

## Flexibility of workplace vs. non – standard employment forms – co-occurrence analysis

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**Abstract.** The article discusses relations occurring between an form of employment and the place of provision of work by employees. Empirical studies were conducted in the sample of 397 workers employed based on different employment forms and within the framework of diverse work organization forms. They focused on investigating whether flexible place of work provision results in the solutions related to flexible employment forms. The problem was operationalized by verifying research hypotheses based on the analysis of correlation and regression. The conducted studies confirm that flexible solutions, referring to a working place, influence the application of flexible (non-standard) employment forms.

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### INTRODUCTION

The subject literature and the conducted studies focus on the problems referring to the place of work provision, in terms of flexible forms related to work provision outside a place of employment. In each case such studies offer conclusions coming down to the increasing interest in atypical possibilities, regarding work provision, by both employers and employees. Beyond any doubt, they significantly contribute to both management science and actual economic practice by pointing to various organizational solutions in relation to the place of work provision, implementable in the operating practice of particular economic organizations. Simultaneously, it is worth observing that the above-mentioned studies concentrate on mutual relations between the method of work provision and the place of its provision, or between the working time and the working place. It seems, however, that an form of employment also remains a vital issue. For example, in the majority of European countries the mandatory legislation imposes an obligation to specify the place

of work provision in employment contracts. Such stipulation is not included in civil law contracts, which leads to putting forward the hypothesis stating that commissioned employment facilitates flexible solutions in terms of flexible place of work provision. The authors decided to verify the above hypothesis in the course of empirical research which was conducted using a survey provision of work in the group of 397 employees from 49 enterprises. The research hypothesis was verified by applying statistical analysis methods, i.e. correlation and regression analysis.

## THE CONCEPTUALIZATION OF TERMS

The subject literature has been paying attention to workplace selection and development since the times of industrial era and the origins of Taylorism. Back then a workplace constituted a place of work provision, i.e. an object, which if adequately developed, resulted in higher productivity. At that time it was identified with the designated and specified place in an employer's official seat, permanently assigned to a particular employee.. A modern approach to workplace is much less frequently identical with the place of work provision – contemporary conditions of enterprises functioning impose their employees' mobility, whereas the development of ICT technologies opens opportunities for performing remote work, away from an employer's official seat.

Having considered the existing theoretical solutions a conclusion can be drawn that a given workplace can be of permanent, changing or area specific nature. A permanent workplace represents a stationary point defined for an employee in geographical terms. If an employee is delegated to work in other workplaces, he/she goes on a business trip to a specified place. On the other hand, a changing place of work provision takes the form of specific workplaces to which a particular employee is delegated in order to provide a permanent and previously specified type of work, e.g. an employee combining work at home and work in an office, or a construction worker working at different construction sites. Area specific workplace is understood as a certain area of an employee's occupational activity. Therefore, it is the area within which employees are permanently obliged to move and make trips within the specific area boundaries, e.g. drivers.

Having taken the organizational solutions into account, both subject literature and economic practice distinguish the following forms of work provision in terms of its provision place.

- **Permanent place of work provision – work in an employer's official seat**, performed at one workstation.
- **Permanent place of work provision – work in an employer's official seat**, without one workstation, the so-called *hot desking*.
- **Permanent place of work provision – working at home**, involving simple, manual activities, the so-called *home-based work*, or by means of applying information and communication technologies (ICT), the so-called *teleworking*.
- **Changing place of work provision:** in the seat of a different employer and at a workstation indicated by this employer, the so-called *hoteling*, performed in telecentres, telecottages, using information and communication technologies (ICT), the so-called *teleworking* in different places indicated by an employer.
- **Area specific place of work provision – mobile work** performed in different places without any defined permanent workplace and *nomadic work*, mobile work using ICT.

As it has been presented, the understanding of workplace concept is relatively uniform, based on the available reference sources, and the division into traditional as well as atypical solutions in this matter does not seem controversial. Atypical forms refer to providing work outside an enterprise, or in the form of hot

desking. However, the understanding of the term *form of employment* does seem problematic. Defining and classifying forms of employment is most frequently performed in the context of these forms division into classical and flexible ones. In the opinion of E. Bak (Bak, 2006) traditional employment form occurs when the following conditions are met:

- an employee is employed based on a permanent contract,
- an employee works full time (full time contract employment) at specified working hours and on the premises of an employer,
- a long-term, continuous employment takes place.

The authors are of the opinion that flexible employment forms refer to the ones which present neither of the listed characteristics. This approach is quite popular in the subject literature, however, also a disputable one, since on its basis a conclusion can be drawn that any modification aimed at offering flexibility in working arrangements or workplace decides about introducing the flexible form of employment. Having approached flexible employment forms in this way one can state that an employment form is a broad term covering the majority of categories related to work organization. In the authors' opinion the term *forms of employment* should be understood in its much narrower sense and defined as – resulting mainly from the legal basis – forms of relationships between contractors and enterprises for which they perform work. (Bak-Grabowska, 2012; Bak-Grabowska and Jagoda, 2012) The research conducted on non-standard employment forms perception indicates that in practice they are most frequently perceived as the application of other than contract employment solutions, which are often colloquially referred to using a pejorative term of “junk contracts” (Bak-Grabowska, 2012). The suggested term *forms of employment* covers employment legal basis and corresponds to its common understanding. Simultaneously, the proposed categorization responds to the presented needs for differentiating and grouping solutions in terms of work flexibility, which is an indispensable condition to compare research results and science development in this particular field (Pfeffer, 1993; Cappelii and Keller, 2013).

Within the framework of the discussed employment forms the solutions associated with direct relationships between an employer and an employee (even if he/she runs his/her own business) were analyzed. Whereas, the employment forms related to the occurrence of an intermediary entity (human resources provider) were not discussed, such as e.g. temporary employment agency or an outsourcing enterprise. Illegal employment forms were not considered either, i.e. unregistered employment. The above-mentioned limitations resulted in the fact that the study focused on the following employment forms: employment based on contract employment (employment relationship); employment based on civil law contracts (commissioned employment under a commission agreement or a work-piece agreement) and self-employment (a person carrying out tasks for the benefit of an enterprise runs his/her own business). Moreover, a management contract was distinguished in the management group as the possible employment basis, having assumed that the contract represents the form of a civil law agreement. The presented categorization refers to work relationship based on contract employment as a standard (traditional) solution, whereas the remaining solutions were defined as non-standard (flexible) employment forms.

## RESEARCH METHODOLOGY

The empirical research results, presented in the article, constitute the segment of a larger research project<sup>1</sup>. The selection of enterprises for the sample was based on the available database, in particular from the

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<sup>1</sup> The scientific study financed from Polish funds for science in 2010-2013 as the research project no. N N115 327238, Work organization in modern enterprises - determinants and implications was conducted by one of the authors, Agnieszka Jagoda, PhD.

Chambers of Commerce and Industry, the Classified Directory and the Internet database, personal contacts were also used. The questionnaire was distributed, on each occasion. It was assumed that in case of micro-enterprises the questionnaire should be filled in by the owner and by approximately half of the employees, whereas in larger enterprises by three representatives of management staff and their four subordinates, in each case. The empirical reality showed, however, that the assumption made was not always possible to carry out, since the returned questionnaires did not always meet the comprehensiveness requirement. In 2011, before carrying out the relevant research, pilot studies were conducted in 12 enterprises. Their results allowed for the verification of research tools and formed the final version of particular survey questions and also confirmed the validity of the chosen research field exploration. The relevant research was conducted in the period 2012-2014. The complete information was finally received from the employees of 49 enterprises. The questionnaire was filled in by the total of 397 employees, including 92 representatives of management staff and 305 other workers. 42 questionnaires were rejected (7 enterprises) due to their extensive incompleteness or errors in filling them in.

The difficulties related to sample selection – for methodological and organizational reasons (i.e. large population of enterprises in Lower Silesia region, their organizational and sector diversity, as well as other characteristics, the analysis of which is included in the demographics attached to the questionnaire) and also the desirability of the sample selection, resulted in deciding to give up the research representativeness. Moreover, the fact that the research sample covered only those enterprises which expressed their willingness to participate in the survey resulted in the fact that the analyzed population does not reflect the economic reality in a multi-layer selection context. Therefore, in spite of the nomothetic research approach the presented results are of idiographic nature, which means that the conclusions drawn refer to the surveyed population only. It seems, however, that the collected responses supplied an empirically abundant material, which in the authors' opinion allows for developing the multidimensional characteristics of flexible work arrangements in different entities. To support the presented thesis it is worth referring to the subject literature discussing empirical research in social science. In spite of the difficulties related to the sample selection, in terms of its representativeness, the obtained results were statistically analyzed – tests of statistical significance (chi-square independence test) and regression analysis were performed. It was decided that even if the conditions for the indicated statistical analysis tools are not fully met, they can still be accepted, since they allow for better understanding of empirical data.

As it has already been mentioned, the empirical research covered 49 domestic enterprises operating in the geographically distinguished area of Lower Silesia. It seems that the research sample requires to be characterized, mainly because its structure differs from the population structure in terms of the characteristics used for its description. While analyzing the surveyed entities the following criteria were adopted: legal - ownership form, the scope of activity/sector, length of market presence and employment size.

The final, above-mentioned criterion was measured by means of employment size. It constituted the basis for distinguishing microenterprises (employment size up to 9 workers), small enterprises (employment size from 10 to 49 workers), medium enterprises (employing from 50 – 249 workers) and large enterprises (employing more than 250 workers). In the researched sample the largest share (slightly over one third) was taken by large enterprises. Next in line were small enterprises (about one fourth of the analyzed population) and microenterprises (11 entities). Medium enterprises (9 entities) constituted the smallest group.

Having considered the criterion of legal - ownership form, limited liability companies represented the dominating group (slightly over 60% of the analyzed organizations – 31 entities). They were followed by joint-stock companies and self-employed individuals (8 entities each). The questionnaires were also filled in by workers employed in partnerships, constituting the smallest group of surveyed enterprises (2 entities). It has to be emphasized that workers from civil partnerships, limited partnerships and limited joint-stock

partnerships did not provide the comprehensively filled in questionnaires and, therefore, were not included in the below discussed research results.

The surveyed enterprises were also divided in terms of their market presence length. In relation to this criterion the longer functioning enterprises, i.e. for over six years, were the most numerous ones in the research sample (far more than two-thirds of the studied population). Only two enterprises represented young organizations, less than three years present on the market. It may prove that the surveyed enterprises, given their life cycle, have reached their maturity phase and the respective decisions regarding flexible work arrangements are undertaken purposefully and with full awareness.

As far as the sector of activity is concerned, service companies (30 entities) were in the lead. Industry and construction sector enterprises (18 entities) were next in line. Farming, forestry and fishing were only represented by one organization each. It was assumed that sector differences can have impact on flexible work arrangements in an enterprise and the possible related regularities.

It seems that, in the perspective of the conducted research methodology, it is cognitively valuable to analyze the characteristics of respondents answering questions included in the questionnaire. As it is has already been mentioned, the respondents were purposefully divided into two groups:

- management personnel represented by the owners of micro and small enterprises, as well as the executive staff and team managers,
- other workers.

In terms of employment form (see picture 1 attached), the majority of management staff representatives are employed based on employment relationship (almost 88%), almost every tenth member of this group is a self-employed micro or a small enterprise owner. A small percentage of respondents (slightly over 1% each) are made up of individuals performing work based on civil-law contracts: a commission contract or a work-piece contract and a managerial contract. The situation is similar in the group of other workers, since the vast majority of them perform work based on employment relationship. Almost every eleventh respondent covered by this group signed a civil-law contract with his/her employer.

The majority of respondents covered by the study represent individuals working in large enterprises (40,7% of management staff and 41,1% of other workers). Regarding the legal situation of the surveyed enterprises they represent workers employed in companies characterized by long market presence (89,1% - management staff and 90,5% - other workers). They are mainly included in the service sector (63,7 and 64% respectively)

## RESULTS

In order to analyze the dependence between three variables constituting the focus of the presented article, it was decided to apply the following tools of statistical analysis: logistic regression analysis and correlation analysis using such measures as Yule coefficient (Phi value), Cramer's V and contingency coefficient. In line with the presented research hypothesis, flexible solutions, in terms of workplace, have impact on flexible (atypical) employment forms.

The subject literature on quantitative research recommends, among others, to use such measures of variable dependence as Yule coefficient (Phi value), Cramer's V and contingency coefficient for the analysis of nominal data (discussed in the hereby article). The selected symmetrical measures are based on chi-square statistics. All coefficients measure the significance of dependence between the analyzed variables. The values are included in the interval [0,1]. The results of statistical analysis, referring to such analyzed variables as employment form and workplace, are presented in table 1.

While analyzing the obtained survey results, regarding the respondents' employment form and workplace, zero hypothesis was adopted stating that no dependence occurs between variables. As Table 1 shows, the values of all indicators result in this hypothesis rejection. Both, the value of Yule coefficient and contingency coefficient indicate the occurrence of strong relationship between variables. On the other hand, the interpretation of Cramer's V points to a moderate relationship between the respondent's employment form and workplace. Since all indicators are statistically significant zero hypothesis, i.e. the absence of impacts between variables, has been rejected. Therefore, one can assume that an employment form depends on the place where work obligations are performed.

Table 1

Synthetic measures estimating dependence between employment form and the location of work provision by a respondent.

		Value	Approximate significance
Employment form by working time organization form	Phi	0,627	0,000
	V Cramer	0,362	0,000
	Contingency coefficient	0,531	0,000
N valid observations		396	

Source: authors' compilation based on the obtained survey results using SPSS software.

The conducted statistical analysis allows concluding that in the researched sample the place of work provision has impact on the type of employment form.

Logistic regressing represents one of the most popular regression analysis variant for nominal variables in the statistical analysis of the obtained survey results. Its significant characteristic is the fact that variables are placed on a dichotomous scale and take only two values (zero-one). In the discussed case the dependent (explanatory) variable is represented by the respondent's employment form, whereas workplace is considered an independent variable. The types of responses provided are of nominal (qualitative), and more specifically of dichotomous, nature because the solutions referring to the three discussed variables, i.e. the dependent one – employment form and independent one – workplace, are either traditional or flexible and for this reason the application of classical linear regression would have been analytically inappropriate.

In the discussed case the logistic regression model testing was based on Wald statistics values. Wald coefficient was applied to verify zero hypotheses for variables in the discussed model (hypotheses of regression coefficient zero value, i.e. no impact of independent variable on a dependent one). As a result the research hypothesis, put forward in this article, remains verified. The values of regression coefficient referring to the discussed model are presented in Table 2.

Table 2

Values of logistic regression coefficients for a univariate model with a dichotomous predictor

Variable	Logistic regression coefficient B	Standard deviation	Wald coefficient	df	Significance	Odds ratio Exp(B)
Workplace constant	1,751 -2,815	,336 ,257	27,226 119,591	1 1	,000 ,000	5,761 0,60

Source: authors' compilation based on the obtained survey results using SPSS software.

From the perspective of the hypothesis testing about the influence of independent variable (place of work provision) on the form of employment, the zero hypothesis is rejected about the absence of influence – which is synonymous to the hypothesis about zero value of regression coefficient for the variable (and in the analyzed case regression coefficient  $B = 1,751$ ). Therefore, an alternative hypothesis has to be adopted, confirming that the place of work provision does influence the choice of an employment form. The model of logistic regression allows calculating the odds ratio parameter. The term 'odds' refers to the probability ratio, meaning that a particular phenomenon is going to occur against the probability that a given phenomenon shall not occur. Based on the obtained result ( $\text{Exp}(B)=5,761$ ) a conclusion can be drawn that while performing work outside an employer's seat, or in it – without any assigned permanent workstation, the odds are almost six times higher for the occurrence of a flexible employment form, than in case of employees who perform work in a traditional office (permanent place of work provision in an employer's seat). The obtained result remains statistically significant.

## CONCLUSIONS AND LIMITATIONS

The conducted empirical studies indicated that in the analyzed sample the workers employed based on non-standard employment forms provide work in atypical workplaces more often than those employed based on standards contracts, i.e. contract employment. The results were based on the analysis of correlation and regression and the latter confirmed that the chance of a non-standard employment form occurrence remains almost six times higher in the group of people who provide work in an enterprise head office.

Nevertheless, it is worth emphasizing that a flexible place of work provision does not remain a popular solution, despite the legislation in force, which stipulates for such solution in case of both standard and non-standard employment forms. The subject literature, more and more frequently, emphasizes both social and economic advantages of nomadic type of work, in terms of perspectives for both an employee and an employer (Mark, N. Makato, 2010). Flexible place and time of work performance open opportunities for an employee to maintain balance between professional and private life. Travelling for business results in higher customer satisfaction. Enterprises cut costs resulting from the reduction of office space. Moreover, in the light of conducted research, some employers rest assured that opening an opportunity for flexible workplace and working time development by an employee upgrades his/her work efficiency (Ahuja, Chudaoba, Kacmar, McKnight, George, 2007). As a result, employees' mobility, according to the subject literature, gains significance and remains the condition for work flexibility.

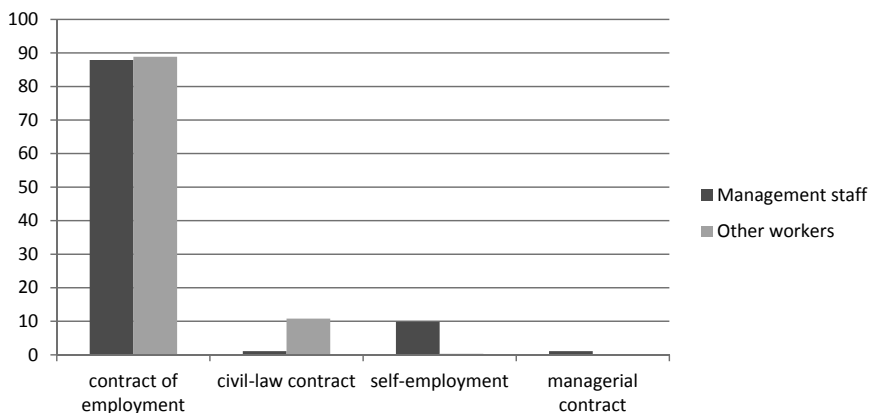
The presented results are crucial in understanding the specific nature of workers employed based on civil law contracts, they also provide information about the nature of work performed by those employed in standard conditions. They indicate that in terms of the latter flexible solutions are rarely applied with refer-

ence to workplace organization, whereas the Labor Code provisions, currently in force, open possibilities for such flexibility, e.g. in the form of teleworking. It points to practical difficulties in the implementation of solutions possible to apply in the light of labor law, as well as to employers and employees being more used to typical solutions regarding the place of work provision. On the basis of the discussed results a conclusion can also be drawn that adopting atypical solutions, in the analyzed sample, referring to workplace organization, coincides more often with signing commissioned employment contracts.

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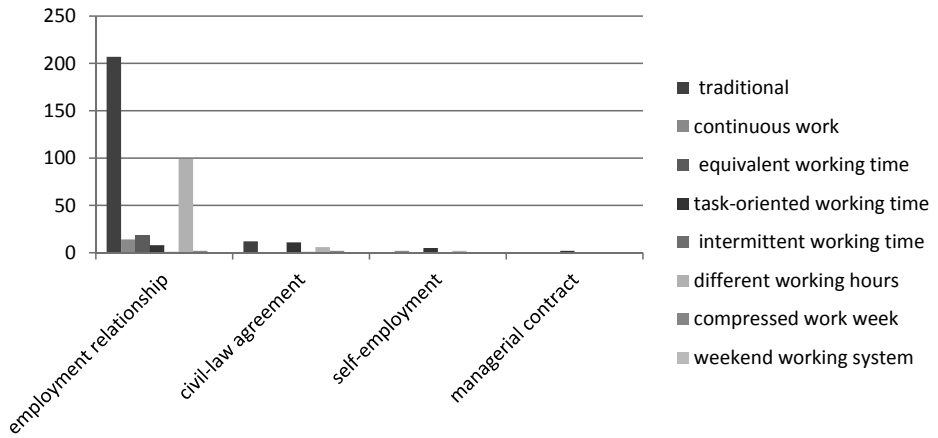
### Appendix 1.



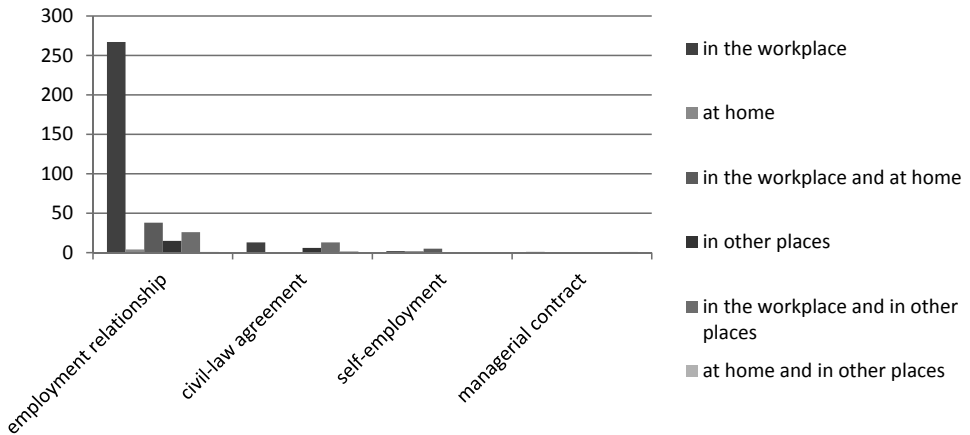
Picture 1. The form of respondents' employment

Source: authors' compilation based on the conducted empirical research.





**Picture 2. The form of respondents' working time organization**  
 Source: authors' compilation based on the conducted empirical research.



**Picture 3. The form of respondents' workplace**  
 Source: authors' compilation based on the conducted empirical research.