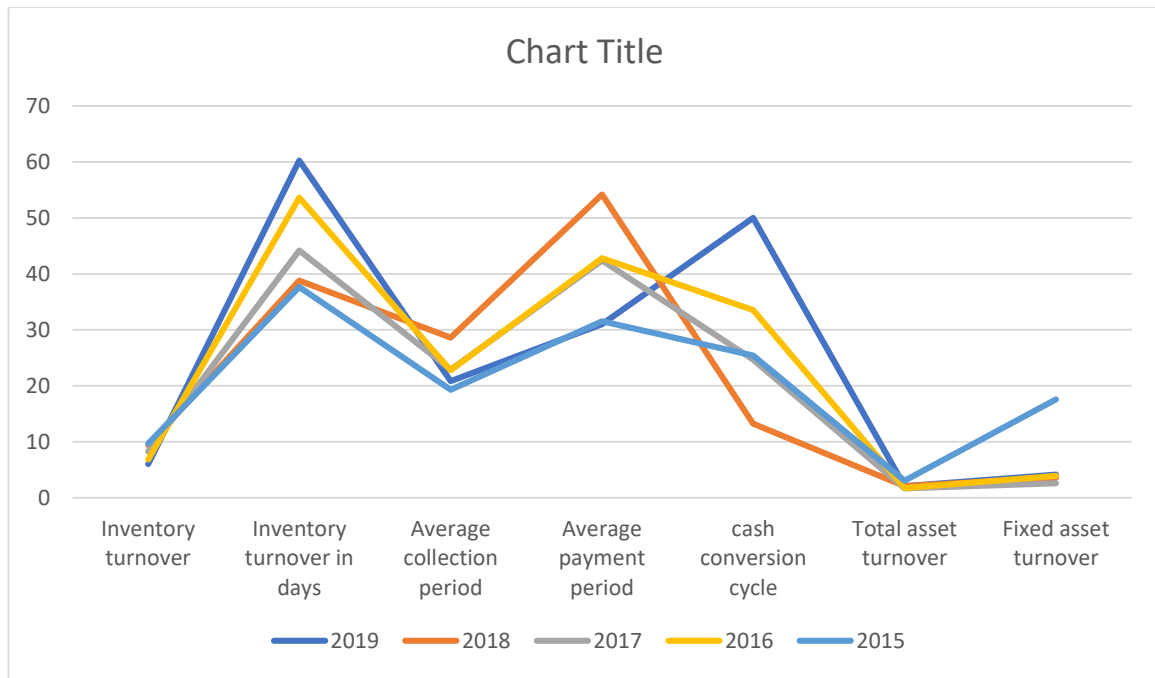
2. Activity Ratio:

This Ratio measures accounts and then converted it to cash sales. It refers to financial ratios which is used by the company to determine its efficiency. It is used to analyze fixed assets, inventories, and account receivables.

- I. **Inventory turnover ratio** = $\text{CGS} / \text{Inventory}$
- II. **Inventory turnover in days ratio** = $365 / \text{Inventory turnover}$
- III. **Average collection period ratio** = $\text{Acc Receivable} / \text{Avg sales per day}$
- IV. **Average Payment Period ratio** = $\text{Acc payable} / \text{Avg purchase per day}$
- V. **Cash conversion cycle ratio** = $\text{Inventory turnover in days} + \text{ACP} - \text{APP}$
- VI. **Total Asset turnover ratio** = $\text{Sales} / \text{Total Asset}$
- VII. **Fixed Asset turnover ratio** = $\text{Sales} / \text{Fixed Asset}$

Sr.no	Ratios	Results					Industrial avg	Interpretation
		2019	2018	2017	2016	2015		
1.	Inventory turnover	165413 / 27255 =6.06times	133274 / 14168 =9.40times	98146 / 11881 =8.26times	83343 / 12223 =6.81times	141959 / 14646 =9.69times	8.04	During these 5 years company had purchased and sold various inventories which were closer than the average industry which is a good sign for the company.
2.	Inventory turnover in days	365/6.06 =60.23 days	365/9.40 =38.82days	365/8.26 =44.18days	365/6.81 =53.59days	365/9.69 =37.65days	46.89	As the average is 46.89 and last year ratio is higher than it, so it's a bad sign for the company so the company is not selling on industrial average.
3.	Avg collection period	9194 / 160906 / 365 =20.85 days	10742 / 136985 / 365 =28.62days	6746 / 107447 / 365 =22.91days	5852 / 93788 / 365 =22.77days	7850 / 148457 / 365 =19.30days	22.89	Company will not face problem in receiving cash for its sales as the industry average is closer than last years ratio which is a good sign.

4.	Avg payment period	$\frac{9852}{(165413 \times 0.70) / 365} = 31.05 \text{ days}$	$\frac{13853}{(133274 \times 0.70) / 365} = 54.20 \text{ days}$	$\frac{7988}{(98146 \times 0.70) / 365} = 42.43 \text{ days}$	$\frac{6841}{(83343 \times 0.70) / 365} = 42.80 \text{ days}$	$\frac{10925}{34623} = 31.55 \text{ days}$	40.40	As the average industry is not closer to the last year which is a bad sign because the company took a lot of time to payback for its purchases.
5.	Cash Conversion cycle	$60.23 + 20.85 - 31.05 = 50.03 \text{ days}$	$38.82 + 28.62 - 54.20 = 13.24 \text{ days}$	$44.16 + 22.91 - 42.43 = 24.66 \text{ days}$	$53.59 + 22.77 - 42.80 = 33.56 \text{ days}$	$37.659 + 19.3 - 31.5 = 25.45 \text{ days}$	29.38	As both industrial average and ratio's are positive so it's a bad sign for company .
6.	Total Asset turnover	$\frac{160906}{76167} = 2.11 \text{ times}$	$\frac{136985}{65814} = 2.08 \text{ times}$	$\frac{107447}{64073} = 1.67 \text{ times}$	$\frac{93788}{53999} = 1.73 \text{ times}$	$\frac{148457}{48,379} = 3.06 \text{ times}$	2.13	Company is generating asset which is closer to the industrial average so it's a good sign.
7.	Fixed Asset turnover	$\frac{160906}{(76167 - 37489)} = 4.16 \text{ times}$	$\frac{136985}{(65814 - 27548)} = 3.58 \text{ times}$	$\frac{107447}{(64073 - 22752)} = 2.60 \text{ times}$	$\frac{93788}{24042} = 3.90 \text{ times}$	$\frac{148457}{8478} = 17.59 \text{ times}$	6.36	Company Is generating sales which is not closer to its industrial average so its not a good sign for the company.



3. Debt Ratio:

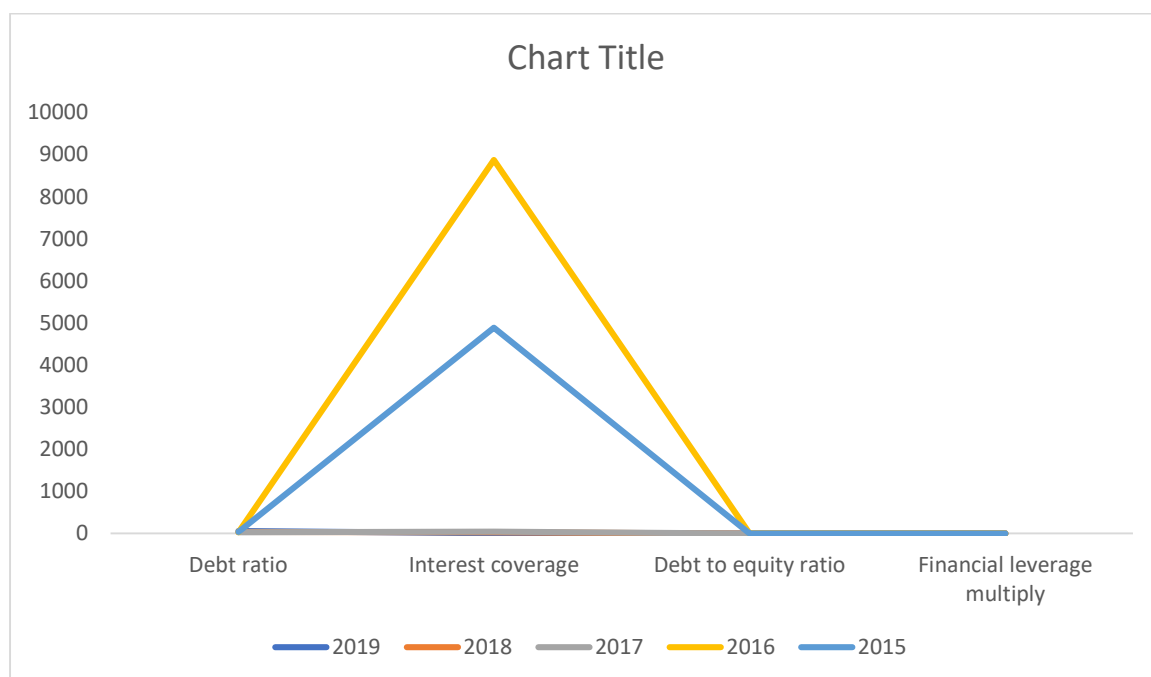
This Ratio measures mixtures of debts or loans of the company. It is the financial ratio that indicates the percentage of company's assets that provided via debts. A debt greater than 1.0 tells that companies debt is greater than its assets.

- I. **Debt Ratio** = Total liability / Total asset
- II. **Interest coverage ratio** = Earnings before interest and tax / interest exp
- III. **Debt to equity ratio** = Total liability / Total equity
- IV. **Financial leverage multiply** = Total asset / total equity

*All values are in PKR Millions

Sr.no	Ratios	Results					Industrial avg	Interpretations
		2019	2018	2017	2016	2015		

1.	Debt ratio	42294/ 76167 =55.52%	22563/ 65814 =34.28%	20733/ 64073 =32.33%	17177/ 53999 =31.8%	18245/ 48379 =37.71%	38.3	The company purchases the assets through debt financing and liabilities that is not closer to the industrial average and it's a bad sign.
2.	Interest coverage	6094/ 1199 =5.08times	2132/ 74 =28.81times	7801/ 182 =42.86times	8871/ 1 =8871times	4889/ 1 =4889times	2767.3	There is a large difference of earning of the company to pay interest expense.
3.	Debt to equity ratio	42294/ 33873 =1.24times	22563/ 43252 =0.52times	20733/ 43340 =0.47times	17177/ 36822 =0.46times	18245/ 30134 =0.60times	0.6	Higher the ratio indicates that a company may not be generating enough cash to satisfy its obligations. Over time the ratio is increasing which is not favorable as debt is greater in 2019 as compared to other years.
4.	Financial leverage multiply	76167/ 33873 =2.24times	65814/ 43252 =1.52times	64073/ 43340 =1.47times	53999/ 36822 =1.46times	48379/ 30134 =1.60times	1.6	As the industrial average is 1.6 with is less than last financial year which shows that it's a good sign for company because they assets on equity.



4. Profitability Ratio:

Profitability ratios are of financial type that are used to assess a business's ability to generate earnings relative to its revenue, operating cost, balance sheet assets over time, using data from a specific point in time.

- I. Gross profit margin =Gross profit/Sales.
- II. Operating profit =Operating profit/Sales.
- III. Net income Margin =Net income/Sales.
- IV. Return on asset =Net income/Total asset.
- V. Return on equity =Net income/Total earning.
- VI. Earnings per share =Net income/ No of shares of common stock.
- VII. Dividend per share =Dividends/No of share of common stock.

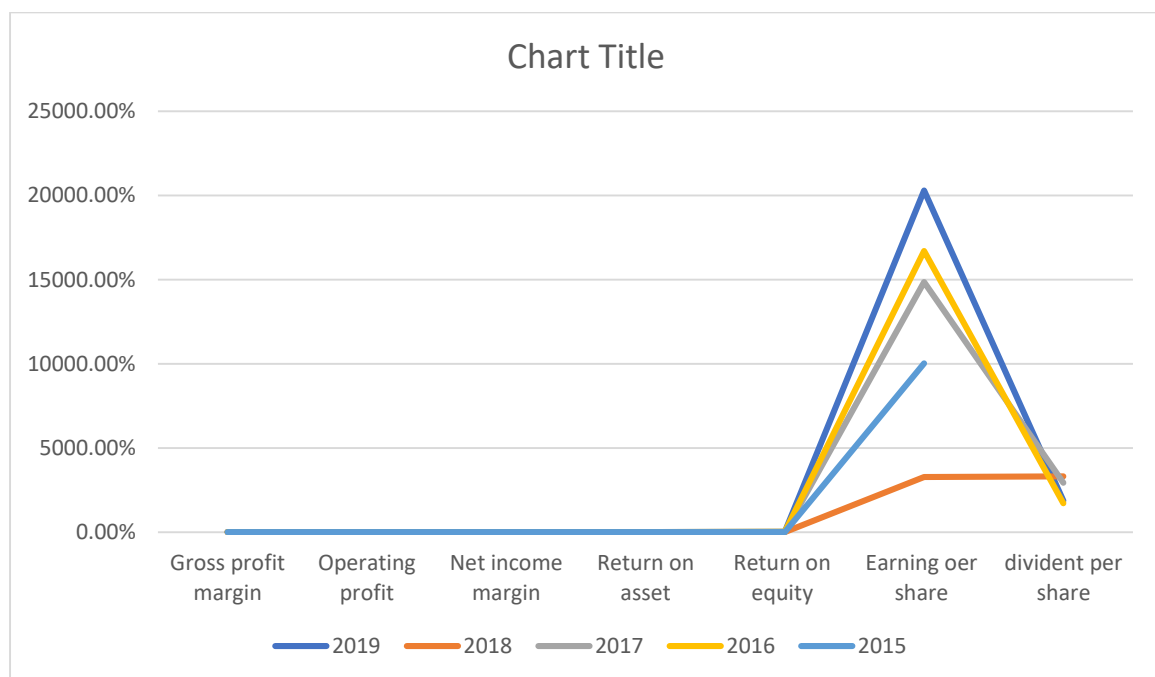
*All values are in PKR Millions

Sr.no	Ratios	Results					Indus trial avg	Interpret- ations
		2019	2018	2017	2016	2015		
1.	Gross profit margin	(160906-165413)/160906 =0.02*100 =2.8%	3711/136985 =0.027*100 =2.7%	(107447-98146)/107447 =8.65%	(93788-83343)/93788 =11.13%	6497/148457 =4.37%	5.9	The last couple of years shows the abnormal behavior of the sales after deducting CGS, also the industrial average is high than last year bad sign because we are left with less amount.
2.	Operating profit	6094/160906 =0.03*100 =3.7%	2132/136985 =0.01*100 =1.0%	7801/107447 =7.26%	8871/93788 =0.94*100 =9.45%	4889/148457 =3.29%	2.9	The last couple of years shows the abnormal behavior of the sales after deducting CGS and paying all expenses, and the industrial average is almost nearer to the last year data which is good sign for company.

3.	Net income margin	8692/ 160906 =5.4%	1771/ 136985 =1.2%	(8046/ 107447) *100 =7.48%	7688/ 93788 =0.08*100 =8.1%	3709/ 148457 =2.49%	4.9	The last couple of years shows the abnormal behavior of the sales after deducting CGS and paying all expenses, taxes and interest, and the industrial average is nearer to the last year data which is good sign for company.
4.	Return on asset	8692/ 76167 =11.41%	1771/ 65814 =2.69%	8046/ 64073 =12.55%	7688/ 53999 =14.23%	3709/ 48379 =7.6%	9.6	The overall last 5 year data shows the abnormal behavior but the industrial average is less than last year which is a good sign which shows that earning greater amount against an asset.
5.	Return on equity	8692/ 33873 =25.66%	1771/ 43252 =4.0%	8064/ 43340 =18.56%	7688/ 36822 =20.87%	3709/ 30134 =12.30%	16.2	the industrial average is less than last year data which is a bad sign for company as they are earning less than their equity they have.
6.	Earnings per share	8692/ 33873/800 =202.89	1771/ 54.065 =32.75	8046/ 54.175 =148.51	7688/ 36822/800 =167.02	3709/ 30134/800 =100.24	130.2	The industrial average is less than the last year which a bad sign because its too high than the industrial, but if it is closer to the industrial than it maybe a good sign because they are earning more

								than they shares they invest.
7.	Dividends per share	795/ 42.34 =18.77	1790/ 54.065 =33.10	1589/ 54.175 =29.33	795/ 46.03 =17.27	1/37 =2.7	20.2	The dividend which the company is paying is closer to the industrial average which is a good sign for company, as they pay the dividend which is favourable.

All values are converted to percentage by multiplying answers with 100.



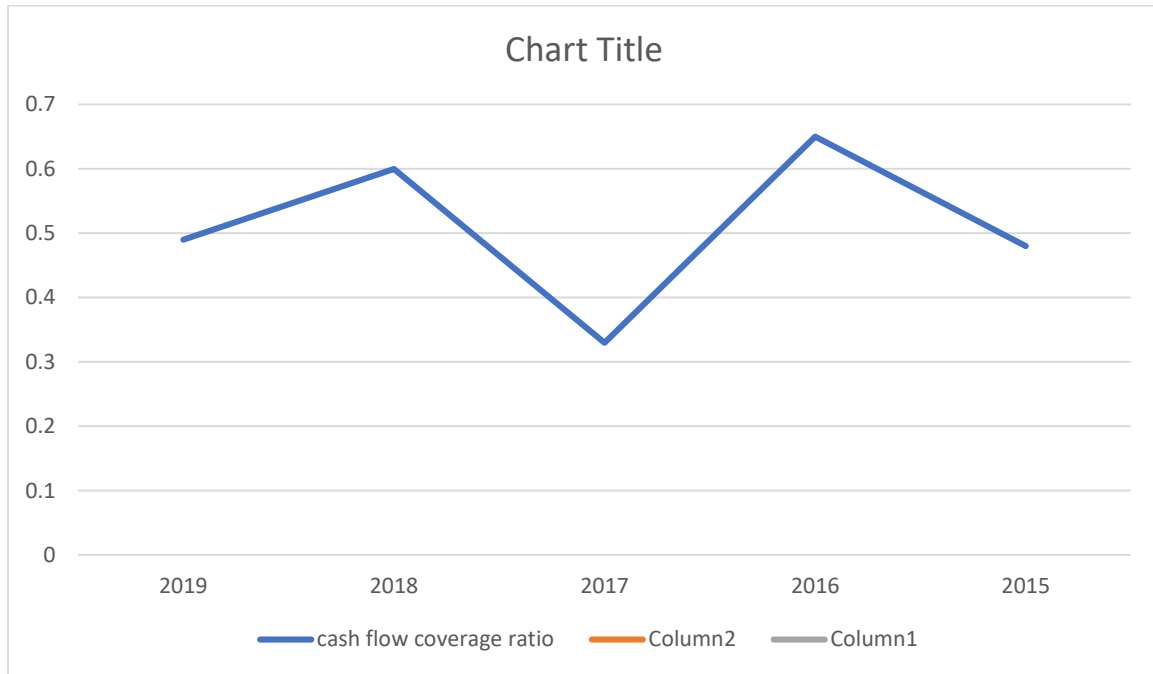
5. Cash flow coverage ratio:

Cash flow coverage ratio is an indicator of the ability of company to pay interest and principle amount when they become due. the ratio tells the no. of times the financial obligations of a company are converted by its earnings.

Cash flow coverage ratio= operating cashflow/total debt.

Sr.no	ratio	Results					Indust- rial avg	Interpret- ation
		2019	2018	2017	2016	2015		

1.	Cash flow coverage ratio	20830/42294 =0.49	1367/22563 =0.60	6815/20733 =0.33	11174/17177 =0.65	8939/18245 =0.48	0.5	
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6. Account receivables turn over in days:

The average receivable turnover ratio is an accounting measure use to measure how effective a company is in extending credit as well as collective debts.

Account receivables turnover in days= 365/Account receivables turnover ratio

Sr.no	ratio	Results					Industrial avg	Interpretation
		2019	2018	2017	2016	2015		
1.	Account receivable turn over in days	365/17.50 =20.85 days	365/12.75 =28.63 days	365/15.93 =22.91 days	365/16.03 =22.77 days	365/18.91 =19.30 days	22.8	

