

CHALLENGES AND FUTURE OF GROCERY BUSINESS IN INDIA – A brief study of the Indian online and offline Grocery Market.



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ABSTRACT

This study is the part of a research project to understand & gain insights into the current trends pertaining to online vis-à-vis offline grocery retailing and to identify room for improvement. This paper is one of the first in a series of papers to be published from the Department of Marketing at N L Dalmia Institute of Management Studies & Research.

It is primarily a Secondary research which tries to study the Indian Grocery business from the point of view of an entrepreneur looking to venture into the Indian Grocery Industry. It is assumed that the reader of this document has had a basic schooling and is able to appreciate the fact that Retail in a populous and expansive country like India is a much sought after business due to our country's demographic dividend. It has many facets to it in terms of regulations, distribution channels, procurement, automation, online integration, Inventory management and many more – each of which poses unique challenges and has numerous avenues to work on and streamline.

On the face of it, retail looks like a very lucrative business where every businessman would want to get into; but is it really so? Is it a game of volumes or ticket-sizes? What are the challenges in terms of capital requirements to start such a venture? How long would it take to break even and start making profit? What would be the requirement in terms of skilled manpower? What area should be served and what volumes of tickets which would propel the graph of revenues upwards? What would attract the customer to the retail/online store? And finally, what will drive profits volumes / Ticket-sizes / Area covered / A healthy ratio of Revenues to Resources? Another couple of questions which have an open ended answer w.r.t. to different firms would be -How fast to grow so that you don't stretch yourself too thin to serve the clients efficiently? And on the other hand what should be the optimum number of resources to have for an optimum operation? We aim to answer most of these questions by presenting the trend in the market and the expanse of it to gauge the scope of such a business in the Indian economy in the time to come. We also present the case of Grofers.com which has garnered multimillion dollars as investment from marquee investors and give an overview of how they are doing and at what rate are they expanding. In continuation to that, we offer a small study on the case of opening an Online Grocery store and in what time we think will it break even. A rough calculation is also provided for the same.

This paper starts with details on the retail channels available in India and goes on to explain the advent of the online retail format and how it is here to stay for long. It briefly explains how the future is in the Omni-channel retail and the winner would be the one who decodes this Online-Offline Retail conjunction.

This study was done under the guidance of our Director & Professor in Digital Marketing & Metrics, Dr. Raja Roy Choudhury and the study would not have been possible without his insights and his guidance every step of the way. They say there needs to be a clear big picture and a goal before you dig the details. The big picture was clearly provided and articulated by Professor and the contents of the subject gave us a deep dive into the world of retail. Needless to say this paper was not a possibility without him.

We hope that this paper provides a complete picture of the future of Grocery Business in India to both an expert in the field and to a novice reader inquisitive on the subject.

I. INTRODUCTION

The Indian grocery retail industry is one of the most vibrant and fast-growing industries due to the entry of several new players. It accounts for over 16 per cent of the country's Gross Domestic Product (GDP) and around 8 per cent of the employment.

II. MARKET SIZE

The opportunities in grocery retail in India are immense, given that it constitutes about 69% of India's total retail market. The following data shows the size of grocery retail market since 2010:

	2010	2011	2012	2013	2014	2015
Value sales INR bn	11,850.8	13,151.7	14,602.9	16,178.2	17,896.9	19,677.0
Outlets '000	12,236.8	12,303.6	12,365.9	12,432.3	12,494.6	12,561.4
Selling Space mn sq m	466.3	473.0	476.2	482.6	489.9	497.9

Source: Euromonitor International from official statistics, trade associations, trade press, company research, trade interviews, trade sources

As is evident from the data, the grocery retail industry has been growing steadily over the past 6 years, in terms of all 3 mentioned parameters.

The Indian grocery retail market, currently estimated at \$343 billion, is project to grow at a compounded annual growth rate of 6 per cent to reach \$610 billion by 2023.

While the overall retail market for this category is expected to grow at 10 per cent per annum, modern trade would expand twice as fast at 20 per cent per annum and traditional trade at 10 per cent. Modern trade is registering a faster growth rate due to increased footfall by urban customers at supermarkets and hypermarkets. However, the size of traditional grocery retailers continues to be much larger than size of modern grocery retailers as seen in data below.

1000 outlets	2010	2011	2012	2013	2014	2015
Modern Grocery Retailers	4.9	5.3	5.5	5.9	5.9	6.2
- Convenience Stores	0.8	0.8	0.9	1.0	0.8	0.8
- Discounters	-	-	-	-	-	-
- Forecourt Retailers	0.3	0.3	0.3	0.3	0.3	0.3
- Chained Forecourts	0.3	0.3	0.3	0.3	0.3	0.3
- Independent Forecourts	-	-	-	-	-	-
- Hypermarkets	0.3	0.3	0.4	0.4	0.4	0.5
- Supermarkets	3.5	3.8	4.0	4.2	4.4	4.6
Traditional Grocery Retailers	12,231.9	12,198.3	12,360.3	12,436.5	12,488.7	12,555.2
- Food/Drink/Tobacco Specialists	2,329.6	2,326.8	2,338.4	2,352.5	2,356.9	2,393.6
- Independent Small Grocers	9,097.2	9,151.0	9,197.5	9,245.3	9,286.0	9,325.0
- Other Grocers Retailers	814.1	819.8	824.4	828.7	832.8	836.6
Grocery Retailers	12,236.8	12,303.6	12,365.9	12,432.3	12,494.6	12,561.4

Source: Euromonitor International from official statistics, trade associations, trade press, company research, trade interviews, trade sources

Global Position

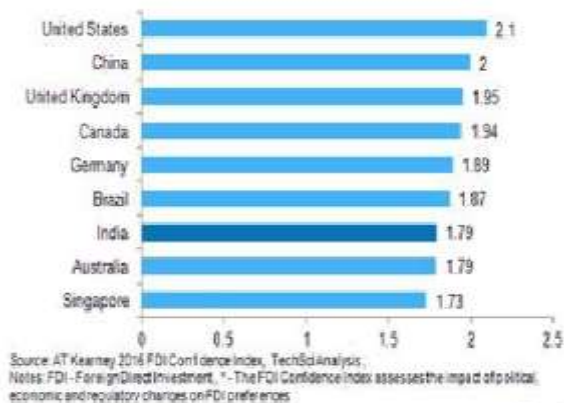
India, the sixth-largest global grocery market, has plenty of potential but has proved challenging for international retailers to date. This is because of the strength of local traditional trade and legislative restrictions on international investment. Despite the inherent challenges, global retailers.

are now seeking to enter mainly due to two reasons: economic liberalization and demographic profile of India stand out among other developing countries and present a strong business case. India is the world's fifth-largest global destination in the retail space.

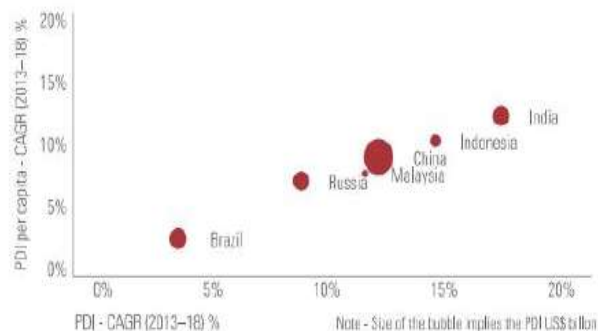
India has occupied a remarkable position in global retail rankings. The Retail sector's high growth potential is attracting investors from across the world. The country has high market potential, low economic risk, and moderate political risk.

- In market potential, India ranks eleventh (after United States, China, Canada, UK, Brazil, Germany, Austria and Mexico).
- India's net retail sales are quite significant among emerging and developed nations; the country is ranked third (after China and Brazil)
- Growth in personal disposable income for India has been among the highest in emerging markets.
- Overall, given its high growth potential, India compares favorably with global peers among foreign investors.

FDI Confidence Index 2015

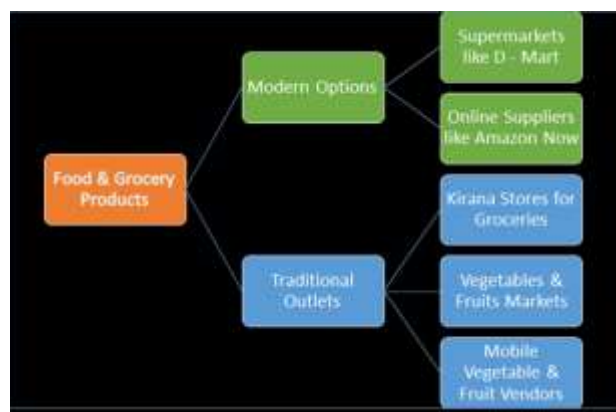


India's personal disposable income (PDI) growth comparison with other emerging markets



Source: Euromonitor Estimates

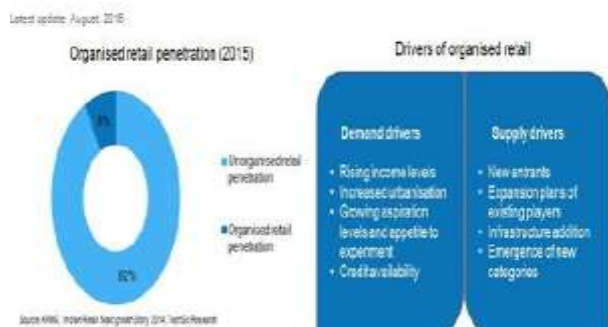
III. RETAIL STRUCTURE



Unorganized vs. Organized

Indian grocery retail is dominated by millions of market stalls and specialist shops, kiranas and kiosks - collectively known as 'unorganized retail' which account for around 92% of the country's grocery sales. This is important not only because of its size but also because of unorganized grocery retail's long heritage which brings with it a wealth of experience and shopper understanding. Unorganized grocery retail takes many different shapes and forms in India. It can be as small as a kiosk window selling sweets, as specialist as a chicken shop just displaying cages of live birds, or as informal as a vendor sitting on the street with a pile of onions and a set of weighing scales. The key advantage is that they do not need to be all things to all people.

In contrast, organized/modern grocery retailing has been established for just over a decade. It has only 8-9 percent present penetration till now. The key growth drivers for organized retail in India are: Increasing urbanization, Increasing disposable income, Raising middle class population, Increasing youngsters, Increasing working women, Health consciousness, Consumer awareness & changing preferences, Increasing travellers, International TV shows, food festivals, internet penetration. Modern retail stores have grown more than 4 times since 2006 and is currently estimated to be more than 40,000 stores in the country and expected to reach 70,000 by 2016. Consumer spending in modern retail is seeing a rapid growth in tier-2 and tier-3 cities but challenges include brand building, pricing, logistics, trained manpower, hygiene concerns etc. Modern trade is used to launch new products, build brands, improve customer awareness etc. This could then be followed by volume ramp up from general trade channels.



Since 2006, when a lot of big retailers either entered the Indian retail space or began expanding their network, sales in local kirana stores have grown in low single digits - even less than the GDP growth rate, whereas modern trade has grown by strong double digits, though at a much smaller base. For instance, sales at modern retail stores grew 34% in 2006 and 29.3% in 2010. Traditional/kirana stores could increase sales by only 1.5% in 2006, but improved the growth rate to 6.2% in 2010.

A Nielsen study carried out in 2011 shows that the frequency of consumers going to large stores has increased. Around 37% consumers visited modern trade stores every month in 2011, up from 30% in 2010. The most probable reason can be attributed to more options that big retailers offer to consumers. In smaller, mom-and-pop stores, customers have to be very specific with what they want, but they can get far more options in a modern store.

Big consumer product companies, including India's largest consumer products firm Hindustan Unilever that have relied on millions of small shops to build their huge empire, are now aggressively tapping modern stores.

Modern retail now accounted for more than 10% of Hindustan Unilever's sales in 2011, up from 5% in 2005. One of the reasons why consumer products giants are focusing on modern retail is because premium products are sold more in the organized sector and these products yield higher margins to manufacturers.

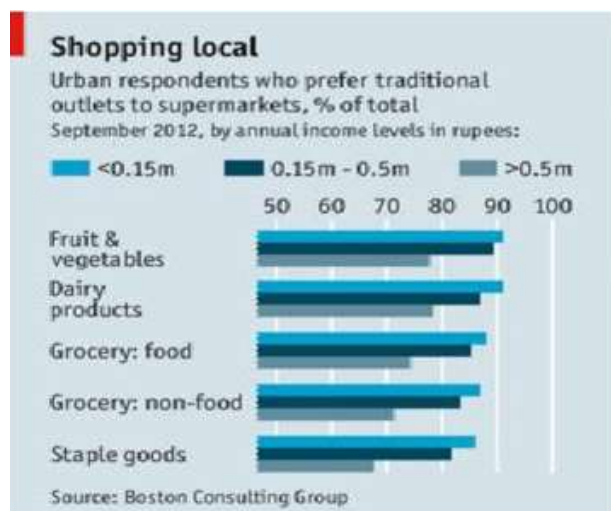
According to a report by consulting firm PricewaterhouseCoopers (PwC), there are over 12 million mom-and-pop stores in India's unorganized sector. While mall-based modern shopping formats are gaining popularity in most tier 1 and tier 2 cities, the invincible kirana stores have their advantages as they offer credit, and have flexible conditions for product returns and exchanges. Apart from these reasons, proximity of locations, personalized services are among the strengths of the kirana retail format stores which are largely unorganized and lack access to modern technology to run the day to day business. Traditionally, the sector has not adopted Information Technology due to lack of awareness in the field and reluctance shown by the store owners to automate operations.

India's home-grown supermarkets account for a meagre 2% of food and grocery sales and struggle to make a profit. Revenues have not kept pace with the rising rents. Traditional retailers are also seen as being cheaper. In fact, a BCG report says, a full basket of goods is 3-4% cheaper at the supermarket, in part because sells a few vegetables and some staples as loss-leaders.

The convenience-store format may fit consumer preferences but it places huge demands on retailers. It takes three deliveries a day, one for each of fresh, frozen and packaged goods, to restock the KB's Fair price at Malabar Hill. At that frequency the cost of "shrinkage" (packing errors, pilfering, and so on) can add up. Another challenge is to ensure that franchisees give customers the sort of personalized service they are used to from the traditional kirana trade. Despite the pitfalls, other chains are experimenting with smaller formats. Trent, a retail joint-venture between Tata Sons and Tesco, is of the opinion there might be mileage in limited-range supermarkets of 450-750 square metres, as well as smaller stores.

The challenges faced by the unorganized sector are manifold including

- Lack of best practice in inventory management and supply chain management.
- Lack of standardization
- Stiff competition from organized retail sector
- Lack of knowledge, skills and training
- Lack of capital.



On studying shopper behavior at kirana stores, studies reveal that 70% of purchases are made at the point of purchase, hence store environment can impact 70% of purchase decisions which is one of the important constituents of shopping experience in an unorganized retail setup.

Irrespective of area, people prefer grocery stores to be nearby and product assortment is especially important for grocery. Service quality has become vital for service firms to pay attention due to increased competition.

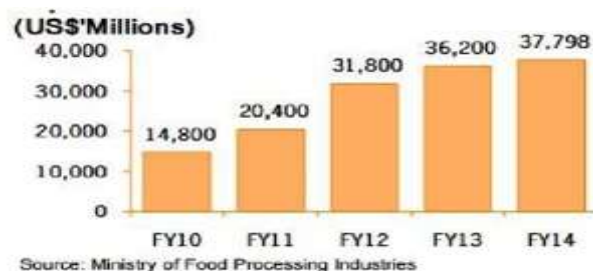
With the rapid growth of organized retail – in the form of supermarkets and hypermarkets as well as online grocery retail, it is still growing from a small base of 8% of the total share. Unorganized retail has grown and stayed in India for a long time and hence it is not easy to beat. But the new advent is that of online grocery retailers partnering with kirana stores to make deliveries.

IV. MARKET DYNAMICS: KEY DRIVERS

India is soon on its way to becoming globally the most important packaged food market. India has a lot of untapped potential across the food chain. The eased government legislation and strong growth prospects of India have made it an attractive market for foreign investment. Retailers in the Indian grocery market face changing consumption patterns as a result of uncertain economic conditions, demographic changes, and evolving technology. The changing preferences of the higher middle class families have given dominance to food processing sector and also fuelled the growth in the last few years to make the industry the fifth largest in India in terms of production and export growth. Food processing industry includes the following sub-sectors: 1. Dairy – milk, milk powder, ice cream, butter, cheese and ghee 2. Fruits & Vegetables – Slices, Pulps, Juices, Concentrates, Beverages, Potato wafers/ chips etc 3. Grains & Cereals – Flour, Bakery products, Corn flakes, Starch, Glucose, Malted foods, Vermicelli, Beer and malt extracts 4. Fisheries – Frozen and canned foods mainly in fresh form 5. Meat & Poultry –Frozen and packed foods mainly in fresh form.

Higher growth of food processing industry over agriculture since FY11 indicates that the level of processing has been increasing over the years. Earlier food processing was limited to food preservation, packaging and transportation, whereas the industry has evolved and widened its scope with emerging new trends in consumer preferences and the advancement in technologies adapted to meet those preferences. These new developments include establishment of cold storage facilities, food parks, packaging centres, irradiation centres and modernized abattoir to offer new products like ready to eat foods, beverages, processed fruits & vegetables, Processed

marine and meat products, etc. With the growth in the industry driven by the domestic demand, the industry has also geared up for tapping its export potential. The share of food processing exports in total exports was around 12% in the last few years on the back of CAGR 26% growth experienced in food exports during the period from FY10 to FY14:



Export of food & related items

It is imperative for India to adopt the best practices in global markets to address/ find solutions for the burning issue of wastage at harvest and postharvest of major agricultural products, especially in fruits & vegetables segment, which has witnessed higher wastage. Huge losses – both during harvest and post-harvest – dent the Indian exchequer. According to United Nations' Food and Agriculture Organization, up to 40% of India's fresh fruits and vegetables perish before reaching the consumers. The focus of the post-harvest technology has been loss prevention through processing of raw food products. While there has been change in food technologies (from manual to mechanical or power operated processes or use of solar or air dryers instead of sun drying, etc), the industry is yet to adopt newer technologies.

The organized food sector is expected to increase on the back of favorable demographics (middle class, urbanization), rising disposable incomes (per capita income, double income groups) and changing lifestyle preferences (convenience necessitated by professional commitments, rising aspirations) is expected to drive the growth, generally, in food and beverages market and specifically in the organized retail market as the average propensity to consume is expected to increase further.

Supply side Drivers

- **Economic liberalization:** With economic liberalization in the early 1990s, barriers to doing business were either removed or minimized. Economic reforms helped India attract investments in the sector from foreign companies wanting to enter the Indian market and also from private equity firms.
- **Improved retail format:** With the emergence of modern retail formats, the food sector found a new format for operations.
- **Emergence of contract farming:** Availability of food and volatility in prices have been key concerns, which led to emergence of contract farming in the food & beverages sector. Lot of the companies have taken contract farming route to ensure availability of food and at reasonable prices. The companies sign contracts with farmers to grow a specific crop with a guarantee to off take the crop at an agreed price. Industry sources indicate that McCain Foods, which supplies to McDonald's, has 400 farmers cultivating 2,000 acres in Gujarat and Pepsi Foods has over 2,000 farmers on contract, covering 7,000 acres across Haryana, Punjab, and Uttar Pradesh for crops ranging from potato to chilly and groundnuts.
- **Infrastructure development:** As an offshoot of the growth in the food sector, third party logistics providers, which transport the produce and food products from source to destination have also emerged.

Demand side Drivers

- Household consumption pattern: Food and beverages form the top consumption item in a typical Indian family's consumption basket. While all India average is 51% of the total spend, it is 45% in urban areas and higher at 55% in rural areas.
- Favourable demographic trends; emergence of urban middle class: The vast and increasing population base in India brings in a potential market for all consumption based businesses including food products/ services. India has a population of over 1.2 billion with more than half the population under the age of 30 years. This young population, employed primarily in services sectors and aspires to improve the standard of living, is expected to drive the growth in all consumption driven sectors.
- Rising disposable incomes; emergence of double income nuclear families: Increase in disposable incomes of middle class families resulted in them spending more on food consumption. Per capita income increased by CAGR 9% to US\$1,350 in 2013 compared to US\$450 in 2000. Rise in number of working women, which is currently ~25% of the labour force has been one of the other key reasons for higher average monthly household income.

Key Opportunities

- Traditional retail dominates food, grocery and allied products sector, with grocery and staples largely sourced from the local stores (Kiranans) and push-cart vendors. The organized food retail accounts for the 15% to 20% of the total retail pie, whereas it accounts for around 70% of the unorganized retail industry
- One of the key drivers for changes in consumer preferences is the aspirational aspects which translate into variety, choices and convenience in shopping. The organized retail is yet to address the basic requirements. Hence, there is a need for scientific management of categories and up gradation of stores to fulfil and drive the demand from these customers.
- Since food retailers have the ability to attract and retain customers, the contribution of own brands has been increasing over the years and has become the largest segment of retailer's revenue. These brands are essentially in the fresh and staples segments and have been key to improving margins and helping retailers grow their business.
- Major shift in consumer preferences is not only true in metros and cities but also true in small towns, which have emerged as attractive markets for retailers to expand their presence.
- Food safety and hygiene has been a critical development with FSSAI coming into operation. Only a modern retailer can comply with these provisions as this would increase the cost of product as well as delivery.
- Groceries and pulses have been covered under the Agricultural Produce and Marketing Corporation (APMC) act. Farmers have been selling to traders affiliated to APMCs set up in respective states. However, the incumbent NDA government has been pushing the APMC reforms and the monopoly of APMCs is set to break. The reforms will enable farmers to sell directly to retailers. States such as Madhya Pradesh, Karnataka and Gujarat have already made changes to the APMC act.
- The Cabinet Committee on Economic Affairs has approved setting up of a National Agriculture Market (NAM) where farmers can offer their produce to any part of the country. These changes augur well for modern retail as the margins gained by retailers will be much higher by removal of middlemen such as traders.

V. ONLINE GROCERY SEGMENT

Today, modern retail accounts for more than 25-30% of grocery retail in large cities in India, of which online retail is the fastest growing channel among modern retail. While this channel is enabled by the web capabilities and online platforms, the essence of the business still remains understanding the consumption patterns and delivering through an efficient supply chain management. Online grocery market forms only a small share of the organized retail pie and it is expected to grow rapidly in near future on the back of unique service offerings around discounts, convenience and value added services. Since Indian consumer is price sensitive and since online grocery's operational and inventory costs are much less than those of offline retailers, discounts were one of the key marketing strategies for online retailers. In addition, online groceries have been attracting the Indian consumer to online shopping by providing various value-added services such as free shipping, wide range of products not normally available with local retailers, product returns, guaranteed shipping time window and user reviews. While these strategies have been aimed at retaining and expanding customer base, the key driver for online retailing has been convenience. Increase in fuel prices coupled with time required to shop in an offline retailer (traffic, parking problems and footfall in shops) have led consumers to purchase goods online. The online grocery market presents an attractive opportunity for entrepreneurs for building brands and tapping new opportunities like logistics business. This channel gives a direct access to the consumers without spending on marketing which enables entrepreneurs to build brands, market products and expand operations.

Online grocery retails follow two types of operational models: inventory model or the hyper-local delivery model. Both these models are fraught with unique challenges. The inventory model, followed by players such as Bigbasket.com gives greater control on quality but at the cost of investing in warehousing spaces for products. Gross margins are higher due to sourcing from large traders in bulk but those are eaten away by the fixed investments in storage space. The hyper-local delivery model is asset light. However, they operate on wafer thin margins. An average commission of 10% is paid to the hyper local delivery player such as Grofers.com who have to manage the delivery costs within this margin. At an average ticket size of Rs. 560, Grofers.com thus has only Rs. 56 to play with and manage the cost of supplying the order from groceries to the consumer. Costs incurred in this operation are fuel costs, fixed costs of vehicles and salaries of the delivery personnel. Thus, the challenges to both the models are different but there is scope for both the models to co-exist.

"Online retailing offers a direct link between the farmer and the home by cutting through the layers in the supply chain and helps reduce food inflation, wastage and supply chain inefficiencies - farmers get direct access to consumers, consumers gets the freshness of the farm produce and eliminates middlemen who can inflate prices during shortages. As this gives scope for building brands and also setting up backend infrastructure, has potential for employment generation for entrepreneurs and workers" - Sudhakar V S, Director BIGBASKET.COM.

Key Opportunities

- Online grocery is expected to be the convenience channel for food & beverages sector, due to the increased stress requiring focus on work life balances and also freeing time for family or leisure activities. Avoiding trips to local grocery shops has become one of the common trends.
- Internet penetration is expected to increase further in future, which will equip more consumers to transact online. This augurs well for the online businesses including online grocery. In addition, the new generation is more internet

savvy compared to the earlier one. Online purchasing has become second nature for this generation as they have been used to internet since early days

- While the potential for organized retail market is established, availability of quality property and travel related issues like traffic and parking problems and time required to do regular grocery shopping has created and expanded the online retail market.
- Online retailers have an edge over physical retailers as the capex investments are less, which can be diverted into improving the range and quality of products and also their customer experience.
- With the data collected online, the online groceries can customize offerings to customers (whether it is convenience of ordering regular cart or product recommendations or targeted promotional schemes). There is scope for online groceries to take advantage of this by creating personalized preferences/dashboards.
- Emergence of various payment gateways and also confidence in Indian consumer to bank and transact online is expected to increase the customer base. Emergence of supporting payments industry augurs well for the online grocery segment.

Quick facts on growth prospects of grocery retail

- Grocery market is currently pegged at around \$500 Billion of which not even 1% is online.
- 67 per cent of Indian retail(organized + unorganized) spending is towards food and groceries.
- India : 6th largest grocery market in the world.
- The online grocery market is growing at estimated 25-30% annually in metropolitan areas and large cities.
- Only 5-8% of grocery stores are organized corporations. The vast majority are “mom & pop” type shops we call “kiranas”.
- Margins: 22-24% on Fresh Fruits but average is 15% (including Staples).

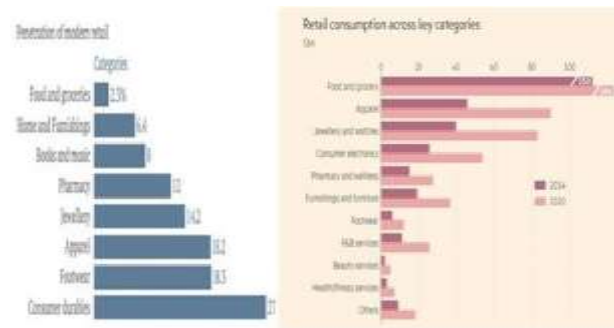
Emerging trend in Grocery retail: Online Groceries and Hyper-marts

The retail market in India is expected to hit \$725 Bn (about INR 43 lakh crore) by 2017. Retail consultancy Techno Pak estimates online grocery business to grow at a rate of 25-30 per cent y- o-y basis in major cities of India. India's online grocery market, which is estimated to be less than \$100 million at present, is expected to cross \$25 billion by 2020.

The online retail in grocery is pegged to grow along with internet penetration which is pegged to explode to tier2, tier3 and rural areas.

Penetration of Grocery in modern retail and projections vis-à-vis categories

A good measure of current penetration of the Online Grocery business and the future as projected can be inferred from the comparisons below:



Here, we see that the though the Consumption of Food and Groceries is the highest across all the retail categories, the Penetration of Modern retail in this category is the least i.e. 2.3%.

Hyper-local Grocery Delivery business including Online shops

1. Zopnow.com : Bangalore
2. Grofers.com : NCR/Bangalore
3. Amazon Now, Bengaluru, Mumbai, Hyderabad, New Delhi & NCR.
4. Aramshop.com : All India
5. Naturesbasket.com
6. Star Bazar
7. Apna Bazaar
8. D-Mart

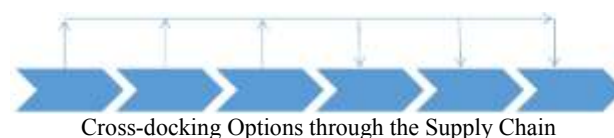
Supply Chain Management

Supply Chain is a huge challenge. One option is to partner with firms providing SCM and last mile delivery solutions E.g. Delhivery.com, ZotDot (DTDC), Zepo-AVN, ShipRocket, and GoJavas.

These services could be relied on capitalizing on the growing competition in the E-commerce, Logistics players in the market. This may cater to last mile or the end to end delivery. Also, most of the hyper local delivery shops also have an in-house SCM.

The major challenge in the SCM stems from the differential usage of various SKUs in online Grocery and their replenishment in a good time. While some SKU require weekly replenishment, some may require intraday replenishments (e.g. fresh fruits like bananas).

The usual slow of Grocery inventory is as follows:-



This elaborate process fields lot of challenges and opportunities in SCM optimization and delivery of Groceries such that an Optimum inventory is maintained at any point in time.

Challenges in SCM

- (1) Inventory Management: This is an area which needs most attention in both the Online and Brick and Mortar format due to different expiry times of various SKUs classified under groceries. Furthermore, the fresh groceries need more attention due further differentiations in expiry times. Keeping an optimum inventory based on the rate of movement based on factors like the day of week and season (festivals) is a challenge as wastage of such grocery is a direct hit on Financial statements / Top and Bottom-line.

(2) Optimization of movements of SKUs between the Point of Storage and Point of Purchase: The distance between the two points and the number of Replenishments cycles can affect the margins drastically. A mix of different types of Grocery may require SKUs coming from different origins (cross-docking) or different volumes during different times of day or week in case of a common warehouse.

(3) Storage: Optimum Storage for different types of groceries while it makes its way into different Marts. Some groceries may require Cold Storage while others a Food-Grade storage environment (e.g. for Staples).

(4) In Online Retail format: The Pure-Play online retailers face the problem of matching the demand to the inventory in warehouse. Only a thorough demand driven business can survive in this highly competitive market.

Comparison Matrix of Various Models of Online Grocery retailing

Formats	SCM optimization until Warehouse	SCM optimization until Mart	SCM Optimization until online listing	SCM for Mart / Store - Consumer (Last mile)	QA / QC of Grocery	USP to the consumer	Revenue Streams
Pure-Play Online Retail	Demand Driven S/W IoT based optimization s.	N / A	S/W and IoT based Real Time updates by linking Warehouse to online listing.	Outsourcing V/s In-house, Timeslot based delivery	Complete control of QC	Convenience / Quality / Price	SCM Optimizations, Margins on groceries, Cross-docking Options between farm -- home SC.
Online aggregator of stores	N / A	N / A	N / A	Outsourcing V/s In-house V/s Responsibility of the Retailer, all-time delivery OR Timeslot delivery	No real-time QA. Quality dependent on retailer / Kirana store	Convenience / Price	Margins on Groceries / Price for online listing of Grocery Stores
Brick & Mortar Stores with Online listing and delivery of grocery product	Demand Driven S/W IoT based optimization.	Demand Driven S/W IoT based optimization.	Application of Omni channel retailing fundamentals. S/W IoT based real time update linking waterhouse to online listing	Outsourcing V/s In-house, Timeslot based delivery	Complete control of QC	Convenience / Quality / Price	SCM Optimizations, Margins on groceries, Cross-docking options between farm home

VI. CURIOUS CASE OF GROCERY BUSINESS: “GROFERS.COM”

(Using June 2015 numbers for orders, ticket size and losses incurred)

Business: Online aggregator of Kirana / Grocery stores and a delivery service for groceries.

SCM: In-house.

Orders served per day: 6000

Average Ticket size: Rs. 560

Current Losses: 10% including OPEX

Employees: 1000(of which 700 are delivery boys)

Revenue per month: $560 \times 6000 \times 30 = \text{Rs. } 100800000$

Burn Rate for current month: Rs. 110880000 (assumption of current values)

Current Deficit per month: Rs. 10080000 (assumption that deficit is pro-rating with the revenue)

Possible routes to profitability for “Grofers.com”

- Better margins from Grocery shops
- Increased Ticket size
- Increased number of deliveries per delivery cycle in a region
- Better SCM management by using more automation at every docking point
- More Revenue per delivery cycle for the same volume delivered
- Cross-docking
- Greater number of orders

VII. CASE FOR OPENING AN ONLINE GROCERY STORE / KIRANA AGGREGATOR FOR MUMBAI

BUSINESS: Platform for offline Grocery stores to sell online + Delivery of Groceries.

Initial Setup Costs + Operational Costs: Year 1

- Onetime cost :Website + Mobile App with Cloud-based Database + ERP S/W: Rs. 40Lacs
- SEO / SEM and other online campaigns : 50 LPA
- Cost Delivery Vehicles: $5 \times 20 \times 40000 = \text{Rs. } 40 \text{ Lacs}$
- Team of Technology Professionals: 1 Cr PA
- Cost of Delivery Boys for a sweep area of Mumbai City : 3 Lacs*100 = 3 Cr PA
- CEO + COO Salary : 30 LPA
- Threadbare Opex per year(Petrol): $80 \times 100 \times 365 = \text{Rs. } 2920000 \sim \text{Rs. } 30 \text{ LPA}$
- Hr expenses : 10 LPA
- Rentals : 30 LPA
- Misc. : 20 LPA

First year Fixed Costs: 1 Cr First Yr. Variable Costs: 5.7 Cr
First Year total Costs: 6.7 Cr

Second Yr. Costs Opex: 6.27 Cr (Accounting for Inflation ~4% + 6% general increase in Opex)

Third Yr. Costs Opex: 6.897 Cr

Fourth Yr. Costs Opex: 7.5867 Cr

Fifth Yr. Opex: 8.34537 Cr

Five year expenditure: Rs. 35.79907 Cr

AIM: To break even in 5 years
 Assuming Optimum Ticket-size: Rs. 600
 Assuming Margins: 15% i.e. Rs. 90
 Number of deliveries to be done daily to break even in 5 years:
 ~ 2180 i.e. just ~22
 deliveries per delivery boy.

Considering that Grofers.com is doing 3000 transactions in NCR alone and that it took approx. 1.5 years to reach this number in NCR, it may take a new entrant around the same time or even less given that adoption of this model by consumers is on a steady rise.

This is however a very pessimistic approach and the model is not very realistic as it follows a conservative approach discounting the external factors. Since the market factors contributing to the success of such a model are turning more favourable – Increasing Internet adoption / Customers looking for more convenience based models of shopping / increasing average household incomes / extremely fast adoption of Smartphones for online shopping / greater trust and adoption of online payment solutions; it is imperative that we calculate the Break Even incorporating these.

So considering a more realistic growth according to the following:

Avg. Ticket Size = Rs. 600 Margins (18%) = Rs. 108
 Average Deliveries in first six months = 1000 per day Total half yearly = 180000

Considering average number of deliveries per month double every six months;

Total deliveries in 03 years =
 $(180000+360000)+(720000+1440000)+(2880000+5760000)=$
 11340000

Net Revenue from deliveries for the 03 years =
 $(180000+360000)*600 + (720000+1440000)*(600*1.05) +$
 $(2880000+5760000)*(600*1.05*1.05) = \text{Rs. } 7400160000$

Total Profit from deliveries =
 $(180000+360000)*108 + (720000+1440000)*(108*1.05) +$
 $(2880000+5760000)*(108*1.05*1.05) = \text{Rs. } 1332028800$

New Total OPEX for three years (enhancing the earlier model) = Rs. 650000000

Replicating model into similar Tier-1 cities

OPEX for 3 years for Mum/Delhi-NCR/Chennai/Hyd. = Rs. 2600000000 ~ Rs 260 Crores

Net Revenue from deliveries for the 03 years = Rs. 29600640000 (~Rs. 2960 Cr)

Total Profit from deliveries = Rs. 5328115200 (~Rs. 532.8 Cr)
 Hence, this model is do-able and would be a good business.

A Pitch to the Investors

So, a qualified team with a mix of experts from Technology, Retail and People Management could ask for sum of ~Rs. 260 Crores for a start-ups of online retail of groceries in four major cities with an aim of cumulative revenue of first 3 years = ~ Rs. 2960 Cr and profit close to Rs. 532.8 Cr.

The key factor which changes the equation is the average Ticket size and the number of orders. So, any new startup in this sector should aim at higher ticket size and higher number of orders. Thus we would see many such Online Aggregation models come up and compete in the market.

A variation to this model would be a warehouse and instead of aggregation, selling groceries owned by the firm. Such a model will add to the Margins and would be much more profitable.

VIII. OVERALL CHALLENGES

Owners and managers of grocery stores are keen to build sales and profits. They constantly strive to offer quality products that customers demand at reasonable prices. Additionally, retailers must constantly be improving customer service satisfaction in their units. While specific sales and customer service goals are common with all retailers, certain retail management challenges can hinder a grocery store's chance of achieving these objectives .

Compared to the overall retail segment, grocery retailers face unique challenges when it comes to e- Commerce and driving sales through online and mobile channels. Some of these challenges are in areas of logistics and delivery, while others are in the areas of business processes and consumer behaviour. Challenges faced by grocery delivery start-ups are multiple ranging from maintaining quality of their products to managing the inventory to logistics to customer satisfaction and retention to even fundraising. These niche businesses also have requirements of the right talent for vendor acquisition and fulfilment, especially for those who are not keeping their own inventory, tapping into the right local stores for supply is a critical but a tough task.

Hands down, all grocery e-commerce companies agree that the market itself needs to be tamed first. Even though a number of parameters are in favour of e-commerce in general like increasing Internet penetration, smartphone users, online shoppers, logistics support and so on, grocery remains a vertical that requires special treatment due to the perishable nature of the inventory. Moreover, with India having multiple grocery stores in or near every neighbourhood, a majority of the population doesn't have to go far for its daily grocery requirements.

There has been much consolidation in the grocery stores in recent years. The surviving grocery stores have realized that they cannot offer all things to all people. Instead, they are attempting to do the things they can do better than their competition. Nearly every survey consistently indicates what today customers are looking for in their shopping experience:

- a) Sell what they need and have it in stock when they want it.
- b) Make it easy for them to shop and find what they are looking for.
- c) Provide all the information they need in order to quickly decide what to buy.
- d) Have friendly helpful people available to make the shopping experience a pleasant one.

1. Labour cost :

Controlling operational costs is certainly one of the biggest challenges that any retailer faces. Since grocery stores typically run on extremely low profit margins, the need for a lean and efficient operation is critical. Labour costs are the single greatest controllable expense. Some grocery store managers have a tendency to cut labour during tough times. If labour cost reduction is not managed properly, customer service and store conditions may suffer. This, of course, results in lost customers and sales. Retailers that do not properly budget for necessary training programs will most likely see both increased employee turnover, which becomes very costly over time, as well as reduced customer service, due to a lack of training

2. Knowing the inventory:

The grocery store manager must understand the inventory inside and out. In addition to knowing what the product is, the manager also has to know how often it ships from the producer, how big the packages are, the most cost-effective quantity to order, etc. Above all, the manager must know at all times exactly what is on hand, where it is located, and when it will be replenished.

3. Higher productivity requirements and fewer resources.

Grocery stores are always looking for ways to squeeze extra expenses out of every part of the profit and loss. One of the places they squeeze is in logistics and Inventory. Retail software help and hurt this aspect of the business. It helps by finding those extra expenses, but hurts by making it appear as if there are more and more places to squeeze. They need to focus of the profit loss ratio of the expenses they are making and what are the benefits they are achieving from that investment. Cost benefit ratio is very much important while choosing a process and software for your business.

4. Customer demand:

Most grocery store managers prefer to manage products for customers according to their needs and expectations. It is the responsibility of the grocery store manager to understand what the customer expects and to deliver the results they require. Otherwise, the manager can expect to lose business quickly as customers are quick to switch to other grocery stores.

5. Increasing competition

With emergence of the grocery store chains or supermarkets in developed countries, its becoming more difficult for new grocery store owners to establish and survive in competitive environment. With low labor costs, material costs, and low currency values, these emerging grocery stores can easily undercut established supermarkets. With the availability of fast international shipping, established grocery stores are constantly challenged to compete.

6. Operation management challenges

Keeping specific goals in mind, retailers are always keen to maximize value received from payroll spending and optimize their scheduling. There are many operations management challenges faced by the grocers, which include:

- a. Time & attendance system is time consuming and require manual intervention.
- b. Payroll errors
- c. Punch errors resulting in unnecessary regular and overtime costs.
- d. Time clocks lack the ability to verify the person punching in or out.
- e. Legal compliance (i.e. minors, punch edits, etc.)
- f. Costs associated with over and under scheduling
- g. Lack of optimized scheduling.

7. Issues in existing store systems technology:

Generally speaking, most grocery store retailers have added technology at a conservative pace over the years, mainly due to precise ROI requirements. It is an industry that runs on very low profit margins. New solutions need to demonstrate quick payback through increased sales and profits, and/or reduced costs to the operation.

Technologies designed to improve the customer's experience in the grocery store, such as faster checkout, or ways to provide additional information to the customer are sometimes difficult to justify when chains are focused on their bottom line. The impact of new system deployment, training, maintenance, and

support can add to a retailer's reluctance to simply accept the next new technology.

As technology has evolved over the years, most retailers have switched their operations to the latest tools and techniques except using older systems. Few drawbacks of existing technologies are given below:

- Many systems either do not connect, or are connected in a cumbersome manner that requires manual processes. Information is difficult to retrieve, and new releases are resource-intensive to manage.
- Some software purchased through vendors lack consistency in capability, has overlapping scopes, and is rarely integrated in terms of function or data.
- Many older applications are based on outdated architecture and are inflexible; making it difficult to change processes and business rules, add new devices, and so on, without touching the source code. This can present a competitive disadvantage for retailers as new innovations are made available over time.
- Older hardware is difficult and costly to maintain. IT departments have grown in size as technology has been deployed over the years.
- According to several studies of IT leaders, as much as 70 percent of a retailer's information technology resources are devoted to sustaining and running existing capability, leaving only 30 percent for exploring and implementing new capabilities.

8. Low margin game

Grocery business is the one where the key driver to growth is scale. As the margins are relatively lower in this category, the game is all about increasing the number of orders and the ticket size.

Unlike the pure play online retail giants (namely Amazon and Flipkart) who are relying on the high discounts strategy to acquire more consumers, the e-grocery players cannot use it for their growth as the ticket sizes are not that high and the margins are quite low to pass on huge benefits to the consumers.

IX. FUTURE

As consumers distance themselves from the supercentre model, stores are becoming more intimate, with emphasis on prepared foods and local merchandise.

Imagine a grocery store where you can receive personal recommendations and offers the moment you step in the store, where checkout takes seconds and you can pay for groceries without ever taking out your wallet.

Online grocery stores is a format increasingly gaining interest and consumer acceptance. With a number of such well-funded businesses in India offering competitive pricing and freebies with every order, there would be increased interest and more shoppers will turn to such format due to the convenience it offers. Also aiding to this phenomenon is the growth of internet in India which is yet to reach a tipping point and offers immense hope to this format of grocery shopping.

In the consumer packaged goods industry, change has been more evolutionary than revolutionary, but digital is redefining what it means to "go" shopping. Lines between the physical and digital worlds are blurring. Shoppers are growing accustomed to the benefits of digital in other retail settings and are beginning to expect them in grocery as well. Savvy retailers are winning by leveraging technology to enhance the shopping experience and meet consumers' evolving desires.

The past was tough for small and few of the big grocery stores and the near future won't be much easier. Differentiation was, and will be, key for retailers in upcoming years. Grocery stores need to increase focus on creating a unique shopping experience, store design and product selections, and provide excellent customer service for their customers.

- Data and data management – The amount of data available today and the increased customer expectation to have access to a lot of product information has made data management a priority.
- Inventory visibility and availability – Stores are trying to maximize the inventory they have and to ensure that it is accessible via all selling channels and customer engagement points.
- Technology and innovation- Organizations are leveraging technology that needs updated or replaced. Technology and system capabilities are changing. While brick-and-mortar stores.
- Dominate the grocery shopping experience, e-commerce is a growing business that is still in its nascent stage in many parts of the world.
- Establish credibility and exceed expectations: Many consumers are hesitant to try online shopping, so it's critical that retailers exceed consumers' expectations during every interaction, especially the first. To ease concerns about product quality, retailers should offer quality assurance programs that provide recourse for items damaged in transit or that do not meet consumers' expectations. Orders must be delivered or ready for pick-up within the specified time period, and retailers must alert consumers immediately if their order cannot be fulfilled as expected.
- Know the market: Demographics, operating costs, the competitive landscape and consumer preferences vary greatly by market. One size doesn't fit all, so retailers should consider the operating environment and cater strategies to the local market.
- Understand shopping occasions and consider specializing: Many modern retail models take a "full-service" approach, attempting to serve all trip types and categories. Settling for a smaller piece of the pie may be more profitable. Retailers should consider a limited.
- Consider alternative approaches to ordering and distribution: Experiment with formats and features that boost basket size while adding value for customers. Also, the costs and logistics of home delivery and click and collect models can be extremely daunting. Retailers should consider alternative approaches to distribution, such as working with third-party specialists. Similarly, manufacturers should experiment with order placement services, and carefully weigh distribution options to determine if they should own fulfillment or leave it to distribution experts.

Bridging digital with In-Store: E-commerce is only part of the digital picture. A complete digital strategy includes interaction at every point along the path to purchase, including finding stores, making lists, checking prices, researching products, sharing content and purchasing. These touch points occur both in and out of stores, and consumers are increasingly using technology to simplify and improve the process. In-store digital enablement options can bring the ease, convenience and personalization of online into brick-and-mortar stores. Instituting digital strategies into the in-store experience is not just nice-to-have, these options can increase dwell time, engagement levels, basket size and shopper satisfaction

X. CONCLUSION

Winning in the new Retail environment: Digital is here to stay, but the majority of consumers still continue to shop for the bulk of their purchases in store due to lower penetration of the internet. However with increasing penetration of internet this is poised to change and we are looking at an explosion of Online Consumers of Groceries in the time to come. This is due to the fact that the consumer is looking at a more convenient way of shopping mundane items like groceries.

There is one fact that no one is presently disputing on is the high growth potential of the Indian retail market and especially the grocery market. With the immense size of the market and the diversity that exists in the Indian consumer base, it is imperative that the coexistence of different players across different platforms in this industry will be a common phenomenon. Omni-channel approach is the next big thing to stay closer to the consumers and increase the reach of the companies. The grocery industry satisfy the most basic physiological needs of the consumers and thus, the demand is bound to have a stable growth curve. Along with this, the changing lifestyle and increasing urbanization will definitely reflect their effects on the shopping behavior of the consumers across all sections of society. The young aspirational Indian will always strive to look for better convenient options when it comes to product choices or the shopping channel choice.

Hence, online retailing of groceries is here to stay with most of the large format supermarkets rushing to have an online presence and an optimized SCM to serve the online consumer of groceries.

Thus, the next frontier in Grocery Business is the decoding of the model of online-offline conjunction.

- Regardless of format, price, quality, convenience and selection are key drivers of store choice. Retailers need to show shoppers how they're delivering these values in every interaction, no matter where it occurs.
- Online and in-store are fundamentally different channels, with unique uses, expectations, challenges and economics. When developing a strategy, retailers need to consider the entire retail landscape and respect the differences between channels. Online and offline tactics should complement each other to drive increased engagement and sales across all outlets.
- Knowing consumers' wants/needs is critical when developing a multi-channel strategy. As consumers demand a more personalized shopping experience, retailers should not strive to be all things to all people. And they should use this knowledge to personalize and align touch- point content to meet shoppers' unique needs.
- Retailers and manufacturers should continuously monitor performance to understand how shoppers are responding to marketing touch points and ensure they're optimizing their touch- point mix to yield the highest ROI.

BIBLIOGRAPHY, REFERENCES AND CREDITS

- [1] [http://www.nielsen.com/content/dam/nielsen-global/vn/docs/Reports/2015/Nielsen%20Global%20E-Commerce%20and%20The%20New%20Retail%20Report%20APRIL%202015%20\(Digital\).pdf](http://www.nielsen.com/content/dam/nielsen-global/vn/docs/Reports/2015/Nielsen%20Global%20E-Commerce%20and%20The%20New%20Retail%20Report%20APRIL%202015%20(Digital).pdf)
- [2] <https://msdn.microsoft.com/en-us/library/aa479076.aspx>
- [3] <http://knowledge.wharton.upenn.edu/article/online-groceries-in-india-will-consumers-bite/>
- [4] <https://www.washingtonpost.com/news/the-switch/wp/2015/01/20/the-staggering-challenges-of-the-online-grocery-business/>
- [5] <http://www.forbes.com/sites/thehartmangroup/2015/06/17/whats-the-future-for-online-grocery-shopping/>
- [6] <http://retailsmanagement.geo-viz.com/blog/top-challenges-faced-by-grocery-stores-focus-retail-software/>
- [7] <http://yourstory.com/2015/06/grofers-9-cities-growth/>
- [8] <http://atkearney.com>
- [9] <http://kpmg.com>
- [10] <http://www.foodnavigator-asia.com/Markets/Asia-s-giants-the-backbone-for-global-grocery-growth>
- [11] <http://foodindustry.asia/how-to-make-the-most-of-a-us-24-trillion-dollar-opportunity-in-asia>
- [12] <http://retailediscussions.wordpress.com/2014/09/12/challenges-faced-by-grocery-stores/>
- [13] <http://retailsmanagement.geo-viz.com/blog/top-challenges-faced-by-grocery-stores-focus-retail-software/>
- [14] <http://msdn.microsoft.com/en-us/library/aa479076.aspx>
- [15] <http://www.slideshare.net/sarangbanubakde/sarang-banubakde-retailreportbigbazaar>
- [16] <http://retailsmanagement.geo-viz.com/blog/top-5-inventory-management-challenges-in-2013-focus-apparel-footwear-fabrics-retail-chain-stores-grocery-books-stationery-industries/>
- [17] <http://www.standardmadness.com/challenges-faced-by-warehouse-managers/>
- [18] <http://www.cioreview.in/magazine/Focus-Must-Be-On-Customer-Value-Proposition-UCIS579315278.htm>
- [19] <http://www.ukessays.com/essays/management/mcdonalds-and-facilities-operations-management-management-essay.php>
- [20] <http://www.cioreview.in/cxinsight/focus-must-be-on-customer-value-proposition-nid-108-cid-1.html>
- [21] http://www.xtaseanalytics.com/ajax/solution_detail_2.html
- [22] <http://www.slideshare.net/Ikusmer/nielsen-global-ecommerce-new-retail-report-april-2015>
- [23] <http://www.ana.net/miccontent/show/id/kp-nielsen-bricks-clicks?st3=150624smartbrief>
- [24] <http://www.perishablenews.com/index.php?article=0044361>
- [25] <https://www.linkedin.com/pulse/how-capture-online-buyers-retailers-survival-guide-shahida-sweeney>
- [26] <http://www.nielsen.com/us/en/insights/reports/2015/the-future-of-grocery.html>
- [27] <http://www.businessinsider.com.au/grocery-stores-in-the-future-2014-6#heres-the-exterior-of-the-store-note-it-is-much-smaller-than-the-average-supercenter-consumers-are-seeking-more-personal-intimate-experiences-according-to-king-1>
- [28] <http://www.nielsen.com/id/en/insights/reports/2015/the-future-of-grocery.html>
- [29] <http://www.economist.com/news/business/21625799-modern-food-retailing-has-struggled-win-customers-indias-old-fashioned-merchants-long>
- [30] <http://knowledge.wharton.upenn.edu/article/online-groceries-in-india-will-consumers-bite/>
- [31] <http://www.iamwire.com/2015/11/grocery-startups-ecosystem-india-challenges-threats-competition/126209>
- [32] <http://www.ft.com/cms/s/2/c1f2856e-a518-11e3-8988-00144feab7de.html#axzz3x1fxljHz>
- [33] <http://indianexpress.com/article/india/india-others/agriculture-reform-government-takes-first-step-for-a-national-farm-market/>