

# A Comparative Study Of Organized And Unorganized Retail Sector In Haveri District - Of Karnataka State (A Case Study)

DR RAVI  
ASST PROFESSOR IN COMMERCE  
GOVT FIRST GRADE COLLEGE FOR WOMENS- BANGALORE

Prof JAYASHEELA.G  
ASST PROFESSOR IN COMMERCE  
GOVT FIRST GRADE COLLEGE FOR WOMENS – BELAGAVI

## ABSTRACT:-

India started its journey since ancient time. In ancient India there was a concept of weekly fair, where all the buyers and sellers gather in a big market for purchase and sale of goods under barter system. This retail journey in India takes lot of time to transform into modern retail. Apart from these two concepts i'e ancient retail concept and the modern retail concept are smell modern kirana / mom and pop shops or Baniya ki Dukan. Even then retailing is dominating in India.

Retailing in India is going through an evolutionary stage and is one of the largest sectors in the global economy. The current estimated value of the Indian retail sector is about 500 billion USD and expected to reach 1.3 trillion USD by 2020. India is termed as the nation of shopkeepers with about 15 million retail outlets of all kinds and is dominated by small neighborhood grocery stores termed as kirana stores<sup>1</sup>.

Indian retail has traditionally has been an unorganized sector, where retailers lacked the means as well as the will to develop or expand. Retail could also never enjoy the support of the Indian consumer, who treats shopping as a form of leisure, enjoying the thrill of discovering bargains and discounts deals in his own time. The western attitude of splurging, indulging and shop-till-you drop has slowly entered the country and led to organized retailing. In most of the countries it is the organized retailers who dominate the sector in India, the unorganized retailers command about 4% of the market share.

**Key words:-** Retailing, goods or services, manufacturer, a wholesaler or a retailer, Organized And Unorganized Retail Sector

## Introduction:-

In olden day's economy was said to be barter economy. So barter is considered as one of the oldest form of retail in India. Most of the retailing may be inform of Haats, Mandis, Melas in India and also in other countries. The single largest retail chain in India is the public distribution system. Popularly known's as PDS or "Rationing system introduced by the Britishers during the world war II. Public distribution system was first started in Bombay in the year 1939. Latter system was extended to other cities and towns. After the world war II, this system was abolished. After Independence Indian Government re-introduced public distribution system in the year 1950. The evolution of retailing also took place in form of canteen stores department (CSD) post office in India (service) Khadi and village industries (Established after Independence) presently KVIC's are more than 7050 stores throughout India. The co-operative movement ignited and the Indian govt established Kendriya Bhandars in 1963. Since from introduction of

New economic policy in 1991 called LPG (Liberalization Privatization and Globalization) with new economic policy most of the restrictions on private companies were lifted and the license RAJA helps in promoting economic progress from state led to becoming market friendly. Independent retail stores existed in India such as Akbarallys Viveks and Nalli's. First organized retailing noticed in textile organizations. Such as Raymond's set up retail stores in fabric. Today Raymond's distribution network accounted to 20000 retailers and 429 showrooms across the country. Some other textile manufactures set up their retail store were ;

- Reliance – set up vimal showrooms
- Garden silk mills – garden varali.

The growth of text tile retailing, readymade branded apparel, leads to existance of Madura Garments, Aravind Mills etc with this new age of departmental stores find its place in blooming way in India in 1990s. This was the beginning of new retail era in India. The concept of retail as entertainment came to India with the advent of malls. The development of Malls took place both in metro and cities and towns.

### Defining organized and unorganized Retail.

The Indian retail industry is divided into organized and unorganized sectors.

Retail Industry

Organized retail sector

Un-organized retail sector

#### Organized retail sector:

Organized retailing refers to trading activities undertaken by licenced retailers that is those who are registered for sales tax income tax etc. These include the corporate backed hyper markets and retail chains and also the privately owned large retail business.

#### Un-organized retail sector:

Un-organized retailing is defined as an outlet which is run locally by the owner of the caretaker of a shop who lacks the technical and the accounting standardization. The supply chain and the sourcing are also usually done locally to meet the local needs

### Comparison between organized and un-organized retailing

Criteria	Organized Retailing	Unorganized retailing
Ownership	Corporate Business	Household business
Size of operation	Comparatively large	Small store
Nature of Employment	Hared persons	Generally family members
Product availability	Wide range of branded and non branded product	Selective range of branded and non branded products
Selling Price	MRP	Price less than MRP
Store ambience	Excellent	Poor

Promotions	Joint promotions	Company promotions only
Tax Payment	Greater enforcement of taxation mechanism	Evasion of taxes
Market experience	Short Term	Long Term
Locations	Distantly located	Round the corner located

## Objectives of the research study

The research study has the following objectives

1. To study the impact of organized retail sector on sales of unorganized retailers.
2. To know the perception of unorganized retailer towards the organized retailer
3. To study the problem faced by small retailers vis a vis organized retailers
4. To know future strategies employed by small retailers to remain competitive with organized retailers.
5. To study perception of consumers regarding organized retail outlets vis a vis unorganized.
6. To study any other aspects of the problem germane to the research study.

## Scope of Research Study

The research study provides a comprehensive profile of the organized retail sector and unorganized retail sector covered by the study area. The related aspects include the social and economic background of the consumers and retailers. Impact of organized retail sector on sales of unorganized sector has been analysed in detail. The study covers the perceptions of unorganized retailer towards the organized retailer, problems faced by traditional retailers vis a vis organized retailers covering the social and economic factors the study makes a detailed analysis of the literacy level of consumers social backwardness, family income gender etc have been studied.

## Selection of the study area :

The researcher has selected Haveri District of Karnataka State for obtaining the primary data from the respondent consumers and retailers. The District comprises seven talukas Haveri, Hirekerur, Byadagi, Hanagal, Savanur and Shigganvi, Ranebennur

## Current issues in retailing

1. **Manufacturer as competitors.**

Manufacturers feel retailing activities as a good opportunity to retail themselves and bypass the retailers. Some of the manufacturers such as dell computers have done it more successfully. Some of the business (retail) indulge themselves in retailing they are,

- Books
- Music
- Air line ticket booking (services)
- Standardized software products
- Garments
- Gift items etc.

The above list is non-exclusive. Every day someone or the other comes up with a new idea to use the technology better than someone else.

## **2. Special Discounts.**

Stores have started demanding allowances for giving a prime location to a brand. The retailers having large operations eg Amazon.com benefit from this. Report reveals that publishers pay as much as USD 10,000-00 for prominent listing on Amazon.com

## **3. Retailer Branding :**

Taking into consideration, the customer loyalty that they enjoy retailers such as food world pantaloons, global shoppers stop etc introduce their own brands that compete with other brands.

## **How retailing affects the economy? :**

Most of the business activities in India will affect the economy one or the other ways. On the same line retailing too affects the economy in a variety of ways.

### **1. Contribution to National Economy :**

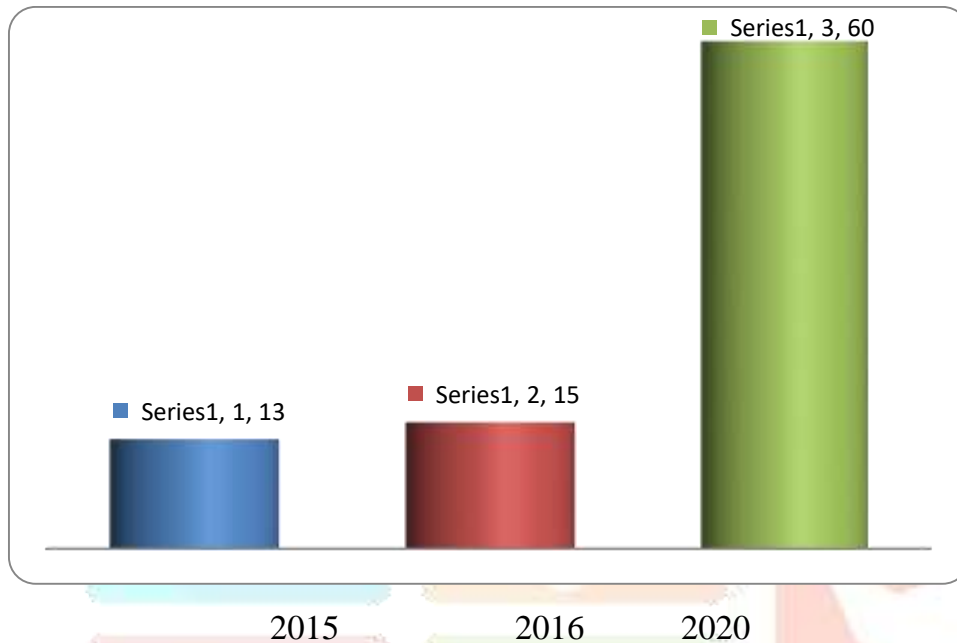
Retailing business activity will directly contribute to national economy by way of providing employment opportunities to the people and helps to enhance the income level of people. It leads to high consumption, more amount of activities thus money revolve and reuse helps to improve economic conditions of the nation as well as standard of living of the people. Thus retailing helps to generate taxes which may be an additional income to the government and directly helps for national development, Possibilities of foreign direct investment especially in the retailing sectors. Growing disposable income in the country is resulting in increasing consumer spending habits<sup>14</sup>

## **Organized retail in India**

Organized retailing is emerging and despite the slump the market is growing commendably. As economic growth brings more of Indians people into the consuming classes and organized

retailers more and more existing shoppers. Organized retailing refers to the trading activities undertaken by licensed retailers that are those who are legally registered for sales tax now it is GST (goods and service tax) and income tax etc. These organized retailing includes the corporate backed hyper market and retail chain and also privately owned large scale retail business.

### Revenue from online detail in India (US \$ billing)



Note : E-Estimate

Source : India retailing.com

By 2018, the india retail sector is likely to grow at a CAGR of 13% to reach US\$950 billion

### Key drivers of the Indian Retail Industry

- Emergence of nuclear families
- An increase in the double income household trends.
- Large working population
- Reasonable real estate prices
- Increase in disposable income and customer aspiration
- Demand as well as increase in expenditure for luxury items
- Growing preferences for branded products and higher aspirations.
- Growing liberalization of the FDI policy in the past decade.
- Increasing urbanization
- Rising affluence amid consumers.

**Bottle necks :**

- A long way to meet international standards
- Lack of efficient supply chain management
- Lack of required retail space
- No fixed consumption pattern
- Shortage of trained man power
- Lack of proper infrastructure and distribution channel.

**Organized trade in various countries**

Country	Organized trade %
India	05
China	23
France	80
Poland	24
Japan	66
Indonesia	30
Russia	33
Brazil	35
Thailand	40
Malasia	55
USA	85

Source : The retailer Ernstand young.

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 forever 10% of the country gross domestic products (GDP) and around 8% of the employment. India is the world fifth largest global destination in the retail space.

Indian retail industry has immense potential as India has the second largest population with affluent middle class, rapid urbanization and solid growth of internet.

Indian retail market is expected to grow at a compound annual growth rate (CAGR) of 10% percent to USD 1.6 trillion by 2026 from USD 641 billion in 2016. While the overall retail market is expected to grow at 12% per annum. Modern trade would expand twice as fast as 20% per annum and traditional trade at 10%. Indian retail market is divided into “organized retail market” which is

valued at \$60 billion which is only 9% of the total sector and “unorganized retail market constitutes the rest 91% of the sector.

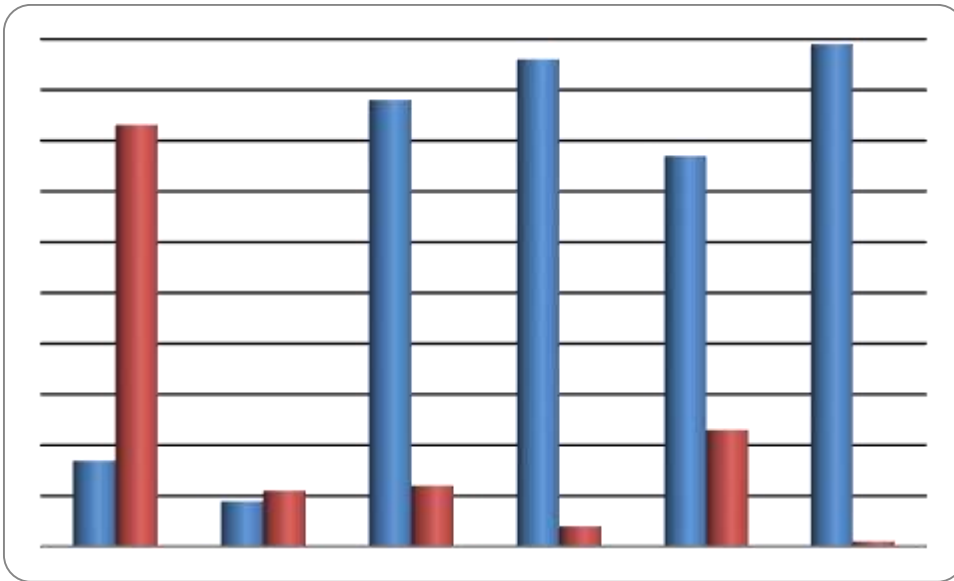
India’s total potential of business to consumer (B2C) is estimated to be UG\$26 billions of which \$ billion can be achieved in the next three years from 16 product categories according to study by federation of Indian Chamber of Commerce and Industry (IIFT) and Indian Institute of Foreign Trade (IIFT).

### Global Scenario of Organized Retail

Country	Share of organized retail in percentage	Share (unorganized retail (in %))	Suggestion
India	06	94	Immense opportunity for the growth of organized retailing
China	20	80	Organized retail growth is going on
South Korea	15	85	Good opportunity for the development of modern retailing
Indonesia	25	75	Organized retailing is developed
Philippines	35	65	Organized retailing is developed
Thailand	40	60	Organized retailing is highly developed
Malaysia	50	50	Organized retailing is highly developed

Source : Assocham conferene on re inventing retail in New Delhi.

## Share of various segments in Indian Retail



Source : Deloitte retail POV “Indian Retail Market changing with the changing times”

### Growth potential of organised retail in India :

Retailing is one of the largest Sectors in the global economy, is going through a transition phase not only in India but world over. By 2030 India would be one of the top 5 economies in terms of GDP. The Indian retail market is estimated to grow US \$ 675 Bn by 2016 at CAGR of 7.5%. The organised retail market is estimated at US \$ 26 Bn and accounting for 6% of the overall retail market in 2011. The organised retail market is expected to grow to US \$ 84 Bn by 2016 at a CAGR of 26%. The same is depicted in the below tables.

### Indian Retail Market (overall by category)

Category	2006	2011	2018	CAGR 2011-18 %
Food and Grocery	217	325	425	5.50
Apparel	25	35	50.2	7.50
Jewellery and wathes	16.5	25.6	44.2	11.50
Consumer electronics and I.T	16.5	22.7	42.8	13.50
Pharmacy	08	13.9	23.4	11.00
Furnishing and furniture	6.5	9	17	13.5
Restorents and Food joints	4.6	8.8	15.8	12.50
Foot wear	3.6	4.5	8.3	13.00



Beauty services	0.6	1.3	3	18
Health / Fitness Servies	0.4	1	2.5	20
Others	11	23	42.5	13.5
Total US \$ Bn	310	470	675	7.5

Source : Technopak Analysis

From the above table it is asserted that food and grocery constitutes the bulk of Indian retailing and its share is estimated at US\$325Bn in 2011 (69% of the overall retail) and is projected to grow US\$425 Bn by 2018 (63% of the overall retail) at CAGR of 5.5%.

Apparel market is estimated to the extent of US\$35Bn by 2011 and is projected to grow to US\$50 Bn by 2016 at CAGR of 7.5% followed by clothing and footwear, its contribution constituted to the extent of US\$5.5Bn in 2011 and is anticipated to grow to US\$8Bn by 2018, at CAGR of 8.5%. this has been followed by others like furniture, furnishing apparels and services.

The share of organized retailing remains low but in few categories it is quite high the details of the above indiate that apparel market constituting at US\$5.5Bn in 2011 and excepted to grow to US\$8% by 2018 at CAGR of 8.5%. the responses of the organized food and grocery retail market in India constituting at US\$9Bn in 2011 and is grown to US\$34Bn by 2018, at CAGR of 30%. The food and grocery has the highest share of organized retail.

### Indian Organized Retail Market

Category	2006	2011	2018	CAGR 2011-18 %
Food and Grocery	2	9	34	30.00
Apparel	3.5	5.5	8	8.5
Jewellery and wathes	1.0	2.5	7.5	25
Consumer electronics and I.T	1.5	4.0	18.0	35.00
Pharmacy	0.2	0.8	0.45	41
Furnishing and furniture	0.4	0.7	1.2	12
Food and breweries	0.5	1.5	6.0	30.00
Foot wear	1.0	1.7	3.8	17.5
Beauty services	0.2	0.2	0.5	20.00
Health / Fitness Servies	0.1	0.2	0.6	25.00
Total US \$ Bn	10.00	26.00	84.0	26.00

Source : Technopak Analysis

### Reasons for retail setor boom in India :

The most important factors responsible for retail growth in India are ;

- Leberalisation of the economy
- Upword mobility of middle class
- Shifting consumer demands and
- Expansion of ICTs (AT kearney report 2017)

Leberilization of the economy since the 1990s is one of the predominant factor for transformation of a new organized form of retailing in India. Import of leberalisation in retailing is positively affected in the following way ;

- Employment
- Income level of middle class
- Huge disposable income
- Increasing onsumption of high end products

### Contribution of Indian Retail Industry to Indian Economy :

Since from the leberalization of the economy in 1990, the country has seen booming and flourishing capital markets, emergence of new industries change in consumer shoping habits and the entry of global companies etc. Indian economy is said to be an vibrant economy and has been developing at an averatage gross domestic product (GDP) of 8.6%. according to Golden sochs that's the economic growth could actually exceed that of china in near future<sup>21</sup>

### Indian macro economic details

Indicator	Unit	2013	2014	2015	2016	2017
GDP purchasing power parity (per capita)	Inter National dollars	3453.826	3777.925	4103.794	4434.577	4819.58
GDP (purchasing power (per capita growth)	%	12.013	9.3838	8.6256	8.0604	8.6819
Gross disposable	USD	5295.26	6151.04	6867.1	7627.55	8447.77

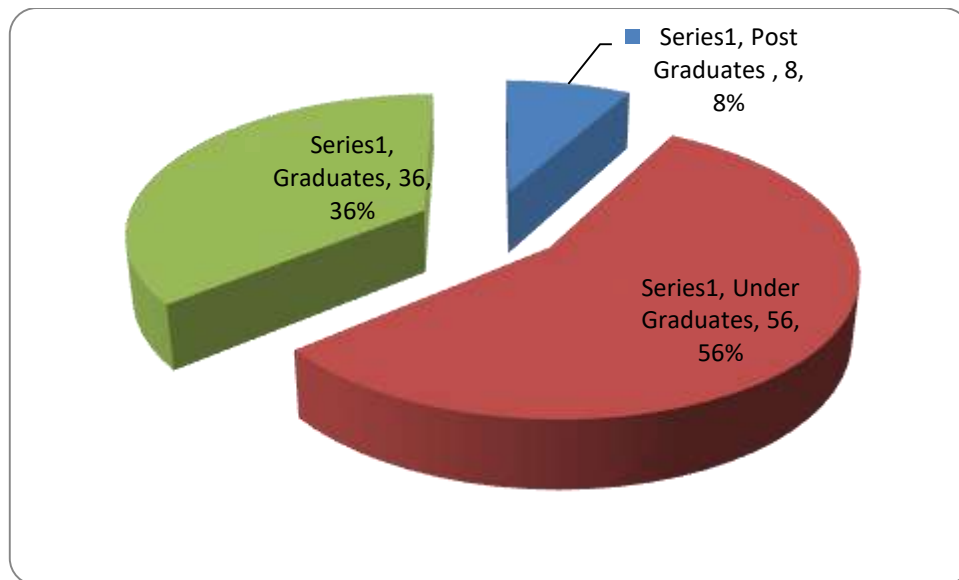
income per household USD (absolute)							
Gross disposable income per household USD (growth)	%	16.3786	16.1612	11.6413	11.0738	10.7534	
Rural population as % of total population (absolute)	%	70.2085	69.9835	69.7581	69.5317	69.3049	
Urban population as % of total population (absolute)	%	29.7915	30.0165	30.2419	30.4683	30.6951	

Source : Datamonitor Country Insight, 2017

### **Employment :**

Employability in the organized retail industry is evidently much higher. Retail industry is the second largest employer after agriculture employing more than 35 million people with wholesale trade generating and additional employment to 5.50 million more. Due to increase in the disposable income there is a proportionate increase in consumers spending habits also. At present approximately 8% of the total labour force is employed in the retail sector only. It is the largest employer in the service sector.

### **Educational Qualification of Employees in Retail Industry**



Source : Dun & Bradstreet

A revolution took place in retail industry which led to employment opportunities in India. The organized retail sector has better job prospects to the younger generation. According to the survey 24% of the employees were employed on a full time basis and the remaining on contract basis.

#### Share of Retailing in Employment across different countries :

Country	Employment %
India	8
USA	16
Poland	12
Brazil	15
China	7

Source : Presentation to FICI by Alan Rosling (Chairman, Jardine Matheson Group) "International Experience on Policy issues"

The retail sector can generate huge employment opportunities and can be lead to job led economic growth. The total employment in India, both organized and unorganized, account for about 8% of Indian labour workforce currently most of which is unorganized.

#### Retail Sales

Retail sales is also an important factor, because consumer spending drives more to our economy. Total retail sales in India will grow from US\$395.96 Bn in 2011 to US\$ 785.12 Bn in 2015 according to BMI India retail report for the 3<sup>rd</sup> quarter of 2011. Indian retail sector accounting for 22% of the country's GDP and 8% of the employment:

#### Asia Retail Sales Growth (%Growth)

Territory	2011	2012	2013	2013	2014	2015	2016	2017
Australia	5.7	0.7	1.4	0.8	0.2	2.0	2.0	2.0
China	11.4	14.7	16.0	14.8	14.6	12.4	11.6	11.7
Hong Kong	9.0	-3.4	-2.2	5.5	1.3	1.5	2.8	2.4
India	4.6	1.7	3.4	1.5	3.9	5.5	5.5	5.8
Indonesia	11.3	7.8	2.7	4.4	4.2	4.5	4.6	4.8
Japan	-0.2	-0.5	-0.9	1.3	0.6	0.5	0.4	0.4
Malaysia	10.1	7.0	-1.5	2.3	3.3	5.0	3.7	3.8
New Zealand	2.1	-1.7	-1.3	1.3	2.3	2.4	2.5	2.4
Philippines	5.3	3.0	0.9	7.0	3.2	4.3	4.5	4.7
Singapore	7.6	1.2	-2.0	1.6	3.2	2.9	4.4	5.1
South Korea	4.8	0.5	-0.2	0.6	2.0	2.4	2.7	2.2
Taiwan	4.6	0.3	-1.4	9.4	2.3	1.5	0.6	0.5
Thailand	7.5	-2.5	-2.7	3.3	4.8	5.2	5.5	6.1
Vietnam	9.9	3.6	3.9	13.1	10.6	9.2	8.6	9.8

Source : Economist Intelligence Unit

### Unorganized Retail Formats :

A large number of peoples livelihood depends primarily upon agricultural activities / unorganized sector. Majority of consumers always fulfills their needs based on daily purchases. Usually their needs are fulfilled by the neighbours Kirana / General stores road side vendors, weekly haats markets, melas on special occasions unorganized retail formats in India are classified in two parts.

1. Non movable retail formats : such as kirana / general stores medical stores cloth and ready made garment shops cosmetics stores et.
2. Movable retail formats ;

Weekly haat / market, hawkers and pheriwala, roaming salesman / vendors are some of the movable retail formats.

All unorganized formats in rural areas provide for exchange of food grains / agricultural produce with other items or cash.

### Payment options available to the costumers of unorganized retailers.

Sl No	Retail Formats	Purhases	Products	Credit Payments
-------	----------------	----------	----------	-----------------

1	Neighbours Kirana / General Stores	Morning Evening Daily	Daily Needs	Evening (Same day) Morning (Next day) Fornightly or Monthly
2	Weekly Markets	Weekly	Cloth, Foodgrains estables, household items etc	Next Week
3	Mela	Mela	Entertainment, Furniture, Eatables, Household items	Generally not available
4	Pheriwala/ Hawker/ Roaming Salesman or Vendors	At Arrival	Pots, utensils, cloths, cosmetics, jewellery etc	Next visit, seasons credit
5	Pan/ Tea kiosk	Specific	Pan, Tea, Sweets, Snacks etc	Cash & Credit
6.	Roadside Vendors		Food grains & vegetables	Cash & Credit

### Organised Retail Formats ;

Increase in disposable income of consumers, leads to increase in spending habits by demanding quality products and services and inclined towards better shopping environment. These all factors influence in change of retail formats. Several formats have been experimented by retailers. Some of them are ;

#### 1. Malls

Malls are located in proximity to urban outskirts and ranges from 60,000 sq ft to 70,000 sq ft and above. The future of organized retailing is largely in the hands of mall where the shoppers get quality, quantity aspirational appeal recreation facilities and ambience.

#### 2. Shoppers Stop

Shoppers stop is the first organized retail format to open departmental stores in India. Which was promoted by the K Raheja corp group (Chandru L Raheja group) with its first store in Andheri<sup>26</sup>. Shoppers stop Ltd has been awarded 'the hall of fame' by world retail congress at Barcelona on April 10 2008<sup>27</sup>. In 2011, shoppers stop has 53 stores in India<sup>28</sup>

#### 3. Convenience stores

A convenience stores are open for an extended period of the day and have a limited variety of stock and convenience products prices are slightly higher due to the convenience given to the customers.

#### **4. Hyper Marekts :**

Hyper markets have emerged as the biggest crowd pullers due to the fact regular purchases are normal at such outlets. Hyper markets are large self service outlets offering variety of categories with deep assortments, Hyper markets not only provide consumers the most extensive merchandise mix, product and brand choices under one roof, but also create superior value for money advantages of hyper market shopping.

#### **5. Big Bazar :**

Big bazar is a chain of hyper market in India. As on 2012, there 214 stores across 90 cities and towns in India. Big bazar is designated as an angglomeration of bazaars of Indian markets with clusters offering a wide range of merchadise including fashion and apparels, food products, general merchandise, furniture, eletronics, books fast food and leisure and entertainment sections.

#### **6. Super markets ;**

These are self service low cost, low margin and high volume operators. A super market sells grocery fresh vegetables, fruits, frozen foods triletries cosmetics, small utensils, cutlery, stationary and gift items.

#### **7. Food world :**

Food world, previously known as spencers daily is a chain of super market stores. It was started in May 1996 as a division of spencer and co a part of the RPG group.

#### **8. Category killers**

A concept imported from US category killers is a kind of disount specially store that offers less variety but deep assortment of merchandise.

#### **9. E-tailers :**

Retailers use drop shipping technique e-retailers accept payment for the product but the consumer receives the product directly from the manufacturer or wholesaler.

#### **10. Amazon.com**

American multinational electronic commerce company. It is worlds largest online retailer.

#### **11. Speiality stores :**

Speciality store gives attention to a particular category and provides high level of services to the customer.

#### **12. Discount stores :**

Discount stores sell their products at discounted rate with an aim of drawing bargain shoppers.

### 13. Subhiksha

Subhiksha was an Indian Retailing with 1600 outlets selling groceries, fruits, vegetables medicines and mobile phones.

### 14. Vending Machines :

Vending machine is a retailing format involving the coin or card operated dispensing of goods and services.

### Major Observations

- 1.1 Retailing in India is growing through an evolutionary stage and is one of the largest sector in the global economy. The current estimated value of the Indian retail sector is about 500 billion USD and expected to reach 1.3 trillion USD by 2020.
- 1.2 The western attitude of splurging, indulging and shop till-you-drop has slowly entered the country led to organized market who dominate the sector. In India the unorganized retailers command about 94% of the market share.
- 1.3 According to a survey by A.t.Kearny, an overwhelming proportion of the 4,00,000 crore retail markets are unorganized and only 20,000 crore are organized retail segment.
- 1.4 Maximum of 97% of the retail business being run by the unorganized retailers, like the traditional family run stores and corner stores
- 1.5 Indian retail sector contributes nearly 10% of the Indian Gross domestic products (GDP)
- 1.6 The largest single retail chain in India is the public distribution system led by Govt (PDS)
- 1.7 The concept of retail as entertainment came to India with the advent of Malls
- 1.8 The most common traditional business models in Indian retail sector are Mandis, Haats, Melas and the local Baniya / Kirana
- 1.9 Rising number of tier 2 and tier 3 cities to enhance super market space in the country. Super markets to total 8500 by 2016 from 500 in 2006.

### CONCLUSION:

In the Indian scenario both organized and un-organized retailers in all segments will co-exist with their own competitive advantages. The un-organized retail sector has low cost relationship, goodwill, competitive price, quality products and door to door delivery system, credit facilities, while on the other hands; organized retailing has long range products, quality competitive price and hygienic atmosphere.



The prime aim of the study is to find customer perception towards organized and un-organized retailers, impact on sales and profit margin, strategies adopted etc

The study revealed that change in life style, increase in awareness of quality products, disposable income switching over to organized retailers .But still then un-organized market dominated in retail industry.

### References

1. Anali Panda (2013) “customer patronage towards food and grocery retail” Global Journal of Management and Business Studies vol 3 No 9. Page No 955 to 960.
2. Kotler P.K.L Keller A Koshi and M.Jha (2007) Marketing Management P.423, Pearson Education New Delhi.
3. Arunkumar Shivashankar K.C and Dr S.J.Manjunath (2012) “Organised retail stores a study at reliance mart” International Journal of engineering and management research vol 2. Issue 5, Page No 15:21
4. Susma rani (2013) Retail Industry in India a study on growth development opportunities and challenges” International journal of computing and corporate research vol 3 issue 6 Page No 111-125.
5. Surevey Report by A.T.Kearny
6. <http://www.jetir.org/papers/JETIR1805348.pdf>
7. [www.jetir.org/papers/JETIR1805245.pdf](http://www.jetir.org/papers/JETIR1805245.pdf)
8. [www.ijcrt.org/papers/IJCRT1813010.pdf](http://www.ijcrt.org/papers/IJCRT1813010.pdf)
9. [www.ijcrt.org/viewfull.php?&p\\_id=IJCRT1813018](http://www.ijcrt.org/viewfull.php?&p_id=IJCRT1813018)