

Non-standard forms of employment and working time flexibility – the categories of co-occurrence?

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Abstract. The article is to present two categories of work flexibility, i.e. flexibility of employment forms and working time flexibility in their mutual relations. The review of subject literature is supported by the results of empirical studies conducted among 397 workers employed at 49 enterprises in Poland. The objective was to answer the question whether the categories under study are mutually covariant. The conducted studies confirm that flexible solutions referring to working time influence the application of flexible (non-standard) employment forms. The conducted analysis illustrates that these variables are mutually related.

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INTRODUCTION

In the 21st century management has adopted several new orientations, related mostly to the ability to cope with ongoing changes rather than stability (Carnall, 2007). Flexible work has become the paradigm in management science, an immanent characteristic of the postindustrial economy (Grudzewski and Hajduk, 2011) as well as the determinant of a new psychological contract (Kissler, 1994; Wellin, 2007).

Flexible work represents an amorphous term used to describe many, different in quality, forms of work (Conley, 2006; Skowron-Milenik, 2012). Conducting empirical studies, comparing their effects and the resulting progress of science require the adopted solutions to be classified in the area of work flexibility. The absence of such categorization, shared and accepted by researchers, impedes communication and knowledge accumulation (Pfeffer, 1993; Cappelli and Keller, 2013).

The study suggests the division of solutions referring to work flexibility into the ones covering working time organization and also employment forms. The latter, however, would result from the legal basis for interaction between an enterprise and a person providing work for its benefit which results, e.g. in the division

into contract employment, commissioned employment, self-employment or unregistered employment. The purpose of this research is to analyze mutual dependencies between the two abovementioned categories. It also attempts to answer the question whether flexible forms of working time organization, in practice, coexist with the non-standard forms of employment more frequently than the standard ones.

The empirical study was conducted using the survey questionnaire of 397 employees at 49 enterprises. The research hypotheses were verified by the application of statistical analysis methods, i.e. correlation and regression analyses.

1. THEORETICAL BACKGROUND

1.1. The conceptualization of terms

In a general sense the concept of enterprise flexibility can be referred to as an ability to adapt to internal and external conditions of its functioning, which constitutes the basic criterion of its division into internal and external flexibility. The theory of a flexible enterprise was developed by J. Atkinson (1984) and identified with flexible work within the framework of which four basic categories should be analyzed nowadays:

- working time flexibility consisting in adjusting working hours and working time schedule to the changing needs in this matter (Gableta, 2003; Jagoda, 2013),
- location flexibility (workplace) referring to employees performing work outside an enterprise (Jagoda, 2013),
- quantity flexibility manifested in employment optimization by the division of tasks into those carried out in an enterprise and the outsourced ones and/or by influencing the structure of employment contracts (substituting permanent employment contracts by fixed-term employment contracts or civil-law ones) (Atkinson 1984; Gableta 2003; Jagoda 2013),
- functional flexibility, i.e. taking advantage of employees' skills to perform diverse tasks depending on the needs arising in an organization, through the rotation at workplaces or expanding their responsibilities (Atkinson, 1984; Gableta, 2003; Jagoda, 2013).

The subject literature offers relatively well defined terms of working time flexibility. Working time is most often defined as the time when an employee remains at the disposal of an employer, which means his/her readiness to perform tasks assigned by the employer. Flexible working time arrangements cover, most often, the following forms: task-oriented working time, equivalent working time, intermittent working time, flexible working hours, different working hours, individual work schedule, compressed work week, weekend working schedule. (Kryńska, 2003; Sajkiewicz, 2003; Sadowska-Snarska, 2006). 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. Bąk (2006) traditional employment form occurs when the following conditions are met:

- an employee is employed based on a permanent contract,
- an employee performs a full time job (full time contract employment) in the specified working hours and on the premises of an employer,
- a long-term, continuous employment is realized.

The author is of the opinion that flexible employment forms refer to the ones which do not present either one or more 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 is decisive 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. Employment forms and the forms of working time arrangements, however, represent the substantively distinct categories, even though strictly related in practice.

The presented discussion allows concluding that 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 (Bąk-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” (Bąk-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; Cappelli and Keller, 2013).

1.2. Contingent employment and work organization in theory

Changes in employment forms and work organization were recognized as the particularly important trend of human resources management in the present century. Employment is based on the execution of specific tasks, projects, assignments, rather than on a regular job as it has been so far, which results in the reduction of jobs and permanent employment form. Work flexibility is connected with the application of modern technology which makes work performance independent from time and place (Pocztowski, 2003). Alternatives to the archetypal model of regular employment are now both prevalent and wide-ranging (Cappelli and Keller, 2013).

The increase in diversity of solutions applied with reference to employment forms presents the subject of analyses in the field of management science. Within the framework of the quoted *theory of the flexible firm* by J. Atkinson (1984) it was concluded that the enterprises seeking flexible solutions offer full-time employment to workers covered by the primary group and, at the same time, employ sub-contractors based on non-standard principles as the so-called peripheries. The basic characteristics of the peripheral group is adapting its size to the current needs of an enterprise, which results in offering futures contracts, engaging temporary workers and changing the nature of employment relationship (Atkinson, 1984). For many years Atkinson's model was sufficient enough to describe phenomena occurring in the area of employment forms. The division into core employment, with its crucial quality of flexibility in functioning, and the peripheral one based on numerical flexibility within the framework of which non-standard employment forms are applied, is confirmed in the studies by the majority of researchers analyzing this phenomenon since the beginning of the 21st century (Houseman, 2001; Kalleberg, 2001; Gableta, 2003). Human resource flexibility can be also classified into external and internal flexibility. External HR flexibility uses changes in the external labour market, such as temporary workers, whereas internal HR flexibility involves efforts to increase firm's ability to adjust to the changing circumstances through modifications of the internal work organisation. (Martinez-Sanchez *et al.* 2011; Cagliano *et al.* 2014).

The application of non-standard employment forms is perceived as an important factor differentiating employment groups in an enterprise. The differences between standard and contingent employees reside not only in the length of their employment relationships, but also in the kind of HR practices used to manage them. Standard employees tend to receive HR investments from an employer such as monetary incentives, empowerment, training and other “high road” initiatives, whereas employees in contingent work arrangements, because of their weak bonds with the company, are usually managed through “low-road” HR prac-

tices, characterized by narrow employer commitment and fewer investments (Cappelli and Neumark, 2004; Kalleberg, 2001; Lepak and Snell, 1999; Błoński and Jefmański, 2013).

Flexible forms of working time and workplace organization are mainly associated with the new forms of work organization (NFWO). The positive effect of NFWO on organization flexibility is explained by various factors, such as e.g.: the expansion and enrichment of jobs, the blurring of occupational distinctions, job rotation, task autonomy, training, group-based performance incentives and team working (Cagliano *et al.*, 2014). In this way, NFWO develop and maintain a highly skilled, technologically competent and adaptable workforce that can deal with non-routine and exceptional circumstances requiring creativity, initiative and allowing the achievement of functional flexibility (Zhang *et al.*, 2003). On the other hand, taking advantage of contingent employees refers mainly to the terms of numerical flexibility (Techawiboonwong *et al.*, 2006).

The quoted reference sources confirm that non-standard employment forms (in terms of contingent employment) are mainly identified with numerical flexibility and do not have to be identical with the new forms of work arrangements considering the needs of employers and employees and aimed at the increased functional flexibility. It points to the need of analyzing dependencies occurring between the form of employment vs. working time organization. It is of crucial significance in the conditions of Polish labor market at which a wide spectrum of non-standard employment forms is present (Pilc, 2015; Flek *et al.*, 2015).

1.3. The operationalization of concepts

Within the framework of the discussed employment forms the solutions associated with direct relationships between an employer and an employee (even if they run their own business) were analyzed. 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 forms of employment: 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.

As far as working time arrangements are considered the following forms were identified: traditional working time arrangements (8-hour work day, starting and finishing work at a fixed time) and flexible forms of working time arrangements such as: continuous work, equivalent working hours, task-oriented working time and different working hours.

The purpose of the study was to determine whether there are mutual dependencies between the application of non-standard employment forms and adapting flexible solutions in terms of working time organization.

2. RESEARCH METHODOLOGY AND RESULTS

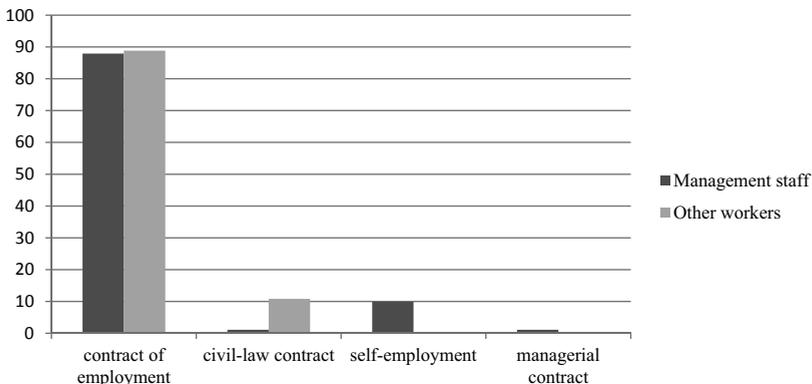
2.1. The sample

The empirical research results, presented in the article, constitute the segment of a larger research project¹. The selection of enterprises for the sample was based on the available database, in particular from the Chambers of Commerce and Industry, the Classified Directory and the Internet database, personal contacts were also used. The questionnaire was distributed, on each occasion, by one of the authors. It was assumed that in case of microenterprises 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.

In the perspective of conducted research methodology, it is cognitively valuable to analyze the characteristics of respondents answering the questions included in the questionnaire. As it 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), 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.



Picture 1. The form of respondents' employment

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

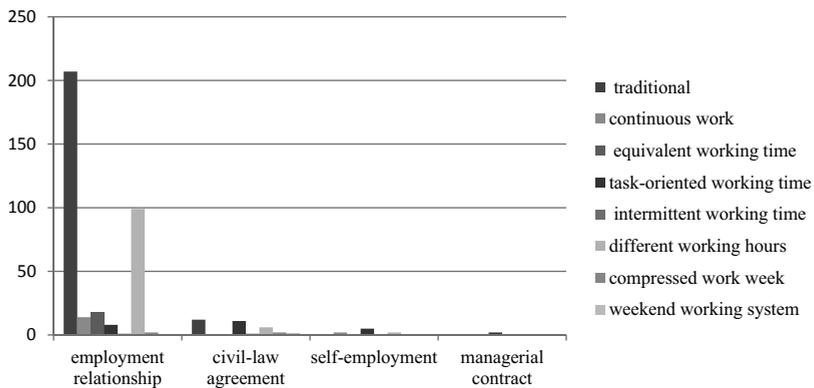
¹ The scientific study financed from Polish funds for science in 2010-2013 as the research project no. N N115 327238, Work organization in modern enterprises - determinants and implications.

A small percentage of respondents (slightly over 1% each) represented individuals performing work based on civil-law contracts: a commission contract or a work-piece contract and a managerial contract. The situation was similar in the group of other workers, since the vast majority of them performed 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)

2.2. Results

The survey questions, answered by the respondents, covered problems referring to work flexibility in the context of employment form and working time organization based on which they provide their work. Picture 2 illustrates the dependence between these two categories.



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

As the graphical presentation of the obtained survey results illustrates in picture 2, the majority of respondents are employed based on employment relationship within the framework of traditional working time organization forms (8 hours per day, fixed hours of starting and ending work). In order to analyze the dependence between two 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 related to working time have impact on non-standard employment forms.

2.3. Correlation analysis

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 ch-square statistics. All coefficients measure the significance of dependence between the analyzed variables. The values are included in the interval [0,1].

The survey results, referring to the dependence between respondents' employment form and the underlying working time organization forms, were analysed. In this case zero hypothesis also assumed the absence of such dependence. The results of statistical analysis are presented in table 1.

Table 1

Synthetic measures estimating the dependence between an employment form and working time organization form of a respondent

		Value	Approximate significance
Employment form by working time organization form	Phi	0,619	0,000
	V Cramer	0,358	0,000
	Contingency coefficient	0,527	0,000
N valid observations		393	

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

The value of Yule coefficient ($\phi = 0,619$) and contingency coefficient (0,527) indicate the occurrence of strong dependence between variables. The interpretation of V Cramer values points to a moderate relationship between the respondents' employment form and working time organization they are obliged to perform. All indicators are statistically significant zero hypothesis, so the absence of dependence between variables was rejected. Therefore, one can assume that the form of employment depends on the form of working time organization according to which work obligations are performed.

2.4. Regression analysis

Logistic regression 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 working time organization form 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 ones – workplace and working time 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 each variable 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, presented in this article, can be verified. The values of regression coefficient referring to the discussed model are presented in Table 2.

Table 2

The values of logistic regression coefficients for a one-way model with a dichotomous predictor

Variable	Logistic regression coefficient B	Standard deviation	Wald coefficient	df	Significance	Odds ratio Exp(B)
Working time organization form	1,358	0,356	14,577	1	0,000	3,887
Constant	-2,848	0,297	91,988	1	0,000	0,058

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

From the perspective of hypothesis testing about an independent variable impact (working time organization form) on the type of employment, zero hypothesis about such impact absence is rejected – which is synonymous to the hypothesis about zero value of regression coefficient for this variable (in the analyzed case regression coefficient $B = 1,358$). Therefore, an alternative hypothesis should be assumed confirming that working time organization form has impact on the choice of employment form. The model of logistic regression allows calculating an odds ratio parameter. It reflects the ratio of probabilities that a particular phenomenon shall occur against the probability that it will not. Based on the obtained result ($\text{Exp}(B)=3,887$) it can be stated that with flexible working time organization the chance for non-standard employment form occurrence is almost four times higher than in case of traditional working time organization. The obtained result is statistically significant.

3. CONCLUSIONS AND LIMITATIONS

Flexible forms of working are taken advantage of more and more often in the global scale and frequently the liberal solutions applied on an American market are disseminated in the European Union member states (Cappellii and Keller, 2013). An extensive range of the used atypical working forms is confirmed by the research conducted in the European Union countries. Simultaneously, major difficulties in comparing research outcomes are emphasized as resulting from the variety and diversity of solutions used in particular countries. E.g. in Great Britain the so-called zero hours contracts have recently become quite popular, which facilitates a highly flexible approach to working time management and, at the same time, gives staff 'worker' employment status (Broughton *et al.*, 2010). In Poland, on the other hand, more and more people are employed within the framework of commissioned employment forms which are not covered by Labor Code provisions including the ones referring to working time (Mazur, 2008).

The conducted empirical studies indicated that in the analyzed sample the workers employed based on non-standard employment forms provide work following flexible working time organization schedule more often. Whereas those employed based on standards contracts, i.e. contract employment, perform work following a fixed 8-hour work day schedule more frequently. 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 4 times higher in the group of people who provide work in flexible forms of working time.

The presented results are crucial in understanding the specific nature of workers employed based on civil law contracts and they also provide information about the nature of work provided by those employed according to standard conditions. They indicate that regarding the latter ones flexible solutions are rarely applied with reference to working time 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 in terms of working time organization and the place of work provision. On the basis of the discussed results a conclusion can also be put forward that adopting atypical solutions, in the analyzed sample, regarding working time organization coincides more frequently with signing commissioned employment contracts.

The presented conclusions, however, are not free from certain limitations. The research sample does not meet the conditions of representativeness, which hinders the possibility for making generalizations. A group of large enterprises received the strongest representation in the researched sample, both in terms of economic entities' share and the respondents, which can have impact on the collected data analysis. Non-standard employment is claimed to be used less often in large enterprises. Such enterprises, featuring high profitability and taking advantage of high-tech manufacturing processes, in accordance with the concept of dual labor market, have established the central sector within the framework of which good working conditions are offered and contract employment is preferred (Zieliński and Langer-Babic, 2013). Simultaneously, in the course of the conducted study it was not confirmed that new forms of work organization go along with a stable contract employment, i.e. working time flexibility, as well as considering employees' needs.

In line with the presented assumptions, related to the adopted research model, only these non-standard employment forms were considered which are legally justified and result from entering into direct relations between an employer and a work provider. Therefore, such forms as unregistered employment, work through temporary employment agency or other forms of personal leasing were not discussed. It, however, opens space for further exploration.

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