

Research Article

Performance Evaluation of Human Resource Outsourcing in Food Processing Enterprises

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Abstract: Human resource outsourcing is not a simple combination of the meaning of human resource and the meaning of outsourcing; it has its specific meaning. It refers to the use of external resources, more economic, more effective solution to the organization's internal human resources activities involved in the study. In this study, we make a comprehensive evaluation index system of HRO model and collect data from food processing enterprises. From the result, it shows that there are 12 important factors that will affect the enterprise human resources outsourcing decision, such as competence, business risk, resources, allocation, communication, fixed cost, operating cost, tool, knowledge, service standards, service charge and service quality. It shows that in the food processing enterprises, human resources outsourcing decision should be combined with the enterprise strategic management.

Keywords: Food processing enterprises, human resource, outsourcing, performance management

INTRODUCTION

China has become the center of the global economy, whether it is for foreign investment or foreign investment, China's economy has been involved in global competition, including personnel and wherewithal to competition. In order to succeed in the global competition, we need innovation enterprise strategy and strategic human resources management. It's necessary for the enterprises to win the talent advantage, especially high-end talent due to the down-regulation of the economy, which is expected to increase the likelihood of corporate layoffs and the increasingly intense competition in the 21st century (Zafar, 2013). As for human resources management, this is paradox of the special needs of a higher demand. Human resources management needs to provide the enterprise strategic management more support to help enterprises establish core competitiveness (Metin and Erturgut, 2010). In addition, the aggravation of Chinese aging population weakens the advantage of personnel, which make the increase in labor costs inevitable. In the context of the times, to make enterprises maintain the impetus, the human resources department needs to continue to hunt the talented people and improve the management system in order to save costs, which requires liberation from the tedious clerical work (Spencer, 1993). Human resources outsourcing has become the general trend of the drive.

Considering a growing number of companies choose the outsourcing of human resources at the same time, we cannot ignore the human resources outsourcing is not a panacea and not all corporate human resources outsourcing can achieve the desired

results. There are many reasons of its failure or ineffective. One important reason is that the decision-making model is imperfect decision-making model is the lack of effective cost and benefit analysis in decision making.

The function of human resource management, transactional activities accounted for the vast majority of, such as recruitment, training, social insurance and personnel file management, these activities deal with relatively cumbersome, time and energy consumption, to create the core competitiveness of enterprises is of little significance (Stone and Deadrick, 2015), but it consumes most of the human resources department staff, these business activities exist to provide the possibility for the existence and development of human resources outsourcing. With the advantages of outsourcing will continue to appear, Human Resources Outsourcing (HRO) as a reduce enterprise cost and improve the core competitiveness of one of the effective ways and in 20 century 90's first developed in the United States and other developed capitalist countries. Using human resources professional institutions can save enterprise human resources activities time and increase the efficiency of the enterprise human resources management, at the same time, the enterprise can concentrate manpower on the strategic research and the core competitiveness of the building, HRO become the trend of the times. Outsourcing HRO is refers to the enterprise according to their own needs a one or a few of the human resource management outsourcing work out, make by other professional enterprise or organization for management, to low labor costs, to achieve maximum efficiency.

In the aspect of human resource outsourcing, some scholars classify the HRO function according to the nature of the nature, so as to classify it into different types. Brian and McClendon (2001) considered that the outsourcing of human resource function is mainly about four kinds of outsourcing, namely, comprehensive, transactional, capital and acquisition. Therefore, human resources outsourcing of functions divided into four kinds: such as human resources planning, staff performance appraisal and evaluation for comprehensive outsourcing; salary payment is based on the transaction of outsourcing; staff training, professional title promotion is nature of human capital promotion activities, staff recruitment and selection is to obtain the outsourcing activities. Klass and Gainey (1999) also carried out the division of human resources outsourcing, namely, the general HRO, transactional HRO, human resource investment, recruitment and selection of four kinds of.

In the aspect of human resources outsourcing motivations, scholars from different angles of economy, politics and enterprise of research the motivation of HRO in the enterprise, from the perspective of their own research accounted for the vast majority, mainly concentrated in reducing the cost of human resources and enhance the core competitiveness of enterprises. Jenster (1999) pointed out that affecting the human resources outsourcing factors reduce the operational cost of human resources, improve the focus of attention of the enterprise business, enhance the enterprise internal management control and can share with suppliers for development strategy. David (1997) consider that the cost advantage of HRO, more appropriate allocation of time, from the more convenient channels obtained leading technology and finally let human resource outsourcing service providers by simple providers into the organization's strategic partner. In addition, James and Johnson (2013) pointed out HRO reason mainly has the following several, namely, economy, technology, talent and political factors. Greer and Gray (1999) pointed out that whether the enterprise of HRO driving factors has 5, respectively, whether to need to streamline the corporate management system, whether the enterprise is in rapid growth or recession, the pace of globalization is accelerated, competition is intensified and enterprise whether need to recreate and in the fundamental factors behind the competition factors is lower costs and increase human resources service quality.

With the advantages of HRO research, scholars started to pay attention to the outsourcing in bring various benefits at the same time is also accompanied by risks. These risks summed up including transaction risk, conversion risk, quality risk and supervision risk. Gilley and Charles (2004) argues that the outsourcing can for the enterprise cost savings, improve the competition status and work efficiency, eliminate the

risk, in addition to HRO may also bring the transaction cost rise and affect the value of the company and the other from the supplier risk. Lever (1997) pointed out that human resource outsourcing may produce two risks: one is enterprise in outsourcing subcontractors over reliance on, another risk is the human resources outsourcing business efficiency and quality of work did not achieve the original expectations of enterprise, thus fundamentally shadow ring to the overall efficiency of enterprises.

RESEARCH OBJECT AND METHODS

In numerous can carry out the outsourcing service model choice in practice, the choice of enterprises on the HRO model of cognitive bias, most enterprises rely on subjective experience or is the outsourcing decision of copycat industry peers to judge and choose outsourcing model. The abuse of these outsourcing choices has brought a great uncertainty and potential risk to the development of outsourcing decision-making. In this study, we in view of the enterprise should be how scientific evaluation and reasonable choice of suitable for its own development outsourcing model the objective, through the establishment of a set of effective human resource outsourcing mode selection of a multi-level evaluation index system and comprehensive expert opinion method and entropy method to determine the index weight, thus forming comprehensive outsourcing decision-making model to guide the enterprise outsourcing mode selection decision.

Entropy method: Information entropy reflects the degree of disorder of information. It can reflect the degree of the information of the index in the process of evaluation and the degree of the impact of the index on the evaluation results. The greater entropy indicates a higher degree of disorder of information, the information entropy of the utility value of the smaller. The first application of entropy function in statistical physics, in the microscopic point of view, it is assumed that the system entropy can be from the molecular arrangement of the statistics obtained. According to the Boltzmann entropy formula as:

$$E = k \ln \Omega \tag{1}$$

In formula 1, k is the Boltzmann constant, Ω is the arrangement of molecules in the system:

$$\Omega = \frac{(n_1 + n_2 + \dots + n_m)!}{n_1! n_2! \dots n_m!} = \frac{\left(\sum_{i=1}^m n_i \right)!}{n_1! n_2! \dots n_m!} \tag{2}$$

According to the formula 1, it is concluded that entropy of the system:

Table 1: Evaluation index system of HRO model

Level indicators	Secondary indicators	Judgment standard
Strategic factors α_1	Core competence A1 Business risk A2	Strengthen the core competitiveness of the enterprises The lower the risk of enterprise management
Management factors α_2	Management resources A3 Talent allocation A4 Communication A5	Ease enterprises shortage of resources and technology Advantageous to the talent of professional configuration Conducive to communication between the organization
Cost factor α_3	Fixed cost A6 Operating cost A7	Can reduce the enterprise HRM fixed costs Reduce the non-core business investment
Technical factors α_4	Management tool A8 Knowledge A9	Acquire advanced technology Obtain the latest management knowledge
Service factor α_5	Service standards A10 Service charge A11 Service quality A12	Service standards and timely service Service price is low, cost-effective Service personnel quality is high

$$E = k \cdot \sum_{i=1}^m n_i \ln^{\sum n} - (n_1 \ln^{n_1} + n_2 \ln^{n_2} + \dots + n_m \ln^{n_m}) \quad (3)$$

So that, the unit entropy in system is:

$$e = \frac{E}{\sum_{i=1}^m n_i} \quad (4)$$

Unit entropy function of the system can be obtained:

$$e = -k \sum_{i=1}^m y_i \ln^{y_i} \quad (5)$$

In the process of the calculation of information entropy, constant K is related to system sample m, according to the information entropy of disorder limit value as $e = 1$ can be concluded that when $k = (\ln^m)^{-1}$.

The selection principle of index system: Evaluation index system of human resources outsourcing pattern choice, the importance of the each indicator should be closely related to enterprise requirements. The complexity of the outsourcing decision is that every index in the process of decision making requires careful consideration, to ensure the scientific and reasonable evaluation result, the first index selection criterion is particularly important. In order to make the selected indicators can be comprehensive, system, objective and true reflect human resource outsourcing decision-making of the project, when set up evaluation index mainly follow the principle of the following aspects.

Comprehensive systemic principle: The selection of indicators has to fully reflect the current enterprise management status, joint enterprise business philosophy and comply with all aspects of enterprise development strategy target.

Simple science and principle: The set of index system has certain limitations, so 20% of the index to reflect

the influence of enterprise human resources outsourcing project decision-making factors of 80%, to ensure index set up a scientific and concise.

Consistency principle: Indicators set to have a certain logical rigor, prevent conflict between indicators.

Combination of qualitative and quantitative principle: In the process of the index set, will fully allocated proportion of qualitative indexes and quantitative indexes, comprehensive and balanced set of qualitative and quantitative indicators, prevent evaluation index is measured according to the qualitative or quantitative point of view, only guarantee the index set is scientific.

Establishment of evaluation index system: Through combing the existing related information, as well as the comprehensive decision-making influence factors and combining the research of the motives of outsourcing as a result, the small and medium-sized enterprises in our set selection and index system of enterprise human resources outsourcing mode choice, for we will be divided into strategic level classification index factor, management factor, cost factors, technical factors, factors of outsourcing service providers have five categories of the final comprehensive evaluation. In order to make the evaluation more reasonable scientific process, the evaluation results more accurate, on the basis of the theoretical foundation of the enterprise human resources outsourcing decision-making model, we will again many secondary refining the five levels of classification index into a single index, evaluation indexes and evaluation standards at all levels can be shown in Table 1.

RESULTS AND DISCUSSION

Questionnaire investigation: In order to understand the present situation of human resource management and the enterprises, the major issues of outsourcing management 20 companies, the author of this study has carried on the detailed analysis of the actual survey. Some of the 20 companies engaged in human resource management outsourcing. The investigation is mainly

aimed at the human resources management department in the sample, the manager and assistant and the staff of human resources department. The purpose is to find the current situation of the enterprise in the human resource management outsourcing decision and engaged in outsourcing management difficulties.

In enterprise human resources management present situation investigation, our main purpose is to clear the enterprise the present situation of human resource management. After analysis of the current enterprise, it shows necessity of the implementation of human resources outsourcing. We mainly aimed at the enterprise human resources management strategy, personnel management specialist tissue, enterprise recruitment, compensation design, performance appraisal five aspects to investigate. Human resource management focuses on investigation of current situation of enterprise human resources management strategy idea, management talent, enterprise organization structure, HRM a total of four aspects. Aimed at investigating the situation of enterprise human resources outsourcing decision, we mainly use the situation in view of the enterprise human resources outsourcing, the motives of outsourcing, outsourcing project choice, enterprises to adopt or avoid the difficulty of outsourcing, outsourcing risk factors for a total of 5 aspects to investigate.

In the form of questionnaire as online survey and field distributed and been send to HR department of small enterprises. Because the subjects for the small and medium-sized enterprise HR personnel and a line of the project manager, the relatively small sample size, a total of 200 questionnaires, recycling, 176 and 148 valid questionnaires. The recovery rate of valid questionnaire is 74%. From the point of enterprise property, companies surveyed the vast majority of private enterprises, private enterprise number only with the private enterprises, foreign enterprises less two. From a number of companies surveyed the human resources department, the following 5 people accounted for 26.7%, more than 15 people accounted for only 20%, the vast majority of the number of enterprise human resources department for 5 to 15 people, accounts for about 53.3% of the proportion of the sample. Specific statistics are shown in Table 2.

In view of the human resources management present situation of enterprise's survey, we found that according to the content of the questionnaire, there are 6 companies which have no specific human resources department, the other eight with incomplete or independent of the personnel department. Number of company personnel engaged in human resources management, according to statistics, mainly concentrated in the 5-15 people. Executives of the importance of human resources according to the survey, most of small and medium-sized enterprise only 54% of

Table 2: Statistics analysis of questionnaire samples

Option	Attribute	Number	Proportion
Enterprise form	Private enterprise	9.0000	60.0
	State-owned enterprise	6.0000	40.0
Number of people in HR	<5	0.7963	26.7
	5-15 person	0.7802	53.3
	>15	0.6278	20.0

surveyed, head of the business enterprise personal management often participate in the enterprise strategy in the decision-making process; the questionnaire survey of executives about the importance of human resource management is not high. In the surveyed enterprises, the company employees knowledge level of human resource management department according to the survey, the company employees the average degree of bachelor degree or above, in the minority enterprise human resource management department staff of an average of record of formal schooling of three-year institution of higher education.

Result of expert score: Enterprise formed expert evaluation group, group members for 7 people, including 3 consists of human resources outsourcing and consulting experts, the other 4 people from the enterprise internal management decision-making. In ensuring the reliability of information, under the premise of fairness, graded by the expert group for running outsourcing modes one by one, in order to eliminate the influence of abnormal hit points and we are in the process of actual statistical scoring, remove a high score, remove a minimum points, take the arithmetic mean value included in the initial evaluation matrix of each expert. Finally, the individual index evaluation points below 6.0, implement a veto. Using expert scoring method of the running mode on each evaluation index scores (Table 3).

According to the calculation formula of entropy value method, data computing applications, we get about the primary classification indexes in the Table 4, as well as the second single index weights. Weights are shown in the Table 4.

From the classification index weight distribution we can see that on a visit to many factors, management and service factors weight ratio is higher, the second is the cost factors and technical factors, the minimum entropy strategic factors. In the study of the weight of single index, we can see, for example for the management factor, organizational communication individual indicators reflect the largest amount of information, the greater the degree of discrete, the role of it in the rating index system is smaller, so the minimum value of entropy.

Analysis of project evaluation results: According to the expert subjective rating data and the weight of each index, in the process of comprehensive evaluation value

Table 3: Expert evaluation score of HRO model

Level indicators	Secondary indicators	Expert scoring		
		Recruitment outsourcing	Training and development outsourcing	Medical claims outsourcing
Strategic factors α_1	Core competence	8.3	8.0	7.6
	Business risk	7.8	7.6	8.0
Management factors α_2	Resources	8.5	8.2	7.6
	Talent allocation	8.3	8.5	7.2
	Communication	8.0	8.4	8.0
Cost factor α_3	Fixed cost	6.8	6.5	7.0
	Operating cost	7.5	7.0	6.8
Technical factors α_4	Tool	7.3	7.5	6.5
	Knowledge	7.6	7.4	6.8
Service factor α_5	Service quality	6.8	6.6	6.5
	Service charge	7.4	6.8	7.0
	Service quality	7.0	7.0	6.5

Table 4: The entropy weight of the evaluation index

Level indicators	Secondary indicators	Secondary individual index			Entropy weight
		Entropy	Classification index entropy	Single index entropy	
Strategic factors α_1	Competence	0.998	0.670	0.069	0.103
	Business risk	0.999	0.330	0.037	
Management factors α_2	Resources	0.997	0.375	0.103	0.276
	Allocation	0.997	0.375	0.103	
	Communication	0.998	0.250	0.069	
Cost factor α_3	Fixed cost	0.998	0.400	0.069	0.172
	Operating cost	0.997	0.600	0.103	
Technical factors α_4	Tool	0.998	0.400	0.069	0.172
	Knowledge	0.997	0.600	0.103	
Service factor α_5	Service quality	0.997	0.375	0.103	0.276
	Service charge	0.997	0.375	0.103	
	Service quality	0.998	0.250	0.069	

Table 5: Overall evaluation score of the election pattern

Outsourcing service	Recruitment outsourcing	Training and development outsourcing	Medical claims outsourcing
Single index evaluation score	1.690	1.657	1.568
Overall score	7.600	7.400	7.100

calculation, in order to reflect the attribute significance of scores, we calculate in addition to the single parameter relative to the index system of comprehensive score and comprehensive score relative to the classification index, in order to reference for decision making. The running mode composite scores are shown in Table 5.

From the Table 4, in the 3 outsourcing service model, the recruitment outsourcing has the highest score of 7.6 points, medical claims outsourcing min. 7.1 points. This shows that the company currently experts assess group consensus that the enterprise should take recruitment outsourcing of human resources outsourcing model. Recruitment outsourcing can make the enterprise in comprehensive under the action of various factors, the maximum improve the efficiency of the work of human resources department, enterprise outsourcing. From the result of comprehensive evaluation, we can also see that for the present industry widely popular medical claims process outsourcing service model, but is not suitable for the enterprise outsourcing practices, this and the enterprise the current

labor shortages, the brain drain and the actual situation of human resource mature medical claims procedure.

CONCLUSION

In the implementation of enterprise human resources outsourcing, outsourcing service provider of the correct choice is second only to outsourcing mode selection of another important link. The size of the ability of outsourcing service providers and service quality high and low, the pros and cons of working methods directly determine the success of enterprise outsourcing activities. Large enterprises at home and abroad in selecting the appropriate outsourcing service provider usually adopt the combination of qualitative and quantitative method, as well as to establish a reasonable evaluation index system of outsourcing service providers and to choose scientific and reasonable optimization strategy and method, to provide reference for the enterprise human resources management activities. In search of alternative in the process of outsourcing service providers, enterprises

should first outsourcing services market in market research, extensive collection market scope of business of all kinds of outsourcing service providers, outsourcing, looking for an object conforms to the enterprise outsourcing project selection decision alternatives. These alternative first of outsourcing service providers should have a good reputation, quality of service and job performance. After the lock a few candidates, companies can use the combination of qualitative and quantitative methods to multiple aspects and choose the best service can provide the enterprises with the high quality specialized resources. In the capacity of outsourcing service providers, the outsourcing service providers must have the external ability which the enterprise lacks and can be competent to manage the human resources.

According to the front of the outsourcing decision-making model which choose the outsourcing projects for outsourcing project, after the enterprise to make outsourcing decisions, one of the most important problem is the need of outsourcing cost and benefit analysis, in order to enterprise profit maximization in the end. Scientific and reasonable cost-benefit analysis test project human resource management outsourcing can help enterprises choose and outsourcing service provider of decision-making is correct or not. When doing human resource outsourcing decision-making, enterprise's high cost will be very seriously and the corresponding rate of return on investment, enterprise can obtain profit is always the source of enterprise development. The cost of human resources outsourcing is refers to in the implementation of enterprise outsourcing decision of recessive or dominant costs include all kinds of human expenditure. When analyzing the costs and benefits of the enterprise, we think that the small and medium-sized enterprise scale is small, suitable for using a simple and effective measure. The calculation existing enterprise staff to complete a function of costs and benefits, human resources was compared after with outsourcing cost benefit.

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