

Study on HOPE Management Mode of Coal Enterprises Based on Systematic Thinking

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Abstract: The extensive management mode of coal enterprises is no longer applicable to the demand of enterprise development under the new economic situation. Combined with the characteristics of coal mine production, based on the system of thinking, integration of lean, people, comprehensive, job management theory, formed HOPE management model, including a core system and three support systems and 18 elements. There are three stages in the development and implementation of this model. To 6S site management for the initial stage to job process reengineering for the intermediate stage to post value process control for the advanced stage. The successful implementation of HOPE model in coal enterprises needs comprehensive control from five aspects: lean culture construction, flattening organizational structure, cost control system, performance appraisal system and lean information management platform. HOPE model can be implemented smoothly and make “win-win” between enterprises and employees.

1. Introduction:

Coal occupies about 62% of the energy production and consumption structure in China ^[1]. The normal operation of coal enterprises is related to the stability of energy structure in China. In recent years, China's downward pressure on the national economy as a whole is relatively large, The coal price presents the big fluctuation, the coal enterprise management pressure is huge, the market competition pressure also unprecedented increases. The production characteristics of coal enterprises include such characteristics as non- renewable resources, long period of production preparation, bad production environment, single product and serious ecological negative effects. Most coal enterprises in China are dominated by administrative plan management mode, characterized by extensive management and rigid system, which is not conducive to improving the market competitiveness of coal enterprises ^[2].

With the rise of the "Shuang Chuang", the innovation and reform of the management system of coal enterprises has become the trend of the times. In recent years, China's coal enterprises in the enterprise management model has done a lot of attempts. RMDC management model ^[3].OPM fine management model ^[4].REC management model SEM management mode ^[5].FRIP management model ^[6]The above 5 models have achieved good results in the management of coal enterprises. However, the social system attributes of enterprises are not taken into account while the HOPE model makes up for the lack of such research.

2. The guiding ideology and connotation of HOPE management model

One of the guiding principles of HOPE model is system management thought, this is the foundation of the whole HOPE model. The HOPE model is the management of people and the core of human development. The core of the three benefit management idea of HOPE model is to reduce efficiency and



improve competitiveness^[7]. Four of the sources of the HOPE model are the thought of responsibility, and the norms, standards and management systems are manifestations; the basic guidelines for HOPE management are shown in Figure 1:

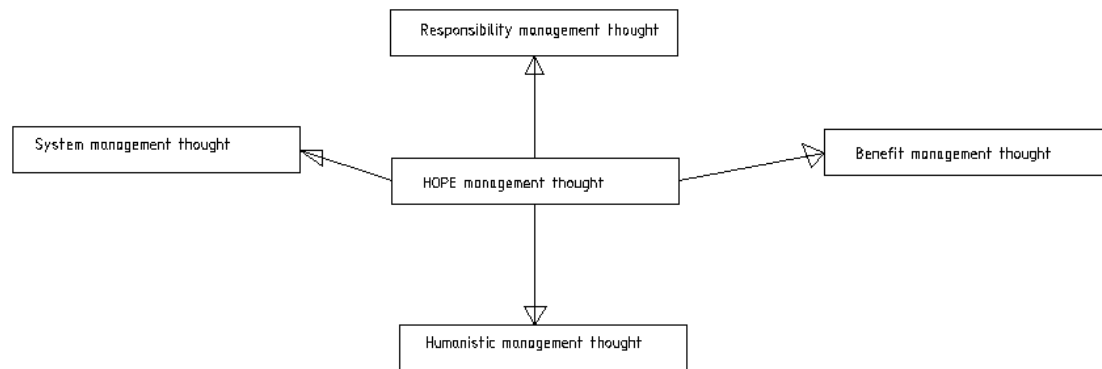


Figure 1 The basic guidelines for HOPE management

The specific of HOPE management model: Humanity, Overall, Post, Particular (, Earnings Figure 2

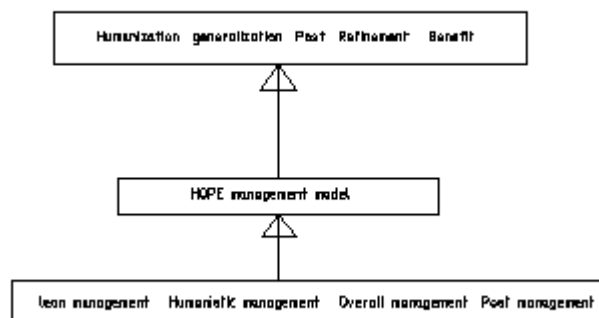


Figure 2 The framework of the HOPE model

3. The system composition and elements of HOPE management model

3.1 System construction of HOPE management model

The goal of HOPE management is "win-win" between enterprises and employees". The model consists of four subsystems: human based management system, comprehensive management system, post management system, lean management system^[8]. These four management subsystems integrate into one whole, complement each other, and realize the core content of the whole HOPE system^[9]. The relationship between these four subsystems can also be described as: "a core system, three support systems.". The relationships between the management subsystems are shown in Figure 3.

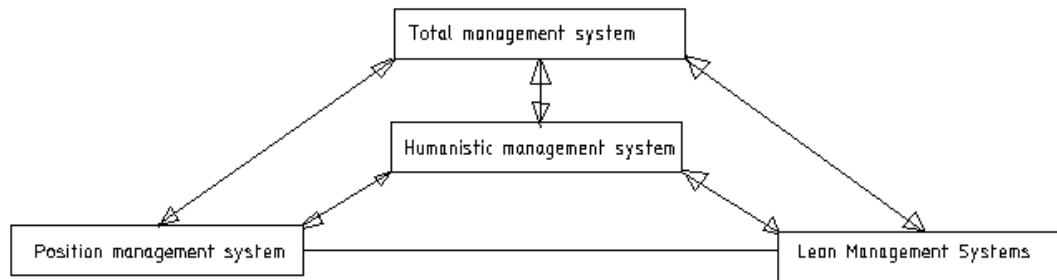


Figure 3 The composition relation diagram of HOPE management system

3.2 Elements of HOPE management model

The four subsystems of HOPE management model can be divided into 18 sub factors. As shown in figure 4.

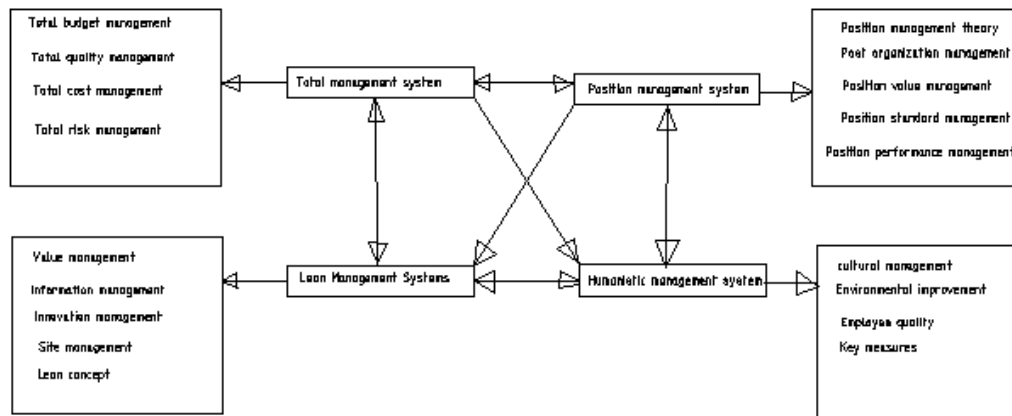


Figure 4 The basic elements of the HOPE management system

4. The implementation phase of HOPE management model

The traditional administrative model is deeply rooted in the management of coal enterprises, and the implementation of HOPE management model needs to be carried out step by step. Therefore, the smooth implementation of the HOPE model needs to go through three stages.

4.1 Phase one

To promote the implementation of 5S management as a starting point, rose to 6S management.

4.2 Second stage

The chain management is introduced into the enterprise, and the internal market system is established to realize the downward movement of the management center, and the different subjects make clear the economic relationship.

4.2.1 Chain management. The chain management method links the internal departments, the production systems, the upper and lower links and processes, Related duties clearly expressed in the form of chain link, the whole process of production and management together, will provide every process of the service or product, are transformed into quantitative and cost concept and recognized by the next

process goods, each process service or product of paid transfer in order to advance, effective control and reward to staff costs.

4.2.2 Carry out internal market management. Double track internal marketization is the biggest characteristic of the coal mine internal market system at all levels. The premise of its management model is to build an internal market, and put the past "one-stop" direct vertical management into a combination of vertical management and horizontal constraint management. On the basis of building the internal market, the dual track internal market management mode takes the coal mining area and the digging area as the "double track", which constitute the core of the internal market system operation, settlement and assessment. "Dual track" system to ventilation, transportation, transportation, production, service department and other departments for the "sleeper", support "double track" operation, for the excavation and coal mining area to provide services, and accept its supervision and assessment. The internal structure of the double track internal market.

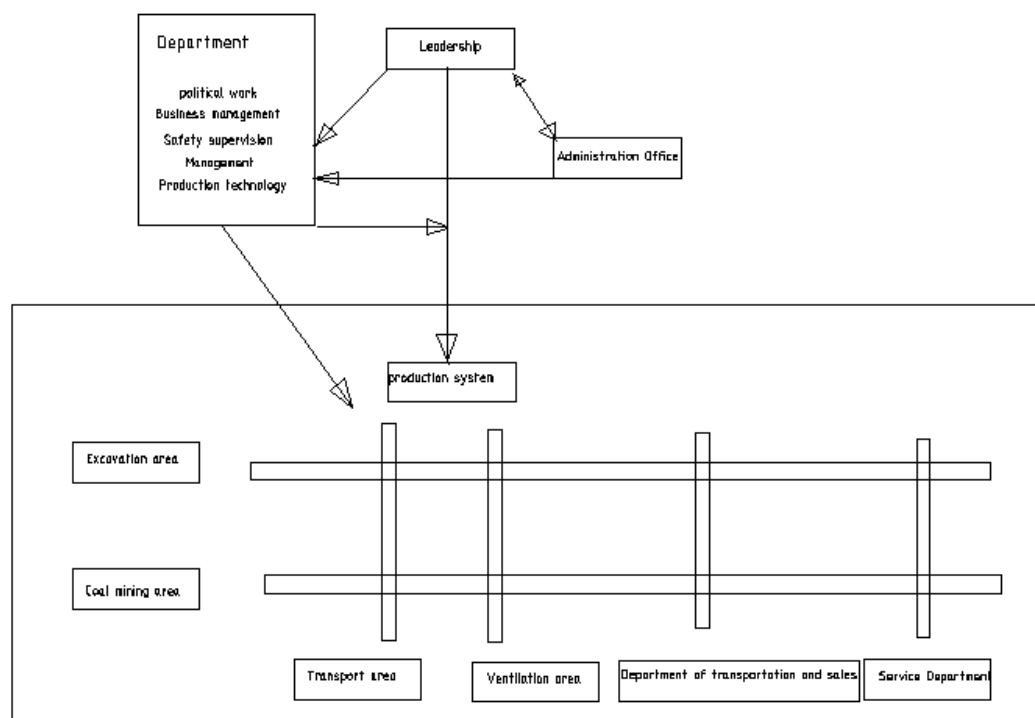


Figure5 The figure of integrated structure diagram of coal mine double track system

4.2.3 Third step

Guided by ideas and ideas, with innovation management as the core, systematic organization as the basis, optimization operation as the key, and talent and intelligence as the guarantee, the system structure of "one plate and two lines" is constructed. The main content of the third step is shown in figure 6:

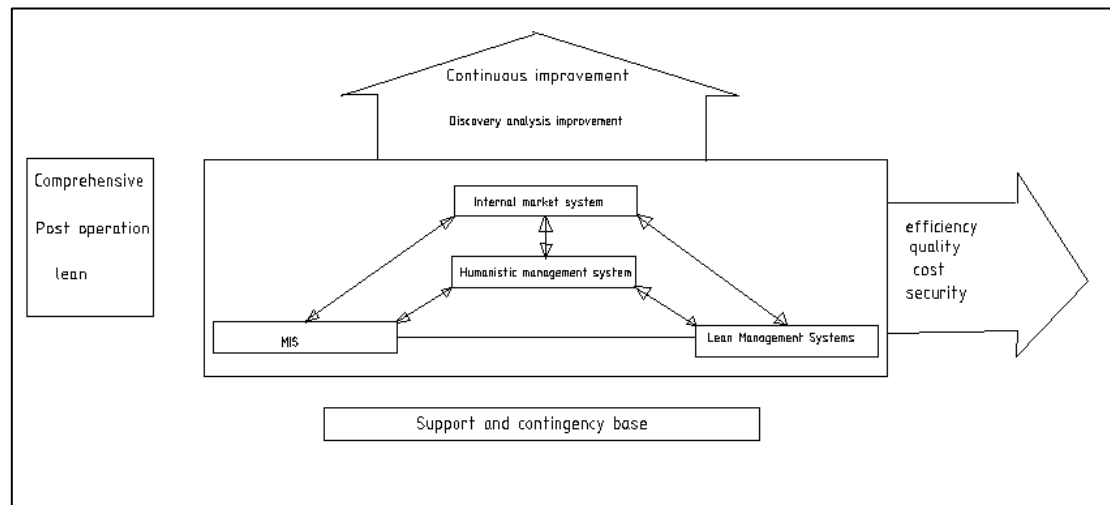


Figure 6 HOPE management system overall structure diagram

As you can see from Figure 6, "one plate" in a two line is the system disk. "Two lines" refers to the vertical and horizontal two intersect the main line, the main line for the continuous improvement of the main line, vertical line as the target management line, two lines intersect the shuttle in the system tray. The line is line through target management, lean and comprehensive management positions, promote efficiency, quality, cost and mine safety level. The continuous improvement of vertical lines, 6S, 5E etc. based on the existing every kind of waste control loop "discovery, analysis and improvement" use of waste, and promote the continuous improvement of the management level of mine.

The system disk is mainly four subsystems in the system tray, including security for the day, lifelong learning concept; internal market system provides the structure of the solid support, including organizational structure, mode of production and management functions; lean management system provides various modes of action and action rules and standards; information management the system provides a wide range of information flow, build a platform for the exchange of information 4 The key measures and application of HOPE management mode

5. Key measures and application of 4 HOPE management model

The smooth implementation of the HOPE management model, in addition to the implementation phase, but also needs corresponding key measures.

5.1 Enterprise Lean Culture Construction

In order to carry out lean management, coal enterprises should first construct a humane and caring organizational culture. In view of the production characteristics of coal enterprises, enterprises should pay attention to improving the welfare treatment of underground personnel. For example, Chinese food, installation of air-conditioning, establishment of Library and employee health records and other measures. Secondly, under the new model, employees' income and dedication are anchored, and the salaries of employees in the next well are closely related to their contributions to the shift. If the work value is zero, the wage will be zero. Only employees who have contributed will be eligible for equal remuneration.

5.2 Flattening of organizational structure

HOPE management requires the enterprise management center to move down and give full play to the initiative of employees. Moreover, the relationship between enterprise posts and departments is no longer the dependence of administrative power. But through the introduction of chain management, establish the internal market system, and transform the relationship between employees and departments, so the organizational structure must be flat.

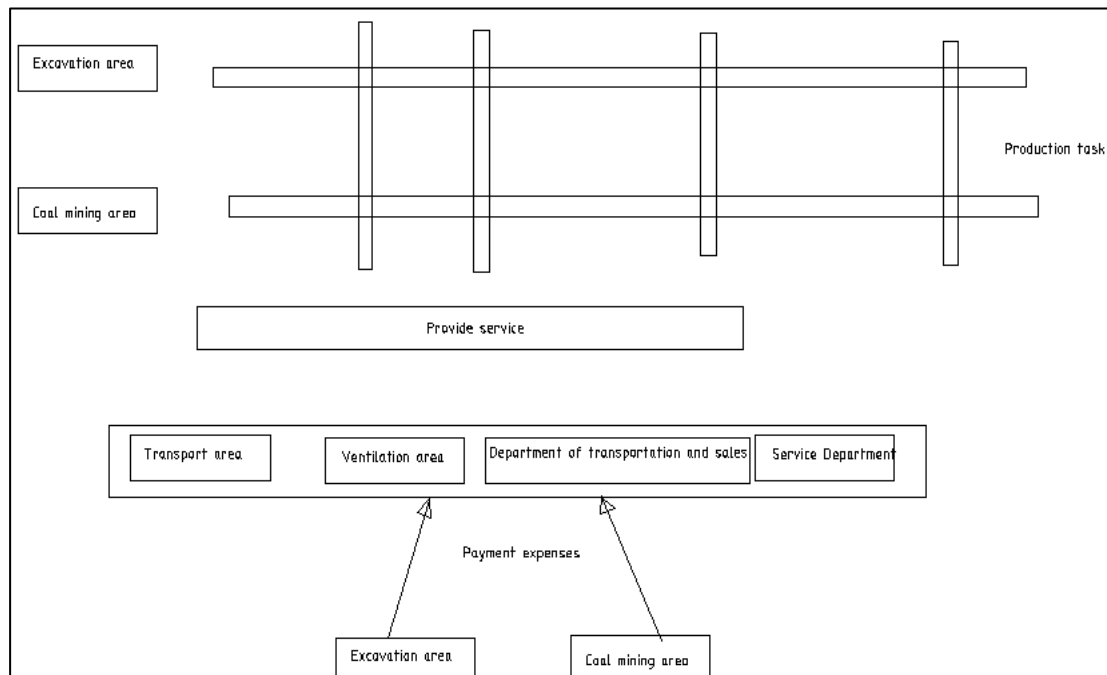


Figure. 7 relation map of coal mine production department

According to the business process and task, the relation of each production department is redefined. As seen in Figure 7: after the implementation of the internal market management, the center of management moved down to the basic production units such as coal mining and digging, and the management of enterprises centered around the two leading units. The relationship between the six production departments and the higher management is the relation of market exchange, and the relation between production department, department and individual is also the relation of currency exchange. Therefore, the power structure of an enterprise is no longer a vertical downward distribution, but a flat power distribution based on the internal market and supported by the currency.

5.3 Push cost control

HOPE management puts forward higher requirements for cost control. Push the cost control procedure is: first to use the cost of the push down method, to the enterprise full and the entire gang have set the target cost strictly; secondly the chain management, internal market management method as the implementation of cost management platform, to make clear the relationship between different positions and responsibilities. With the lean information system management as the platform, ABC three card as the carrier to track and evaluate the implementation of the cost. Finally, enterprises according to the cost assessment and implementation, through the introduction of scientific analysis methods, continue to improve the process, eliminate the bottleneck of the control cost problem. Push the cost control system is to set up a scientific target cost in the implementation of cost, cost performance evaluation, cost control improvement, forming a completely closed, effectively promote the enterprises to strictly and effectively control the cost.

5.4 Performance appraisal system construction

Human resources are the most valuable resources of an enterprise. The traditional human resources management system in coal enterprises can not exert the enthusiasm of employees. Therefore, improving the human resources management system is the key measure to implement lean management. In order to ensure the basic quality of enterprise employees, from recruitment to training have established a strict and scientific procedures. The open management of employee income ensures fair competition among employees. Through the detailed decomposition of KPI performance indicators, the

establishment of a complete performance objective assessment (PA) system. Take ABC three card and cadre walk around management as the assessment foundation, implement different salary incentive measures at the same post, and stimulate the staff's work potential. Build a human resource information management platform to achieve the salary of the class.

5.5 Construction of lean information management platform

Not only can improve the efficiency of enterprises, coal enterprises to implement HOPE management, the need for information management (MIS) provides reliable technical support. Establish and match the HOPE model, EMIS information system management, improve the enterprise information infrastructure, and realize the automation and visualization of production safety management. EMIS information system includes: internal market system, human resources system, integrated information service platform, political engineering system and safety production system management. The system realizes the mine coal production and management automation and network. The information management technology is mainly used in automatic production, the integration of enterprise resource planning, management and control integration, internal supply chain management network, enterprise management, office automation, the intelligent decision-making for the enterprise to provide support.

5.6 Application of HOPE management mode

The model of Fengfeng Group new three mine for the application, the application effect shows that the implementation of HOPE management mode has a significant effect in terms of cost, quality and safety control, since the implementation of the new model, in the production of coal quality, coal ash is reduced to about 30%, down nearly 10%. The cost of coal mining has obviously declined, and the cost management level has been remarkably improved. Coal enterprises have no major safety accidents, and the quality of construction has been remarkably improved, with an average annual income increase of nearly fifty million yuan.

6. Conclusion

1. HOPE model based on system theory, the coal enterprises (mine) as a social system to treat, and the integration of lean, comprehensive, post management theory, combined with the actual situation of coal enterprise management in China, through research and induction system, in line with the status quo of China's coal enterprise management system, management system and management model.

2. The key contents of the HOPE model as a core system, three support system ", can be split into 18 elements, based on management as the core, lean, comprehensive, post management as the support of three system, the starting point of all work is for the staff to provide better services for the enterprises to create a better benefit.

3. The development and implementation of HOPE model mainly has three stages. 6S site management for the initial stage, the coal enterprises to change from extensive to fine management; post process reengineering for the intermediate stage, the introduction of internal chain management, establish the internal market system, realize the management center of gravity, clear economic relations between the posts. In order to position the value of process control advanced stage, the establishment of the internal market, the value of reward employees according to the job creation, so as to realize the scene position value rising process.

4. To achieve HOPE mode in the normal running of coal enterprises from the following 5 aspects: focus on the control of Lean culture, organization structure and cost control system, performance appraisal system, establish lean information management platform. Only from the above five aspects of comprehensive control, HOPE model can be successfully implemented, for enterprises and employees to create benefits.

Acknowledgments

*Funded projects: 1.North China University of Technology school personnel action plan (XN18/033) .2.North China University of Technology university student science and technology

activity (XN20170425)

Reference:

- [1] Yang Renshu. Current situation and Prospect of safe and efficient tunneling technology for coal mine rock in China [J]. Coal science and technology, 2013, (09): 18-23.
- [2] Yangzhong. Implementation of market fine management mode to enhance the competitiveness of coal enterprises [J]. Coal economic research, 2007, (4): 4-7.
- [3] Zhang Liquan. Exploration and practice of fine management. [J]. Metallurgy, economics and management, 2006, (6): 23-24.
- [4] Tang Xin, Zhang Ying, Jin Jinlong. The enterprise carries out the meticulous management comprehensively, [J]. Hebei coal, 2006, (6): 54-55
- [5] Tu Xing Zi. Fine management of coal mine [M]. Beijing: Coal Industry Press, 2006, 20-25.
- [6] Zhao Pengfei. Research on HOPE system management model of new three mine [J]. Shopping mall modernization, 2008557 (32): 67-68.
- [7] Wen Decheng fine management [M].. Beijing: Xinhua press, 2005, 1-6.
- [8] An Jingwen, Zhao Linfeng. Application Research of lean system management model in coal mine [J]. China coal industry, 2009, (03): 52-53.
- [9] An Jingwen, Zhao Linfeng. Research on lean management model of coal mines based on systematic thinking [J]. Coal economic research, 2009, (02): 50-51.