Comparative Assessment of Efficiency of Non-Standard Forms of Employment in a Company

MARINA V. VINOGRAODOVA
Research Institute of Advanced Directions and Technologies
Russian State Social University
4, build. 5, Wilhelm Pieck Str, Moscow, 129226
RUSSIAN FEDERATION

SERGEY A. CHUNIKHIN *
Department of Business Informatics and Mathematics,
Tyumen Industrial University
38, Volodarskogo Str., Tyumen, 625000
RUSSIAN FEDERATION
Corresponding author: caercru@yahoo.com

YERZAN A. BAKIROV
Department of Economics and Law
University “Syrdaria”
11, Auezova Str., Zhetysai, 160500
KAZAKHSTAN

Abstract: Employment transformation is one of the prevailing trends characterizing the modern market. Under the influence of numerous factors that have caused the changes in demand and supply for labour, the traditional standard employment gives way to its brand-new forms. The development of non-standard employment is a distinctive feature of such transformations. However, these forms have been insufficiently studied and systematized, and many issues remain quite debatable. Resolving this problem on the basis of empirical data, we have made an attempt to establish the appropriateness of using non-standard forms of employment by means of a comparative analysis of their efficiency by quantitative and qualitative evaluation parameters. The proposed method allows calculating the amount of resources saved or overspent while performing auxiliary functions or a certain type of activity for the main non-standard forms of employment. The obtained results proved the economic efficiency of dealing with outsourcing as a special case using the example of a company’s information support implementation. When discussing the approach, we emphasize that, depending on the character of auxiliary functions fulfilled, the effectiveness of them being outsourced can vary significantly. The paper supports the thesis that the use of mechanisms of non-standard employment determines the opportunities for taking managerial decisions about reconfiguration of production processes in the internal or external area of responsibility.

Keywords: Non-standard forms of employment; Outsourcing; Outstaffing; Staff leasing; Configuration of production processes.

1 Introduction
The model of traditional employment became more widespread and was primarily associated with the processes of industrialization and development of mass production. From that point on, standard employment can be viewed as an attribute of the industrial economy, a conditional stereotype of permanent employment that dominated until recently. At the same time, we can confidently assert that the contemporary development of economic relationships takes place in the conditions of continuing uncertainty. Global transformations cause shifts in many spheres that are reflected in the labor market. Standard employment is being increasingly superseded by flexible work arrangements, which has an objective socio-economic basis.

Firstly, a considerable share of labor costs in the cost of production impels companies based in developed countries to shift production to other regions [20]. Employers are forced to cut the use of standard forms of employment associated with high
direct costs, tax and social security costs, and give preference to workers holding temporary contracts. Such trends have led to the spread of non-standard employment in the form of outsourcing, outstaffing and staff leasing.

Secondly, the demand for non-standard employment, including its part-time, temporary, remote or even unreported forms, is generated not only by employers, but also by certain social groups of workers [17]. Structural shifts in labor force and its imbalance play a significant part in the spread of non-standard forms of employment. This entailed the expansion of adaptation strategies. Recently, the categories of workers not wishing to burden themselves with a permanent contract have been expanding. Such employees are increasingly agreeing to work remotely and part time with variable hours schedule.

Thirdly, the disproportional structural changes in official and unreported employment observed today demonstrate that there is an active transition process from the industrial economy to the economy of services [26]. A number of production spheres have witnessed a transition from object-centered labor to system-centered labor that involves a substantial management component [9]. With simultaneous changes in the economic, social and institutional environments, the use of non-standard employment expands adaptive capacity and mobility of labor market subjects as a response to the uncertainty and instability of the conditions under which the labor relations of subjects are formed during the internalization of production processes. 

Thus, the emergence of flexible non-standard forms of employment has become a logical response to the adaptation of workers and companies to new economic conditions. However, there is still no methodological clarity in determining the types and forms of non-standard employment, as well as there is no unity in the criteria for its identification and efficiency assessment. To handle this task, we will attempt to demonstrate the appropriateness of using major forms of non-standard employment through a comparative analysis of their efficiency by qualitative and quantitative evaluation parameters.

2 Literature Review
The labor market as the main regulator of labor relations encourages the creation of new efficient jobs boosting the share of non-standard employment which is more competitive due to its flexibility and adaptability [14]. In this context, it is essentially important to study the theoretical basis and trends in the development of non-standard employment.

According to Kalleberg [25], standard employment is not a natural state of organization of labor relations. Throughout history, they took various forms of non-standard employment, and the concept of standard employment is merely not applicable within the framework of the post-industrial economy.

Non-standard work arrangements encompass the forms of employment differing from the standard one at least by one of criteria. Such forms embrace temporary (fixed-term) employment, part-time work, temporary agency work and other multilateral employment relationships, as well as disguised employment relationships and dependent self-employment [8; 39]. Some authors also name overtime working as one of such forms [13]. This allows us to conclude that non-standard forms are significantly differentiated. We regard the category of “non-standard employment” as a complex of socio-economic relations concerning workforce reproduction that ensure mobility of the labor market and enhance the adaptive capacity of its subjects to changes in economic, social and institutional environments.

The theory of the firm assumes that the choice of long-term employees (permanent employment) is predetermined by the basic production functions; at the same time, the choice of non-standard forms is centered on peripheral tasks if they are not outsourced [2]. Non-standard employment is most frequently characterized by the amount of time spent on performing work and solely by part-time employment [22]. The empirical studies show that in different countries [18; 19] the level of polarization between low-paid and high-paid jobs varies significantly. In most cases, these are low-paid jobs that are regarded as non-standard employment in the form of part-time work [44] or fixed-term contract employment [10]. The existing polarization is associated with the dependence on the labor market. According to Ojala, Nätti and Lipiäinen, a peripheral type of contract creates an inflated risk of leaving the labor market, whereas “core” employment restrains this risk [41].

On the one hand, non-standard employment ensures flexibility of work relations [6; 40] and stimulates independent decision-making and creative self-realization [5]. On the other hand, non-standard work arrangements are characterized by labor relations reducing workers’ potential and incorporate employment linked with inadequate use of labor potential, low income and excessive working hours [7; 45], as well as changes in the quality of human resources/capital [33; 34].
The main factors determining the demand for non-standard employment are discussed in detail by Maslova [37]. However, we should note a profound impact of a number of motivating reasons behind the spread of non-standard or non-traditional employment. First reason is the influence of globalization where competition causes transferring work on an outsourcing or subcontract, while the subcontract itself can be seen as a “logical extension of global outsourcing” [3].

Second reason is the development of the service sector and the transition from the transformational function of production to the transactional function of providing services. In the service sector, the demand for workforce more often reaches maximum values and its fluctuations are less predictable, which forces companies to resort to “organizational flexibility” [11; 36]. The seasonality and cyclical nature of a number of activities in the service sector determine the specificity of the development and strengthening of non-standard employment, e.g. in the sphere of hospitality and tourism, where standard employment cannot meet the qualitative requirements of demands for these services. This is also true for the retail trade where working hours of points of purchases are increasing. At that, the expansion of the service sector exerts a particular influence on female employment [12; 21; 47].

Third reason is the development of technology. The expansion of the service sector and global networks is directly related to the development of information and communication technologies (ICT) [24]. Intensive introduction of ICT results in active creation of innovative “virtual” enterprises [1]. Modern communication means allow employees to opt for telecommuting with convenient working hours. For employers, the requirements for the quality of goods and services remain principally important, and saving on workplace organization encourages them to choose flexible non-standard employment.

Fourth reason is changes in organization strategies. To enhance the internal potential, companies are increasingly turning to staff outsourcing and other forms of non-standard employment. The reason behind such trends is retaining standard employees who possess essential skills and abilities that are more useful in dealing with the main tasks [23; 35; 42; 43]. Therefore, delimiting the boundaries of a firm and organizational strategy is concentrated on the make-or-buy decision [29]. At the same time, outsourcing is no longer an optimization tool for performing peripheral tasks; some companies have started using non-traditional forms of employment to carry out the principal production tasks as well [32; 48].

In this context, studying the strategies for the labor market adaptation to the new conditions is also growing in topicality. Adaptation strategies refer to the changes of a short- and long-term nature that occur in the labor market in response to the signs of instability in the economic system and aim to smooth out the uncertainty of the environment [30].

Due to increasing uncertainty, there emerges a need for reconsidering the approach to staff: we should cease viewing it as a company’s capital and get back to treating personnel as a resource or expenses [27]. This thesis is confirmed in practice, since more and more enterprises are starting to apply unsustainable forms of employment (outstaffing, outsourcing, staff leasing and temporary workers). This strategy suggests replacing the traditional model of permanent employment with a mixed model of employment with permanent and temporary peripheral staff groups [16] and the transfer of some functions to external workers [38]. At that, a mass individualization of forms, regimes and employment conditions takes place [15; 46] and a new structure of labor mobility is being formed [4].

Due to these and other reasons, we have to devise an efficient system for organizing a company’s work under different regimes of non-standard employment of workers performing auxiliary functions. The literature review on this issue indicates a necessity to undertake a quantitative and qualitative assessment of the effect of non-standard forms in comparison with the standard employment. The general systematization of perspectives on non-standard forms of employment allows proceeding to the description of the study’s methodical approach.

3 Material and Methods
We propose a specific methodical approach that involves developing the criteria and indicators for evaluating the efficiency of non-standard forms of employment. We use the three main criteria that can be applied during the assessment, i.e. cost criterion, time criterion and social criterion. The application of the cost criterion involves calculating quantitative indicators of expected economic benefits and risks before and after a company utilizes a certain type of non-standard employment. Such indicators may include profit, return on assets, company capitalization, return on sales, marginal revenue and the level of transaction costs. The time criterion is based on assessing the effect of the application of the non-standard employment forms, as well as risks
in the short-, medium- and long-term. Introduction of the social criterion is determined by the necessity to evaluate the impact of non-standard forms of employment on the socio-economic status of workers (social guarantees and working conditions) that is measured by such indicators as wage rate, labor intensity, and the number of released employees or the number of workers transferred to part-time employment.

The project of using non-standard forms of employment in different work regimes of a company is successful if the following objectives are accomplished: to concentrate on the main type of activity (the transition to non-standard employment should not have an adverse effect on fundamental business processes); to control costs (in the context of non-standard employment, costs should be lower); to maintain labor discipline and smooth production flow, and to improve flexibility if demand or other conditions of the external environment change.

The efficiency of non-standard forms of employment is the sum of changes in income and expenses in certain spheres of activity. The difference between total income and expenses after the introduction of non-standard forms of employment should exceed the difference between total income and expenses before its introduction:

\[
\sum o_{Ki} - \sum p_{Pi} \geq \sum o_{Ki} - \sum p_{Ki},
\]

where \( \sum o_{Ki} \) is total income in certain peripheral areas of a company’s activity after the introduction of non-standard forms of employment; \( \sum p_{Ki} \) is total expenses in certain peripheral areas of a company’s activity after the introduction of non-standard forms of employment; \( \sum o_{Ki} \) is total income in certain peripheral areas of a company’s activity before the introduction of non-standard forms of employment; \( \sum p_{Ki} \) is total expenses in certain peripheral areas of a company’s activity before the introduction of non-standard forms of employment.

In a simplified form, the analysis can be carried out using the following formula:

\[
\sum \Delta P_i + \sum \Delta K_i > 0,
\]

where \( \sum \Delta P_i \) is the sum of changes in income in \( i \)-th peripheral areas of a company’s activity due to the application of non-standard forms of employment; \( \sum \Delta K_i \) is the sum of changes in expenses in \( i \)-th peripheral areas of a company’s activity due to the application of non-standard forms of employment.

The proposed method corresponds to the general method for assessing economic efficiency. At the same time, it is not always possible to calculate such an indicator for some areas of auxiliary activity.

The efficiency of non-standard forms of employment should be evaluated taking into account both explicit savings (by reducing consumption of resources) and implicit savings primarily associated with a decrease in the number of managed and controlled objects. At the same time, when deciding to outsource administrative and management processes, it is of high importance to keep in mind the necessity for the current monitoring of the efficiency of non-standard forms of employment.

Progressive methods include those combining changes in a company’s income and expenses. They are founded on the premise that the results of the introduction of non-standard forms of employment (outsourcing, outstaffing or staff leasing) can include cost saving, income growth or a combined growth in income and lower costs.

The indicator of outsourcing effect is seen as a difference between costs incurred if a business process is carried out by a company’s current employees and costs incurred if it is subcontracted to a third party. In other words, we compare the cost price of the business process performed by the company’s employees (\( OP_i \)) and possible extra revenue (\( AI_i \)) with total current expenses (\( RC_i \)) and expenses incurred if purchasing this service from an outsourcer (\( APS_i \)). The following formula is used for the calculation:

\[
OP_i + AI_i > RC_i + APS_i.
\]

In order to decide on outsourcing, it is also proposed to compare costs. If the ratio between costs associated with performing functions by the company’s own efforts and expenses connected with attracting a third party is greater than 1, that it is expedient to outsource some business processes; if the ratio is less than 1, then it is more profitable to transfer these functions to the company’s staff. If formula (3) is satisfied, then it is expedient to use outsourcing.

The methodical approach to assessing the outstaffing efficiency is associated with calculating the coefficient that takes into account the costs associated with performing a process by the company’s own efforts, the number of working hours for a certain time period (week, month, quarter, half year, year) and the cost of the outstaffing company’s services and risk premium. The effect of changes equals an increase in costs minus the balance of changes in expenses and minus the balance of changes in risk costs. The coefficient of economic expediency of outstaffing is calculated according the following formulas:

\[
K_i = \frac{I_{\text{staff}}}{I_{\text{no-staff}}},
\]
Let us introduce the proposed method in order to determine the efficiency of three main forms (working regimes) of non-standard employment in a company while performing a similar auxiliary function.

We conducted an experiment in transferring non-core activities to an external counterparty. It was aimed at improving the efficiency of administrative and management processes; optimizing the mechanisms through avoidance of operations duplication; optimizing the number of employees, and optimizing internal transaction and transformation costs. During the experiment, we looked at the information support department of a Russian trade company that, by its general characteristics, refers to small and medium-sized businesses.

The system of documents describing the implementation of the processes within the computer support department and the requirements for them (service level agreements, administrative policy on the performance of functions, justification and criteria for the effectiveness of the transfer) is a sufficient basis for forming contractual documentation. Therefore, the quality and qualifications of potential external workers are evaluated on the basis of the contractual documentation prepared by the companies for participating in the experiment in outsourcing (Table 1). The assessment is carried out by awarding points to each company for compliance or non-compliance with the conditions and parameters of the requirements.

### Table 1. Results of a comparative assessment of a company’s auxiliary function outsourced to another firm

<table>
<thead>
<tr>
<th>Evaluation criterion</th>
<th>Ind.</th>
<th>Maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing</td>
<td>Outstaffing</td>
<td>Personnel leasing</td>
</tr>
</tbody>
</table>

To sum up, we conclude that the method can be effectively applied at any stage of a company’s activity and allows calculating savings or overruns of resources in the context of various forms of performing auxiliary functions or a certain type of activity for the major non-standard forms of employment. The assumption of the approach is that in various types of non-standard employment expenses include different types of costs. Consequently, formation of the final indicator falls within the zone of confidence interval of uncertainty [31] that should be taken into account when making a managerial decision.
1. Quality of work

1.1. The amount of details provided for describing the order of performing project activities
1.2. Optimality of a participant’s methodology for performing works in terms of achieving the best result

2. Participant qualifications

2.1. Correspondence between a participant’s professional qualifications and the subject matter of the contract
2.2. Positive experience in providing similar services
2.3. Customer base with positive customer feedback
2.4. Correspondence between the subject matter of the contract and professional qualifications of the key staff (attaching the documents confirming the level of their qualifications)
2.5. Work experience of the key employees in the sphere of non-standard forms of employment

We use a radar chart to present the obtained results of the assessment of potential external workers (see Figure 1). In comparison with outstaffing and staff leasing, the outsourcing regime achieves the highest score in terms of quality of work and participant qualifications. As for the “quality of work” criterion, outsourcer gets the highest score due to the development of the optimal methodology for rendering services from the perspective of achieving the best result. The level of professional qualifications of workers completely corresponds to the subject matter of the contract. To arrive at an informed decision on the appropriateness of outsourcing of this department’s functions, it is also required to calculate the economic efficiency of outsourcing.

Fig. 1. Evaluation of potential elements of non-standard form of employment using the radar chart

Table 2. Comparative cost of external contractors’ services performing the auxiliary function of information support

<table>
<thead>
<tr>
<th>The department’s functions shifted to an external contracted third party</th>
<th>Cost of services, rubles per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working regime 1 (outsourcing)</td>
<td>Working regime 2 (outstaffing)</td>
</tr>
<tr>
<td>1. Maintaining local network and computer equipment</td>
<td>12 000.0</td>
</tr>
<tr>
<td>2. Maintaining a web page of the company’s subdivisions</td>
<td>46 000.0</td>
</tr>
<tr>
<td>3. Helping the company and its subdivisions with introducing new data analysis software</td>
<td>30 000.0</td>
</tr>
<tr>
<td>4. Organizing the development of applied software</td>
<td>3 000.0</td>
</tr>
<tr>
<td>5. Maintaining and repairing copy machines and digital</td>
<td>5 000.0</td>
</tr>
</tbody>
</table>
6. Developing, adopting and maintaining uncomplicated software

<table>
<thead>
<tr>
<th></th>
<th>15 000.0</th>
<th>15 000.0</th>
<th>20 000.0</th>
</tr>
</thead>
</table>

7. Maintaining informational infrastructure of the company

<table>
<thead>
<tr>
<th></th>
<th>10 000.0</th>
<th>15 000.0</th>
<th>20 000.0</th>
</tr>
</thead>
</table>

8. Purchasing and maintaining computers and copy machines

<table>
<thead>
<tr>
<th></th>
<th>10 000.0</th>
<th>10 000.0</th>
<th>10 000.0</th>
</tr>
</thead>
</table>

9. Other technically uncomplicated functions aimed at ensuring the company’s current activities (repair of equipment, etc.)

<table>
<thead>
<tr>
<th></th>
<th>10 000.0</th>
<th>10 000.0</th>
<th>10 000.0</th>
</tr>
</thead>
</table>

**Total**

<table>
<thead>
<tr>
<th></th>
<th>168 000.0</th>
<th>195 000.0</th>
<th>243 000.0</th>
</tr>
</thead>
</table>

As we can see from Table 2, if shifting the functions of the computer support department to an external contracted third party, then the working regime 1 (outsourcing) entails the lowest costs. To establish the economic appropriateness of outsourcing the department’s functions, it is necessary to calculate the costs incurred by the company if it performs these functions itself. The savings are calculated in Table 3.

### Table 3. Calculation of the company’s payroll fund savings

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The average salary of one employee of the computer support department (S), rubles per week</td>
<td>11470.0</td>
</tr>
<tr>
<td>2. Payroll charges (r), % (within the Russian legislation)</td>
<td>30.0</td>
</tr>
<tr>
<td>3. The number of employees released from the computer support department (AP), persons</td>
<td>3</td>
</tr>
<tr>
<td>4. Payroll fund savings, rubles per week (costs incurred by the company if it performs the functions itself)</td>
<td>47200.7</td>
</tr>
<tr>
<td>5. Costs incurred by the company if it outsources the functions of the computer support department, rubles per week</td>
<td>42000.0</td>
</tr>
<tr>
<td>6. Economic effect of transferring work on an outsourcing, rubles per week</td>
<td>5200.7</td>
</tr>
</tbody>
</table>

Provided that a number of employees of the department are released, the company’s payroll fund savings will amount to 47,200.71 rubles per week. Thus, there is a decrease in not only the costs associated with performing these functions, but also in payments to non-budgetary funds (social and health insurance, private pension). Based on the given data, we calculate the effect of transferring the functions of the computer support department on an outsourcing (efficiency ratio):

\[
E_a = 1.12 > 1
\]  \hspace{1cm} (8)

Since the relative efficiency ratio is 1.12 (which is greater than 1), it is more efficient to transfer the functions of the computer support department to external workers using such a form of non-standard employment as outsourcing, rather than perform them using the company’s own employees.

The results show that, when evaluating the expedience of outsourcing the company’s auxiliary functions, it is necessary to be guided by qualitative and quantitative criteria. One of the promising avenues for further research in this field is the formulation of recommendations contributing to the formation of the methodical basis for dissemination of the contracting out practice.

### 5 Conclusion

Continuous optimization and adaptation to the conditions of increasing uncertainty have led to the domination of forms of non-standard employment in implementation of not only peripheral, but also basic transformational functions of production. Depending on the specificity of the peripheral functions performed, the efficiency of their transfer to external contractors can vary significantly. To provide the most accurate assessment of the transfer efficiency, it is necessary to be guided by qualitative and quantitative criteria.

The conducted comparative analysis has demonstrated the economic appropriateness of dealing with outsourcing as a special case of non-standard employment using the example of implementing a company’s information support. The immediate advantages for the employer are cost savings and differentiation of the scope of the application of labor. The proposed method can be used at any stage of a company’s activity and allows calculating savings or overruns of resources in the context of various forms of performing auxiliary functions or a certain type of activity for the major non-standard forms of employment.

As for the development prospects of the approach, it is fair to say that at the present time the main avenue for the evolution of the employer-employee model is a gradual replacement of the traditional form of employment by non-standard forms of employment. The obtained results of the research confirm once again that the alienation forms of employment, where employees are alienated from the means of production, correspond
to the strategy of gaining a competitive advantage on the basis of cost leadership, whereas hybrid and network forms correspond to strategies of differentiation [28].

References


