

## Incentive Application in Enterprise Recruiting Game

Shuaijuan Liu

School of Management, Inner Mongolia University of Technology, Hohhot, China

*\*Corresponding Author:* Ai-hua Tao, Xinglin College, Nantong University Jiangshu Nantong, China.

### ABSTRACT

Now the fierce competition among enterprises is human resource, and human resource has become the magic weapon for enterprises to defeat their opponents. This paper analyzes the adverse selection phenomenon between enterprises and candidates in the recruitment process, analyzes the theory of motivation with game theory, and puts forward corresponding Suggestions.

**Keywords:** human resources, recruitment, motivation, game

### INTRODUCTION

We often say "the information meet the eye everywhere is inadequate, can be said to be a normal life." However, in the actual economic environment, often in the choice of tactics, the information meet the eye everywhere is inadequate, can be said to be a normal life. In the marketization of talent, enterprise recruitment is a typical information asymmetry. How to recruit the right people, to achieve the matching of people, and then create value for the enterprise, to achieve organizational goals, has always been the most troublesome thing for all businesses. In the recruitment process, candidates often hide their true information, the display of information is to cater to the enterprise post and set up, resulting in adverse selection phenomenon of enterprises, the loss of the real talents, resulting in great losses.

### THE IDEA OF GAME THEORY

Game refers to some individuals or organizations, in the face of certain environmental conditions, according to certain rules, simultaneously or successively, one or more times, from their own choice of behavior or strategy to choose and implement, each of the corresponding results. The game requires elements: the participants of the game, the game player can choose their own all the strategies, the order of the game, the game side of the benefits of the game in the course of the strategic actions taken by the two acts of threat and commitment, Threats are a response to punish other participants who do not follow your wishes, and promises are rewards

given to other participants who follow your wishes.

Talent market is a lemon market, due to asymmetric information, recruiters often open lower wages, in addition to the mediocre "lemon", cannot attract elite talent, the result of bad money driven by the phenomenon of bad money. Enterprises always want to find suitable jobs for employees, candidates always expect to be hired by their own expectations of the company, there will be a variety of false information, because the information asymmetry exists between the two sides, constitutes a game in the recruitment problem.

### THE ESTABLISHMENT AND ANALYSIS OF GAME MODEL IN RECRUITMENT PROCESS

#### Model 1

In the recruitment process, participants of the game: recruiters and applicants; alternative strategies: applicants have two strategies of telling lies or not lying, and recruiters have two strategies that believe or not.

Establishing the hypothesis condition of game model:

**Hypothesis 1:** After the applicant is admitted, the salary is  $V$ , the enterprise income is  $R$ ; if not admitted, the benefit of both sides is  $0$ ;

**Hypothesis 2:** The cost of recruitment is  $C$ ;

**Hypothesis 3:** The applicant lied successfully, the candidate gains  $V + \alpha V$ ;

Hypothesis 4: the applicant lies, the probability

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of the enterprise is P, the probability of the enterprise believe is Q.

**Table1.** Both sides of the game benefit matrix

|            |           | Enterprise        |               |
|------------|-----------|-------------------|---------------|
|            |           | believe           | don't believe |
| Applicants | lie       | $V+\alpha V, R-C$ | 0,0           |
|            | don't lie | $V, R$            | 0, -C         |

Table 1, the game model analysis:

- When the probability of applicants lying is P:  
Expected profits of enterprises believing:  
 $(V+\alpha V) \times P + V \times (1-P) = V(\alpha P + 1)$   
Expected profits of enterprises not believing:  
 $0 \times P + 0 \times (1-P) = 0$
- When the probability that the enterprise believes is Q:  
Expected profits of applicants lying:  $(R-C) \times Q + 0 \times (1-Q) = RQ - CQ$   
Expected profits of applicants not lying:  
 $R \times Q - C \times (1-Q) = RQ + CQ - C$

Visible, in the case of asymmetric information, for applicants: enterprises do not believe in themselves, applicants lie or not lie without loss; enterprises believe in themselves, their interests will be maximized. Whether or not the enterprise believes or not, it is more effective for the applicant to choose the strategy of lying than to choose the strategy of not lying.

For enterprises: when the applicant as an enterprise, the applicant does not lie, the enterprise choose to believe that its income is R, choose not believe, its utility is -C. But in reality, the enterprise always thinks that once the applicant chooses to lie, their choice to believe, its utility is V-C., in this case, the enterprise of course choose not believe, in order to reduce the risk and loss.

The equilibrium phenomenon led to incompetent people who could not do their jobs. Those who could not afford to do so would undoubtedly promote the rampant fraud. Only dishonest people would have a good job and seriously hindered the sound development of the talent market. Therefore, enterprises should adopt some measures to avoid this imbalance.

### Model 2

In order to avoid the phenomenon of bad money drives out good money, many enterprises will

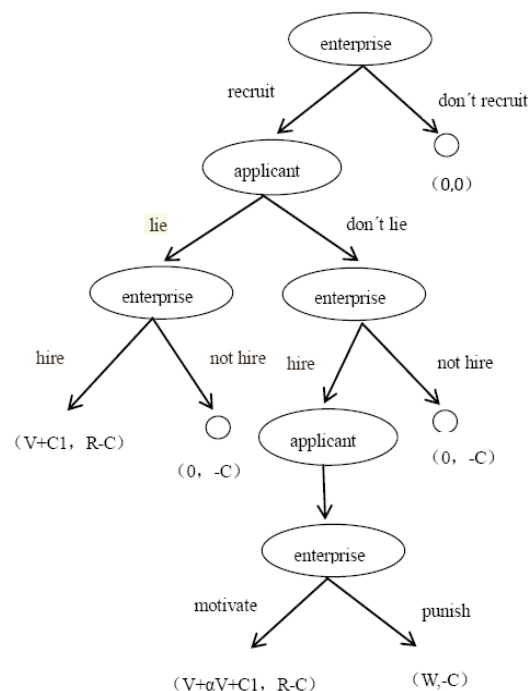
make punitive measures to prevent applicants cheating, the result is not ideal, people are rational people, if only punishment will not prevent cheating. So, we can adopt the form of "carrot plus stick", candidates do not lie, is a "carrot", to motivate them, according to the incentive theory, to meet their real needs, but if found cheating, will give applicants "big stick". So that enterprises absorb real talents, realize the person post matching, to achieve separation and balance.

Establishing the hypothesis condition of game model:

**Hypothesis 1:** After the applicant is admitted, the salary is V, the enterprise income is R; if not admitted, the benefit of both sides is 0;

**Hypothesis 2:** Enterprise recruitment costs of C, if the applicant does not exist information wrong, then give reward for C1;

**Hypothesis 3:** The applicant lies successfully, the applicant gains V alpha V, lying is found, the penalty is W.



**Fig1.** Game analysis tree of incomplete information between enterprise and applicant

From Figure 1 analysis, we can see: when lying  $W > V + \alpha V + C1$ , and do not lie will get the promise of C1, the applicant is rational, will not risk to tell a lie, otherwise it will only outweigh the benefits, carrots attract far greater than the threat of the stick.

### SUGGESTIONS

Through the above analysis, the enterprise wants to avoid the investment of people, financial, material, recruit appropriate talents, want to ensure the reliability and validity of enterprise recruitment, for enterprises to introduce appropriate employees, this paper gives the following suggestions:

- For different positions, the position of the high and low, the use of different testing methods. Pay attention to job analysis, according to the job selection of competency consistent staff, at the same time can be a variety of test methods of combining the way, many aspects of the applicant.
- Set the appropriate incentives and penalties, focusing on both hardware and software. Candidates are rational people, aware of the carrot sweet, big stick to bring the pain, so enterprises in the contract with the candidates, without violating the "People's Republic of China Labor Contract Law," the principle of setting incentives and penalties The treaty explicitly stipulates what benefits will be gained without fraud and, on the contrary, what penalties will be given.
- Establish talent market credit information platform. As a party that has compulsory rights, the government should establish a credit information platform in cooperation with the talent market and enterprises, establish credit files for the credit of enterprises and employees, and publicize them to the public, so as to restrain the

dishonest behavior of enterprises and applicants , To achieve the match between people and posts, talent is not lost, thereby promoting the further development of the talent market.

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