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Data-Driven Insights into E-Commerce

Performance: A KPI Analysis of Olist's B2B2C Model

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Introduction

Scope and Objectives

This report provides a comprehensive industry analysis of the e-commerce sector with specific focus on Olist, a Brazilian B2B2C marketplace platform. The primary objectives are to: (1) analyze the global and regional (Brazil/Latin America) e-commerce industry landscape including market size, growth trends, business models, competitive dynamics, and operational challenges; (2) identify and define key performance indicators (KPIs) critical to e-commerce success across traffic acquisition, revenue, operations, and customer metrics; (3) conduct empirical analysis using the Olist public dataset (Kaggle) to calculate selected KPIs and demonstrate practical application of industry metrics; and (4) provide actionable strategic recommendations for Olist's growth, operational optimization, and competitive positioning ^{[11] [12] [3]}.

Subject Company: Olist

Olist is Brazil's largest department store operating in Brazilian online marketplaces through a B2B2C (business-to-business-to-consumer) model ^{[12][13][3]}. Founded to democratize e-commerce access for small and medium-sized businesses (SMBs), Olist enables merchants across Brazil to sell products through major platforms including MercadoLibre, Amazon Brazil, and Magazine Luiza with a single contract, eliminating the complexity of managing multiple marketplace integrations ^{[11] [12] [3]}. The company provides comprehensive services including marketplace management, inventory synchronization, order processing, logistics coordination through partner carriers, and financial solutions such as working capital loans and payment processing ^{[3] [12]}. With over 10,000 employees as of 2024, Olist has become a critical enabler in Brazil's digital economy, processing billions in gross merchandise value annually ^[12]. Olist was selected for this analysis due to its: (1) representative B2B2C marketplace model prevalent in Latin America, (2) publicly available transaction dataset ideal for empirical KPI analysis, (3) strategic positioning between SMB sellers and major e-commerce platforms, and (4) operational challenges representative of broader Brazilian e-commerce logistics, payment, and competitive dynamics ^{[13] [3] [14]}.

Methodology

Research Sources

This analysis synthesizes data from multiple authoritative sources to ensure comprehensive and current industry insights. Market intelligence was gathered from leading research firms including Statista Market Forecast (global and Brazil e-commerce projections), IMARC Group (Brazil market sizing), Mordor Intelligence (segment analysis), Grand View Research (platform markets), and Cognitive Market Research (global trends) ^{[1][2][15][16][17][18]}. Industry publications consulted include Shopify's Global E-Commerce Sales Growth Report 2025, eMarketer data, [Trade.gov](https://www.trade.gov) e-commerce forecasts, and regional analyses from Americas Market Intelligence and PaymentsCMI ^{[19][20][21][22]}. Trade and financial sources

encompass Mercado Libre investor reports, Amazon Brazil market data, Magazine Luiza performance metrics, and B2W Digital marketplace statistics ^{[5] [23] [24] [14] [6]}. Academic and technical sources include peer-reviewed articles on digital transformation in Brazilian logistics, last-mile delivery optimization, fraud prevention systems, and customer acquisition strategies ^{[7][25][8][26][27][28]}. Company-specific information derives from Olist's official communications, Meta IT case studies, business model analyses from Canvas Business Model and Modac, and the Kaggle public dataset documentation ^{[11][29][12][13][3][30]}. All market figures and statistics are cited with publication dates to ensure transparency regarding data currency [various sources throughout].

Data Sources and Preprocessing

The Olist Brazilian E-Commerce Public Dataset, available on Kaggle, served as the main source for the empirical calculation of key performance indicators (KPIs) ^{[29][30]}. The dataset contains roughly 100,000 orders placed between September 2016 and August 2018 across several Brazilian online marketplaces. It is organized into nine interrelated CSV files, each representing a specific data domain:

- 1- **olist_orders_dataset.csv** – includes order-level details such as order ID, customer ID, order status, and timestamps for purchase, approval, delivery, and estimated delivery dates.
- 2- **olist_order_items_dataset.csv** – provides item-level data, including order ID, product ID, seller ID, price, freight value, and shipping deadline.
- 3- **olist_order_payments_dataset.csv** – records payment information such as payment type, installment count, and total payment amount.
- 4- **olist_order_reviews_dataset.csv** – captures customer feedback through review scores (on a 1–5 scale) and text comments.
- 5- **olist_products_dataset.csv** – lists product attributes, including category, dimensions, and weight.
- 6- **olist_sellers_dataset.csv** – provides seller information and geographic distribution.
- 7- **olist_customers_dataset.csv** – includes anonymized customer location data.
- 8- **olist_geolocation_dataset.csv** – maps Brazilian postal codes to geographic coordinates.
- 9- **product_category_name_translation.csv** – offers English translations for product category names originally in Portuguese ^[30].

Analytical Approach

The analytical methodology combines descriptive statistical analysis to summarize central tendencies and distributions of key metrics, trend analysis to identify temporal patterns in order volume, revenue, and customer behavior across the 2-year dataset period, KPI calculation and benchmarking comparing dataset-derived metrics against current 2024-2025 industry standards from authoritative sources, and comparative analysis examining Olist's positioning relative to competitors including MercadoLibre, Amazon Brazil, and Magazine Luiza ^{[5][24][14][6]}. Segmentation analysis explores performance variations across product categories, geographic regions (Brazilian states), payment methods, and customer cohorts ^[30]. The approach acknowledges temporal limitations: the 2016-2018 dataset predates significant market

evolution including COVID-19 acceleration of e-commerce adoption (2020-2021), emergence of quick commerce and same-day delivery expectations, widespread adoption of Pix instant payments (launched 2020), and substantial competitive landscape shifts with Amazon's aggressive expansion post-2019 ^[31] ^[2] ^[17].

Therefore, dataset-derived metrics serve as historical baselines illustrating operational patterns and business model fundamentals, while 2024-2025 benchmarks provide current industry context. All extrapolations to present conditions are explicitly qualified regarding limitations [various benchmark sources].

Industry Overview

Global E-Commerce Market: Size, Growth, and Drivers

The global e-commerce sector has emerged as one of the most dynamic segments of the digital economy, experiencing exponential growth driven by technological advancement, changing consumer behavior, and infrastructure development worldwide. Market size and trajectory: According to Statista Market Forecast, the global e-commerce market generated revenue of \$3.66 trillion in 2025 and is projected to reach \$4.96 trillion by 2030, representing a compound annual growth rate (CAGR) of 6.29% over the forecast period ^[1]. Alternative projections from Shopify's 2025 Global Ecommerce Sales Growth Report estimate \$6.42 trillion in 2025, growing to \$7.89 trillion by 2028, with the variance attributable to differing methodology regarding included transaction types and geographic coverage ^[19]. The e-commerce market captured approximately 20-21% of total global retail sales in 2025, a figure expected to reach 22.5% by 2028 as digital channels continue displacing traditional brick-and-mortar retail ^[19]. Renub Research forecasts the e-commerce market expanding from \$6.57 trillion in 2024 to \$12.63 trillion by 2033 at a 7.54% CAGR, reflecting structural shifts in consumer purchasing behavior ^[16].

Key growth drivers propelling the global e-commerce expansion include:

- 1) Mobile technology proliferation — Mobile commerce now accounts for approximately 77% of e-commerce website visits globally, with mobile devices generating \$2.07 trillion in sales in 2024, up from \$1.71 trillion in 2023 ^[19] ^[32]. In leading markets such as South Korea, mobile devices account for over 75% of all online sales, demonstrating the channel's dominance ^[19]. Smartphone adoption in emerging markets has democratized internet access, bringing hundreds of millions of new consumers into the digital economy ^[18] ^[33].
- 2) Internet penetration expansion — Global internet penetration exceeded 65% in 2024, with 4.0 billion users projected by 2030, significantly expanding the addressable market for online retail ^[1] ^[18]. Emerging markets in Southeast Asia and Latin America represent the fastest-growing user bases ^[19]^[14].
- 3) Digital payment advancement — The proliferation of secure digital payment systems including

digital wallets (accounting for ~30-40% of online transactions), buy-now-pay-later (BNPL) options, and instant payment rails have reduced friction in the checkout process ^{[16][34][35]}. In Brazil specifically, the introduction of Pix instant payments in 2020 transformed the payment landscape, enabling real-time account-to-account transfers ^{[2][17]}.

- 4) Logistics and fulfillment innovation – Investments in last-mile delivery infrastructure, warehouse automation, micro-fulfillment centers, and route optimization have compressed delivery times from weeks to days or hours in major urban markets ^{[18][7][36]}.
- 5) Artificial intelligence and personalization – AI-powered recommendation engines, chatbots for customer service, dynamic pricing, and personalized marketing have enhanced conversion rates and customer experience, with nearly 60% of US shoppers using generative AI tools like ChatGPT for shopping research ^{[19] [18]}.
- 6) Cross-border commerce expansion – International e-commerce has been facilitated by improved customs processes, international shipping networks, and multi-currency payment systems, enabling merchants to access global markets ^{[16][20]}.

Regional contributions to global e-commerce growth reveal significant geographic concentration. China, the United States, and Western Europe collectively account for 80.5% of global e-commerce sales, with China alone representing approximately \$3+ trillion annually ^{[19][16]}. The United States generated \$1.17 trillion in e-commerce revenue in 2025, making it the second-largest national market ^[1]. However, emerging markets demonstrate the highest growth rates: The Philippines projects 23% annual growth, Thailand 20%, Malaysia 15.5%, Ecuador 14.6%, and Uruguay 14.4% in 2025 ^[19]. Mexico, Russia, and India represent large-population markets with accelerating digital adoption ^{[19] [37]}. Latin America's e-commerce market is projected to reach \$200 billion by 2026, with Brazil, Mexico, and Argentina as the dominant markets ^{[38][14]}. User penetration metrics indicate that in 2025, 54.3% of the global population engaged in e-commerce, a figure projected to reach 56.4% by 2030, with over 75% of internet users making online purchases in 2024 ^{[1] [19]}.

E-Commerce Business Models: Taxonomy and Economics

Understanding e-commerce business model taxonomy is essential for positioning Olist within the industry landscape and comprehending revenue mechanisms, inventory risk profiles, and value chain dynamics. The primary business model archetypes include:

Business-to-Consumer (B2C): The most prevalent model wherein businesses sell directly to individual end consumers ^{[34][35][40]}. Examples include Amazon, Nike.com, and Magazine Luiza ^{[35][24]}. B2C models encompass multiple revenue approaches:

- 1) Direct selling – companies own inventory and sell through proprietary online stores (e.g., Gap,

Target), bearing inventory risk but capturing full margins.

- 2) Online intermediaries (marketplaces) – platforms like eBay and Etsy connect third-party sellers with buyers, earning commissions without inventory ownership; and
- 3) Subscription services – businesses like Netflix and HBO Max charge recurring fees for content or product access ^[40]. B2C characteristics include shorter sales cycles, broad consumer reach, lower average order values (typically \$50-\$200), higher marketing costs due to consumer acquisition competition, and impulse purchase behavior ^{[34][35][40][41]}. Conversion rates average 1.9-3.0% globally ^{[42][43][44]}.

The B2C model facilitates personalized marketing, loyalty programs, and data-driven customer insights but faces intense competition and price sensitivity ^{[34][35]}.

Business-to-Business (B2B): Transactions between businesses, such as manufacturers supplying wholesalers or software providers selling enterprise solutions ^{[34][35][45][40][41]}. Examples include Alibaba, Salesforce, and industrial suppliers like Uline ^{[45][41]}. B2B models exhibit longer sales cycles (often 3-12 months) involving multiple stakeholders and approval processes, higher average order values (frequently \$5,000-\$500,000+), bulk purchasing, and long-term contractual relationships ^{[34][45][40][41]}. B2B e-commerce emphasizes procurement automation, ERP integration, volume discounts, account management, and technical specifications ^{[34][41]}. Customer acquisition costs are higher due to personalized sales efforts, but customer lifetime values are substantially greater, and repeat purchase rates are higher due to switching costs and relationship stickiness ^{[45][41]}. The global B2B e-commerce market was valued at \$14.9 trillion in 2020, dwarfing B2C volumes ^[45]. In Brazil, B2B e-commerce grows at 22.3% CAGR, outpacing B2C growth ^[17].

Business-to-Business-to-Consumer (B2B2C): A hybrid model wherein one business supplies products/services to another business, which then sells to end consumers ^{[34][35][40][41][46]}. This model enables expanded market reach for suppliers through established retailer channels while allowing retailers to diversify product offerings without inventory investment ^{[41][46]}. Examples include manufacturers partnering with retailers (e.g., a CPG brand selling through Amazon), Instacart connecting grocery stores with consumers, and Olist enabling SMB sellers to access MercadoLibre and Amazon customers ^{[3][40][46]}. B2B2C characteristics include scalability through partner networks, reduced marketing burden as intermediary handles consumer acquisition, shared revenue (reducing profit margins for the initial supplier), limited brand control over end-customer experience, and complex supply chain coordination ^{[34][41][46]}. The model allows SMBs to access distribution channels they could not reach independently ^{[12][3]}. Olist exemplifies B2B2C: small businesses (B) contract with Olist (B), which integrates them into major consumer marketplaces (C) ^{[11][12][3][41]}.

Direct-to-Consumer (D2C): Brands selling directly to consumers without intermediaries, bypassing traditional retail channels ^{[34][35][45][40]}. Examples include Warby Parker (eyewear), Dollar Shave Club (razors), and Allbirds (shoes). D2C enables full brand control, direct customer relationships, first-party data collection, higher margins by eliminating retailer markups, and faster iteration based on customer feedback ^{[34][35][45]}. However, D2C brands face higher customer acquisition costs, logistics complexity, customer service burden, and limited physical retail presence ^{[34][35]}. Many D2C brands eventually adopt hybrid models, adding wholesale or marketplace channels ^[35].

Consumer-to-Consumer (C2C): Peer-to-peer platforms connecting individual buyers and sellers, such as eBay, Facebook Marketplace, and Craigslist ^{[35][40]}. C2C platforms earn revenue through listing fees, transaction commissions, or advertising ^[35]. Benefits include low barriers to entry for sellers and unique/secondhand goods availability, but challenges include quality control, fraud risk, and trust deficits ^{[35][40]}.

Marketplace economics fundamentally differ from traditional retail. Marketplaces operate asset-light models without inventory ownership, reducing capital requirements and inventory risk ^{[4][47][48][49]}. Revenue derives from take rates (commission percentages) charged on gross merchandise value (GMV) ^{[4][47][48]}. According to Sharetribe marketplace analysis, average marketplace takes rates range from 10% to 30%, varying by industry, transaction size, competition intensity, and value-added services provided ^[4]. High-margin digital goods marketplaces (stock photos, software) command 20-40% take rates, while low-margin physical goods (ride-sharing, food delivery) typically charge 5-15% due to slim seller margins ^{[4][47]}. Etsy charges ~6.5% transaction fee plus payment processing (~3-4%) and listing fees, totaling ~11% effective take rate ^[4]. Airbnb charges hosts ~3% and guests 0-20%, employing dynamic pricing based on demand and location ^[4]. Amazon charges \$0.99 per item plus category-specific referral fees (typically 8-15%) and optional FBA (Fulfillment by Amazon) fees ^[4]. eBay charges ~10% final value fee ^[4].

Marketplace profitability depends on balancing competitive take rates that attract sellers with rates sufficient to cover platform costs (technology, customer service, marketing, fraud prevention, payment processing) and generate profit ^{[4][47]}.

Olist's B2B2C model economics

Olist charges SMB sellers through a combination of subscription fees for platform access and advanced features, transaction commissions on sales facilitated through the platform, and financial services fees including interest on working capital loans and payment processing fees ^[3]. While specific Olist take rates are not publicly disclosed, industry standards for B2B2C marketplace aggregators suggest 10-25% commission ranges ^{[3][4]}. Olist's value proposition to sellers includes aggregated access to multiple major marketplaces (MercadoLibre, Amazon, Magazine Luiza) with single integration, logistics coordination, inventory management, and financial services — justifying commission rates through

operational simplification and expanded market reach ^{[11][12][3]}.

Competitive Landscape: Key Players in Brazil and Latin America

Brazil's e-commerce market is characterized by oligopolistic competition, with a few dominant platforms — chiefly MercadoLibre, Amazon Brazil, and Magazine Luiza (Magalu) — alongside specialized and niche players. Understanding this competitive environment is crucial for evaluating Olist's strategic position.

MercadoLibre (Mercado Livre)

MercadoLibre is Latin America's largest e-commerce and fintech ecosystem, holding around 35% market share in Brazil and 25% regionally ^{[5][24][6]}. In 2023, it generated 108 billion BRL (~\$21 billion USD) in GMV in Brazil — nearly 2.4× its closest rival ^[5]. Headquartered in Buenos Aires, it records over 322 million monthly visits, double Amazon Brazil's traffic ^[6].

Competitive advantages include:

- First-mover advantage – operating since 1999, it enjoys strong brand trust and consumer loyalty.
- Integrated ecosystem – combines e-commerce, digital payments (Mercado Pago), logistics (Mercado Envios), and credit services (Mercado Crédito), creating cross-platform synergies.
- Fintech reach – Mercado Pago provides financial inclusion for the unbanked population, supporting QR payments and digital wallets.
- Logistics investments – proprietary networks accelerate delivery and enhance reliability.
- Localization expertise – deep understanding of Latin American consumer behavior and regulation.
- MercadoLibre's diversified operations, technological edge, and brand loyalty make it a dominant, hard-to-challenge incumbent.

Amazon Brazil

Amazon ranks second in Brazil's market with roughly 16.3% share ^{[5][6]}. After a cautious 2012 entry focused on books, Amazon expanded aggressively post-2019 with Prime services and major logistics investments ^[24]. It now receives around 70 million monthly visits ^[5].

Competitive advantages include:

- Global capital and technology – enabling large-scale investment in fulfillment centers, delivery networks, and AI systems.
- Amazon Prime – builds customer loyalty through free shipping, entertainment, and exclusive offers.
- Fulfillment by Amazon (FBA) – allows third-party sellers to leverage Amazon's logistics, enhancing trust and speed.
- AWS integration – Amazon Web Services supports operational efficiency and data analytics across regions.
- Cross-border commerce – gives Brazilian consumers access to global product ranges.
- Amazon's long-term commitment signals sustained competitive pressure across Latin America.

Magazine Luiza (Magalu)

Magalu, once a traditional retailer, has become a model of digital transformation, now the third-largest e-commerce player in Brazil, with ~45.6 billion BRL GMV in 2023 ^[5].

Competitive advantages include:

- Omnichannel operations – over 1,000 stores function as pickup points, showrooms, and delivery hubs, reducing costs and enabling same-day service.
- Fintech ecosystem (MagaluPay) – provides credit cards and digital payments to enhance customer engagement.
- Strong logistics and brand reputation – trusted local presence ensures reliability and consumer confidence.
- Marketplace expansion – third-party sellers extend assortment without inventory risks.
- Magalu’s “super app” strategy mirrors MercadoLibre’s integrated model but remains domestically concentrated.

Other Market Players

- Americanas.com (B2W Digital) – historically strong but facing financial restructuring.
- Via S.A. (Via Varejo) – transitioning to an omnichannel approach.
- Dafiti – specializes in online fashion retail.
- Shopee – expanding rapidly through aggressive discounting.
- Quick-commerce platforms (Rappi, iFood, Zé Delivery) – focusing on ultra-fast local delivery.
- Social commerce via Facebook Marketplace, Instagram Shopping, and WhatsApp Business — vital in informal retail ^{[52][14]}.

Olist’s Positioning

Olist operates not as a direct competitor, but as a B2B2C intermediary that enables SMBs to sell on large marketplaces like MercadoLibre, Amazon, and Magalu ^{[11][12][3]}.

Its value proposition centers on:

- Marketplace aggregation – one contract and integration point across multiple platforms.
- Operational simplification – unified order, inventory, and logistics management.
- Financial services – access to working capital and payment processing tools.
- Seller enablement – analytics for pricing, demand forecasting, and performance tracking.
- SMB focus – targeting smaller sellers unable to manage complex multi-channel operations independently.

Competitive threats include marketplace self-integration (reducing reliance on intermediaries), emerging B2B2C platforms, and the increasing sophistication of sellers who may internalize Olist’s functions ^[3]. Olist’s competitiveness therefore depends on continuous innovation, superior service, and tangible ROI for sellers.

Customer Acquisition Strategies

Customer acquisition underpins e-commerce growth and profitability. Brazilian platforms rely on several key channels:

- Search Engine Optimization (SEO): Long-term, cost-effective strategy for organic traffic through optimized content, keywords, and site speed ^{[26][28][54]}.
- Pay-Per-Click (PPC): Provides immediate reach; Brazil's low CPC (~\$0.15) offers strong ROI compared to North America's \$1.13 ^{[9][10]}.
- Social Media Marketing: Critical in Brazil, where 66% of the population uses platforms like Instagram, TikTok, and WhatsApp for discovery and transactions ^{[2][26]}.
- Email Marketing: High ROI (\$36–\$42 per \$1 spent), essential for retention and cart recovery ^{[26][53]}.
- Affiliate and Influencer Marketing: Expands reach via performance-based partnerships and social proof, particularly through micro-influencers with higher engagement ^[56].
- Referral and Loyalty Programs: Reduce CAC and build repeat customers via incentives and trust-based recommendations ^[56].

Brazil's relatively low CPC and CAC (\$25–\$80) enable more efficient acquisition than in developed markets ^[10].

Operational and Strategic Challenges

Brazilian and Latin American e-commerce faces chronic logistical, financial, and regulatory challenges:

- Logistics inefficiencies: Long delivery times (7–15 days urban, 15–30+ rural), high last-mile costs (30–50% of logistics spending), and fragmented carrier networks ^{[7][36]}.
- High return rates: 8–15% vs. global 5–10%, increasing operational costs ^{[25][59]}.
- Fraud and chargebacks: Brazil ranks second worldwide in online fraud, with 157,000 monthly incidents ^{[8][60]}.
- Pricing pressure: Margin compression due to price wars, heavy discounts, and marketplace fees ^{[24][47]}.
- Tax and regulatory fragmentation: State-level ICMS differences and import duties complicate compliance ^{[17][20]}.
- Checkout friction: Abandonment rates of 70–85%, driven by complex forms, high shipping costs, and trust issues ^{[42][43]}.

For Olist, these challenges translate into the need for robust logistics partnerships, anti-fraud technologies, seller education, and data-driven support systems to justify its commission model. Expansion into regional markets and investment in AI-driven analytics and fintech solutions are key to maintaining its competitive edge ^{[3][11][12]}.

Industry Key Performance Indicators (KPIs)

KPI Framework and Importance

Key Performance Indicators (KPIs) serve as quantifiable metrics that enable e-commerce businesses to measure progress toward strategic objectives, benchmark performance against competitors, identify operational inefficiencies, and make data-driven decisions ^{[42][43][44][57][65][66][67]}. A comprehensive KPI framework encompasses multiple business functions including traffic acquisition (measuring marketing effectiveness and customer reach), revenue and profitability (assessing financial sustainability and unit economics), website and operational performance (evaluating conversion funnel efficiency and operational excellence), and customer metrics (gauging loyalty, satisfaction, and lifetime value) ^{[42][44][57][65]}.

Effective KPI selection aligns with business model specifics: B2C direct sellers prioritize conversion rate and customer acquisition cost, marketplaces focus on GMV and take rate, and subscription businesses emphasize churn rate and customer lifetime value ^{[42][44][57][65]}. For Olist as a B2B2C marketplace, relevant KPIs span both seller acquisition/retention metrics (number of active sellers, average seller GMV, seller churn rate) and end- customer marketplace performance indicators (order volume, AOV, delivery performance, review scores) ^[3].

Essential e-commerce KPIs

The following 17 essential e-commerce KPIs organized are by business function, providing formulas, global and Brazil- specific benchmarks with sources, and business relevance explanations. They serve as a reference for industry standards and enables comparison of Olist dataset-derived metrics:

No.	KPI	Definition
1	Conversion Rate (CR)	The percentage of website visitors who complete a desired action (e.g., make a purchase) out of total visitors.
2	Customer Acquisition Cost (CAC)	The total marketing and sales cost required to acquire one new customer.
3	Cost Per Click (CPC)	The average amount paid by advertisers for each click on an online advertisement.
4	Traffic-to-Lead Ratio (TLR)	The proportion of total website visitors who become qualified leads or potential buyers.

No.	KPI	Definition
5	Gross Merchandise Value (GMV)	The total value of all goods sold through an e-commerce platform over a specific period, before deductions.
6	Average Order Value (AOV)	The average amount of money spent each time a customer places an order.
7	Marketplace Take Rate	The percentage of GMV retained by the marketplace as commission or service fees.
8	Gross Margin	The percentage of revenue remaining after deducting the cost of goods sold (COGS), indicating profitability.
9	Checkout Abandonment Rate	The percentage of customers who add items to their cart but do not complete the checkout process.
10	Average Delivery Time	The average number of days between order placement and delivery to the customer.
11	On-Time Delivery Rate	The percentage of orders delivered by or before the estimated delivery date.
12	Order Cancellation Rate	The proportion of confirmed orders that are canceled before fulfillment.
13	Average Items per Order	The mean number of individual items included in a single customer order
14	Repeat Purchase Rate (RPR)	The percentage of customers who make more than one purchase within a given period.

No.	KPI	Definition
15	Customer Lifetime Value (CLV)	The total net revenue a business expects to earn from a customer over the entire relationship.
16	Net Promoter Score (NPS)	A measure of customer loyalty and satisfaction, based on how likely customers are to recommend the brand to others.
17	Return Rate	The percentage of delivered orders that are returned by customers for refund or exchange.

References

- [1] Statista. (2025, August). eCommerce - Worldwide | Statista Market Forecast. Retrieved from <https://www.statista.com/outlook/em o/e-commerce/worldwide>
- [2] IMARC Group. (2023, December). Brazil E-commerce Market Size, Share, Forecast, Outlook. Retrieved from <https://www.imarcgroup.com/brazil-e-commerce-market>
- [3] Canvas Business Model. (2025, July). How Does Olist Company Work? Retrieved from <https://canvasbusinessmodel.com/blogs/how-it-works/olist-how-it-works>
- [4] Sharetribe. (2023, December). What is marketplace commission (take rate?). Retrieved from <https://www.sharetribe.com/marketplace-glossary/commission-take-rate/>
- [5] Statista. (2024, September). Leading online marketplaces in Brazil 2024, by GMV. Retrieved from <https://www.statista.com/statistics/1222147/leading-online-marketplaces-brazil/>
- [6] Yahoo Finance. (2025, January). MercadoLibre Is an Excellent Investment in Latin American. Retrieved from <https://finance.yahoo.com/news/mercadolibre-excellent-investment-latin-american-130149044.html>
- [7] LinkedIn. (2025, September). Brazil Last Mile Delivery for E-commerce Market AI Impact. Retrieved from <https://www.linkedin.com/pulse/brazil-last-mile-delivery-e-commerce-market-ai-impact-xn3gf>
- [8] PagBrasil. (2025, May). How to prevent fraud in e-commerce: PagShield® reduces. Retrieved from <https://www.pagbrasil.com/blog/fraud-prevention/how-to-prevent-fraud-in-e-commerce/>
- [9] OpenSend. (2025, April). 7 Customer Acquisition Cost (CAC) Statistics For Ecommerce. Retrieved from <https://www.opensend.com/post/customer-acquisition-cost-ecommerce>
- [10] Ecommerce Nation. (2021, November). A Lower Marketing Client Acquisition Cost (CAC) Can Benefit. Retrieved from <https://www.ecommerce-nation.com/latin-america-a-lower-marketing-client-acquisition-cost-cac-can-benefit-your-business/>
- [11] Modac. (2015, December). Olist: a Brazilian eCommerce. Retrieved from <https://www.modac.org/insights/olist:-a-brazilian-ecommerce>
- [12] Meta IT. (2025, January). Olist, the e-commerce unicorn. Retrieved from <https://metait.ai/cases/olist/>
- [13] Studocu. (2024, December). Business Analytics Project Outline: Olist E-commerce Growth. Retrieved from <https://www.studocu.vn/vn/document/truong-dai-hoc-kinh-te-thanh-pho-ho-chi-minh/business-analytics/project-outline/113858155>
- [14] Market Data Forecast. (2025, June). Latin America E-Commerce Market Report. Retrieved from <https://www.marketdataforecast.com/market-reports/latin-america-e-commerce-market>
- [16] Renub Research. (2011, February). Global E-Commerce Market Size and Forecast 2025-2033. Retrieved from <https://www.renub.com/global-e-commerce-market-p.php>
- [17] Mordor Intelligence. (2025, June). Brazil E-commerce Market Size, Share Analysis, Forecast. Retrieved from <https://www.mordorintelligence.com/industry-reports/brazil-ecommerce-market>
- [18] Grand View Research. (2024, October). E-commerce Platform Market Size | Industry Report, 2033. Retrieved from <https://www.grandviewresearch.com/industry-analysis/e-commerce-platform-market-report>
- [19] Shopify. (2025, September). Global Ecommerce Sales Growth Report (2025). Retrieved from

<https://www.shopify.com/blog/global-ecommerce-sales>

[24] Quartr. (2025, September). Mercado Libre: The Digital Backbone of Latin America. Retrieved from <https://quartr.com/insights/edge/mercado-libre-the-digital-backbone-of-latin-america>

[25] BJOPM. (2024, March). Digital transformation in e-commerce logistics. Retrieved from <https://bjopm.org.br/bjopm/article/view/1641>

[26] Image Retouching Lab. (2024, December). 10 Successful Customer Acquisition Strategies For Ecommerce. Retrieved from <http://s://imageretouchinglab.com/customer-acquisition-strategies-for-ecommerce/>

[27] Squareshot. (2025, July). Top 12 Ecommerce Customer Acquisition Strategies for 2025. Retrieved from <https://www.squareshot.com/post/top-12-ecommerce-customer-acquisition-strategies>

[28] Contentsquare. (2025, May). 5 Effective Customer Acquisition Strategies. Retrieved from <https://contentsquare.com/guides/customer-acquisition/strategy/>

[29] Kaggle. (2021, September). Brazilian E-Commerce Public Dataset by Olist. Retrieved from <https://www.kaggle.com/datasets/olist-br/brazilian-ecommerce>

[30] Chinh Mai. (2022, July). SQL Project 1: Olist public data importing. Retrieved from <https://chinhmaigit.github.io/Project-SQL-1/>

[31] PaymentsCMI. (2025, June). E-commerce market data for Brazil 2024-2027. Retrieved from <https://paymentscmi.com/insights/brazil-e-commerce-market/>

[34] Sekel Tech. (2023, February). B2B B2C D2C Business Models: Difference with Examples. Retrieved from <https://sekel.tech/blog/b2b-b2c-d2c-business-models-difference-with-examples>

[35] BigCommerce. (2025, October). Ecommerce Business Models (Types + What to Select). Retrieved from <https://www.bigcommerce.com/articles/ecommerce/types-of-business-models/>

[36] Technavio. (2025, October). Brazil Last Mile Delivery Market Size 2025-2029. Retrieved from <https://www.technavio.com/report/last-mile-delivery-market-in-brazil-industry-analysis>

[37] Netguru. (2025, October). The Biggest Ecommerce Markets: Country-Wise. Retrieved from <https://www.netguru.com/blog/ecommerce-top-countries>

[38] Nex Network. E-commerce: Dive into the booming world of Brazilian e-commerce! Retrieved from <https://nex-network.com/dive-into-the-booming-world-of-brazilian-e-commerce/>

[39] Yahoo Finance. (2024, September). Brazil Ecommerce Market Databook 2024: An \$87.6 Billion. Retrieved from <https://finance.yahoo.com/news/brazil-ecommerce-market-databook-2024-130900334.html>

[40] Crystallize. (2025, February). The Ultimate Guide to eCommerce Business Models (B2B,... Retrieved from <https://crystallize.com/blog/ecommerce-business-model>

[41] Thimpress. (2025, September). What Is an eCommerce Business Model? (8+ Common... Retrieved from <https://thimpress.com/what-is-an-ecommerce-business-model/>

[42] Shopware. (2024, March). Ecommerce KPIs analysis: from traffic to conversion. Retrieved from <https://www.shopware.com/en/news/ecommerce-kpis-analysis/>

[43] Blend Commerce. (2025, August). Ecommerce & Shopify Conversion Rate Benchmarks 2025. Retrieved from <https://blendcommerce.com/blogs/shopify/ecommerce-conversion-rate-benchmarks-2025>

- [44] NetSuite. (2025, September). 38 Ecommerce Metrics to Track in 2025. Retrieved from <https://www.netsuite.com/portal/resource/articles/ecommerce/ecommerce-metrics.shtml>
- [46] LitExtension. (2025, August). The 9 Types of e-Commerce Business Models 2025. Retrieved from <https://litextension.com/blog/types-of-e-commerce/>
- [47] Origami Marketplace. (2025, June). Marketplace Take Rate: A guide for Marketplace Operators. Retrieved from <https://origami-marketplace.com/en-gb/marketplace-take-rate-a-guide-for-marketplace-operators/>
- [48] Nautical Commerce. (2018, November). What is a Take Rate in Marketplace e-Commerce? Retrieved from <https://www.nauticalcommerce.com/glossary/take-rate>
- [52] Statista. (2024, February). Mobile commerce in Latin America - statistics & facts. Retrieved from <https://www.statista.com/topics/11740/mobile-commerce-in-latin-america/>
- [53] Salsify. (2024, August). Winning Ecommerce Customer Acquisition Strategies. Retrieved from <https://www.salsify.com/blog/winning-ecommerce-customer-acquisition-strategies>
- [54] FirstPier. (2023, December). Ecommerce Customer Acquisition: Ultimate Success Guide. Retrieved from <https://www.firstpier.com/resources/ecommerce-customer-acquisition>
- [55] Yotpo. (2023, October). Guide To Customer Acquisition Costs In ECommerce. Retrieved from <https://www.yotpo.com/blog/customer-acquisition-costs-in-ecommerce/>
- [56] inBeat. (2025, August). 10 Strategies to Improve e-Commerce Customer Acquisition Cost. Retrieved from <https://inbeat.agency/blog/ecommerce-customer-acquisition-cost>
- [57] Agency Analytics. (2025, August). The 15+ Most Important Ecommerce Metrics to Track in 2025. Retrieved from <https://agencyanalytics.com/blog/ecommerce-metrics>
- [61] Chargebacks911. (2025, August). eCommerce Fraud Prevention: A Step-by-Step Guide. Retrieved from <https://chargebacks911.com/ecommerce-fraud-prevention/>
- [62] Noda Live. (2024, December). E-commerce Chargeback Prevention: Guide for Merchants. Retrieved from <https://noda.live/articles/ecommerce-chargeback-prevention>
- [65] Shopify. (2024, January). 70+ Ecommerce KPIs for Tracking Business Success (2024). Retrieved from <https://www.shopify.com/blog/7365564-32-key-performance-indicators-kpis-for-ecommerce>
- [68] OpenSend. (2025, April). 7 Repeat Purchase Rate Statistics For eCommerce Stores. Retrieved from <https://www.opensend.com/post/repeat-purchase-rate-ecommerce>
- [69] EcoCart. (2024, December). How to Boost Your Ecommerce Repeat Purchase Rate. Retrieved from <https://ecocart.io/repeat-purchase-rate/>
- [70] Sobot. (2025, July). Comprehensive Guide to Repeat Purchase Rate for Online Retailers. Retrieved from <https://www.sobot.io/article/how-to-calculate-repeat-purchase-rate-ecommerce-guide/>
- [71] MobiLoud. (2025, July). What's a Good Repeat Customer Rate? (2025 Ecommerce Benchmarks). Retrieved from <https://www.mobiloud.com/blog/repeat-customer-rate-ecommerce>
- [73] Retently. (2025, March). What is a Good Net Promoter Score? (2025 NPS Benchmark). Retrieved from <https://www.retently.com/blog/good-net-promoter-score/>
- [74] OpenSend. (2025, April). 7 Net Promoter Score (NPS) Statistics For eCommerce Stores. Retrieved from <https://www.opensend.com/post/net-promoter-score-ecommerce>