

CITY UNIVERSITY OF HONG KONG

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**ERP Implementation in China: Success Indicators
and Critical Success Factors in Chinese Telecom
SOEs from the Project Management Perspective**

**在中國的企業資源計畫實施:從項目管理角度
看中國電信業內國家企業的
項目實施成功指標和成功關鍵要素**

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ABSTRACT

Based upon a thorough literature review and ten years of professional Enterprise Resource Planning (ERP) experience in China, I have developed a practical **ERP Success Model**. The model includes six success indicators and fifteen critical success factors (CSFs). To ensure its comprehensiveness, the model has been tested through in-depth interviews with six Chinese ERP experts. After some revisions as a result of this, three top success indicators and eight top CSFs have been identified to form a simplified ERP Success Model.

The four state-owned enterprises (SOEs) of the Chinese telecom industry have been among the pioneers implementing ERP systems in China since 2000. Studies of these early birds' successes in ERP implementation in China will certainly offer great insights into the development of ERP.

In view of the above, this paper reports on an in-depth study of the ERP systems implemented by the telecom industry in China. The particular focus is on all the four telecom SOEs that have implemented SAP or Oracle ERP systems from 2002 to 2007. In-depth semi-structured interviews using the ERP Success Model framework have been conducted with project managers of six ERP implementation cases in the four telecom SOEs.

Based on the project ratings obtained from the six telecom ERP implementation cases, the ERP Success Model was tested for its practicality. A rating analysis was formulated from the correlations between two sets of average performance ratings based separately on the six success indicators and the fifteen CSFs. The high correlations suggest that the ERP Success Model can be a valuable tool to guide practitioners towards a successful ERP implementation in China by focusing on the variables introduced in the model.

Furthermore, based on the interviews conducted and information collected, comprehensive analysis has produced answers to the following research questions.

Q.1: What are the key success indicators that can define a successful ERP implementation in China?

Q.1a: How do Chinese Telecom state-owned enterprises (SOEs) define ERP success?

Q.2: What are the critical success factors that lead to a successful ERP implementation in China?

Q.2a: Why are some ERP implementations in Chinese Telecom SOEs more successful than others?

Q.3: From a project management's perspective, how do implementation processes affect the likelihood of ERP implementation success or failure in Chinese Telecom SOEs?

Finally, through the detailed analysis of all the six target cases, I make the following practical recommendations for ERP implementation in China particularly for Chinese Telecom SOEs, hoping they may contribute to the future success of ERP development in China.

1. **Importance of Establishing “Nationwide Templates”**
2. **Importance of Top Management Support**
3. **Necessity of User Involvement**
4. **Users’ need for Education and Training**
5. **Value of Finance Led ERP Projects**
6. **Minimal Software Customization plus the Need for Localization**
7. **More Attention to Culture and People related CSFs**
8. **The Need to Deal with Personal Interest**
9. **The Need to Deal with Fears of Losing Job**
10. **Balancing the Need for Controls with Security Loading**
11. **Addressing Functional Needs**

The findings from this research have broad implications for ERP implementation in China, particularly for SOEs.

Keywords: ERP Implementation in China, ERP Critical Success / Failure Factors, ERP Success Indicators, ERP Success Model, Telecommunication Companies, State-Owned Enterprise.