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Open Digital Commerce as Inclusive Business Model Innovation: An Embedded Case Study of ONDC and India's Digital Public Infrastructure

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Abstract

This paper presents a revised case-study manuscript on the Open Network for Digital Commerce (ONDC) as an important example of business model innovation in an emerging digital economy. The study argues that ONDC is better understood not simply as another e-commerce initiative but as an open market architecture built on digital public infrastructure. Using an embedded case-study approach and a wide body of secondary evidence, the paper examines how interoperable payments, modular participation, service orchestration, compliance visibility, and inclusive design combine to make open digital commerce viable. The discussion shows that ONDC changes the basis of competition. In closed marketplaces, value capture often depends on controlling discovery, data, and traffic within one firm boundary. In ONDC, by contrast, value depends more on capability differentiation across buyer applications, seller applications, logistics, payments, analytics, and customer service. The paper further shows that the developmental promise of open commerce depends on merchant enablement, multilingual and accessible interfaces, accountable service recovery, and trust-building routines rather than on technical openness alone. Because of these features, the ONDC case also has wider implications for mobile payments, tax technology, tourism services, supply-chain transparency, entrepreneurship, inclusive digital support systems, and AI-enabled service design. The paper concludes that open digital commerce can widen participation and support innovation, but only when interoperability is matched with strong governance, operational capability, and user-centred service design.

Keywords: *Open digital commerce; Digital public infrastructure; Platform ecosystems; Inclusive innovation; India*

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1. INTRODUCTION

Digital transformation has moved far beyond the computerisation of internal business processes. In contemporary markets it increasingly reshapes industry structure, organisational boundaries, customer relationships, and the institutional rules through which value is created and exchanged. Foundational work by Bharadwaj et al. (2013), Yoo et al. (2010), Nambisan et al. (2017), and Vial (2019) shows that digital technologies alter strategy because they enable modularity, recombination, data-driven coordination, and distributed innovation at scale. Platform and ecosystem scholars similarly argue that competition is no longer driven only by the focal firm. It is shaped by how firms position themselves within wider networks of interdependent actors, standards, and interfaces (Adner, 2017; Adner & Kapoor, 2010; Constantinides et al., 2018; de Reuver et al., 2018; Jacobides et al., 2018; Gawer, 2021). Yet this literature also identifies a persistent tension. Digital platforms often stimulate

scale and innovation, but they can also centralise control over discovery, data, participation, and value capture (Gawer & Cusumano, 2014). That tension is particularly important in emerging economies where efficiency, inclusion, affordability, and competitive fairness must be addressed together rather than treated as separate goals.

India offers a distinctive setting for examining this tension because its digital transition has not been shaped only by private firms. It has also been shaped by a layered public-facing digital infrastructure that includes identity, payments, and interoperable service rails. Recent research suggests that India's digital public infrastructure has created new opportunities for participation, service delivery, and market access, even though outcomes remain uneven across regions and user groups (Parsheera, 2022; Desai & Manoharan, 2024). Within this broader setting, the Open Network for Digital Commerce has emerged as a notable attempt to redesign e-commerce around open protocols rather than around one dominant marketplace. Islam et al. (2024) describe ONDC as an effort to democratise digital commerce by enabling interoperability among multiple buyers, sellers, logistics providers, and other service actors. Oxford Analytica (2022) similarly interprets the initiative as a response to concentration patterns in Indian e-commerce. The strategic question is straightforward but important: if digital payments can be interoperable at national scale, can commerce also be reorganised through shared transactional rules without simply reproducing the dependence associated with closed platform models?

That question matters for business and management research because ONDC is not only a policy experiment. It is a live case of market design. It asks firms to compete in a commercial environment where search, catalogue management, fulfilment, payments, analytics, and customer support are distributed across multiple actors instead of being enclosed within one corporate boundary. This paper therefore develops a focused case study of ONDC within India's digital public infrastructure and interprets it as an inclusive business model innovation. It further argues that the case has wider relevance because the same capabilities that matter in open digital commerce also matter in other domains represented in the author's recent publication portfolio, including mobile payment adoption, AI-enabled customer service, tax compliance, tourism, education and counselling technologies, finance, social innovation, accessibility, and sustainable supply chains (Mehraj et al., 2024; Islam et al., 2025a, 2025b; Rawanda, 2025; Ansarullah et al., 2025a, 2025b; ul Islam et al., 2025a, 2025b; Islam, 2025; Islam et al., 2026a, 2026b). The paper proceeds in paragraph form through the conceptual background, research design, case analysis, implications, and conclusion.

2. CONCEPTUAL BACKGROUND

The first relevant stream of literature concerns digital transformation and ecosystem strategy. Digital transformation is best understood as a process through which organisations use digital technologies to alter value creation, operational logic, stakeholder relationships, and competitive assumptions (Vial, 2019). Bharadwaj et al. (2013) argue that in digital contexts the old separation between business strategy and information technology strategy becomes increasingly artificial because digital infrastructures shape products, channels, operations, and customer interactions simultaneously. Yoo et al. (2010) go further by showing that digitisation creates a layered architecture that supports generativity and recombination. This means that innovation often becomes distributed across interfaces, modules, and complementors rather than remaining under the control of one vertically integrated firm. Nambisan et al. (2017) describe this as a new innovation logic in which firms must coordinate external participation and position themselves within evolving digital systems. Platform research develops this view by highlighting governance, boundary resources, and control over interfaces as central sources of advantage (de Reuver et al., 2018; Gawer, 2021). Ecosystem work adds that value creation depends not only on a focal organisation's strengths but also on the alignment of interdependent activities across actors (Adner, 2017; Adner & Kapoor, 2010). These arguments make ONDC analytically interesting because it shifts competition away from enclosure and towards interoperable coordination.

The second relevant stream concerns digital payments, trust, and inclusive market participation in India. The mobile payment literature repeatedly shows that adoption depends on perceived usefulness, ease of use, facilitating conditions, trust, compatibility, and network effects (Dahlberg et al., 2015; Oliveira et al., 2016). In the Indian context, Kumar et al. (2022) trace the growth of UPI-based payment systems and show how adoption has been driven by a combination of technological convenience, institutional support, and everyday usability. Mehraj et al. (2024) reinforce this point by identifying both the promise and the constraints of mobile payment adoption in India, including trust, digital literacy, security perceptions, and infrastructure gaps. Vedala and Padma Kiran (2025) similarly show that trust, performance expectancy, and facilitating conditions remain central to UPI use. Sahu et al. (2025) add an especially important point for business research by showing that interoperable payments do more than accelerate transactions. They can increase transparency and widen commercial participation in rural settings. At the same time, Cnaan et al. (2023) caution that digital financial inclusion depends on social context rather than on technology alone. These findings matter because ONDC relies on a market where payment-layer interoperability already has a substantial institutional base, but commerce-layer interoperability still depends on trust, fulfilment, grievance handling, and merchant capability.

The third literature stream concerns AI-enabled service design and cross-sector digital capability. Service scholars such as Huang and Rust (2018) and Wirtz et al. (2018) argue that AI changes not only productivity but also the way mechanical, analytical, and emotional tasks are allocated between humans and machines. In customer-facing settings, intelligent automation can improve speed, responsiveness, and personalisation, but it may also weaken empathy, accountability, and trust if used carelessly. Han et al. (2023) show that emotional expression by AI agents can influence service evaluations, which is relevant for open commerce environments where users may already experience ambiguity about responsibility. The marketing literature also shows that analytics, automation, conversational systems, and recommendation engines are becoming central to customer engagement and retention (Mason et al., 2021; Ziakis et al., 2023; Susanu et al., 2025). These issues have direct relevance for ONDC because a distributed commerce network cannot rely only on protocols. It also requires intelligent support systems for search, service recovery, complaint handling, personalisation, and trust signalling across multiple actors.

The author's broader publication record is helpful because it demonstrates how these capabilities extend beyond retail e-commerce. Islam et al. (2025a) show how AI can improve tax compliance through behavioural insight and administrative efficiency, which is relevant for open commerce where traceability and compliance intelligence become more important. Rawanda (2025) discusses AI agents in customer service and stresses the need to balance automation with the human touch. Ansarullah et al. (2025a) and ul Islam et al. (2025a) show how digital tools and AI-generated visuals can enhance school counselling and career-orientation services. ul Islam et al. (2025b) and Ansarullah et al. (2025b) highlight the strategic role of machine learning and predictive analytics in finance and market forecasting. In tourism, Badouch et al. (2025), Sia et al. (2023), Akdoğan and Durmaz (2024), and Islam et al. (2025b) show how smart tourism, recommender systems, and digitally mediated experiences are reshaping value delivery. In supply chains, Manzoor et al. (2022), Islam (2025), and Kumar et al. (2025) emphasise traceability, coordination, and sustainability through digital infrastructures. Islam et al. (2026a) and Islam et al. (2026b) extend the discussion to accessibility and urban social innovation, while Mehraj et al. (2023) and Islam (2017) connect digital ecosystems with entrepreneurship and capability formation. Even the more context-sensitive studies by Rawanda and Rawanda (2021), Islam et al. (2019), and Bhat and Islam (2017) remind us that social vulnerability, governance quality, and political conditions continue to shape the real outcomes of technological change. Together, these works suggest that ONDC should be analysed as part of a broader shift towards open, intelligent, and socially embedded service ecosystems.

Taken together, the literature points to a clear analytical gap. We know a great deal about proprietary digital platforms, mobile payments, and AI-enabled service systems. We know much less about how these strands work together in an open commerce environment built on public digital

infrastructure. Most platform studies still assume a focal firm that owns the main interface and controls discovery, data, and participation. Most studies of India's digital public infrastructure focus on public value or inclusion at a macro level. Most service-AI studies assume that the focal organisation still controls the customer journey. ONDC unsettles all three assumptions because it distributes search, catalogue management, ordering, fulfilment, and support across multiple participants. This paper therefore asks how ONDC operates as an inclusive business model innovation and what managerial capabilities firms require in order to participate effectively in such an open digital commerce network.

Table 1 synthesises the four literature strands that frame the case and shows how each of them informs the analysis of ONDC as an open, capability-driven commerce network.

Table 1. Literature strands informing the ONDC case

Literature strand	Main concern	Relevance to the ONDC case	Representative sources
Digital transformation and platform ecosystems	How value is created through platforms, ecosystems, modularity, and shared standards	Explains why ONDC shifts competition from platform enclosure to capability differentiation within a shared protocol environment	Bharadwaj et al. (2013); Vial (2019); Adner (2017); Constantinides et al. (2018); Gawer (2021)
Digital public infrastructure and payments in India	How interoperable public rails widen access, trust, and scalable transaction capacity	Clarifies why ONDC should be read as a commerce layer built on prior digital public infrastructure rather than as a standalone marketplace	Parsheera (2022); Desai and Manoharan (2024); Kumar et al. (2022); Mehraj et al. (2024); Sahu et al. (2025)
AI-enabled service and marketing capability	How AI, automation, and digital service tools improve discovery, support, personalisation, and decision quality	Shows where ONDC participants can differentiate through customer support, search, analytics, and service recovery without recreating a closed platform	Huang and Rust (2018); Wirtz et al. (2018); Ziakis et al. (2023); Rawanda (2025); Islam et al. (2025a)
Inclusive innovation and adjacent sector capability	How digital systems affect entrepreneurship, counselling, accessibility, tourism, and supply-chain coordination	Extends the case beyond retail and highlights the need for merchant enablement, accessibility, and context-sensitive adoption support	Islam (2017); Mehraj et al. (2023); Ansarullah et al. (2025a); Islam et al. (2026a); Islam et al. (2026b)

Source: *Developed by the author from the literature reviewed in this paper.*

3. RESEARCH APPROACH

This paper adopts an embedded single-case study design. The focal case is ONDC, while the embedded analytical units are the capability domains that shape its viability: interoperable payments, seller enablement, logistics coordination, AI-supported service design, trust and compliance mechanisms, and inclusive user access. A case-study method is appropriate because the paper is concerned with a contemporary phenomenon whose organisational, technical, and institutional boundaries are difficult to separate in practice (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Siggelkow, 2007). ONDC is simultaneously a policy intervention, a protocol layer, a network architecture, and a commercial environment. Treating it as a case makes it possible to examine those dimensions together rather than flattening them into a purely technical or purely policy discussion.

The evidence base is drawn from peer-reviewed journal articles, book chapters, scholarly reviews, and selected official or professional materials relevant to ONDC and India's digital infrastructure. The analysis covers the period from 2022, when the ONDC pilot became publicly visible, through early 2026, when a more substantial body of scholarly and sectoral reflection had become available. The procedure involved three steps. First, the literature was read comparatively and coded around the recurring themes of interoperability, governance, complementor participation, inclusion, trust, and intelligent service capability. Second, the ONDC case was reconstructed as a business model configuration rather than as a narrow policy announcement. Third, adjacent studies from payments, taxation, customer service, tourism, supply chains, counselling, accessibility, entrepreneurship, and finance were used to identify transferable managerial lessons. The purpose is not statistical generalisation. It is analytical generalisation, that is, the use of a rich case to sharpen conceptual understanding and to suggest future research directions for business and management scholarship.

Figure 1 translates this research logic into an embedded capability view of the ONDC system, showing how user access, protocol governance, service partners, and business outcomes are linked within one open-commerce architecture.

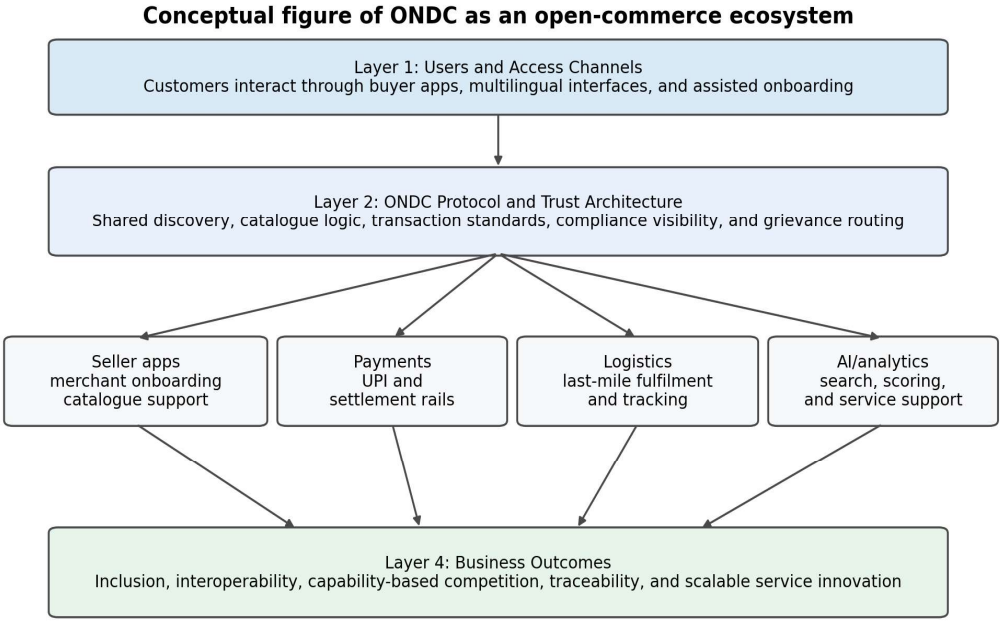

Figure 1. ONDC as an embedded open-commerce ecosystem

Source: Developed by the author from the case interpretation and supporting literature.

4. CASE ANALYSIS

India's digital public infrastructure has developed through the layering of identity, payments, data exchange, and digital service rails that enable both state functions and private innovation. Parsheera (2022) and Desai and Manoharan (2024) show that this architecture has widened possibilities for scale and access, although readiness remains uneven across regions and user groups. Within this setting, ONDC represents a commerce-specific extension of open-network logic. Instead of reproducing a single dominant marketplace, it connects buyer applications, seller applications, logistics actors, payment systems, and related service providers through shared protocols. The test pilot launched in April 2022 across five cities, as noted by the Press Information Bureau (2022), marked an important transition from policy aspiration to operational experiment. From a management perspective, the significance of the case lies in its attempt to redistribute core marketplace functions across a network while preserving transactional coherence.

The first major insight from the case is that ONDC is best understood as a business model innovation built around unbundling. In conventional marketplaces, demand aggregation, seller onboarding, advertising visibility, payments, logistics, grievance handling, and customer data are often controlled within a single platform boundary. ONDC separates many of these functions. Discovery can occur on one interface, seller support on another, logistics through a specialist partner, and payment through already familiar rails. This creates room for specialised complementors and lowers some barriers to entry for smaller firms. At the same time, it changes where value is created and captured. Advantage no longer depends mainly on owning all traffic or enclosing all interactions. It depends more on capability differentiation within a shared transactional grammar. Buyer-side applications may compete through better search, interface design, language support, or category curation. Seller-side providers may compete through catalogue quality, onboarding discipline, and merchant support. Logistics providers may compete through reliability and service recovery. Analytics players may compete through recommendation quality, demand prediction, or fraud detection. In this sense, ONDC does not remove competition. It relocates competition from platform enclosure to service-layer capability, confirming the broader ecosystem argument that value in interdependent settings depends on alignment, complementarity, and governance rather than on unilateral control alone (Adner, 2017; Constantinides et al., 2018; Jacobides et al., 2018).

The second insight is that inclusion in open commerce should be treated as a capability problem rather than as a simple access problem. ONDC undoubtedly widens formal entry points for micro and small sellers by reducing dependence on any one marketplace's rules, fees, and search mechanisms (Islam et al., 2024; Oxford Analytica, 2022). Yet formal access does not automatically translate into effective participation. Small sellers still need digital catalogues, product descriptions, image quality, inventory routines, fulfilment reliability, payment familiarity, customer response systems, and after-sales discipline. This interpretation is consistent with the payments literature. Studies of UPI adoption show that interoperability becomes commercially meaningful only when trust, ease of use, and facilitating conditions are in place (Kumar et al., 2022; Mehraj et al., 2024; Vedala & Padma Kiran, 2025). Sahu et al. (2025) further demonstrate that payment interoperability can widen the ease of doing business in rural India, but that effect depends on practical capability and everyday usability. Applied to ONDC, the lesson is clear: merchant enablement must be treated as part of the business model rather than as an optional training add-on. Otherwise, open commerce may be formally inclusive while remaining operationally unequal, with better-resourced actors still capturing most value.

The practical capability logic discussed in the case is consolidated in Table 2, which shows that the commercial value of openness depends on whether firms can convert interoperability into everyday operational discipline.

Table 2. Capability domains shaping effective participation in ONDC

Capability domain	Opportunity created by openness	Main managerial risk	Priority action
Merchant enablement	Lower entry barriers for small sellers and specialised onboarding providers	Formal access without real selling capability	Invest in catalogue quality, training, inventory routines, and seller support
Customer support and service recovery	Distributed interfaces can still deliver responsive service when actors coordinate well	Responsibility becomes opaque when failures cut across multiple actors	Use AI triage with clear human escalation and visible ownership of complaints
Payments and	UPI-linked interoperability reduces friction and	Trust falls when settlement or refund	Standardise payment messaging, refund visibility, and

settlement	supports transaction scale	processes are unclear	reconciliation routines
Logistics coordination	Specialist partners can improve fulfilment reach and flexibility	Service quality varies sharply across geographies and partners	Track fulfilment reliability and build strong partner-level performance metrics
Data, analytics, and compliance	Shared records support forecasting, fraud control, and traceability	Poor data quality weakens both trust and decision-making	Treat data discipline as a core managerial capability, not a back-office afterthought
Inclusive interface design	Open networks can serve diverse users through language and accessibility support	Exclusion persists when interfaces assume high digital literacy	Design for multilingual use, assisted onboarding, clear grievance paths, and accessible interaction

Source: *Developed by the author from the ONDC case analysis and cited literature.*

A related point concerns user diversity and inclusive design. Large-scale digital systems are often discussed in aggregate terms, but their outcomes are shaped by language, accessibility, grievance clarity, and the availability of human support. The case literature on India's digital transformation already shows that state-level variation matters (Parsheera, 2022). The author's adjacent studies strengthen this point. Islam et al. (2026a) show, in a different context, that network effectiveness improves when accessibility standards are built in early rather than retrofitted. Rawanda and Rawanda (2021) show that exclusion is often institutional and social as much as technical. Seen through a business lens, this means that multilingual interfaces, low-friction onboarding, accessible design, transparent returns, and escalation pathways are not peripheral concerns. They shape trust, adoption, and retention in open commerce more directly than in tightly controlled platforms because the customer journey is distributed across more than one actor. An open network therefore needs stronger user-centred design discipline, not weaker discipline, if it is to remain credible and commercially useful.

The third major insight concerns the redistribution of trust and service responsibility. Closed platforms often centralise trust through brand reputation, tightly managed service standards, buyer protection signals, and centralised dispute handling. In an open network, trust must be assembled across interfaces and participants. This makes customer support, service recovery, escalation, and accountability especially important. Rawanda (2025) argues that AI agents can improve response speed and personalisation, but should not be allowed to erase human judgement and empathy. That insight is highly relevant here because service failures in open commerce may involve several participants at once. Intelligent routing, automated triage, and conversational assistance can help users navigate the system, but only if they are paired with clear escalation mechanisms and visible accountability. The same point is supported by service and marketing research more broadly. Huang and Rust (2018), Wirtz et al. (2018), Ziakis et al. (2023), Susanu et al. (2025), and Han et al. (2023) all indicate that intelligent service tools can strengthen customer experience when they are designed responsibly. In ONDC, such tools can support differentiation without recreating a closed platform model, but they must operate within a transparent governance environment. Otherwise, responsibility becomes diffuse and trust weakens.

Compliance and analytics form another layer of the trust stack. Open commerce increases the importance of traceable transactions, interoperable records, and auditable process flows. Islam et al. (2025a) show that AI can improve tax compliance by increasing behavioural insight and administrative efficiency. In an open commerce setting, this suggests that digital traceability and intelligent compliance tools can reduce informality and improve visibility, but only if data governance is carefully structured. The finance-oriented studies by ul Islam et al. (2025b) and Ansarullah et al. (2025b) also highlight the strategic value of analytics and forecasting. ONDC participants can use such capabilities

for demand planning, stock management, seller scoring, and fraud detection, but the value of analytics still depends on data quality and interoperable records. This again underlines a broader managerial lesson: in open networks, back-end data discipline is not separate from customer-facing trust. It is one of the conditions that makes trust possible.

A fourth insight is that the significance of ONDC extends beyond retail because it exemplifies a broader move towards open, modular, and intelligent service infrastructures. In tourism, smart apps, conversational systems, and recommender tools are already reshaping how value is created and how smaller providers gain visibility (Badouch et al., 2025; Sia et al., 2023; Akdoğan & Durmaz, 2024; Islam et al., 2025b). In supply chains, blockchain and IoT studies highlight transparency, traceability, and coordination among distributed actors (Manzoor et al., 2022; Islam, 2025; Kumar et al., 2025). In education and support services, digital counselling and AI-generated visuals show how multi-actor service ecosystems can improve guidance and engagement when technological tools are paired with appropriate human mediation (Ansarullah et al., 2025a; ul Islam et al., 2025a). Islam et al. (2026b) extend this logic to urban technologies and social innovation, while Mehraj et al. (2023) and Islam (2017) suggest that entrepreneurial value also depends on accessible ecosystem support. Even more forward-looking work such as Ansarullah et al. (2026) on quantum-enhanced AI signals the direction of future analytics-intensive coordination, although its immediate relevance remains conceptual rather than operational. The wider lesson is that ONDC belongs to a broader family of interoperable service systems in which advantage comes from specialised, trust-enhancing, and user-sensitive capabilities rather than from enclosure alone.

The case also needs to be read against its institutional backdrop. Technology does not operate in a vacuum. Islam et al. (2019) and Bhat and Islam (2017) show that management activity and trade relationships are affected by socio-political conditions. This point matters because open digital commerce depends not only on technical standards but also on governance stability, public trust, and policy credibility. Open infrastructures can widen opportunity, but they do not erase contextual inequalities. In practice, the performance of ONDC will depend on the interplay between protocols, institutions, business incentives, and user capabilities. That makes the case especially valuable for business and management research: it demonstrates that digital innovation should be studied not only as a firm-level strategic decision but also as an institutionally embedded process of market formation.

5. IMPLICATIONS

The ONDC case carries three theoretical implications. First, it extends platform and ecosystem theory by showing that openness can itself function as a strategic design principle rather than as a weak substitute for platform control. ONDC does not reject platform logic. It reworks it through protocols, standards, and distributed complementors. This supports the argument that platforms and infrastructures should be analysed together (Constantinides et al., 2018) and that ecosystem performance depends on structured interdependence rather than on focal-firm dominance alone (Adner, 2017). Second, the case broadens digital transformation theory by showing that public digital infrastructure can shape private strategy before any individual firm acts. Managers in such settings do not simply choose technologies. They choose positions within shared architectures. Third, the case contributes to inclusive innovation research by showing that openness alone does not guarantee equitable outcomes. Inclusion depends on merchant capability, accessible design, grievance clarity, trust-building routines, and context-sensitive support. Across the author's wider body of work on entrepreneurship, counselling, customer service, accessibility, and social innovation, the same pattern recurs: digital systems deliver stronger outcomes when technical openness is matched by capability mediation and human-centred design (Islam, 2017; Mehraj et al., 2023; Ansarullah et al., 2025a; ul Islam et al., 2025a; Islam et al., 2026a, 2026b).

The managerial implications are equally clear. Firms that want to compete in open digital commerce need orchestration capability. They must manage partner interdependence, not only internal efficiency. They need service quality routines that can withstand distributed accountability.

They need data governance and compliance systems that are strong enough to support trust. They also need a sharper understanding of where differentiation now sits. In open commerce, differentiation is likely to come from practical problem-solving: better catalogue management, multilingual customer support, low-cost merchant onboarding, transparent dispute handling, last-mile reliability, conversational assistance, AI-enhanced discovery, or specialised analytics. This means that open networks may create more room for focused complementors than closed platforms do, but they also impose higher coordination demands. The firms most likely to benefit will be those that understand interoperability not as a background technical condition but as the basis of a new competitive logic.

The case also suggests a compact future research agenda. Subsequent empirical work should test whether complementor capability diversity improves ecosystem performance only when governance standards remain legible and enforceable; whether payment interoperability increases small-seller participation primarily through merchant enablement rather than through transaction convenience alone; whether AI-supported customer service strengthens trust only when escalation and responsibility remain transparent; whether accessible and multilingual design has an even stronger effect in open network settings than in closed platforms; and whether the economic benefits of open commerce vary sharply across regions depending on local digital readiness and institutional trust. These propositions follow directly from the present analysis and offer a practical basis for future quantitative and comparative case research.

Table 3 converts these directions into testable propositions so that subsequent work can move from conceptual reflection to focused empirical enquiry.

Table 3. Future research propositions derived from the case

Proposition	Underlying logic	Suggested empirical direction
P1: Complementor diversity improves ONDC performance only when governance standards remain legible and enforceable.	Openness expands participation, but coordination costs rise when responsibilities are unclear.	Compare categories or regions with differing levels of compliance visibility and dispute resolution quality.
P2: Payment interoperability increases small-seller participation mainly through merchant enablement rather than transaction convenience alone.	Technical rails matter, but adoption depends on sellers being able to integrate them into routine operations.	Survey ONDC merchants on onboarding support, payment confidence, and sales continuity.
P3: AI-supported customer service strengthens trust only when users can still identify who is accountable.	Automation can improve speed, but trust erodes if escalation and ownership disappear.	Use experiments or field studies comparing AI-only, human-only, and hybrid service recovery models.
P4: Accessible and multilingual design	Distributed journeys create more points where friction and exclusion	Test usability outcomes across interface types, language options,

has a stronger effect in open networks than in closed platforms.	can accumulate.	and assisted-use settings.

***Source**: Developed by the author from the argument advanced in this paper.*

6. CONCLUSION

This paper has examined ONDC as an embedded case of open digital commerce within India's wider digital public infrastructure. It has argued that ONDC should be understood not simply as another e-commerce channel but as a business model innovation that redistributes marketplace functions across interoperable participants. The central analytical finding is that open commerce changes the basis of competition. Instead of rewarding the enclosure of discovery, data, and traffic within one platform, it rewards capability differentiation across a shared transactional system. Yet the paper has also shown that openness on its own is not enough. Merchant enablement, inclusive design, reliable fulfilment, responsible AI-supported service, compliance visibility, and clear governance remain essential conditions for effective participation.

The broader conclusion is that ONDC matters because it points towards a different future for digital markets in emerging economies. It suggests that competitive efficiency and wider participation do not have to be treated as mutually exclusive goals, but it also shows that making openness work is a serious managerial task rather than a simple technical choice. For business and management scholars, the case opens a useful line of inquiry into how public digital infrastructure reshapes firm strategy, ecosystem governance, and inclusive market formation. For practitioners, it underlines that the winners in open digital commerce are unlikely to be those who try to recreate closed-platform dependence inside a new network. They are more likely to be those who build trust, solve coordination problems well, and design services around the real capabilities of diverse users and sellers.

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