

CARTCOIN

ECOSYSTEM

CTC Ecosystem – The complete solution for Organizing the Unorganized retail sector



Table Of Content

1. Introduction.....	(4)
1.1 What is Fairness and Why is it important for everyone on the internet?	(6)
1.2 Root Causes for the Disparity.....	(6)
1.3 Unorganized Retail	(7)
1.4 Strength	(7)
1.5 Weakness	(8)
2. Unorganized Retail and The CliffHanger Syndrome.....	(8)
2.1 What works in favor of Unorganized Retail Sector?.....	(9)
2.2 What Works against Unorganized Retail Sector?.....	(9)
2.3 The Key Points.....	(9)
2.4 Why no e-Way for Unorganised Retail?.....	(10)
3. Hybrid Retail: The Way Forward.....	(12)
3.1 Key reasons for these observations are	(12)
4. The IDEA: Blockchain for Unorganized Retail.....	(13)
4.1 What is Blockchain?.....	(13)
4.2 Blockchain for Unorganized Retail	(13)
5. The Blockchain Pill: Transformative Change for Reinvigorated Commerce	(13)
6. CartCoin CTC.....	(15)
6.1 CartCoin Mission.....	(15)
6.2 CartCoin Vision.....	(15)
6.3 CartCoin Priorities	(15)
6.4 CartCoin Pledge.....	(15)
7. CTC Application Ecosystem.....	(16)
7.1 - CTC Customer Application: Power to People.....	(16)
7.2 - CTC Customer Application Scenario:.....	(17)
7.2.1 - First Case: Simple Opting From Single/Multiple Retailers.....	(17)
7.2.2 - Second Case: Retailers Delivering Products Aggregated.....	(17)
7.2.3 - Third Case: Manually Opting Retailer By Preference.....	(18)
7.3 - Here are some of the key features of the CTC Customer Dapp.....	(18)
8 CTC Retailer Dapp: Window To a Bustling Marketplace.....	(19)
8.1 CTC Retailer DApp & The 900 Billion USD Unorganized Retail Market.....	(19)
9. CTC e-Delivery App.....	(20)
9.1 Key Highlights:	(21)
9.2 CTC Delivery App Registration:.....	(21)
9.3 CTC Rating System and Return Policy.....	(21)
9.4 Parameters:.....	(22)
9.5 Advantages of CTC Rating System.....	(22)
10. CTC Payment system.....	(22)

11. CTC COIN/Token.....	(23)
11.1 The Act Local Think Global Approach.....	(23)
11.1 The Math.....	(23)
12. Cartcoin Tokens.....	(24)
13. How CTC Ecosystem Will Generate Revenue & How Much?.....	(25)
13.1 Way Towards Capturing The Ultimate Retail Sector	(25)
13.2 Now Important Part Arises: Revenue.....	(25)
14. CTC Ecosystem Advantages.....	(26)
14.1 Advantages of the CTC Blockchain	(29)
15. Cost of Transactions.....	(29)
16. Payment Calculation.....	(30)
17. How CTC Ecosystem Sees Itself Globally.....	(30)
18. CTC Token.....	(31)

Introduction

Retailing has had unprecedented growth in the last decade. The likes of Amazon, Walmart have dominated offline and online retail sector in the United States, but the same cannot be held true for developing economies of Asia-Pacific, Middle East, Africa, and Latin America. These areas are still dominated by unorganized retail.

India is one of the world's fastest developing economies.

India-Economic Snapshot: Indian Economy Statistic With Detailed Aspects



Source: World Bank, BCG, Index Mundi, eMarketer. IMF

Figure 01

GDP	GDP Per Capita	GDP Growth Rate
\$ 2.6TH	\$1,940	7.4% (2018)
Population	GDP Per Capita	Rural Population
1.3 billion	439 million	885 Million
Consumption Expenditures	Internet Users	Smartphone Users
\$1.4TN	500 million	337 million

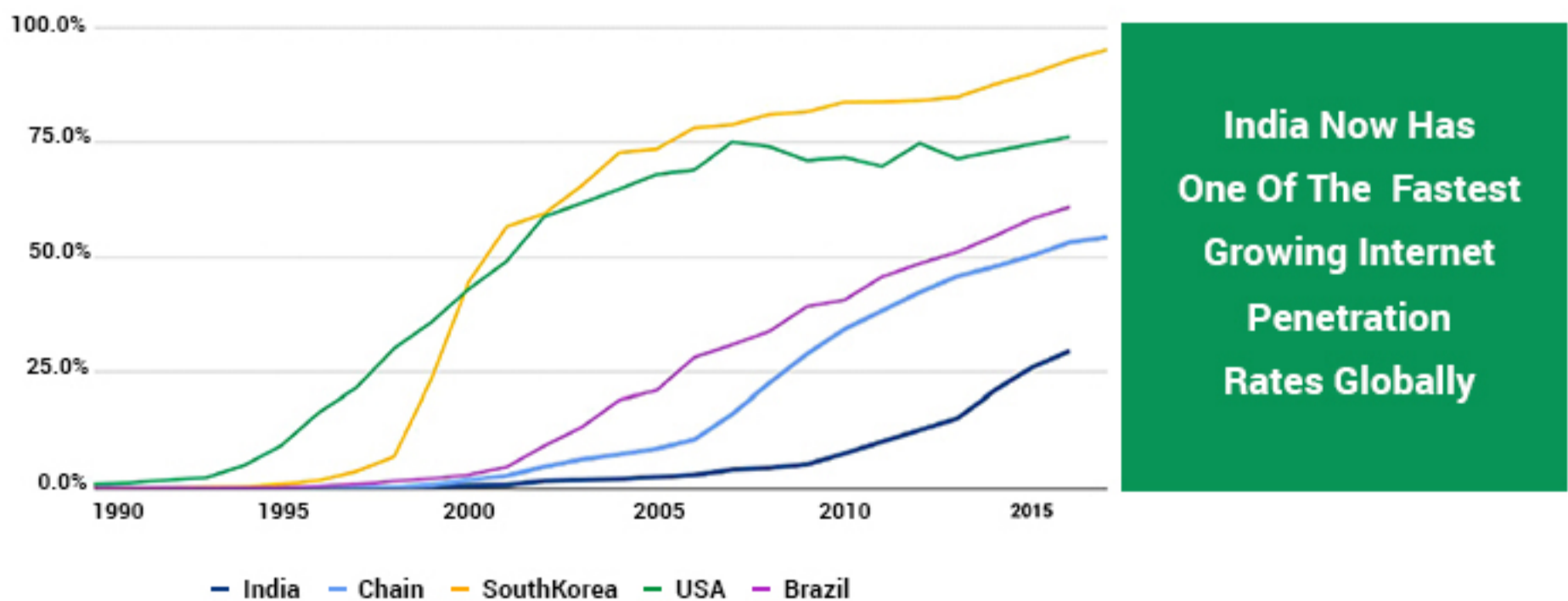
STRONG LEADERSHIP IN

IT Services, Gem Production, Pharmaceuticals, and Agriculture
Projected to be among top 3 economies of the world by 2030

In terms of internet penetration, India is second only to China.

Internet Penetration - India Vs. World

Internet Penetration in Selected Countries Worldwide (%)



India Now Has
One Of The Fastest
Growing Internet
Penetration
Rates Globally

Figure 02

Source : World Bank

Amazon, Flipkart and a bunch of other e-commerce players coupled with a network of cash and carry stores (super-markets) still command only 5% of the retail market share. This is a recurring observation in other countries too. For instance, in Brazil, the unorganized retail commands 65% of the market share. In Pakistan, Malaysia, and the US the proportion of unorganized sector is 98%, 45%, and 15% respectively. One major factor that can be attributed as the main reason for this is the low per capita income and purchasing power of lower and middle-income groups in developing economies.

Comparative Penetration On Organized Retail

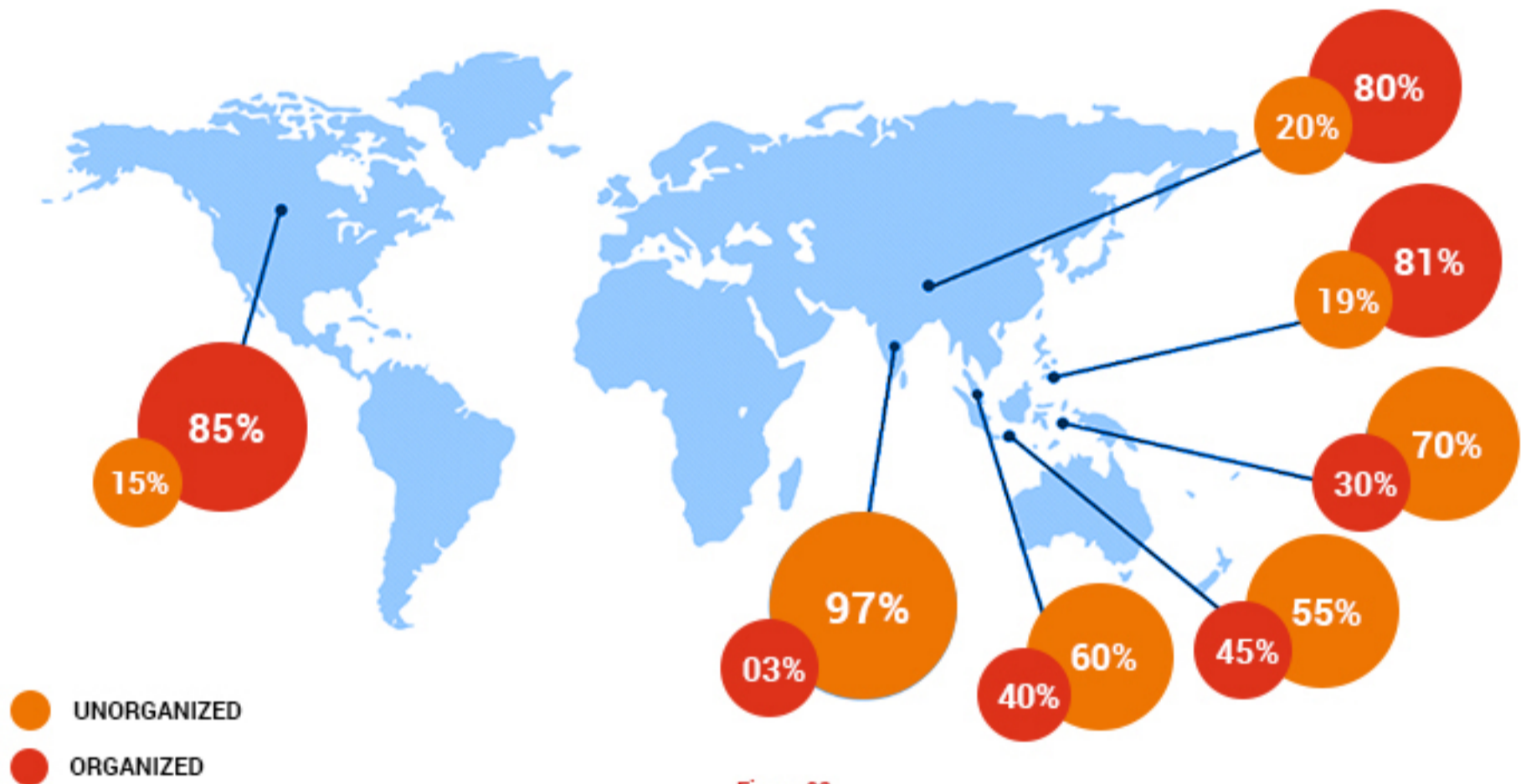


Figure 03

Retailing today has outgrown itself from being just a "space" or a "place to do business", it is now an ecosystem that relies primarily on consumer experience. In developed economies like Europe and North America, the retail market is now long past its peak and is currently cramped by growing competition. This has forced retail giants to look for new territories. Walmart and Amazon are heading the race but a closer look at the operating policies of these retail giants reveal a story that has proved alarmingly uncongenial for developing economies.

E-commerce platforms have been time and again criticized for unfair business practices. These include unfair use of user data metrics as well as out and out plagiarism. Amazon now has:

- 100 private-label brands (goods are sold under the retailer's name).
- 25% of the total online retail inventory.
- Been accused of Unfair Plagiarism by Merchants using its platform.

In 2018, European Union antitrust regulators opened investigations to check whether or not Amazon was using sales data of competitors on the Amazon marketplace. The access to both user and seller data gives an unfair advantage when selecting products in its private-label brand. Experts and Regulators fear that this control over data can be tweaked in more than a few ways to gain unfair advantage and trip over other registered sellers.

Amazon's double role of being a seller and platform service provider is against the very moral fabric of B2B and B2C businesses. The online retail market has long been touted as the future of traditional retail but what has been covered up behind the curtains has been long overlooked.

The primary reason for concern for the current bunch of domestic as well as brick and mortar retailers in the organized sector include:

- Increasing Price Competitiveness.
- Registration Charges/Return Charges etc.
- Platforms (Amazon/Flipkart) itself eyeing potential consumers/site visitors.
- Unfair cancellation charges slapped on sellers including transportation charges too.
- Limited Product offerings by small and medium scale sellers.

The above points raise a simple most important question ...

Wasn't the internet supposed to be fair at first place?

1.1 What is Fairness and Why is it important for everyone on the internet?

"Today, I believe we've reached a critical tipping point, and that powerful change for the better is possible – and necessary." Sir Tim Berners-Lee, founder World Wide Web.

The above words from Sir Tim Berners-Lee clearly suggest the dystopian state internet and World Wide Web has fallen prey to. The web is for everyone but it has been evolved into an engine of inequity and division. Some even go as far as to compare it with feudal land filled with powerful data landlords. Below we list some of the key reasons for the growing disparity between centralized service providers and service avails or netizens.

1.2 Root Causes for the Disparity

- Centralized Internet Framework: Gives the unfair advantage to platform service providers.
- Control on User Data as well as Restricting access to Voice Search and Alexa.
- Antitrust Paradox: Using Algorithms to promote own label.
- Less Transparency and Monopsony.

1.3 Unorganized Retail

Unorganized retailing refers to the traditional formats of low-cost retailing, for example, owner manned general stores, the local kirana shops, convenience stores, hand cart, and pavement vendors, etc.

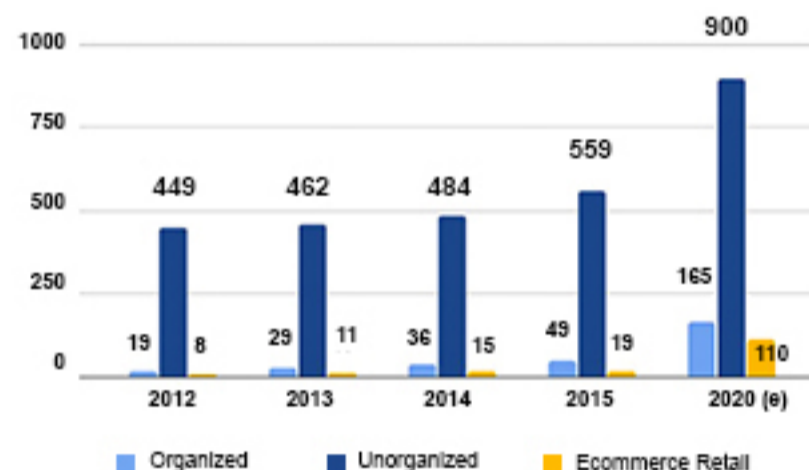
These are usually family-owned stores with limited operations and employment is limited to general family members. The store ambiance is average in most cases and even poor in some cases. The inventory is also limited to a selected range of branded and non branded products. Further promotions are limited to sponsored boards and posters. Price for products is equal or slightly lower than MRP.

The below paragraph paints a good picture of the operational, promotional and profit parameters of unorganized retail.

Share of Unorganized Retail Sector Within Indian Economy Plus Factors



Retail Industry Market Size, India (\$ in billions)



Drivers

Smartphone & Internet penetration across the country

Rise in Variety around CPG

Consumer and SME Financial innovation

Supply chain efficiencies

Technology innovations around engagement & Personalization

Source: Tark.in, Intelligence node, FICCI, PwC

Figure 04

1.4 Strength

- Low Rentals.
- Monopoly in interior areas.
- Established trust with customers.
- Prompt In-house Delivery System.
- Stand-Alone stores located in prime residential area.
- Working class daily labourers in huge number preferring retail shops

1.5 Weakness

- Very high real estate cost
- Low Cost and Size Inventory.
- Unorganized retail faces Low Conversion Rates.
- Fear of being pushed to oblivion by Big Giants.
- Double Impact of Supermarkets and E-Tailing.
- Distribution challenges on scaling
- Multiple layers of distribution between producers and customers
- Fluctuating customer buying patterns
- High cost of inventory for unorganized sector
- Poor maintenance of delivery system or complete absence of delivery system

2. Unorganized Retail and The CliffHanger Syndrome

A popular reason that has long been cited by experts for the dominance of unorganized retail across most global retail economies has been its all-inclusive shopping experience and affordability. Organized retail which includes shopping malls, e-commerce offers a variety of choices for a single product to the consumer. This is not so the case for a small store. In addition to this, cash-backs, discounts, special shopping days further add to the glitz and glamour of organized retail. Hence, the very advantage of an unorganized sector that it has been untouched by technology and hence maintained its essence is like resting on a cliffhanger and riding on sheer luck as far as business is concerned.

Open market, small retail, and grocery stores dominate consumer shopping in developing and underdeveloped economies. This is nowhere more evident than in India which is currently placed 5th in the Global GDP per capita rankings. Despite the strong GDP numbers to back the cause for a much-organized sector, only 4% of the 14 million retail outlets are spread in larger than 500 sq ft (46 m²) in size. On average, for every 1000 people, India has about 11 shop outlets.

Here are few highlights of the consumer shopping experience in these outlets (we consider only those outlets operating in 500 sq ft (46 m²) area or less):

- Limited Access to shelf or product storage area.
- Arbitrary Pricing based on customer liabilities.
- Intuitive pricing for competitive products.

While the consumer buying experience is limited, the most important advantage that these outlets have is their proximity to residential areas. In fact, most outlets open-grow-prosper within the communities and societies itself. This gives them first-hand knowledge of the products that go off the shelves immediately and hence explains the self-sustaining ecosystem that has for long served one and all equally. But e-tailing is up in arms to change the retail playing field with the aid of technology. Unless a more transparent, fair and efficient framework for these retail outlets is put in place, e-tailing may command a major share of the pie in the coming decade.

Unemployment is one of the biggest global challenges. It is not only a concern in developing economies, in developed economies too unemployment remains a focal point for most primetime debates as well as government policies. In developing economies like India where mass-scale job creations are once in a blue moon event, retail sector (organized & unorganized) remains an important breadwinner for a large number of lower income groups.

As per official data, retail alone employs about 40 million Indians (3.3% of Indian population). The majority among these belong to the unorganized retail shops which employ mostly family members. Hence, moving over to e-commerce platform and selling products will render most of them out of work. Hence in order to look for more cost-effective and efficient alternatives it is important to first identify and list the set of service features that currently paralyze unorganized retail.

2.1 What works in favor of Unorganized Retail Sector?

- Great Customer Experience coupled with easy return policies.
- 100 % Satisfaction over warranties and guarantees.
- Employment and Contribution to Economy.
- Emergency Services.
- Home delivery to customers

The above is the core principle services that has kept the unorganized retail alive and running for so long. This is a prime reason why online giants like Amazon, Walmart etc are opting for automated brick-and-mortar business models for the future.

2.2 What Works against Unorganized Retail Sector?

- Limited Choices for Customers (Low Cost and Size Format).
- Poor Inventory Management and Delivery Service.
- Limited Credit Line Absence of a self-sustaining and scalable Ecosystem.
- Product Authenticity.

2.3 The Key Points

Average Transaction Value: ATV or average transaction value is the average amount a customer spends on a particular purchase. ATV for Small Retailers has remained more or less same for unorganized retail if we take into account inflation too. However, for e-retailers, the ATV has increased. This is particularly profitable for service providers like Amazon, Flipkart, Alibaba, paytm whose profit margins increase proportionally to ATV value which includes transaction and processing fees too.

Average Transaction Size: Speed and Business are synonymous these days. But this cannot be said for brick and mortar small retail shops. ATS or Average Transaction Size is the average amount spent by a customer in a single transaction or purchase. Average Transaction Size across brick and mortar retail stores, small shops etc is limited and depends primarily on the purchasing capacity of the customer. Further, additional services like in-house delivery services, transportation as well as wholesale input cost incurred by the retailer/shop owner are important factors for higher Average Transaction Size.

Middlemen Monopolies : Unorganized retail has limited capital which handcuffs the sector from making volume purchase from wholesalers or procure products from distant manufacturers. This limited reach negatively impacts the quality and authenticity of products too. Most unorganized retailers procure their inventory from a host of middlemen who markup the products as it moves from producers to consumers. Moreover, lack of after-sales support and no set criteria for quality check add to a consumer shopping experience that is both monotonous and inefficient.

Brick and Click Model: Brick and Click model is a viable solution in developed economies where a transition from traditional is easy and less taxing. This is not the case in the major retail market across the globe. Not only are online e-commerce platform putting compliance constraints on sellers but also using data insights to attract consumers towards similar products with their own private label.

- A small grocery store can at most attend to 50 households.
- A modern retail outlet serves more than 1500 households
- E-commerce websites attract visitors in millions.

Does this mean that modern retail and e-commerce will drive traditional retailers out of business into oblivion?.... The straight answer is a definite 'NO'. But this can only be said for the next decade or so.

But in the light of the retail trends and cutthroat business practices by e-retailers, the time and technology are ripe now for a makeover of the traditional unorganized retail.

2.4 Why no e-Way for Unorganised Retail?

E-commerce entered India as early as 2007 with Flipkart. Snapdeal followed suit in 2010 and Jabong came as late as 2012. Amazon entered India only 5 years ago in 2013. Before that majority of the debate centered around friction between traditional retail and cash and carry giants like Future Retail, Aditya Birla group etc. But post 2015, with Amazon registering 500% growth in India and the recent Walmart takeover of Flipkart, the debate between organized and unorganized retail has taken a back seat. For now, all attention is on the booming e-commerce sector in India.

eCommerce in India - The Fastest Growth Segment

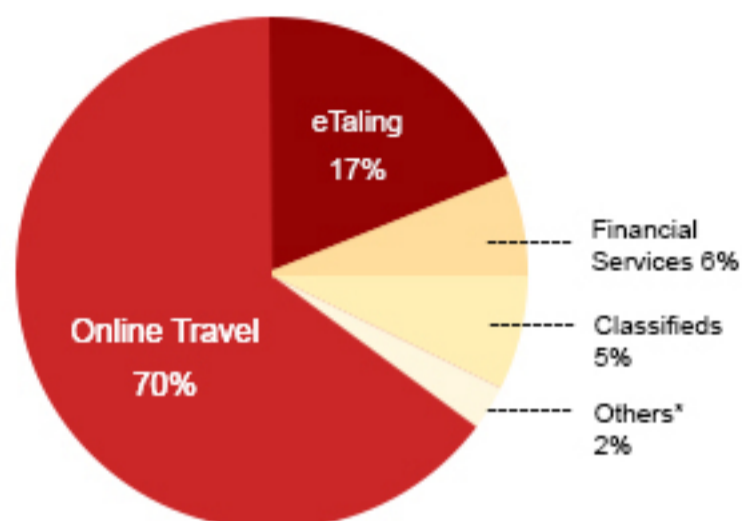
Fastest Growth Segment in India

Growth ~ 33 Per Cent



eTailing : Growing segment > 6x since FY2010

100% ~ USD 14 billion



Others Includes online discounted deals, coupons, search sites, etc.
Source: ASSOCHAM, DINDODIA Capital Advisors, IAMSI, IMRB, PwC Analysis, NASSCOM

KEY TRENDS

- 30 per cent CAGR since FY2010
- USD 10 billion added in last 5 year

- Above 40 Per Cent Growth Over 2014
- Apparel, Mobile & Consumer electronics - biggest share

- 70 Per cent market share
- Movie tickets, travel, hotel & tourism - gaining interest

- Better infrastructure, logistics, broadband and internet- ready smart devices
- Mobile apps, payment mechanisms

- Rapidly emerging ecommerce consumers

USD 14 billion Market

e-tailing Fastest growing segment

Online Travel Largest segment

Key Growth Drivers

Tier II/III cities

Figure 05

But not everyone is equally excited about the e-commerce business model which has so far not turned profitable for investors. In fact, reports claim that one has to wait until 2020 before a clearer picture emerges. For now, though we must remember that given a much smaller middle-income population of developing economies, e-commerce may not see similar trends as in Europe and North America.

A migration to e-commerce model is plausible if and only the margins of distributor/wholesaler and the retailer overshoot as well as cover the operating costs of complete online setup. (including logistics). Categories of such products in unorganized retail is next to none.

Hence, unorganized retail will only be strangling itself by the neck if it chooses to take the e-way in future. Rather a more plausible solution would be to adopt technology with a compelling value proposition. A true alternative at this point in time for the unorganized sector would be a hybrid model that couples together the best of both the worlds.

3. Hybrid Retail: The Way Forward

A recent survey puts organized retail market share at 15-20 percent by 2030. Organized retail will cater primarily to an urban audience with a strong purchasing power. So traditional retail will still command a strong presence. In India, the unorganized retail serves nearly 90% of the 1.3 Billion population.

3.1 Key reasons for these observations are:

- Clogged Infrastructure in City and Town.
- Consumers prefer shopping within a range of 5 Km from their home or resident.
- A greater proportion of lower and middle-income individuals in developing and underdeveloped economies.
- Traditional retailers focus on a comparatively small yet dedicated customer pool which makes them apt to bundle the correct services.

Another primary reason that is often left uncited is the human-touch. Traditional retail involves Shop owners developing a personal bond with customers over a period of time which serves them well when it comes to Clienteling.

However, brick and mortar shops cannot ignore the facts and numbers. While e-retailing may lack the natural shopping experience they cut an impressive figure when one considers factors like Average Transaction Value and Average Transaction Size.

E-retailing has proven that Visual Merchandising coupled with attractive offers like Bundled Pricing, Everyday low pricing (EDLP), Cashback, prompt delivery, etc can not only drive sales but also get people hooked to online shopping.

Unorganized retail today stands at the threshold of extinction if does not embrace the advantages that emerging digital technologies have to offer. But easier said than done, it remains of primary importance that embracing digital trends does not force unorganized retail to part ways with its traditional networking.

However, if we have a closer look to the issues, we may also find some opportunities in the same, therefore let us discuss some hidden chances that we must take on:

- Small retail stores may be advised with the greater technology proving growth for both retailer as well as the tech driven company.
- A e-commerce model to expand the portfolio as well gather additional customers through online visibility
- Latest B2B model will dig out some fresh sales growth
- Engaging retailers to prove beneficial for everyone in the chain
- Opportunities for personalization and engagement using technologies such as AI, block chain etc.

4. The IDEA: Blockchain for Unorganized Retail

4.1 What is Blockchain?

The blockchain is a peer to peer system for public record keeping. It is hailed by many as the new internet where digital information is distributed and not copied. This digital ledger can be programmed to record anything of value including transactions.

While many refer to blockchain as the new internet, it is actually a design pattern first and a technology second. This design pattern enables us to form a cryptographically authentic record of transactions and events which is distributed among all network participants. All transactions are append-only i.e incorruptible by nature. Transactions are approved using a majority consensus protocol.

The distributed, incorruptible and consensus-driven validation protocol make blockchain the 'Mother of All Information-Design Patterns'. Each verified information or transaction is cryptically bundled as a block and forms part of the blockchain. Bitcoin, Ethereum, LiteCoin, etc which are a popular buzzword these days are all variations of these basic design pattern.

4.2 Blockchain for Unorganized Retail

Unorganized retail has for long been the lifeblood of public consumption with its easily available customer-driven locally relevant assortment of goods. This is particularly evident in utility items and grocery retail. However, the current state of unorganized retail suffers from a host of issues that left unattended may spell doom for millions of people who are dependent on the sector in one way or the other.

The blockchain is secure by design. Analogous to a healthy and incorruptible internet, a blockchain network with high Byzantine fault tolerance cannot be controlled by a single entity as well as has no single point of failure.

Bringing unorganized retail sector i.e Shop owners, Retailers, Wholesalers, Customer and Delivery People within the ambits of Blockchain framework will bring very important short term as well as long term gains for the complete unorganized retail ecosystem. These have been discussed in details in the next section.

5 The Blockchain Pill: Transformative Change for Reinvigorated Commerce

Blockchain ensures product authenticity coupled with supply chain accountability ingrained in the very DNA of unorganized retail supply chain. Further Blockchain powered distributed and reliable unorganized retail supply chain promises a customer experience that's the perfect intersection of the agility of online retail and the fun/thrill of offline shopping.

No Accounting Burden : Governments across the globe are introducing stringent accounting laws. This is particularly evident in developing economies like India. The recently introduced Goods and Service Tax mandates periodic tax return filing, purchase-sale details etc. This has overburdened small retailers and unorganized retail. Blockchain design and transactions (macro and micro both) are self-sustaining by nature. This means that accounting and finance burdens are eliminated for good.

Supply Chain Auditing : At a time when consumers become increasingly conscious about the products they use, unorganized retail lacks a viable solution to provide consumers with trustable backstories. Whether it's the fish one is buying from the local meat shop or a pair of shoes from the local bazaar, distributed ledgers are an easy way to ensure consumers of the genuineness and authenticity of the product.

Blockchain ensures real-time product provenance or end-to-end transparency. This means consumers can track the source of origin of their products unlike online retail where product delivered is more often than not is strikingly different than what appears on the website.

No Counterfeiting: Plagiarism is the biggest nemesis of the retail sector. From shoes to technical products, there is a copy of everything one can imagine. Blockchain will enable retail consumers to track their products in details each time they change hands.

Consumer Data: Unlike centralized systems, customer data maintenance and compliance are easy. Smart Contracts will oversee all permissions related to data. Especially data of consumers and retailers will be localized and not centralized. Smart Contracts will accordingly control access with respect to the digital identities of retailers and consumers alike.

Rewards And Benefits: Digital Wallet along with Smart Contracts remain at the heart of all blockchain real-world solutions. In unorganized retail too, these wallets can be used in more than a couple of useful ways:

- By Retailers for Centrally Managing Customer Rewards, Emergency Requests.
- By Retailers for claiming reward points against positive feedbacks.
- By Consumers to Order and Track Products.
- By Consumers to avail other Blockchain environment services.

Smart Crowd-Delivery and P2P Payments: Smart Contracts are the backbone of any real-world blockchain use case. Smart Contracts are programmed codes that are self-executing by nature. Till date e-commerce and organized retail charge hefty commissions for various middlemen like payment processors, credit card companies etc. This not only overshoots product price but also leaves consumers exposed by sharing data with third parties. Another important pillar of retail is the logistics or product delivery operation. But even e-commerce giants like Amazon do not promise same day delivery. Blockchain has a solution to this too.

- Smart Contracts not only ensure zero-commission Peer to Peer transactions but also eliminate inefficiencies in product/goods delivery by putting into place an efficient framework for a crowd delivery marketplace.

Blockchain presents an opportunity for the unorganized sector to not only outshine e-tailers in all the above factors but also keep intact the core business values and practices that have kept the sector growing and flourishing over the years. Blockchain, unlike other centralized technology, does not force unwanted social and economic reforms on the people. At a time when countries across the globe are revisiting and rewriting globalization norms for more nationalized economic policies, this whitepaper proposes a solution which is local in its appeal but global in its vision.

With a primary focus on the weaknesses of the unorganized sector that organized and e-tailers prey upon, this white paper henceforth proposes a blockchain powered digital solution that not only brings accountability to the unorganized retail but also ensure a Consumer First Service Model with Real-Time Crowd Delivery and Zero-cost transaction mechanism.

6. CartCoin CTC

The unorganized retail marketplace is characterised by increasing customer expectations and unforgiving competition. The CartCoin Blockchain solution for unorganized retail brings innovation coupled with value creation and appropriation unwitnessed in traditional as well as e-commerce retail business models.

CartCoin offers a much desired empirical solution that strengthens as well as renders efficiency to the basic building blocks of unorganized retail. It does this by offering an intrinsically designed trio of sub-apps (Customer/Retailer Dapp, CTC e-Delivery App) that work seamlessly to not only add value to the customer buying experience but also ensures easy adoption for sellers against ever-changing customer needs and demands.

6.1 CartCoin Mission

Disrupt Monopoly of e-commerce behemoth like Amazon, Flipkart by offering a decentralised business model that puts interest of local retailers as well as consumers above one and all.

6.2 CartCoin Vision

CTC's vision is to ensure freedom from trickle-down profit distribution model and unfair policies of big players from organized retail like Amazon, Walmart etc. CTC hopes that its blockchain solution for unorganized retail will ensure fair distribution of wealth and power at local level by empowering local consumers to support local businesses and local economies.

6.3 CartCoin Priorities

- Provide self-governing community ecosystem across all verticals of unorganized retail.
- Make local consumers key drivers of growth in unorganized retail and economy.
- Foster a congenial environment for local retail businesses and entrepreneurship.
- Create and deliver value to customers with equal opportunity for retailers to appropriate maximum value from the markets.

"Retail is all about Detail" and the CartCoin Ecosystem has been developed to ensure mutually profitable exchange of goods and services between end customers / consumers and local retailers.

6.4 CartCoin Pledge:

More Value to Consumers with Incremental Profit Appropriations for Sellers.

An underlying golden rule that is paramount for success in retail is 'A Happy Consumer'. While organized retail has managed to add significantly to its list of additional yet much-valued services, the unorganized retail has still got some distance to cover in this regard.

Primary among these Values include:

- On Time Delivery.
- Internet Shopping.
- More Credit Facility.
- Standard Quality Product.
- Best Rates, Coupons/Discounts and Offer.
- Systemized Selling and payment mechanism.
- One Stop Solution for all house needs/domestic items

7. CTC Application Ecosystem

Encompasses all the above and more integrating value to the retail shopping experience as well as putting into place unmatched accountability for participants which includes retailers, third parties, consumers etc.

In India unorganized retail (local Kirana stores and independent shops) have mushroomed and grown concurrently with the increase in population density in small towns and large urban areas. This is true for most developing and underdeveloped economies across the globe. But a common resentment that more or less undermines the entire global unorganized retail is that the sector is inundated with irrelevant or conflicting information.

In addition to the above, common consumer grievances in unorganized retail include Un-standardized pricing practices, no-alerts on new arrivals of products (especially seasonal products), no mechanism for registering as well as addressing grievances and complaints. Last but not least, is the lack of healthy competition to inspire unorganized retail from introducing or opting for innovative measures for improved customer service.

While the above highlight common customer grievances in unorganized retail, the biggest challenge is faced by the sellers, retailers and third party.. They are limited by both stock, space and innovative skills.

The CTC Blockchain ecosystem with its interconnected trio of sub-apps not only addresses the above drawbacks efficiently but also offers unparalleled transparency in supply chain for consumers, retailers as well as ensuring smooth delivery and logistics.

7.1 CTC Customer Application: Power to People

The CTC Customer Dapp tokenizes time as a service. This means that app users get the best service in the shortest possible time wrapped in attractive discounts and offers without physically visiting the stores and spending precious time in searching the desired products in multiple stores. The CTC Customer app is a location based app that lists all brick and mortar shops within 10 Km range of the app users.

Using the CTC Customer Dapp is easy and smooth. The customer can locate any product from the stores located near him/her at the fingertip and get it delivered at the shortest possible time and suitable rate. The user can either broadcast its list of desired purchase items to more than one nearest local retailers and select the one that offers the best price, offers and time to deliver or select product individually based on best possible price and time to deliver. Other than this the user can also select a particular retailer based on shortest delivery time within a 10 KM range. This means that doorstep deliveries get substantially more efficient with the CTC Customer Dapp. Further, the blockchain framework enables users to track orders in real time once an order is placed and accepted.

7.2 CTC Customer Application Scenario

The Cartcoin customer app is designed to cater for filtered search items as per the availability of the products in the vicinity of the user. Let us understand various applicability of the CTC DApp in multiple scenario:

7.2.1 First Case: Individual Product Search By Customer

In this case, when a customer surfs through his/her desired products within the CTC Customer DApp, there would be applicable retailers under the range or vicinity of customer available to serve the required products with specified price lists and extended inventory list. The first being the expected time of delivery from the customer and second is the products uploaded through customer shopping wishlist. The parameter is non-negotiable and has to be strictly adhered to by the retailer.

The customer will have to go through all the retailers and product range and must logically choose the retailer and his offered products and price range. Also the app will notify the best value from the given retailer's list along with the delivery time, charges for delivery and other obliged details as per the final order.

7.2.2 Second Case: List Of Products Uploaded By The Customer

In this case, the retailers would join hands to provide the desired products to the customers through synchronized inventory presentation. In case a retailer can make delivery within the desired time but is falling short on some of the items part of the customer wishlist, he/she can request other nearby retailers to fill in the gaps. The CTC DApp will coordinate from all the retailers ready to provide any of the given desired product listed on the customers wishlist. The retailers would tick the product available with them and can quote the individual price they charge for it.

The complete list with all the desired products of the customer to reflect in the final order list, sourced by multiple retailers with their individual quoted price and individual delivery charges levied onto the products from that particular retailer and area.

A sum up of all the product price and delivery charges would further show on the final list. The customer can go ahead with the order placement.

7.2.3 Third Case: Direct Communication With The Favorite Retailer

Here in this case, there would be a free choice to the customer for ordering the desired products from his already selected retailer. The customer can manually input retailer name in the search bar and opt out for the required products through the selected retailer. This scenario also covers the situation where non of the retailers can deliver customer list of products and the customer personally wants to place a request to his/her preferred retailer.

Finally the order list will be prepared as per the demand of the customer and an estimated final price along with the delivery charge will be quoted on the final list.

7.3 Here are some of the key features of the CTC Customer Dapp.

- Easy to use interactive user interface.
- Host of customized offers and incentives from nearest local retailers.
- On demand Doorstep Delivery of Orders within a 10 KM range.
- P2P Communication Channel with nearby retailers.
- Video Chat with Retailer and Delivery Person.
- Auto-Suggestions for best offers.
- Real Time Tracking of Orders.
- Customer Feedback on Individual Product, Retailer & Delivery service
- Online Delivery of Product Within an Hour Without Visiting Shop

All information on the CTC Customer Dapp is append only by nature. This means that the ecosystem cannot be tweaked to mislead or misguide app users. This is particularly important for robust CTC Rating System and Return Policy.

Further, CTC Customer Dapp users are in complete control of their data and information. All information is part of a secure blockchain database. The Customers can either choose to share information with their nearest local retailers or opt for complete privacy. However, sharing their shopping information over a period of time will better equip local retailers to offer personalized incentives, rewards as well as provide timely alerts on new products and offers.

8 CTC Retailer Dapp: Window To a Bustling Marketplace

The CTC Retailer Dapp is the centrepiece of the CTC ecosystem. At a time in retail when customer trust is easy to lose but difficult to gain, the CTC Retailer Dapp equips local retailers within 10 Km range of a given geography to offer a transparent, fair and customized door-step retail shopping experience to one and all listed on the CTC Customer Dapp within a 10 Km range.

In addition to bringing the power of online e-tailing to unorganized retail, the CTC Dapp also sets into place a more accountable logistics framework comprising of area-specific delivery service providers. The Retailer Dapp works in perfect sync with the Customer Dapp and Deliver Dapp to offer a one-stop retail solution powered by digital agreement, consistency and precise records.

8.1 CTC Retailer DApp & The 900 Billion USD Unorganized Retail Market

We want to point out to that ultimate 900 Billion USD online transactional value of the unorganized sector, which we are keeping an eye on and would try to capture it by all our means.

And how we would capture the complete 900 Billion USD market throws and important questions for all us, which we would definitely need to clarify..

The CTC Retailer DApp is the factor which would certainly boost the said comments over the revenue generation. The CTC retailer Dapp will be the central point of assisting all the aspects which will further strengthen the base for generating revenue out of the huge pool of unorganized retail sector.

Inventory Management Via Barcode: The CTC Retailer DApp will be designed to be a complete inventory uploader through the means of a barcode scanner. The retailer can upload each and every product available in his store through the DApp barcode scanner and can make a complete inventory which will be further displayed to the customer on the Customer DApp.

A complete inventory available on a smartphone app is a next level thing in the retail sector especially if we talk about the unorganized one. Even a local retailer misses some of the products he possess within the store but finds difficult to search or remember to offer.

The inventory uploaded CTC Retailer DApp will be a open book to all the customers and would not give any chance to miss the sales. However, the wow factor addressed here is the online availability of complete inventory which is not expected by a local retailer.

Every logical citizen would definitely want a retailer to be listed online, let's take 'CARTCOIN Retailer DApp' for a second. If a app called CTC Retailer DApp previews and offers instant shopping from any of the retailer in the vicinity of the user, then what can be better then it.

It will be bound to attract as many users across the country to solve the purpose of local delivery solution, which is currently in a rock bottom stage.

Offering POS Solution: The world right now totally depends on Point-of-Sale mechanism as almost all the customers prefer to use plastic money. POS are very well common in the developed nations while now can also be found in developing nations.

CTC Retailer DApp will be designed to get all the POS database to the blockchain which will further help the customer as well as the retailer to transact all on the Dapp. This would eventually turn all the attention towards the CTC application making it much more required then before due to its payment capabilities.

In House Delivery Structure: A retailer with an in-house delivery system will be very much appreciated even if the customer has a long list of online service providers. The reason being the express service of local retailer delivery within a specified time frame, after all, the ultimate goal is to have the product of your choice as soon as possible. The CTC Retailer DApp will organize the retailers in-house delivery system efficiently.

Multiple Store Data: The CTC Retailer DApp would further capture data of multiple stores having limited inventory or the stores having limited number of employees indicating the strength of the particular store to the customers in the vicinity.

Inventory Management: The retailers can further minus the non-moving stock or the dead stock out of the inventory which will give space for the new incoming products or the more trending items on the list.

Global Offline Transaction Data: The CTC Retailer DApp mesmerizingly holds all the brick & mortar stores data such that all the offline transactions gets saved making it one of the biggest pool of offline data holder in the recent history of database management globally. The point may seem small at the time but could prove as an artifact of what the global data experts would suggest in future for R&D purposes.

Real-time Interaction Between Customer, Retailer & Delivery Units: The CTC Retailer DApp will facilitate messaging facility if the need arises. Real-time tracking of the order and payment will also be a part of this interaction.

Choose-Freeze-Deliver: Retailers can confirm orders based on certain parameters. The distributed ledger ensures accountable asset management and sharing between retailers located in a particular area. Once agreed upon, the particular retailer can freeze and deliver the order.

All these points cumulatively reserves CTC Retailer DApp as a competitive channel to source almost entire unorganized retail sector of 900 Billion USD through its hands. Even the smallest fraction would make a lasting impact and would sustain the CTC Retailer DApp way beyond expectations.

9. CTC e-Delivery App

Business and Speed are synonymous in retail. This is particularly true in unorganized retail where conversion rates are meagre when compared to the online players. This makes the last constituent of the CTC Ecosystem the most important one.

Over the last few years, omnichannel retailers have accounted for incremental profits among organized as well as traditional brick and mortar retailers. The primary driving factors behind this is accessibility, convenience and speed.

For traditional retailers, the cost of matching upto international standards is practically impossible. This is where the CTC Ecosystem acts as the perfect lifeboat for traditional retailers. While the CTC Retailer DApp and CTC Customer DApp brings 24*7 accessibility and convenience at fingertip of the consumer, the third sub-app i.e CTC e-Delivery App is the most important cog of the ecosystem.

The CTC Blockchain solution for unorganized retail tokenize time as a service and the prerequisite for a robust unmatched customer service is maximum efficiency in delivery of goods and service. Proximity remains an undebatable advantage for unorganized retail. The CTC Delivery Dapp keeps this as its core mantra to make doorstep delivery of purchases made by consumers in 10 Km range of the retailer within ONE HOUR. While the CTC Delivery Dapp makes efficient doorstep delivery a reality for Unorganized retail, it also presents domestic arms of logistic chains to register and become part of the blockchain framework.

9.1 Key Highlights:

In addition to the above, CTC e-Delivery App renders a host of added advantages which are listed below:

- Introducing transparency and efficiency in local supply chains.
- Tamper proof digital recording of intrinsic details of products including utility items.
- Limit Risk of counterfeiting prevalent in handicrafts, luxury items, prescription drugs, arts, antiques etc.
- New employment opportunities in rural areas, towns as well as cities due to delivery service requirement
- Reusable delivery packages (gunny bags) will be utilized instead of plastic by the delivery unit which will be made tamper proof by the retailer.

Above and all, the CTC e-Delivery App will work concurrently with Government Relief Work during natural epidemics and disasters like Floods, communicable disease outbreak in remote and hilly areas etc.

9.2 CTC Delivery App Registration:

The CTC Delivery App will offer new entrepreneurial and employment opportunities. To be a registered member of the delivery chain, an individual will have to furnish government approved identity certificates. Following this, CTC Team will perform its own background check. Post this if no conflicts arrive, the membership will be granted to the applicant.

Also the app would grant express services to the customers of a particular vicinity of 10-15 KM range through the verified group of retailers. These retailers can render local delivery services in a broadcasted way, which, till now no e-commerce player have offered to the customers. These group of retailers would further avail the industry standard payment.

The local retailer group will get the delivery status as well as the location broadcasted on their DApp of the 10KM range which would further necessitate a smart contract between the retailer and the delivery system for the delivery & the goods return policies.

Existing third party delivery service could also be a part of CTC Ecosystem through the CTC Delivery Dapp.

9.3 CTC Rating System and Return Policy:

A robust rating system for measuring efficiency and service of retailers and delivery units. All rating parameters and return policies will be part of the CTC Smart Contract and will be in accordance with local jurisdictions.

9.4 Parameters

- Customer rating.
- Order Packaging.
- Honesty (Quantity and Quality of Goods)
- Delivery service.

9.5 Advantages of CTC Rating System

The CTC Rating System will act as a guiding light for future policy and operational decisions. It will also act as a litmus test for retailers and logistic service provider alike. The feedback from consumers based on the quality of products as well as its delivery will help in better identifying the 'A' players. This will be an important parameter for rewarding retailers and delivery service providers with CTC Tokens/Coins.

Last but not least, it will act as the yardstick for identifying non-branded affordable products that do reasonably well as well as match upto global standards in terms of quality. These products will be advertised within the CTC Ecosystem for greater visibility and increased popularity among CTC customers.

10. CTC Payment system

Is set to be dynamic and would cause no issue being adjusted in dual payment methods. There will two payment modes available in the CTC ecosystem, i.e. Fiat & Crypto.

However, for the time being there is no validated information on the legalization of cryptocurrency in India, but this would not deviate the actual project from the introduction of the cryptocurrency as a mode of payment.

Till then, the preferred mode of payment is set to be Fiat currency. The normal currency will strategically place the CTC ecosystem within the user's base until the cryptocurrency comes into existence. All the three Dapp's (Customer, Retailer & Delivery) will have inbuilt e-wallet as well as crypto-wallet for transactions.

Coming to the major mode of payment as per the projects plan, the crypto currency will be settled within all the decentralized application of Retailer, Customer or the Delivery units. Initially CTC tokens will be circulating in the form of tokens in the CTC Ecosystem. Once crypto is fully legalized in a particular jurisdiction, it will be converted to CTC coins. This will facilitate awareness as well as wide acceptance of cryptocurrency.

All the entities within the ecosystem will be eligible to create a wallet on their application on which they can upload the CTC cryptocurrency. The registration and the uploading of CTC crypto will be as normal as currently ongoing wallet application across the platforms.

A dedicated crypto wallet will be assigned to each and every user to all the entities of the CTC ecosystem as the application will be having an inbuilt capacity to perform said feature.

Let us go through the benefits that the members of ecosystem will be getting:

Customers DApp - The customers under CTC ecosystem will be getting reward/loyalty tokens

Retailer DApp - The retailers in the ecosystem will be given bonus

Delivery DApp - Delivery DApp will be incentivized as per the transactions

11. CTC COIN/Token

As a case study CartCoin has deeply researched the current unorganized retail segment in India which also happens to be the world's fastest growing economy. The following data points further strengthen our strong vision of a blockchain powered ecosystem for global unorganized retail.

- Retail Sector Contributes nearly 10% of the GDP out of which 7% is From Unorganized Retail Sector.
- 14 Million Retail Outlets Spread Across the Length and Breadth of The Country.
- 40 Million (3.3% of the total population) Employed By The Unorganized Retail.
- 15-20% Projected Growth by 2030.
- Retail industry, excluding wholesale, contributed \$482 billion (22% of GDP).
- Retail Industry employs 249.94 million people (57% of the workforce).

To put the above metrics in layman's term, 3 out of every 100 people in India are employed by unorganized sector. We are not counting the store owners here. In India most retail stores are family owned business which further increases the sector employment ratio considerably.

11.1 The Act Local Think Global Approach

While structuring the CTC Token Model for unorganised retail, the prime focus was on ensuring a holistic goods and service distribution system that ensures not just hand to mouth employment solutions but puts into place that offers economic stability and self-sufficiency in the long run for those who repeatedly for ages have found themselves pushed towards the Bottom of The Pyramid (BOP).

11.2 The Math

"Pure mathematics is, in its way, the poetry of logical ideas."-Albert Einstein

CTC coin will be the driving force for all transactions part of the CTC Ecosystem with its three key sub-apps (CTC Customer App, CTC Retailer App. CTC Delivery App)

We made following key considerations while considering the CTC price and size.

- India's Total Nominal GDP for 2018 stands at \$2.948 trillion.
- Unorganized sector contributes nearly 7% of total GDP.
- 14 Million Retail Outlets in the country with benchmark size of 500 sq ft (46 m Square)
- Density of 11 Shops Per 1000 People

Total GDP Contribution of Unorganized Retail = \$ 0.206 Trillion.

Annual Contribution from each retail outlet = \$ 14,714

- As Per The GDP Contribution of \$ 0.206 Trillion i.e. INR 206000000000 Divided By 14 Million Retail Outlets
- Each Retail Outlet Contributes \$ 14,714 or INR 10,44,620 (As Per Current Exchange Rate) As Individual Contribution To The GDP

Annual Purchasing Order Size of 1000 people within 10-15 Km Range = $11 * \$ 14,714$

Total Monthly Purchase Received by Area Per Month = \$ 13,488.00

Total Monthly Purchase Order Received in INR = 9,57,655.00

Total Estimated Token Value within 10-15 Km Range= \$13,488.00

Now for the actual decision on the CTC value and number of tokens to be released, we must take these stats into consideration:

Total number of token to release in first level = 10000000 (1 Crore)

Initial Token Value - \$0.10

Total value of consolidated token size = $10000000 * 0.10\$ = 1 \text{ million US\$}$

Reward customer with 10 Tokens or 100 Token that value will be : 1\$ or 10\$

Note:

- Number of token taken into average consideration of token number by listed crypto exchange currencies ranging from 10 Million to 30 Million under which 10 Million taken as base level
- Initial token value taken as \$0.10 as per normal exchange rate

12. Cartcoin Tokens

Cartcoin Tokens are suggested to be distributed to all of the ecosystem members i.e. to the Retailers, Delivery users and the customers.

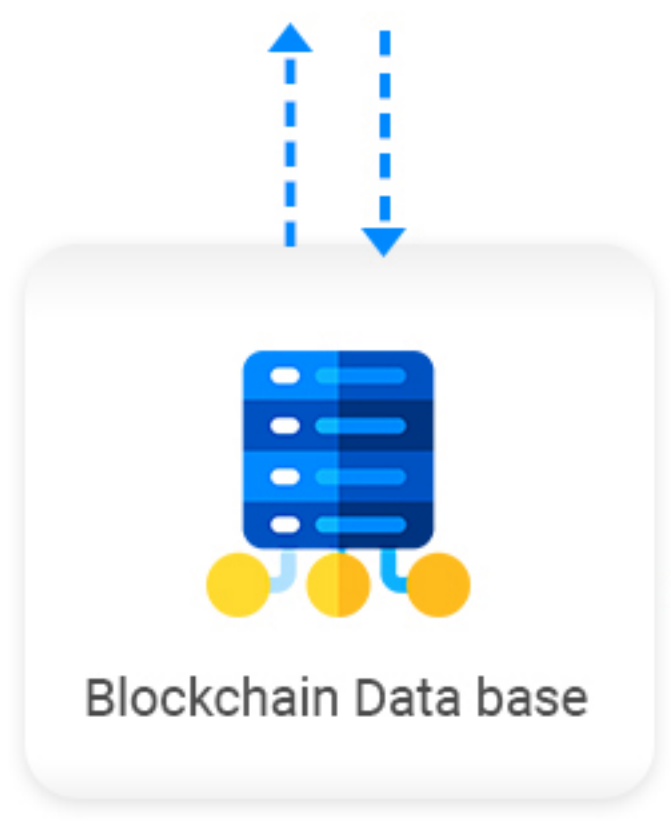
Token distribution method for the ecosystem members are as follows:

Delivery DApp - The users of the Delivery DApp will be getting token in the form of incentives.

Retailer DApp - The retailers will be getting bonus token on the app itself

Customers DApp - The customers will get reward/loyalty tokens based on their transactions

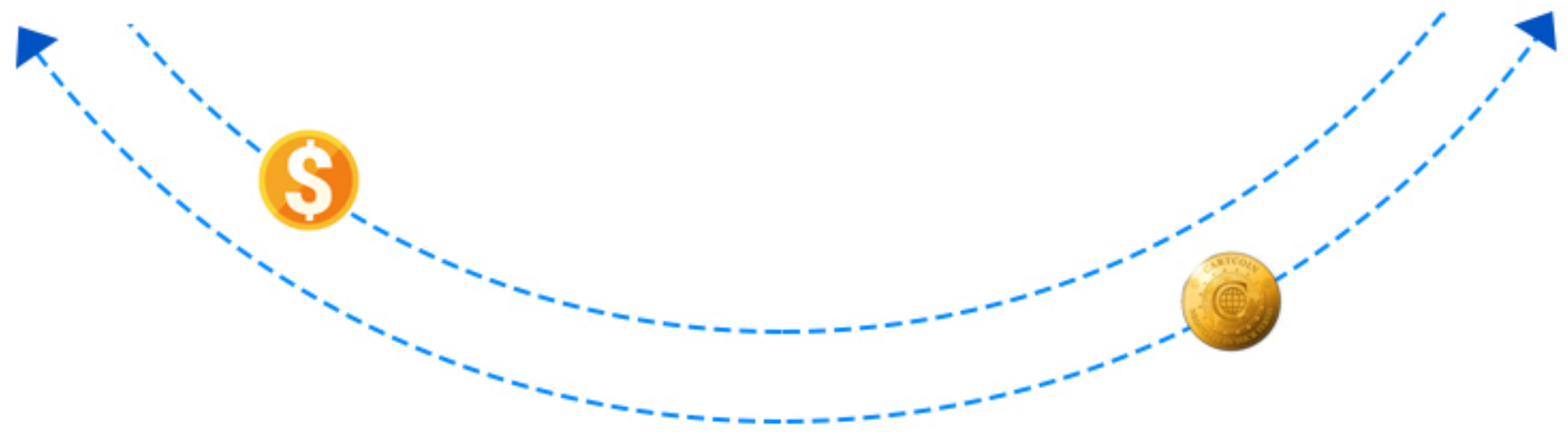
Note that the token will be soon converted into coins once the legality of cryptocurrency comes into being, and further the holders of the token can redeem the same.



- Browse Products
- Place Order
- Real Time Delivery Tracking

- Create Delivery Business
- Real Time Delivery Tracking

- Create Catalogue
- Real Time Order/Delivery Tracking
- Maintain Delivery System



13. How CTC Ecosystem Will Generate Revenue & How Much?

13.1 Way Towards Capturing The Ultimate Retail Sector

As per the trusted sourced reports from NASSCOM, there are some statistics focused upon the approximate unorganized retail sector and its size which would further swell to a staggering 900 billion USD in year 2020.

Yes, you saw it right, the unorganized retail sector would be a 900 billion USD affair by the year 2020 and here we want to jump in the business for taking almost all the accountability into our hands. But how? The question needs an answer and it will be explained right here, right now!

First of all we have to cut out the slice from this huge amount by chalking out the actual online transactions within this statistics.

As per the reports from the trusted source of BCG and GOOGLE named "DIGITAL PAYMENT 2020 – The Making of \$500 BILLION ECOSYSTEM IN INDIA" dated July 2016, the overall online transactions in all the use cases is said to be around 500 billion USD. And out of which there is a strong possibility of 224 billion USD being the unorganized retail transaction as Person-To-Merchant.

So based on the 224 billion USD P2M transactions, there is the provision of 34% online transaction being speculated in the unorganized retail sector.

Based on the calculations:

Total Unorganized Retail Sector Value (Year 2020) = 900 Billion USD

Total value of online transactions across all use cases = 500 Billion USD

Total Person to Merchant transactions under Unorganized Retail Sector = **224 Billion USD**

Total Online Transaction Value by Unorganized Retail Sector (Year 2020) = **76.16 billion USD (34% of 224 billion USD)**

Hence, from the above calculations, we have come to, a not so small figure of online unorganized retail sector value of 76.16 billion USD by the year 2020.

13.2 Now Important Part Arises: Revenue

If we were to levy a transaction fees of only a meagre 2 percent on the unorganized retail sector, we would come to a hefty 1.52 billion USD revenue

2% of 76.16 billion USD = 1.52 Billion USD

However, we would like to hike our expectations as per our cartcoin ecosystem which is all sure of its capabilities, and we see the total value of online transactions across all use cases i.e. the **500 Billion USD** as our market area.

So, let us again try to calculate our revenue as per our new expected market value:

Total value of online transactions across all use cases = 500 Billion USD

Here, if we levy only 2 percent on the value = $.02 * 500 = 10$ billion USD

Also if we reduce down the transaction fees to 1 percent instead = $.01 * 500 = 5$ billion USD

So, there we have understood the revenue structure and its calculations, we have come to **5 billion USD** in 2020 as our expected revenue from the overall online transactions in the unorganized retail sector.

14. CTC Ecosystem Advantages

The overall CTC Ecosystem possess a great extent of benefits underlying :

Get Your Product While Sitting at Home: The customer Dapp will be the getaway to all the required products of desire at a single click. Each and every store in the vicinity will be showcasing a complete range of products to the customer ready to be delivered.

Save Time (The Real Money): All in all, the CTC ecosystem brings the best feature i.e. saving the time of millions of users by delivering goods of their need at their doorstep without actually visiting that local store where one have to waste minutes for searching, billing and getting back home.

Product Delivery Time: The delivery of product in a very short time i.e. 5 min to 1 hour (As per delivery distance) is much relevant to a practical shopping experience rather than e-commerce giants telling you some other day of delivery and that too as per their logistical feasibility.

Providing employment opportunities: With the onset of the local delivery system, there are innumerable youths out there who would be getting job opportunity along with the rise of delivery business entrepreneurs.

POS Machines getting replaced: An app like CTC Retailer Dapp would replace POS machines making small retailers engaged with the online payments, pushing the digital era furthermore.

Real Time Tracking : One advantage of blockchain is that, it makes supply chain exceedingly efficient irrespective of the operational scale and traffic. This is true for the CTC Ecosystem too. The complete journey of any product from staying put on the retail shelves to reaching the customer doorstep is recorded and saved in a tamper proof manner as part of the CTC DLT Ledger. This enables a fair supply chain for one and all.

Real Time Updates: Keeping in line with the very essence of traditional retail shopping where last minute updates to the shopping list is a customary event, the all the sub-apps in the CTC Ecosystem come equipped with Real Time Video Conferencing Features. App users can video call particular retailers to cross-check product standards as well as make particular last-minute updates if any.

Also with inbuilt real time map-based tracking feature, Customer Dapp-users can immediately call the particular delivery/logistic team and vice-versa to re-confirm location and landmark details.

Targeted Loyalty Plans and Offers:

One of the greatest hurdles for unorganized retail is making customer to come back for more. An important step towards this is keeping customers/consumers up to date with upcoming offers and plans. This not only streamlines operation for unorganized retail but also delivers efficient customer service. The CTC Ecosystem enables unorganized retail players to draft informed shopping offers and loyalty plans for potential as well as current customers. The CTC Retailer Dapp based on customer buying pattern from the Customer Dapp and DLT ledger draws a fingerprint of following key datasets:

- Who Buys What?
- How Much he/she buys?
- How Frequently does the customer Buys products?

Note: Customers are identified on DLT and Dapps using public keys only. Details like name, sex, address etc are not part of the retrieved data.

As blockchain allows peer to peer communication between parties using private/public keys, CTC Retail Dapp users can directly communicate well informed offers on products as well as prepare custom weekly/monthly shopping carts that specifically cater to the timely needs and demands of particular customers. Further they can keep track of important retail metrics like

- Average basket size and Average ticket size
- Conversion Rate From Footfalls from targeted ads, offers and customized shopping carts.

Study shows that only 3 in 10 retail store visitors make a purchase. The rest still need persuading and influencing. The CTC Retailer Dapp acts as a one-stop Point of Sale (POS) Solution for all these and more.

14.2 Advantages of the CTC Blockchain

- Faster and Better Delivery of Goods to Customers from trusted neighbourhood retailers.
- Business efficiency and growth with better inventory and logistics management for retailers.
- Perfect union of local retailers and regional logistic mediums.
- A one-stop platform that connects consumer, retailer, wholesaler, producer and the delivery verticals of the unorganized retail.
- No middleman or central authority that controls price/profit share as well as visibility.
- Visibility towards an organic and trusted customer base.
- CTC ERC20 Coin incremental value benefits
- Local Delivery Network to raise job opportunities
- Acceptance of Cryptocurrency even at the local retailers
- Blockchain technology to curb tax evasion

15. Cost of Transactions

Now to a important part i.e the cost of transaction for the customer, as everyone is equally curious regarding the costing of a particular transaction.

Condition 1

The time of delivery will be a key factor in deciding the ultimate price of the product to be delivered. The costing will include the distance aspect i.e. farther the distance the more or the fixed price to be quoted.

Also the retailer must take actively part in the sales process by quoting minimum price in front of the other retailer to take the lead.

Note that there will never ever be a chance of price more than the MRP of the product while the long distance may however create some fluctuation.

Condition 2

Here the retailer plays the role for winning the business, as the customer will be uploading a bunch of products to be delivered. The retailer will have to source the items from other retailers in case he is in shortage of any of the product.

The best price quoted will be given business by the application algorithm. However in the meantime, the price of the products must never go beyond the MRP. Also the customer possess the free will to order the product from any particular retailer based on time and cost.

A fixed delivery charge will be applied based on the time as well as the distance of the delivery. All in all, the customer will take final decision from whom to order while the retailer will have to actively be in the process to bag the order.

16. Payment Calculation

Now let us get some insights on the payment of the order after being delivered to the customer. We have explained the scenario where the retailers as well as the customers were active in the order process and the costing to be decided after the order.

Once the order proceeds towards the sales, the final price will be quoted to the customer.

However, one thing to be noticed here is that if in case the delivery distance gets extended, there will be a small charge applicable on the fixed payment.

For example,

If we take INR 1 for 1 Km of distance, then

Order costing = INR 500

Delivery Cost = INR 8 for 8 Km

Total Fixed price = INR 508

But if the delivery distance gets extended for let say, 4 Km more then a different price scenario emerges.

So, now lets calculate again:

Order costing = INR 500

Delivery Cost = INR 8 for 8 Km

Extra Delivery Distance = 4 Km

Now the revised Fixed Price to be additional 5 percent of the fixed price;

Previous Fixed Price = INR 508 + 5% of Fixed Price

Revised Price = INR 508 + INR 25.4

Total Price After Revision = INR 533.4

17. How CTC Ecosystem Sees Itself Globally

CTC ecosystem is well developed for the India region and would integrate almost all the latest technology based on the blockchain as well as e-commerce platform. However, every technology must make its way globally, that must be the ultimate goal of any project developed for the facilitation of general public.

Here at Cartcoin ecosystem, which is a great boon for the unorganized retailers who struggle to find prospective customers all day long will be hugely benefited with the said concept and further create a sustainable earning for them. It might be a chance that after the introduction of CTC ecosystem, many of the interested business entrepreneurs would be encashing the idea by becoming retailers at a local level and voluntarily get registered with the CTC Ecosystem

Now if we look at a global level then there are some of the recommendations that must be followed with due diligence in order to capture the global market:

Language Specific Application : Each country will be having its own language specific CTC application in the ecosystem with all the apps, i.e. Customer Dapp, Retailer Dapp and the Delivery Dapp aligned with the language requirements.

All the content will be specifically designed in the local/regional language, curated as per the suggestion given by the local retailers making it easy for CTC community to go through the application smoothly.

Smart Contract b/w Entities: All the entities within the CTC ecosystem will be aligned as per the smart contract and would require to be adhered according to the country specific laws of trade and e-commerce guidelines.

There we have understood the push-factor of CTC ecosystem in the global market, however, global market is subject of dynamic & fluctuating scenario which constantly needs to be reviewed. Therefore further strategies of the ecosystem to make it readily available for the global market will be implemented after studying in-depth reports while entering any specific country.

18. CTC Token

Cartcoin tokens will be based on ethereum blockchain technology which would give it the power to be written on the ERC20 smart contract making it individual crypto currency till the date of validation.

If one remembers the earlier described token value as well as its calculations, we have come across such calculation:

Total number of tokens to release in first level = 10000000 (1 Crore)

Initial Token Value - \$0.10

Total value of consolidated token size = $10000000 \times 0.10\$ = 1 \text{ million US\$}$

Reward customer with 10 Tokens or 100 Tokens that value will be : 1\$ or 10\$

Cartcoin tokens will be of value \$0.10 which gives it a perfect balance between the Indian purchase/sale ratio of individual customer. As per the lower purchase power of customer in the developing nation such as India, it would be perfect to offer a lower value token to them.

It would be a wallet friendly token balance, however, as per our calculation, the token prices may fluctuate as per the demand supply ergonomics, the customer will also prefer to store more & more tokens in the wallet for a wholesome shopping experience.

Disclaimer : The above information is solely an asset of CTC Ecosystem & its background management. The project details are confidential upto the individual readers chosen for analyzing the document. Any part of the document cannot be reiterated, copied, interpreted without the consent of original owner. All the data and written aesthetics are confidential.

Indian Patent Applications no. 201841018652 & 201841018653

PCT Application number. PCT/IB2018/059590 & PCT/IB2018/059594