

Analysis and Application of Port Enterprise Management Mode Based on Profit Mode Analysis

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ABSTRACT

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Nowadays, the maritime transport has entered a stable development stage, and port enterprises are trying to win the market and profit with lower prices, however, the results are not satisfactory. For port enterprises, the acquisition of profits should depend on reasonable cost management. With a domestic port enterprise as an example, this paper analyzes its current operation status, finds out problems existing in the cost management, and proposes corresponding improvement solutions. The research shows that the operating income and net profit of the target port enterprise have declined to a certain extent, and its overall profitability is not good. There are big problems in the cost management of the enterprise, such as the operating cost is unstable, the sales cost and financial cost increase slightly, and the retirees-related expenditure is relatively large; and these cost problems of the enterprise could be improved via optimizing human resources and organizational allocation, and enhancing investment management, etc.

ADDITIONAL INDEX WORDS: Port enterprise, profit, management, cost.

INTRODUCTION

The profitability of port enterprises depends largely on their management mode, especially the cost management mode (Alarcon Hernandez, Cho, and Pak, 2012; Bray and Grant, 1966; Hanel, 2006; Kleef and Roome, 2007; Nonaka, Umamoto, and Dai, 1996). This is because today's economy and technology are developing rapidly, and many relevant companies could provide similar services, so the differences between their competitiveness are gradually reduced. Cost management can improve profits to a certain extent, and meanwhile improve the core competitiveness of the enterprises, thereby enhancing their overall competitiveness (Cherchye and Abeele, 2005; Gorman, Hanlon, and King, 1997; Kapoor *et al.*, 2005; Mazzocco, 1996; Roos, 2004).

In recent years, the international maritime transport market has gone through a rapid development period and entered an overall stable stage with small fluctuations (Dierksmeier and Pirson, 2009; Shi and Halpin, 2003). In this context, the survival and development of many port enterprises are facing certain challenges. In order to obtain more orders and profits, many port enterprises began to lower the prices of the orders, which in turn reduced the space of interest that enterprises could obtain (Cox, 1999; Hernández, Jiménez, and Martín, 2008). Under the premise of lowering order prices, only by improving the cost management mode and reducing the cost of the enterprises can we ensure that enterprises obtain sufficient

profits to protect their survival and development (Schrepp, Held, and Laugwitz, 2006).

Taking a domestic port enterprise as an example, this paper analyzes its cost management status and the problems existing in cost management process, thereby proposing corresponding improvement measures for the crux of the matter. Since the cost management modes of port enterprises are similar, the results of this paper can be extended to other port enterprises.

PORT ENTERPRISE MANAGEMENT THEORY

The management of port enterprises is generally divided into two types: compulsory and free. The former means that the central government plays a very important role in the management of port enterprises, and it exerts great influence on the major decision-making of the enterprises; while in a free-style port enterprise management, the central government doesn't directly participate in decision-making of the enterprises, only the local government gives some guidance to the management of the enterprises.

In previous port enterprise management, the operation mode and management mode of the port enterprises were the focus, while the cost management didn't receive much attention. In fact, today, the living space of the international maritime transport market is severely squeezed, and reasonable cost management is an effective way to reduce operating cost, improve corporate profit, and ensure the survival and development of the enterprises. At present, the concept of cost management has not been popularized or promoted yet. In the actual management of many port enterprises, managers usually pay more attention to the operation, while ignoring the concept of cost management and failing to effectively carry out the cost management of the enterprises; In addition, in

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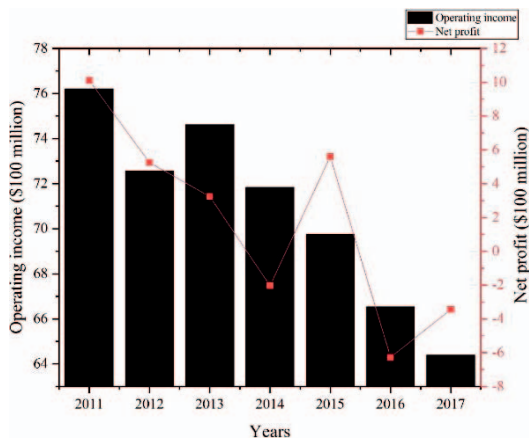


Figure 1. Operating income and net profit.

some port enterprises, although they have realized the idea of cost management and carries out promotion to some extent, the cost management works are only limited within the finance department. It's because the cost management often evolves many departments and the communication between various departments is insufficient, and this kind of cost management isn't the real or effective cost management. In summary, there are still many problems to be solved in the cost management of port enterprises. The solution of these problems can improve the operating profit of the enterprises and ensure their survival and development.

CURRENT STATUS AND PROBLEMS OF PORT ENTERPRISE COST MANAGEMENT

Current Status of Port Enterprise Cost Management

Figure 1 shows the comparison of the operating income and the net profit of a domestic port enterprise. It can be seen that its operating income and net profit fluctuate a little, generally, both show a downward trend, indicating that there are some

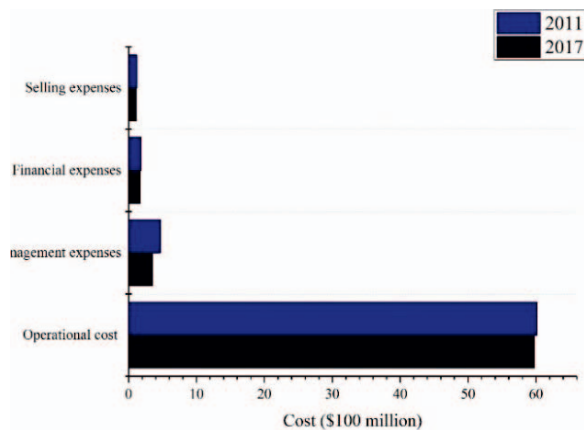


Figure 2. Different kinds of expenses.

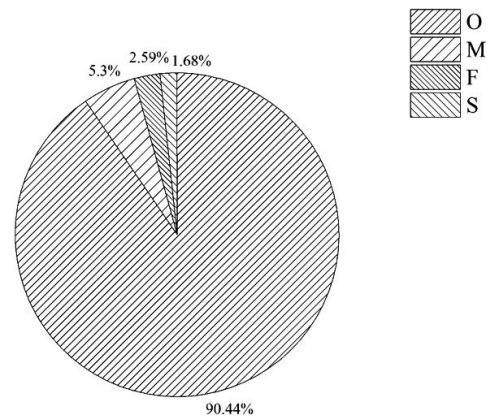


Figure 3. Percentage of different kinds of expenses in 2011.

problems existing in the current operating status of the enterprise, and its profitability is not very optimistic.

The enterprise's operating income and net profit do not have a one-to-one correspondence relationship, for example, from 2014 to 2015, the company's operating income declined, but the company's net profit increased significantly, this is because the production costs of the enterprise in year 2014 and 2015 were different. In Figure 1, the comparison between the operating income and the net profit of the enterprise shows that the cost of the enterprise varies greatly from year to year, indicating that the cost of the enterprise is unstable, and the cost management mode of the enterprise need to be further optimized and improved.

Figure 2, Figure 3 and Figure 4 show the comparison of the cost composition of the enterprise in 2011 and 2017. In Figures 3 and 4, O represents management cost, F represents financial cost, and S represents sales cost. In terms of the amount, this enterprise's sales cost, financial cost and operating cost didn't change much; in terms of management expense, the enterprise achieved a certain degree of reduction; in terms of proportion, compared with 2011, the proportion of the operating cost of the

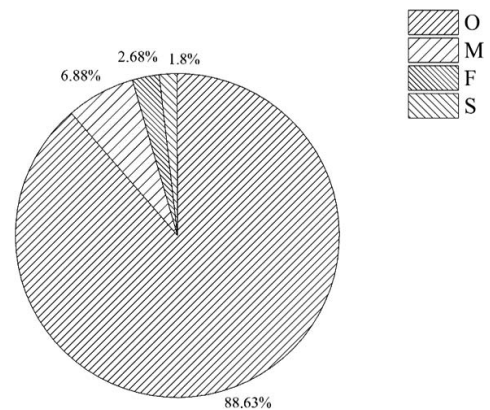


Figure 4. Percentage of different kinds of expenses in 2017.

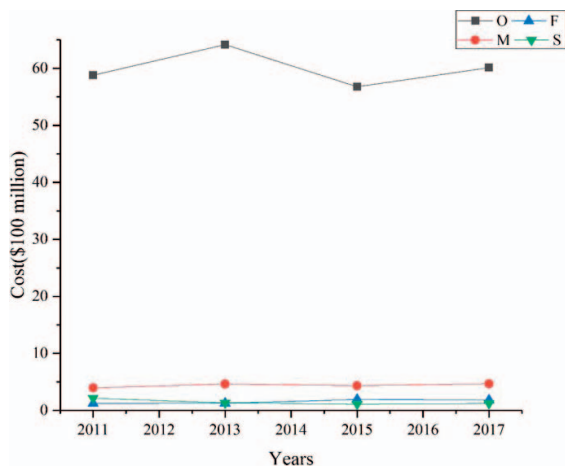


Figure 5. Change of expenses from 2011 to 2017.

enterprise in 2017 decreased, while the proportions of the management cost, financial cost and sales cost increased to varying degrees.

Figure 5 shows the trends of different kinds of costs over time in 2011, 2013, 2015 and 2017. It can be seen that the cost fluctuates constantly with time, the whole process goes ups and downs, indicating the cost changes randomly.

Problems in Port Enterprise Cost Management

The cost of the enterprise reached maximum in 2013, but in 2015 and 2017, the cost decreased, indicating that the cost management measures of the enterprise had achieved certain effects. However, compared with 2015, the total cost of 2017 increased slightly, therefore, there are still some problems in the cost management of the enterprise.

After analysis, the problems of the target enterprise in cost management are concluded as follows:

- (1) There're instabilities in the control of the operating cost.

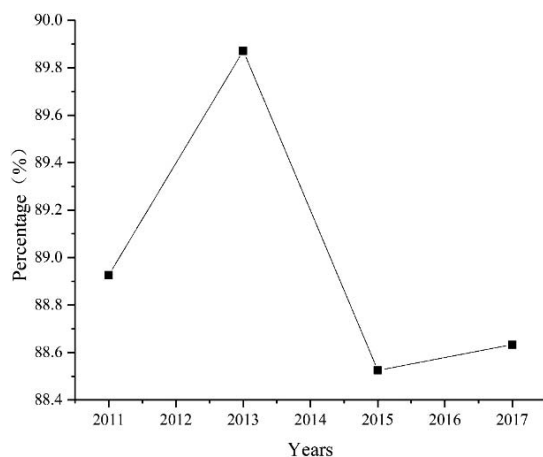


Figure 6. Percentage of operating cost from 2011 to 2017.

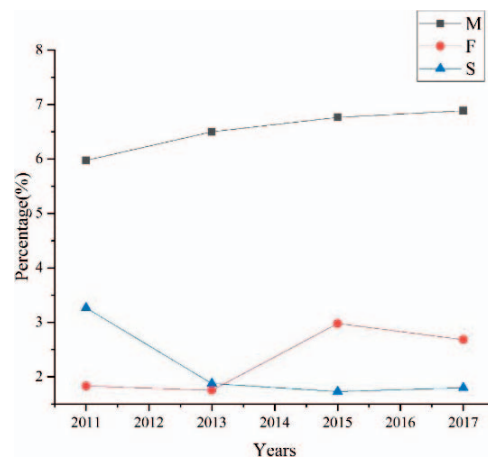


Figure 7. Percentage of management expense, financial expense and sales expense from 2011 to 2017.

As shown in Figure 6, the difference between the maximum value and the minimum value of the proportion of the operating cost in the total cost is close to 10%. The change of the operating cost is related to many factors. In recent years, the human resource cost, the fuel price, the port charge, and the ship chartering fee, would all change with the relationship between supply and demand.

Under the influence of many factors, the control of the operating cost has certain difficulties. The part of the operating cost that fluctuates greatly with external factors is more difficult to control. As for the part of the operating cost that is relatively stable, it's related to the increase of the human resource cost, as well as the proportion of the outsourcing business. After analysis we can know that, the peak of the percentage of the operating cost in the total cost in 2013 is related to the low proportion of the outsourcing business.

- (2) The proportion of management cost increased continuously, and the proportion of the financial cost rose in fluctuations.

As shown in Figure 7, similar to most port enterprises, a large portion of the enterprise's management cost was spent on human resource cost. The rising trend of the management cost of the enterprise is consistent with the rising trend of human resource cost in recent years. To achieve management cost reduction and stabilization, it's also necessary to start with organization simplification and human resource cost reduction.

In addition, for the financial cost, although a certain degree of reduction had been achieved from 2011 to 2013, the financial costs in 2013-2015 and 2015-2017 were significantly higher than that in 2011-2013. The reason is related to the company's development strategies. Due to the fierce competition in the maritime transport market in recent years, the enterprise has transformed its ideas and increased investment in fixed assets. As a result, the enterprise had to pay a large amount of interest, therefore the expenditure grew significantly in 2013, resulting in increment in the financial cost.

- (3) The number of retirees has increased. Since the enterprise is a long-established company, it had hired a large

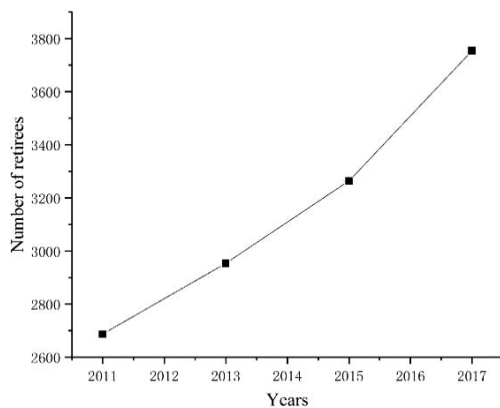


Figure 8. Number of retirees.

number of employees during its developing and expansion stages. In recent years, these employees have gradually entered retirement ages, and the number of retirees has increased year by year, which has further increased the cost burden of the enterprise.

IMPROVEMENT SCHEME FOR PORT ENTERPRISE COST MANAGEMENT

In view of the problems in the port enterprise cost management described in this paper, the following improvement scheme is proposed:

(1) Optimize the management and configuration of human resources. The analysis found that in the total cost of the enterprise, the proportion of human resource cost is 2%-3% higher than that of other port enterprises, which makes it more difficult to control the costs. In addition, an over-proportioned human resource expenditure is also unreasonable. This paper proposes to reduce the human resource cost through outsourcing. This kind of outsourcing does not mean outsourcing the business to other enterprises without screening, outsourcing without screening or planning can only lead to further increase in costs and expenses. This paper suggests to outsource the business under the premise of an appropriate outsourcing ratio and reliable cooperative partners, and practice proves that it is indeed an effective way to lower the human resource cost.

In addition, enhance retiree management. It is recommended that the enterprise should strengthen cooperation with local labor insurance departments to further improve the services and supporting measures for the retirees; transfer the services of retirees to more professional enterprises through open and transparent bidding and reasonable prices; moreover, the treatment of retirees needs to be systematic, rational and transparent to prevent someone from benefiting unfairly from it.

(2) Simplify the organizational settings. In recent years, the maritime transport business has shrunk, making the enterprise's original organizational settings redundant. With the overseas institution of the target enterprise as an example, at its peak time, it had set up offices in continents all over the world, such as America, Europe, Africa, Oceania, and Asia. In

fact, considering the current business situation of the enterprise in these regions, offices in Africa and Oceania are no longer necessary, and in the America and Europe where there are more businesses, the number of offices needs to be reduced to some extent.

(3) Strengthen investment management and control. During the analysis of the operating status and cost management of the port enterprise, it's found that there are certain problems existing in the investment management of the enterprise. Since the return on investment requires a certain period of time, before the corresponding benefits are obtained, the enterprise needs to pay a certain amount of interest, which further increases the cost burden on the enterprise, and the investment does not necessarily gain the expected profit. Therefore, the enterprise must be cautious about the investment, it's recommended that the enterprise adopt the following corresponding strategies for investment projects with different situations: for projects with uncertain investment prospects, reduce investment or even stop the investment; for projects with clear investment prospects, under the premise of prudent research, continue to invest; and meanwhile, save some investment funds for the company's own operations and development.

CONCLUSION

- (1) According to the analysis of the current situation of the target enterprise, it can be found that in recent years, there are certain problems in the operation and development of the enterprise, both the operating income and the net profit declined to varying degrees, but the two do not have a one-to-one correspondence relationship, indicating that the cost of the enterprise fluctuates to some extent;
- (2) According to the analysis, main reasons for the poor profitability of the enterprise are: improper control of the ratio of the outsourcing business amount to the total business amount results in a large change in the proportion of the operating cost in total cost, which makes the cost management more difficult; the increase in human resource cost makes the management cost and financial cost take a larger proportion in the total cost; in recent years, the number of retirees in the enterprise has peaked, which further increases the burden on the enterprise;
- (3) According to the problems existing in the cost management of the port enterprise, this paper puts forward the following suggestions: set a proper ratio for the outsourcing business, and manage the retirees rationally, so as to reduce the expenditure in human resource; on the basis of ensuring the normal operation of the enterprise, reduce unnecessary organizational settings, eliminate redundancy and lower the costs; be cautious about investment, stop investing in risky projects, thereby reducing interest expenses and lowering investment risks.

LITERATURE CITED

- Alarcon Hernandez, J.A.; Cho, S.W., and Pak, M.S., 2012. Fuel consumption within cargo operations at the port industry a

- simulation analysis on the case of a port company in the UK. *Asian Journal of Shipping & Logistics*, 28, 227-254.
- Bray, D.W. and Grant, D.L., 1966. The assessment center in the measurement of potential for business management. *Psychological Monographs*, 80, 1-27.
- Cherchye, L. and Abeele, P.V., 2005. On research efficiency: a micro-analysis of Dutch university research in economics and business management. *Research Policy*, 34, 495-516.
- Cox, A., 1999. A research agenda for supply chain and business management thinking. *Supply Chain Management*, 4, 209-212.
- Dierksmeier, C. and Pirson, M., 2009. Oikonomia versus chrematistike: Learning from Aristotle about the future orientation of business management. *Journal of Business Ethics*, 88, 417-430.
- Gorman, G.; Hanlon, D., and King, W., 1997. Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal*, 15, 56-77.
- Hanel, P., 2006. Intellectual property rights business management practices: A survey of the literature. *Technovation*, 26, 895-931.
- Hernández, B.; Jiménez, J., and Martín, M.A.J., 2008. Extending the technology acceptance model to include the it decision-maker: A study of business management software. *Technovation*, 28, 112-121.
- Kapoor, S.; Bhattacharya, K.; Buckley, S.; Chowdhary, P.; Ettl, M.; Katircioglu, K.; Mauch, E., and Phillips, L., 2005. A technical framework for sense-and-respond business management. *IBM Systems Journal*, 44, 5-24.
- Kleef, J.A.G.V. and Roome, N.J., 2007. Developing capabilities and competence for sustainable business management as innovation: a research agenda. *Journal of Cleaner Production*, 15, 38-51.
- Mazzocco, M.A., 1996. HACCP as a business management tool. *American Journal of Agricultural Economics*, 78, 770-774.
- Nonaka, I.; Umemoto, K., and Dai, S., 1996. From information processing to knowledge creation: A paradigm shift in business management. *Technology in Society*, 18, 203-218.
- Roos, G., 2004. Mathematics and modern business management. *Journal of Intellectual Capital*, 5, 243-256.
- Schrepp, M.; Held, T., and Laugwitz, B., 2006. The influence of hedonic quality on the attractiveness of user interfaces of business management software. *Interacting with Computers*, 18, 1055-1069.
- Shi, J.J. and Halpin, D.W., 2003. Enterprise resource planning for construction business management. *Journal of Construction Engineering & Management*, 129, 214-221.

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