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Research paper

A review of ONDC's digital warfare in India taking on the e-commerce giants

Bibhu Dash [1] *, Pawankumar Sharma [1], Meraj F. Ansari [1], Swati Swayamsiddha [2]

[1] School of Computer and Information Sciences, University of the Cumberlands, KY USA
[2] School of Electronics Engineering, KIIT University, Bhubaneswar, Odisha, India
**Corresponding author E-mail: bdash6007@ucumberlands.edu*

Abstract

Geographic and linguistic distances are becoming less relevant due to digital technology advances. Due to digitalization, E-commerce is one of the many technological breakthroughs that have directly and indirectly impacted consumers' lives. With the rise of e-commerce, consumers may more easily choose items that meet their interests, and quality and reputation can be verified. For this reason, e-commerce businesses have risen to prominence in consumers' lives. Customers may engage with sellers and buyers via online and mobile platforms for a unique selling or purchasing experience because the e-commerce industry relies on digital technologies. But with time, this market became opaque due to the monopolistic practices of some of the world's largest e-commerce companies, who began to exert influence over consumer purchasing habits. Those players' interests must be safeguarded in a country like India, where small retail firms control more than 80 percent of the retail segment. As a measure, the Indian government developed a new concept called Open Network for Digital Commerce (ONDC) to protect merchants and buyers. When it comes to online shopping, this ONDC architecture is going to have a significant impact. Without a doubt, ONDC is addressing numerous concerns regarding future Indian e-commerce challenges, even though it is unclear what ONDC aims to achieve with the network's many building pieces or what privacy and security protections it intends to put in place for data interchange. All the befits and challenges of ONDC are highlighted in this article.

Keywords: *ONDC; Digitalization; E-Commerce; monopoly; DPIIT; E-comm Sustainability.*

1. Introduction

With India's phenomenal rise in e-commerce, concerns have been expressed about the dominance of many platforms. Small retailers, merchants, and multiple traders' bodies have frequently questioned the e-commerce duopoly. The Indian government, with the guidance of Nandan Nilekani, the founder of Infosys Ltd, is now executing an Open Network for Digital Commerce (ONDC) project to level the playing field for small businesses. Nilekani stated, "ONDC is an idea whose time has arrived " [1]. The Indian government unveiled the project last year. ONDC is an open-source e-commerce platform that allows all customers and sellers to transact regardless of whether they are registered on other platforms.

Through this effort, the government hopes to democratize digital commerce by pushing it away from a platform-centric approach and toward an open network. For the millions of small company owners, the government says it owes them a straightforward demonstration of how to participate in the new high-growth industry of online commerce [1]. Several governmental and private-sector organizations have previously taken an indirect or direct part in this ONDC journey. ONDC is said to be integrated by 24 firms, including Flipkart-backed Ekart Logistics, rapid hyperlocal commerce start-up Dunzo, and digital payments service Phone pay. Meanwhile, Alibaba and Ant Group have exited Paytm Mall's parent company, Paytm E-commerce Private Limited (PEPL), because the firm's business focus has shifted from traditional physical products e-commerce to ONDC and export.

ONDC is initially being implemented in five cities: Delhi NCR, Bengaluru, Bhopal, Shillong, and Coimbatore. While the open network's current activities are focused on retail and restaurants and supporting real-time transactions, it will eventually expand to include other categories such as travel and mobility. ONDC is targeting to grow to 100 cities across India by October 2022, based on the pilot exercise and demand [2].

2. ONDC (open network digital commerce)

The Open Network for Digital Commerce (ONDC) is a collaboration between several small and large-scale e-commerce companies, banks, and financial start-ups. Despite its infancy, it is being marketed as a way to disrupt the dominance of substantial e-commerce companies such as Flipkart, Amazon, JioMart, and Uber Eats in India. The present platform-centric e-commerce system, where both the buyer and seller must utilize the same platform or application to complete a commercial transaction, is being replaced by ONDC. Any network-enabled application will be able to explore and engage with local commerce across areas such as mobility, shopping, food order, delivery,

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hotel booking, and travel, thanks to the open protocol network [3]. This program of the Department for Promotion of Industry and Internal Trade (DPIIT) strives to digitize the whole value chain, standardize processes, and encourage the inclusion of both buyers and sellers, in addition to improving the value and experience of customers.

2.1. What does 'open source' mean?

As a general rule, open-source means that the technology or software used in the process may be used, redistributed and modified by anyone. ONDC's goal is to create open networks built on open-sourced methods, use open standards and network protocols, and are platform-independent for any business practices. To complete a transaction, buyers and sellers do not need to use the same platform or mobile app. They can use various applications while conducting business through ONDC [4].

3. How does ONDC work?

On the platform, eSamudaay, Gofrugal, Digit, and Growth Falcon will work with sellers, while Paytm will work with buyers. After UPI, another game-changing idea to democratize commerce - ONDC soft launch to select customers, sellers, and logistics providers, to prepare for a world of convenience, transparency, and choice. In India, about 4,000 small and large e-commerce enterprises, 500 logistics companies that carry items, and over 20,000 organizations that provide e-commerce services, such as travel and hotels [4]. By 2026, the Indian e-commerce sector is estimated to reach USD 200 billion [4].

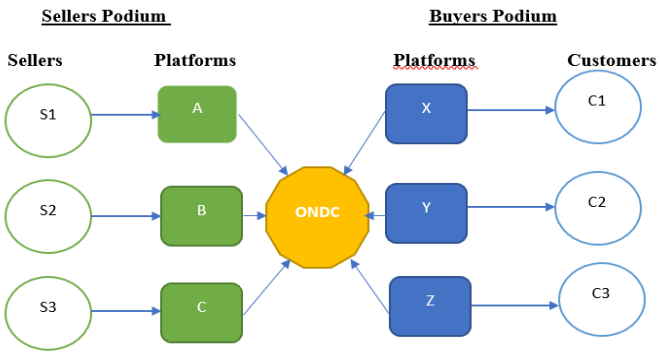


Fig. 1: ONDC Transaction Platform Displaying Sells and Buyers Podium.

As shown in Fig 1, ONDC will provide numerous platforms for vendors and customers to achieve their retail goals. In addition to having access to a network of suppliers and finding the lowest prices for items through ONDC, sellers like local Kirana stores will also have a slew of digital tools. Digital inventory management, demand and supply data, consumer preferences, and other factors fall under this category. Depending on the area, buyers can access marketplaces offered by numerous seller systems. Sellers and consumers will benefit from this since it ensures both groups gain access to many different markets.

4. Objective of ONDC

According to Business Standard, the platform promises to create new opportunities, reduce digital monopolies, and empower micro, small, and medium businesses, and small merchants by assisting them in gaining access to online platforms. It is a Ministry of Commerce and Industry's Department for Promotion of Industry and Internal Trade (DPIIT) project.
The ONDC's interest in merging and integrating with Flipkart and Amazon will destroy their monopoly. In exchange, the larger platforms can tap into ONDC's seller side to offer goods. The more prominent e-commerce players have told ONDC that they will back it. This confirmation from big e-commerce players will allow platforms with large business-to-business verticals to access the seller side of the ONDC network to supply goods and tap into new consumers," one source familiar with the program told The Economic Times [3].

5. Benefits of ONDC

Access to more buyers, improved discoverability of products and prices, autonomy on terms due to different options for being digitally visible, cheaper cost of conducting business, and additional opportunities for value chain services such as shipping and fulfilments are among the advantages of ONDC. ONDC is targeting to address both C2C and B2B transaction concerns.
The ONDC will not be owned or managed by a single business or platform. Its goal is to use open-source specifications and protocols to connect buyers, suppliers, payment, and logistics providers. The platform's goal is to open up new opportunities, reduce digital monopolies, and empower MSMEs and small merchants by assisting them in gaining access to online platforms. It is a project of the Ministry of Commerce and Industry's Department for Promotion of Industry and Internal Trade (DPIIT) [4].

5.1. Advantages of ONDC

- Level playing field: When done correctly, this strategy can level the playing field while also providing value to users.
- Curb monopoly: The market is dominated by a few businesses under investigation in various countries for unfair trade practices.
- Prevent market failure: The industry is characterized by a large number of small businesses that lack the financial power to negotiate pretty with e-commerce companies (MSMEs)
- Economists refer to this as "market failure," which is a valid intervention reason [5].

6. The economic impact of ONDC

ONDC is a non-profit organization whose network will allow items and services from all participating e-commerce platforms to be shown in search results across all network apps. ONDC is projected to digitize the whole value chain, standardize processes, encourage supplier inclusion, improve logistics efficiency, and increase consumer value. When the ONDC is fully implemented and regulated, planned in August 2022, all e-commerce enterprises in India, regardless of brand, will be required to follow the same standards as Android-based mobile devices. Smaller online shops and newcomers would benefit since discoverability, interoperability, and inclusivity would improve. Breaking the monopoly of powerful platforms will allow suppliers and customers to drive innovation and alter retail, food, and mobility businesses.

Large e-commerce firms have complained, stating that they have already invested significantly in R&D and implementing their procedures and systems. Nonetheless, the government is likely to see India's e-commerce sector as substantial enough to attract and include all sorts of business competitors, with Statista projecting a value of US$200 billion by 2026. Amazon and Flipkart have invested a total of US$24 billion in gaining 80 percent of the Indian e-commerce sector through aggressive discounting and marketing preferred sellers. Indian retail behemoths like Reliance and Tata have also launched retail platforms, shopping apps, and super apps. Traditional retailers and merchants are aware of how rapidly things may change and do not want to be shut out or priced out of the market. Online retail accounts for around 6% of India's total retail industry. India's appeal to global retailers is also difficult to dismiss, with 800 million smartphone users ranking second to China.

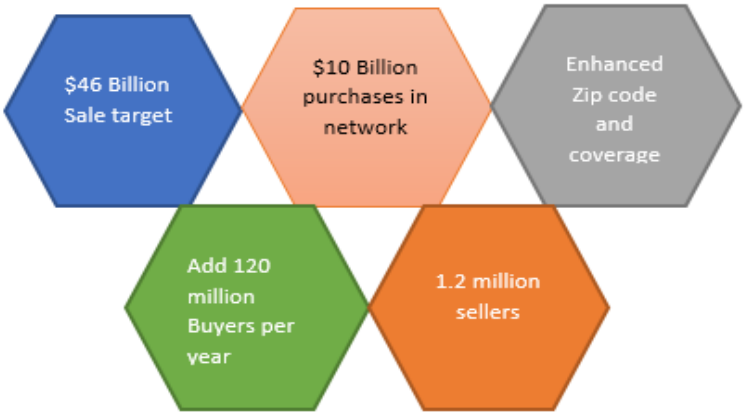


Fig. 2: Market Transformation Opportunity Plan of ONDC in the Next Five Years.

Meanwhile, ONDC is planning a five-year plan better to project itself in the market for the long run (see Fig. 2). ONDC would welcome buyers and sellers from any Indian pin code. By the end of 2024, the government hopes to have 300 million buyers and 30 million sellers on the ONDC network, and it expects that figure to rise in the following five years [6].

7. E-retail challenges ONDC plans to address

Many of the problems this innovative platform, ONDC, addresses in the Indian e-retail industry also support the Indian government's digital push. Here are some of the hindrances this ONDC will address.

7.1. Limited competitiveness of new sellers

Digital marketplaces have matured into massive integrated platforms that connect sellers and buyers with integrated services such as warehousing, transportation, and payment from a single source. The rapid rise of these platforms has made it difficult for new vendors to compete unless they are part of a well-established end-to-end service provider. The amount of investment required to build such integrated solutions limits the number of players, the report explains.

7.2. Concentration risk gives platforms excessive power

As the number of Indian online retail customers grows by the day, ONDC will usher in a new e-commerce revolution in India. Growth in platform size might lead to concentration risk; according to a new study, even if a government-run platform is used to consolidate digital commerce, the risk is increased, and a single point of failure is created. The freedom of exclusion and discretionary behavior comes with a concentration of ability. Small and medium-sized businesses are unable to compete in the market on their terms because massive platforms like Amazon and Flipkart impose their own rules, the report says, citing the constraints that these platforms unilaterally impose on small and medium-sized businesses.

7.3. Difficult for sellers who want to be on multiple platforms

Because each platform has its policies and standards, sellers who wish to sell on numerous platforms must maintain separate infrastructure and processes. According to the research, this raises selling costs and reduces participation. Furthermore, the buyer and seller must be on the same platform to discover each other. According to the report, such flaws limit choice and discoverability within the fragmented collection of platforms [7].

7.4. End of a monopoly of E-commerce giants

Amazon, Flipkart, and Paytm, some of the world's leading e-commerce companies, now hold sway over the Indian e-commerce business by giving significant discounts and keeping minimal profit margins[8]. These three firms combinedly captured 80 percent of the Indian e-commerce market. These shops use AI-enabled self-service tools to scan the pricing market and deliver the lowest price per location [9]. As a result, small businesses and local suppliers are trying to keep up with the pricing competitiveness and client retention issues, negatively influencing the digital market industry. In India, where small vendors account for 90 percent of total sales [8], this poses a direct danger to the country's small business sector. So, ONDC will remove that monopoly by introducing a platform-independent network and healthy competition.

8. Challenges before ONDC

Because it is a new platform, ONDC has a lot of work to do to meet the high expectations of its users and the government. Listed below are some of the challenges that students face.

8.1. Technological challenges

ONDC's main challenge is to match the platform's technological viability with the increasing number of transactions and clients. It needs to compete with some of the finest apps in the world, like Amazon, Flipkart, or Uber. There's growing pressure on ONDC to keep up with the latest mobile apps and meet customer demand [10]. Concerns about zip code coverage and delivery expansions are also raised to suit India's needs. Another hurdle the ONDC network faces now and in the future is the rising concern over cyber security and online fraud [7].

8.2. Operational challenges

UPI, digital linking, and mobile network restrictions are stumbling blocks for ONDC growth. The goal of integrating ONDC with Village Level Entrepreneurs (VLE) and CSC Grameen eStores is already in the works [11]; however, it is currently hampered by operational issues. Buyers and sellers must maintain faith and resilience in the ONDC plan to reach 100 cities by 2022 [12].

9. Conclusion

ONDC is a business platform owned by banks and financial organizations from the private and governmental sectors to facilitate a shared digital infrastructure. More than 20 companies, including most of India's leading banks and retail chains, have already registered for ONDC. India is on the right course for new solutions to bridge gaps in the e-commerce sectors, thanks to the advent of platforms such as ONDC. Although this ambition is ambitious, it must be tempered by the method's thoughtfulness. The Indian government has formed an advisory board for ONDC, which includes industry professionals, to execute the master plan. Through a unique design, it is undoubtedly developing a value chain-based e-commerce network with growth potential for all small, medium, and big companies. The ONDC network is still under construction; it is undergoing numerous unique and innovative modifications, and once it is ready for complete phase implementation, we will have a clearer understanding of how things will operate in the short and long run.

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