🚀 MERN Stack Hosting Analysis Report

Hostinger India - Shared vs VPS Hosting Comparison

For: RamanifashionV2 E-Commerce Website

💰 **All Prices in Indian Rupees (₹)**

📊 **Prepared by Airavata Technologies**

📌 Executive Summary

Based on comprehensive technical analysis, **<u>VPS Hosting is mandatory</u>** for the RamanifashionV2 MERN stack e-commerce application. Regular shared hosting plans are incompatible with Node.js/Express applications and MongoDB databases. This document provides a detailed comparison to support informed decision-making.

Application Technology Stack:

- **Frontend:** React (TypeScript)
- **Backend:** Node.js + Express (TypeScript)
- **Database:** MongoDB
- **Architecture:** Full-stack E-commerce Platform

📊 Technical Compatibility Analysis

Shared Hosting Technical Overview

Feature	Specification	MERN Stack Compatibility
Monthly Cost	₹69 - ₹279	✅ Economical
Server Access Level	hPanel Control Panel Only (No SSH/Root)	❌ Insufficient for Node.js Installation
Supported Technologies	PHP, HTML, CSS, Client-side JavaScript	❌ No Node.js Runtime Environment
Database Systems	MySQL/MariaDB Only	❌ MongoDB Not Supported
Process Management	Apache/Nginx (PHP Processing)	❌ Cannot Execute Express Server
Port Configuration	Fixed Ports (80/443 Only)	❌ No Custom Port Management
Optimal Use Case	WordPress, Static Websites, PHP Applications	❌ Not Suitable for MERN Applications

VPS Hosting Technical Overview

Feature	Specification	MERN Stack Compatibility
Monthly Cost	₹399 - ₹1,499	✅ Appropriate for Production Environment
Server Access Level	Full SSH & Root Access	✅ Complete Administrative Control
Supported Technologies	Any Framework (Node.js, Python, Ruby, etc.)	✅ Full Node.js & TypeScript Support
Database Systems	Any Database (MongoDB, PostgreSQL, MySQL, etc.)	✅ MongoDB Can Be Installed & Configured

Feature	Specification	MERN Stack Compatibility
Process Management	PM2, Systemd, Forever, Custom Solutions	☑ Express Server Runs Continuously
Port Configuration	Any Port Configuration Allowed	☑ Complete Flexibility
Resource Allocation	Dedicated RAM, CPU, Storage	☑ Optimal for E-commerce Performance
Optimal Use Case	Custom Applications, APIs, MERN/MEAN Stack	☑ Perfect Match for Requirements

⚖️ Comparative Advantages & Limitations

Shared Hosting

☑ Advantages

- Highly cost-effective (₹69-₹279/month)
- User-friendly hPanel interface
- Fully managed server maintenance
- Complimentary SSL certificates
- Suitable for beginners
- One-click WordPress deployment
- Free domain with select plans
- 24/7 customer support

✖ Limitations

- **No Node.js Application Support**
- **MongoDB Database Not Available**

- **No SSH Terminal Access**

- Shared resource pool with other users

- Cannot install custom software packages

- Performance degradation during traffic peaks

- PHP-exclusive hosting environment

- No background process execution

VPS Hosting

✅ Advantages

- **Complete Node.js Ecosystem Support**

- **MongoDB Installation & Management**

- **Full Root Access & System Control**

- Dedicated computing resources (RAM, CPU, Storage)

- Enhanced performance and scalability

- Custom server configurations possible

- Multiple application hosting capability

- Process managers ensure 24/7 uptime

- Superior security isolation

- Production-grade e-commerce infrastructure

- IPv6 protocol support included

- High-speed NVMe SSD storage

- Dedicated technical support team

❌ Limitations

- Higher investment (₹399-₹1,499/month)

- Manual server security management

- Responsibility for system updates

- Manual SSL and firewall configuration

- Initial setup and configuration needed

💰 Hostinger India VPS Plans Comparison

📌 **Pricing Information:** Rates shown are for longer-term commitments (12-48 months). Monthly billing costs significantly more. Renewal rates exceed introductory pricing.

Plan Tier	Monthly Rate	vCPU Cores	RAM	NVMe Storage	Bandwidth	Suitability Assessment
KVM 1	₹399	1 Core	4 GB	50 GB	4 TB	✅ **Recommended for New Website Launch** ⭐
KVM 2	₹499	2 Cores	8 GB	100 GB	8 TB	✅ Upgrade Option for Growing Traffic
KVM 4	₹749	4 Cores	16 GB	200 GB	16 TB	✅ High-Traffic E-commerce Sites
KVM 8	₹1,499	8 Cores	32 GB	400 GB	32 TB	✅ Enterprise-Scale Operations

📈 Comparative Value Analysis

Evaluation Criteria	Shared Hosting	VPS Hosting
Cost Structure	₹69-279/month	₹399-1,499/month
Deployment Complexity	Minimal (User-friendly GUI)	Moderate to Advanced (CLI-based)

Evaluation Criteria	Shared Hosting	VPS Hosting
MERN Stack Compatibility	❌ Not Compatible	✅ Fully Compatible
Scalability Potential	Limited by Shared Resources	Highly Scalable Infrastructure
Performance Level	Basic (Shared Resources)	High (Dedicated Resources)
Resource Control	Restricted/Predetermined	Complete Administrative Control
Security Level	Standard (Shared Environment)	Enhanced (Isolated Environment)
Optimal Application Type	Blogs, CMS, Simple Websites	Custom Apps, APIs, E-commerce

🎯 Professional Recommendation

Based on technical requirements analysis, VPS hosting is the only viable solution for the RamanifashionV2 MERN stack e-commerce platform.

💡 **Recommended Configuration: VPS KVM 1 at ₹399/month**

- 1 vCPU Core - Adequate processing power for initial launch
- 4 GB RAM - Sufficient for Node.js runtime, MongoDB, and moderate traffic
- 50 GB NVMe Storage - High-speed SSD storage for optimal performance
- 4 TB Bandwidth - More than adequate for new website traffic
- Most cost-effective option for initial deployment
- Perfect for websites starting with lower to moderate traffic

Technical Justification:

- MERN stack architecture requires Node.js runtime environment (unavailable in shared hosting)

- MongoDB NoSQL database necessitates custom installation (not provided in shared hosting)

- E-commerce platforms require dedicated resources for transaction processing and data security

- Background job execution capability essential (order processing, email notifications, scheduled tasks)

- Enhanced security isolation critical for handling customer data and payment information

- Complete system control enables optimization for specific application requirements

Scalability Path: KVM 1 provides an excellent starting point for a new website launch. As your e-commerce platform grows and traffic increases, you can seamlessly upgrade to KVM 2 (₹499/month) for 2 CPU cores and 8 GB RAM, or higher tiers as needed. This approach optimizes initial costs while maintaining the flexibility to scale based on actual demand.

Document Information:

Analysis based on Hostinger India pricing as of November 2025. Actual costs may vary based on promotional offers and plan duration. Always verify current pricing on the official Hostinger India website.

⚡ **Airavata Technologies**

Technology Consulting & Digital Solutions