

The Human Resources Flow Problem

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Abstract:By analyzing the phenomenon of the human resources flow, this paper studies information concealed at the back. We construct the relevant model with the target which is in what state human resources can benefit win-win between enterprise organizations and employee individual. Then, by carrying on the contrast to it, four kinds of results are obtained. The final target can be met with some key factors satisfied according to our analysis of the four results. Finally, we get the conclusion that the individual key factor brings the human resources flow. If enterprise organizations and employee individual can deal with relevant details appropriately, unreasonable human resources flow can be avoided completely. Correspondingly, if the total target of the state is not ideal, we can arrange the reasonable flow of human resources which can achieve a better win-win situation for enterprise organizations and employee individual.

Key words: Human resources; Human resources flow; Model

1 Introduction

With the development of market economy and the science technology, human resources produce the phenomenon of being on the move. The more it develops, the more human resources have flow ability, which satisfies the need of enterprise organizations and employee individual right now or in the future. When in an economic prosperity, organizations are growing up, which demands to crew new employees and develop capable management and technician to enrich human resources warehouse. When the economics is in recession, organizations will be in a low stage, which needs to flow out of human resources which are more than needed. Decision-making of human resources flow must match its strategic objective. The lack of experienced workers and the capable managers, when the demand is large will affect the success of strategic manage choices severely. Similarly, when human resources are superfluous, organizations will pay high cost.

There are two aspects about the research of human resources at home and abroad: one is the human resources plan, the other is weight and measure of human resources. About the human resources plan, important molding theory already includes wooden box principle analysis model, linear program model etc. About weight and measure of human resources, Eric G. Flamholtz proposed Measuring the economic value model in 1968; E.Engel brought The cost method of human capital; Roger.H.Hermanson proposed Human Capital Measurement Model–Discount future wage law and other methods.

A lot of researches about human resources problems stay on the qualitative analysis basis, also some model have built up model like the chain model, five force models, 3 P models, quality models, competent for the characteristic model and other models. But about human resources flow problem research, most researches stay on the language analysis basis. Recently, simpler human resources accounting respect to index appears, such as human resources flow rate, human resources separation rate, human resources employment rate, net labor flow rate and human Capital shares Value Model, etc. The purpose of the present paper is to

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analyze the information concealed at the back of the flow, which is how human resources move, what the society and development of the economy really needs, or in what state human resources can benefit win-win between enterprise organizations and employee individual.

2 Model and Analysis

The decision-making of human resources flow must satisfy the need of organization at present and in future, and at the same time must consider employees' individual target and life. There are many factors affecting human resources flow in reality. We introduce main causes here simply, which are environment, occupation, and individual etc.

The environmental factor includes the general society environmental factor and the environmental factor working concretely. The society environmental factor mainly includes the influence of policy, economy, science, technology, industrial construction change, culture, education etc. over human resources flow. The factor respects to working are target of organization, the supervisor mode, spirit of organization, leading style, human relations and reward, which affect human resources flow directly.

The occupation factor mainly includes occupation image, occupation engineering level and investment in occupation by employees etc. The occupation image (occupation to estimation), which is the public view to all kinds of occupation of society and the attitude to job hunting, reflects fundamental labor consciousness and occupation concept in a society. Occupation engineering level is the complicated degree composed of occupation technology. The more complicated it is, the more it affects human resources flow. The influence of investment on occupation from employees is that in certain situation, the more employees spend time, energy and affection, the better it will be. Otherwise it will aggravate human resources flow.

The individual factor mainly includes employee's age factor and individuality factor. The elder an employee is and the longer the job fixed number of years is, the smaller possibility of human resources is, otherwise increasingly big. The individuality factor includes personal ability, qualities, character, interest, ambition, belief and attitude etc, which have great influence on the human resources flow.

We present the problem of human resources flow using step analysis. The basic principle of step analysis is carrying out the ordering superior or inferior on ultimate various method, measure, viewpoint etc, which helps to make the final decision. The essence of step analysis lies in combination of qualitative analysis and quantitative analysis, expressing and dealing with the people's subjectivity judged with quantity, which reflect a problem more accurately.

The problem is how to analyze the state of human resources flow, that is, in what condition can human resources satisfy the need of enterprise organizations and employee individual at present and the development of them in future. So, our problem can be extended: appraise the human resources team under different state and inspect in what condition can human resources satisfy the need of enterprise organizations and employee individual at present and development in future.

According to step analysis, the appraised conclusion is a double-level system: one is rational, the other is unreasonable. There are two choices of appraised viewpoint: one is rational, the other is unreasonable. Provided criterion of estimation can be seen in Graph1.

According to step analysis and a model tree appraised, the result needed to know is whether human resources in some conditions is rational, or unreasonable? In other words, we need to know this two kinds of viewpoints –the "rational", "unreasonable", which one has maximal affection toward total target human resources. Namely which viewpoint can reflect total target – "human resources flow" untimely. Describe it with mathematical thought: trying to know the two kinds of viewpoints, is just knowing which one has bigger weight relative to total target – "human resources flow". From step analysis, every weight relative to total target – "human resources flow" is relevant previous index relative to total target, that is, every index in viewpoint tier has pass relation tier with relevant data of sub- criterion tier. Similarly, every index in sub-viewpoint tier has pass relation tier with relevant data of criterion tier and every index in criterion tier has pass relation tier with total target. So if we want to know the weight of this two kinds of viewpoints – "rational" and "unreasonable" relative to total target – "human resources flow", we must know the weight of seven sub-criterion index in D tier relative to total target and the weight of "rational" and "unreasonable" relative to four sub-criterion in C tier. Generally, if we know the weight of every index of some layer relative

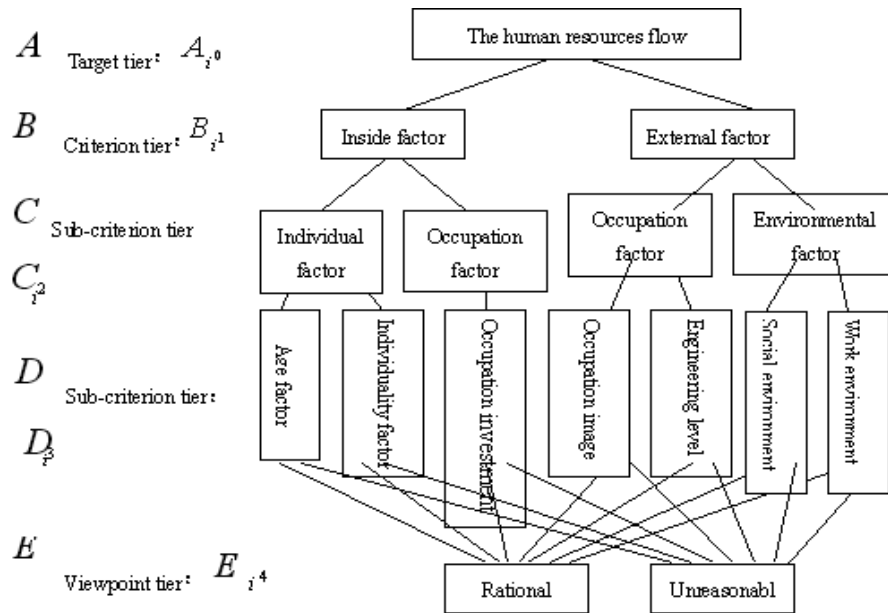


Figure 1: Human resources flow model tree

to total target and the weight of every index of next layer relative to relevant index of this layer, we can get weight of next layer relative to total target. If there are no relations between lower tier and upper tier, we don't have to know weight between them. Respect to the weight of "rational" and "unreasonable" and the weight of parameter (setting according to relevant background), we can explain by the following data. In graph 1, some index of seven sub-criterions in D tier is "rational", which is equivalent to the weight of this two kinds of viewpoints relative to this index noted by (0.6,0.4). Correspondingly, "unreasonable" is equivalent to the weight of this two kinds of viewpoints relative to this index noted by (0.4, 0.6). Similarly, we label the weight of other parameter in the following graph. The choice of parametric weight is not changeless here. It can set up according to the background of problem, the emphasis of consulting analysis. Here one kind of setting-up method is given, so as to show the value of this model. We simplify the above-mentioned model tree into the following "graph". From above graph, we can see that when the final layer is removed, the remaining is a "binary" tree.

It is easy to know that the weight of each element of D layer relative to total target A is the product of the weight that total target A reaches this element. From this, we can get the following: There are two choice of

Table 1: The weight of D layer element relative to total target A

Element	D_1	D_2	D_3	D_4	D_5	D_6	D_7
The weight relative to A	0.096	0.144	0.360	0.064	0.096	0.144	0.096

relative weight of viewpoint layer relative to D layer element: (0.4, 0.6) and (0.6, 0.4). Then, we have: Let

Table 2: The data sorting of weight that D layer element relative to total target A

Element	D_3	D_2	D_6	D_1	D_5	D_7	D_4
The weight relative to A	0.360	0.144	0.144	0.096	0.096	0.096	0.064

the meaning of the parameters of D layer embed into data tables. We discuss it in different situation.

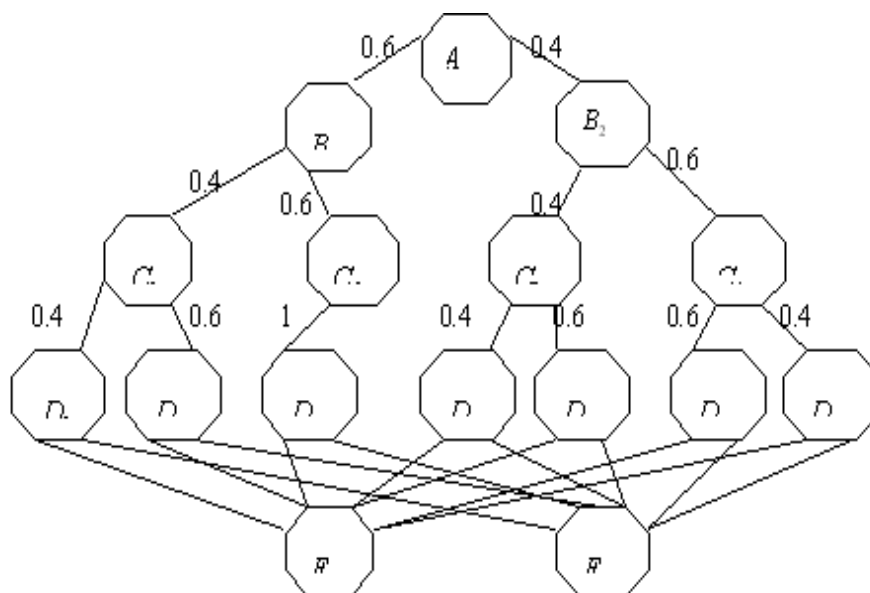


Figure 2: Human resource flow simplified model

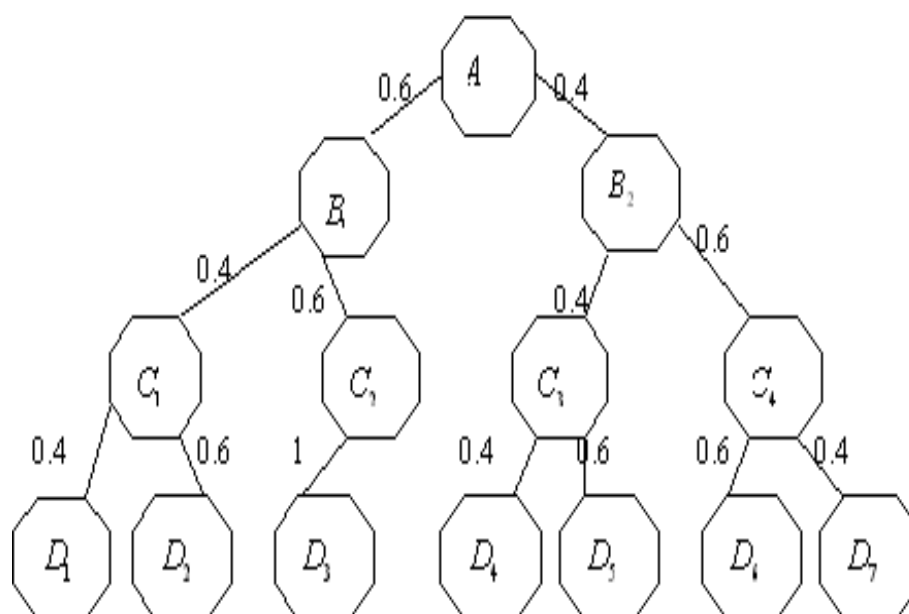


Figure 3: Human resource flow "binary" model

Table 3: The weight parameters sorting of D layer element relative to total target A

The meaning of the parameters	The weight relative to A
Occupation investment	0.360
Individuality factor	0.144
Occupation image	0.144
Age factor	0.096
Work environment	0.096
Engineering level	0.096
Social environment	0.064

Case 1 Assuming all factors are "unreasonable", the weight of viewpoint layer compared to the total goal:

$$X_1 = 0.4 \times (0.36 + 0.144 + 0.144 + 0.096 + 0.096 + 0.096 + 0.064) = 0.4 \quad (2.1)$$

$$X_2 = 0.6 \times (0.36 + 0.144 + 0.144 + 0.096 + 0.096 + 0.096 + 0.064) = 0.6 \quad (2.2)$$

At this point, $X_1 < X_2$, the weight of "unreasonable" relative to the total goal ——"human resource flow" is larger, therefore, under present conditions the total goal is "unreasonable", which can not meet with the present and future development needs of enterprise organizations and the staff.

Case 2 Assuming "Occupation investment" is "rational" and all other factors are "unreasonable", then, the weight of viewpoint layer relative to total target:

$$X_1 = 0.4 \times (0.144 + 0.144 + 0.096 + 0.096 + 0.096 + 0.064) + 0.6 \times 0.36 = 0.472 \quad (2.3)$$

$$X_2 = 0.6 \times (0.144 + 0.144 + 0.096 + 0.096 + 0.096 + 0.064) + 0.4 \times 0.36 = 0.528 \quad (2.4)$$

At this point, $X_1 < X_2$, the weight of "unreasonable" relative to the total goal ——"human resource flow" is larger, therefore, under present conditions the total goal is "unreasonable", which can not meet with the present and future development needs of enterprise organizations and the staff.

Case 3 Assuming "Occupation investment" and "Individuality factor" are "rational" and all other factors are "unreasonable", then, the weight of viewpoint layer relative to total target:

$$X_1 = 0.4 \times (0.144 + 0.096 + 0.096 + 0.096 + 0.064) + 0.6 \times (0.36 + 0.144) = 0.5008 \quad (2.5)$$

$$X_2 = 0.6 \times (0.144 + 0.096 + 0.096 + 0.096 + 0.064) + 0.4 \times (0.36 + 0.144) = 0.4992 \quad (2.6)$$

At this point, $X_1 > X_2$, the weight of "rational" relative to the total goal ——"human resource flow" is larger, therefore, under present conditions the total goal is "rational", which can meet with the present and future development needs of enterprise organizations and the staff.

Case 4 Assuming "Occupation investment" "Individuality factor" and "Occupation image" are "rational" and all other factors are "unreasonable", then, the weight of viewpoint layer relative to total target:

$$X_1 = 0.4 \times (0.096 + 0.096 + 0.096 + 0.064) + 0.6 \times (0.36 + 0.144 + 0.144) = 0.5296 \quad (2.7)$$

$$X_2 = 0.6 \times (0.096 + 0.096 + 0.096 + 0.064) + 0.4 \times (0.36 + 0.144 + 0.144) = 0.4704 \quad (2.8)$$

At this point, $X_1 > X_2$, the weight of "rational" relative to the total goal ——"human resource flow" is larger, therefore, under present conditions the total goal is "rational", which can meet with the present and future development needs of enterprise organizations and the staff.

Adding parameter into a "column" of "rational" from the order of table and computing step by step, we can see that results are "rational".

The following conclusions can be obtained:

(1) When the "Occupation investment" and "Individuality factor" are "reasonable", it can be viewed as the "rational" condition of "human resource flow".

(2) This model can decide whether "human resource flow" is "rational".

(3) This model can find "rational" condition satisfying "human resource flow".

3 Conclusion

From the above analysis, the individual key factor brings the human resources flow. If enterprise organizations and employee individual can deal with relevant details appropriately, unreasonable human resources flow can be avoided completely. Conversely, if an enterprise organization and the staff insist in some important issues, unnecessary human resource flow is bound to happen; if enterprise organization and the staff can not deal with some important issues properly, necessary and reasonable flow of human resources is also bound to happen, which will meet with the future development need of enterprise organization and the staff.

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