



The Digital Marketplace for Local Shop

PRIYA

MBA Scholar

Maharana Institute of Professional Studies

Kanpur, Uttar Pradesh, India

VINEET KUMAR

Assistant Professor

Maharana Institute of Professional Studies

Kanpur, Uttar Pradesh, India

How to Cite this Article:

PRIYA, (2026). The Digital Marketplace for Local Shop. International Journal of Creative and Open Research in Engineering and Management, 2(4). <https://doi.org/10.55041/ijcope.v2i4.730>

License:

This article is published under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and the source are credited.

© The Author(s). Published by International Journal of Creative and Open Research in Engineering and Management.



<https://doi.org/10.55041/ijcope.v2i4.730>

Introduction

There is currently a paradigm shift taking place in the commercial environment on a global scale, where the focus has moved away from platform-based or centralized e-commerce towards more hyper-localized digital marketplaces. This paradigm shift involves an unbundling of the functions involved in the conventional value chain of the commerce industry, including discovery, ordering, fulfillment, and payment, which are now performed by a variety of entities rather than a single monolithic entity. E-commerce companies that dominated the industry before had the advantage of economies of scale and large warehouses with diverse products offered at low prices due to high volumes. The years 2020 to 2025 were influenced heavily by the global coronavirus disease pandemic, which led to a revolution in the digital world by bringing the concept of neighborhood shops into focus. This period witnessed O2O, or Online to Offline commerce, through which local physical retailers used digital technology to provide goods to consumers within their locality faster and more conveniently than ever. The present paper discusses the scholarly literature available on this topic, the methodology to be applied, the technology being used, which includes the Beck protocol, among other issues.

Chapter 1: Literature Review on Electronic Markets

The study of electronic markets (EM) has evolved from basic transaction cost analysis to comprehensive evaluations of ecosystems. The early definition of an electronic marketplace revolved around the intermediary role in reducing transaction costs and promoting participation among small vendors. But recent studies reveal that EM is multi-faceted, and its challenges can only be handled by examining it from three different angles: information systems (IS), inter-organizational social structures, and strategic management. IS looks at the technological tracks involved in exchanging data. Social structures, on the other hand, involve the trust and reputation systems necessary for conducting business in cyberspace. Strategic management involves understanding the competitive advantage of firms, especially micro-scale local stores, through technology adoption.

A systematic analysis of scholarly journals from 2021 through 2026 shows that the increasing prevalence of online marketplaces is not simply an effect of globalization, but more so a result of hyperlocal personalization. Hyperlocal personalization focuses on the individual buyer and tailors their experience by



identifying the best local sellers based on the individual's unique pin-code. The neighborhood-based approach that also takes into account language differences and synchronization with local festivals such as Bihu, Onam, or GudiPadwa has been proven to increase conversion rates. Another development is the use of blockchain technology, resulting in decentralized marketplaces.

The swift evolution of computerization has drastically altered the landscape of international business within a short span of time. The era of disruption has exposed the power of e-commerce as it has evolved from being a luxury to becoming an absolute requirement for businesses to survive. During this era, new trends have emerged and a host of new problems have cropped up including one of handling grievances arising out of the use of unbundled networks involving multiple players in one transaction.

Chapter 2: Theory underpinning the Adoption of Digital Platforms by Shopkeepers

To analyze the drivers of digital adoption by shopkeepers, there are several popular theoretical perspectives used by scholars. The TAM theory and the UTAUT theory are the most common. According to the TAM theory, technology adoption mainly depends on perceived usefulness and ease of use. In the case of local shopkeepers, the concept of perceived usefulness is linked to an increase in foot traffic or volume of sales, whereas perceived ease of use is associated with the ability to manage a digital inventory along with a physical store.

The Unified Theory of Acceptance and Use of Technology expands upon this framework through the inclusion of such variables as performance expectation, effort expectation, social influence, and facilitating conditions. For countries such as India and Indonesia which experience rapid economic growth, the importance of social influence, or the extent to which the trader perceives influential people (such as other nearby traders or local trade organizations) feel he should adopt the technology, cannot be underestimated. The presence of facilitating conditions such as high-speed internet access and programs by the government to support adoption are crucial as well. Notably, research into the theory has added external rewards, which consist of money or assistance from the program, as an extrinsic factor driving adoption behavior.

The Technology, Organization, and Environment (TOE) analysis is another widely-used tool in analyzing these factors at an enterprise level. The TOE framework considers the technological preparedness of the production facility, organizational culture (with particular attention to the CEO's knowledge in information technologies), and pressure exerted by competitors on the business environment. One interesting modification of the TOE approach is represented by the TOBE concept, which includes a behavioral component. This helps understand how the transformation process affects people and corporate culture and how difficult it can be to change people's behavior. The Behavioral-Based Digital Transformation (BBDT) framework continues the discussion, especially in micro-level organizations with limited resources. Research shows that internal elements such as leader dedication and external factors including market demands play an important role in influencing behavior. The use of digital technology results in efficiency and optimization of material usage, which promotes the ongoing use of the technology.

Chapter 3: Research Methodology for Marketplaces

The analysis of marketplaces needs an advanced methodology that will make it possible for the results of this research to be replicated and objective. According to contemporary trends in management research, Systematic Literature Reviews (SLR) based on protocols including SPAR-4-SLR and PRISMA 2020 are commonly applied. The SPAR-4-SLR (Scientific Procedures and Rationales for Systematic Literature Reviews) protocol is applicable to business studies. This type of systematic review includes three main steps that are assembling, arranging, and assessing. Assembling includes extensive searching for the publications that will be analyzed using such keywords as "digital marketplace," "local shop," and "MSME adoption". Arranging refers to applying inclusion and exclusion criteria, namely, to limit the research to peer-reviewed journal articles of the recent five to ten years.

PRISMA 2020 consists of a checklist of 27 items that guarantee transparency in reporting. The flow diagram is one of the crucial elements of PRISMA and illustrates the four stages involved in systematic reviews – identification, screening, eligibility, and inclusion. In particular, the process aims to ensure proper treatment of grey literature, which includes conference abstracts or unreviewed white papers, in the academic community.



Besides these methodologies, scientists frequently apply Design Science Research Methodology (DSRM) to create and assess innovative marketplace artifacts. This six-stage methodology involves identifying the problem, the objective of the solution, the design and development stage, assessment, and dissemination stages to ensure that the software tools developed for local stores are theoretically coherent and practically applicable. An example is a DSRM study that led to the development of a web-based prototype that integrated 28 front-end and 15 back-end requirements for social commerce platforms.

Chapter 4: Hyperlocal Commerce and O2O Commerce

Hyperlocal commerce, also known as Online-to-Offline (O2O) commerce, can be described as a business concept whereby physical retail shops are combined with the online economy in order to provide goods and services to customers in their immediate vicinity in a very short period of time. Whereas e-commerce might depend on regional fulfillment centers, the concept of hyperlocal commerce incorporates the physical store itself as a micro fulfillment center. The rise of this phenomenon has been facilitated by the high penetration rates of smart phones.

The hyperlocal stack includes order, delivery, and marketing stacks. For a business to succeed in such a setting, it needs to move away from the "brick-and-mortar" business model to the omnichannel one.

Such an omnichannel business will need to include:

Discovery integration: Making sure that the products sold by the local business are discoverable in local search applications and social commerce platforms.

Logistics optimization: Using third-party logistics (3PLs) firms to deal with the last mile of the delivery process, which is usually the trickiest part of the delivery process.

Customer engagement: Understanding customer demands through data and offering targeted promotions.

The development of "quick commerce," with its features of small order value on average and frequent purchases, is a direct offshoot of hyperlocal commerce. Quick commerce in India is the most rapidly developing segment of online retail at this point in time, with forecasted growth of between 50% to 62% before 2030. It is driven by social changes like the trend towards nuclear families, when time-pressed couples opt for speed rather than cost savings, and increased female participation in the workforce, jumping from 25% in 2019 to 42% in 2024.

Chapter 5: Technological architectures: unbundling the value chain

The conventional e-commerce approach is "platform centric," wherein one organization such as Amazon or Flipkart handles the entire ecosystem comprising the customer interface, onboarding of the seller, logistics, and payment gateway. In this context, local shops may face a higher rate of commission, generally varying between 25% to 30%, as well as bias towards labels from the platform itself. To address this challenge, there has been an increasing inclination towards a "network centric" approach, which has been demonstrated by the Open Network for Digital Commerce (ONDC). The network-centric approach rests on the premise of "unbundling" wherein each component of the commerce process is carried out by a separate interoperable party.

Beck Protocol – The Common Language for Commerce

Beckn is neither an app nor a platform but a protocol through which different computing systems can "talk" business among themselves. The Beckn APIs make the seller automatically discoverable on any buyer application on the network. The Beckn protocol thus enables the elimination of a common platform altogether, making the system smarter and more intuitive.

Beckn protocol is both technology-neutral and industry-neutral. The most visible application of the Beckn protocol at present is in the retail segment, but it is also being used in other sectors such as mobility (which allows users to make bookings on any mode of transportation) and energy ("Digital Energy Grid"). For instance, in the case of a small store operating within one's locality, it implies that the store will be using a customized "seller app," whereas its customers will use various types of "buyer apps."



Chapter 6: ONDC (Open Network for Digital Commerce) case study

ONDC is an India government initiative intended to democratize digital commerce by moving from a platform-based model to a network-based model. The network is one part of the “India Stack,” which includes Aadhaar (identity), UPI (payment), and DigiLocker (exchange of data). The main aim of the ONDC network is to enable MSMEs and "Kirana" stores who have not been able to benefit from the e-commerce revolution due to high cost and technical issues. As of December 2025, more than 1.16 lakh retailers were live on ONDC across 630+ cities and towns. More than 3.27 crore orders have been executed through ONDC with a total GMV of over ₹16.41 lakh crore.

Socio-Economic Effect on Local Retailers One of the greatest benefits offered to smaller retailers on ONDC is the savings in operational costs, compared to a traditional marketplace where commissions amount to 30%, ONDC charges anywhere between 5-10%. Studies conducted in cities such as Bhopal and Kochi suggest that smaller retailers have experienced an increase of about 15-25% in profit margins since they joined ONDC. "Uniform visibility" is another feature that ONDC offers to its participants. In case of a conventional platform, the listing order will be determined by the budget spent by the seller in advertising on the platform, whereas on ONDC the listing order is generally determined objectively, taking into consideration distance from customer, price, and merchant ratings.

The other challenge the network seeks to solve is that of “data siloing.” On existing platforms, the reputation of a seller is bound to the platform. When the seller leaves the platform, they have lost their reputation. The objective of ONDC is to enable sellers to carry their reputations in an easily transferable form to any application within the network.

Chapter 7: Obstacles and Difficulties in Adoption

Despite the technological and economic feasibility of the idea, the shift from traditional to digital marketing poses some challenges for small-scale local shop owners. The obstacles can be broadly classified into three categories: technological, financial, and behavioral. **Technological and Infrastructure Obstacles** Despite the widespread presence of 5G technology in most districts of India, reaching a saturation level of almost 100%, the “digital readiness” of shops still poses a challenge. In many cases, the shops do not have access to high-speed broadband or other technological infrastructure like tablets and laptops that are required to maintain their digital inventory.

Digital Literacy: Knowledge deficit and skill deficiency often serve as the main obstacles to digitalization. Small business owners find it hard to operate digital technology.

Infrastructure Fragmentation: Utilizing diverse applications for each business function (i.e., orders, payments, deliveries) results in infrastructure fragmentation.

Security Issues: Worry about online dangers such as security breaches and financial scams continues to be a major disincentive for small businesses.

Organizational & Behavioral Barriers

The resistance to change in the organizational context is equally significant as other barriers. These include not having enough time to train on duty and an inherent reluctance towards digital technology than cash exchanges in the neighborhood community. The "Five Es" proposed by PwC point out that in order for the network such as ONDC to operate successfully, it should be able to "Eliminate consumer doubt and Enhance confidence through grievance redressal." Presently, there is no uniform policy for returns and customer support systems when a transaction is made between various entities involved in a process, which is "a grey area."

Chapter 8: Logistics and Hyperlocal Supply Chain

The viability of a digital marketplace platform catering to small businesses depends entirely on its logistics engine. Hyperlocal logistics are intricate processes, comprising numerous layers and requiring the right balance between speed and cost-efficiency. **The Use of 3PL and "Quick Commerce"** By FY 2025, the total number of e-commerce logistics packages shipped across India exceeded 5 billion units, increasing at a higher growth rate than the e-commerce retail industry itself. Small-scale businesses seldom operate dedicated



delivery vehicles, thereby being largely dependent on 3PL companies. Such companies bundle deliveries from several small vendors, optimizing delivery routes to ensure local orders can be fulfilled within 30 minutes.

Electric Vehicle (EV) delivery services fit the requirements of hyperlocal logistics in view of low distance traveled by the vehicle and charging facilities available at the centralized center during off-peak hours. By adopting EV delivery solutions, the business can reduce its carbon footprint while also cutting down on the costs associated with making each delivery, especially in the case of groceries and food items which offer low margins. Complexities Associated With Supplier Side Logistics The advent of the online market has enabled sellers to extend their operations into Tier-2+ cities as well as other rural locations. Logistics service providers must develop complex systems that can cope with scattered supplier operations. To this end, 3PL providers have developed AI algorithms that help forecast neighborhood demands to deploy delivery personnel ahead of time.

Chapter 9: The Role of Generative AI in Merchant Digitization

A breakthrough for digitalizing local businesses is the use of generative AI (GenAI). GenAI helps solve the problem of "onboarding friction," which was the reason why many small businesses couldn't digitize themselves. Vernacular Communication and Automated Catalog Generation For an owner of a local business in a Tier-3 city, making a digital catalog is hard. With help from GenAI, merchants can perform "Catalog Coaching" and "Conversational KYC."

Combining Voice and Images: To get a catalog of their products, a merchant only needs to submit images and voice messages through WhatsApp.

Multilingual Functionality: With the help of AI-powered solutions, these catalogues can be translated into more than 175 languages and 22 regional dialects to make it easier for local stores to connect with customers from various linguistic backgrounds.

Hyper Personalized Content: Applications like TrueFan AI can provide enterprises with an easy way to create a massive number of hyper-personalized "enablement videos" that can be used by sellers. In such videos, AI can mention the specific name of the seller and the store along with information on SLAs, fulfillment times, and return policies.

Contextual Intelligence Generation using GenAI and Machine Learning: Another area where AI can help the business marketplace is in the generation of contextual intelligence through prediction analysis. Using AI's ability to synchronize multiple data sources, AI can predict the exact time when a particular neighborhood will experience an increase in the demand for some particular products such as umbrellas in monsoon season or sweet treats in Diwali.

Chapter 10: Future Outlook & Projections until 2030

By 2030, the digital market for local stores will have become a powerful player in the global economy. By that time, the process of "unbundling" will be fully completed; all sectors, from retail to energy, will use open protocols such as Beck as their digital rails. Growth & Market Shares The market for hyperlocal services is predicted to reach \$6,778.76 billion by 2030 with a CAGR of 15%. In India, the amount of money that the people spend via e-commerce services out of their salaries should go from its current 1-2% toward the level of more developed countries like China, which ranges at around 8-10%. The driving forces behind the expansion of the online market will be millennials and members of Generation Z, who currently account for more than 53% of India's population and prefer speed over any other factor.

Conclusion: Towards an Inclusive Digital Future

The shift of the digital market from local shops towards open protocol systems, decentralized networks, and Generative AI is not just a matter of adopting new technology but rather one of ensuring inclusivity and resilience within the system. With this move, the barriers preventing the entry of mom-and-pop shops into the digital space have been effectively addressed. The shift towards a network-based 'facilitator' model has seen to it that resources are distributed equally across the system, as opposed to a 'platform' or 'operator' model.



Although obstacles such as inadequate digital skills, reliable infrastructure, and mechanisms for dealing with complaints persist, the future seems bright for the traditional local shops. The shop owners can take advantage of the opportunities created by the shift by becoming the micro-fulfillment centers of tomorrow, thereby catering to the current consumer's needs in terms of speed and convenience.

References

- Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR).
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., et al. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews.
- Misra, R., Mahajan, R., Singh, N., Khorana, S., & Rana, N. P. (2022). Factors impacting behavioural intentions to adopt the electronic marketplace: findings from small businesses in India.
- Department for Promotion of Industry and Internal Trade (DPIIT). (2022). ONDC Vision Document.
- Beck Protocol. (2019). Open Specifications for Decentralized Digital Commerce.
- Rupeika-Apoga, R., et al. (2022). Digital Transformation of MSMEs.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology.
- Ravikumar, H. (2025). A Comprehensive Survey on the Economic Transformation of Local Vendors Through Digital Integration: Assessing the Impact of Online Platforms, Customer Data, and Logistics in Villages, Towns, and Cities.