



How Brick And Mortar Businesses Can Leverage Technology to Compete with Big Retail Players

The Valueadd Softtech & Systems White Paper





Table Of Content

EXECUTIVE SUMMARY 3

INTRODUCTION 6

- **INDUSTRY SOLUTIONS BY VAST FOR MOST PROFITABLE RETAIL BUSINESS MODELS 6**
- **HOW VAST EXPANDS RETAIL REACH WITH ROBUST DIGITAL SOLUTIONS? 10**

Driving Digital Transformation: VAST's Modern Retail Tech Stack 30

- **MICROSERVICES ARCHITECTURE 30**
- **USE OF MONGODB AND GEOSPATIAL INDEXES 32**
- **CUSTOMIZED MOBILE APPLICATIONS 32**
- **THIRD-PARTY INTEGRATIONS 33**
- **CLOUD SUPPORT AND SCALABILITY 35**

VAST'S DRIVING PRINCIPLES FOR DEVELOPING RETAIL PLATFORMS 36

OUR APPROACH TO PRODUCT DEVELOPMENT FOR RETAIL SUCCESS 37

Become an Agile Leader in a Dynamic Landscape 39

Executive Summary

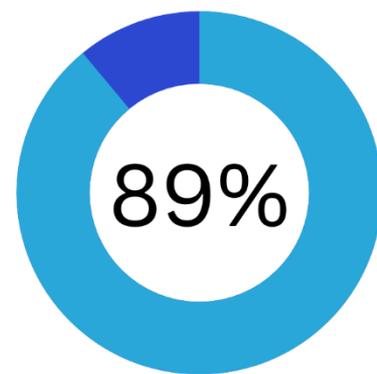


Brick and Mortar businesses often struggle to compete with big-box retailers due to cost and resource limitations. Big retailers, such as **Walmart, Amazon, McDonald's, or Home Depot**, enjoy many benefits that are mostly inaccessible to smaller businesses. These giants leverage economies of scale, advanced technology, and data-driven strategies to offer lower prices, wider selections, and personalized experiences.

However, to maintain a healthy profit margin, local independent retailers may not be able to offer their customers discounts, deals, and bulk-buy offers in the same way big retailers can.

Nevertheless, there are several ways for brick-and-mortar businesses to gain a competitive advantage over the industry's biggest players.

Take, for example, the innovative "**Speed Shop**" concept at **Nike's House of Innovation 000 in New York City**. This personalized shopping revolution showcased the power of digital solutions



89% of business leaders believe that investment in digital transformation is necessary within the next 12 months.

Source: River Island UK high street



in retail, allowing customers to seamlessly browse, try on, and purchase shoes through a blend of online and in-store experiences.

Similarly, brick and mortar businesses can adopt cutting-edge technologies like **AI/ML, chatbots, cloud computing, mobile applications, E-commerce platforms, IoT (Internet of Things), and data-driven optimization** to bridge the gap with larger competitors and create unique value propositions for their customers, with a specific focus on **reducing overhead costs** – a very decisive area for boosting profit margins.

This white paper dives deeper into how independent local retailers can exploit these trends to:

- Stay flexible and meet customer demands with **agile microservices architecture**.
- Personalize offerings and marketing using **AI-powered insights** into customer preferences.
- Offer 24/7 support and save money through **intelligent chatbots**.
- Optimize inventory and fulfill orders faster with **real-time supply chain solutions**.
- Make **data-driven decisions** for pricing, product selection, and targeted campaigns.
- Offer a smooth and convenient shopping experience with **voice commerce**.
- Personalize customer journeys across all channels through **omnichannel integration**.



Partnering for Success:

Valueadd Softtech & Systems Pvt. Ltd. (VAST), a leading digital strategy consultant, empowers brick and mortar retail businesses to unlock these possibilities. Our custom-built solutions and expert guidance help you conquer the digital landscape and achieve your strategic objectives.

Ready to take the next step?

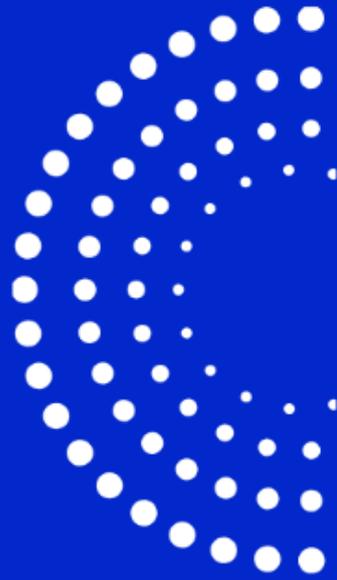
Dive deeper into the specific strategies and benefits outlined in this white paper. Let's discuss how we can tailor a **digital transformation** plan that ignites your **retail business growth**.



Modern IT solutions can help retail establishments optimize energy usage, reduce waste, and improve their environmental footprint.

Source: Climate Pledge Annual Report, 2023

Introduction



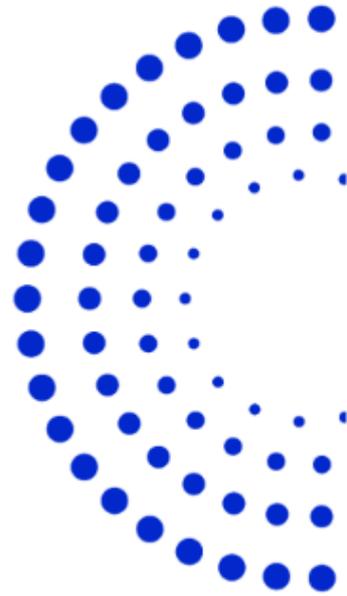
Forget one-size-fits-all retail solutions. **Digital transformation is about embracing agile technologies that adapt to your unique business model.** This term gained traction during the COVID 19 pandemic, highlighting the importance of agile, resilient, automated, and AI-powered operations.

These tailored retail solutions can revolutionize your business operations, unlock new opportunities to personalize customer experience, and drive sustainable growth.

In this section, we'll dive deeper into VAST's expertise, showcasing how we tailor technology to fit individual business models. You'll also discover how we equip you with the tools to create lasting connections and foster customer loyalty.

Industry Solutions by VAST for Most Profitable Retail Business Models

Our expertise spans a wide spectrum of retail business models, along with a comprehensive suite of tools designed to empower retailers and consumers.



- **B2C (Business-to-Consumer):**

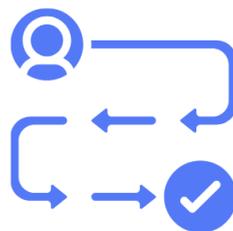
- **Direct-to-Consumer (DTC):** Help companies with technology to sell their products directly to individual consumers through their websites and mobile applications.
- **Multi-Seller Online Platforms:** Developing platforms that connect multiple sellers to consumers, facilitating a wide range of products.

- **B2B (Business-to-Business):**

- **Bulk Sales Services:** Businesses sell products in bulk to other businesses.
- **Dropshipping:** Retailers partner with suppliers who oversee inventory and shipping.
- **Subscription Based Models:** Businesses offer subscription-based models where customers receive curated or personalized products regularly.
- **Brick-and-Click (Omnichannel or O2O):** Traditional brick-and-mortar retailers also operate online stores to reach a wider customer base and provide an **omnichannel shopping experience**.
- **Marketplace Aggregators:** Aggregator platforms consolidate products and services from various sources and present them in one place.



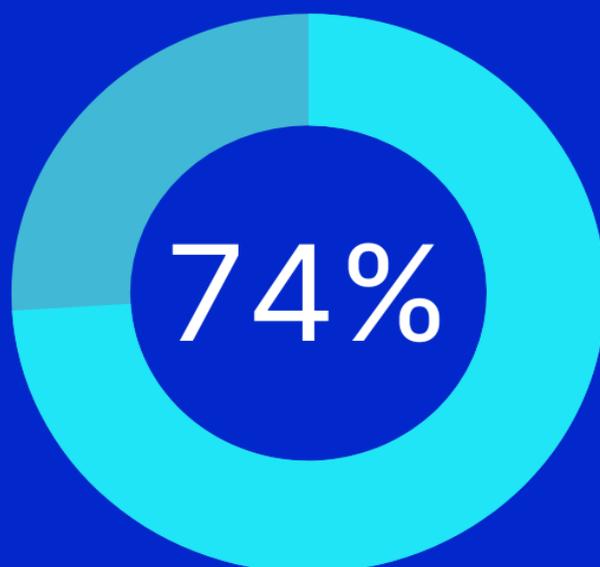
Moreover, VAST has developed platforms like [‘Xirify’](#), [‘Eaterime’](#), and many more for its customers across the globe. These platforms include an intuitive app and web interface for retailers and a mobile application for consumers, providing an end-to-end solution for brick-and-mortar businesses to manage their stores.



**The customer journey is no longer linear;
It's a continuous cycle of touchpoints.
Retailers need to adopt technologies that
enable a seamless and consistent experience
across all channels.**

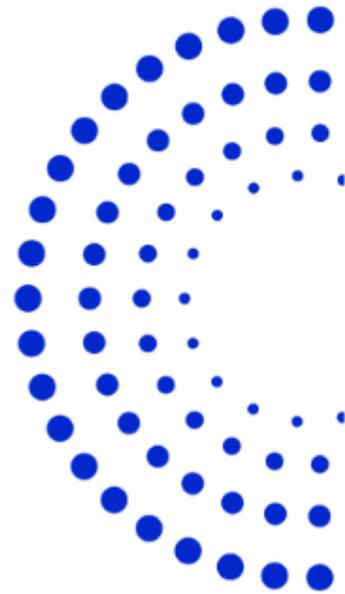
Source: Harvard Business Review

Digitalization is now a top priority for 74% of organizations, followed by **cybersecurity** at 73% and **cloud migration** at 65%.



Nearly three-quarters of IT leaders say their companies are prioritizing Digitalization in 2023, up from 56% in 2021.

Source: Flexera 2023



How VAST Expands Retail Reach with Robust Digital Solutions?

At **Valueadd Softtech & Systems (VAST)**, we approach retail IT with a focus on your business's strategic goals, capabilities, and technology requirements.

Our cutting-edge retail solutions such as **AI-driven technologies, personalized recommendations, chatbots, fraud detection, customer segmentation, inventory management, customer churn prediction, voice commerce, localization and geotargeting, sentiment analysis, dynamic pricing optimization**, along with several other innovative approaches, has made us a premier trusted advisor for retail chains and online stores alike.

From independent main street to digital marketplace our commitment to small brick and mortar business owners extends beyond technology. We prioritize eCommerce solutions that not only meet but exceed your expectations, delivering exceptional digital experiences that resonate with your customers and keep them coming back for more.

Here are some of our **best-in-class retail solutions** that are both innovative and aligned with industry best practices.

Quick and Effortless Online Store Setup

We provide retailers with the ability to **effortlessly set up and manage their stores** based on their business type and model. Key features include:

- **Automated Store Operations:** Define precise opening and closing hours for your store.
- **Comprehensive Business Profile:** Showcase essential details, contact information, and build a professional online presence.

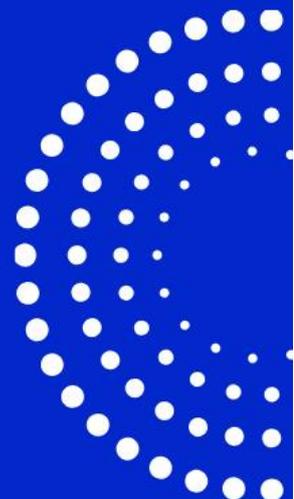


- **Granular Category Management:** Create and manage custom business categories for clear product organization.
- **Precision Location Setup:** Establish accurate delivery or pickup addresses with detailed coordinates.
- **Flexible Service Selection:** Choose your preferred operating mode (delivery, pickup, or both).
- **Streamlined Delivery Management:** Select preferred delivery partners and prioritize their services.
- **Diverse Payment Options:** Enable convenient payment modes for customers (online, cash, COD, etc.).
- **Centralized Inventory Control:** Manage inventory across multiple channels and seamlessly synchronize product availability.
- **Enhanced Product Presentations:** Modernize product pages with captivating visuals and descriptions to elevate brand identity.
- **Unified Multi-Channel Management:** Manage inventory and listings flawlessly across various online channels, ensuring consistency and operational efficiency.



Don't be fooled by some of the digital transformation buzz out there, digital transformation is a business discipline or company philosophy, not a project.

— Katherine Kostereva is the CEO bpm'online





Consolidated Product Organization

Efficient catalog management is crucial for retailers. Technology simplifies this process with the following features (refer **Figure 1**):

- **Simplified Product Listing:** Streamline product introduction with bulk upload functionality and individual item creation options.
- **Granular Category Management:** Organize your catalog effectively through hierarchical categories, subcategories, and subheadings.

MAXIMIZE CATALOG MANAGEMENT

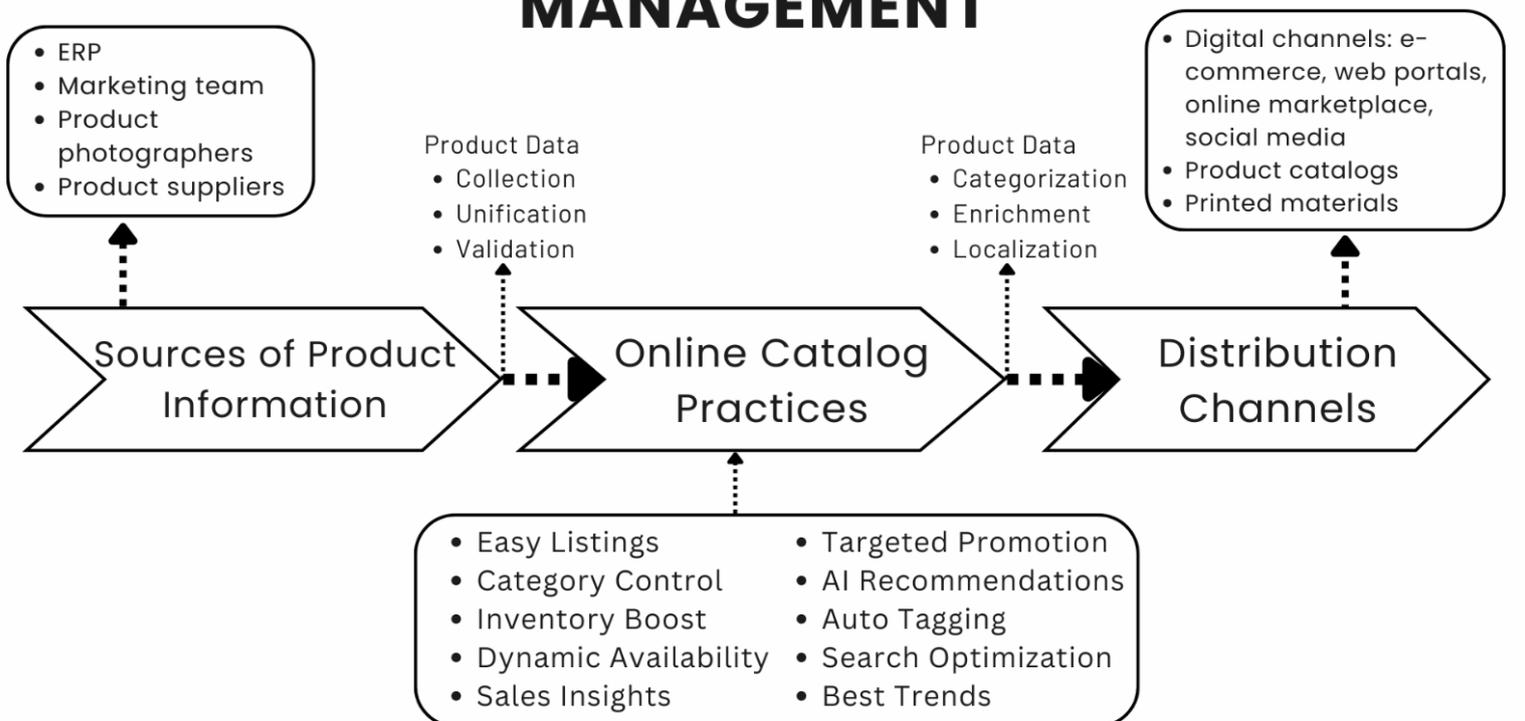
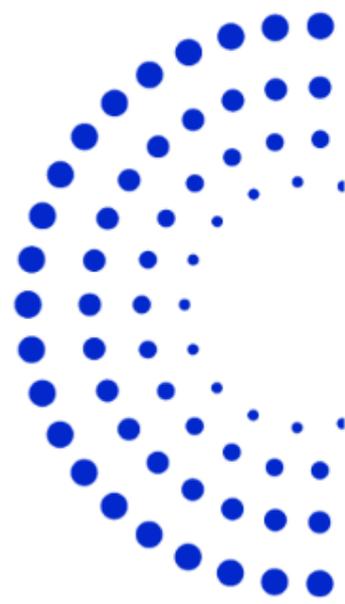


Figure 1: Simplify Online Retail Catalog Management



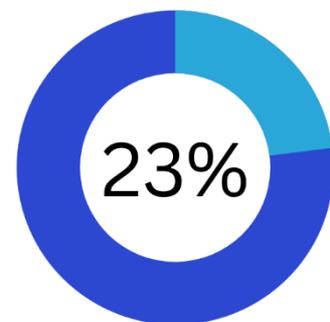
- **Enhanced Inventory Control:** Ensure accurate stock levels and optimize pricing with robust inventory management tools.
- **Dynamic Item Availability:** Set specific times for product availability, ensuring product visibility aligns with your inventory strategy.
- **Actionable Sales Analytics:** Gain valuable customer insights through data-driven sales reports identifying best-selling items and popular trends.
- **Targeted Product Promotion:** Strategically promote new products and run targeted campaigns to attract new customers.
- **AI-Powered Personalized Product Recommendations:** Leverage AI to showcase relevant products to each customer based on their browsing history and purchase behavior, boosting conversion rates and order value.
- **Automated Product Tagging:** Simplify product organization with automated tagging based on key attributes, including best-sellers, frequently purchased together items, and seasonal trends, using our inbuilt algorithm. This helps customers find what they're looking for quickly and easily, **increasing product discoverability** and driving sales.
- **Smart Search Optimization:** Our built-in algorithm solutions prioritize relevant products in search results based on search queries, product attributes, and customer behavior, ensuring customers find the exact products they need.
- **Identify Best Sellers and Trending Products:** Gain instant insights into top-performing items and emerging trends through automated identification of bestsellers and frequently bought items based on real-time sales data.



Smooth Order Processing

Streamline order processing and delivery with comprehensive order management capabilities.

- **Unified Platform:** Manage and receive orders from both mobile and web platforms, catering to diverse customer preferences.
- **Preparation Time Management:** Define and manage order preparation times to ensure prompt fulfillment and accurate customer expectations.
- **Delivery Scheduling:** Schedule deliveries based on customer preferences or product availability, offering greater convenience.
- **Scheduled Orders and Pre-Orders:** Enable customers to place scheduled orders and pre-orders, optimizing inventory management and meeting demand spikes.
- **Payment Tracking and Flexibility:** Monitor payment statuses in real-time and provide flexible payment options like prepayment and pay-later choices for customer convenience.
- **Automated Order Fulfillment:** Automate delivery tasks by seamlessly integrating with leading delivery partners like Dunzo, WeFast, Shadowfax, and Porter, providing live tracking on maps for extended visibility.



Retailers who invest in digital transformation achieve 23% higher profitability than those who don't.

Source: McKinsey & Company



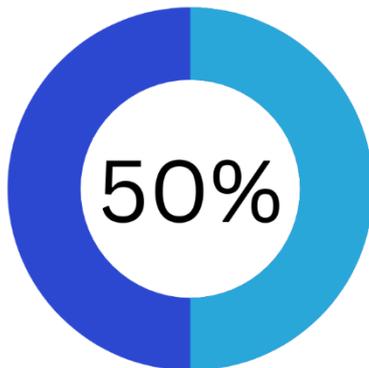
- **Post-Sales Management:** Solidify customer satisfaction by gathering feedback through email or surveys. Manage returns, exchanges, and refunds rapidly.
- **Proposed POS System Integration:** Integrate comprehensive POS solutions to simplify checkouts, manage inventory in real-time, connect directly with delivery partners, and generate insightful reports.

Strategic Sales Boost

Attract and retain customers through targeted promotions and campaigns.

- **Personalized Offers:** Craft item-specific or cart-level deals to attract buyer interest.
- **Promotional Code Generation and Management:** Deliver targeted discounts via easy-to-use promo codes.
- **Comprehensive Campaign Management System:** Plan and execute multi-channel

marketing campaigns to drive sales and engagement.



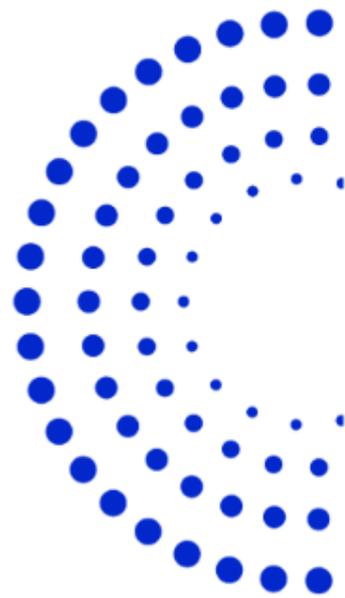
Over 50% of enterprises will adopt and implement industry cloud platforms to speed up their business operations by 2027.

Source: Gartner

Holistic Marketing Solutions

Effectively promote your business and products with integrated marketing tools -

- **Push Notifications:** Engage with customers using push notifications.
- **In-App Ads:** Display ads within the app to increase product visibility.



- **Social Sharing:** Enable customers to share product catalogs and individual products via messaging apps like WhatsApp.

Customer Referral Program

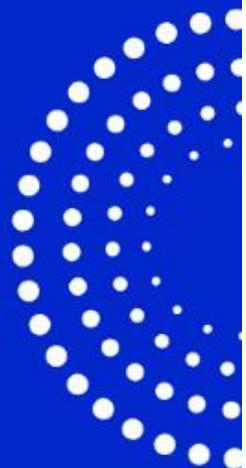
We help you harness the power of **customer referrals with a built-in referral system:**

- **Manage Referral Program:** Set up, edit, and update referral campaigns with just a few clicks.
- **Track Performance in Real-Time:** Gain instant insights into campaign performance, monitoring referrals, conversions, and ROI with detailed dashboards.
- **Mobile-Optimized Experience:** Ensure a smooth and seamless experience for your customers, regardless of whether they're browsing on desktop or mobile devices.



You can't delegate digital transformation for your company... You and your executives have to own it! Executives need to engage, embrace, and adopt new ways of working with the latest and emerging technologies.

— Barry Ross, Ross & Ross International





- **Integrations and Flexibility:** Connect your referral program with your existing marketing and CRM tools for a holistic view of your customer journey.
- **Fraud Detection and Prevention:** Built-in safeguards protect against fraudulent referrals, ensuring program integrity and maximizing your return on investment.

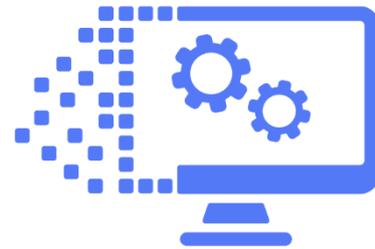
Customer Feedback Collection

Gather valuable feedback from customers by allowing them to rate and review orders, products, businesses, and delivery experiences.

Building Customer Relationships

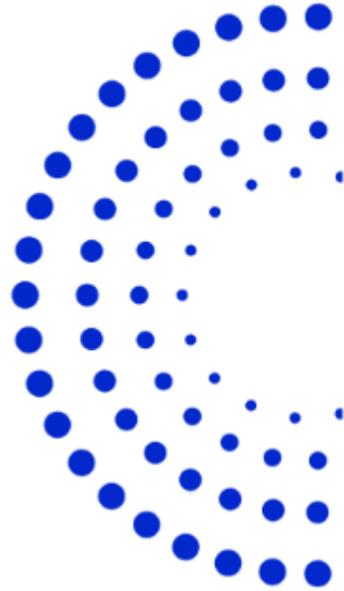
We help you maintain a strong bond with customers by providing:

- **Customer Profile:** Get insight into the customer journey, preferences, expectations, and sentiments.
- **Loyalty Program:** Set up personalized loyalty benefits for key customers.
- **Increase conversion:** Reduce cart abandonment with insight into patterns and automated marketing flow.



Digital transformation is not about replacing old systems with new ones. It's about changing how we work.

— Steve Blank, Entrepreneur and Author



Security and Data Privacy

Protecting your data is our top priority. We employ industry-standard security measures, including:

- **Encryption:** All data, including customer information and financial transactions, is encrypted at rest and in transit.
- **Access Controls:** We implement strict access controls to ensure that only authorized personnel have access to sensitive data.
- **Regular Security Audits:** We conduct regular security audits and penetration testing to identify and address potential vulnerabilities.



**It's no longer the big beating
the small, but the fast beating
the slow.**

- Eric Pearson, Cio, International
Hotel Group (IHG)

- **Compliance With Data Privacy Regulations:** We comply with all relevant data privacy regulations, such as **General Data Protection Regulation (GDPR)** and **California Consumer Privacy Act (CCPA)**.
- **Transparent privacy policies:** We provide a clear and concise privacy policy outlining how we collect, use, and protect user data.

Scalability and Performance

We equip retailers with the ability to handle high volumes of traffic and data by utilizing robust cloud infrastructure that automatically scales to meet demand, ensuring your



platform remains responsive and operational even during peak periods. We also conduct rigorous performance testing to optimize the platform for speed and productivity.

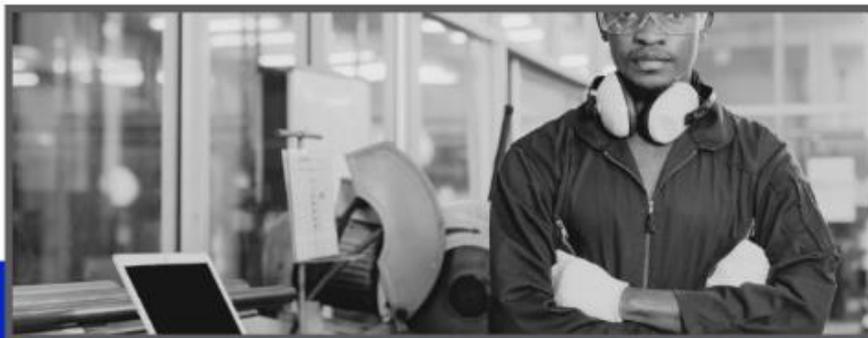
Customized Platform Settings

Tailor retail platforms to your specific needs with configuration options like SMS alerts and the ability to change the launch screen to keep customers hooked.

Simplified User Access Control

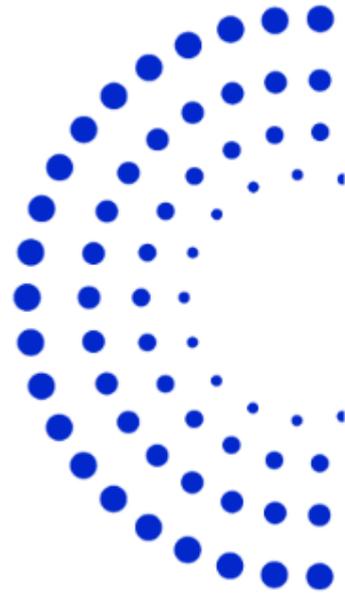
We help you build a secure and efficient retail operation with comprehensive user management capabilities:

- **Role-Based Access Control (RBAC):** Assign specific roles and permissions, ensuring only authorized users access sensitive data.



In today's era of volatility, there is no other way but to re-invent. The only sustainable advantage you can have over others is agility, that's it. Because nothing else is sustainable, everything else you create, somebody else will replicate.

— Jeff Bezos, CEO and President, Amazon



- **Two-Factor Authentication (2FA):** Secure logins with an extra verification step for enhanced security.
- **Audit Logs:** Track user activity for accountability and security analysis.
- **Secure Password Storage:** Utilize industry-best practices for password hashing and salting, protecting sensitive information from unauthorized access.
- **Regular Access Reviews:** Conduct periodic reviews of user access rights to identify and address potential security risks proactively.

Financial Transaction Tracking

Keep track of all financial transactions, deliveries, and payments, ensuring transparency and accuracy.

Comprehensive Business Insights

Access comprehensive reports to gain insights into various aspects of your business, including order details, consumer data, transaction history, top-performing products, campaign performance, referral statistics, user growth, and reviews and ratings.

Policy Administration

Manage terms and conditions, return and refund policies and contracts, and transaction fees seamlessly through the web platform.



Enhanced System Connectivity

Integrate with third-party systems for enhanced functionality and connectivity, automation, opportunity, and business growth, such as:

- POS solutions like Petpooja
- Online payment gateways such as Cashfree, PayU, and Razorpay
- Express Delivery Service Providers: Dunzo, WeFast, Shadowfax, Porter
- ONDC: Open Network for Digital Commerce

This list is not exhaustive, and we are constantly adding new integrations to meet the evolving needs of our customers.

Customer Support

We offer comprehensive customer support to ensure your success. You can reach us through:

- **Phone:** Dedicated support hotline with extended hours for urgent issues
- **Email:** 24/7 email support for general enquiries
- **Live chat:** Real-time chat support during business hours for quick assistance
- **Online knowledge base:** Extensive library of self-help articles, tutorials, and FAQs
- **Dedicated account managers:** For enterprise clients, we offer dedicated account managers for personalized support and guidance



Expense Tracking and Analysis

Track all expenses related to your operations and generate reports on crucial metrics such as **(refer Figure 2):**

Data tracking for informed business decision

Reports are available for all following metrics



Business

- Unite Economics
- Expansion Plan
- Revenue Model
- Revenue Source
- Revenue Projection (5 Years)
- Valuation
- P&L Statements
- GTM Strategy



Order

- Order Count
- Order Growth
- Order Trends
- Avg Order Value
- Max Order Value
- Order Service Modes
- Payment Methods
- Best selling items



Shopper

- Order count total, shopper
- ARPU
- CAC
- Retention cost
- LTV
- Acquisition Source
- Top Shoppers
- Churn



Merchant

- Order count total, Merchant
- ARPU
- CAC
- Retention cost
- LTV
- Acquisition Source
- Top Merchants
- Churn



Performance

- User Journey
- User growth
- Acquisition
- Revenue
- MRR
- ARR
- Referral/Viral
- Campaign
- Coupon
- Category

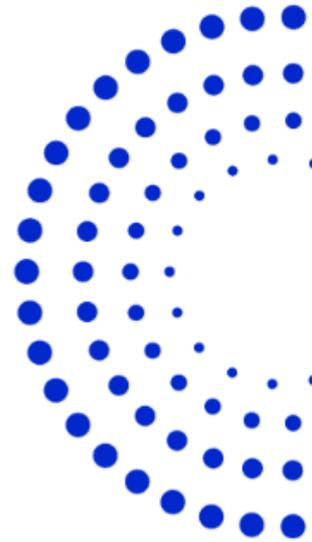
Figure 2: Key Metrics for Retail Industry KPIs



Cloud, Artificial Intelligence (AI), and the Internet of Things (IoT) are the top 3 areas companies are scaling up during digital transformation

45% of organizations are scaling up their cloud capabilities, while 39% are scaling AI and 36% are scaling the Internet of Things.

Source: Accenture

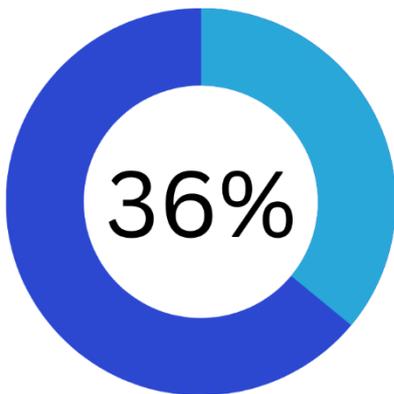


AI-Driven Retail Solutions

VAST leverages AI/ML for Automation and Personalization

Our expertise in artificial intelligence (AI) and machine learning (ML) can help you speed up your operations and give customers more choice with faster deliveries and recommendations.

Here are some AI and ML capabilities that VAST can assist any type of retail business with.



36% of retail companies have already implemented Artificial Intelligence (AI) strategies

Source: Capgemini

Personalized Recommendations

You can use AI algorithms to analyze customer behavior and preferences and provide personalized product recommendations, increasing the likelihood of sales and enhancing the shopping experience.

Inventory Management

We use ML to predict demand patterns and optimize inventory levels, reducing overstock and understock situations. This leads to cost savings and improved customer satisfaction.



Chatbots and Virtual Assistants

AI-driven chatbots and virtual assistants provide customer support, answer inquiries, and assist with product search and selection, improving customer engagement and reducing workload for human customer service agents.

Fraud Detection

ML solutions can be used to identify fraudulent transactions and behaviors, protecting the business and customers from fraud-related losses.

Customer Segmentation and Profiling

VAST can use ML to segment customers based on various criteria, allowing retail businesses to tailor marketing efforts and promotions to specific customer groups.



At least 40% of all businesses will die in the next 10 years... if they don't figure out how to change their entire company to accommodate new technologies.

-- John Chambers, Cisco System



Sentiment Analysis

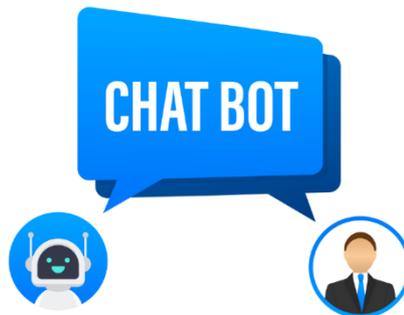
AI-powered sentiment analysis tools monitor social media and customer reviews to gauge public opinion and identify potential issues or opportunities.

Visual Search

Our AI solutions enable visual search capabilities, allowing customers to search for products by uploading images or using images as search queries.

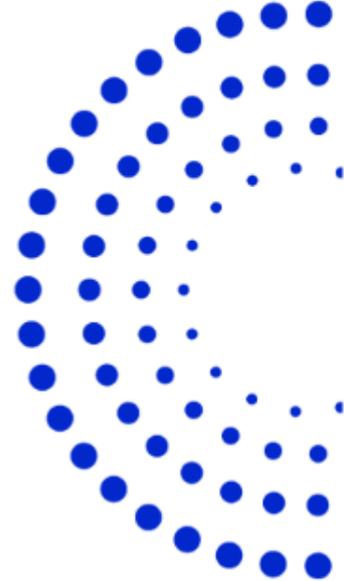
Natural Language Processing (NLP)

NLP algorithms analyze customer reviews and feedback to extract valuable insights and identify areas for improvement.



**AI-powered chatbots can save
businesses up to \$8 billion per year
in customer service costs.**

Source: Juniper Research



Demand Forecasting

ML can also be used to forecast future demand with greater accuracy, helping retailers to optimize inventory, pricing, and marketing strategies.

Recommendation Engines for Upselling and Cross-selling

AI-powered recommendation engines can suggest complementary (add-on) products to increase the average order value.

Customer Churn Prediction

ML models precisely predict customers who are likely to churn (stop buying) and helps retailers to take proactive measures to retain them on time.

Voice Commerce

We help integrate voice assistants like Amazon Alexa, Siri (iOS), or Google Assistant into e-commerce platforms allowing customers to make purchases using voice commands.

Localization and Geotargeting

Our AI solutions empower you to customize product offerings and promotions based on a customer's location, increasing relevance and engagement.

Integrated Search

AI-powered algorithms curate relevant products, delivering targeted recommendations and reducing decision fatigue.



Augmented Choices

Personalized recommendations anticipate needs, exceeding expectations and fostering brand loyalty.

Automated Orders

Smart bots handle logistics and improve workflows, freeing you to focus on strategic growth.



Retailers need to think beyond just transactions and focus on building relationships with customers. IT modernization allows them to gather data, personalize offers, and create a seamless omnichannel experience.

- Marc Benioff, CEO, Salesforce

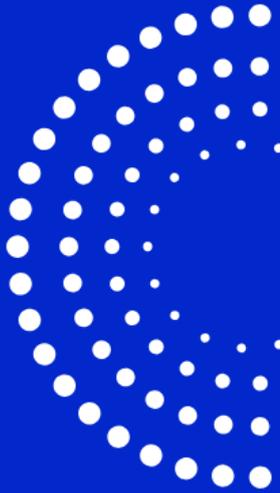
The reality is, many digital transformations fail because companies aren't integrating their business and technology strategies from the start.

It's imperative that **CIOs** know how to quantify their progress with AI and digitization technologies and understand how to effectively communicate this value to key stakeholders.

-- Chris Bedi, CIO, ServiceNow



Driving Digital Transformation: VAST's Modern Retail Tech Stack



Why do some brick-and-mortar retailers find it difficult to rapidly update their online storefronts with new features, products, or functionalities? As an established independent retail company, you must be able to match the innovation velocity of today's retail landscape. But most can't! **To a large degree, it's because of your monolithic enterprise architecture.**

To compete against giant digital natives, independent retail businesses now need to adopt a much different approach to architectural modernization.

VAST helps you bridge this gap with a **modern, modular tech architecture** designed for agility and evolution. Here's our comprehensive set of solutions that empowers you to create a smoother digital transformation journey:

Microservices Architecture

In the retail domain, multiple technical components and services run concurrently, but not all services require the same computational resources.

For instance, the order service serving multiple customers' needs more power than a reporting service used by a few back-office users. Traditional monolithic architecture simply can't handle this imbalance effectively, leading to inefficient resource allocation on a single server.



VAST implements the microservices architecture to address this issue by breaking down modules and services into separate logical servers and databases. This approach allows individual services to be scaled horizontally, making sure computational resources are used efficiently and costs are saved.

Here's how VAST's Microservices architecture works (refer Figure 3):

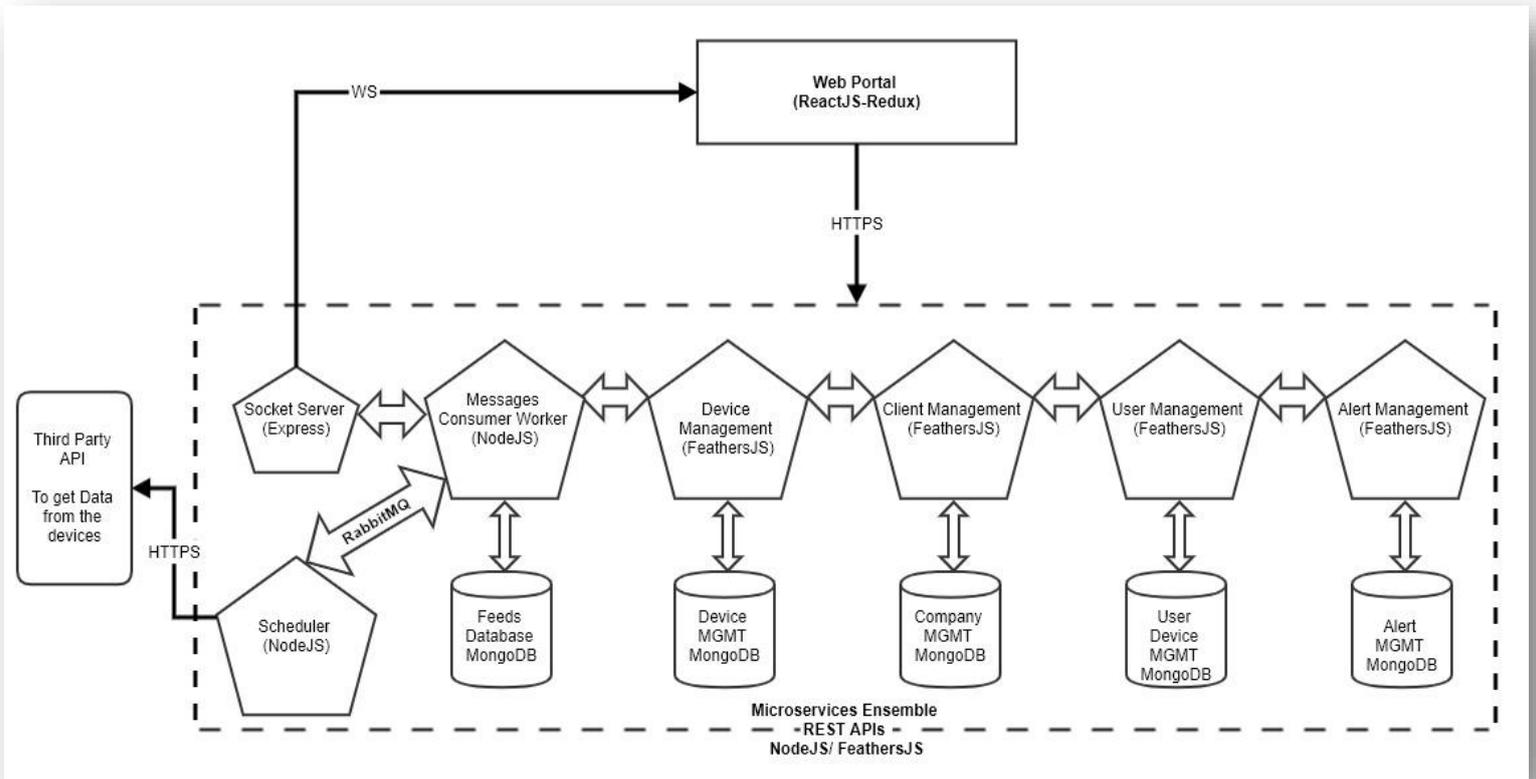


Figure 3: VAST’s Microservices Architecture Pattern



Use of MongoDB and Geospatial Indexes

MongoDB plays a vital role in VAST's retail technology solutions, as it is well-suited for managing unstructured retail data, offering flexibility, and scalability. MongoDB also supports data redundancy, enabling fast "reads" and significantly enhancing the retail user experience.

'Geospatial indexes' are another crucial element utilized by VAST to enhance location-based services. They allow for the calculation of the serviceable radius of a business and the radius within which businesses should be able to make purchases. This capability enhances **geolocation services, enabling retailers to cater to the individual needs of customers based on their geographic location.**



The affordability cloud offers to start small and “pay as we go” play a key role in digital transformation. Most startups are becoming cloud-native first.

— Aaron Levie, Ceo Of Box

Customized Mobile Applications

VAST excels in mobile application development, particularly with Flutter. This technology ensures fast delivery of mobile applications with a superior user experience.

In the highly competitive retail landscape, mobile apps are essential for engaging with customers, streamlining the shopping experience, and providing a seamless user journey.



Third-party Integrations

VAST smoothly integrates retail applications with third-party applications by calling external APIs or through webhooks. This approach enables retailers to extend their reach and provide additional services to their customers.

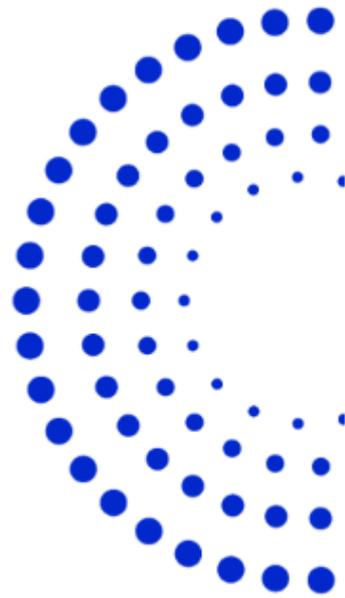
In line with this, VAST has effectively partnered with several delivery apps, thereby enriching the shopping experience for customers with increased options and convenience.

- **Payment gateway:** Cashfree, CCAvenue, Stripe, RazerPay, BillDesk
- **SMS gateway:** Gupshup, SMS-Magic
- **Delivery partners:** Dunzo, WeFast, Porter, ShadowFax
- **POS Integration:** PetPooja etc.
- **Accounting Integration:** Tally
- **Email integration:** Sendgrid
- **Scalability** - To achieve scalability and high availability (24x7), we use: Docker, Kubernetes, Mongo clusters, etc.
- **Security**
 - Security in transit: SSL, Data encryption, Refresh token rotation



Retailers that invest in continuous IT modernization outperform their competitors by 2x in terms of revenue growth

Source: McKinsey Global Institute



- Security at rest: Firewalls, Data encryption, Audit trail, RBAC, Log management

- **Tech Stack**

- Web Frontend: ReactJS, Vue JS, social media or mobile number (OTP)-based login
- Backend: Nodejs, Java Springboot, Python, Golang
- Database: MongoDB, Postgres, MySQL
- Mobile: Flutter, React Native

- **Nginx and/or API gate way**

Managing and securing your network traffic efficiently is crucial for optimal performance and user experience. VAST offers comprehensive Nginx and API gateway setup services to ensure smooth and secure communication between your applications and users.

Our experts will:

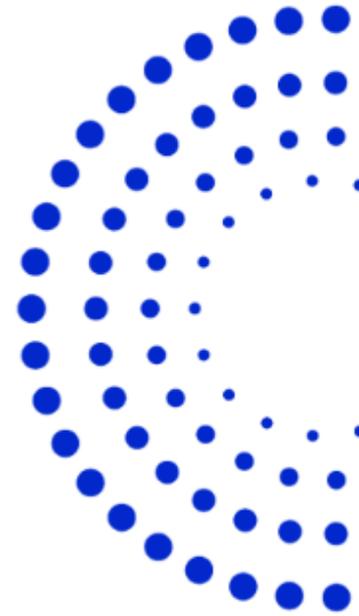
- **Configure Nginx servers:** We leverage Nginx's powerful capabilities for load balancing, caching, and static content delivery, optimizing your infrastructure for speed and efficiency.
- **Implement API gateways:** We design and implement **robust API gateways** that act as single-entry points for your APIs, providing authentication, authorization, rate limiting, and other security measures.
- **Optimize configurations:** We fine-tune your Nginx and API gateway configurations based on your specific needs and traffic patterns, ensuring optimal performance and scalability.



Cloud Support and Scalability

Ensuring your online storefront is always available and responsive is crucial for customer satisfaction and sales growth. VAST provides comprehensive cloud support solutions to guarantee high scalability and reliability across various platforms.

- **Auto-Scaling:** We leverage cloud-native tools like auto-scaling groups to automatically **adjust your resources based on real-time traffic demands**. This prevents bottlenecks during peak periods and optimizes costs during slower times.
- **Auto-Healing:** Our solutions proactively **monitor your cloud infrastructure** for potential issues and automatically address them before they impact your storefront. This ensures high availability and minimizes downtime.
- **Continuous Cloud Monitoring:** We provide comprehensive cloud monitoring solutions that collect and analyze metrics on your infrastructure performance, resource utilization, and application health. This data empowers you to **proactively identify and address potential issues** before they affect your customers.
- **Cloud-Agnostic Approach:** Our solutions are designed to be cloud-agnostic, meaning they continuously integrate with your preferred cloud provider, be it AWS, Google Cloud, Azure, or even your in-house data center. This flexibility allows you to choose the platform that best meets your needs without vendor lock-in.

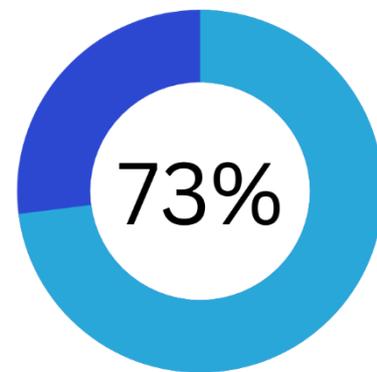


VAST's Driving Principles for Developing Retail Platforms

VAST goes beyond providing technical solutions; we guide you through the strategic development process with our established principles for platform development:

- **Product-led growth:** We equip you to make **data-driven decisions through comprehensive analytics**, enabling you to understand user behavior and preferences. This insights-driven approach helps you prioritize features, personalize experiences, and drive organic growth.
- **Strategic pricing:** Our experts assist you in developing **effective pricing strategies** based on unit economics, market trends, and competitor analysis. We help you find the perfect balance between maximizing revenue and attracting customers.
- **KPI-focused approach:** We believe in setting clear and measurable **Key Performance Indicators (KPIs)** aligned with your overall business goals.

Whether you prioritize Gross Merchandise Value (GMV) or



73% of retail CIOs believe integrating omnichannel experiences across physical and digital touchpoints is critical for success.

Source: Deloitte, "Global Retail Outlook 2024"



profitability, we help you track progress and optimize your platform for success.

- **Sustainable organic growth:** We encourage building functionalities that naturally attract and engage users, fostering viral adoption and reducing reliance on paid acquisition channels. This includes **intuitive user interfaces and referral programs**.
- **Customer-centric value proposition:** We prioritize understanding and exceeding customer expectations. VAST guides you in developing a clear and compelling value proposition that resonates with your target audience and addresses their pain points.
- **AI/ML for resource optimization & productivity:** We leverage the power of artificial intelligence and machine learning to automate tasks, optimize processes, and personalize experiences. This translates to improved operational efficiency, reduced costs, and maximum customer satisfaction.

Our Approach To Product Development For Retail Success

- Product Ideation
- Identifying USPs and Value Propositions
- Market Positioning
- Business Planning
- Competition Analysis
- Defining Unit Economics
- Product Pricing Strategy

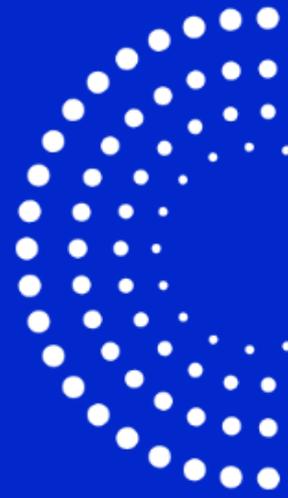


- Financial Accounting and Benchmarking
- MVP
- Churning (MRR/ARR)
- Go-to-Market Strategy (GTM)
- Crossing Chasm
- Product Lead Growth
- Scaling (Business and Operations)

In summary, we understand that **Digital transformation** in retail requires agility, not the rigidity of monolithic systems. Hence, our modular approach enables you to adapt and evolve with ease. Imagine rolling out new features in a flash, scaling resources to meet demand, and delivering hyper-personalized experiences that keep customers coming back for more.

With a **robust tech stack, scalable infrastructure, and a focus on analytics and customer engagement**, VAST guides you through a successful journey of strategic development, making you an **agile player in the dynamic retail landscape**.

Become An Agile Leader In A Dynamic Landscape



[Valueadd Softtech & Systems \(VAST\)](#) represents a significant leap forward in retail tech development, providing a comprehensive suite of tools for brick-and-mortar retail businesses and a user-friendly mobile app for consumers. We offer one-stop solution for **store setup, catalog management, order processing, marketing, and more** that empowers you to deliver a seamless shopping experience for consumers.

Moreover, our intelligent strategies provide actionable insights, optimize inventory management, and personalize customer journeys, propelling your business towards a growing future. **So, let's move beyond guesswork and embrace data-driven decision-making with VAST.**



The Digital Transformation Market in Retail Industry is expected to grow from **USD 0.85 trillion in 2024** to **USD 2.05 trillion by 2029**, at a **CAGR of 19.30%** during the forecast period (2024-2029).

Source: Mordor Intelligence





Valueadd Softech & Systems (VAST) is committed to helping you accelerate **IT modernization** programs by transforming your applications and infrastructure with scalable and resilient models that have **Adaptive Technology** at their core.

www.valueaddsofttech.com