Cross-Border E-Commerce Entry Strategies for Henan Pharmaceutical Enterprises in Southeast Asia

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Abstract: Henan pharmaceutical enterprises can use cross-border e-commerce to reach Southeast Asian consumers, but digital distribution depends on product eligibility and local licensing. This paper combines transaction cost reasoning and incremental internationalisation with a comparative analysis of six markets. It separates two decisions: who controls the product registration and which digital channels support sales. Distributor-held registration can reduce initial commitment but can increase switching costs; registration controlled through an eligible local entity can protect country-specific investment at greater organisational cost. Marketplaces, independent websites and social commerce offer different combinations of reach, customer information and dependence. An exploratory market attractiveness index identifies differences in digital scale, spending capacity and ageing, without estimating pharmaceutical demand. Five propositions connect regulatory requirements, specific investment, market learning, platform dependence and digital capabilities to entry choices. Resource-constrained enterprises should begin with permitted products and limited trials; enterprises with established demand can add owned channels and stronger registration control. Entry sequencing is conditional on product classification, partner rights and firm resources. The propositions require testing with enterprise data.

Keywords: cross-border e-commerce; pharmaceutical enterprises; entry mode; regulatory embeddedness; Henan; Southeast Asia

I. Introduction

Henan's cross-border e-commerce transactions reached RMB 266.55 billion in 2024 according to a provincial measure that includes express parcels. This infrastructure can support international sales, but experience in customs clearance and parcel distribution does not establish a right to retail pharmaceutical products overseas. Manufacturers must determine whether a product can enter a destination market, which entity may supply it, and how consumers may be reached. These decisions are especially consequential when registration documents and customer relationships are controlled by different intermediaries.

Southeast Asia offers substantial variation within a geographically connected region.

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Indonesia has a large e-commerce market, whereas Singapore combines a small population with high internet penetration and health expenditure. Thailand has a relatively older population, while Malaysia combines broad internet access with a larger consumer base than Singapore. Vietnam and the Philippines add scale but differ in digital reach and spending capacity. Regional totals therefore provide little guidance on which product, partner and country should receive a firm's first investment.

The central problem is that digital reach and lawful market access are governed differently. Platforms can supply traffic, payments and fulfilment, while registration and operating permissions remain attached to particular products and eligible entities. A manufacturer may retain a brand yet depend on a distributor to maintain its registration. Conversely, controlling a local entity does not guarantee economical customer acquisition. Treating every platform store, website or distributor as a separate, mutually exclusive entry mode conceals these relationships.

This paper asks how registration governance and digital channels interact, which firm and market conditions influence their combination, and how Henan pharmaceutical enterprises can increase commitment without creating avoidable dependence. Its contribution is a two-layer account of entry. The first layer allocates control over the registrations and permissions required for a product. The second selects marketplaces, independent websites and social commerce to generate and serve demand. A distributor can participate in either layer, so governance arrangements and sales channels must be examined together.

The analysis is comparative and theory-guided. It uses published documents and secondary indicators rather than enterprise surveys or transaction-level estimates. It develops conditional propositions and practical configurations, not evidence that one configuration has already improved Henan exporters' performance. This distinction matters because a market that appears attractive in aggregate may remain unsuitable for a particular formulation, promotional claim or distribution arrangement.

II. Registration Governance and Digital Internationalisation

Transaction cost economics explains why firms choose different degrees of control over activities exposed to opportunism. Country-specific investment is difficult to redeploy when its value depends on an ongoing relationship. Under uncertainty, contracts cannot anticipate every contingency, and a partner controlling a necessary asset may gain bargaining power after investment has been made. Pharmaceutical registration makes this mechanism concrete: dossiers, certification procedures and local labels can lose value when a firm changes products, partners or markets.

Distributor-held registration can be efficient when a manufacturer lacks local experience or cannot justify a dedicated entity. The distributor contributes regulatory knowledge and an existing network while spreading fixed costs across its business. Dependence becomes more consequential when the manufacturer funds product adaptation and promotion but cannot readily transfer registration or access the underlying documentation. The relevant cost includes the difficulty of replacing the partner, as well as the distributor's margin. Registration control should therefore be evaluated before substantial market-specific expenditure.

Greater control also has costs. A controlled subsidiary or authorised representative requires supervision, financing and a legally permissible

role. It may leave distribution, customer acquisition and local professional services to other parties. Transaction cost reasoning does not imply that every exporter should internalise registration. It predicts that stronger control becomes more valuable as investment specificity and partner-switching exposure increase, subject to the firm's resources and the arrangements allowed in the destination market.

Hennart argues that intermediaries weaken the assumed correspondence between the embeddedness required in a foreign market and the entrant's own organisational presence. An exporter can obtain local knowledge or services without owning every activity. For regulated products, this reasoning has a boundary: an intermediary can perform the required local role only if it is eligible to do so. This paper calls that requirement regulatory embeddedness. It concerns the recognised party within the distribution chain, rather than necessarily requiring the foreign manufacturer itself to establish a subsidiary.

Regulatory embeddedness also varies by category. A health supplement exempt from premarket approval presents a different governance problem from a medicine requiring registration and licensed dispensing. The absence of one approval requirement does not remove obligations concerning safety, labelling or claims. Product-country eligibility must therefore precede channel selection. A storefront that works for one permitted category cannot simply be reused for a differently regulated formulation.

The revised Uppsala model connects internationalisation to learning, commitment and participation in business networks. A firm's outsider position limits access to useful relationships and information. Licensed distributors and service providers can reduce that disadvantage. Digital channels can contribute additional information about searches, complaints and repeat purchases. These signals help firms decide whether to increase commitment, although they cannot reveal every regulatory or professional requirement and should not be treated as substitutes for local competence.

Digital capabilities can alter the cost of learning and operating channels. Elia et al., studying 102 Italian firms, associate digital export participation with technological resources and capabilities, including dedicated e-commerce management. This supports examining capabilities separately from firm size. It does not establish that a digitally capable Henan enterprise can bypass licensing or profitably operate an independent website. Those are further, conditional questions about the product, market and cost structure.

Platform participation introduces another dependence. The platform controls important elements of visibility, access and seller conduct, creating an asymmetry that an individual merchant cannot resolve through sales growth alone. A pharmaceutical exporter may consequently depend on both a registration-holding distributor and a platform. Diversifying customer acquisition addresses only part of this exposure if the distributor continues to control lawful access to the market.

III. Research Design and Market Screening

The study covers Indonesia, Malaysia, Thailand, Vietnam, the Philippines and Singapore. It combines a document review (cut-off 21 October 2026) with published e-commerce and development indicators. The comparison focuses on resource commitment, registration control, channel dependence and learning. It does not estimate a causal relationship between entry mode

and export performance. Regulatory illustrations are concentrated on Singapore and Malaysia, where the selected primary sources demonstrate important differences between product eligibility and online selling arrangements.

An exploratory market attractiveness index combines four indicators: estimated 2025 e-commerce gross merchandise value, 2024 internet-user share, 2023 current health expenditure per capita and 2025 population share aged 65 or over. E-commerce estimates come from Google, Temasek and Bain & Company, with the remaining indicators drawn from the World Bank. The country e-commerce figures are annualised estimates based on first-half 2025 data. They should not be presented as final observed pharmaceutical sales.

Health expenditure is transformed using the natural logarithm before normalisation because Singapore's per capita value is approximately thirty times Indonesia's. Each indicator is then rescaled between zero and one using its minimum and maximum across the six countries. The index is the arithmetic mean of the four rescaled values. Equal weighting makes the calculation transparent but does not imply that the indicators contribute equally to an individual firm's sales potential.

The indicators represent digital channel scale, potential online reach, general spending capacity and demographic conditions associated with health needs. They do not measure demand for a specific medicine, reimbursement coverage, registration cost or the price consumers will accept for an imported product. The mixed years and reliance on general e-commerce data further limit interpretation. The index is a relative screen within this six-country comparison, rather than an investment return forecast or a universal ranking of pharmaceutical opportunities.

Regulatory assessment asks whether a product needs registration, listing or notification; which entity may hold the relevant permission; and whether the intended sales and promotion channels are allowed. These questions constrain the economic screen. To keep product differences visible, the discussion does not treat a single country-level barrier label as a sufficient basis for entry. It uses the review to derive conditional configurations and identifies where further product-level checking is required.

IV. Differences between the Six Markets

The index places Singapore at 0.676, Thailand at 0.606 and Malaysia at 0.441, above the six-country mean of approximately 0.412. Indonesia scores 0.339, Vietnam 0.323 and the Philippines 0.089. These are the study's calculations from the selected indicators, not scores supplied by the statistical sources. Their interpretation follows from differences in market scale and purchasing conditions, not from a direct comparison of pharmaceutical e-commerce revenues.

Indonesia's estimated e-commerce gross merchandise value is 71 billion US dollars, compared with 33 billion in Thailand, 25 billion in Vietnam, 24 billion in the Philippines, 20 billion in Malaysia and 9 billion in Singapore. Indonesia's scale does not place it first in the composite index because its per capita health expenditure and other normalised indicators are lower. Singapore shows the reverse pattern: its small market is offset by high digital access, health spending and population ageing. Neither pattern alone establishes the most suitable destination for an exporter.

Thailand's population share aged 65 or over is 16.02%, compared with 14.21% in Singapore. Malaysia's internet-user share is 98.02%, against 67.26% in the Philippines in the selected dataset.

These conditions suggest different potential customer groups and channel reach. They cannot be translated directly into sales volumes. The Philippine internet figure also differs substantially from the previous year's value, making source definitions and data revisions a relevant limitation when interpreting its low composite score.

Regulatory differences can change which of these markets is practical for a product. Singapore's Health Sciences Authority states that health supplements do not require premarket approval, while suppliers remain responsible for product safety and applicable requirements. The exemption does not authorise medicinal claims or imply that all health products share the same pathway. A supplement trial may therefore generate useful market information without answering whether the firm's medicine portfolio can enter through the same arrangement.

Malaysia's guideline for online sales of non-poison pharmaceutical products illustrates a different set of conditions. It links eligible online sales to local companies and specified website arrangements, and it restricts selling through social-media channels. Product eligibility, seller eligibility and channel eligibility thus require separate checks. An independent website offers commercial control only within the operating arrangement recognised by the destination market.

The index identifies Singapore, Thailand and Malaysia as priorities for product-level assessment. Malaysia's digital reach must be considered alongside its product and seller requirements. Vietnam and Indonesia may be attractive where an enterprise has suitable partners, sufficient registration resources and a competitively priced product. The Philippines warrants investigation rather than automatic exclusion: its low index score is sensitive to the selected data and cannot establish that every product opportunity is weak.

The index cannot determine an optimal entry order. Existing registrations, established partners and category-specific demand may outweigh a country's aggregate score. A learning sequence should increase commitment only when the firm has relevant evidence and adequate compliance capacity. Entering a second country should follow evidence that the first configuration can be repeated economically and lawfully, rather than being driven by a regional growth target alone.

V. Combining Registration Governance with Digital Channels

The marketplace mode reduces the need to build payment, fulfilment and traffic systems before demand is known. It can support limited trials of products permitted on the destination platform. The manufacturer can observe searches, reviews and repeat purchases while restricting the initial assortment and advertising commitment. These benefits are strongest when the firm can maintain valid product information, respond to complaints and reconcile platform orders with inventory records.

The same arrangement limits control over the customer relationship. Visibility depends on platform rules and paid promotion, and access to customer information may be incomplete. An account suspension or a change in category rules can interrupt sales even when a manufacturer has invested in local adaptation. The platform-dependence argument of Cutolo and Kenney therefore supports evaluating concentration alongside sales growth. A successful store can remain vulnerable if most customer acquisition depends on one account.

An independent website offers more direct

control over brand presentation, pricing and customer information. It becomes more plausible when the firm has repeat demand, staff able to maintain the site and a lawful local operating arrangement where required. Its costs include attracting visitors, processing payments, handling complaints and maintaining product information. Ownership of the website does not imply control of registration, nor does it guarantee economical traffic. Building a website before the customer base develops can substitute fixed costs for useful market learning.

The agent or distributor arrangement provides local knowledge and established relationships. It may be the practical starting point for a firm without regulatory personnel or destination-market experience. Its effect on control depends on the contract and the registration arrangement. A distributor that provides logistics and retail access creates a different dependence from one that also controls the product dossier and registration. The comparison should distinguish these functions rather than infer control from the label 'distributor'.

Before committing substantial resources, the manufacturer should establish which party can access registration records, fund renewals and support a permitted transfer or replacement. Contracts should address documentation access, responsibilities and termination consequences within local law. Where a controlled entity is legally eligible, it may hold registration while an independent partner distributes the product. This configuration separates the value of the partner's network from the manufacturer's need to protect country-specific investment. It is justified only when its additional costs are proportionate to the exposure reduced.

Social commerce supplies content-based discovery and communication. It can explain permitted uses, answer general product questions and direct consumers to an authorised sales route where such activity is allowed. It also concentrates risk in promotional claims, influencer conduct and platform policy. A firm must assess both what may be said and where a transaction may occur. Social-media engagement is not evidence of permission to retail a medicine, and moving the checkout to another channel does not resolve an impermissible promotional claim.

These modes are therefore complementary in some configurations and incompatible in others. A registered local distributor may operate a marketplace store and supply an independent website. A manufacturer may use social content to support products sold by a licensed partner, subject to applicable promotion rules. The appropriate comparison is the combined cost and control of the arrangement, including the registration holder, rather than a ranking of four isolated labels.

Product characteristics further limit transferability. Experience in business-to-business exports of active pharmaceutical ingredients does not establish the capabilities required for retailing finished products to consumers. The latter involves product-specific permissions, local labels, customer service and channel rules. Likewise, a successful supplement trial cannot validate the entry pathway for prescription medicines or differently classified traditional products. Learning must be interpreted at the level of the product-country combination.

VI. Five Propositions about Entry Choice

The first proposition is that stronger registration and licensed-selling requirements increase the likelihood that digital channels operate through an eligible local entity. This entity may be a controlled representative or an independent

partner. Where a product faces lighter premarket requirements, more operating arrangements may be feasible, but the exporter must still meet safety, labelling and sales conditions. The proposition concerns feasible governance rather than a claim that online channels remove regulation.

The second proposition is that greater country-specific investment increases the value of controlling registration through a legally eligible arrangement. Registration preparation, certification and local adaptation increase the cost of interrupted access or partner replacement. Transaction cost reasoning predicts greater willingness to bear the expense of control as this exposure grows. Actual choice remains conditional on the manufacturer's resources and local restrictions on the role it can perform.

The third proposition is that firms with limited market knowledge initially prefer lower-commitment channel trials and increase commitment as relevant knowledge accumulates. A narrow assortment, controlled advertising expenditure and qualified partners can generate information before a firm funds additional infrastructure. Repeat purchases, complaints and fulfilment outcomes provide evidence for the next decision. This extends incremental internationalisation to digital channels without assuming that platform data fully replace knowledge gained through local relationships.

The fourth proposition is that concentration on one platform increases the incentive to develop additional channels once a repeat customer base makes them economically credible. Diversification can reduce exposure to changes in traffic allocation or account access. It does not necessarily require abandoning the platform. Nor does it eliminate dependence on a registration-holding distributor; commercial channel diversity and regulatory control are separate dimensions of resilience.

The fifth proposition is that digital capabilities can weaken the relationship between firm size and the commitment associated with channel choice in categories with manageable regulatory requirements. A capable smaller enterprise may maintain content, customer information and an owned website earlier than a less capable firm of similar size. Elia et al. provide evidence concerning digital-export participation, not this proposed moderation of entry-mode commitment. The proposition remains an inference requiring direct testing and cannot be extended to a claim that capabilities substitute for local permissions.

VII. Enterprise Configurations and Implementation

Resource-constrained pharmaceutical enterprises should prioritise learning from a small number of permitted products. They can use a marketplace to test demand while obtaining qualified local assistance for classification and any required permissions. The budget should cover product adaptation, service and complaint handling as well as advertising. A low initial commitment can be misleading if the distributor or platform controls essential assets that the manufacturer will later need to recover.

The trial should establish whether repeat purchases and service outcomes justify further investment. High traffic or an isolated sales peak gives limited evidence of durable demand. Negative reviews, returns and delisting records can reveal problems with claims, expectations or product information. Firms should retain enough records to distinguish a channel problem from a product problem before expanding the assortment or entering another country. Product trials must begin

only after eligibility has been established.

Medium-to-large enterprises can combine platform stores with owned websites where repeat demand supports customer-acquisition costs. Their priorities are retaining usable customer information, developing dedicated digital management and assessing control over registration assets. A controlled representative may be appropriate when country-specific investment is substantial and the arrangement is legally available. Warehousing and additional stock should follow demonstrated demand and appropriate storage arrangements, rather than serve as early symbols of market commitment.

The largest enterprises can support more demanding registration programmes and sustained relationships with licensed pharmacies or institutional buyers. Their advantage lies in the ability to maintain several functions together, including regulatory management, quality systems and channel supervision. They should decide which registrations require direct control and which activities remain more efficiently supplied by partners. Enterprise size provides capacity to bear commitment; it does not by itself establish that every product or country warrants that commitment.

Implementation begins with a country-by-product record covering classification, the required pathway, registration holder, renewal obligations and permitted channels. Commercial staff need access to this information before commissioning local labels or promotional content. Responsibility for updating it should be assigned to staff or qualified advisers, with regulatory changes assessed before listings are renewed or new claims published. This converts compliance from a late listing check into an input to product and channel planning.

Order, inventory and fulfilment records should connect each sale to batch numbers and expiry dates. The exporter should be able to investigate a complaint, identify affected stock and coordinate action with its partner. Customer information and operational records have different functions: a growing follower count cannot compensate for missing product traceability. Where logistics are outsourced, the manufacturer still needs an agreed process for obtaining the records relevant to its obligations.

Government and industry support can reduce shared information costs. Henan's existing cross-border e-commerce services provide a base for training, regulatory information and access to qualified registration assistance. Shared logistics may be useful where demand supports them, but expenditure on distribution capacity should be linked to destination-market eligibility. Public services should help firms understand product-country requirements and partner responsibilities rather than imply that domestic export infrastructure guarantees permission to sell overseas.

VIII. Conclusions and Limitations

Pharmaceutical entry through cross-border e-commerce combines a governance decision with a channel decision. Registration determines which party controls lawful product access where registration is required; digital channels determine how demand is reached and served. Marketplaces can reduce initial operating costs, distributors can provide local networks, and owned websites can strengthen customer relationships. Each configuration creates different costs and dependencies. Protecting registration assets while learning from limited, permitted sales provides a coherent basis for increasing commitment.

The analysis remains exploratory. The market index uses equal weights, mixed-year observations

and general e-commerce indicators. Its ranking is sensitive to construction choices and does not estimate product-level demand or profitability. The selected regulatory illustrations cannot establish a uniform legal pathway across six countries. No enterprise interviews or transaction data test the five propositions, and the recommended configurations should not be read as measured performance effects. Future research should examine registration ownership, partner switching, channel concentration and repeat demand within product-country combinations. For current decisions, firms must reassess product eligibility, contractual rights and channel economics before committing additional capital.

References

[1] Henan Provincial Bureau of Statistics. Henan's e-commerce continued to improve in 2024[R/OL]. 2025-02-18. https://tjj.henan.gov.cn/2025/02-18/3124860.html.

[2] Google, Temasek, Bain & Company. e-Conomy SEA 2025: from digital decade to AI reality: accelerating the future in ASEAN[R/OL]. 2025-08-18. https://services.google.com/fh/files/misc/e_conomy_sea_2025_report_combined.pdf.

[3] World Bank. World development indicators[EB/OL]. [2026-10-21]. https://databank.worldbank.org/source/world-development-indicators.

[4] Williamson O E. The economic institutions of capitalism: firms, markets, relational contracting[M]. Washington: Free Press, 1985.

[5] Hennart J-F. How much is new in Brouthers et al.'s new foreign entry modes, and do they challenge the transaction cost theory of entry mode choice?[J/OL]. Journal of International Business Studies, 2022, 53(9): 2116-2132. DOI:10.1057/s41267-022-00523-9.

[6] Johanson J, Vahlne J-E. The Uppsala internationalization process model revisited: from liability of foreignness to liability of outsidership[J/OL]. Journal of International Business Studies, 2009, 40(9): 1411-1431. DOI:10.1057/jibs.2009.24.

[7] Elia S, Giuffrida M, Mariani M M, et al. Resources and digital export: a RBV perspective on the role of digital technologies and capabilities in cross-border e-commerce[J/OL]. Journal of Business Research, 2021, 132: 158-169. DOI:10.1016/j.jbusres.2021.04.010.

[8] Cutolo D, Kenney M. Platform-dependent entrepreneurs: power asymmetries, risks, and strategies in the platform economy[J/OL]. Academy of Management Perspectives, 2021, 35(4): 584-605. DOI:10.5465/amp.2019.0103.

[9] Health Sciences Authority. Health supplements: overview[EB/OL]. (2026-10-30)[2026-11-01]. https://www.hsa.gov.sg/health-supplements/overview.

[10] Bahagian Penguatkuasaan Farmasi. Garis panduan penjualan produk farmaseutikal bukan racun secara dalam talian [EB/OL]. (2020-12-24)[2026-11-01]. https://pharmacy.moh.gov.my/sites/default/files/document-upload/garis-panduan-penjualan-produk-farmaseutikal-bukan-racun-secara-dalam-talian.pdf.

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