

Engineering the Next-Generation B2B Commerce Platform for Manufacturers



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Executive Summary

The B2B buying landscape has undergone a significant transformation, driven by shifting customer expectations. Today, manufacturers are taking a more aggressive approach to B2B digital commerce. They aim to reach a critical level for profit optimization, reduce operational costs, and achieve superior competitive differentiation to enhance the customer experience and unlock new revenue streams.

However, manufacturers deal with complex product configurations, diverse wholesalers and resellers, and intricate supply chain logistics that generic, pre-built B2B commerce platforms cannot adequately support. These limitations lead to capped profit potential, operational inefficiency, and a fragmented customer experience.

Manufacturers are moving toward state-of-the-art B2B commerce platforms to improve and accelerate their growth, providing the integration flexibility necessary for both operational efficiency and a differentiated customer experience.



Manufacturers' Dilemma

Determining the success of digital commerce efforts can be challenging if it is not fully aligned with the business value and ROI of the system. Manufacturers' dilemma is: will their B2B digital commerce capability provide the digital foundation for business continuity and expansion when unforeseen events occur? Moreover, will it provide the flexibility, agility, and customer experience to maximize revenue from digital channels?

Digital Agility Challenge

The Rising Expectations of B2B Buyers



The B2C-ification of B2B

Customers expect seamless, self-guided journeys, not obsolete, frustrating buying experiences or reliance on sales reps for basic product information.



Inflexibility

Generic B2B commerce platforms lack the flexibility to revolutionize product discovery, deliver personalized recommendations, and empower both buyers and sales teams.

The 'No-Fit' Zone



Why Pre-Built Solutions Fail

Pre-built solutions lack the capabilities to improve customer experience and reduce friction in the buying process for customers and partners.



When Pre-Built Solutions Fail

If these solutions do not meet business objectives and are executed poorly as compared to traditional, rep-led sales experiences.

CIO/CTO Dilemma

Legacy ERP/CRM Integration Nightmare

Pre-built solutions force compromises on deep, real-time integration with existing complex systems (e.g., ERP, PIM, MDM, CRM, and more).

Inflexible Data Models

Inability to handle complex product attributes, variant configurations, and hierarchical B2B organizational structures.

Scalability Limitations

Inability to scale rapidly or handle high-volume, burst ordering unique to manufacturing (e.g., seasonal spikes, large bulk orders, or custom orders).

CMO Dilemma

Inadequate Personalization

Lack of support for account-specific catalogs, unique negotiated pricing, and custom discount matrices.

Complex Quoting and Configuration

Failure to support sophisticated Configure, Price, Quote (CPQ) workflows for custom-engineered or assembled-to-order products.

Global Expansion

Inability to support manufacturer-specific logistics like global multi-site inventory visibility and non-standard fulfillment.

Digital P&L Challenge

Manufacturers are now using digital commerce platforms to support both customers and sales reps in all sales activities. B2B commerce is not just about a digital initiative; it's about digitizing the entire commercial value chain.

Because many manufacturers rely on direct sales or channel partners for the majority of their revenue, launching digital commerce without considering the impacts on existing channels will have negative repercussions. Besides that, when generic platforms are implemented, they are prone to inflexibility and low adoption that impact business growth and market agility.

Factors that can drain profit

- Without a proper understanding of how customers make purchases and without new features or benefits to B2B customers.
- B2B revenue is often driven by complex, negotiated deals. Thus, if a non-integrated platform cannot natively support Configure, Price, Quote (CPQ) workflows or multi-level buyer approvals, it can impact profit margins.

Factors that can increase operational expense

- Implemented solution could not free salespeople to focus on new customers, instead of taking orders from existing customers.
- The inflexible structure of the B2B commerce platform prevents the rapid deployment of new features or the swift expansion into new product categories or global markets, thus delaying time-to-market.

Operational Drag

Manual Order Leakage

Systems that lack deep, real-time integration with proprietary ERP or WMS force employees to manually cross-reference data for complex pricing, inventory checks, and order processing. This results in a high Cost-to-Serve (CTS) and exposes the business to errors.

Data Silos

Pre-built solutions create islands of information, preventing a unified view of the customer, inventory, and order status. This lack of centralized data inhibits the real-time adjustments needed for margin protection and optimization.

Inflexible Data & Configuration

Rigid catalog structures cannot support the product variability, compliance documentation, and multi-dimensional pricing common in manufacturing. Complex processes like Configure, Price, Quote (CPQ) become cumbersome or impossible, leading to sales cycle friction.

Differentiation Barriers

Impersonal Experience

A generic storefront cannot recognize account-specific contracts, complex organizational roles, or negotiated buying habits, resulting in an impersonal B2B experience that erodes customer loyalty.

Lost Revenue Streams

The inability to seamlessly integrate aftermarket services (AMS) and spare parts ordering prevents the realization of high-margin, stable revenue streams often locked within proprietary systems.

Quote-to-Cash Friction

A slow, non-integrated process for high-value, negotiated quoting damages the customer experience, delays revenue recognition, and pushes customers toward more agile competitors.

How to Engineer B2B Commerce for Excellence

Despite the numerous benefits, B2B digital commerce is not so easy to launch and maintain when multiple stakeholders are involved. It demands more setup, integration, cross-team planning and collaboration across departments to make it successful. Moreover, expensive B2B deployments might face low adoption rate as compared to their existing processes that customers have used for years. To drive maximum values, B2B commerce must address manufacturers' unique complexity, seamlessly connected to their critical enterprise applications. This requires an architectural shift.

Phase 01 Architect for Agility

The right foundation is critical for both short-term and long-term objectives of B2B commerce platform. An adaptable architecture and flexible API-first strategy should be put in place so that the ordering process is simply more efficient and accurate when executed on digital channels.

Build Robust Data Backbone and Integration



PIM/MDM

Create a single source of truth (product master data and digital assets) for complex, technical catalogs.



Seamless Integration

Ensure perfect, real-time synchronization with all core systems of record (ERP, CRM, or more) for accurate fulfillment and margin visibility.



Customer and Account Data

Get alignment between sales teams and digital channels to minimize incomplete customer orders and drive more-predictable revenue streams.



Headless Capability

Separate UI layer from the business logic to implement and launch new channels without risking the stability of backend, maximizing speed-to-market.

Phase 02

Engineering for Profit

B2B digital commerce should be treated as a separate stand-alone channel. Engineering the platform means developing features and functionalities that directly minimize cost and drive new revenue streams.

Mastering Manufacturer-Specific Solution



Develop manufacturer-specific logic for multi-level buyer approval workflows, integrated CPQ tooling, and complex tiered pricing logic.



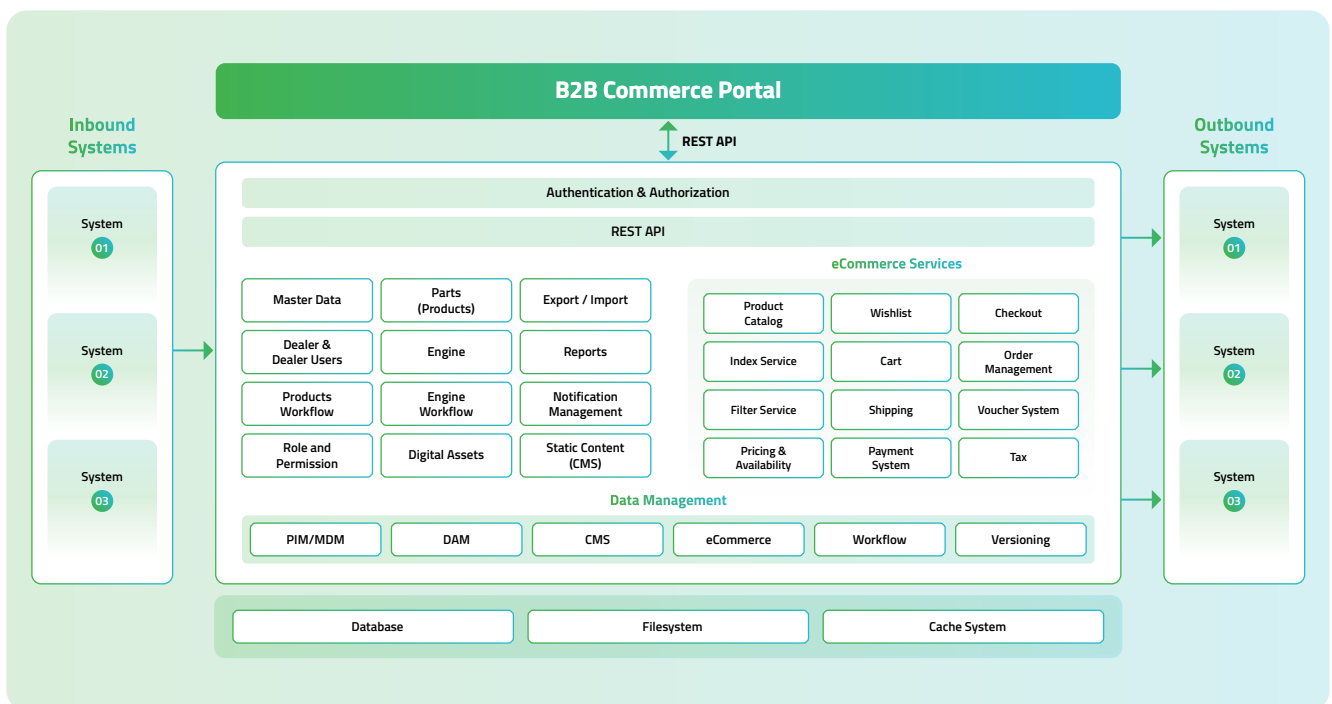
Design the platform to effortlessly manage and display high-value, high-margin products, custom features to simplify the ordering of aftermarket parts, and more.



Create account-specific catalogs and contract pricing to drive adoption and ensure the B2B commerce platform becomes the preferred method of purchase.



Provide new ways for customers to find products where a customer submits a picture of a product they would like to purchase, or something like 'Shop by Diagram'.



The Strategic Advantage of Custom B2B Commerce

The flexibility and agility of a custom-built, integrated B2B digital commerce platform enable manufacturers to work in tandem with the broader sales channels, maximizing revenue and delivering a superior customer experience (CX).

- ✓ Provide greater visibility of order and customer data that helps retain partners by directing orders to them.
- ✓ Minimize operating costs because partners can cover the costs for credit lines, inventory, and logistics, and partner compensation can also be reduced.
- ✓ Ensure end-to-end control and visibility of product content, the sales channel, and customer experience.
- ✓ Save costs and efforts in partner recruiting and engagement.
- ✓ Leverage the unified product data stream, customer segment, order history, and product preference data to drive highly personalized campaigns and product recommendations.
- ✓ Substantially reduce the reliance on the internal support team, lower the Cost-to-Serve, and significantly increase customer satisfaction.
- ✓ Support for multi-currency, multi-language, and region-specific regulatory compliance requirements.

Success Story of Custom B2B Commerce Platform

This story of a high-performance engine manufacturer is a tangible example of how a custom, integrated B2B commerce solution can transform operations and unlock profit.

The Challenge: Friction and Lost Profit in Legacy Systems

The client's legacy systems relied on paper catalogs and phone orders, creating significant operational challenges, particularly for their dealer network.

Challenge Area	Direct Consequence on P&L and CX
Parts Identification	Dealers ordered incorrect parts, resulting in return rates exceeding 20%.
Order Processing	Phone/paper orders led to high support call volume and lengthy calls, driving up Cost-to-Serve (CTS).
Revenue Limitation	Sales were limited to engine parts, missing high-margin accessory and consumable revenue streams.

The Happiest Minds Solution: Engineering a Precision-Guided B2B Commerce Solution

Happiest Minds engineered a custom B2B commerce solution built on the flexible, API-first foundation of Pimcore (PIM, DAM, CMS) and a tightly coupled B2B portal. The solution focused on streamlining the ordering process, reducing errors and returns, and enabling sales of new product categories.

The solution was implemented with:

Centralized PIM

For efficient management of product information, digital assets, engine part relationships, and part approval workflow.

Dealer Portal (eStore)

Headless B2B digital commerce solution securely connects with the PIM system, with dealer onboarding, dealer management, and personalized dealer access.

Part Approval Workflow

Built-in approval processes maintain data accuracy, compliance, and quality before products go live.

Intuitive Product Browsing

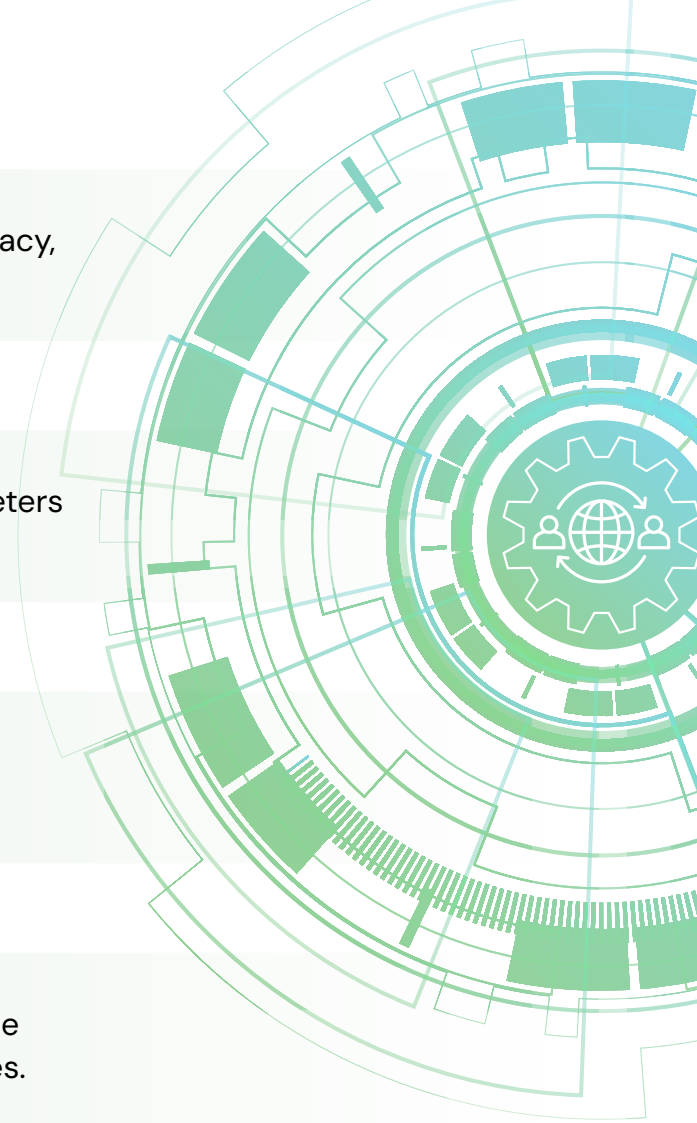
Search and filter capability with multiple parameters like engine brand, make, model, etc.

"Shop by Diagram" Feature

Enabled dealers to visually navigate exploded engine diagrams and select parts directly.

Extended Catalog

Accessories and consumables were added to the product lineup, increasing upselling opportunities.



Measurable Return on Investment (ROI)

The custom-built, integrated eStore delivered immediate, measurable benefits, validating the investment in a tailored platform:

Key Performance Indicator (KPI)	Pre-Implementation	Post-Implementation	Strategic Impact
Return Rate	Over 20%	Under 2%	Direct cost savings, improved inventory accuracy, and higher dealer profitability.
Support Call Volume	High (Lengthy Calls)	Significant Reduction	Lower internal administrative and support costs, freeing up personnel for high-value sales tasks.
Revenue Stream	Limited	Increased (Expanded Catalogs)	New high-margin revenue streams unlocked via self-service upsell.
Dealer Experience	Low Satisfaction	Significant Increased	Higher Customer Lifetime Value (CLV) and superior competitive differentiation.

The Conclusion

Digital Commerce would determine the future of manufacturing and B2B sales. At present, it is expanding among manufacturers since these have significant benefits for partners, resellers, and distributors and, in the end, consumers themselves. It even has the capacity to automate all low-value, repetitive tasks so that sales can concentrate on higher sales, high-value target areas.

However, true success and maximum ROI come not from adopting a generic B2B commerce platform, but from engineering a custom, integrated B2B commerce platform that perfectly supports your unique product complexity, business demands, and operational processes.

Engage with Happiest Minds today for a strategic conversation to know how to improve B2B commerce effectiveness across customers' buying journey.



Ready to Slash Your Return Rate and Unlock New Opportunities?

You've seen how a custom B2B commerce solution helped a leading manufacturer drop return rates from over 20% to under 2%. If your legacy system is costing you profit—let us show you the roadmap to a state-of-the-art B2B Commerce solution.

Schedule a Demo: business@happiestminds.com

About Author



Vandana Singal

Vice President and PDES Pre-sales Head for Happiest Minds Technologies, based out of Noida, with 23 years of experience in bridging the gap between technology and business needs. With extensive experience in Pimcore solutions and implementation, Vandana excels at crafting compelling proposals, delivering impactful product demonstrations, and providing strategic consulting to drive client success. She has a proven track record of collaborating with sales teams to secure new businesses while ensuring clients receive tailored, value-driven solutions. Vandana is known for her ability to translate complex technical concepts/challenges into clear, actionable goals, making her a trusted advisor to both internal teams and clients.

About Happiest Minds Technologies

Happiest Minds Technologies Limited (BSE, NSE: HAPPSTMNDS) is an AI First, customer-centric digital engineering company committed to delivering 'Happiest People . Happiest Customers'. With an integrated approach that spans from chip to cloud, Happiest Minds delivers secure and scalable solutions across product engineering, cybersecurity, analytics , and automation platforms. Happiest Minds brings purpose and precision to every engagement, helping enterprises solve complex business challenges and fast-track their digital evolution across industry sectors such as Banking, Financial Services & Insurance (BFSI), EdTech, Healthcare & Life Sciences, Hi-Tech and Media & Entertainment, Industrial, Manufacturing, Energy & Utilities, and Retail, CPG & Logistics.

Happiest Minds has been honored by both the Golden Peacock Awards and the Institute of Company Secretaries of India (ICSI) for its exemplary Corporate Governance practices. Guided by its mission of 'Happiest People . Happiest Customers' and consistently recognized as a great place to work, Happiest Minds is headquartered in Bengaluru, India, with a global presence across the Americas, UK, Europe, Australia, the Middle East, Africa, and Asia.

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