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COMPARISON OF VALUE CHAIN APPLICATION BETWEEN CHINESE AND BELARUSIAN ENTERPRISES - COORDINATED DEVELOPMENT PERSPECTIVE BASED ON «ONE BELT & ONE ROAD» INITIATIVE

Аннотация: *в статье содержатся результаты анализа различий в профилях китайских и белорусских предприятий по методике управления цепочками стоимости М. Портера и исследуется потенциал синергетики от их взаимодополняющего взаимодействия в рамках реализации возможностей, предоставляемых инициативой «Один пояс и один путь» и Китайско-Белорусским индустриальным парком «Великий камень».*

Summary: *based on the cooperation between «One Belt & One Road» Initiative and the China-Belarus Industrial Park, the article compares and analyzes the differentiated practices and synergistic potential of Chinese and Belarusian enterprises in value chain management based on the Michael Porter value chain theoretical framework.*

Ключевые слова: *управление цепочками стоимости, Китайско-Белорусский индустриальный парк, цифровые двойники, «Один пояс и один путь», совместные инновации.*

Key words: *value chain management, China-Belarus Industrial Park, digital twins, «One Belt & One Road», collaborative innovation.*

1. Introduction

Relying on «One Belt & One Road» Initiative and the China-Belarus Industrial Park, China and Belarus have formed a complementary model of «Chinese technology + Belarusian channel». Belarus, as a member of the Eurasian Economic Union, combines its logistics hub status with China's manufacturing advantages to promote the restructuring of the bilateral value chain. Combining with Porter's value chain theory, it makes it possible to reveal the differentiation path of two countries' enterprises through case analysis, and to put forward the strategy of collaborative upgrading [1]. If one uses Michael Porter's chain value, in particular mixed method including comparative case studies, enterprise interviews and policy analysis it is possible to update four key dimensions of differentiation: technology embeddedness, market responsiveness, risk response and talent development. The findings show that Chinese companies prioritize digital innovation and market adaptation, while Belarusian companies emphasize regional policy consistency and supply chain resilience. «One Belt & One Road» Initiative (BRI) and the China-Belarus Industrial Park (CBIP) have catalyzed a unique «technology-channel symbiosis» between Chinese and Belarusian enterprises. As Belarus consolidates its role as a Eurasian logistics hub under the Eurasian Economic Union (EAEU), and China advances its digital Silk Road agenda, this partnership exemplifies North-South industrial collaboration under multipolar globalization.

2. Theoretical framework of value chain

1). Internal value chain:

Chinese enterprises take Starbucks as an example, through the direct management mode to control quality, optimize inventory management (such as economic order volume method), to form a brand moat [5]. Exemplified by tech giants like Huawei and JD Logistics, Chinese firms deploy «vertically integrated digital ecosystems». For instance, JD's AI-powered warehouse robots reduce order processing time by 40 percent through real-time

inventory tracking – a practice rooted in Porter's «firm infrastructure» and «technology development» primary activities.

Belarusian enterprises such as Minsk Automobile Plant (MAZ) focus on supply chain localization to reduce risks and strengthen production stability with government support. State-backed manufacturers like MAZ prioritize «horizontal integration within EAEU networks». MAZ's localization of 73 percent Tier-2 suppliers within Belarus-Russia-Kazakhstan corridors exemplifies Porter's «procurement» and «inbound logistics» optimization under geopolitical constraints.

2). External value chain:

Chinese e-commerce platforms, such as AliExpress, use digital technology to integrate cross-border service chains and respond quickly to market demand in Eastern Europe.

Belarusian logistics companies, such as UTLC ERA, have improved the efficiency of cross-border transport (5-7 days transit time) by integrating the resources of the China-Europe freight train (740 routes) [3], [6].

3. Apply differential analysis

1). Technology embedment depth

China: AI and big data drive full chain optimization (e.g., JD Logistics intelligent sorting system reduces delivery cycle by 30 percent).

Belarus: focus on infrastructure upgrading, such as introduction of 5G base stations in the China-Belarus industrial park to enhance the level of warehouse automation.

2). Market response mode

China: adopts the «asset-light going to sea» strategy (such as SHEIN flexible supply chain), quickly adjusts the product line to adapt to market demand changes [2].

Belarus: relies on policy-oriented cooperation (e.g., Belarus Potash Group locks in export shares to China through government agreements).

3). Risk control mechanism

China: uses digital financial instruments, such as Ant Chain cross-border settlement platform, to hedge the risk of exchange rate fluctuations.

Belarus: establishes regional supply chain backup system through the Eurasian Economic Union framework to enhance anti-risk capabilities.

4. Collaborative upgrade path

1). Digital value chain integration

Build a digital twin system for the China-Belarus Industrial Park (refer to Huawei's Smart Park plan) to realize real-time communication of production data.

2). Logistics chain toughness enhancement

Jointly develop an intelligent scheduling system for the «Belarus-Russia section» of China-Europe trains (with access to BeiDou navigation data) to improve transit efficiency by 15 percent.

3). Joint training of talents

Set up a double degree program in value chain management between China and Belarus to train technology transfer specialists and compliance officers (relying on the resources of Confucius Institute of Baida).

Conclusion

The value chain of Chinese and Belarusian enterprises presents the complementarity of «technical depth» and «geographical breadth». In the future, the China-Belarus Industrial Park should be used as a pilot to build an integrated platform of «mutual recognition of technical standards + logistics data sharing» to provide a paradigm reference for China-Eurasian Economic Union cooperation.

For Policymakers: to develop BRI-EAEU «regulatory sandboxes» for emerging technologies.

For Managers: to balance digital depth (China's AI/blockchain) with regional breadth (Belarus's EAEU integration).

For Scholars: to re-examine Porter's national diamond model through the lens of transnational innovation clusters.

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