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INTERNET SERVICE PROVIDERS AS THE NEW BUSINESS HUBS

PROVEDORES DE SERVIÇOS DE INTERNET COMO OS NOVOS CENTROS DE NEGÓCIOS

PROVEEDORES DE SERVICIOS DE INTERNET COMO LOS NUEVOS CENTROS DE NEGOCIOS

https://doi.org/10.56238/bocav25n74-039

Data de submissão: 20/12/2025 **Data de publicação:** 04/01/2026

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ABSTRACT

Internet Service Providers (ISPs) are undergoing a structural transformation driven by the commoditization of broadband connectivity, shifts in consumer behavior, and the increasing relevance of digital ecosystems. Historically centered on infrastructure deployment and access provision, ISPs now confront declining differentiation in core connectivity services and intensifying competition from over-the-top (OTT) platforms. This article examines the strategic repositioning of ISPs toward diversified service portfolios and platform-oriented models. Drawing on the literature on telecommunications business models, service transition strategies, digital maturity, and platform economics, the study analyzes how customer base leverage, revenue diversification, and ecosystem orchestration may influence firm value and competitive positioning. The discussion includes a comparative reflection on Brazil and the United States and explores the prospective evolution toward localized super-app configurations. The findings suggest that ISPs capable of integrating complementary services within coherent platform architectures may enhance customer lifetime value, reduce churn, and improve valuation metrics, although such transitions depend on organizational and regulatory contingencies.

Keywords: Internet Service Providers. Platform Strategy. Revenue Diversification. Digital Maturity. Telecommunications Economics.

RESUMO

Os Provedores de Serviços de Internet (ISPs) estão passando por uma transformação estrutural impulsionada pela comoditização da conectividade em banda larga, mudanças no comportamento do consumidor e a crescente relevância dos ecossistemas digitais. Historicamente centrados na implantação de infraestrutura e provisão de acesso, os ISPs agora enfrentam diferenciação decrescente nos serviços de conectividade essencial e intensificação da concorrência de plataformas over-the-top (OTT). Este artigo examina o reposicionamento estratégico dos ISPs em direção a portfólios de serviços diversificados e modelos orientados a plataformas. Baseando-se na literatura sobre modelos de negócios em telecomunicações, estratégias de transição de serviços, maturidade digital e economia de

plataformas, o estudo analisa como a alavancagem da base de clientes, diversificação de receita e orquestração de ecossistemas podem influenciar o valor da empresa e o posicionamento competitivo. A discussão inclui uma reflexão comparativa entre Brasil e Estados Unidos e explora a evolução prospectiva em direção a configurações de superaplicativos localizados. Os resultados sugerem que os ISPs capazes de integrar serviços complementares dentro de arquiteturas de plataforma coerentes podem aumentar o valor do tempo de vida do cliente, reduzir a taxa de rotatividade e melhorar métricas de avaliação, embora essas transições dependam de contingências organizacionais e regulatórias.

Palavras-chave: Provedores de Serviços de Internet. Estratégia de Plataforma. Diversificação de Receita. Maturidade Digital. Economia de Telecomunicações.

RESUMEN

Los Proveedores de Servicios de Internet (ISPs) están experimentando una transformación estructural impulsada por la comoditización de la conectividad de banda ancha, cambios en el comportamiento del consumidor y la creciente relevancia de los ecosistemas digitales. Históricamente centrados en la implementación de infraestructura y la provisión de acceso, los ISPs ahora enfrentan una diferenciación decreciente en los servicios de conectividad esencial e intensificación de la competencia de plataformas over-the-top (OTT). Este artículo examina el reposicionamiento estratégico de los ISPs hacia carteras de servicios diversificados y modelos orientados a plataformas. Basándose en la literatura sobre modelos de negocio en telecomunicaciones, estrategias de transición de servicios, madurez digital y economía de plataformas, el estudio analiza cómo el apalancamiento de la base de clientes, la diversificación de ingresos y la orquestación de ecosistemas pueden influir en el valor de la empresa y el posicionamiento competitivo. La discusión incluye una reflexión comparativa entre Brasil y Estados Unidos y explora la evolución prospectiva hacia configuraciones de superaplicaciones localizadas. Los resultados sugieren que los ISPs capaces de integrar servicios complementarios dentro de arquitecturas de plataforma coherentes pueden aumentar el valor de vida del cliente, reducir la rotación y mejorar métricas de valoración, aunque estas transiciones dependen de contingencias organizacionales y regulatorias.

Palabras clave: Proveedores de Servicios de Internet. Estrategia de Plataforma. Diversificación de Ingresos. Madurez Digital. Economía de Telecomunicaciones.

1 INTRODUCTION

The traditional business model of Internet Service Providers (ISP) has been anchored in infrastructure deployment and broadband access provision. However, broadband connectivity increasingly exhibits characteristics of a commodity service, with limited differentiation based solely on speed and price. Hanafizadeh *et al.* identify the progressive evolution of ISP business models from pure connectivity provision toward hybrid configurations incorporating complementary services [1]. Simultaneously, OTT platforms have captured significant value from digital content and applications, challenging telecom operators' revenue structures [2].

Consumer expectations have evolved accordingly. Saflor *et al.* demonstrate that customer preferences increasingly emphasize bundled services, service reliability, and ecosystem integration rather than standalone connectivity attributes [3]. In this environment, the sustainability of ISP business models depends on strategic transformation. Valdez-De-Leon conceptualizes digital maturity in telecommunications firms as a progression from network-centric logic toward service-centric and ecosystem-oriented structures [4]. The commoditization of connectivity thus functions as a structural catalyst for business model reconfiguration.

2 STRATEGIC LEVERAGE OF CUSTOMER ASSETS

An ISP's installed customer base constitutes a central strategic asset. Unlike digital entrants without physical infrastructure, ISPs maintain direct contractual relationships, billing systems, and recurring revenue streams. These characteristics reduce transaction costs and enable systematic cross-selling. Fang *et al.* show that firms transitioning toward service-based strategies may experience positive valuation effects when leveraging existing relational assets [5].

Recurring subscription models provide revenue predictability and enhance customer lifetime value. Muzellec *et al.* explain how two-sided and multi-sided platforms derive value from structured interactions among user groups, supported by integrated governance mechanisms [6]. In telecommunications, McManus *et al.* demonstrate that platform steering can influence the uptake of complementary services within integrated environments [7].

Although ISPs are not inherently multi-sided platforms, their billing integration and technical intermediation create structural conditions that may support platform-like dynamics.

3 REVENUE DIVERSIFICATION STRATEGIES

Facing stagnating margins in core connectivity, ISPs increasingly diversify into complementary digital services. Jafor *et al.* argue that telecom operators must pursue revenue diversification strategies to mitigate the impact of OTT substitution and sustain financial viability [2]. These strategies include telephony, IPTV, streaming aggregation, cybersecurity services, telemedicine platforms, online education access, residential and vehicular monitoring systems, and digital insurance solutions.

Streaming integration represents a prominent extension of ISP capabilities. Barakabitze *et al.* emphasize the strategic importance of quality of experience (QoE) management in multimedia services, highlighting how network-level optimization may enhance user satisfaction in bundled content environments [8]. Cybersecurity services likewise represent monetizable extensions of core network functions. Singh and Kumar discuss AI-driven cybersecurity frameworks for ISPs that combine threat mitigation with revenue opportunities [9].

Beyond entertainment and security, the expansion of internet infrastructure correlates with diversification in service sectors more broadly. Gnangnon finds that internet diffusion contributes to services export diversification, reinforcing the systemic economic role of connectivity platforms [10]. Within domestic markets, integration of smart-home monitoring, IoT-enabled residential services, vehicular tracking systems, and digital insurance products reflects a broader transition toward smart service ecosystems. Beverungen *et al.* describe how industrial service providers may transform into platform orchestrators by coordinating complementary offerings through integrated architectures [11].

4 FROM SERVICE BUNDLING TO PLATFORM ARCHITECTURE

Diversification alone does not necessarily constitute platformization. Nolan distinguishes integrated platform strategies from simple product assortment expansion, emphasizing coordinated governance and structured complementarities [12]. For ISPs, transitioning from service bundling to platform architecture requires integration of third-party

providers through unified billing, data management, and technical interoperability mechanisms.

Chiang and Jhang-Li analyze competitive dynamics among ISPs and illustrate how service consolidation strategies may alter market structures [13]. However, transformation into a platform provider entails organizational adaptation. Beverungen *et al.* highlight that firms pursuing platform strategies must develop governance capabilities, API ecosystems, and partner management structures [11]. Therefore, while ISPs may evolve toward platform-like configurations, such evolution depends on strategic coherence and capability development rather than simple service aggregation.

Potential economic effects include reduced churn through ecosystem embeddedness and increased average revenue per user via multi-service integration. These outcomes remain contingent on effective execution and regulatory constraints.

5 VALUE CREATION AND FIRM VALUATION

Service transition and diversification strategies have been empirically linked to firm value creation. Fang *et al.* demonstrate that coherent service transition strategies may yield positive abnormal returns [5]. Sun *et al.* further show that diversification into IT service markets can positively influence firm valuation, particularly when leveraging technological complementarities [14].

For ISPs, valuation effects likely depend on the extent to which diversification enhances scalability, reduces revenue volatility, and generates sustainable differentiation. It would be inappropriate to assume uniform positive effects across all operators; rather, value creation depends on strategic alignment, execution capability, and market structure.

6 COMPARATIVE MARKET DYNAMICS: BRAZIL AND UNITED STATES

Telecommunications markets differ in maturity and structural conditions. Hanafizadeh *et al.* identify diversified ISP business models as more prevalent in mature markets characterized by high broadband penetration and competitive saturation [1]. In contrast, emerging markets may experience diversification in parallel with infrastructure expansion. Saflor *et al.* highlight consumer preference dynamics in evolving markets, indicating demand for bundled and integrated services [3].

While U.S. operators historically adopted bundled service strategies earlier, Brazilian ISPs have accelerated diversification amid fiber expansion and intensified regional competition. These trajectories suggest convergence toward hybrid and platform-oriented models, albeit within distinct regulatory and competitive contexts.

7 PROSPECTIVE EVOLUTION TOWARD DIGITAL HUBS

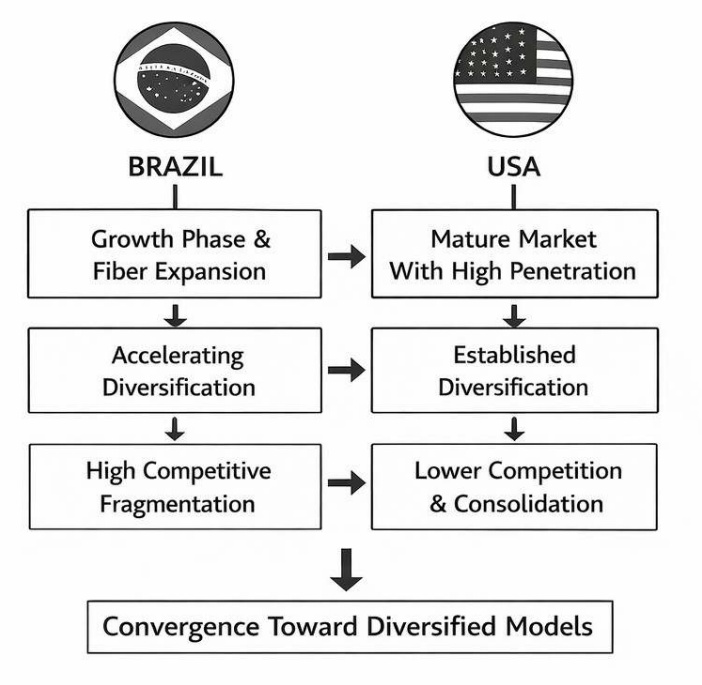
The literature on digital maturity and platform transformation suggests a possible trajectory in which ISPs evolve toward integrated digital ecosystems. Valdez-De-Leon associates advanced digital maturity with ecosystem orchestration capabilities [4]. If ISPs integrate connectivity, content, security, monitoring, and digital services within unified subscription structures, they may function as localized digital hubs.

However, this trajectory is neither deterministic nor universal. Structural investment requirements, regulatory frameworks, and competitive pressures may constrain platform expansion. Nonetheless, the strategic repositioning of ISPs from pure connectivity providers to integrated service intermediaries represents a plausible evolution supported by contemporary business model research.

8 MARKET STRATEGY ILLUSTRATION

Figure 1

ISP Market Strategy: Brazil vs USA



Source: created by author.

9 CONCLUSION

In conclusion, the transformation of Internet Service Providers reflects broader structural shifts in digital markets. As broadband access becomes increasingly commoditized, ISPs are incentivized to leverage their installed customer bases and recurring revenue models to diversify into complementary digital services. The literature indicates that coherent service transition and platform-oriented strategies may enhance firm value, provided they are supported by appropriate capabilities and governance structures. Comparative market dynamics between Brazil and the United States illustrate different paces of diversification, yet similar directional pressures. ISPs that successfully integrate complementary services within structured ecosystem architectures may consolidate their position as central nodes in local digital economies.

REFERENCES

Analysis of the performance of helical piles under various load and geometry conditions. (2025). *ITEGAM-JETIA*, *11*(53), 135-140. https://doi.org/10.5935/jetia.v11i53.1887

Barakabitze A, Barman N, Ahmad A, Zadtootaghaj S, Sun L, Martini M, Atzori L. QoE management of multimedia streaming services in future networks. IEEE Commun Surv Tutor. 2019;22:526-565.

Beverungen D, Kundisch D, Wünderlich N. Transforming into a platform provider. J Serv Manag. 2020.

Chiang I, Jhang-Li J. Delivery consolidation and service competition among Internet service providers. J Manag Inf Syst. 2014;31:254-286.

Fang E, Palmatier RW, Steenkamp JB. Effect of service transition strategies on firm value. J Mark. 2008;72:1-14.

Gnangnon S. Effect of the internet on services export diversification. J Econ Integr. 2020;35:519-558.

Hanafizadeh P, Hatami P, Bohlin E. Business models of Internet service providers. NETNOMICS. 2019;20:55-99.

Jafor A, Arafat M, Hossain M, Islam M. Survival strategies for telecom operators in the age of OTT disruption. Am J Manag Econ Innov. 2025;7(5).

McManus B, Nevo A, Nolan Z, Williams J. Steering incentives of platforms: evidence from the telecommunications industry. NBER Working Paper 27083; 2020.

Muzellec L, Ronteau S, Lambkin M. Two-sided internet platforms: a business model lifecycle perspective. Ind Mark Manag. 2015;45:139-150.

Nolan Z. Optimal assortment on an integrated platform. SSRN Electron J. 2019.

Saflor C, Mariñas K, Alvarado P, Baleña A, Tanglao M, Prasetyo Y, *et al.* Towards sustainable internet service provision. Sustainability. 2024;16(11):4767.

Singh N, Kumar S. AI-driven cybersecurity strategies for ISPs. Proc Int Conf Cyber Warfare Secur. 2025.

Sun W, Ding Z, Xu X. A new look at returns of information technology: firms' diversification to IT service market and firm value. Inf Technol Manag. 2021;22:13-31.

Sustainable solutions for urban infrastructure: The environmental and economic benefits of using recycled construction and demolition waste in permeable pavements. (2025). *ITEGAM-JETIA*, *11*(53), 131-134. https://doi.org/10.5935/jetia.v11i53.1886

Valdez-De-Leon O. A digital maturity model for telecommunications service providers. Technol Innov Manag Rev. 2016;6:19-32.