PROJECT REPORT

ON

STUDY OF FACTORS AFFECTING RETAIL
INDUSTRY IN INDIA

B.A.(Hons.) Business Economics

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SRI GURUNANAK DEV KHALSA COLLEGE

Submitted by:

Shivam Aggarwal (14069208014)

Akshit Jain (14069208019)

Ashish Valecha (14069208018)

Piyush Gupta (14069208005)

Tripti Gautam (14069208024)

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ABSTRACT

Retailing in India is one of the pillars of its economy and accounts for about 10 percent of its GDP. The Indian retail market is estimated to be US$ 600 billion and one of the top five retail markets in the world by economic value. India is one of the fastest growing retail markets in the world, with 1.2 billion people.

Indian market has high complexities in terms of a wide geographic spread and distinct consumer preferences varying by each region necessitating a need for localization even within the geographic zones.India has highest number of outlets per person (7 per thousand) Indian retail space per capita at 2 sq ft (0.19 m2)/ person is lowest in the world Indian retail density of percent is highest in the world. 1.8 million households in India have an annual income of over ₹4.5 million (US$66,870.00).

INTRODUCTION

The Indian retail industry has emerged as one of the most dynamic and fast-paced industries due to the entry of several new players. It accounts for over 10 per cent of the country's Gross Domestic Product (GDP) and around 8 per cent of the employment. India is the world's fifth-largest global destination in the retail

STRUCTRE

GROWTH

Growth over 1997-2010

India in 1997 allowed foreign direct investment (FDI) in cash and carry wholesale. Then, it required government approval. The approval requirement was relaxed, and automatic permission was granted in 2006. Between 2000 to 2010, Indian retail attracted about $1.8 billion in

foreign direct investment, representing a very small 1.5% of total investment flow into India.

Single brand retailing attracted 94 proposals between 2006 and 2010, of which 57 were approved and implemented. For a country of 1.2 billion people, this is a very small number. Some claim one of the primary restraint inhibiting better participation was that India required single brand retailers to limit their ownership in Indian outlets to 51%. China in contrast allows 100% ownership by foreign companies in both single brand and multi-brand retail presence.

Growth after 2011

Before 2011, India had prevented innovation and organised competition in its consumer retail industry. Several studies claim that the lack of infrastructure and competitive retail industry is a key cause of India's persistently high inflation. Furthermore, because of unorganised retail, in a nation where malnutrition remains a serious problem, food waste is rife. Well over 30% of food staples and perishable goods produced in India spoils because poor infrastructure and small retail outlets prevent hygienic storage and movement of the goods from the farmer to the consumer.

One report estimates the 2011 Indian retail market as generating sales of about $470 billion a year, of which a minuscule $27 billion comes from organised retail such as supermarkets, chain stores with centralised operations and shops in malls. The opening of retail industry to free market competition, some claim will enable rapid growth in retail sector of Indian economy. Others believe the growth of Indian retail industry will take time, with organised retail possibly needing a decade to grow

to a 25% share.A 25% market share, given the expected growth of Indian retail industry through 2021, is estimated to be over $250 billion a year: a revenue equal to the 2009 revenue share from Japan for the world's 250 largest retailers

Modern retail format

The organised retail market has a share of 8% as per 2012. While India presents a large market opportunity given the number and increasing purchasing power of consumers, there are significant challenges as well given that over 90% of trade is conducted through independent local stores. Challenges include: Geographically dispersed population, small ticket sizes, complex distribution network, little use of IT systems, limitations of mass media and existence of counterfeit goods.

A number of merger and acquisitions have begun in Indian retail market. PWC estimates the multi-brand retail market to grow to $220 billion by 2020.

Country	Modern Retail (in 2011, % of total)[37]
India	7%
China	20%
Thailand	40%
United States	85%

Indian retailers

A 2012 PWC report states that modern retailing has a 5% market share in India with about $27 billion in sales, and is growing at 15 to 20% per

Indian Retail Group	Market Reach in 2011 and Notes[42]
Pantaloon Retail	65 stores and 21 factory outlets in 35 cities, 2 million square feet space
Shoppers Stop	51 stores in 23 cities, 3.2 million square feet space
Spencers Retail	200 stores in 45 cities, 1 million square feet space
Reliance Retail	708 mart and supermarkets, 20 wholesale stores in 15 cities, 508 fashion and lifestyle ₹1,206 crore (US$180 million) per month sales in 2013[43]
Bharti Retail	74 Easyday stores, plans to add 10 million square feet by 2017
Birla More	575 stores nationwide
Tata Trent	59 Westside mall stores, 13 hypermarkets
Lifestyle Retail	15 lifestyle stores, 8 home centers
Future Group	193 stores in 3 cities,[44] one of three largest supermarkets retailer in India by sales ₹916 crore (US$140 million) per month sales in 2013[43]

year. There are many modern retail format and mall companies in India. Some examples are in the following table.India retail reforms.

India retail reforms

Until 2011, Indian central government denied foreign direct investment (FDI) in multi-brand Indian retail, forbidding foreign groups from any ownership in supermarkets, convenience stores or any retail outlets, to sell multiple products from different brands directly to Indian consumers.

The government of Manmohan Singh, prime minister, announced on 24 November 2011 the following:

- India will allow foreign groups to own up to 51 per cent in "multi-brand retailers", as supermarkets are known in India, in the most radical pro-liberalisation reform passed by an Indian cabinet in years
- single brand retailers, such as Apple and Ikea, can own 100 percent of their Indian stores, up from the previous cap of 51 percent;
- both multi-brand and single brand stores in India will have to source nearly a third of their goods from small and medium-sized Indian suppliers;
- all multi-brand and single brand stores in India must confine their operations to 53-odd cities with a population over one million, out of some 7935 towns and cities in India. It is expected that these stores will now have full access to over 200 million urban consumers in India;
- multi-brand retailers must have a minimum investment of US$100 million with at least half of the amount invested in back end infrastructure, including cold chains, refrigeration, transportation, packing, sorting and processing to considerably reduce the post harvest losses and bring remunerative prices to farmers;
- the opening of retail competition will be within India's federal structure of government. In other words, the policy is an enabling legal framework for India. The states of India have the prerogative to accept it and implement it, or they can decide to not implement it if they so choose. Actual implementation of policy will be within the parameters of state laws and regulations.

The opening of retail industry to global competition is expected to spur a retail rush to India. It has the potential to transform not only the retailing landscape but also the nation's ailing infrastructure.,

A Wall Street Journal article claims that fresh investments in Indian organised retail will generate 10 million new jobs between 2012–2014, and about five to six million of them in logistics alone; even though the retail market is being opened to just 53 cities out of about 8000 towns and cities in India.

Challenges

A McKinsey study claims retail productivity in India is very low compared to international peer measures. For example, the labour productivity in Indian retail was just 6% of the labour productivity in United States in 2010. India's labour productivity in food retailing is about 5% compared to Brazil's 14%; while India's labour productivity in non-food retailing is about 8% compared to Poland's 25%.

Total retail employment in India, both organised and unorganised, account for about 6% of Indian labour work force currently - most of which is unorganised. This about a third of levels in United States and Europe; and about half of levels in other emerging economies. A complete expansion of retail sector to levels and productivity similar to other emerging economies and developed economies such as the United States would create over 50 million jobs in India. Training and development of labour and management for higher retail productivity is expected to be a challenge.

In November 2011, the Indian government announced relaxation of some rules and the opening of retail market to competition.

The Road Ahead

E-commerce is expanding steadily in the country. Customers have the ever increasing choice of products at the lowest rates. E-commerce is probably creating the biggest revolution in the retail industry, and this trend would continue in the years to come. Retailers should leverage the digital retail channels (e-commerce), which would enable them to spend less money on real estate while reaching out to more customers in tier-2 and tier-3 cities.

Both organised and unorganised retail companies have to work together to ensure better prospects for the overall retail industry, while generating new benefits for their customers.

Nevertheless, the long-term outlook for the industry is positive, supported by rising incomes, favourable demographics, entry of foreign players, and increasing urbanisation

OBJECTIVES

1. To assess the growth of retail industry in India during the past sixteen years.

2. To analyze the impact of growing unemployment on the rise of retail industry.

3. To study trends in personal income in India and analyze its impact on retail industry's revenue.

4. To assess the impact of fluctuating bank rates on retail industry's revenue.

RESEARCH METHODOLOGY

In this study, this research problem is encapsulated in the research objectives which are as follows:

1. To check whether retail industry of India has grown over time

2. To assess the factors leading to rise in retail industry's revenue of India.

In order to verify the results, the quantitative data analysis is undertaken on SPSS 22 version following test were performed:

- **Mean**: A mathematical representation of the typical value of a series of numbers, computed as the sum of all the numbers in the series divided by the count of all numbers in the series.

- **Standard deviation**: It is a measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation. Standard deviation is calculated as the square root of variance.

- **Correlation coefficients**: They measure the strength of association between two variables. The most common correlation coefficient, called the Pearson correlation coefficient, measures the strength of the linear association between variables. The sign and the absolute value of a Pearson correlation coefficient describe the direction and the magnitude of the relationship between two variables. The value of a correlation coefficient ranges between -1 and 1.

- **VIF**: The variance inflation factor (VIF) quantifies the severity of multicollinearity in an ordinary least squares regression analysis. It provides an index that measures how much the variance (the square of the estimate's standard deviation) of an estimated regression coefficient is increased because of collinearity.

- **Students' T test**: It examines whether two samples are different and is commonly used when the variance of two normal distributions are unknown and when an experiment uses a small sample size

- **Durbin Watson**: It is a measure that tests for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic is always between 0 and 4. A value of 2 means that there is no autocorrelation in the sample. Values approaching 0 indicate positive autocorrelation and values toward 4 indicate negative autocorrelation.

- **F test**: It is a statistical test in which the test statistic has an f distribution under the null hypothesis. It is most often used when comparing statistical models that have been fitted to data set, in order to identify the model that best fits the regression model from which the data was sampled.

- **ANOVA**: It is a statistical analysis tool that separates the total variability found within a data set into two components: random and systematic factors. The random factors do not have any statistical influence on the given data set, while the systematic factors do. The ANOVA test is used to determine the impact independent variables have on the dependent variable in a regression analysis.

- **Independent Sample Test**: It compares the means between two unrelated groups on the same continuous, dependent variable.

LITERATURE REVIEW

India's retail market is expected to nearly double to US$ 1 trillion by 2020 from US$ 600 billion in 2015, driven by income growth, urbanisation and attitudinal shifts.While the overall retail market is expected to grow at 12 per cent per annum, modern trade would expand twice as fast at 20 per cent per annum and traditional trade at 10 per cent. In order to study this trend we have studied following reports.
This reports highlight the opportunities and challenges of retail sector in Indian market.

In a report by Patanjali Pahwa,7 June 2016 titled as "India ranks second in retail potential"

India jumped 13 positions and was placed second in retail potential in the 2016 Global Retail Development Index (GRDI), released by AT Kearney, a Chicago-based consultancy. The country was ranked 15 in the previous year. The report profiled 30 developing countries.

"India's high ranking is driven by GDP (gross domestic product) growth, improved ease of doing business, and better clarity regarding FDI (foreign direct investment) regulations. India is now the world's fastest-growing major economy, overtaking China, and retail demand is being fueled by urbanisation, an expanding middle class, and more women entering the workforce,"said Mike Moriarty,

AT Kearney partner and co-author of the study. India's retail sector has expanded at a compound annual growth rate of 8.8 per cent between 2013 and 2015, according to the report.

Analysts, however, did not agree that FDI was a key driver of retail growth in the country. They even questioned if India had made it easy to do business. They argued that while investment was allowed by the government into multi-brand retail stores, the riders put in place made it almost impossible for money to truly flow into the country.

India ranks second in retail potential 'Most of the growth we see is driven by domestic funding. Look around, there is Aditya Birla Group or Reliance or Future, which are the biggest players in the market,"said Arvind Singhal, chairman and managing director of Technopak.

He said FDI was allowed in single brand retail stores and despite the likes of Zara and H&M, along with some other luxury brands, opening shop in India, their contributions are minimum.

"India's growth story still comes from independent and unorganised retail markets,"he said. Singhal argued that India's retail market was $550 billion, in which $380 billion came from food and groceries and $45 billion from fashion.

'Of the $380 billion in grocery, very little is from organised stores. Most fresh produce is still sold in the markets,"he said.

This is, however, set to change.

"The government has allowed 100 per cent FDI in food retail and we believe that those kind of stores will be profitable,"said Debashish Mukherjee, a partner and co-head of consumer industries and retail products practice for India and Southeast Asia, A T Kearney.

He said despite the riders, multi-brand stores will find traction in India. "These are business experience problems and once that is seen through you will see the market mature,"said Mukherjee.

The report admitted that infrastructure bottlenecks and state-level power dynamics still remained big concerns. The cash-and-carry segment was doing brisk business, the report said, where existing players such as Walmart and Metro planning to expand their base and targeting 70 and 50 stores, respectively, by 2020.

E-commerce was once again a big driver for retail growth in India, with several foreign brands using the likes of Jabong and Amazon to make their entry into the country. But, here too, FDI that did poured into the country was used for funding operational losses and providing discounts. Alibaba's decision to enter the Indian market also influenced the ranking. Mukherjee said even if there were some barriers put in place they defined what the market would be. "This clarity has helped India get investments,"he said.

Analysts believe retail spending and corresponding investments are set to grow. "A strong monsoon will kickstart rural spend and you should see strong growth numbers in the October quarter,"said Singhal.

India's rank was further amplified by the collapse of the South American and Russian economies.

"We also took Mexico and Chile out of the list because we believe that they have becomes developed economies in the retail perspective,"said Mukherjee.

EASY BUSINESS

Country	Rank	
China	1	(1)
India	2	(15)
Malaysia	3	(9)
Kazakhstan	4	(13)
Indonesia	5	(12)

Figures in brackets are previous year's ranks   Source: AT Kearney

According to a report dated Jul 14,2016 titled "Retail sector inflation down but factory output contracts"
India's annual retail inflation eased by 100 basis points to 5.05 per cent in August, but factory output again dipped to a negative growth of (-)2.4 per cent in July from an expansion of 1.95 per cent in the moth before, official data showed on Monday.

The fall in retail inflation, as per data released by the Central Statistics Office (CSO), was thanks to a rather sharp drop in the annual food inflation -- from 8.35 per cent in July to 5.91 per cent in August.

As far as the factory output is concerned, the drag was due to a negative growth of (-)3.4 per cent in the manufacturing sub-index, which enjoys the maximum weight in the main index, even as the growth rates in mining and electricity indices were also modest.

In May the factory output was up 1.1 per cent, while in April it took a hit of (-)1.4 per cent. In July last year, there was a growth of 4.3 per cent. Cumulatively, the growth during the first four months of this fiscal is at (-)0.2 per cent.

This being the last set of data release on retail inflation and industrial production, ahead of the next bi-monthly monetary policy update due on October 4, expectations have risen sharply on possible interest rate cut.

This, also because the annual retail inflation that was above the upper tolerance level of six per cent in July, has since come down by 100 basis points, even though it is still above the base rate of four per cent.

The government target is four per cent plus or minus two percentage points for the next five years.

INDEPENDENT VARIABLES

Unemployment rate

Unemployment occurs when people who are without work are actively seeking paid work. The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force. During periods of recession, an economy usually experiences a relatively high unemployment rate.According to International Labour Organization report, more than 200 million people globally or 6% of there world's workforce were without a job in 2012.

- Weakens consumer buying people have less money to spend on goods and services when they're out of work. High unemployment weakens consumers' purchasing power, the driver of local economies.Hence effecting retail market in India.

- With increase in unemployment rate the purchasing power of a consumer decreases leading to effect on retail in industry.
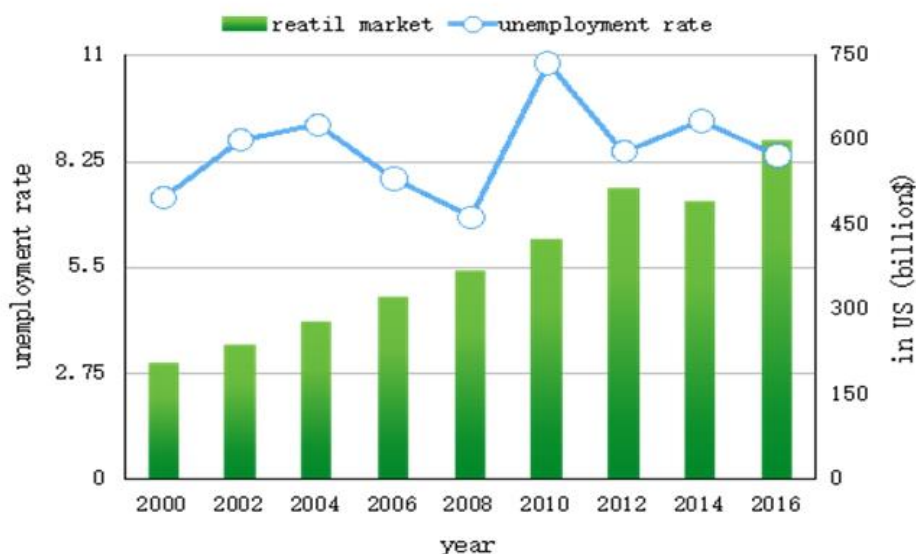
BANK INTEREST RATE

An **interest rate**, or **rate of interest**, is the amount of interest due per period, as a proportion of the amount lent, deposited or borrowed (called the principal sum). The total interest on an amount lent or borrowed depends on the principal sum, the interest rate, the compounding frequency, and the length of time over which it is lent, deposited or borrowed. It is defined as the proportion of an amount loaned which a lender charges as interest to the borrower, normally expressed as an annual percentage. It is the rate a bank or other lender charges to borrow its money, or the rate a bank pays its savers for keeping money in an account.

Factors influencing interest rate

* the currency of the principal sum lent or borrowed
* the term to maturity of the investment
* the perceived default probability of the borrower
* supply and demand in the market

Bank interest will effect the ratio of cash in hand and cash in bank for consumers with increase in bank interest consumers will spend less and save more. Hence, bank interest rate has an inverse relation with retail market.
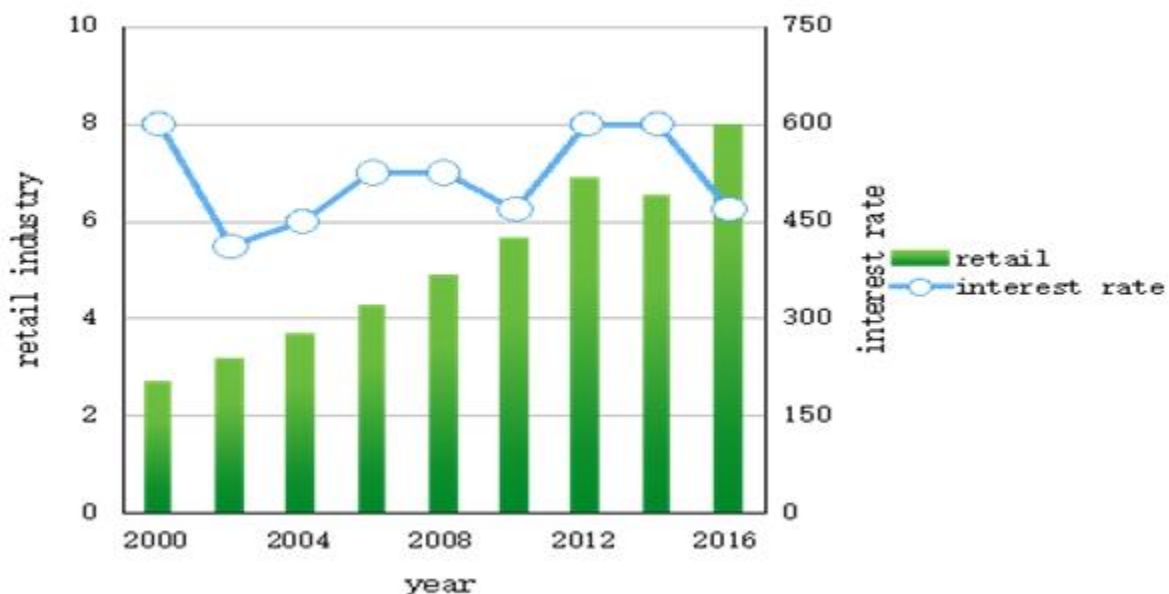
Personal income

Personal income refers to an individual's total earnings from wages, investment enterprises, and other ventures. It is the sum of all the incomes actually received by all the individuals or household during a given period. Personal income is that income which is actually received by the individuals or households in a country during the year from all sources.

Personal income effects retail industry as income increase people spend more on retail market and hence personal income has a direct relation between retail industry.
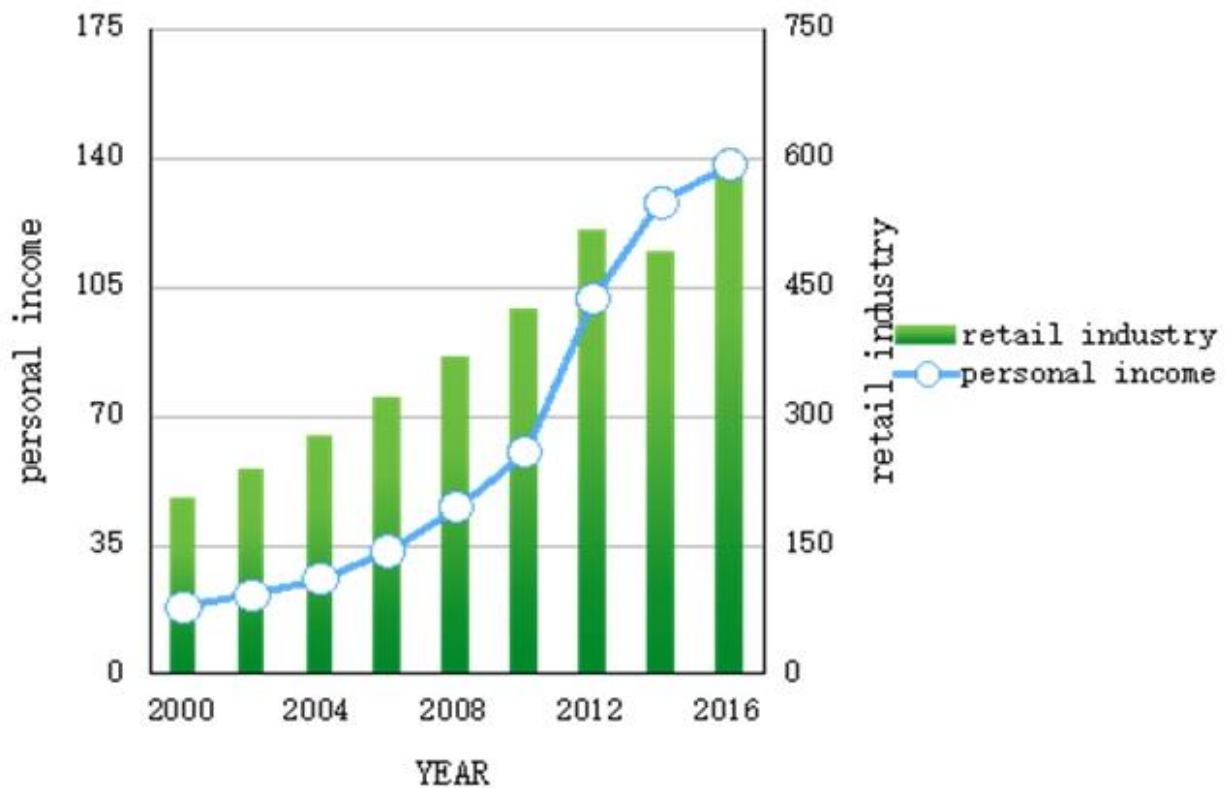
HYPOTHESIS

1. H_0: There is no relationship between retail industry and personal income

   H_1: There is a relationship between retail industry and personal income

This set of hypothesis checks the possible relationship between retail industry and personal income

2. H_0: There is no relationship between retail industry and unemployment growth
   H_1: There is a relationship between retail industry and unemployment growth

This set of hypothesis checks the possible relationship between retail industry and unemployment growth.

3. H_0: There is no relationship between retail industry and bank interest rate
   H_1: There is a relationship between retail industry and bank interest rate.
   This set of hypothesis checks the possible relationship between retail industry and bank interest rate.

ANALYSIS AND INTERPRETATION

REGRESSION TEST

ANALYSIS AND INTERPRETATION

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	17561.335	9017.196		1.948	.109	-5618.105	40740.774		
personalincome	167.656	25.744	.972	6.512	.001	101.478	233.833	.756	1.323
unemploymentrate	102.603	632.974	.023	.162	.878	-1524.508	1729.713	.820	1.219
bankinterestrate	-887.751	1156.253	-.104	-.768	.477	-3859.995	2084.492	.912	1.096

a. Dependent Variable: revenuesfromretail

Dependent variable: revenues from retail

Y=326.831 + 2.841X1 + (-1.819X2) + (-15.933X3) + Ui

➢ Y refers to the dependent variable i.e. Revenues from Retailing

➢ 326.831 is the Intercept term

➢ X1 represents Personal Income

➢ X2 represents Unemployment Growth

➢ X3 represents Bank Interest Rate

U_i refers to the residual term which consists of variables other than intercept term, personal income, unemployment growth, bank interest rate.

INTERPRETATION

➢ The intercept term explains that the retailing industry's revenues at zero level of personal income, unemployment growth and bank interest rate will be 326.831

➢ The regression equation explains that with 1 rupees increase in personal income revenue in retailing will increase by Rs 2.841

➢ The equation explains that with an increase of 1% unemployment revenues in retailing falls by Rs 1.819

➢ It explains that with 1% increase in bank interest rate retail industry revenue will decrease by Rs 15.933

➢ The P value of the t test of personal income is lower than 0.05 which means personal income is highly significant, whereas the other two factors are comparatively less significant.

➢ Variance Inflation Factor (VIF) is between 1 and 5, it represents moderately correlated.

DESCRIPTIVE STATISTICS

Descriptive Statistics

	Mean	Std. Deviation	N
revenuesfromretail	22926.6667	8107.24367	9
personalincome	63.5889	47.01541	9
unemploymentrate	7.9911	1.83581	9
bankinterestrate	6.8889	.95288	9

➢ The mean value of retail industry is Rs.382.1111(in billion Rs). The mean value of interest rate, unemployment growth and personal income is 6.8889%,8.5467%, and Rs 63.5889 (in million Rs) respectively.

➢ Standard deviation of retail industry's revenue is 135.12073 which explains that revenues deviate to the extent of 135.12073 the mean. The no. of observations are 9 for all the variables.Standard deviation of interest rate unemployment growth and personal income is .95288,1.18706 and 47.01541 respectively

CORRELATIONS

Correlations

		revenuesfromret ail	personalincome	unemploymentra te	bankinterestrate
Pearson Correlation	revenuesfromretail	1.000	.951	.424	.184
	personalincome	.951	1.000	.423	.294
	unemploymentrate	.424	.423	1.000	.094
	bankinterestrate	.184	.294	.094	1.000
Sig. (1-tailed)	revenuesfromretail	.	.000	.127	.318
	personalincome	.000	.	.129	.221
	unemploymentrate	.127	.129	.	.405
	bankinterestrate	.318	.221	.405	.
N	revenuesfromretail	9	9	9	9
	personalincome	9	9	9	9
	unemploymentrate	9	9	9	9
	bankinterestrate	9	9	9	9

The degree of correlation between revenues from retail and personal income is 95.1% which is quite high.

The correlation between revenues form retail and unemployment & revenues and bank interest is 25.1% and 18.4% respectively which is significantly low. Thus the major factor affecting the revenues is personal income
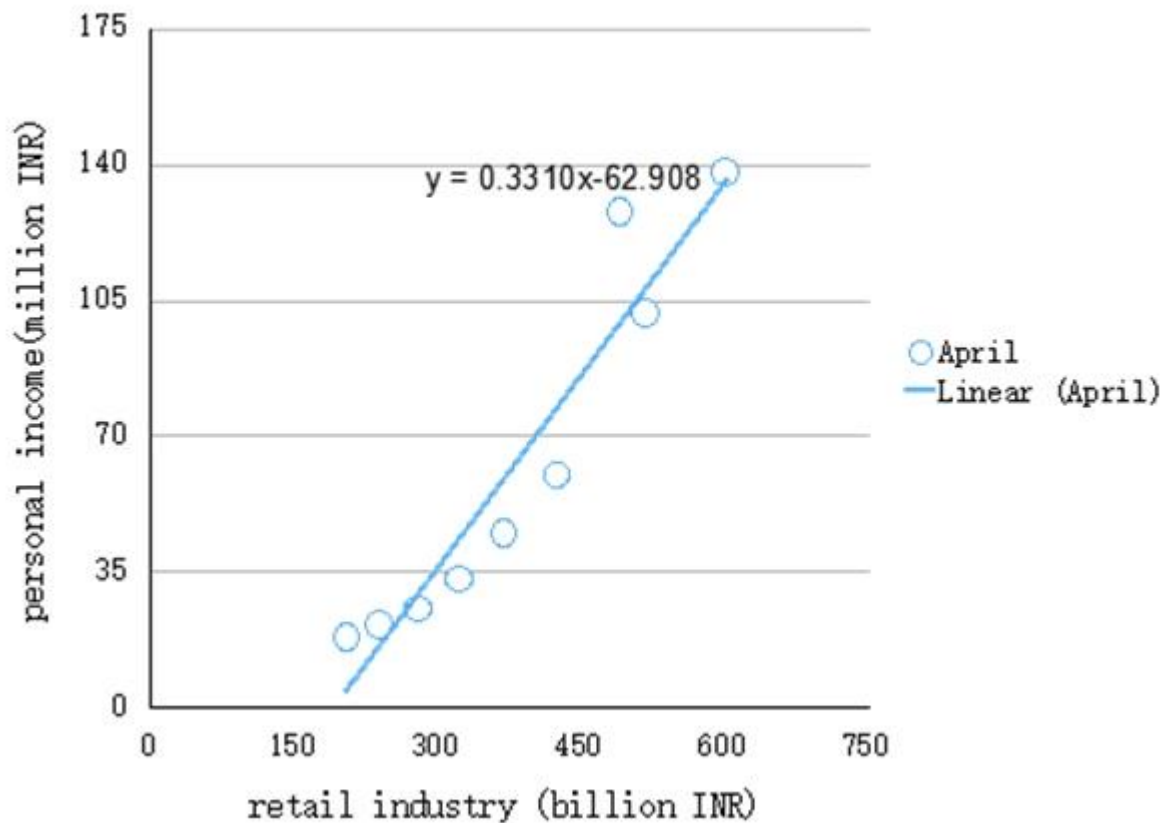
CORRELATION GRAPHS

Figure shows that PERSONAL INCOME is positively strongly correlated retail industry. The same has been depicted in Observation Table for correlation where correlation coefficient is 0.951.
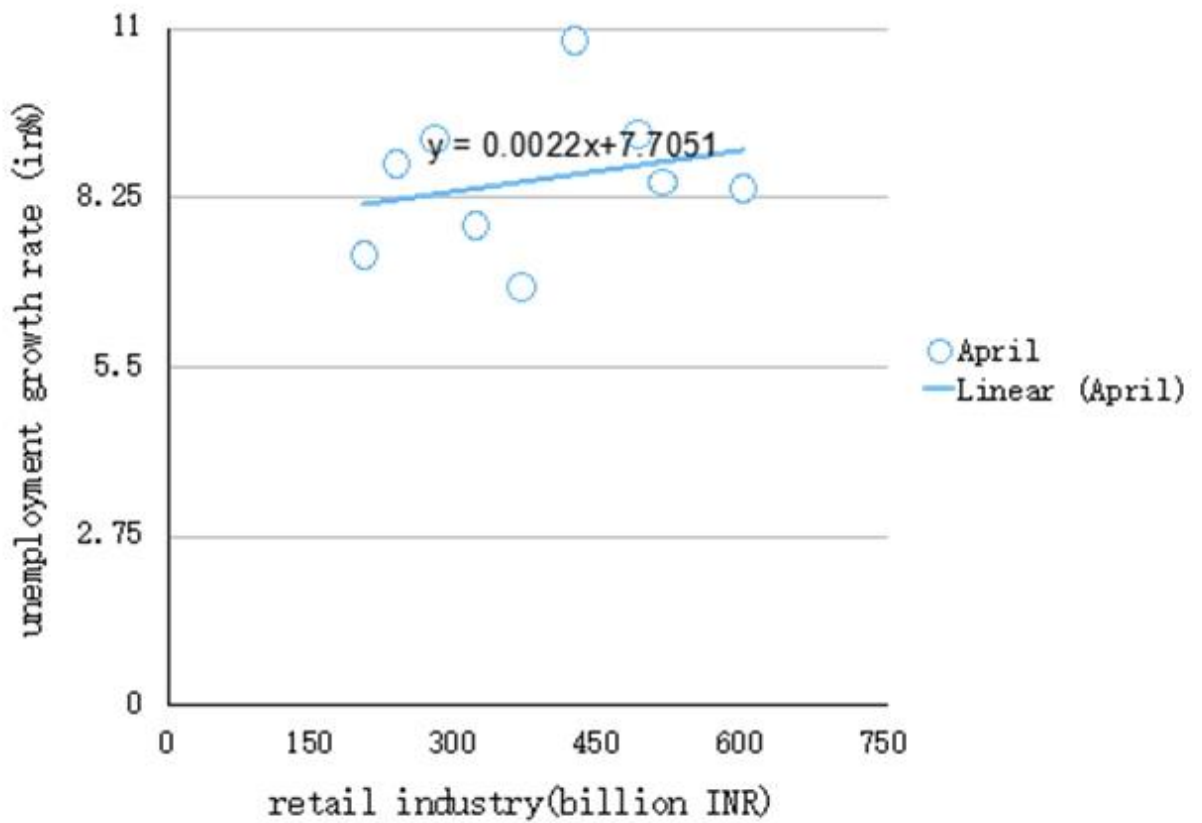
Figure shows that UNEMPLOYMENT GROWTH RATE is positively correlated with retail industry.

The same has been depicted in correlation table where correlation coefficient is 0.258
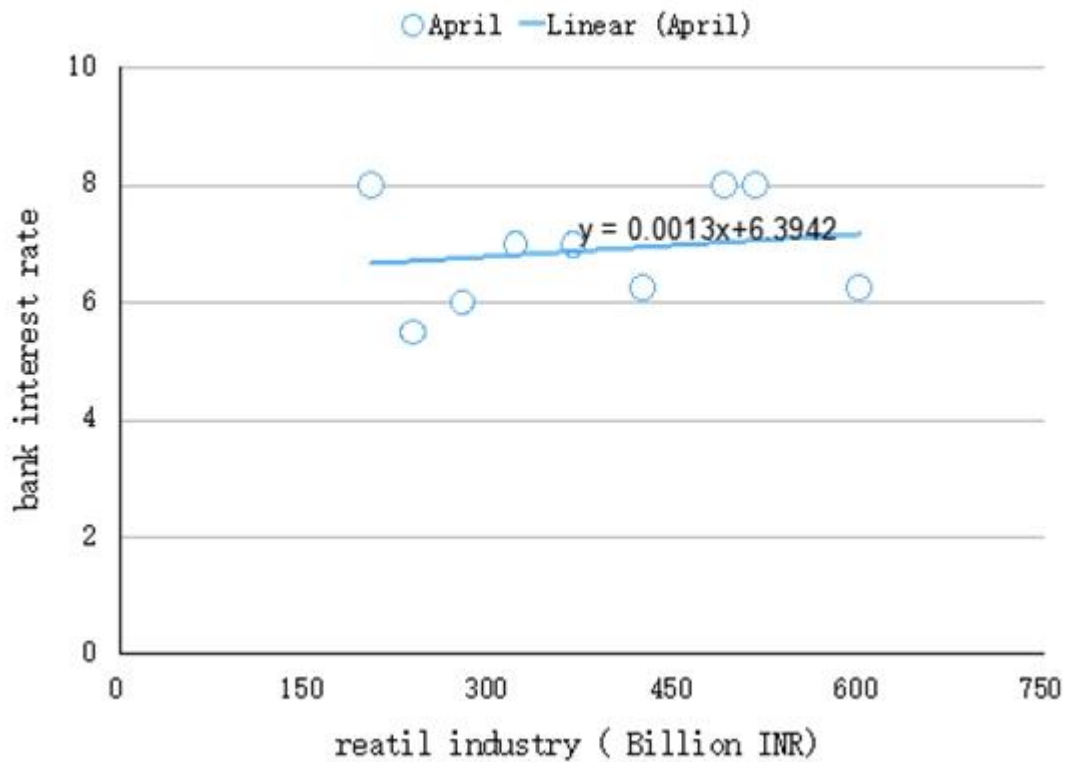
Figure shows that BANK INTEREST RATE is positively correlated with retail industry. The same has been depicted in correlation table where correlation coefficient is 0.184.

MODEL SUMMARY

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.957[a]	.916	.865	2976.79537	1.348

a. Predictors: (Constant), bankinterestrate, unemploymentrate, personalincome

b. Dependent Variable: revenuesfromretail

- R^2 is considered a better measure of goodness of fit and represents how well the data fits to the regression line. It measures the proportion or percentage of the total variation in Y explained by the regression model.R square in .915 i.e it is closer to 1 meaning there is low no. of residual values

- Adjusted R^2 gives a more optimistic picture of the fit of regression particularly when number of explanatory variables is not very small compared to the number of observations

- standard error deviates 49.68650 from the mean

- Durbin watson is 1.239 hence there is no auto correlation

ANOVA

ANOVAª

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	481512646.714	3	160504215.571	18.113	.004ᵇ
	Residual	44306553.286	5	8861310.657		
	Total	525819200.000	8			

a. Dependent Variable: revenuesfromretail

b. Predictors: (Constant), bankinterestrate, unemploymentrate, personalincome

In order to test the overall significance of the model, F test is being done. Hypothesis for the test are as follows:

H_0: There is no relationship between dependent variable and independent variables

H_1: There is a relationship between dependent variable and independent variables

For this test, ANOVA (Analysis of Variance) table is being created. The explanation of the terms of ANOVA table is given below

1. **Sum of Squares due to Regression** is a quantity used in describing how well a regression model represents the data being modeled. Since it is 133717.148, it means that the data is well represented by model.

2. **Residual sum of squares** is a measure of the discrepancy between the data and an estimation model. A small RSS indicates a tight fit of the model to the data.

3. **Total sum of squares** is sum of sum of squares due to regression and residual sum of squares.

Since the P value is less than 0.05, null hypothesis is rejected. Thus, our model is statistically significant.
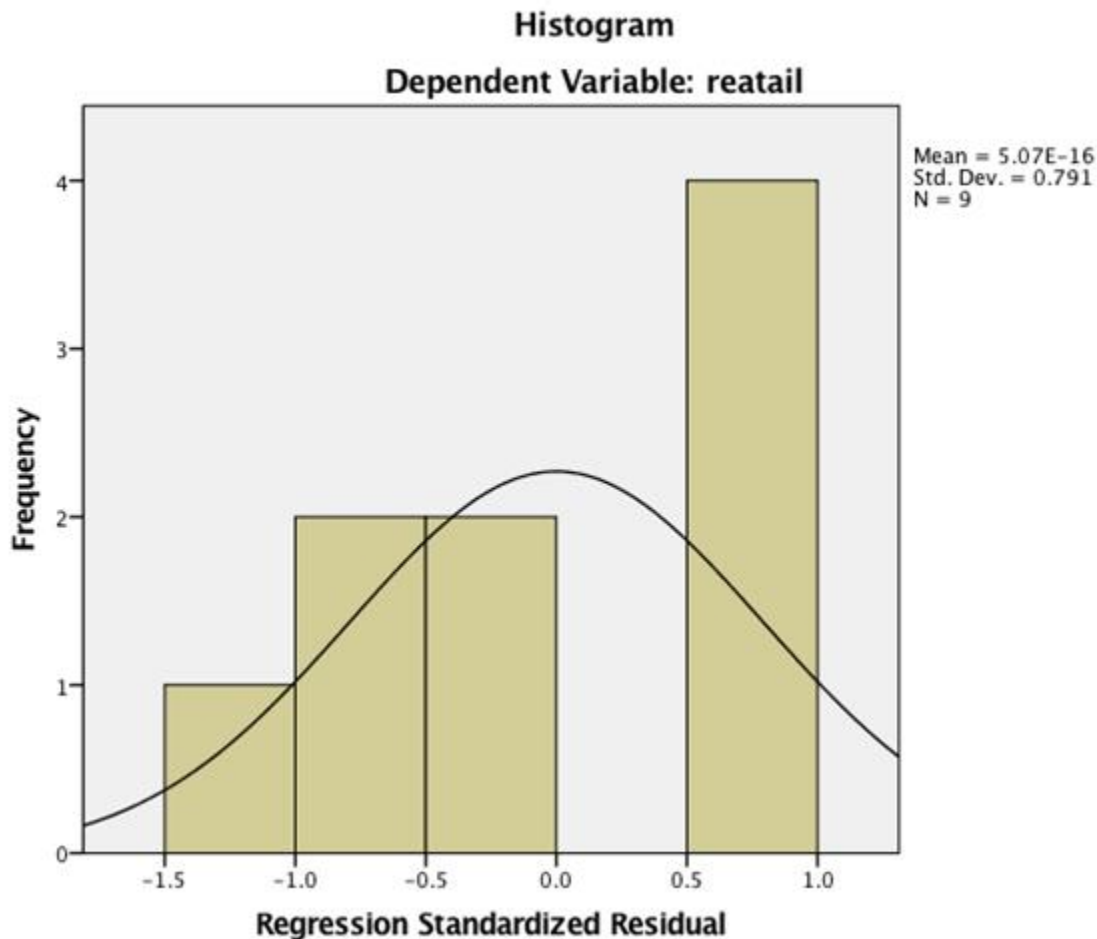
NORMALITY TESTS

Two test performed are:
(i) Histogram of residuals
(ii) Normal probability plot (NPP)

(i) Histogram of residuals

The diagram shows that the residuals are perfectly normally distributed i.e. skewness (a measure of symmetry) is zero and kurtosis (which measures how tall

Histogram

Dependent Variable: reatail

Mean = 5.07E-16
Std. Dev. = 0.791
N = 9

Frequency (y-axis)

Regression Standardized Residual (x-axis)

or squatty the normal distribution is) is between 2 and 3 (platy-kurtic).

(ii) Normal probability plot
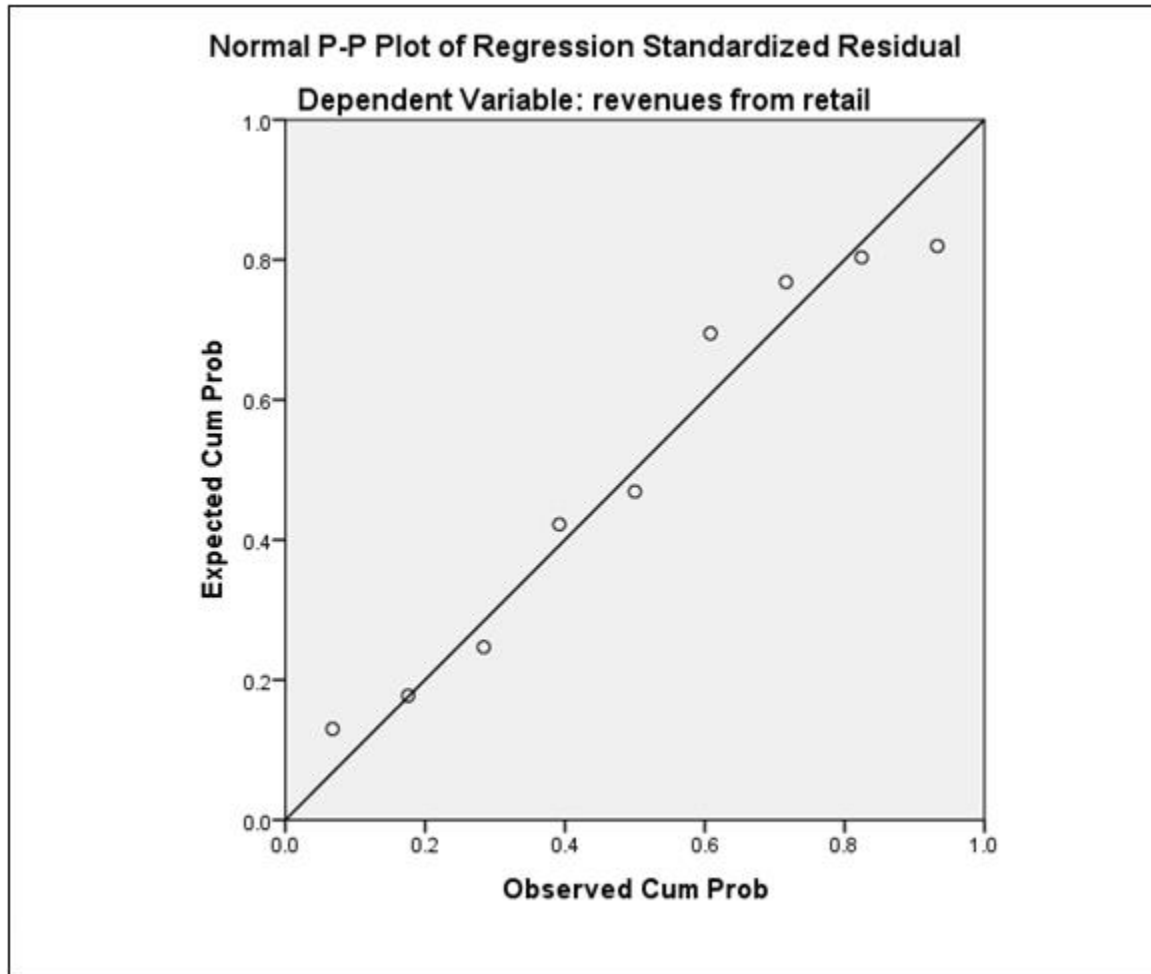
Normal probability plot is a comparatively simple graphical device to study the shape of PDF of random variables. On the horizontal axis, values of OLS residuals are to be plotted and on vertical axis the expected value of this variable are to be plotted. If the variable is from the normal population, the NPP approximates a straight line.

From the above figure we can see that the residuals from our model are normally distributed because a straight line seems to fit the data reasonably well.

CONCLUSION

This report studies the factors which are responsible for the retail industry. We have taken retail industry as the dependent variable and unemployment growth rate, bank interest rate and personal income as the independent variables. To determine the relationship between the dependent variable and the independent variables, we made use of regression analysis, descriptive statistics and the results we found shows a remarkable relationship between them.

R^2 is 0.915 which means that 91.5% of the variations in retail industry are explained by the unemployment growth rate, bank interest rate and personal income.

LIMITATIONS

1. Less no.of variables

Retail industry is also affected demography of a country. India is a diversified country hence culture does affect the retail industry. But data was unavailable to take in to account the following parameters.

2. Qualitative measures

Retail industry is also effected by various qualitative measures like mindset of people,general beliefs etc. But this parameters couldn't be taken into account.

3. Unorganised sector

Retail industry in widely ruled by unorganised sector hence data for unorganised sector was not available. Hence a complete analysis of retail industry was not possible

4. Data collection

Retail industry size in monetary terms was available at the gap of two years. Hence number of observations taken into account were low. Due to which the result are not accurate.

5. Inadequacy of data

At various stages, the basic objective of the study is suffered due to inadequacy of time series data from related agencies. There has also been a problem of sufficient homogenous data from different sources.

6. Only Limited Tests Possible

Since we have taken time series data, so certain tests like dependent sample t-test, one sample t-test were not possible to perform.

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APPENDIX

RAW DATA TABLE

YEAR	RETAIL INDUSTRY SIZE	UNEMPLOYMENT GROWTH	BANK INTEREST RATE	PERSONAL INCOME
2000	12240	7.32	8.00	18.30
2002	14280	8.80	5.50	21.40
2004	16680	9.20	6.00	25.80
2006	19260	7.80	7.00	33.30
2008	22080	6.80	7.00	45.30
2010	25440	10.80	6.25	60.20
2012	30960	8.50	8.00	102.00
2014	29400	9.30	8.00	128.00
2016	36000	8.40	6.25	138.00