

## The Hard Truth on Fixed-Term Employment and Organizational Performance – Survey-Based Evidence from Hungary

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**Abstract:** *We understand that atypical employment can be sustained if it provides benefits for both the employer and the employee, but these benefits, in most cases, have only an indirect effect on profit. This study examines whether workers with fixed-term employment could be more effective regarding certain performance indicators than their co-workers with indefinite employment contracts. Results show that in one of the two examined performance indicators (number of clients served), individuals working in an atypical form of employment are more efficient for almost all variables, while for the second performance indicator (value creation), they are not more efficient for either of the variables.*

**Keywords:** fixed-term employment contract; individual employee performance; job satisfaction; motivation drives

**JEL Classification:** M00, M51, M54, M55

### Introduction

In order to improve competitiveness and profit-making capacity, companies can either improve the quality of their core business activities (Vörös, 2020) by reducing operating costs, developing more effective marketing activities, or can develop different areas of their human resource management (HRM) systems. For the latter, the development of an appropriate remuneration policy, recruitment capacity, organisa-

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tional culture, and management system can provide the organisation with enduring dominance in the market. While these elements may not appear to be of paramount importance on their own right, it is their combined nature that has an impact (Paul and Anantharaman 2020; Farouk et al. 2016). Workers of different ages, with different social, financial and cultural backgrounds, may have different preferences that the employer has to handle with a flexible employment policy (Lee, 1996). Different forms of atypical employment (part-time jobs, home office, temporary work, fixed-term employment) have been present in the European labour market for decades. However, the combination of the efforts for improving competitiveness and labour market rearrangements caused by the COVID-19 epidemic (e.g. the mass emergence of home office work) may lead to further growth of these forms of work. In this research, we examine the economic efficiency of fixed-term employment. This type of employment is one of the most characteristic atypical variants. There is an extensive amount of literature on the nature of a fixed-term status (Scheuring 2020; Schumann and Kuchinke 2020; Abadia-Alvarado 2014); its advantages and disadvantages are relatively well-known, but very little empirical research has been done so far on its direct impact on individual and organisational performance.

In this study, we describe the compromise organisations have to make regarding individual performance measurement techniques; the specific features of fixed-term employment; and introduce the background and results of our research. The research itself focuses on whether the employees of a multinational company operating in Hungary with fixed-term employment contracts are more efficient in terms of the examined performance indicators, based on their (temporary) additional motivation drives, level of job-satisfaction and stronger psychological connections to organization (Galic et. al 2016) when compared to their co-workers with typical employment contracts.

### **The dilemma of measuring individual performance**

Measuring individual performance has two dimensions (Campbell, 1990; Borman and Motowidlo, 1997; Yuan and Woodman, 2010): the individual's input or action and the actual outcome of work. In the action-oriented approach to performance, individual performance is assessed on the basis of what the employee has done in the job and what behaviour patterns s/he has shown in order to achieve organisational goals. According to Campbell et al. (1993), performance is defined as the work effort for which the organisation has hired the individual. Therefore, understanding the responsibilities and duties of a specific job is essential when evaluating individual performance. While results may be different in jobs, thus making empirical research significantly complicated, actions and workplace behaviour patterns show more similarities in different positions.

In an outcome-oriented approach to individual performance, however, the action's outcome is analysed (Borgovi et al., 2018; Lowe and Wilson, 2015). This approach's peculiarity is that in most cases, individual job performance is shaped by several factors, which makes objective evaluation difficult.

The two sides of performance cannot be assessed separately, as no profit-driven company can afford to value action without understanding its actual outcome, and evaluating the outcome without understanding the action behind is often not fair.

There are two basic limitations to the outcome-based analysis: the availability of empirical data and its position-specific nature. Researches quite understandably seek approaches that are less dependent on general and quantifiable results when examining individual performance. Of course, the evaluation of numerical and objective results of performance is important for the organisation. However, industry-specific-, national-, or global aggregation of these figures is not easy, as companies are mostly reluctant to disclose their trade secrets. Thus, regulatory reasons often lay behind the unavailability of data. Violations of EU data protection regulations can lead to huge fines for companies, and the inexperience of the relatively new rules of data protection put companies at such a high risk that it is often impossible to collect empirical data for research even if companies are otherwise open to cooperation (Ásványi 2020). Another problem is that it is very difficult to find performance indicators that would be able to establish comparability across companies, industries or economies using *ceteris paribus* as a principle. Even if a universal performance indicator could be identified, so many different factors like incentive systems, organisational- and national culture, regulatory environment, the employees' psychological state (Senarathne 2020) could affect this indicator that it would be impossible to objectively compare performance outcomes on domestic- or cross-country levels.

Therefore, the dilemma of measuring individual performance based on the results is the following. We either accept that data comes from a narrow source and cannot represent an entire industry (but can examine the impact of a variable on performance), or we analyse industry-specific data and accept that the impact of the factor on performance cannot be examined *ceteris paribus*. In both cases, we have to compromise because otherwise, the relationship between individual performance and atypical forms of employment will never be empirically examined. We believe that the former compromise involves less sacrifice: our data come from one specific company, so the impact of atypical and typical forms of employment on individual performance is measurable in a more effective way. Our study is not suitable for defining universal or cross-sectoral rules, but it contributes to the literature on the subject and can provide valuable feedback to practitioners.

## Nature of fixed-term employment

We highlight the different interpretations of fixed-term employment and summarise its most important features. We believe that research into atypical work generally gains new impetus due to the COVID-19 epidemic, as the labour market may be fundamentally reshaped by the economic and social changes caused by the virus. Possible new aspects of further research are ranging from its impact on the individual, through regulatory challenges, to economic and sectoral benefits. However, in our opinion, one of the most important questions about atypical employment is how effective it can be considered as a form of work.

Atypical employment is a relative concept (Bankó 2008); it can only be interpreted in relation to typical employment. Examining the literature, we found no universal or international definition of atypical employment that describes all its dimensions. The concept's interpretation varies in different geographical areas (Kazuya 2005), but its perceptions by different disciplines do not facilitate an organic interpretation either (Hovánszky 2005). In general, all employment forms are atypical that differ from typical employment relationships in one or more elements (Bankó 2008). In other words, an employment relationship that is not part-time and has a non-fixed duration and is executed on the site of the employer can be considered as atypical employment (Hevenstone 2010). Ásványi et al. (2017) claim that atypical employment is not typical in some aspects (e.g. time or place).

Fixed-term employment is not considered the most common form of atypical employment. However, its role is not incidental either: it affected 10.8% of all EU employees between the ages of 20-64 in 2019 (Eurostat 2020). Kazuya's international comparison (2005) underlines that the essence of a fixed-term contract is that its expiration is tied to a fixed date. It is common for each country to determine its length and/or possibilities for renewal in terms of regulation. Referring to the work of Cazes and Nesporova (2004), they conclude that fixed-term contracts are more inflexible compared to other atypical forms of employment.

Beckmann et al. (2007); Gramm and Schnell (2013) found that when examining the satisfaction of employees with fixed-term contracts, they are fundamentally disadvantaged compared to those with open-ended contracts in terms of pay, job security and career development opportunities, but surprisingly, in many cases, these employees are still more satisfied with the job, than their typical co-workers. This is primarily because experiencing life without a job, they appreciate the opportunity which they view as a possibility for long-term employment. This statement is also supported by Portugal and Varejão (2009) and Grün et al. (2010), who found that fixed-term employees see their situation as a transition from unemployment to non-fixed employment.

When examining the effects of atypical employment, the question always arises about whose interest these forms of employment primarily serve (Von Hippel et al.

1997). We generally understand how other forms of atypical employment (part-time work or home office) benefit both parties, but there is a relatively high consensus among labour law specialists that fixed-term employment primarily serves the interests of the employer (Hovánszki 2005). As pointed out before, fixed-term employees may also be motivated, but presumably, this motivation is only temporary.

## Research

The research aims to gather and analyse individual performance data to answer the research question, and we wish to understand what patterns numerical performance indicators show. The research is new in nature: no scientific work has been done so far investigating the impact of fixed-term employment on individual performance.

During data analysis, we sought to compare the performance of as many typical and atypical employees as possible in order to identify the factors that influence performance. The more data we analyse, the more factors can affect the strength and reliability of the relationship. Individual influencing factors (e.g. marital status, financial status) lose importance as the number of items increases; however, identifying the factors that affect the performance of the entire population is key to the success of the research.

We distinguished two groups of factors: those that affect performance across companies and jobs and those that are company- and/or job-specific. The former include education, geographical location, and work experience, while elements of the latter category include specifics of organisational culture, different incentive systems or performance measurement methods. The latter practically exclude a comparison of employee performance even in two similar companies in an industry (e.g. two fruit processing factories, where one company rewards its employees based on the amount of fruit processed and the other on the quality of the juice produced). Therefore, during the analysis, we relied on company-specific data exclusively.

The targeted company is the Hungarian branch of a multinational company operating in the financial- and insurance industry. During the company selection procedure, important considerations were that the organisation should operate in the profit sector, it should run a reliable, detailed and operationalised performance monitoring system, and it should be open to cooperation. The latter criterion does not appear to be professionally significant, but in practice, it has proved to be perhaps the most important aspect, as the availability of data is extremely difficult in this area of research.

In selecting jobs, we focused on the employees who are involved in customer service because these positions proved to be standard enough to make comparisons. The examined period was between January 2017, and December 2019. During this time frame, we examined two performance indicators of individuals: 1) the number of customers served and 2) sales performance. The former is a quantitative indicator

related to the core activity of the company; the latter is an indicator of work quality. Both indicators contribute to the result-oriented approach to individual performance. It is also important to note that during the research, no overtime data was available, so we had the assumption that employees actually worked as much as it was set in their employment contract.

The sample includes several types of atypical workers, but we focused primarily on fixed-term employees, as our hypothesis is based on the assumption that fixed-term employees have extra motivation and impetus because they either come from a job-seeking situation and are satisfied with the opportunity, or they see it as a lobby for permanent employment. If we understand that fixed-term employment primarily serves the employer's legal and management interests, it is of high importance to examine its impact on employee performance. In other words, even if fixed-term employment contracts provide the employer with flexible and broad organisational powers, productivity may decline if employee motivation is low. What the employer wins on one side can be lost on the other.

Our hypothesis is that an employee with a fixed-term employment contract has higher values per unit working hour on at least one of the performance indicators than those working in a non-fixed form of employment (i.e. they serve more customers and/or produce higher sales performance).

### *Method*

To compile our primary data set, we conducted the analysis for three years in order to observe and compare the performance of employees working in different forms of employment. The data sample contains the monthly performance data of 4,683 employees (altogether 105,241 months). The data sample of employees with non-fixed employment contracts contains a total of 91,718 months.

In order to track the efficiency of fixed-duration employees, we collected all the characteristics in the three-year period, which in our opinion was influencing the performance of employees. Accordingly, our primary data set contains the following criteria (Table 1).

Table 1: Variables used in the study and employees' distribution

Variable	Description	Categories	Relative frequency of measure (%)
Gender	Gender of employee	male	11.21%
		female	88.79%
Age	The age group of the employee (years)	- 30	17.73%
		31 - 40	29.22%
		41 - 50	27.11%
		51 - 60	22.49%
		61 -	3.46%
Work experience	Length of service (years)	Beginner (0-3 years)	34.25%
		Advanced (4-8 years)	15.70%
		Experienced (from 9 years)	50.05%
Education	The highest education level of the employee	Elementary school	0.07%
		Basic Vocational school	0.08%
		Vocational school	0.03%
		Vocational high school	38.13%
		High school graduation	25.27%
		Technical graduation	0.92%
		College	13.51%
		University	3.08%
		Postgraduate	no data
Job/task	Job category specific to the employee	Basic task	38.09%
		Complex task	61.91%
Geographical location	Location of the business unit	Budapest	27.75%
		Countryside (except Lake Balaton)	70.24%
		Lake Balaton	2.01%

From the influencing factors concerning job performance, we selected those that have accurate and/or measurable data. For this reason, we omitted factors such as the commitment of employees, individual competencies, fit to organisational culture or individual attitude to work. (For further analysis on these factors and their impact on employee performance, see: Borman et al. 2001; Borman et al. 2014; Hurtz and Donovan 2000).

Gender differences can arise when examining employee attitudes towards atypical work in general. The topic is addressed by many (Pulakos et al. 1989; Ali and Davies 2003), which is partly due to the relatively easy availability of data for research.

Research on the relationship between age and individual performance is also quite numerous (Giniger et al. 1983; Saks and Waldman 1998; Ng and Feldman 2008; Berthelot et al. 2019). There are certain jobs where younger employees have a clear advantage over older ones (e.g. heavy physical work). However, we also find countless examples of the opposite, especially in white-collar jobs. There is a clear link between age and work experience as well as between work experience and individual

performance (McDaniel et al. 1988). In general, the more experienced an employee is, the better performance is expected. Of course, many individual factors (e.g. family, physical or mental health) may shape this expectation in practice (Quinones et al. 2001).

Several studies (Borman et al., 2014; Ng & Feldman, 2009; Ariss & Timmins, 1989) have confirmed the suggestion that knowledge, skills and abilities significantly influence employee performance, more closely acquiring new skills or developing existing ones can result in increased individual performance. Since we consider training and development to be one of the most important variants in the research, we differentiated all possible education levels available for employees in Hungary.

The examined company operates in Hungary, and it has several network units across the country. Regional differences have a high impact on performance; therefore, the following geographical categories were defined: Budapest, Lake Balaton and countryside (except Lake Balaton). The economic strength of Budapest significantly exceeds all other regions of the country: in 2016, the GDP per capita in Budapest was 7.3 million HUF, while the same figure in the countryside was 2.8 million HUF (CSO 2018); therefore, we examine the two categories separately. We distinguished the Balaton region from the countryside because of its strong seasonality; however, it is economically still much weaker than the two other categories.

We sought to include control variants in our model that serve reliable comparison among homogeneous groups of workers. All employees covered by the research worked in customer service; their job descriptions were similar, with minor differences in tasks. We defined two categories that refer to the complexity of tasks: basic and complex tasks. The distinction between the two is not completely transparent, as employees with “complex tasks” must sometimes also perform basic ones. There is also an important difference between the two categories: wages of employees performing basic tasks are typically lower than those performing complex ones.

Our key hypothesis, namely that fixed-term employees show more efficiency in performance than non-fixed employees, determined the type of methodology. We used the General Linear Model to show whether there is a significant difference between the monthly performance numbers of different groups (for more details, see Rappai 2001). In cases where the F-test showed differences in each of the employment categories, the differences among the group averages were further analysed by post hoc analysis. Starting from the groups with different number of items, the difference of the individual group means was examined in pairs with a Bonferroni test.

### *Results and Discussion*

As a first step, we examined whether the hypothesis for the whole sample proved to be true without involving other variables. We considered it necessary to identify key variables not only to ensure that the results were reliable but also because we expected data subunits to confirm our hypothesis. We identified two performance

indicators: a) the number of customers served and b) sales performance. The higher value of the first indicator is important for the company because it ensures a smooth business operation and reduced customer waiting times, which in turn supports a high customer satisfaction rate and fewer customer service employees, which has a direct positive impact on the company's expenditure. This performance indicator is therefore extremely important for the employer and, although it is described as a quantitative indicator, we understand its impact on several quality indicators too. Sales performance has a direct impact on the company's revenues. Higher individual sales numbers result in higher company revenue, and very importantly, this has direct feedback on the individual's performance pay again. When assessing research results, we highlight that the increase in sales performance also has a direct financial benefit for the company. The number of customers served only indirectly affects the employee's performance pay, as each customer represents another potential sales opportunity (the number of customers served alone does not provide financial recognition for the employee). To ensure comparability of the different variables, the original indicators were projected to hourly work and were normalised according to the maximum value of that variable. The resulting performance indicators can be interpreted as a percentage on a scale between 0 and 100.

In the overall sample, we have distinguished between full-, and part-time employees, as well as between employees with fixed-, and non-fixed contracts. We classified employees into four categories accordingly. To ensure accurate measurement, we detached the impact of part-time and full-time status (with non-fixed contracts only) on performance and analysed it in a separate study (Vörös and Fűrész 2021). In the present research, we examine the performance standards of full-time customer service employees only.

As mentioned, identifying key variables increases the reliability of results. There is no doubt that individual influences (e.g. family background, health status, mental freshness) in the short term should not be ignored in the analysis; however, if individual performance is monitored over a three-year period, these factors have marginal significance and were therefore disregarded during the study. The inclusion of company-specific influences in the research once again lead to the dilemma of result-based performance measurement and representative results. Widening the data source for performance analysis, the quality of comparison deteriorates significantly; if data come from fewer sources, results are not representative enough and makes it more difficult to draw general conclusions. Including company-specific factors as variables (e.g. incentive system, company culture, certain operational features), our research could become a corporate case study. Omitting these factors, the reliability of the results decreases again. We chose the latter constraint because, in our view, we can arrive at general findings without leaving company-specific factors that may hold true for other companies.

Table 2 shows that in the overall sample examined without different variables, employees with atypical contracts were more effective when examining their quanti-

tative performance indicators. (In this table and subsequent data tables \* indicates that the difference is statistically significant at the 0.05 level based on the Bonferroni test. (The direction of difference is clearly indicated by +/- signs.) On the other hand, in the case of qualitative performance indicators, typical employees exceeded them. In order to conclude the data set that is more precise, we examined each variable separately for the two performance indicators and monitored the combined effect of them. Our detailed analysis examines the impact of fixed-term status on individual performance; therefore, we excluded employees with part-time contracts. We will therefore continue to compare **category B** (full-time employees with fixed-term contracts) and **category D** (full-time employees with non-fixed contracts) according to different criteria.

Table 2: Results of the total sample without control variables

Performance indicators	A	A-D	B	B-D	C	C-D	D
Customers (%)	20.31	4.32*	19.13	3.15*	18.60	2.62*	15.99
Sales performance (%)	3.12	-5.15*	3.68	-4.59*	6.08	-2.19*	8.27

*Note: Letter A indicates performance means of part-time employees with fixed-term contracts, letter B indicates full-time employees with fixed-term contracts, letter C indicates part-time employees with non-fixed contracts, and letter D indicates full-time employees with non-fixed contracts.*

### Performance Indicator I: Value Creation

Analysing the overall sample, we found that personnel with non-fixed employment contracts create more value for the organisation in a unit hour than their fixed-term contract co-workers do. Examining the non-company-specific variables that affect individual performance, this result is mostly general. Results show that the job complexity, geographical location, qualifications and gender do not affect performance patterns. However, for two variables (age and work experience) out of six, we got different results that require further examination.

Table 3: Value creation per hour in proportion to the maximum percentage compared to the age group as a variable

Age group (years)	Employee with Fixed-term Contract	Employee with Non-fixed Contract	Difference
19-20	2.2163	0.2674	1.9489*
21-30	3.4761	7.2136	-3.7374*
31-40	4.1177	9.0657	-4.9481*
41-50	3.5449	8.5331	-4.9881*
51-60	3.8652	7.5052	-3.6401*
61-	4.7675	5.9413	-1.1738*

As shown in Table 3, we have received confirmation of our first results in most age categories, but we consider it important to highlight that in the youngest age category, employees with fixed-term contracts create more value than their non-fixed co-workers do. This may be important because our hypothesis suggests that fixed-term employees are more efficient than their peers are because they view a temporary contract as an opportunity rather than a punishment. They still may be eager to prove their capacity in order to secure employment and avoid losing the job.

Table 4: Value creation per hour in proportion to the maximum percentage compared to work experience

Control variable		Employee with Fixed-term Contract	Employee with Non-fixed Contract	Difference
Work experience	Entry-level	3.6293	6.5732	-2.9439*
	Intermediate to Advanced	7.2861	9.1464	-1.8603*
	Experienced	8.7634	8.4800	0.2834

The results coming from the analysis of work experience are also novel. Table 4 shows that when grouping employees according to work experience, fixed-term employees in the experienced category achieved higher figures than employees with non-fixed contracts did. This result, however, is not significant because the data sample was obviously very low, as only very few employees work for the company for a long time but still with a fixed-term contract. (Note: Hungarian Labour Code Section 192 allows employers to operate with fix-term contracts with a maximum length of five years. Hungarian Labour Code was fundamentally revised in 2012, which is - with minor modifications - in force since then.) Nevertheless, the conclusion coming from this data is rather important: fixed-term contracting is not typical among experienced workers, which confirms the temporary, transitional nature of this form of atypical work. Although this result is not significant, it may provide an exciting research opportunity in the future to see whether employees with sufficient industry-specific experience would also be more effective after switching from non-fixed to fixed-term employment.

In the next step of the analysis, we examined whether we could obtain a more accurate picture if we included additional variables for results that differed from the overall sample. We looked at the impact of the job level on the individual's value creation efficiency correlated with age.

Table 5: Value creation per hour in proportion to the maximum percentage compared to the level of task difficulty and age group

Level of Task Difficulty	Age Group (years)	Employee with fixed-term contract	Employee with non-fixed contract	Difference
Basic tasks	19-20	2.2163	0.2674	1.9489*
	21-30	3.2364	5.7869	-2.5505*
	31-40	3.4358	7.0058	-3.5700*
	41-50	3.0651	6.8475	-3.7823*
	51-60	3.1229	5.8333	-2.7105*
	61-	5.1235	4.7946	0.3289
Complex task	19-20	no data	no data	-
	21-30	6.6004	9.6146	-3.0142*
	31-40	7.4523	10.5545	-3.1022*
	41-50	4.8203	9.8073	-4.9869*
	51-60	5.5127	8.9747	-3.4620*
	61-	3.0943	7.2783	-4.1840*

Results of Table 5 show that employees with non-fixed contracts are more effective in both job levels in almost all age categories. Coming from the simple assumption that entry-level employees occupy entry-level (i.e. basic) jobs, it is not surprising that an unusual result was confirmed only for basic tasks (i.e. fixed-term employees are more efficient in the 19-20 age category). All employees performing complex tasks proved to be more efficient according to their performance indicators if they had non-fixed employment contracts.

#### Performance Indicator II: Number of clients served

Learning the results of Table 2 and by examining the whole sample for the number of customers served, it is evident that employees with fixed-term contracts are more efficient than their co-workers with non-fixed contracts, which proves our hypothesis to be correct. Our results for this performance indicator are as clear as the results obtained for the previous performance indicator when examining the additional variables; only the sign of the relationship is opposite. We can say that for almost all the variables examined, fixed-term employees serve more customers per unit of work time than their colleagues with non-fixed contracts. This result is not influenced by an employee's experience, age, geographical location, educational background or gender. As we pointed out in the analysis of the former performance indicator, job level plays a key role. Non-fixed employees proved to be more efficient for this performance indicator only in one subgroup. Table 6 shows that employees with non-fixed

contracts serve more customers per unit of time and – as it was explained above - they create more value only in complex jobs.

Table 6: Number of customers served per hour in proportion to the maximum percentage taking the level of task difficulty into consideration

Level of Task Difficulty	Employee with Fixed-term Contract	Employee with Non-fixed Contract	Difference
Basic Tasks	20.7161	20.1843	0.5318*
Complex Tasks	10.1790	11.8402	-1.6612*

Due to different results obtained for complex tasks, we examined efficiency related to job tasks and all other variables. We could not identify a variable where fixed-term employees with complex tasks would have served more clients than their non-fixed colleagues did. However, in case of those performing basic tasks, we found several data subunits in which fixed-term employees were outpaced by non-fixed co-workers. Table 7 illustrates that although we concluded before that entry-level fixed-term employees are more efficient in this performance indicator based on one-variable results, if we correlate work experience with job level, fixed-term entry-level employees are not more efficient in either of the categories. We can explain this primarily by the fact that jobs with complex tasks typically serve fewer clients so employers need smaller number of fixed-term employees. This way the smaller number of clients served in complex jobs primarily derogate the results of non-fixed employee groups, making the overall sample of fixed-term entry-level employee groups appear more efficient.

Table 7: Number of customers per hour in proportion to the maximum percentage compared to the level of task difficulty and work experience

Level of Task Difficulty	Work Experience	Employee with Fixed-term Contract	Employee with Non-fixed Contract	Difference
Basic tasks	Entry-level	20.6455	21.0496	-0.4041*
	Intermediate to Advanced	22.6531	20.0611	2.5920
	Experienced	26.5499	19.6762	6.8737
Complex task	Entry-level	10.2340	11.6173	-1.3833*
	Intermediate to Advanced	8.8532	12.4916	-3.6384*
	Experienced	no data	11.6918	-

## Conclusion

There is a relatively broad agreement that fixed-term employment contracts primarily serve the interests of the employer. However, in order for this type of atypical employment relationship to persist in the long term, it must, in fact, be attractive to both parties (employer, employee). In addition to surveys supporting employer and employee attitudes towards fixed-term employment, we analysed data sets that allow for an accurate examination of its effectiveness. We made some compromises during the analysis in order to be able to compare typical and atypical employment relationships numerically, which is undoubtedly a limitation of the study. Still, we believe that our research findings are essential and they may encourage further research activities.

With our results, we demonstrated that employees with non-fixed employment contracts have proven to be more effective in creating real market value for the company. With the research, we intended to discover those segments of the labour market and those aspects of business operation that keep fix-term contracts alive, making it attractive to both participants of the employment relationship.

We found that employees with fixed-term contracts are typically more efficient in delivering basic or non-skilled tasks in a company. One explanation for this may be that these workers are more motivated than their co-workers with permanent contracts are, as they consider their fixed-term jobs more as an opportunity rather than a limitation. As having no other possibility to remain active in the labour market, they are willing to sign the contract. If fixed status provides an employment relationship that helps an individual to avoid a worse alternative (being unemployed), it can be an effective form of employment in the short term.

In addition, we saw that young employees with a fixed-term contract who get the opportunity to enter the labour market this way, perform better in jobs that can be acquired relatively easily and quickly, and so they have the opportunity to gain work experience and develop. However, this does not apply to young employees with fixed-term contracts occupying complex jobs, which derives from differences in individual preferences, qualifications, and age. It is also clear that further research can provide a more accurate picture of the current results.

Among possible future research areas, we mention examining the length of the fixed-term duration to understand beyond which timeframe efficiency declines and makes this type of contract counterproductive. The general use of our results would require the involvement of additional large companies; however, as the issue of accessing data was discussed above, this would require extensive collaboration at the national and/or industry level. Extended vertical or horizontal studies would increase the reliability of the results. In addition to the quantitative data examined in this study, we recommend further explorations of this topic by collecting additional qualitative data using a wider range of research tools in the future.

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