

# Marketing Research on China's "Go Global" Railway Strategy

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**Abstract:** Based on the macroeconomic trend of "Go Global," this paper explores the motives and trends in the promotion of China's railway development. Combining the requirements of global railway construction and the factors restricting its marketing choice, this paper utilizes a quantitative analysis of the market scale and segmentation of China's "Go Global" railway strategy, and selects the key areas and projects related to railway marketing demand.

**Keywords:** China's "Go Global" railway strategy; railway marketing demand; marketing choice

## 1 Introduction

China's "Go Global" railway strategy is China's new measure to actively adapt to new global economic circumstances and an important measure taken in response to the Belt and Road Initiative. It is in compliance with the demand of new impetus for economic development across the world since the world financial crisis. Since the financial crisis, the world economic and political environments have undergone profound changes; multi-polarization, and economic integration are deepening with the emergence of the de-globalization trend. Cultural diversity and social informatization are developing, while global pattern and international order are adjusting at a faster pace. At the same time, the world economy is undergoing restructuring, and faces the risk of low growth; low inflation and low demand are intertwined with high unemployment, high debt, and a bubble economy. The trend and policy of major economies continue to be divided, and uncertainties in economic environment are acute. Geopolitical factors become more and more prominent, and local unrests arise, one after another [1]. The development gap between the developed and developing countries are still huge, but the center of world economy is shifting toward the emerging economies. China's global position and international governance

capability is on the increase, but still facing pressures of structural adjustment and transformation. With the popularization of the Belt and Road Initiative, more international railway cooperation is observed, and infrastructure construction has become the common pathway for all the countries to cope with the financial crisis and improve long-term competitiveness. Against the complex and ever-changing international background, railway construction demand is vigorous, presenting golden opportunities for China's "Go Global" railway strategy. However, markets with effective demand should be identified.

## 2 Analysis on current status and development motive of railways around the world

According to the 2015 statistics of UIC, shown in Table 1, the total operation mileage of railways in the world is  $1.173 \times 10^6$  km. Out of this,  $3.5 \times 10^5$  km is in Europe, whose network intensity and quality is much higher than that of other regions. However, the railway distribution is uneven with a large part of the network located in countries in the western, northern, and south-western part of Europe, while the eastern part is relatively backward in terms of railway development. The railway mileage of Asia is  $3.15 \times 10^5$  km with poor quality and connectivity. Railway

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network in northeastern Asia and China is more developed, with lower railway density in Southeast and Central Asia. Railway mileage of North America is  $3.01 \times 10^5$  km, mainly concentrated in the US and northern Canada. The  $2.26 \times 10^5$  km long rail network in the US comprises mainly freight lines, and no genuine high-speed rail is in place. Railway mileage of Latin America is about  $8.9 \times 10^4$  km, mainly in Brazil, Argentina and Mexico. It features few railways, low network density, and uneven distribution. Railway mileage of Africa is merely  $7.05 \times 10^4$  km, concentrated in southern region, with low network density and backward equipment. Railway mileage of Oceania is the smallest, with only  $4.8 \times 10^4$  km, mainly located in Australia.

Reviewing railway development history, technical innovation is always the key for railway transport development. The Third Technical Revolution and development of high-speed technology and heavy-load technology have injected new vitality into railway transport. Economic development is an impetus for railway construction, while the mutual relation between railway construction and economic development provides inexhaustible drive for railway construction. Sustainable development concepts of low-carbon and environment protection offer lucrative opportunities for railway revitalization. The marginal social cost of railway transport is much lower than that of road and air transport. Railways play a key role in medium and long distance passenger & freight transport, and are crucial for coordinated development of transport system; thus, their mass construction should be promoted. Under the new circumstances, there are strong desires for railway construction in developing countries while railways in developed countries need to be upgraded; these are important reasons behind railway transport development in the new century. Currently, the scale and quality of railways in the world cannot satisfy economic development needs, and backward railway construction even hinders economic development in some areas. Given the background of regional integration and low-carbon economy, railway enjoys comparative advantages in terms of capacity, cost and low-carbon concepts, and it plays an important driving role for economic growth. Moderate growth is observed in railway network construction across the globe. In particular, high-growth momentum is maintained in China; this has a demonstration effect.

**Table 1.** Railway scale in different continents.

Region	Total mileage ( $\times 10^4$ km)	Network density ( $\text{km}/\times 10^4 \text{ km}^2$ )	Proportion (%)
Asia	31.5	71.6	26.85
Europe	34.95	349.5	29.80
Africa	7.05	23.5	6.01
North America	30.1	125.4	25.66
Latin America	8.9	49.4	7.59
Oceania	4.8	53.3	4.09
Total	117.3	—	100

### 3 Study on global railway construction demand

Global economic integration increases the demand for building regional railway network interconnectivity. Railway plays an important role in intensifying regional economic, political, social and cultural links, as well as for national security. The trend for regional railway integration is gaining momentum. The European Union proposes Pan-European transport network policy, while the Union of South American Nations puts forward 70 projects to improve regional railway interconnectivity. In the North American Free Trade Area, the three countries of US, Canada, and Mexico have achieved interconnectivity, while Africa has proposed the *Africa Infrastructure Development Plan 2012–2040*. For Asia, *Pan-Asia Railway Corridor*, *Eurasia Land Bridge Plan*, and *Plan for Bangladesh-China-India-Myanmar Railway Corridor* have been proposed. In particular, China has prepared Belt & Road Railway Network Plan, in combination with its interconnectivity demand.

Regional economic development stage determines the characteristics of railway market demand. In recent years, most countries have formulated its railway construction plan based on its own development needs which reflects its economic development level. For example, the US and the developed countries in Europe have planned massive high-speed rail networks, while Africa and South America focus on railway backbone construction and interconnectivity. In Africa, the demand is mainly in the southeastern part, while for South America, the demand is mainly in Brazil and Argentina whose economy and politics are more developed, and there's also a need for construction of Bi-Oceanic Railway Corridor connecting Chile and Peru. Railway market in Asia is diversified and is witnessing a boom in demand for high-speed rail and interconnectivity projects. High-speed rail projects are mainly in India and western Asia, while China proactively advocates international railway corridor connecting Southeast Asia, South Asia, and Central Asia.

According to public government reports of the nations around the world, as well as the data from China Academy of Railway Sciences, the total planned mileage of nearly 60 countries with railway plans in the world stands at  $1.3 \times 10^5$  km. As planning depth and years are different amongst different countries and some railway plans lack detailed construction mileage and investment data, it is predicted that in the following 20–25 years (by 2040), the potential for railway construction demand is  $1.2 \times 10^5$ – $1.5 \times 10^5$  km all over the world (excluding China), including  $1.5 \times 10^4$ – $3 \times 10^4$  km high-speed rails. The total investment is about USD 600 billion to USD 1 trillion. The details are as shown in Table 2.

From the perspective of regional distribution, 52% of the potential railway demand is in Asia, followed by Europe, Latin America, and Africa. Oceania and North America follow further behind. Seen in terms of railway types, demand for high-speed rail construction is only 13% of the total demand; Europe

accounts for 38% of the total demand for high-speed rail construction, while Asia follows with 25%.

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### 4.1 Effective demand analysis on global railway construction

Although there is a booming demand for railway construction across the world, the real need is less than the potential demand

highlighted above; this is because of constraints relating to construction model, economic development level, construction capital, and other factors. In general, the real needs conform to the economic conditions of various countries, basically reflecting the relationship between regional economic level and railway construction needs, as shown in Table 3.

From the viewpoint of execution conditions, the railway market can be divided into three types. The first type comprises countries or regions with independent execution capability, such as Europe and Northeast Asia. The second one has countries or

**Table 2.** Planned railway mileage and investment across the world (excluding China).

Region	Planned mileage (km)		Estimated investment (USD 100 million)	
	Railway	High-speed rail	Railway	High-speed rail
Southeast Asia	4 862	680	689	97
South Asia	23 194	500	129	3
Northeast Asia	3 570	1 033	103	30
Central Asia	18 761	—	19	—
West Asia	16 183	2 000	1 174	150
Africa	16 363	3 090	615	116
Europe	21 894	6 370	1 433	417
North America	2 863	1 232	988	425
Latin America	16 679	—	529	—
Oceania	3 448	1 748	814	413
Total	127 817	16 653	6 493	1 651

The data come from the research reports on market demand of China's "Go Global" railway strategy.

**Table 3.** Relationship between regional economic level and railway construction needs.

Region	Economic level	Railway network condition	Construction market focus
Southeast Asia	Developing countries	Low network density, low technical standard, poor connectivity, backward in general	Promote interconnectivity with general railway as the backbone to strengthen regional economic integration
South Asia	Developing countries	South Asia railway network, with India as its core, enjoys relatively high density, but technical standard is low	Improve service quality of existing railways, and develop high-speed rail at appropriate time
Northeast Asia	Less developed countries	Network is relatively complete with high-speed rail in service	Proactively develop high-speed rail
Central Asia	Developing countries	Railways are built long ago with high density and low technical standard. The railway network was partitioned after countries became independent	Renovate old and abandoned railways, and improve railway service quality
West Asia	Less developed countries	Network is relatively complete, but regional network integration is yet to be completed; high-speed rail is in its infancy	Improve interconnectivity and develop high-speed rail
Africa	Developing countries	Low network density, low technical standard, poor connectivity, backward in general, with only Egypt and South Africa enjoying sound railway development	Build backbone network in African countries with general speed railway as the focus, improve interconnectivity
Europe	Developed countries	Network is complete, birthplace of high-speed rail	Develop high-speed rail on a priority basis
North America	Developed countries	Network is complete but mainly freight lines, no high-speed rail built	Develop high-speed rail on a priority basis
Latin America	Developing countries	Poor network quality and poor interconnectivity	Upgrade existing railway, start construction of Bi-Oceanic Railway Corridor
Oceania	Less developed countries	Network is relatively complete with high-speed rail at an initial stage	Develop high-speed rail on a priority basis

regions, such as North America, Oceania, South Asia, and West Asia, which require technical support from the international community for building high-speed rail. The third type of market consists of countries or regions, such as Africa, Southeast Asia, Central Asia, and Latin America, which require various types of assistance from the international community. The relationship between regional execution capacity and railway construction needs are as shown in Table 4.

From the perspective of economic development level and execution conditions, Europe, Northeast Asia, West Asia, and Australia have sufficient capital and strong technical capacity for railway construction. However, government support is lacking and project argumentation in the early stage is complicated, so it takes a lot of time from planning to execution. Africa, Southeast Asia, South Asia, Central Asia, and Latin America have strong incentive to build railway, but lack capital, technical and management capacity; thus, support from the international community is needed. As infrastructure has poor profitability, it is difficult to promote project if there is no attractive payback model. According to the analytic hierarchy process from economic and execution perspectives, and taking into account national situations, transport development conditions, economic circum-

stances, construction capacity, and demand imperatives of various countries, the effective demand in the following 10–15 years (by 2030) is  $5 \times 10^4$ – $6 \times 10^4$  km on a global basis, and additional  $3 \times 10^4$ – $5 \times 10^4$  km demand will come up by 2040 (excluding China). The regions with large railway construction demand are Southeast Asia, South Asia, and Latin America, while there is a demand for existing line upgradation in Central Asia. Demand for high-speed rail is mainly in Europe and Northeast Asia, followed by some demand in the US and Australia.

## 4.2 Market choice of China's "Go Global" railway strategy

### 4.2.1 Selection principle of target market

Analyzing effective demand of railway construction cannot determine the target market for China's "Go Global" railway strategy, so the following principles should be followed. First, the host country should have urgent need for railway construction, and the execution of the project should stimulate the economic development of the country. Second, it should be in line with international production capacity cooperation strategy, and the execution of the project should promote the Belt and Road Initiative, improve the interconnectivity transport infrastructure

**Table 4.** Relationship between regional execution capacity and railway construction needs.

Region	Execution capacity				Class	Execution judgment
	Capital	Technology	Management	Government support		
Southeast Asia	Lacking	Lacking	Relatively weak	Relatively strong	III	Requiring multiple support from international community to ensure execution
South Asia	Lacking	Lacking	Relatively strong, lacking high-speed rail management experience	Relatively strong	II	Apart from Indian high-speed rail requiring technical support, all planned projects in south Asia need multiple types of assistance from international community
Northeast Asia	Sufficient	Strong	Strong	Relatively weak	I	Basically with independent execution capacity, the focus is on whether the project is economically feasible
Central Asia	Lacking	Lacking	Relatively weak	Relatively strong	III	Requiring multiple support from international community to have the possibility of execution
West Asia	Sufficient	Relatively strong	Relatively weak	Relatively weak	II	Requiring high-speed rail technical support from international community
Africa	Lacking	Lacking	Relatively weak	Relatively strong	III	Requiring multiple support from international community to ensure execution
Europe	Sufficient	Strong	Strong	Weak	I	Basically with independent execution capacity, the focus is on whether the project is economically feasible
North America	Sufficient	Relatively strong, lacking high-speed rail construction technology	Relatively strong, lacking high-speed rail management experience	Weak	II	Requiring high-speed rail technical support from international community, the focus is on whether the project is economically feasible
Latin America	Lacking	Lacking	Relatively weak	Relatively strong	III	Requiring multiple support from international community to ensure execution
Oceania	Sufficient	Relatively strong, lacking high-speed rail construction technology	Relatively strong, lacking high-speed rail management experience	Relatively weak	II	Requiring high-speed rail technical support from international community, the focus is on whether the project is economically feasible

and tighten China's geopolitical ties. It should realize diversified supply of energy resources and enhance China's overseas interests, as well as global influence. It should facilitate China's high-speed rail technical exports and the expansion of the high-speed rail market. Last, the two parties should have appropriate technology and economic conditions to cooperate, and the host country should have construction needs, such as those for capital and technology, which it cannot satisfy on its own. So, foreign party's involvement and cooperation from the other party is required, and China can provide assistance in construction capacity based on political will. The two governments or enterprises should reach an agreement or sign a contract, so the prospect of the project is clear and can be implemented in the short term.

#### 4.2.2 Selection of target market

Based on the above principles, the analysis is on the basis of the importance attached to the three aspects of interconnectivity with China: promoting capacity export; safeguarding China's overseas interest; and development of the high-end railway market. For the effective demand in the market, China's "Go Global" railway strategy should set its surrounding countries as the "main axis;" Africa, Middle East, and Central & Eastern Europe as the "west wing," and Latin America as the "east wing" to facilitate international industrial capacity cooperation, expand China's development space, and promote win-win for all the countries.

(1) To realize interconnectivity with neighboring countries based on the Belt and Road Initiative from a strategic perspective

Geopolitical ties with neighboring countries and China's global influence can be enhanced by China's "Go Global" railway strategy. The target market is mainly construction of missing sections in international corridors and upgrading of certain existing sections to improve efficient multi-modal connection of international railways. Southeast Asia, South Asia, and Central Asia are selected as the key regions of China's "Go Global" railway strategy, with Laos, Thailand, Myanmar, Pakistan, India and the five Central Asian countries as the foci. The major projects are the China-Laos Railway, China-Thailand Railway, China-Myanmar Railway, Djakarta-Bandung Railway, Singapore-Malaysia High-Speed Rail, Moscow-Kazan High-Speed Rail, China-Pakistan Railway, and China-Kyrgyzstan-Uzbekistan Railway. It is estimated that by 2020, the market related to the Belt and Road and interconnectivity will have a scale of 8 492 km amounting to USD 154.5 billion in value with 17 key projects. The reconstruction railway lines will be 3 657 km in length, amounting to USD 11.3 billion in value over 4 key projects. It is predicted that by 2030 the new lines will be 5 699 km in length amounting to USD 119.5 billion in value over 8 key projects.

(2) To proactively promote international industrial capacity cooperation and railway market in key areas and countries with an overseas interest

Countries with intensive trade links, precious strategic re-

sources, and close political relationship with China should be given priority to in order to promote international railway cooperation, realize diversified supply of energy resources and expand international market. The African and Latin American markets should be closely followed, with the focus on Naivasha-Maraba Railway in Kenya, 10th of Ramadan Suburban Railway in Egypt, reconstruction of Tanzania-Zambia Railway, Morocco High-Speed Rail, Nigeria Coastal Railway, Brazil-Peru Bi-Oceanic Railway, and Argentina-Chile Bi-Oceanic Tunnel project. It is predicted that by 2020, the new lines in Africa and Latin America will be 15 500 km in length amounting to USD 144.2 billion in value with in 13 key projects. The reconstruction railway lines will be 3 348 km in length, amounting to USD 3.3 billion in value spread over 2 key projects. It is predicted that by 2030, the new lines will be 5 978 km in length, amounting to USD 59.5 billion in value in 7 key projects.

(3) To strengthen research and development of high-speed railway technology products and actively expand in high-end markets, such as Europe and the US.

At present, the US, the UK, and other developed countries are actively promoting the construction of high-speed railways. Although it takes a long period for these countries to complete planning, finalize alternative selection, and resolve legal procedures, their sustainability and external environment stability are good. Chinese enterprises should actively carry out research and development of high-end products, enhance product customization, personalization and adaptability, and pay attention to the energy-saving and environmental protection characteristics of equipment products and the construction process in order to gradually meet the requirements of high-end markets in Europe and the US. These actions will not only give full play to the spare capacity in relevant industries of China railway construction and enhance China's ability in the global allocation of resources, but also force enterprises to enhance their core competitiveness and improve the quality and efficiency of the supply system. Close attention should be paid to the railway markets of the US, UK, and central and eastern European countries, such as Hungary and Serbia, and focus on the development of the Hungary-Serbia railway, the Rail Baltic, the High-Speed Rail of UK, the High-Speed Rail of Sweden, the California High-Speed Rail of the US and other high-speed rail projects. It is estimated that the railway market scale of construction in Europe and the US will be 1 919 km by 2020, with a total investment of USD 96.2 billion and 6 key construction projects. The scale of construction will reach 1 736 km by 2030, with a total investment of USD 50.2 billion and 3 key construction projects.

The target railway market of "Go Global" strategy across the world includes 46 329 km with a total investment of USD 638.7 billion and 60 key construction projects. Geographically, there are 17 848 km in the interconnecting railway market; 24 826 km in the African and Latin American railway markets and 3 655 km in the European and American railway markets.

There are 29 interconnecting projects, 22 projects located in Africa and Latin America, and 9 projects located in Europe and the US. With respect to project types, there are both new railways and upgradation projects, including those focusing on the renewal of transport equipment. The market size of high-speed railways is 8573 km, accounting for only 19% of the entire railway market, while railway reconstructions and general speed railways account for 15% and 66%, respectively, of the railway market. The high-speed railway is the hard power of China railway, but we cannot just focus on the high-speed railway market in the foreign markets. The summary of target markets of China's "Go Global" railway strategy is shown in Table 5.

### 4.3 Market segment research

In the competitive landscape of international railway segment market, the Chinese enterprises that are going global are characterized by strong industrial capacity & weak industrial linkage, as well as strong internal strength & weak external performance. Thus, they still lag foreign companies in enterprise internationalization level, the ability to integrate the resources of the entire industry chain, project management level, financing capacity, and the number of comprehensive talents and length of experience. We should distinguish among the design consulting, engineering construction, equipment manufacturing, and operations management market segments, and implement different tactics according to the classification and innovative cooperation models.

#### 4.3.1 Design consulting market

The great demand for railway in the world creates a huge potential for the international railway design consulting market, which is mainly concentrated in Asia and Europe. In the competitive landscape, many powerful European and American design firms with a long development history have long occupied the frontline of the railway design consulting market. Among the Engineering New-Record (ENR) Top 225 International Contractors, Chinese companies have less than 10% market share in Asia; less than 4% market share in Europe; and a relatively high market share of 12% in Africa. However, the African market only accounts for 6.8% of the international revenue distributions of the Top 225 Contractors, which means that Chinese

engineering and design firms are rarely seen in the regions with high profits in the international market. At present, the ability to develop engineering, procurement, and construction (EPC) business has become an important condition for enterprises to undertake project consulting business. Chinese railway design consulting firms have strong professional scale & technical capability and rich human resources, but they lack financing and general contracting capacity, and have poor capability to participate in the whole process. The location choice strategy for design consulting enterprises going global is to consolidate and develop the markets in Asia and Africa, expand the markets in the Middle East, develop markets in Latin America, and track and access the markets in developed countries, such as those in Europe and North America. In terms of access strategy, Chinese firms should make full use of the late-mover advantage and go global by making use of partner's resources or through close cooperation with each other.

#### 4.3.2 Engineering construction market

The market areas of Chinese contractors are mainly poverty-stricken and developing areas such as Asia, Africa, Middle East, and Latin America. They have become the influential group in the international contracting market, second only to the European contractors, but they still have a certain gap with the European and American contractors in international business development, and their rankings in the ENR Top 250 International Contractors are generally low. In terms of market competition, Chinese contractors lag behind European contractors and occupy the second largest market share in the Asian market and have the largest overall construction scale; the European market has always been the home of European contractors, but the market size is shrinking; in the Middle East market, Chinese contractors ranked second to the European contractors; the African markets are the main market for Chinese contractors, with European contractors ranking second; the Canadian market is dominated by US contractors; the US, Latin American, and Caribbean markets have long been serviced by the European contractors [2]. In 2016, 65 Chinese enterprises were listed in the ENR Top 250 International Contractors, and China Communications Construction Co., Ltd. made its debut in the top three with an overseas turnover of USD 19.265 billion, ranking first in the field of trans-

**Table 5.** Summary of target markets of China's "Go Global" railway strategy.

Target market	New railways in 2020		New railways in 2030		Railway reconstructions in 2020	
	Mileage (km)	Investment (USD 100 million)	Mileage (km)	Investment (USD 100 million)	Mileage (km)	Investment (USD 100 million)
the Belt and Road and interconnection	8 492 (4 282)	1 545 (938)	5 699 (1 000)	1 195 (350)	3 657	113
Africa and Latin America	15 500 (902)	1 442 (128)	5 978	595	3 348	33
Europe and the US	1 919 (839)	962 (859)	1 736 (1 550)	502 (482)	—	—

The data in the brackets are those of high-speed railways.

portation construction. Among the top 10 international contractors, most contractors have an internationalization rate of over 70%, but China Communications Construction Co., Ltd. has an internationalization rate of less than 30%. The main income of Chinese contractors comes from China, and their overall internationalization rate is low. Compared with the domestic market, they are still in a weak position in the overseas market and their internationalization level still needs to be enhanced. The “Go Global” strategy of the Chinese engineering construction enterprises should give precedence to design consulting, making engineering construction as the basis, as well as integrate resources and complementary advantages for engineering construction projects.

#### 4.3.3 Equipment manufacturing market

In recent years, the global railway transportation equipment market has shown a strong growth trend. The global market capacity was EUR 131 billion in 2010 and EUR 162 billion in 2014. It is estimated that the market capacity will exceed EUR 190 billion by 2018, with a compounded annual growth rate of 3.4%. The main players—Bombardier in Canada, Alstom in France, Siemens in Germany and GE & GM in America—account for about 75% of the global market, and are the top five suppliers in the world railway equipment market. The company with the highest market share of 20% is Bombardier of Canada; it is followed by Alstom of France, which has about 17% share; Siemens of Germany and other companies followed. China’s market share is about 10% and there is huge market potential. China’s equipment manufacturing industry imports technologies, digests them, and conducts reverse engineering. Particularly in electric multiple unit (EMU) production, it has the advantage of low cost, strong production capacity, and advanced technology. The sales volume of CRRC Co., Ltd. is the highest in the world and it has huge future growth potential. Due to the fragmentation, small batch size, and other characteristics of equipment manufacturing, the equipment can be exported to developed markets, such as Europe and the US. The traditional markets of Canada, France, Germany, and Japan are still difficult to access. The after-sales service of equipment manufacturing service occupies a certain percentage in the equipment manufacturing market. The new locomotive products and the after-sales service account for roughly 50% of the market. The export of China’s railway equipment should combine both globalized and localized operations and promote the coordinated development of various industries.

#### 4.3.4 Operations management market

The railway operation management models in the world mainly include the model with integrated railway network & operations and regional competition represented by the US and Japan, the model with separated network and operations represented by various European countries and the franchise

model represented by Latin American countries, such as Brazil and Peru, in addition to Ghana and other African countries. At present, China’s railway operators lack the desire and incentive to go global independently. In order to participate in overseas operations, they must: closely integrate the industrial layouts of design consulting, engineering construction, and equipment manufacturing and the requirements of the host country, based on engineering construction and equipment export service; promote the export of the industrial chain and the overall revenue; and go global by making use of partner’s resources or bundled sales. As mature markets in developed countries impose strict controls on foreign operators and the market shares of the three industries of Chinese enterprises are low, the main target markets for operations management are developing markets, such as Asia and Africa, especially relying on the railway projects in which Chinese enterprises have invested or participated in construction or the interconnecting projects of the Belt and Road Initiative. We should focus on relevant projects in which the host country lacks operational management technology and experience and our participation in operations management is conducive to the follow-up transportation performance of the railway project, recovery of investment funds, and railway market development.

## 5 Conclusions

China’s “Go Global” railway strategy is influenced by various environmental factors, such as government policy, market, finance, technology, law and culture, as well as many intricate and uncertain factors. The market environment is complex and variable, and there are many uncontrollable factors. The opportunities for project implementation change at every moment, and there are many variables and uncertainties in market demands and project implementation. In the project planning and preparation phase, some projects are difficult to launch due to the business model chosen, politics, social environment, and other factors. In the project implementation stage, the project is impacted by technology, politics, society, environment, management, and other factors. Chinese enterprises must enhance market segmentation, conduct demand analysis, consider calmly, understand clearly, identify effective markets, take purposeful actions, as well as think and act from the standpoint of the host country in order to actually translate effective demands into project construction and lay the foundation for market development of China’s “Go Global” railway strategy.

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