

Development Strategy of China's Railway Operations to "Go Global"

Gao Feng, Liu Dong, Li Wenjie, Zheng Naiming, Ma Siyuan

Beijing Railway Administration, Beijing 100860, China

Abstract: To thoroughly analyze the issues surrounding China's railway enterprises, such as the separation between construction and operation, the lack of initiative to "Go Global," and the insufficient experience in cross-cultural management, this paper presents development strategies that transform existing ideas and mechanisms. The suggested strategies will help integrate China's railway international railway management system, including procedures and rules, maintenance management, safety management, competence management, and performance evaluation, as well as transform the role of China's railway enterprises from an operator to a consultant. It will strengthen cross-cultural management reserves, in addition to improving the mechanism of talent cultivation and retention.

Keywords: China's railway; operation; management system; cross-culture

1 Introduction

Looking back in time at the achievements of China's railway operations to "Go Global," from the Tanzania–Zambia Railway in the 1970s to the Mecca light rail in Saudi Arabia in the 21st century, the Chinese railway enterprises, represented by China's railway, have been making great efforts to explore overseas railway operation methods and actively expand to international markets. Through these efforts, China's railway operations are no longer characterized by low-skilled labor and low value-addition outsourcing, but are moving forward toward systemized management and high-quality equipment provision, thereby demonstrating to the world its comprehensive strength in providing world-class services. With the progress of China's railway "Go Global" strategy, China's railway standards and services are moving towards the international railway market and gradually gaining wide recognition. This is of great significance to the participation of Chinese railway enterprises in the international market.

2 The significance of China's railway operations to "Go Global"

China's railway operations to "Go Global" is a national strategy demand. It provides strong support to the railway industries for design consulting, equipment manufacturing, and construction. These three major industries and operations supplement and promote each other. All the high-level design, construction, and products of these three industries are showcased by railway operations, and, likewise, have built a solid foundation for "Go Global." Furthermore, China's railway operations have established a good reputation overseas, which will support the development of these three industries [1].

In recent years, the pattern of "construction + operation" has been widely used and accepted across various industries in project bids. Public-private partnership and build-operate-transfer have become the main forms of cooperative arrangement for overseas projects; hence, there is rigid demand for the integration of railway construction and operations. The development

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Corresponding author: Li Wenjie, Beijing Railway Administration, Senior Engineer. Major research fields include international railway operation management and China high speed railway operation management. E-mail: win_boy2002@126.com

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of the three major industries is proposed to enable railway operations to become global, which should be used as the primary form of railway operations when participating in overseas projects at the current stage. Meanwhile, it should be recognized that the operation plays an important role in promoting China's railway industry in overseas projects.

2.1 Avoiding risks

At the current stage, the importance of and demand for railway operations to "Go Global" is obvious. The underlying political and economic risks vary along with the nature of overseas projects, especially when it comes to intergovernmental cooperation. When cooperating with less developed countries and areas, overseas projects are often exposed to greater investment risks due to the influence of the countries' social and political environment. China's railway operations to "Go Global" can contribute to the rich experience in railway operations and management and help projects stay on a healthy development track, while also reducing the risks of investment and increasing investment income.

In order to prevent risks relating to equipment instability and faults in the initial period after project completion and due to low income in the preliminary stage of operation, the project host country usually includes preliminary operations in the bid invitation. From the host country's perspective, during these periods, the design, construction, and equipment quality of the project can be checked, and the operator's management skills and level can be tested, thereby representing effective ways to transfer risks.

2.2 Supporting the three major railway industries

As an important part of the railway industry, it is suggested that railway operations continuously optimize the means of operation and develop a strategy to offset risks of delayed operations due to force majeure. To avoid breach of contract or other contract disputes, a reasonable operations strategy should be used to maintain operations under the conditions of minimum operating requirements. Thus, the demands of the project owner will be met and valuable time need not be spent by design and construction parties on fixing engineering and technical flaws, especially when a grace period is provided for construction. This approach creates advantages during project handover.

As noted above, railway operations complement the three major railway industries by helping improve these industries and enhance the enterprise–market consilience. By competing with other countries across the world, railway operations can enhance the level of design consulting, equipment manufacturing, and building construction, maintain the reputation of the Chinese railway operation enterprises, and provide strong support to the sustainable development of construction, manufacturing, and design industries in overseas projects.

2.3 Exporting China's railway standards and management

China's railway operations to "Go Global" is essential for exporting the various aspects of the Chinese railway industry. It represents a platform to demonstrate to the world China's ability to provide high-quality operations management, technical equipment, design, and construction. Railway operations integrate staff, equipment, technical standards, and managerial concepts and constitute an important part of the overall industry's exportation. However, due to the lack of overseas operations and management experience, China's railway operations management approaches and technical standards are not currently in line with those of international markets, and therefore, lacking in acceptance by other countries.

In any country, the reputation of its railways is showcased in both its construction and operations. The real significance of China's railway "Go Global" strategy is that it enables China's construction and operations approaches to be incorporated into the world's railway market and enables China to compete internationally. Therefore, outstanding performance and achievements are needed to demonstrate to each host country and its neighboring countries, China's advanced technology and operating experience. This approach is an effective way to showcase to the world China's railway operating ability, equipment quality, and level of design and construction, which will facilitate integration between Chinese and international railway standards.

2.4 Facilitating deep cooperation

Studies on the income from railway operations in different countries have suggested that conducting railway operations without sufficient government funding will not bring any benefits to organizations. The current significance of the railway operations to "Go Global" lies not in gaining profit but in exploring possibilities for deepened cooperation with the host countries by introducing railway operations to host countries' projects and helping the host countries realize the socioeconomic benefits that cooperative railway operations bring. Railway operation projects contribute a great deal to entering the host country's market, including gaining concessions from the government and applying for project development rights along the line and construction rights for projects in surrounding areas for not just the railway but other Chinese industries as well, which creates new economic growth points for China.

3 The current situation of China's railway operations to "Go Global"

3.1 The current situation and achievements of China's railway operations to "Go Global"

Till date, there have been two instances where Chinese rail-

way has participated in overseas railway operation projects on a large scale. The first experience can be traced to 50 years ago. China's railway participated in the construction of the Tanzania–Zambia Railway by helping with its exploration, design, construction, operation, and maintenance. It is the largest all-round railway industry export project so far. The second experience is from 2010 to 2014 when Chinese railway operation enterprises undertook the operation and maintenance of the Mecca light rail in Saudi Arabia, which is the first time that Chinese railway operation enterprises moved forward to an overseas market as a subcontractor.

3.1.1 Tanzania-Zambia Railway

Done without any profit motive, the Tanzania-Zambia Railway has political and historical significance and is a successful project for the “Go Global” strategy. China helped enhance the railway construction and level of equipment manufacturing. The rich experience of overseas railway construction and operations was gained and international talent that understands international business, construction, and operations management was cultivated through this project. The Tanzania–Zambia Railway is regarded as the China-Africa Friendship Road that has helped the Chinese railway operation enterprises establish good political and brand reputation to enter developing countries' railway markets, while laying the foundations for the development of its railway industry in overseas markets.

3.1.2 Mecca light rail in Saudi Arabia

As the operations subcontractor, Chinese railway operation enterprises for the first time operated the Mecca light rail for five consecutive years. This project helped fill the gap between developed countries, such as European countries and the United States. It builds skills, such as railway design, operations management, and risk management in overseas markets. The Mecca light rail project is a practical experience of going global for contemporary Chinese railway. In the process of operating the Mecca light rail, the railway enterprises upheld rigorous, pragmatic, and scientific work attitudes and the operation organization structure, which has transformed the traditional way of thinking and working. The successful operation of the Saudi Mecca light rail project is a significant attempt by China's railway to “Go Global.” A professional and technical team qualified for overseas operations has been cultivated and trained via this project. Meanwhile, talent required for operations consulting and management in overseas railways has been reserved.

3.2 The problems facing China's railway operation to “Go Global”

3.2.1 Separation between construction and operations

Till date, the construction and operation functions have been

separated for many domestic Chinese railway projects, because in the construction phase, there have been no systematic, scientific, or in-depth evaluations and demonstrations of market trend or methods of operation. This divided thinking in the railway industry has also been transferred to the handling of overseas projects.

Some high-speed railway demonstration sections have already begun construction. Although, detailed studies and careful evaluations of the project's profitability, break-even point, premises of profit, corresponding plan for loss, concession market, and others, were supposed to be studied and discussed before bidding, the construction sides signed a long-term operation concession for this project before conducting the abovementioned evaluations. This is a problem that remains to be solved.

The idea of taking construction more seriously than operations has long been a characteristic of China's railway system and is the result of China's specific social background and historical factors. Such a situation is incompatible with the demand for overseas commercialized projects. The lack of operations preplanning will create unknown risks for the entire project. Only by conducting a thorough and systematic evaluation of transport plans, maintenance standards, the management system, and the estimated lifecycle cost, can an exclusively designed and customized operations management strategy be devised.

3.2.2 Lack of initiative to “Go Global” within operation enterprises

The current railway management system and method is serving to hold back the initiative and motivation of railway operation enterprises to participate in overseas projects. The current system entails assigning administrative tasks in the form of instructions. Operation enterprises are being asked to take part in these projects via administrative orders, rather than based on their own initiative. As noted above, for railway operation enterprises, profits cannot be gained through operations alone without sufficient investment before the project starts. A significant portion of the risks from the project and the host country falls onto the operators, resulting in their hesitation to participate. For example, there is little economic profit in the operation of the Lahore Orange Line Project in Pakistan, and there was insufficient financial support at the operation's readiness stage. Therefore, it has been difficult to push the operation readiness work forward. Sufficient detailed research and surveys cannot be carried out, which harms the motivation of enterprises to participate in such projects.

Further, when overseas railway contracts include railway operations, the construction enterprise will look for railway operation enterprises with whom they can strategically cooperate. In the current management system, the approval process of railway operation enterprises is long, which results in difficulty for the construction enterprise to grasp the fleeting business opportunity.

Thus, construction enterprises need to find operation enterprises from other countries, or may organize their own operations team to obtain the construction rights to the project. However, they are not skilled at these two approaches. On the contrary, operation enterprises with rich experience cannot participate in overseas projects to provide strong support to the construction enterprises, which results in wastage of resources. First, superior resources of operation enterprises will be wasted. Second, various resources will be wasted when the construction enterprise rebuilds the operations team. Furthermore, numerous political and economic risks will arise when the construction enterprise cooperates with foreign operation enterprises. For example, in the early stages of the Mombasa–Nairobi Railway project, the construction side looked for support and strategic cooperation from China's railway operation enterprises. However, due to the current management system, this support and cooperation was not received. This compelled the construction side to organize its own operations team, resulting in wastage of finances and other resources.

3.2.3 Insufficient experience in cross-cultural management

The aim of cross-cultural management is to enable human resources from various cultural backgrounds to be used by enterprises by integrating the staff and managing cultural conflicts effectively. When an integrated economic entity, comprised of two or more enterprises from different countries, is established in the host country, it is a cross-regional, transnational, cross-political, transnational, cross-faith, and cross-cultural entity. Thus, cross-cultural conflicts are multidimensional and multifaceted, as well as more complex compared to domestic human resource management.

Due to China's lack of railway operations management experience, employees from different cultural backgrounds may have differences in cultural values, ways of thinking, living habits, and customs. This results in different attitudes at the foundation level of China's overseas railway operations. These cultural frictions and conflicts may bring additional risks for overseas railway operations [2].

Fuyao Group is an example of a Chinese enterprise that was unable to adapt to the local culture—in terms of the working environment, paid leaves, welfare policy, labor protection, salary, laws and regulations, and third-party relationships—when it invested in an American project. This example serves as a warning to overseas railway operations. Intercultural management cannot be avoided in overseas railway operations. Thus, it is necessary to develop measures to deal with these issues before "going global."

4 Strategies for Chinese railway to "Go Global"

As outlined in the previous sections, entering the global mar-

ket is difficult for Chinese railway operation enterprises. These enterprises must not only ensure that their work is safe, orderly, and systematic but also identify the strategic difficulties of railway operations, and turn these to their own advantage. Based on the objective assessment of the current performance of Chinese railway operation enterprises implementing the "Go Global" strategy, this section will suggest some solutions as strong theoretical foundations to improve the strategy for Chinese railway operations.

4.1 Change the current ideas and mechanisms to improve the motivations of the "Go Global" enterprises

It is proposed that the current ideas be changed, the management mechanisms improved, and the relationship between each party who joins the project be clearly delineated. First, the operations team, design consultation team, original equipment manufacturer, and construction team should use a defined way to join in the pre-operation phase of the project. The joint venture or strategic alliance entered into by these parties must be represented as a professional team that can ensure effective resource sharing, risk sharing, efficient functioning, and cooperation, with due division of labor. In addition, railway operation enterprises should learn from other cooperating parties, such as the construction team and the original equipment manufacturer, in terms of international engineering project management. The reason is that these cooperating parties have rich experience, strong human resources, and good relationships with local governments and international companies based on long-term cooperation.

Currently, the existing management mechanism for overseas projects is based on a unified management system. To change this mechanism, the motivations of railway operation enterprises to consult with design consultation companies and construction companies must be improved and support to the three major industries must be provided. This will reduce loss of overseas railway operation projects. It is suggested that the actors move more quickly to improve overseas project management strategies, further change the existing ideas and management mechanisms, deepen reforms to streamline administration and effectively delegate power, respect the laws governing the market, incorporate the regulatory role of the market, and keep managers of railway operation enterprises fully motivated.

4.2 Lay equal stress on construction and operations and establish an integrated standard system of domestic and international standards

At present, some standards related to overseas railway operations are absent. Thus, there is a need to establish a standard system that includes procedures and rules, maintenance management, safety management, competence management, and

performance evaluation to guide the combination of construction and operations. However, the existing standards and regulations governing the Chinese railway system cannot be used to develop the new standard system directly. Instead, the new railway operations standard system should take into account international standards. Nevertheless, it is suggested that the new standards promote the integrated development of Chinese and international management systems so that China's management system and standards are gradually accepted and recognized across the world.

4.3 Give full play to own advantages and transform operator to consultant

Currently, the enterprises that are skilled in railway operations are focusing on contracting engineering projects and abandoning the expansion of the railway operations consulting business when leading an international railway project. Fundamentally, this field is outside of their expertise and familiarity. Similarly, railway operations consulting enterprises that have rich experience lack systematic considerations regarding operation costs, maintenance methods, and business scope, when faced with international railway projects. In terms of overseas railway operations, consulting enterprises define biased functions for themselves, thinking that they need to play the role of an "agency," while not undertaking the operations business themselves.

It is necessary to transform the role of the service provider to that of an operations consultant when China's railway operations go global. Railway operation consulting takes place at a high level and thus, the operations consultant can assist the host countries in making decisions on standards and equipment selection, which helps export Chinese railway standards and equipment.

4.4 Strengthen cross-cultural management to promote cultural integration

There are two main approaches through which cross-cultural aspects can be managed when operating railways overseas. First, the operations enterprises need to be familiar with the business pattern and the operations strategy outline while having a detailed analysis of the business patterns and operating features of the overseas railway operations market. Second, they should study the culture, politics, and laws of the host countries to have a clear understanding of local customs, lifestyles, salaries, welfare standards, and working hours. These two points directly or indirectly affect and restrain the effects and risks of Chinese enterprises operating railways abroad. Only if the abovementioned cross-cultural conflicts are resolved, China's railway operations can be developed sustainably overseas. This will help to create an international image of China's railways and the integrated

development of its operations culture and local corporate culture can be promoted.

4.5 Improve talent cultivation and reserve mechanism

To promote the overseas railway operations development strategy, a number of talented employees who have mastered foreign/second languages should be immediately selected and trained. Talent cultivation and retention is the basis for the sustainable development of China's railway "Go Global" strategy. The lack of professionals is a reality of international railway operations management. Carefully selecting and cultivating talent and building a platform for their development is necessary. Thus, it is suggested that a talent pool be built, because railway operation enterprises have faced difficulties in the past due to their unfamiliarity with international market rules and communication with partners due to inadequate language ability [3].

In the era of the knowledge economy, talent is the most important resource for enterprises. Retaining talent as an element of China's railway system will be a huge asset. In overseas railway projects, retaining talent and enhancing their roles should be achieved by adapting to international talent communication rules. There is a significant amount of high-quality talent in different systems in the Chinese railway industry. However, a system and mechanism for training and retaining such talent is lacking. Talent cultivation requires procedures, and talent retention requires mechanisms. Thus, a more flexible management system and employment mechanism should be used by railway operation enterprises. It is proposed that more "policy space," in terms of living conditions, salary and welfare, motivation mechanisms, promotion channels, and other amenities should be provided to those employed for international railway operation projects. Only if talent is retained can the issue of lack of overseas railway operations staff be solved.

5 Conclusions

In recent years, by relying on the technologies, products, and achievements of operations management, China's railways have been approved by many countries. With a certain degree of international competitiveness and influence, many countries have expressed the hope that China will participate in their railway construction, operations, and management. Thus, it is a favorable time for China's railways to "Go Global." Against this background, it is suggested that the advantages of China's railways in terms of technology, cost, and operations management are brought into full play, with overseas railway projects closely tracked, grasp opportunities to newly build or rebuild railways overseas, and ensure implementation of China's global railway operations.

With the increase in China's overseas railway operation

project contracts, operation standards and systems will begin to approach maturity, while management systems will be improved and the capacity for risk response increased. All these aspects will demonstrate that China's railway operations are at a competitive stage of participation in overseas railway operations in all sectors and will achieve the goal of its railway operations to "Go Global." In the future, a "scale effect" will be seen, led by operations. This will entail centering on overseas operations, the emergence of a number of operation enterprises and industries, continuing optimization and adjustment of the business structure of overseas operations and management, and a transformation of the business scope of railway operation enterprises from straightforward operations to operations consulting. Such aspects will ensure significant achievement, expansion of scope, and dis-

semination of Chinese characteristics in the process of China's railway operations to go global.

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