Risk Identification and Preventive Measures of Waigaoqiao Luxury Cruise Project

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Abstract: The development of cruise industry has a strong driving effect on economic consumption and employment ability, can drive the coordinated development of related industries, and produce huge social and economic benefits. Risk management ability directly determines the development degree of China's luxury cruise industry. This paper identifies the risks of Waigaoqiao luxury cruise project and puts forward the corresponding risk prevention strategies.

1. Introduction

With the rapid development of the global cruise market, luxury cruise has become a strategic new industry to promote the transformation and upgrading and diversified development of the domestic shipbuilding industry. Nearly 20 years cruise market demand has very big space, but the luxury cruise as a complex product, has a long construction period, strong technical, the characteristics of high risk, through to the luxury cruise ship project risk management, to improve the general contracting enterprise of the luxury cruise ship building project management skills and ultimately benefit has very important practical significance.

2. Risk Identification of Luxury Cruise Projects

Luxury cruise construction project is a complex manufacturing project, which has the characteristics of large capital demand, wide range of related industries, long time, strong professionalism and difficult management, etc. In the process of project management, it is necessary to coordinate the needs of shipowners, designers, subcontractors of different functional modules, and relevant manufacturers, and the resulting risks are correspondedly more complex. This paper classifies and describes the potential risk factors of luxury cruise EPC project based on historical experience and expert and scholar discussion.

2.1 Legal and Political Risks

ProfitabilityCompared with traditional ships, luxury cruise ships need to meet strict international maritime conventions and norms in the process of operation at sea. In particular, the types and locations of burning substances on cruise ships must be strictly restricted. If they fail to meet the requirements of international maritime conventions, they will face penalties such as fines or prohibition of maritime operations. If international relations are tense, the flow of people at home and abroad may be impeded, and the procurement of cruise equipment, customs clearance and resource allocation will also be affected by political relations.

2.2 Technical Risk

TheLuxury cruise as the complexity of high value-added, high technical products, and if the technical preparation or inadequate reserves, design depth does not meet the requirements, design file disclosure and auditing is lack of effective management, make the follow-up production design and implementation of construction delay to delay, may cause the whole project implementation

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process slowly lag; In addition, the reckless use of immature or not really master the new design technology will also bring potential risks to the cruise design and construction. And in the process of project implementation, because of the complexity of the luxury cruise ship project, might involve, equipment function and responsibility of quantities are divided into several aspects of the changes, and may also be owner put forward beyond the requirements of standard or modify drawings, these changes are likely to cause the construction difficulty increase, workload and time limit for a project delay, cost increase, there is a huge risk.

2.3 Managing Risk

Cruise in the process of building covers the design, supply, human, and other departments, if you can't adopt the way of reasonable integration of real-time information of different departments, each department work coordinated management of the project, it is difficult to ensure that each interface information can effectively coordinate together, resulting in waste of resources, or information tracking, not in time to overall project bring great loss. In addition, the control of the construction schedule is the key factor that affects whether the project can be completed on time and with good quality. A cruise ship design build time in 3 years, often involving a large number of design drawings and documents, procurement contract and fabricating module, these homework sometimes cross, at the same time, the start and finish time has strict requirements, so big workload and complicated management, need to arrange ahead of schedule management plan, In case of any deviation in the actual implementation of the plan, timely adjustment is needed to prevent the project process from deviating from the controllable scope.

2.4 Business Risk

Luxury cruise EPC project not only involved in the main contract with the owner party, and due to the subcontractor and suppliers, EPC contractors need to sign a large number of the contract and complete the work and paying a lot of the implementation of the contract, if the contract signing party low qualification is not complete, improper operation, credit, actual production capacity does not meet the requirements, irregularities and fraud or trap contract, such as bidding, It will cause great loss to the other party. Project contract is signed between participants in the process of understanding deviation, calculation of quantities are not allowed to wait for a problem and execution of the contract to deal with some special needs or produce responsibilities between the not clear events, thereby causing loss to the contractor or extra spending, such as no clear change in the contract and dispute solution, may make the parties cause certain loss.

2.5 Organizational Risk

Participating parties, especially the EPC general contracting management organization setup is complete, the configuration is stable, or each system of institutions is clear, the command relationship between each department or division of work between management and division of responsibility clear, can contribute to the project management confusion, inefficiency and other risks. Individual conditions may affect the whole team, and conversely, the cohesion, execution and daily atmosphere of the team will also affect individuals, thus affecting all aspects of the project. In addition, the luxury cruise with each unit modular construction, build will parcel out part of the design of the module, the subcontractor in the project effect is larger, the contract proportion is high, the large number and equipment suppliers, influence each other and the volume of the interface, the total package units, how to coordinate the subcontractor of the subcontract work directly with the supplier, the supplier relationship is particularly important, If these relationships are not handled well, it may have a certain impact on the progress and quality of the project, thus bringing certain risks to the project.

3. Risk Prevention of Luxury Cruise Project

Risk prevention is to put forward disposal opinions and measures for the potential risks of the project, so as to avoid or reduce the risk loss as much as possible. Risk prevention is the core

procedure and important content of risk management, and also a key part of the successful realization of risk management objectives.

3.1 Legal and Political Risk Prevention Measures

First of all, the design, construction, inspection and delivery of cruise ships should be conducted in strict accordance with the international conventions and norms. We should pay attention to the update status required by the conventions and employ relevant professional legal personnel to avoid violating the international maritime norms. Secondly, the introduction of foreign cruise project talents, improve the treatment, give settlement subsidies, ensure the stability of project talents, to avoid key talents unable to enter China. Finally, strengthen the localization of domestic industries, and try to reduce the purchase of facilities and equipment from abroad.

3.2 Technical Risk Prevention Measures

Design errors in the early stage of a project should be reduced through specialization, such as the establishment of a professional new technology research and development team, part of the excellent designers liberated from a large number of repetitive daily design work, focus on the development and application of new technology research. We can establish good cooperative relations or joint ventures with foreign advanced and experienced shipyards or excellent ship design and research institutes, and try our best to apply, learn from and introduce mature technologies, processes and products. At the same time, it is an important measure to avoid and reduce design errors to insist and strengthen the review and review of key drawings before the design and process plan are determined. Important drawings, 3 d design and beyond group co., LTD. Practices the new techniques, new methods, especially relating to the shaft, rudder system is called the project team and related professional design and department, every block assembly department, quality department, technology department and other department personnel to participate in the review, summary, continuous optimization design scheme, do both meet the requirements of ship construction specifications, It is also convenient for production and construction. By reducing design errors in advance, subversive design quality accidents can be greatly avoided.

3.3 Manage Risk Prevention Measures

By using the methods of information technology work interface platform, integration of multi-dimensional information between departments, ensure that all participants can according to different interface information is effective in synergy, under the background of the same project for unified management, project design, materials, production of the whole process control, to the greatest degree avoid chaos plan adjustment, reduce the project cost. At the same time, the project planning department shall be established, and the plan manager shall be responsible for the formulation of plans at all levels of the project. The preparation of plans shall be in line with reality, and the final draft of important project plans shall be subject to multi-party review, multi-level confirmation and countersigning and notification. Due to the market and force majeure causes of plan changes, such as the present market condition of treads, often involves human, material, wharf, equipment, site resources such as major adjustment, in this case the team can call on planning, design, production and other relevant departments are coordinated, Slowing down, postponing and lengthening the corresponding progress of procurement, design, steel and production, reasonably adjusting the pace of production and deploying construction manpower for other projects, so as to avoid chaos caused by plan adjustment and reduce project losses to the greatest extent.

3.4 Business Risk Prevention Measures

As the contract, party a shall practise a system of customer credit management, to the customer's credit information before signing the contract, the condition of credit files, credit, credit rating investigation understanding, maximize the control of customer credit and risk of default, when signing a contract to review each other's reputation and the performance ability, including the promoter's qualification review to the contract. As Party B of the contract, it shall, through subcontracting or other means, distribute the risks in the terms of the contract to the other parties or

transfer all the risks to the other party.

3.5 Organize Risk Prevention Measures

Develop a sound organizational structure, which is different from the traditional matrix organizational structure of shipbuilding. The team can no longer rely on the matrix organizational framework to quickly assemble the team. The team adopts the linear organizational structure and employs the chief engineer with rich shipbuilding experience as the leader of the whole team to improve the efficiency of project management. The use of linear organization structure to clarify the power and responsibility distribution of project management should meet the requirements of incompatible job separation to avoid project fraud. Retaining employees by providing them with prospects for personal development and improving the working environment. Pay attention to encourage employees, develop reasonable career planning for them, position and major, interest, expertise, experience, etc., to stimulate and mobilize the enthusiasm of employees.

4. Conclusion

Facing the necessary trend of promoting the transformation and upgrading of the domestic shipbuilding industry and developing the cruise industry, the luxury cruise project itself has the characteristics of large capital demand, wide range of related industries, long time, strong professionalism and difficult management, etc. Therefore, in order to successfully complete the goal of luxury cruise project, it is necessary to select the appropriate risk identification and assessment methods, clarify the specific risks faced by luxury cruise project, so as to put forward more targeted risk prevention strategies and strengthen risk management.

References

[1] Joana Peixoto, Anabela Tereso and Gabriela Fernandes etc. Project Risk Management Methodology: A Case Study of an Electric Energy Organization. Procedia Technology, no.16, pp.1096-1105, 2014.

[2] Wenxin Shen, Wenzhe Tang and Wenyang Yu etc. Causes of contractors' claims in international engineering procurement construction projects.Journal of civil engineering and management, vol.23, no.6, pp.727-739, 2017.

[3] Zhang SR. Real-Time Safety Risk Identification Model during Metro Construction Adjacent to Buildings. Journal of Construction Engineering and Management, vol.145, no.6, pp.258-272, 2019.

[4] Lin Song Shun, Shen Shui Long, Zhou Annan,Xu Ye Shuang. Novel model for risk identification during karst excavation. Reliability Engineering &System Safety, no.5, pp.22-24, 2021.