

Research on Influencing Factors of Human Resource Efficiency of Tobacco Company Based on Interpretive Structural Model

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ABSTRACT. *This paper uses literature metrology method to statistical analyze related literatures. 14 influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company are determined and selected from predecessors' research achievements. Relational structure of 14 influencing factors are analyzed by ISM model. Results show that collective asset security, operational efficiency of Human Resource Efficiency, flexibility of collective assets application, Human Resource Efficiency allocation and Human Resource Efficiency preservation are fundamental factors. The study has important significance for grasping the formation, development and evolution mechanism of Human Resource Efficiency common benefit mechanism of Tobacco Company.*

KEYWORDS: *Farmers Cooperatives; Human Resource Efficiency; Interpretative Structural Model; Influence Factors*

1. Introduction

As main body of market, vitality and competitiveness of farmer cooperatives depends largely on the amount of assets owned or controlled. Cooperative itself is unable to form substantial assets. To help cooperatives breakthrough asset plight, many order companies give financial support, require cooperatives to quantify the subsidy to each member, realize preferences and wide benefit of all members. Tobacco industry is a typical order agriculture. Tobacco companies implement orders planting and subsidy system to realize GSP and fairness of subsidy input. Tobacco companies guide all farmers set up farmers cooperatives, subsidies farm machinery, greenhouse, vehicles and other assets to cooperatives. Cooperatives reuse these assets provide low-cost services to farmers member.

In reality, some farmers cooperatives did not implement quantitative distribution of external subsidy assets. Its beneficiaries are often just a handful of core members. The amount of money in member account column “quantify share of external subsidy funds” “quantify share of donated property” is casual, so cooperative

cohesion decline. Therefore, research on influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company is especially important.

At home and abroad, there are few studies on Human Resource Efficiency common benefit mechanism of Tobacco Company. Wang Li (2014) pointed out that influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company mainly have flexibility of collective assets application, collective asset income rights, collective asset compensation rights, collective asset mortgage, collective asset security right[1].

Kong Youli (2014), pointed out that, influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company mainly have management efficiency of Human Resource Efficiency, Human Resource Efficiency protection, Human Resource Efficiency appreciation, Human Resource Efficiency allocation, Human Resource Efficiency share[2]. Shandong province, through collective property rights reform, quantifies collective asset shares to organization members of village economic, establish collective property right system with clear subject and ownership, clear responsibility and authority, strict protection [3]. Chinese Rural Cooperative Economic Management Institute, Zhang Xiaoshan (2015) proposed collective assets cure equity, land rights and real right by right confirmation, registration and certification work, clear property rights. In the future, collective economy development direction will be from closed to open, from curing to flow, curing is to get a better flow, on the basis of clear property rights, the joint-stock form of cooperation is conducive to promoting the flow of equity, land rights and real right, increases funding, expands stocks[4].

2. Influencing Factors Determination of Human Resource Efficiency of Tobacco Company

Literature metrology studies quantity, quality and application of essence and structure about various types of documents using theory and method of mathematics, statistics and logic[5]. In this paper, this method is used to determine and select influencing factors of Human Resource Efficiency common benefit mechanism. Chinese journal full-text database did not have papers about influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company before 2000. There are 34 papers of which title contain “influence factors of Human Resource Efficiency common benefit mechanism of Tobacco Company” in Chinese journal full-text database from January 2000 to July 2015. With literature metrology method, we analyzed influencing factors that were studied or mentioned in various literatures, and got 14 important factors, including flexibility of collective assets application, collective asset income rights, collective asset compensation rights, collective asset mortgage, collective asset security right, management efficiency of Human Resource Efficiency, Human Resource Efficiency protection, Human Resource Efficiency appreciation, Human Resource Efficiency allocation, Human Resource Efficiency share, clear property rights, equity curing, land rights curing and real right curing.

3. Relationship Structure Analysis of Influencing Factors

3.1 Determination of Relationship Between Various Factors

In order to analyze the impact of these factors, we establish an interpretation structure model[6]. First, combined with previous research results, we clarify logical relationship between various factors, as shown in figure 1. The “A” represents the row factors have a direct impact on the column factors. The “V” represents the column factors have a direct impact on the row factors. “X” represents the row factors and the column factors have a direct impact on each other. “O” represents the row factors and the column factors do not have a direct impact on each other.

S_1	S_2	S_3	S_4	S_5	S_6	S_7	S_8	S_9	S_{10}	S_{11}	S_{12}	S_{13}	S_{14}	S_{15}	
A	O	O	O	O	X	O	O	O	O	O	O	O	O	A	S_1
	O	O	V	O	V	V	V	O	O	O	O	O	O	A	S_2
		O	A	O	X	O	O	A	O	O	A	O	A	O	S_3
			O	O	O	O	O	O	O	O	O	O	O	A	S_4
				O	O	O	V	O	O	O	O	O	O	A	S_5
					O	O	A	A	O	O	O	O	O	A	S_6
						A	O	O	A	A	O	O	O	A	S_7
							V	O	O	O	O	O	O	A	S_8
								A	O	O	O	O	O	A	S_9
									O	A	A	O	A	S_{10}	
										A	V	O	A	S_{11}	
											A	O	A	S_{12}	
												O	A	S_{13}	
													A	S_{14}	

Figure. 1 Logical Relationship Between Various Factors

According to Figure 1, we can get correlation matrix R which is 15order square

matrix. Elements of R are defined as $r_{ij} = \begin{cases} 1, & S_i \text{ directly impact } S_j \\ 0, & S_i \text{ not directly impact } S_j \end{cases}$,
 $(i, j = 1, 2, \dots, 15)$

3.2 Relationship Between Different Levels of Various Factors

The reachable matrix $M=(R+I)^4$ is obtained by correlation matrix R, and I is the 15 order unit array, M is calculated by Matlab software.

The data of reachable collection $R (S_i)$, antecedent collection $A (S_i)$ and their Intersection $R (S_i) \cap A (S_i)$ in reachable matrix M are shown in table 1.

Table 1 The First Level of Reachable Collection and Antecedent Collection of Influencing Factors

S_i	$R(S_i)$	$A(S_i)$	$R(S_i) \cap A(S_i)$
1	1,2,3,5,7,8,10,11,12,13,15	1,3,7	1,3,7
2	2,15	1,2,3,5,6,7,8,9	2
3	1,2,3,5,7,8,10,11,12,13,15	1,3,7	1,3,7
4	4,15	4	4
5	2,5,15	1,3,5,6,7,9	5
6	2,5,6,8,9,10,11,12,13,15	6	6
7	1,2,3,5,7,8,10,11,12,13,15	1,3,7	1,3,7
8	2,8,15	1,3,6,7,8,9	8
9	2,5,8,9,10,11,12,13,15	6,9	9
10	10,11,12,13,15	1,3,6,7,9,10	10
11	11,12,13,15	1,3,6,7,9,10, 11,12,13	11,12,13
12	11,12,13,15	1,3,6,7,9,10, 11,12,13	11,12,13
13	11,12,13,15	1,3,6,7,9,10, 11,12,13	11,12,13
14	14,15	14	14
15	15	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15	15

(1)The first node of influencing factors can be obtained from data in table 1: $L_1=\{15\}$. (2) Delete line 15 and column 15 of reachable matrix, get the second node: $L_2=\{2,4,11,12,13,14\}$. (3) Delete line 2/4/11/12/13/14 and column 2/4/11/12/13/14, get the third node: $L_3=\{5,8,10\}$. (4) In the same way, the fourth node and the fifth node: $L_4=\{1,3,7,9\}$, $L_5=\{6\}$.

According to above analysis, we establish interpretive structural model of influencing factors of Human Resource Efficiency common benefit mechanism of Tobacco Company, as shown in figure 2.

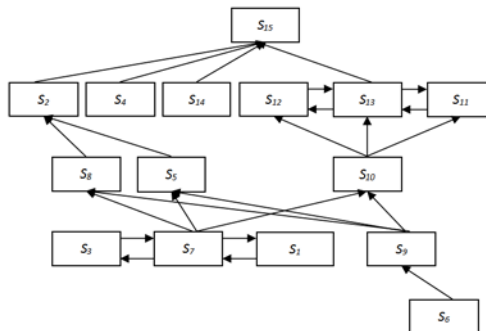


Figure.2 Interpretive Structural Model of Influencing Factors of Human Resource Efficiency of Tobacco Company

This study was supported by the Project of Research and application of the evaluation model of Anshun tobacco company employees' occupational traits and job matching.

3. Conclusion

As shown in figure 2, Human Resource Efficiency common benefit mechanism of Tobacco Company is a hierarchical structure with 5 levels. The first level is Human Resource Efficiency common benefit mechanism of Tobacco Company(S_{15}).The second level includes output value per collective asset income

rights (S_2), collective asset mortgage (S_4), real right curing (S_{14}), equity curing (S_{12}), land rights curing (S_{13}), clear property rights (S_{11}). The third level includes appreciation of Human Resource Efficiency (S_8), collective asset compensation rights (S_5), Human Resource Efficiency share (S_{10}). The fourth level includes collective asset security right (S_3), management efficiency of Human Resource Efficiency (S_7), flexibility of collective assets application (S_1), Human Resource Efficiency allocation (S_9). The fourth level includes Human Resource Efficiency protection (S_6).

Research on the relationship structure between influencing factors, we can find out surface direct influencing factors, middle and indirect influencing factors, fundamental influencing factors. Collective asset security right, management efficiency of Human Resource Efficiency, flexibility of collective assets application, Human Resource Efficiency allocation and Human Resource Efficiency protection are fundamental influencing factors, which produce deep and fundamental impact on the formation, development and evolution of Human Resource Efficiency common benefit mechanism of Tobacco Company. Distinguishing function levels and their relationship of each influencing factor has an important significance for grasping the formation, development and evolution mechanism of Human Resource Efficiency common benefit mechanism of Tobacco Company.

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