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INDIAN INSTITUTE OF MANAGEMENT
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General Management Programme for Young Leaders (YLP)
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Project Summary-2 of the Statistics for Business (SFB) course

Topic: Analysis of Sales and Advertisement data of Indian
Companies.

Given below is the summary of the findings of 25 groups of IIMB-YLP students who examined Sales and Advertisement expenses data of Indian companies for the last 30 years to demonstrate their learnings in Statistics for Business (SFB) course.

- 1) An analysis of four constituents of processed food industries shows the sales of poultry and meat industry has witnessed compound growth rate of over 20% over the last fifteen years followed by bakery and dairy industries (CAGR of 17%). While poultry industry hardly spends on advertisement (.04% of sales), bakery and dairy industries spend about 6%. Mondelez (erstwhile Cadbury), Nestle, Glaxo and Britannia are large advertisement spender. While Nestle maintains the ad spending, the other three companies have reduced their spending.
- 2) Automobile industry (commercial, passenger and two-wheeler) has witnessed high growth rate of sale during the last two decades. The largest advertisement spender is two-wheeler industry followed by passenger vehicle industry. While top three players of two-wheeler industry (Hero, Bajaj and TVS) spend about 2% for advertisement, passenger vehicle manufacturers spend less on advertisement. BMW spends nearly 4% of sales on advertisement. Commercial vehicles hardly spends on advertisement. The correlation between advertisement and sales is strong around 0.98 for two-wheeler and passenger vehicle segment, it is around 0.50 for commercial vehicle segment.
- 3) We saw high correlation between Ads and Sales in the Telecom Industry for the seasoned players. We have seen unpredictable Ad expenditure during the initial stages to drive Sales revenues following a company's maturity, where the expenditure of Ads as a percentage of sales has minimized. Surprisingly, despite high ad spending by Vodafone, it has far low effect on revenue (0.68 correlation). We have seen contrasting trends in the Media Broadcasting industry, where the Ad expenditure is generally high (about 6% of sales), consistent and predictable to drive their sales.
- 4) Both Pharmaceutical industry and health care industry have witnessed high growth during the last one decade. The advertisement spending has also increased substantially during this period. Smaller firms have to spend lot more for promoting their products or services compared to large firms. Sales and advertisement expenditure are highly correlated for both industries.
- 5) Two core sector industries (Cement and steel) witnessed tremendous growth during the last two decades. While cement achieved nearly 15% CAGR, steel reported a CAGR of 12%. Both industries hardly spend on advertisement. While the average spending for steel is about 0.03% of sales, Cement industry relative spend a little higher at 0.80% of sales. While advertisement and sales are correlated for Cement industry firms, the relationship is not visible for steel industry since the spending itself is small. Since significant part of sales happens between B2B and product is of commodity in nature, the ad expense is small.
- 6) Firms in cosmetic and food processing spend more on promotion compared to other firms. Coca Cola spends between 15% to 18% Sales for advertisement. The ad spending in some of these companies have come down or stagnating. Among the service firms, e-commerce companies like Ola (Ani Tech), bibo and makemytrip.com are large spenders.

- 7) Private Education and Coaching Institutions spend a lot on advertisement to improve their market share. Fiiitje followed by MT Education are major spenders. In contrast, Hotel industry hardly spends on advertisement.
- 8) The Online market place industry witnessed tremendous growth during last five years with CAGR of 50% In contrast, the telecom industry witness a moderate growth rate of 8% during the same period. The advertisement spending has also increased substantially during this period.
- 9) Readymade garments industry witnessed high growth rate in the last few years (20% CAGR). The industry spends about 5% of the sales on advertisement. Raymond Apparel is the largest spender (9% of sales) followed by Rupa and Co. (8% of sales). However, the advertisement expenses are stagnating during the last two to three years.
- 10) The Beer industry witnessed high growth rate and achieved 20% CAGR in the last decade and the correlation between sales and advertisement expenditure is 0.99. However, there is a decreasing trend in advertisement expenses as a percentage of sales for the beer industry.
- 11) While both Cosmetic industry and Pharmaceutical industry witnessed high growth during the last one decade, the spending pattern on advertisement is not the same. Being in luxury products segment, cosmetic industry spends substantial amount between 8% and 12% of sales on ad expenses. P&G is the highest spender followed by Godrej. In contrast, Pharma industry spends less on advertisement but still achieved high growth.
- 12) An analysis of Automobile industry shows that passenger vehicle segment witnessed high growth rate (20% CAGR) of sale during the last decade. Further, the advertisement spending has also increased substantially during this period. Surprisingly, a comparative study of Maruti vs Hyuandia, shows that despite high ad spending by Hyuandai (up to 4% of sales), Maruti which spends between 1% and 2% remains the market leader in terms of sales.
- 13) The study of manufacturing and non-financial services shows that both manufacturing and service industry witnessed high growth during the last decade. However we notice contrasting trends with ad expenses. Manufacturing sectors such as steel, cement, textile processing hardly spend on advertisement as they operate into B2B business setup most of the time. Whereas sectors such as FMCG, Readymade garments, Auto industry spend heavily on ad expenses as they are into B2C business setup. E.g P&G (15% of sales),Rupa(8% of sales), Mahindra(12% of sales). On the other hand services being intrinsically customer facing sector, spend large amount on ad expenses. E.g. telecom (18% of sales), tourism(15% of sales), e- commerce(22 % of sales). However, health care industry spends between 1%-2% of sales which the lowest among all players of service industry.
- 14) We find unprecedented growth for Tourism industry in India post 2010 (40% CAGR). While the average industry expenses on advertisement as a percentage of sales is moderate, there are a few players such as Makemytrip, Ibibo and Yatra Online spend

heavily on advertisement expenses. Further we find high correlation (0.99) between the sales and advertisement expenses for these firms.

- 15) An analysis of four major constituents of Textile industry shows that the growth in sales is led by Textile processing industry (23% CAGR), followed by Readymade garments (20% CAGR), Diversified cotton textile (14% CAGR) and Man-made filaments & fibres (8% CAGR). The high growth in textile processing may be attributable to a lot of technological innovation in the last decade (Industry 4.0). Since other constituents of the textile industry operates in B2B orientation, they hardly spend on advertisement. Readymade garment sector which operates in B2C orientation spends 5% of sales on an average towards advertisement expenses.
- 16) Firms in Readymade garments spend more on promotion compared to other firms of Textile industry. Dollar is the largest spender between 14% and 20% of Sales for advertisement, followed by Lux(7%) and Rupa(6%) The ad spending in some of these companies have come down or stagnating.
- 17) Both Alcohol and Tobacco industries witnessed high growth during the last two decades. While Alcohol (Beer) achieved nearly 20% CAGR, Tobacco reported a CAGR of 10%. Since the government has banned direct advertisement, they hardly spend on advertisement.
- 18) The high degree of booking convenience, increasing e-Commerce penetration, rapidly increasing digitization and a growing middle-class population have contributed to achieve tremendous growth of tourism industry (40% CAGR) in the last decade. Both online and offline player spend heavily on advertisement. Makemy trip is the largest spender.
- 19) The two and three wheeler industry has achieved high growth rate over 15% CAGR over the last decade. We also saw that firms in this industry spend substantial amount on ad expenses. (up to 20% of sales). Mahindra Two Wheelers is the largest spender (16% of sales) followed by Suzuki Motorcycle (5%of sales) and Hero Motorcorp.(2% of sales). However, the trend of ad expenses is decreasing or stagnating.
- 20) Both Online Market Place industry and Retail industry have witnessed high growth during the last five years. For online Market Place, Sales is strongly related to advertisement expense as advertisement is an investment strategy. For Retail, the growth (20%CAGR) has been achieved without spending much on advertisement. Ebay India (50% of sales) is the largest spender followed by Amazon India (30% of sales).
- 21) Cosmetic industry spend heavily on advertisement to capture the market share. Both P&G and Colgate have invested up to 20% for ad during early 2000 and achieved high growth rate (16% and 12% of sales respectively). However, we see decreasing trend in ad expenses during last five years.
- 22) FMCG industry has witnessed tremendous growth in sales during last decade (15% CAGR). It is one of the largest spending industries on advertisement to get its new

products accepted in the market. P&G is the highest spender (15 % of sales) followed by Dabur (11% of sales) and HUL (10% of sales).

- 23) Firms of wholesale trading industry such as VIP industries and Eureka Forbs have strong positive correlation between ad expenses and growth in sales. VIP has achieved 11% CAGR in last decade and on average spent 4% of sales towards advertisement.. Eureka Forbs has spent the same (4% of sales) and achieved relatively low growth (9% CAGR).
- 24) An analysis of TATA group suggests that the group has achieved high growth (12% CAGR) during last decade. The firms which are in steel industry spend hardly on advertisement because of in B2B orientation of the business. However, other B2C firms such as TATA Global Beverages spend up to 10% of sales on ad expenses.
- 25) Two vital industries for wellbeing of human existence (Pharma and Healthcare) witnessed tremendous growth during the last decades. While pharma achieved nearly 15% CAGR, healthcare reported a CAGR of 22%. Both industries hardly spend on advertisement. While the average spending for pharma is about 0.04% of sales, healthcare industry spent a little higher at 1.5% of sales. The increasing trend of ad expenses in healthcare sector indicates that hospitals, like any other business firm have to reach out the patients and improve their market share and increase the profitability.