

INDUSTRY OVERVIEW

The information and statistics set out in this section and other sections of this document were extracted from the report prepared by Frost & Sullivan, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged Frost & Sullivan to prepare the Frost & Sullivan Report, an independent industry report, in connection with the [REDACTED]. The information from official government sources has not been independently verified by us, the Sole Sponsor, the [REDACTED], [the [REDACTED]], [the [REDACTED]], [the [REDACTED]], [the [REDACTED]], the [REDACTED], and the [REDACTED], any of their respective directors and advisers, or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.

SOURCES OF THE INDUSTRY INFORMATION

We commissioned Frost & Sullivan to analyse and prepare a report regarding China’s e-commerce software market and China’s e-commerce secure operation products market during the period of 2021 to 2030. Frost & Sullivan is an independent global consulting firm, which was founded in 1961 in New York, offering industry research and market strategies and provides growth consulting and corporate training. We agreed to pay a commission fee of RMB600,000 to Frost & Sullivan pursuant to a service agreement reached by arm’s length negotiation. Except as otherwise noted, all the data and forecasts contained in this section are derived from the Frost & Sullivan Report.

In preparing for the report, Frost & Sullivan conducted both primary and secondary research and relied on various sources. The primary research was conducted via interviews with key industry experts and leading industry participants. The secondary research involved analysis of market data obtained from several publicly available data sources, such as International Monetary Fund, National Bureau of Statistics and other industrial associations. The market projections in the Frost & Sullivan Report are based on the following key assumptions: (i) China’s social, economic, and political environment are expected to remain stable during the forecast period; (ii) China’s economic and industrial development are likely to maintain a steady growth in the forecast period; (iii) related industry key drivers are likely to drive the growth of China’s e-commerce software market and China’s e-commerce secure operation products market in the forecast period; and (iv) there is no extreme force majeure or industry regulation in which the market may be affected dramatically or fundamentally.

Our Directors confirm that, to the best of their knowledge, after making reasonable inquiries and exercising reasonable care, there is no material adverse change in the market information since the date of the relevant data contained in the Frost & Sullivan Report which may qualify, contradict or have an impact on the information in this section.

OVERVIEW OF CHINA’S E-COMMERCE SOFTWARE MARKET

Definition and Classification of E-commerce Software

E-commerce software refers to software built on information technologies such as cloud computing, which provide e-commerce sellers with tools covering business operations, management and compliance functions.

INDUSTRY OVERVIEW

These software products drive the digital transformation of business management by automating key store operation workflows, improving operational visibility, and optimizing process efficiency. Leveraging standardized and modular software products, e-commerce software enable sellers to optimize technology infrastructure and streamline operations, ultimately contributing to enhanced cost efficiency and more scalable digital business models.

Based on software categories, e-commerce software can generally be categorized into the following types, including ERP software, CRM software, e-commerce secure operation products and others.

ERP software	CRM software	E-commerce Secure Operation Products	Others
ERP software refer to integrated management systems for e-commerce sellers, primarily used for managing core business processes such as order processing, inventory management, procurement, and financial coordination. They represent essential infrastructure tools for daily e-commerce operations.	CRM software focus on customer relationship management. By integrating multi-channel customer information, they support customer lifecycle management, marketing campaign management, and customer conversion analysis, thereby improving operational efficiency.	E-commerce secure operation products refer to e-commerce software centered on account security and operating environment management. Through functions including account security operations management, permission management, data secure controls, and automated and intelligent tools, these platforms assist e-commerce sellers in achieving secure and stable operations amid increasingly complex operating scenarios.	Other software include data analytics, compliance management, payment and settlement, tax filing, logistics management, and image processing.

Source: Frost & Sullivan

Market Size of China’s E-commerce Software Market

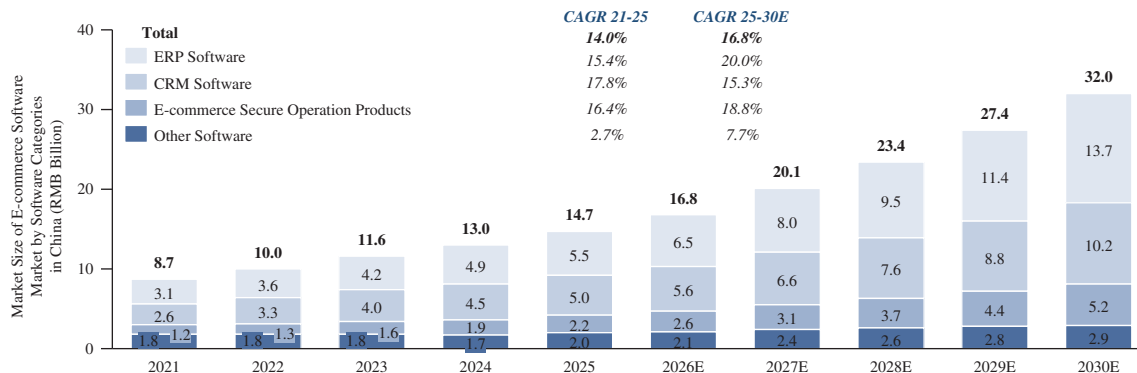
The market size of China’s e-commerce software market expanded from approximately RMB8.7 billion in 2021 to RMB14.7 billion in 2025, representing a CAGR of 14.0%. This growth is driven by the rise in e-commerce transaction volumes, the increasing complexity of multi-platform operations, stricter compliance and data security requirements, and ongoing digital investments by enterprises. As a result, demand for professional software from e-commerce sellers continues to grow.

Looking ahead, China’s e-commerce software market is projected to reach RMB32.0 billion by 2030, with a CAGR of 16.8% from 2025 to 2030. As software tools continue to penetrate seller operations, and with expanding adoption of security, data-driven solutions, and advancements in automation and intelligent capabilities, e-commerce software will play a critical role in supporting scalable, compliant, and efficient operations within China’s e-commerce ecosystem.

By software categories, ERP software accounted for the largest share of China’s e-commerce software market in 2025, representing approximately 37.4% of the total market size, followed by CRM software at approximately 34.0%. E-commerce secure operation products accounted for approximately 15.0% of the total market in 2025. Looking ahead, the market share of ERP software increases, while CRM software slightly declines, the e-commerce secure operation products segment is projected to maintain steady growth in market share, increasing to approximately 16.3% by 2030, reflecting the growing importance of compliance management, risk control and secure operations in the evolving e-commerce ecosystem.

INDUSTRY OVERVIEW

Market Size of China’s E-commerce Software Market in terms of Revenue (by Software Categories), 2021-2030E



Source: Frost & Sullivan

Market Drivers of China’s E-commerce Software Market

Supportive Policies Promote the High-quality Development of E-commerce and Digital Operations. China’s policy framework continues to support the development of e-commerce and digital operation. The *Fifteenth Five-Year Plan*, submitted by the State Council, emphasizes boosting consumption, developing digital trade, supporting cross-border e-commerce and overseas warehouses, and promoting broader AI applications. In addition, policies such as *the Opinions on Reform and Innovative Development of Digital Trade*, issued by the General Office of the CPC Central Committee and the General Office of the State Council, *the Opinions on Expanding Cross-border E-commerce Exports and Promoting Overseas Warehouse Development*, jointly issued by the Ministry of Commerce and eight other departments, encourage the development of e-commerce software, sellers and related ecosystem participants, and support the application of big data, cloud computing and AI in e-commerce operations. These policies help expand online consumption scenarios, improve transaction infrastructure, strengthen digital trade capabilities and promote more standardized platform governance. They also encourage sellers to improve operational efficiency, compliance management and data-driven decision-making through digital and intelligent tools. These policy initiatives are expected to drive sellers’ demand for e-commerce software that supports secure operations, workflow automation, AI applications, data analysis and operational efficiency.

Continuous Technological Innovation Drives Digital Operation Demand. Technological advancements in areas such as cloud computing, big data, AI, and machine learning continue to provide e-commerce sellers with a scalable and standardized infrastructure for order management, inventory control, customer relationship management, and data analytics. As application costs decline and the adoption of digital tools becomes more widespread, the demand for operational efficiency, process automation, and real-time visibility into operations grows, further fueling market expansion for e-commerce software.

Expansion of E-commerce Transactions and Increasing Operational Complexity. The rapid development of cross-border and domestic multi-platform e-commerce has significantly raised operational complexity for sellers, who now operate across various regions and platforms. The increasing need for multi-store and multi-role collaboration has become the norm, requiring a higher degree of sophistication in operational management. The complexity surrounding account management, access control, transaction stability, and data security are primary drivers of the growing demand for professional e-commerce software.

INDUSTRY OVERVIEW

Enhanced Compliance Requirements Promote Penetration of Security-focused Software. As e-commerce operations scale, sellers face heightened compliance requirements related to data security, privacy protection, and risk management. Increased regulatory scrutiny, such as the enforcement of the Data Security Law and the Personal Information Protection Law in China, compels e-commerce sellers to adopt more comprehensive software tools for secure operations, transaction stability, and data traceability. These developments underpin the continued adoption of security-focused software, such as e-commerce secure operation products, to ensure compliance with both domestic and international regulations.

Increased Awareness of Digital Enterprise Management. As e-commerce sellers expand and become more professionalized, traditional manual management is insufficient to meet requirements for operational efficiency, collaborative management, and controlled access. E-commerce software enable process standardization, hierarchical permission management, secure operations, and refined management, helping sellers reduce systemic risks and improve operational efficiency. In multi-platform, multi-team environments, reliance on professional digital tools continues to grow, providing long-term market growth potential.

Future Trends of China’s E-commerce Software Market

AI Accelerates Intelligent Upgrading of E-commerce Software. As large language models are increasingly applied in content creation, marketing optimisation, and operational decision support, e-commerce software are evolving from point-based applications toward more process-oriented intelligent software. AI adoption across scenarios such as product selection, cross-platform operations, customer service automation, and marketing execution is enhancing data-driven decision-making and store operation workflow coordination for sellers. With the continuous advancement of AI capabilities, software is expected to play a more proactive role in supporting end-to-end operational processes, enabling smarter task execution and more adaptive management. Looking ahead, AI-empowered softwares that provide closed-loop assistance and scenario-based implementation are anticipated to become a key differentiating factor in the e-commerce software market.

Collaborative Development of Integrated and Ecosystem based Software. As e-commerce operations span multiple processes, including product selection, supply chain coordination, content marketing, and logistics, software is gradually evolving from standalone applications to more integrated and ecosystem-based models. Growing interoperability across software categories enables sellers to connect key functions such as account governance, permission management, campaign execution, and operational analytics, supporting more coordinated and efficient store operation workflows. Software built on secure and scalable foundations with strong integration capabilities is expected to play an increasingly important role in facilitating cross-functional collaboration and holistic operational management.

Globalized Software with Localized Support. As cross-border sellers expand across regions and platforms, sellers must navigate multi-language, multi-timezone, and multi-node operations. This growth places greater emphasis on network stability, data integrity, and compliance with platform policies, driving the demand for e-commerce software that ensure stable, secure, and traceable store operation workflows. E-commerce software that support operation traceability, and systematic account management are expected to gain broader application scenarios, supporting sellers in achieving global business expansion.

INDUSTRY OVERVIEW

Competitive Landscape of China’s E-commerce Software Market

China’s e-commerce software market is relatively fragmented, with the top five e-commerce software providers accounting for approximately 25.6% of the market share in terms of e-commerce software revenue in 2025.

The Company ranked fourth among e-commerce software providers in China in terms of e-commerce software revenue, with a market share of approximately 4.5%.

Top Five E-commerce Software Providers in China by Revenue, 2025

Ranking	E-commerce Software Providers	Revenue of E-commerce Software (RMB million)	Market Share (%)
1	Company A	1,104.8	7.5%
2	Company B	807.7	5.5%
3	Company C	731.3	5.0%
4	The Company	663.3	4.5%
5	Company D	459.3	3.1%
	Top Five	3,766.4	25.6%
	Total	14,700.0	100.0%

Notes:

1. The Company’s data is provided by the Company.
2. Company A is an H-share listed company established in 2014 and headquartered in Shanghai, focusing on e-commerce software, including ERP software for online sellers.
3. Company B is an H-share listed company established in 2013 and headquartered in Shanghai, focusing on e-commerce software, including commerce and marketing software.
4. Company C is an H-share listed company established in 2012 and headquartered in Hangzhou, Zhejiang Province, focusing on e-commerce software, including seller service.
5. Company D is a private company established in 2011 and headquartered in Beijing, focusing on e-commerce software, including e-commerce ERP and retail software.

Source: Frost & Sullivan

Entry Barriers of China’s E-commerce Software Market

Industry expertise and application scenario accumulation barriers. China’s e-commerce software market serves sellers across a wide range of business models, operating scales and sales channels, resulting in diversified and highly scenario-specific customer demands. Software providers are generally required to possess a deep understanding of sellers’ operational needs, platform traffic mechanisms and e-commerce store operation workflows in order to develop targeted software and maintain service effectiveness. Such industry expertise and application scenario accumulation are typically established through long-term market practice and customer servicing experience, thereby constituting a material entry barrier for new entrants.

Data accumulation and refinement capability barriers. E-commerce software providers generally rely on the long-term accumulation of seller operation data, user behavior data and service experience to optimize product functionalities, enhance service precision and improve monetization efficiency. The ability to transform accumulated data resources into refined product modules and

INDUSTRY OVERVIEW

differentiated value-added services is critical to sustaining market competitiveness. New entrants typically face difficulties in establishing comparable data depth and refinement capabilities within a short period, thereby forming a notable barrier to entry.

Sales and customer acquisition capability barriers. Given the large number of sellers in China’s e-commerce market and the relatively fragmented customer base, e-commerce software providers are generally required to establish broad market coverage, effective sales channels and scalable customer acquisition capabilities. Providers with established sales networks and customer reach are typically better positioned to acquire sellers efficiently and expand their customer base on a sustainable basis. By contrast, new entrants often face relatively high customer acquisition costs and longer market development cycles, which create material barriers to entry.

Brand reputation and service delivery capability barriers. Sellers generally place emphasis on brand reputation, implementation quality and service responsiveness when selecting e-commerce software providers. Market participants with established brand recognition and standardized service delivery systems are typically better positioned to provide stable implementation, onboarding, training and after-sales support on a scalable basis. Such brand reputation and service delivery capability are usually cultivated over an extended period of operation, and therefore constitute notable barriers for new entrants.

Opportunities and Challenges of China’s E-commerce Software Market

Opportunities:

Sustained E-commerce Expansion Drives Demand for Software. China’s continuous e-commerce expansion provides a broad demand base for e-commerce software. Against the backdrop of deepening global digital trade and the growing trend of Chinese manufacturing going global, China’s e-commerce import, export, and domestic sales continue to grow rapidly. As sellers expand from single platforms to multi-platform, multi-account, and multi-region operations, account numbers, permission systems, and cross-end collaboration complexity increase significantly, accompanied by higher account security risks, access stability, operation traceability, and compliance requirements.

AI Penetration Accelerates, Driving Software Toward Intelligent Operational Assistants. AI and automation technologies are increasingly applied to content generation, image processing and operational decision support, driving e-commerce software to evolve from information management tools to intelligent collaboration and task assistance. Software products with structured scenario understanding, secure and controllable operational environments, and deep integration into sellers’ operation store operation workflows are expected to leverage AI to create new value and gradually evolve into intelligent operational assistants.

Challenges:

Product Homogeneity and Price Competition Risks. Some e-commerce software show a degree of functional similarity, particularly in tool-oriented or lightweight applications. New entrants may compete through pricing strategies, exerting pressure on overall industry profitability. Providers need continuous R&D investment, functional enhancement, and service quality improvement to build differentiated competitive advantages.

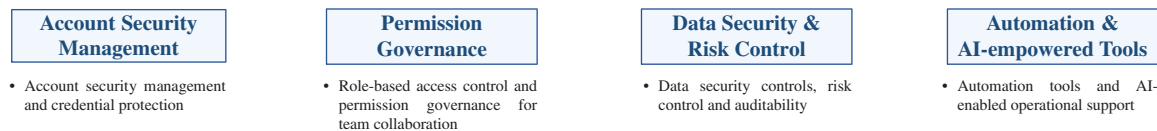
INDUSTRY OVERVIEW

Sensitivity to Platform Ecosystems and Policy Environment. Causing potential short-term demand fluctuations. Functional boundaries of e-commerce software are strongly influenced by platform risk-control policies, account compliance requirements, and data interface and permission policies. Changes in cross-border trade and regulatory environments can temporarily affect sellers’ operational pace and IT investment willingness, making part of the demand subject to cyclical variation.

OVERVIEW AND COMPETITIVE LANDSCAPE OF CHINA’S E-COMMERCE SECURE OPERATION PRODUCTS MARKET

Definition and Classification of China’s E-commerce Secure Operation Products

E-commerce secure operation products refer to secure operation services designed to support secure, efficient, and controllable operations for e-commerce sellers across increasingly complex, multi-platform environments. These products typically include modules such as account security management, permission governance, data security and risk control, as well as automation and AI-empowered tools, all aimed at enhancing operational stability, security, and risk mitigation.



Source: Frost & Sullivan

E-commerce secure operation products represents a functional sub-segment within the broader e-commerce software market, focusing specifically on secure account governance, permission control and risk management functionalities.

In e-commerce digital operations, e-commerce secure operation products typically provide account security management, permission governance, and data security and risk control as core functional modules, supplemented by automation and AI-empowered tools. As the scale of e-commerce continues to expand and multi-platform, multi-role collaboration becomes more prevalent, sellers increasingly require secure access governance, stable operating environments and traceable store operation workflows. In response, the industry is evolving toward more standardized and integrated products that support secure and orderly operations in complex scenarios.

Value Chain of China’s E-commerce Secure Operation Products

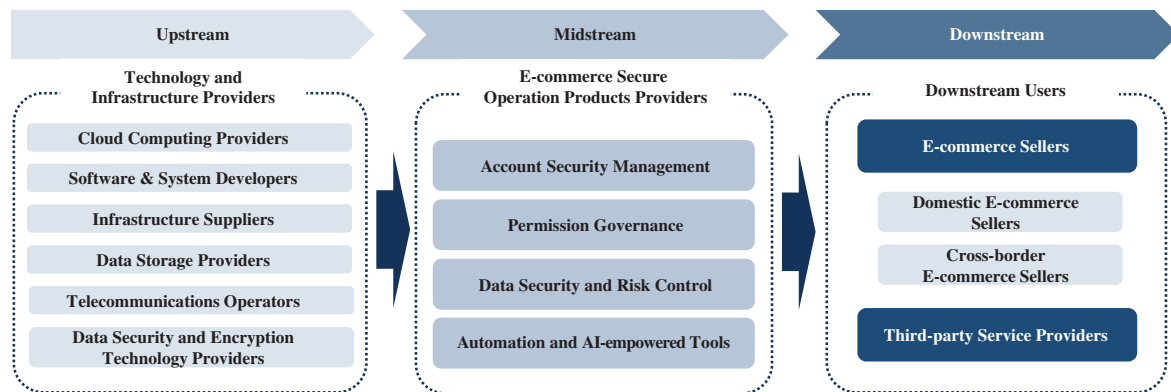
China’s e-commerce secure operation products value chain can be broadly divided into three segments: upstream technology and infrastructure providers, midstream products providers, and downstream e-commerce sellers and third-party service providers.

The upstream segment primarily comprises cloud computing providers, system developers, infrastructure suppliers, data storage providers, network solution providers, data security and encryption technology providers, AI technology providers, and telecommunications operators. These upstream participants provide foundational computing resources, network connectivity and security capabilities that support platform operations.

INDUSTRY OVERVIEW

The midstream segment comprises e-commerce secure operation products providers, which integrate modules such as account security management, permission governance, data security and risk control, and automation and AI-empowered tools into platform-based products. These products are designed to support secure and controllable operations in increasingly complex, multi-platform environments.

The downstream segment includes e-commerce sellers (both domestic and cross-border) and third-party service providers that support sellers’ store operations. These users adopt e-commerce secure operation products to strengthen account governance, access control and operational traceability, particularly under multi-platform and cross-regional operating requirements. As sellers’ reliance on digital tools increases, demand is expected to continue shifting toward more secure, stable and standardized operational products.



Source: Frost & Sullivan

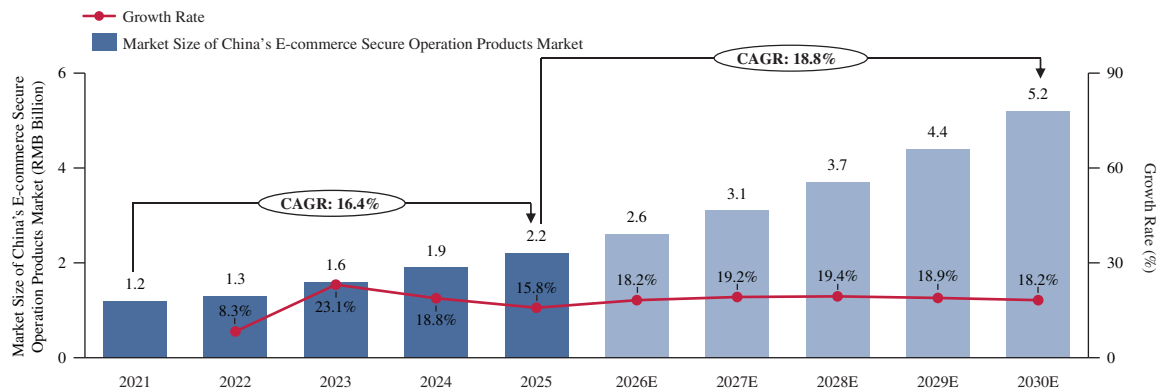
Market Size of China’s E-commerce Secure Operation Products Market

The e-commerce secure operation products market represents a specialized category under the e-commerce software market. The market size of China’s e-commerce secure operation products market expanded from approximately RMB1.2 billion in 2021 to approximately RMB2.2 billion in 2025, representing a CAGR of 16.4%. Along with the growth of multi-platform and multi-account operations, more stringent compliance and data security requirements, and rising demand for standardized team-based management, e-commerce sellers’ adoption of professional security and operation products has shown a continuous upward trend.

Looking ahead, China’s e-commerce secure operation products market is expected to reach approximately RMB5.2 billion by 2030, representing a CAGR of 18.8% from 2025 to 2030. With broader penetration of security-oriented tools across seller operations, rising adoption of account security, permission management and risk control, and continuous enhancement of automation and intelligent capabilities, e-commerce security and operations products are expected to play an increasingly key role in supporting compliant, stable and scalable operations.

INDUSTRY OVERVIEW

Market Size of China’s E-commerce Secure Operation Products Market in terms of Revenue, 2021-2030E



Source: Frost & Sullivan

Penetration Rate of China’s E-commerce Secure Operation Products

The penetration rate of China’s e-commerce secure operation products, calculated as paying users of e-commerce secure operation products divided by total users of e-commerce secure operation products in China, reached 18.0% in 2025 and is expected to increase to over 23.0% by 2030. This growth is driven by the expansion of multi-platform operations, increasing complexity in team-based management, and rising demand for centralized account governance and operational control tools. As seller operations continue to scale and become more collaborative, demand for unified account governance, permission coordination, and operational stability is expected to increase, supporting continued adoption.

Market Drivers of China’s E-commerce Secure Operation Products Market

Normalization of Complex Account Operations Drives Rigid Demand for Security Management. As e-commerce sellers increasingly operate across multiple platforms and regions, cross-platform account management has become routine, leading to higher requirements for account security and operational stability. Traditional basic tools are insufficient to manage complex device environments and multi-account operations, particularly under stricter platform policies and abnormal-login monitoring mechanisms. E-commerce secure operation products address these challenges by providing structured account governance, permission control, and operational monitoring, helping sellers mitigate account-related risks and enhance overall operational safety. This demand is especially prominent among cross-border sellers and large-scale multi-category operators, forming a core driver of market growth.

Rising Demand for Team Collaboration and Permission Management. As e-commerce enterprises expand and operational teams grow, multi-role and concurrent operations have become common. Higher requirements are therefore placed on hierarchical permission governance, operational traceability, and collaborative management. E-commerce secure operation products enable centralized control of multiple accounts and personnel through multi-level permission configuration and operation logging, effectively reducing internal management risks and improving collaboration efficiency. Demand from large export sellers continue to increase, supporting wider adoption of security tools.

INDUSTRY OVERVIEW

Enhanced Data Security and Compliance Requirements Reinforce Secure Operation Tool Demand. E-commerce operations involve critical data assets such as account information, transaction data, and payment information, with sellers facing higher data security and compliance risks in cross-platform operations. Simultaneously, regulatory requirements and platform rules are tightening, raising standards for account operation compliance, data retention, and risk control. E-commerce secure operation products assist sellers in reducing policy violations and data leakage risks and enhancing overall compliance through secure operations, encrypted storage, operation protection, and automated risk monitoring. As sellers’ reliance on compliance and security deepens, these platforms’ foundational role within the e-commerce software ecosystem strengthens, making them an important driver of market growth.

Future Trends of China’s E-commerce Secure Operation Products Market

AI Technology Evolves from Auxiliary Tools to Core Operational Engines. As AI and large-model technologies mature, applications in secure operation products are expanding from single-point functions to comprehensive operational engines covering content generation, data analysis, anomaly detection, and process automation. Through natural-language interaction and rule-based automation, platforms can support high-frequency tasks such as product content optimization, operational analytics, and risk alerting, reducing reliance on manual processes and improving efficiency. Vendors with accumulated industry data and scenario-based models are expected to further extend functional boundaries, promoting the upgrade of secure operation products toward intelligent operational support systems.

Integration with Platform Governance and Compliance Systems. As e-commerce software in China continue to strengthen data governance and transaction supervision, e-commerce secure operation products are increasingly integrating with platform compliance interfaces and standardized governance frameworks. By embedding functions such as operation log management, permission traceability, data access control, and audit support, these products help sellers align daily operations with evolving platform policies and regulatory expectations. Vendors with stronger compliance adaptation capabilities and faster rule update mechanisms are expected to enhance customer retention and support sustained adoption among medium and large sellers.

Convergence of Secure Operations with Data Analytics. China’s e-commerce secure operation products providers are increasingly integrating security management functions with advanced data analytics capabilities. By combining account monitoring, permission controls, and behavioral tracking with real-time data modeling and trend analysis, platforms can move from reactive risk response to proactive risk identification and operational optimization. The convergence of security and analytics enhances decision support, improves anomaly detection accuracy, and enables data-driven governance across complex multi-account and multi-store environments.

Market Concentration Driven by Trust and Brand Credibility. As competition among e-commerce secure operation products provider intensifies, market share is expected to increasingly concentrate among leading vendors with established brand reputation and proven service reliability. Sellers operating in multi-account and multi-platform environments place strong emphasis on platform stability, data security, and long-term service continuity, as these factors directly affect operational security and consumer trust in store performance. Vendors with recognized brand credibility, stronger product ecosystems, and transparent security standards are more likely to gain sustained adoption among professional sellers and large-scale seller groups. As sellers increasingly prioritize operational stability and brand protection, industry consolidation is expected to accelerate, with leading platforms strengthening their market position through reputation, compliance capabilities, and trusted service infrastructure.

INDUSTRY OVERVIEW

Competitive Landscape of China’s E-commerce Secure Operation Products Market

In 2025, China’s e-commerce secure operation products market was moderately concentrated, with the top five e-commerce secure operation products providers in China accounting for approximately 66.2% of the total market.

In 2025, the Company ranked the first in China’s e-commerce secure operation products market, with a market share of approximately 30.2% in terms of revenue generated from e-commerce secure operation products.

Top Five E-commerce Secure Operation Products Providers in China by Revenue, 2025

Ranking	E-commerce Secure Operation Products Providers	Revenue of E-commerce Secure Operation Products (RMB million)	Market Share (%)
1	The Company	663.3	30.2%
2	Company E	380.0	17.3%
3	Company F	196.7	8.9%
4	Company G	120.0	5.5%
5	Company H	95.2	4.3%
	Top Five	1,455.2	66.2%
	Total	2,200.0	100.0%

Notes:

- The Company’s data is provided by the Company.
- Company E is a private company established in 2014 and headquartered in Guangzhou, Guangdong Province, focusing on e-commerce secure operation products, including account security management and related operational support services.
- Company F is a private company established in 2025 and headquartered in Beijing, focusing on e-commerce secure operation products, including account security management, permission governance and related operational support services.
- Company G is a private company established in 2021 and headquartered in Shenzhen, focusing on e-commerce secure operation products, including account operation, multi-account security management and related operational support tools.
- Company H is a private company established in 2015 and headquartered in Hangzhou, Zhejiang Province, focusing on e-commerce secure operation products, including multi-account security management and related operational support services.

Source: Frost & Sullivan

Entry Barriers of China’s E-commerce Secure Operation Products Market

Technical architecture and system stability barriers. E-commerce secure operation products are required to operate under a unified and highly reliable technical architecture while simultaneously supporting account governance, access control, operational monitoring, and multi-platform compatibility. These requirements involve advanced capabilities in cloud security, high-concurrency processing, and system resilience, placing relatively high demands on technical accumulation and engineering expertise. New entrants typically need prolonged development cycles and large-scale testing to establish stable products capable of supporting complex seller operations, which constitutes a significant technical entry barrier.

INDUSTRY OVERVIEW

Customer trust and switching cost barriers. E-commerce secure operation products are deeply embedded in sellers’ daily store operation workflows and governance structures. Once integrated, sellers generally form long-term usage habits, and switching providers requires system reconfiguration, process adjustment, and internal retraining, resulting in relatively high switching costs. In addition, the critical nature of account security and compliance leads sellers to adopt cautious procurement strategies, further strengthening customer stickiness and creating notable barriers for new market entrants.

Platform adaptability and ecosystem collaboration barriers. E-commerce secure operation products must continuously adapt to evolving rules and interfaces across multiple e-commerce software, including changes in account policies, operational standards, and risk-control mechanisms. This process requires long-term accumulation of regulatory understanding, technical adaptability, and collaboration with upstream and downstream providers. New entrants often face difficulties in achieving stable and compliant operations within complex multi-platform and multi-regulatory environments in a short period, forming a structural ecosystem barrier.

Continuous R&D and operational investment barriers. As the complexity of sellers’ operational requirements continues to increase, higher standards are imposed on the functional completeness, system stability and service responsiveness of e-commerce secure operation products. Secure operation products providers are required to maintain sustained investment in research and development, testing, system operation and maintenance, as well as customer support, to ensure continuous product performance and service quality. Such ongoing investment requirements raise capital and team capability thresholds for new entrants.

Data security and compliance capability barriers. During actual operations, e-commerce secure operation products handle large volumes of sensitive data, including account credentials and operational records, which imposes high requirements on downstream sellers for data security and compliance management. Secure operation products providers are required to establish systematic capabilities in access control, operation traceability and risk management, and to form stable and long-term security governance mechanisms. This, in turn, places elevated requirements on enterprise-level security system construction, internal control management and sustained investment, constituting a significant barrier to market entry.

Opportunities and Challenges of China’s E-commerce Secure Operation Products Market

Opportunities:

Shift Toward Team-Based Collaboration Drives Secure Operation Products Demand. As the e-commerce industry gradually evolves toward scaling, and organizational management, sellers’ operational models are shifting from individual-based operations to team-based collaboration. This transition increases demand for unified, secure, and controllable operational environments. E-commerce secure operation products are increasingly integrated into sellers’ daily store operation workflows through standardized service models and subscription-based delivery, providing scalable solutions for multi-account and multi-role management. Against the backdrop of the growing number of e-commerce sellers and the maturation of upstream and downstream technological ecosystems, adoption of such solutions is expected to expand among medium- to large-sized sellers and professional operators, forming a relatively stable source of recurring demand.

INDUSTRY OVERVIEW

Increasing Demand for Operational Efficiency Tools. As competition among e-commerce sellers intensifies, greater emphasis is placed on improving operational efficiency and reducing manual workload. Standardized tools for account governance, automated task execution, and unified operational oversight are increasingly adopted to support refined daily operations. The growing complexity of multi-platform management and higher requirements for compliance and risk control are expected to further support the penetration of e-commerce secure operation products.

Challenges:

High Requirements for System Stability and Service Reliability Pose Challenges. In practice, e-commerce secure operation products handle sellers’ core accounts and operational data, requiring high standards of system stability, security, and service reliability. Sellers typically adopt cautious decision-making processes when selecting or switching providers. Meanwhile, frequent changes in e-commerce rules and compliance requirements require secure operation products providers to maintain continuous technical adaptation and functionality updates, resulting in ongoing R&D and operational pressures. As basic functionalities become increasingly standardized, providers are required to rely on sustained technological investment and service capabilities to remain competitive.

Regulatory Uncertainty and Continuous Technology Investment Requirements. Frequent updates to platform policies and regulatory standards require secure operation products providers to continuously upgrade technology and maintain system compatibility, leading to rising development and operational costs. Such requirements increase the threshold for sustainable growth and may exert pressure on profitability, particularly for smaller or newly established providers.

Labour Cost of China’s E-commerce Secure Operation Products

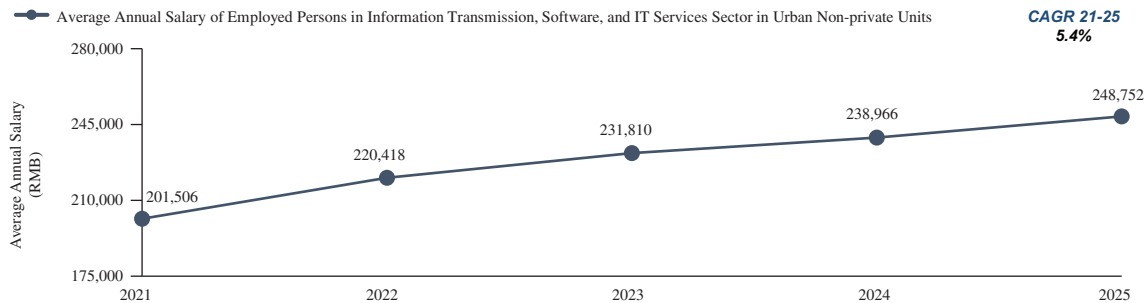
The main cost drivers in China’s e-commerce secure operation products market are personnel investment and software system development and maintenance. As a service model based on technological capability and product stability, products require sustained resource input for functional development, system maintenance, and continuous optimization. From 2021 to 2025, wages for employees in the information transmission, software, and IT services sector continued to rise, with average salaries for IT personnel in urban non-private units steadily increasing.

With the steady expansion of China’s digital economy and the continued development of the software and information technology services industry, the average annual salary of employed persons in the information transmission, software, and IT services sector in urban non-private units has shown an overall upward trend. The average annual salary in the sector increased from RMB201,506 in 2021 to RMB248,752 in 2025, representing a CAGR of 5.4%.

Overall, the sustained increase in labour costs within the information transmission, software, and IT services sector has continued to elevate personnel-related expenditure pressures for e-commerce secure operation products providers, further reinforcing the importance of efficiency-enhancing technologies and scalable digital products within the broader software market.

INDUSTRY OVERVIEW

Average Annual Salary of Employed Persons in Information Transmission, Software, and IT Services Sector in Urban Non-private Units (China), 2021-2025



Source: Frost & Sullivan

E-COMMERCE AI APPLICATION PRODUCTS IN CHINA

Definition of E-commerce AI Application Products

AI application products refer to products and platforms that apply AI technologies to business scenarios and operating workflows to improve efficiency, execution and decision-making. The potential for AI software is immense because it fundamentally redefines enterprise productivity — allowing businesses to scale operations and extract actionable insights from vast amounts of data. In China, the AI application products market has experienced rapid growth, driven by the continuous advancement of AI technologies, increasing enterprise digitalisation and growing demand for AI application products. The market size of China’s AI application products market increased from RMB32.5 billion in 2021 to RMB81.7 billion in 2025, representing a CAGR of 25.9%, and is expected to further reach RMB340.6 billion in 2030, representing a CAGR of 33.0% from 2025 to 2030.

E-commerce AI application products refer to e-commerce software that integrate artificial intelligence technologies into core operational systems. By embedding AI capabilities into key functions such as secure operation, customer engagement, inventory management and data analytics, it enables intelligent decision-making, real-time optimization and end-to-end automation, thereby enhancing operational efficiency, scalability and competitive agility for e-commerce sellers.

AI applications in e-commerce software are primarily concentrated in the following areas:

Data Intelligence	Flexible Ecosystem Integration	Advanced Process Automation	Real Time Risk Control
E-commerce AI application products process transactional, behavioral and operational data across online platforms. Through intelligent modeling, they generate insights into market trends, product opportunities, competing traffic sources, store operation seller workflows and operational performance, supporting product selection, listing optimization, sales strategy refinement and data-driven decision-making.	AI empowers flexibility and scalability through rapid upgrades, modular deployment and cross-system connectivity. It supports integration with analytics tools, payment systems, logistics providers, overseas warehouses, and third-party tools, helping sellers coordinate multi-platform, multi-account, multi-storefront and team-based operations.	AI elevates automation across product selection, supplier evaluation, product content libraries, image and video generation, content creation, product listing, budget allocation and supply chain coordination. Intelligent systems, standardized store operation workflows and agent-enabled task execution reduce manual intervention, improve execution efficiency and support end-to-end operations across the e-commerce lifecycle.	E-commerce AI application products monitor transaction flows, account activities, access permissions and operational behaviors to detect anomalies and compliance risks. Secure isolated execution environments, tiered permission governance, operation traceability and reusable business context accumulation strengthen account security, organizational management, operational stability and business resilience.

Source: Frost & Sullivan

INDUSTRY OVERVIEW

E-commerce AI application products are increasingly adopted across key store operation workflows, as sellers seek more intelligent and automated products to manage increasingly complex e-commerce operations. Compared with generic AI tools, e-commerce AI application products are designed to better address e-commerce store operation workflows, platform requirements and operating contexts. As e-commerce operations involve multiple interconnected stages, sellers increasingly require AI products that can support multiple key store operation workflows under an integrated framework, accumulate relevant operational data and context over time, and operate within actual store operation workflows to deliver measurable efficiency improvements.

Market Drivers of E-commerce AI Application Products Market

Rising Demand for Operational Efficiency and Digital Transformation. Intensifying competition in China’s e-commerce industry is driving sellers to adopt AI application products to improve efficiency, reduce costs and enhance competitiveness. As sellers manage increasingly complex store operation workflows, AI application products can support task automation and decision-making across key stages of store operations. This growing demand for intelligent and automated products is expected to accelerate the adoption of AI application products in e-commerce operations.

Increasing Demand for E-commerce AI application Products. As AI technologies become increasingly integrated into daily e-commerce operations, sellers increasingly require AI products that understand e-commerce store operation workflows, platform requirements and operating contexts. Compared with generic AI tools, e-commerce AI application products can better address key touchpoints across the operational lifecycle and deliver measurable improvements in business efficiency. Such demand is expected to drive the development of AI application products tailored to core e-commerce store operation workflows.

Technological Breakthroughs in AI and Large Model Capabilities. Advances in AI technologies and large model capabilities are improving the intelligence, automation and personalization of AI products in e-commerce scenarios. These technologies enable AI application products to analyze operational data, generate digital assets, support listing management and provide actionable outputs for sellers. As AI models continue to improve, AI products are expected to become more deeply embedded into core e-commerce store operation workflows.

Future Trends of E-commerce AI Application Products Market

Development of AI Ecosystems Through Centralized Application Marketplaces. As AI application products become increasingly embedded into e-commerce operations, AI products are expected to evolve toward more integrated AI ecosystems. Centralized application marketplaces may enable third-party developers to integrate specialized tools into unified platforms, helping sellers access broader AI capabilities through a comprehensive, all-in-one AI hub for e-commerce operations. This development is expected to support more scalable AI adoption across key e-commerce store operation workflows.

Structural Shift Toward AI-native Architecture. As e-commerce sellers operate across multi-platform ecosystems and process growing volumes of operational data, demand is rising for AI products that can support multiple workflows under an integrated framework. Compared with generic AI tools or fragmented tools, integrated AI product architecture can better accumulate industry knowledge, operating context and user feedback over time. This trend is expected to support the development of a more comprehensive matrix of AI products for e-commerce sellers.