Contents

Basics about the business

- Britannia, part of the Wadia group, is a major player in the Indian food market (the snack segment) with a strong position in the domestic biscuit segment and a good presence in the other bakery products & dairy segment
- It began its operations since 1892
- It is present across Pan-India, with its products and distribution network, and also exports some products to other countries
- Over the past financial year, it had revenues worth INR 7200 crore and PAT of INR 800 crore in FY15

How does it make money?

- It procures agricultural commodities-wheat primarily
- Processes them to make snacks-mainly biscuits & baked items-*Manufacturing facilities and R&D capabilities*
- Sells them as brands-*Distribution Network and Promotional activities*

Manufacturing Facilities

- It has manufacturing facilities in West Bengal (Kolkata), New Delhi, Tamil Nadu (Chennai), Maharashtra (Mumbai), Uttarakhand, Odisha and Bihar with an annual capacity of 8 lakh tonne.
- It has recently established a bakery at Jhagadia in Gujarat and is also planning to set up a plant each in Tamil Nadu and Karnataka (Bangalore)

R&D Center

- Britannia has built R&D culture and invests heavily in its capabilities.
- It will currently invest INR 900 crore new manufacturing, research and development (R&D) facilities over a time period of two years
- Its R&D capabilities have helped it build and strengthen brands

Products-Brands

All figures in INR crore except %

Category	Sub-Category	Market Size	Britannia-sales-max	% Market share	Comments
Biscuits	Glocuse	4000	400	10%	*Has less than 10% share;Brand is Tiger mainly; Parle leader with 70% share;*
	Cookies	7000	2100	70%	*Premium cookies worth 3000 crore; Good day dominates with 70%*
	Creams	5000	1000	20%	*Lost market to ITC's sunfeast. From peak of 25% to now less than 20%*
	Crackers	4000	800	20%	*20% market share; brands-50:50, Time Pass and Top*
	Marie	3000	1500	50%	*50% market share with brands like Marie Gold*
	Health	800	560	70%	*Nutrichoice has over 70% market share*
Cakes	Cakes		402		
Rusk	Rusk	5000	763	15%	
Dairy	Dairy	10000	400	4%	

Distribution Channel

- Post Varun Berry's elevation to the senior most level, in 2013, great focus has been placed on ramping up the distribution channel

	2013	2014	2015	*Comments*
Retail Outlets-Direct reach	700,000	1,000,000	1,200,000	*Sharp ramp up in direct distribution*
Total Retail Outlets	3,300,000	3,500,000	3,700,000	
% of Direct to Total	**21%**	**29%**	**32%**	*Improving mix of direct reach*
Sales per outlet	18,742	19,749	21,238	*Sharp increase in per outlet sales*
Parle-Total Retail Outlets			5,800,000	*High gap still exists in between largest competitor*

Promotional Activities

- Britannia spends 8.5% of its revenues on promotional activities. Earlier 4% were in trade benefits and 4.5% in consumer facing activities
- However it has shifted its allocation more towards pulling the customer facing rather than providing trade benefits in distribution channel. It currently spends 6% on consumer and 2.5% on trade benefits
- It believes its products are key differentiators and hence focusing on consumer pull is the key
- This strategy of reducing trade benefits has also increased the profitability along with increase in sales on increased advertisements
- It has tied up with Bollywood celebrities and also sponsors sporting events

What are the numbers telling us?

Income statement analysis and cash flow generated-standalone no.s

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10yr	5yr	3yr	10yr	5yr	3yr
											Cumulative figures			*CAGR*		
											Average figures					
Net Sales	**1713**	**2199**	**2584**	**3112**	**3403**	**4224**	**4974**	**5615**	**6307**	**7176**	**42819**	**31700**	**24073**	***17%***	***16%***	***13%***
Gross Profit	**686**	**775**	**1007**	**1180**	**1217**	**1430**	**1754**	**2045**	**2433**	**2792**	**15926**	**11670**	**9023**	***16%***	***18%***	***17%***
Gross Margin%	*40%*	*35%*	*39%*	*38%*	*36%*	*34%*	*35%*	*36%*	*39%*	*39%*	*37%*	*36%*	*37%*			
EBITDA	**200**	**127**	**230**	**261**	**162**	**231**	**279**	**372**	**597**	**772**	**3416**	**2413**	**2019**	***15%***	***37%***	***40%***
Operating Margin%	*12%*	*6%*	*9%*	*8%*	*5%*	*5%*	*6%*	*7%*	*9%*	*11%*	*8%*	*7%*	*8%*	***-1%***	***18%***	***24%***
PBT	**201**	**118**	**232**	**233**	**121**	**198**	**252**	**332**	**543**	**883**	**3333**	**2329**	**2010**	***15%***	***49%***	***52%***
Tax%	*27%*	*9%*	*18%*	*22%*	*4%*	*27%*	*26%*	*30%*	*32%*	*29%*	*23%*	*25%*	*29%*			
PAT	**146**	**108**	**191**	**180**	**117**	**145**	**187**	**234**	**370**	**622**	**2449**	**1675**	**1413**	***15%***	***40%***	***49%***
NPM%	*9%*	*5%*	*7%*	*6%*	*3%*	*3%*	*4%*	*4%*	*6%*	*9%*	*6%*	*5%*	*6%*			
Dividend	36	36	43	96	60	78	102	102	144	192	**920**	**676**	**539**			
CFO	**65**	**87**	**63**	**247**	**204**	**246**	**211**	**272**	**615**	**515**	**2721**	**2063**	**1613**	***10%***	***20%***	***35%***
Capex	**40**	**88**	**65**	**67**	**45**	**69**	**191**	**178**	**126**	**49**	**942**	**657**	**544**			
Free Cash flow	69	32	22	171	151	154	21	78	533	695	**2137**	**1631**	**1326**			
FCF % of sales	*4%*	*1%*	*1%*	*6%*	*4%*	*4%*	*0%*	*1%*	*8%*	*10%*	*5%*	*5%*	*5%*			
Self- sustainable growth rate	*59%*	*22%*	*47%*	*18%*	*7%*	*7%*	*8%*	*13%*	*25%*	*55%*	*30%*	*19%*	*25%*			

- **Sales**-Consistent growth in Sales of 13 to 17% CAGR over the past 3, 5 & 10 year period. This is on account of expanded distribution, increased promotion, lower trade benefits & premiumization trend of product choices
- **Gross Margins**-Expansion in gross margins over past 5 year period. This is primarily because of commodity price reduction and premiumization
- **Operating Profit**- Rapid Increase in growth rate of EBITDA in past 5 years and expansion of EBITDA margins. This is on account of cost reductions in trade incentives and efficient promotion
- **PAT**-Significant jump in Profit after tax and net margins over the past 5 year period.
- **Dividends**-It has paid dividends regularly comprising of payout ratio varying from 30-45%
- **CFO-**The cumulative Cash Flow from Operations generated is greater than cumulative PAT, implying realization of Profits into cash, and less working capital requirements.
- **FCF**-Free Cash Flow to the firm as % of sales has improved from 4% to 10% over the past 5 years. This signifies improving efficiency in utilization of assets and profitability
- **Tax Rate-**Company has also consistently maintained tax rate from 25% to 30%, implying actual generation of reported profits
- **SSGR-**The growth rate of the company is lesser than its self sustainable growth rate, implying business generating sufficient cash to further support growth without effecting capital structure

Quality of Balance Sheet-standalone

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10yr	5yr	3yr	10yr	5yr	3yr
											As on date net change			***CAGR***		
											Average figures					
Net Block	141	198	241	278	282	304	379	452	546	526	430	244	147	***19%***	***13%***	***12%***
Capital Work in Progress	11	16	10	6	10	12	80	128	97	48	10	38	-32			
Investments	360	320	381	423	491	699	566	433	486	825	495	335	259	***10%***	***11%***	***13%***
Net Current Assets	33	58	205	126	37	12	-332	-336	-242	-161	-116	-198	171			
Other Non-current assets	14	27	26	17	7	-6	-8	-14	-9	21	-10	15	29	***-4%***	***26%***	***-237%***
Share Capital	24	24	24	24	24	24	24	24	24	24	0	0	0			
Shareholder's Funds	549	615	756	825	396	451	520	644	858	1239	796	843	719	***11%***	***26%***	***34%***
Total Debts	9	5	106	25	430	569	165	20	19	20	14	-409	-145	***13%***	***-46%***	***-50%***
Capital Employed	**558**	**620**	**862**	**850**	**826**	**1021**	**685**	**663**	**877**	**1260**	788	888	871	***11%***	***9%***	***23%***
Debt to Equity	0.0	0.0	0.1	0.0	1.1	1.3	0.3	0.0	0.0	0.0	0.3	0.5	0.1			

- **Debt**-Significant reduction in debt over the past 5 years along with expansion of Reserves
- **Equity Dilution**-No equity dilution over the past ten years
- **Working Capital**-Negative working capital requirements, implying high bargaining power
- **Fixed Assets**-Consistent expenditure on fixed assets to expand sales
- Overall superior balance sheet with low debt to equity ratio, negative working capital requirements

Capital Efficiency-standalone no.s

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10yr	5yr	3yr
											Average figures		
Fixed Asset Turnover	11.3	10.3	10.3	11.0	11.7	13.4	10.8	9.7	9.8	12.5	*11.1*	*11.3*	*10.7*
Asset Turnover	*3.1*	*3.5*	*3.0*	*3.7*	*4.1*	*4.1*	*7.3*	*8.5*	*7.2*	*5.7*	*4.9*	*6.1*	*7.2*
Net Margin	*9%*	*5%*	*7%*	*6%*	*3%*	*3%*	*4%*	*4%*	*6%*	*9%*	*0.1*	*0.0*	*0.1*
Assets to Equity	*1.0*	*1.0*	*1.1*	*1.0*	*2.1*	*2.3*	*1.3*	*1.0*	*1.0*	*1.0*	*1.3*	*1.5*	*1.1*
ROE%	***27%***	***18%***	***25%***	***22%***	***29%***	***32%***	***36%***	***36%***	***43%***	***50%***	***32%***	***38%***	***41%***
CFOE%	**12%**	**14%**	**8%**	**30%**	**51%**	**55%**	**41%**	**42%**	**72%**	**42%**	***37%***	***50%***	***49%***

- **Fixed Asset Turnover**-Improvement in fixed asset turnover over the past 5 years
- **ROE%-**Significant improvement in ROE in the past 5 years. This is on account of increasing net margins and improving asset turnover ratios
- Hence the company is milking its assets and having pricing power to grow with increasing profitability

Working Capital Efficiency-standalone no.s

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10yr	5yr	3yr
											Average figures		
Debtor Days	4	5	7	6	4	5	4	5	3	4	*5.2*	*4.1*	*3.9*
Inventory Days	66	55	70	48	45	41	43	34	35	29	*47.2*	*37.7*	*35.1*
Payable Days	31	22	22	17	52	47	97	75	60	66	*47.1*	*66.0*	*74.3*
Cash Conversion Cycle	**39**	**38**	**54**	**37**	**(3)**	**(1)**	**(50)**	**(36)**	**(22)**	**(34)**	***5.3***	***(24.2)***	***(35.3)***

- Cash Conversion cycle is low on account of consistently low receivable and inventories in comparison to payables. This depicts high bargaining power of the company

Why has there been a positive change in the trends?

Sales growth

	2012	2013	2014	2015
Sales	4974	5615	6307	7176
Growth		*13%*	*12%*	*14%*
Volume (Tonnes)			**8%**	**10.50%**
Realization (INR/Tonne)			**4.0%**	**3.0%**

- **Volumes**-The Volumes growth is mainly due to expanded distribution channel over the past three years. The company is focusing on increasing the number of direct retailers. It has increased its connect with direct retailers from 7 lac in 2013 to 12 lac in 2015. Its network stretches to total of 36 lac outlets
- **Realization**-The realization per unit volume has grown in pace with inflation trends and would continue to do so if company maintains its pricing power

Gross Margins

- On account of decrease in commodity prices, the gross margins have increased. This effect would be temporary though.
- However there was partial pass over of the benefit of raw material price decrease.

Increasing Operating Margins-

- This is mainly on account of fixed nature of other costs like employees, selling and marketing, general and administration expenses and other manufacturing expenses
- Also introducing manufacturing efficiencies by cutting down unnecessary costs improved the margins

Does the company have competitive advantages?

Financial Parameters

- **Return Ratios** (ROE, ROCE, CFOE)- Company has maintained superior return ratios over the period and grown consistently. ROE average over last 10 years is 32%
- **Profitability**-It has maintained its profitability along with growth. It has healthy gross margin and operating margins over the entire period.
- **Quality of earnings**-It has superior cash flow generation compared to profits. Cumulative CFO greater than Cumulative PAT over the past 10 years
- **Working Capital-**It has high working capital efficiency depicting good bargaining power with its trade partners and suppliers
- **Capital Structure**-There has been no significant deterioration in balance sheet in last 2 decades in-spite of economic cycles. This points to the robustness of business model
- Hence the company does enjoy competitive advantages and has managed to retain them in order to thrive over competition

What could be the competitive advantages?

R&D Capabilities

- Britannia has imbibed the innovation culture anchored by its robust R&D capabilities, which has helped it successfully launch a slew of new and innovative products over the past 2 years. To further bolster its innovation drive, the company is investing INR650mn in another R&D centre in Bengaluru. Moreover, Britannia is also targeting the less penetrated, higher margins and low competition above INR200/kg category, which should lend further fillip to growth.
- As a result, Britannia has been able to successfully launch many new products in past few years such as Good Day Chunkies, Nutri Choice Heavens, Britannia Cakes, Chunk Cakes, Nut & Raisin Romance, etc.
- The company has also relaunched its power brand, Good Day (it has 7 power brands: Tiger, Good Day, Marie, Milk Bikis, 50 50, Treat and Nutri Choice)
- Overall R&D expenditure, as a percentage of sales, has been on the rise having increased from 0.12% in FY12 to 0.21% in FY15. Also, by Q4FY16, Britannia's new R&D centre in Bengaluru is expected to be ready.

Innovation by Britannia in Last 5 years

FY10	FY11	FY12	FY13	FY14	FY15
Treat Choco-Decker	Treat - O	NutriChoice Multigrain	Launches new products under NutriChoice on health platform	Jim Jam in new packaging with chocolate variant	NutriChoice Heavens
Britannia Cookies	GoodDay Choconut	Thins and Roasty			Good Day Chunkies
Tiger Zor - Chocolate Milk Drink	GoodDay Chocochip	Pure Magic - Pure Crème, Pure Chocolate			Britannia Nut n Raisin Romance Cake
Drink	Tiger Krunch	50-50 Snackuits			
ActiMind - milk based Drink	Diabetic friendly bisuits under NutriChoice	Vita Marie Honey Oats			
	Time Pass Toasted Snack variants	Healthy Start - Oats, Porridge, Upma and Poha			
	Maska Chaska Variants	Healthy range of breads - Multi Fiber, Multi Grain, Honey Oats and Whole Wheat			
		4 flavours in Health & Delight Cheese			
		Tiger Zor Badam Milk in new flavours			

Brands

- Britannia captures 30% of value market share, and is currently the leading player. This has been possible primarily because of its continuous investment on building brands
- Within biscuits there are impulsive purchases and there is willingness to pay by consumer for brands even at marginally higher prices
- Its annual expenditure on selling and distribution expenses on standalone basis is 960 crores and constitutes **13%** of its annual sales. The sheer size and % of sales investment imposes high entry barriers for new players to enter and capture the market
- It has been consistent leader in cookies and health category
- It comes 2nd in cream and glucose category
- Most of the brands are existing over the past few decades and hence have significant mind share of the customer

List of Brands across different categories

Value Segment-INR 120-200/kg		Premium Segment-INR above 200/kg		Sub-Premium segment	
	Price per kg		*Price per kg*		*Price per kg*
50-50	125	50-50 Maska Chaska	208.3	Tiger Butter Crunch	100
Time Pass	126.6	Good Day Pista Badam	250	Marie Gold	108
Good Day Butter	133.3	Little Heart	256.4	Tiger Cream	116.3
Treat	133.3	Good Day Choco - Chip	266.7		
Nice Time	137	Good Day Choco - Nut	333.3		
Tiger Krunch Choco Chip	142.9	Nutri Choice Heavens	400		
Nutri Choice Cracker	150	Nutri Choice Essentials	400		
Jim Jam	150	Pure Magic Chocolush	400		
Vita Marie Gold	152	Good Day Chunkies	500		
Good Day Cashew	166.7				
Bourbon	173.3				
Nutri Choice Digestive	200				
Milk Bikis	200				
Pure Magic Chocolate	200				

Vast Distribution network

- Britannia currently has access to 36 lac retail outlets of which it has direct access to 12 lac outlets
- It is present on Pan India basis
- The effectiveness of the channel is highlighted from the fact that increase in the network led to growth in sales in less time
- Its closest competitor Parle has access to 60 lac retail outlets and hence there is further scope for expansion in network
- Current scale of network imposes restrictions for new players to capture market share

Economies of scale

- The company generates 40% gross margins and 9% net margins inspite of spending 13% on promotional activities and 0.2% on R&D activities
- The cumulative size of spends on these activities is also of size of INR 1000 crore
- It generates 700 crore of free cash flows on standalone basis
- This is only possible because of having low per unit costs of production, promotional and R&D activities
- Profitability would get eroded for any small sized player if similar expenditures were done for low number of units produced

Are the advantages sustainable?

Brands

- Within biscuits there is willingness to pay by consumer for brands even at marginally higher prices. The price per unit is less share of customer wallet and hence there is price inelasticity to an extent
- There is growing aspirations of mass to move towards branded products as their prosperity increases. This will always add to number of customers using premium brands
- Further the company constant protects its brand visibility on basis of high investment in promotional campaigns
- Ecommerce will further strengthen the brand image because of providing access of its products to mass which generally is not connected via its distribution network

R&D Capabilities

- The company has built an innovative culture for introducing new products
- It invest significant capital and has access to decades of market experience and skilled human resources
- This would always help company stay ahead of the curve to adapt to changing market trends and introduce innovative products

Distribution

- Its distribution network will only expand because of its strong brand pull
- It is very difficult for several competitors to acquire distribution network similar to Britannia primarily because of lesser probability of gaining similar brand image built over decades across Pan-India
- This has been demonstrated by its ability to increase sales in spite of reduction in trade benefits

What is the dynamics of the industry in which it operates?

- Structure-Competitive intensity-Players and their market share

Size

- The biscuits industry is of size INR 24000 crore of which Britannia has 29% market share by value
- Organized players constitute 78% of the market share of the industry
- Britannia has 29%, Parle has 28% and ITC has 11% market share of the overall market
- The overall industry has been growing at 10% annually value wise

Segments-Growth, mix & key trends

Category	Sub-Category	Market Size	Britannia-sales-max	% Market share	Comments
Biscuits	Glocuse	4000	400	10%	*Has less than 10% share;Brand is Tiger mainly; Parle leader with 70% share;*
	Cookies	7000	2100	30%	*Premium cookies worth 3000 crore; Good day dominates with 70%*
	Creams	5000	1000	20%	*Lost market to ITC's sunfeast. From peak of 25% to now less than 20%*
	Crackers	4000	800	20%	*20% market share; brands-50:50, Time Pass and Top*
	Marie	3000	1500	50%	*50% market share with brands like Marie Gold*
	Health	800	560	70%	*Nutrichoice has over 70% market share*

From the above figure

- Glucose category constitutes 17% of the overall biscuit industry. It contains low profitability and is depleting as an overall mix of the industry
- The premium categories mainly Cookies and Creams form 50% of the overall industry. Their proportion of the overall industry has increased over the last few years. Britannia has 25% market share in them. The premiumization trend will continue to increase the weight of the sub categories as % of the overall market
- Britannia is also dominant health category which could be an emerging sub category in the future. This is due to increasing awareness among the mass for health consciousness
- The overall profitability of the industry is increasing mainly on account of increasing share of the premium segment vis-à-vis the value segment
- **Financials of Key Competitor**: Parle Biscuits-Revenue of INR 5862 crore in FY 14; PAT of INR 237 crore; Financials highlight the low profitability of Parle mainly because of its dominance in value segment

Untapped Potential

- The per capita consumption is 1.3 kgs whereas the global average is 2.4 kgs in units.
- In value the per capita consumption is USD 2.6 whereas the global average is USD 12.5
- Hence there is immense scope for penetration and premiumization of the overall biscuit industry
- On an ideal case taking the overall global average rates the biscuit industry could be INR 200,000 crore. Even adjusting for income parity there is enough room for the industry to grow from its current base of INR 24000 crore

Porters Analysis

- **Bargaining power of Suppliers:** The suppliers are mainly producers of agricultural goods and the company is a large buyer. Hence there is low bargaining power of suppliers
- **Bargaining power of Customers:** The company has pricing power on basis of its brands and it is into a B2C industry with large number of small buyers. Hence bargaining power of customers is limited
- **Threat of Substitution**: Bakery industry and more specifically biscuit industry has been present since decades. It is growing with respect to inclination for different kinds of variants. Hence threat of substitution is not present
- **Threat of New Entrants:** On basis of entry barriers like strong brands, R&D capability, distribution network, economies of scale the threat of new entrants is limited
- **Competitive Rivalry:** The top 3 players control 68% of market share. Organized players control 78% of market share. Hence it is fairly oligopolistic market leading to each player having profitability and differentiators in their brands.

What is the scope for future growth?

Predictability over the next 5 years possible more realistically

Biscuit Industry

Distribution Expansion

- On account of expanding distribution to match Parle's total of **58** lac outlets and taking average sales as same of **INR 20,000** per unit additional sales that can be achieved per year 5 years from now is INR **4000 crores**

Realization Increase

- Taking into account the average historical growth rate of **5%** in price realization, and additional sales achieved by increase in distribution the cumulative sales that can be realized post 5 years is INR **15000 crore**

Growth on account of increasing consumption per capita, overall expansion of customers, changing mix of organized/unorganized players and increasing premiumization

- On account of increasing per capita consumption, and changing organized/unorganized mix along with premiumization, if we take 5% assumption for growth on current base of revenues we could get additional sales of **INR 2000 crore**

Hence on account of applying the levers of distribution expansion, premiumization, increasing consumption per capita, increasing realizations, the sales 5 years hence could be in the range of INR **15000 crore** to INR **17000 crore** and above

Other Avenues-Dairy, Rusk, Cakes

- There could be greater growth due to higher penetration achieved by the company. But not much history and information exists to estimate it currently

What are the risks to the business model?

Increase in prices of raw materials

- In abrupt increase in prices of agricultural commodities on account of low acreage etc. the company could face profitability pressure
- The company does have pricing power on basis of its brands and it invests constantly to retain it. This could provide it sustenance during tuff times

Competition

- In cases of its existing players capturing significant market share due to strong product innovations there could be loss of market share
- Many local players like Patanjali and MNCs are trying to capture niche areas of the market
- In order to counter its effect the company is also significantly investing in R&D activities
- Also given that size of market is large and could expand, there lies great opportunity for the major players

How is the quality of Management?

- The team has great credentials and capabilities on basis of their experience.
- Varun Berry has demonstrated it on basis of changes introduced in the recent past
- Management has been efficient capital allocators. Of free cash flows generated in last 3 years they have invested 35% in capex, 30% has been repaid as dividends and 35% is retained for new opportunities
- They have also devised successful market strategies to regain lost market share
- Management has also diversified into other avenues which currently generates 75% of the overall revenues. They could be sources of growth in future
- There has been no negative corporate governance issue in the past. Their level of disclosures and transparencies are up to the required standard
- They have also treated the minority shareholders fairly by providing them timely dividends, if not much requirements of free cash

How is the market viewing the opportunity?

- Current-M-cap INR 34000 cr; Revenue (TTM)-8531 cr; EBITDA-1177 cr; PAT-783cr
- PE-43; EV/EBITDA-28;
  - We will compute the implied IRR from assuming different growth rates for Revenues, different net margin profiles and different exit multiples

		PAT in INR crores after 5 years for respective revenue growth rate and net margins				
		Revenue Growth Rates				
		10%	**13%**	**15%**	**18%**	**20%**
Net Margin	**9%**	1261	1411	1575	1754	1948
	11%	1536	1718	1918	2136	2373
	13%	1811	2026	2261	2518	2797
	15%	2085	2333	2604	2900	3222
	17%	2360	2641	2948	3282	3647

PE Exit Multiple at 25 after 5 years		Implied IRR after 5 years at exit PE of 25				
		Revenue Growth Rates				
		10%	**13%**	**15%**	**18%**	**20%**
Net Margin	**9%**	-1%	1%	3%	5%	7%
	11%	2%	5%	7%	9%	12%
	13%	6%	8%	11%	13%	16%
	15%	9%	11%	14%	16%	19%
	17%	12%	14%	17%	19%	22%

PE Exit Multiple at 35 after 5 years		Implied IRR after 5 years at exit PE of 35				
		Revenue Growth Rates				
		10%	**13%**	**15%**	**18%**	**20%**
Net Margin	**9%**	5%	8%	10%	13%	15%
	11%	10%	12%	15%	17%	20%
	13%	13%	16%	18%	21%	24%
	15%	17%	19%	22%	24%	27%
	17%	19%	22%	25%	28%	30%

PE Exit Multiple at 45 after 5 years		Implied IRR after 5 years at exit PE of 45				
		Revenue Growth Rates				
		10%	**13%**	**15%**	**18%**	**20%**
Net Margin	**9%**	11%	13%	16%	18%	21%
	11%	15%	18%	20%	23%	26%
	13%	19%	22%	25%	27%	30%
	15%	23%	25%	28%	31%	34%
	17%	26%	28%	31%	34%	37%

- Looking at the expected IRRs on relatively conservative exit multiples, they do not exceed minimum of twice of risk free yields during times of less net margin profile and revenue growth rate
- This is primary because of higher entry multiple-45 PE. Hence there exists valuation risks from opportunity costs point of view