ASSESSMENT OF SATISFACTION OF THE UNEMPLOYED WITH EMPLOYMENT CENTERS SERVICES: THE CASE OF RUSSIA

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Abstract

This paper considers an approach to building a model for evaluating the employment centers' performance by shifting the focus to assessment of customer satisfaction with its services.

We conducted a questionnaire survey of unemployed people with an incomplete period of unemployment. The number of respondents is 4674.

There were identified two criteria for building the AHP hierarchy – importance and quality of service provision. The criteria were identified as a result of the analysis of the questionnaires. There were selected parameters affecting satisfaction: speed of service delivery, attentiveness and politeness of staff, territorial convenience of the employment center location, availability of information about services provision, comfort, work schedule, personnel qualifications, and clarity of rules for receiving services.

The average satisfaction rating, calculated with data cleaning, is 4.01, which indicates a slight overestimation of the score in the direct survey (4.38) and the lack of data cleaning. In general, the estimates are comparable, but the estimate obtained by the method described in the article is more accurate. In addition, it allows understanding which parameters of the employment centers' performance should be affected first to increase customer satisfaction.

Key words: active labor market policy, unemployment, effectiveness evaluation

JEL Code: J08, J64, J68

Introduction

The analysis of the dynamics of indicators of the Omsk region labor market in January-December 2020 shows that the situation in the Omsk region labor market due to the coronavirus outbreak and the introduction of restrictive measures has undergone significant changes compared to last year. The number of citizens who applied for assistance in finding a job in state employment centers during 2020 is 84.5 % higher than the value of the indicator

for the same reporting period in 2019 and is 124 973 people (in 2019 – 67 746 people) (Situation on the registered labor market of the Omsk region in January-December 2020, 2020).

A similar situation is observed in all countries and regions. Many researchers are interested in how an active employment policy affects the level of unemployment, social tension, and other related characteristics. For example, Sahnoun and Abdennadher (2020) analyze how active policies affect the unemployment rate in the countries of the Organization for Economic Cooperation and Development. In addition, the effectiveness of such a policy is of interest. Markus and Omerovic (2019) examine the effectiveness of a specific active policy program called "Start up 2015" in the region of Bosnia and Herzegovina. The next paper (Speckesser, Carreras, and Sala, 2018) focuses on the impact of employment policies on young people. The role of employers and the consideration of active employment policies from their perspective is discussed in the paper of Bredgaard and Halkjaer (2016). The work of Banos, Rodriguez-Alvarez and Suarez-Cano (2019) models the performance of employment centers owned by public employment services in Spain.

In recent years, active labor market policy has been part of the state social investment policy in many countries. According to Sakamoto (2020), an effective ALMP reduces the growth of social tension and increases the income of citizens. Determining the factors that affect the effectiveness of the ALMP, and in particular the effectiveness of the employment service, is the most important task of any developed industrial state. Fredriksson (2021) writes that government spending on different types of ALMPs directly affects their effectiveness. The considered types of policies include public employment services, training programs, job creation in the state, and subsidized employment, where the public employment service stands out as a crucial factor mitigating social tension. Wesseling (2021) examines the factors that affect the long-term employment of young people. In this paper, the factors are divided into four types, and a survey was conducted 12 months after the completion of the employment assistance program. On the basis of the questionnaire, the analysis of the influence of factors on employment by type is carried out. In the paper of Denisova there are investigated the determinants of unemployment duration of individuals registered in employment centers (Denisova, 2002). There was obtained empirical support for gender and educational differentials in unemployment duration: women tend to stay longer in the pool, and there are gender asymmetries in the influence of employment history on unemployment duration; those with junior professional education have significantly higher exit rates from unemployment as

compared with those with general secondary education, while secondary professional and university degrees do not help you leave unemployment.

In this paper, we consider a new approach to assessing the effectiveness of the employment centers' performance. This approach is based on the assessment of customer satisfaction with the employment services. Although the proposed solution differs from the model presented in Stuken (2020), it can naturally complement the previously developed model by embedding it in the AHP hierarchy (Saaty, 1980). In this paper, to simplify the presentation, we will not perform such an embedding.

When conducting the survey, the following scale was used: very important (5), rather important (4), difficult to answer (3), rather not important (2), absolutely not important (1). As a final score, the average was calculated based on previously cleared data. It should be noted that in the resulting hierarchy, there is no need to use the procedure for constructing matrices of paired comparisons, since the weights of the criteria are calculated based on statistical data.

1 Source data

The number of unemployed who took part in the questionnaire survey was 4 674. The purpose of the study is to assess the satisfaction with the work of the employment service from the perspective of citizens with an incomplete period of unemployment.

Based on the analysis of the survey conducted among the clients of employment centers, there were identified two criteria for building the AHP hierarchy – importance and quality of service provision. There is proposed a new approach to assessing the effectiveness of state employment centers' performance, based on the assessment of customer satisfaction in terms of the importance and quality. The following characteristics are considered as parameters:

- speed of service delivery;
- attentiveness and politeness of staff;
- territorial convenience of the employment center location;
- availability of information about services provision;
- comfort (availability of parking, comfortable seats, etc.);
- work schedule;
- personnel qualifications;
- clarity of rules for receiving services;
- other.

2 Data cleaning

Some of the questionnaires were rejected. Respondents often fill out questionnaires unscrupulously and give the same ratings for all the parameters surveyed, or sometimes simply ignore the ratings for the above characteristics. Such questionnaires distort the assessment of both the quality and importance of the services provided and should be discarded.

For the rejection, there was calculated variance for each parameter, which is equal to the average sum of the squares of the deviation from the estimate of the mathematical expectation of the value of the estimates (1).

$$\sigma^2 = \frac{1}{N-1}\sum_{i=1}^{N}(x_i - \bar{x})^2 , \quad (1)$$

where σ^2 – variance; N – sample size; $\bar{x}$ – estimation of mathematical expectation; x_i – parameter estimates. For respondents who gave the same ratings, the variance estimate will be zero.

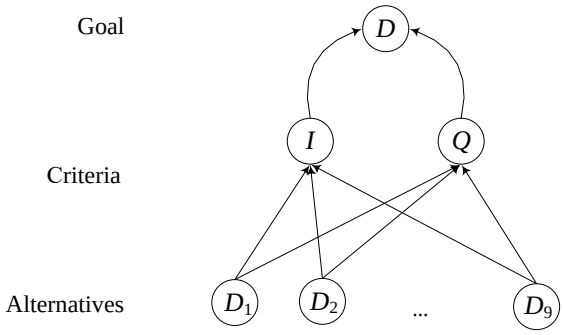
The second selection criterion is the fully completed questionnaire fields with ratings of quality and importance parameters.

As a result of the rejection, 2 099 questionnaires were left for the evaluation of the importance criterion, and 1 730 out of 4 674 for the quality criterion.

3 AHP Application

The satisfaction assessment is based on the hierarchy analysis method, and satisfaction depends on the degree of importance of a particular service and the quality of the service provided. Figure 1 shows the hierarchy, where D – satisfaction; I – importance; Q – quality of services; D_1 – speed of service delivery; D_2 – attentiveness and politeness of staff; D_3 – territorial convenience of the employment center location; D_4 – availability of information about services provision; D_5 – comfort; D_6 – work schedule; D_7 – personnel qualifications; D_8 – clarity of rules for receiving services; D_9 – other.

Fig. 1: Three-level hierarchy of satisfaction with the employment centers' performance



Source: authors

The difference from the previous approaches to building a hierarchy is that, first, we do not build matrices of paired comparisons for calculating weights. The weights are calculated directly because of processing the unemployed questionnaires. Second, at the last level of the hierarchy, the weight coefficients are not normalized, which allows getting them in the form of ratings on a five-point scale (this scale of ratings was used in the questionnaires).

At the criteria level, the weight factor is set by the parameter α, which varies in the range of comparative AHP ratings from 1/9 to 9, depending on the preference for quality or importance. At the first level of hierarchy (Fig. 1), the matrix of pairwise comparisons will be 2x2. Obviously, it will always be ideally matched, and its eigenvector can be represented as a pair of components ($\alpha/(1+\alpha)$; $1/(1+\alpha)$), where $1/9 \leq \alpha \leq 9$. By varying the parameter α, it is possible to study the order relation on the set of alternatives from the utmost importance (α = 9) to the maximum quality of the provided services (α = 1/9). With α = 9, we get the significance of the satisfaction parameters from the client's point of view, with α = 1/9, we get how the client evaluates of the existing parameters of the provided services quality, and with α = 1 we get an equilibrium assessment between expectations and reality.

The matrix of paired comparisons of the criteria level will look like this:

$$\begin{pmatrix} 1 & \alpha \\ 1/\alpha & 1 \end{pmatrix}. \quad (2)$$

In our calculations, we considered both criteria to be equilibrium and assumed α = 1.

The results of the calculations are presented in Tables 1-3 in five-point scale: 1 – very poor (absolutely not important), 2-poor (rather not important), 3-satisfactory (difficult to answer), 4 – good (rather important), 5 – excellent (very important).

Tab. 1: Average estimates of the importance of provided services parameters (according to the clients of employment centers)

IMPORTANCE	very important	rather important	difficult to answer	rather not important	absolutely not important	Average estimates of importance
Estimates on five-point scale	5	4	3	2	1	
Speed of service delivery (D_1)	1056	663	149	89	142	4.14
Attentiveness and politeness of staff (D_2)	1293	580	97	48	81	4.41
Territorial convenience of the employment center location (D_3)	602	788	269	150	290	3.60
Availability of information about services provision (D_4)	916	790	188	65	140	4.08
Comfort (D_5)	476	830	313	194	286	3.48
Work schedule (D_6)	731	808	218	128	214	3.82
Personnel qualifications (D_7)	1321	521	118	61	78	4.40
Clarity of rules for receiving services (D_8)	1354	518	108	49	70	4.45
Other (D_9)	207	165	231	68	305	2.90

Source: authors

Tab. 2: Average estimates of the quality of provided services parameters (according to the clients of employment centers)

QUALITY	excellent	good	satisfactory	poor	very poor	Average estimates of importance
Estimates on five-point scale	5	4	3	2	1	
Speed of service delivery (D_1)	758	697	162	75	38	4.19
Attentiveness and politeness of staff (D_2)	974	538	145	47	26	4.38
Territorial convenience of the employment center location (D_3)	496	840	280	61	53	3.96
Availability of information about services provision (D_4)	655	808	169	61	37	4.15
Comfort (D_5)	371	793	392	113	61	3.75
Work schedule (D_6)	795	731	146	36	22	4.30

QUALITY	excellent	good	satisfactory	poor	very poor	Average estimates of importance
Personnel qualifications (D_7)	999	528	149	37	17	4.42
Clarity of rules for receiving services (D_8)	839	640	162	57	32	4.27
Other (D_9)	226	176	258	31	103	3.49

Source: authors

After determining the weight coefficients at all levels of the hierarchy, the final parameter estimates are calculated as in the last stage of the AHP (Saaty, 1980).

Table 3 shows the final calculations according to the method proposed in this article. A discussion of the results is contained in the conclusion.

Tab. 3: Average estimates of the parameters of satisfaction with provided services (according to the clients of employment centers)

Satisfaction parameters	Estimates on five-point scale (1..5)
Speed of service delivery (D_1)	4.17
Attentiveness and politeness of staff (D_2)	4.39
Territorial convenience of the employment center location (D_3)	3.78
Availability of information about services provision (D_4)	4.12
Comfort (D_5)	3.62
Work schedule (D_6)	4.06
Personnel qualifications (D_7)	4.41
Clarity of rules for receiving services (D_8)	4.36
Other (D_9)	3.20
The total satisfaction estimate, calculated by the modified AHP	**4.01**

Source: authors

Conclusion

In the last row of the table 3, the score of 4.01 is calculated according to the method described above. Based on the results of the survey, we can conclude that the employment centers' performance is good (4.01).

The questionnaire included a direct question about satisfaction with the employment centers' performance. The average satisfaction rating, calculated without data cleaning, was 4.38, which indicates a slight overestimation of the score in the direct survey and the lack of data cleaning. In general, the estimates are comparable, but the estimate obtained by the method described in the article is more accurate. In addition, it allows understanding which parameters of the employment centers' performance should be affected first to increase customer satisfaction.

A distinctive feature of our approach is the calculation of the hierarchy coefficients based on direct estimates of the surveyed unemployed without the involvement of experts and the modification of the AHP method to obtain estimates of satisfaction parameters on a five-point scale.

In the course of the study, the following results were obtained:

1. There was developed a methodology for calculating the efficiency of the employment service according to the criteria of quality and satisfaction with the provided services
2. There was developed software implementing the modified AHP method.
3. There was carried out the decomposition of the task of evaluating the effectiveness of the employment service on the part of clients.
4. The modified AHP method allowed us to obtain estimates of the satisfaction parameters and the final effectiveness on a standard five-point scale for the Russian Federation.

Returning to the assessment we received, it should be noted that the work of the employment service is still far from ideal, but the rating "good" indicates an acceptable level of service provision and allows us to conclude that the employment service plays a stabilizing role in the Omsk region, reducing social tension caused by the COVID-19 pandemic. Currently, the obtained data can hardly be compared with the results of other studies, because there are no similar studies performed using this model or similar data. The results obtained by us partially coincide with the results obtained in the work of Denisova.

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