

Firms' Investments in Continuing Training: An Empirical Study of Bulgarian Enterprises

Mariya Neycheva, Burgas Free University, Bulgaria

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Abstract

Continuing education and training (CET) is a priority issue for the EU educational policy. Bulgaria is one of the countries with the lowest involvement in continuing training and one of the reasons for that is the unwillingness of the private sector to invest in lifelong learning. In this regard, the present study focuses on the firm-provided training by discussing the results of a survey of 280 private companies carried out in 2024. It implies that the firm demographics determines to a great extent the training intensity. The prevalence of small businesses which do not have time, financial and human resources for implementing proper HRM practices explains the low involvement in CET. Therefore, the governments should take responsibility in supporting those companies in their efforts to invest in staff training.

Keywords: lifelong learning, continuing education and training, firm provided vocational training

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Introduction

Across the EU, Bulgaria is one of the countries with the lowest participation rate. One key reason is the limited investment in lifelong learning by the private sector. According to the recent Eurostat data, in 2020 the percentage of enterprises which have provided continuing training is 41.1% on average for Bulgaria compared to 67.4% for the EU-28. Though the number has been gradually increasing since 2005 when it was only 28.7%, Bulgaria is still lagging behind most of the EU member states. With regard to that, the current study focuses on the training activity funded by the non-financial sector. It examines the determinants of the training intensity across Bulgarian enterprises which have provided continuing vocational training to their employees over the period 2022-2023. The results of the study would illuminate the factors and obstacles to investments in training which is expected to contribute to the educational policy at a national or local level.

Literature Review

In economic research, the participation of companies in continuing education and training of staff is explained through various paradigms. Human Capital Theory (Becker, 1964) emphasizes the economically rational reasons for lifelong learning, viewing it as an investment that enhances the productivity, efficiency, and competitiveness of a firm. Organizations are primarily motivated to invest in training for specific skills and competencies, as this reduces the likelihood of employees leaving the company after training. This way, the current employer can recoup the training costs (Mohrenweiser et al., 2019). Additionally, investing in specific skills makes workers more difficult to replace, thereby reducing turnover.

Conversely, firms also invest in general skills training if employees are willing to accept lower wages during the training period (Fleischhauer, 2007). Some studies suggest that such training can also be economically justified for employers (Pedrini, 2013). In situations of low labor demand, employees have fewer alternatives for changing jobs. In cases of information asymmetry, the current employer may offer higher wages to retain high-ability workers, while lower-skilled workers may leave (Brunello & Wruuck, 2020).

Institutionalism adds a social context to the motivation for lifelong learning. Training is seen as a response to regulations, norms, beliefs, cultural environments, and values at the national, sectoral, and organizational levels. It is influenced by factors such as the presence and strength of workers' associations (e.g., trade unions) (Waddoups, 2014), culture and ethics (cognitive aspect of the organizational institution), market structure or competition (normative aspect), and institutional changes (García-Cabrera et al., 2018; Wahda, 2017). By investing in training, modern organizations gain legitimacy and acceptance, especially at industry and regional levels.

According to Resource-Based Theory (Grant, 1996), a firm is a unique set of resources aimed at maximizing its value. An enterprise can achieve efficiency gains by coordinating the efforts of individuals with specific knowledge. The need for continuous knowledge acquisition is driven by dynamic market conditions resulting from technological progress, changing consumer needs, or competitive pressure. The main task of the manager is to coordinate this newly acquired knowledge.

A review of theoretical research on vocational education and training shows that the motivation for training human resources to reduce the mismatch between education and job requirements and to update workers' skills in a changing labor market can be explained by human capital theory and institutional theory. The main objective of the study presented in this paper is to investigate the attitudes of Bulgarian businesses towards the continuing training of human resources through research and analysis of factors derived from leading theoretical paradigms.

Methodology: Survey Methodology and Sample's Characteristics

The whole sample being surveyed includes 280 non-financial enterprises from four Bulgarian regions: northwestern, southeastern, southwestern (excluding Sofia), and the capital city of Sofia. Primary data was collected through direct standardized workplace interviews using a questionnaire of 43 questions developed particularly for this study. The questions were based on a systematic analysis of the relevant theoretical and empirical literature (Neycheva, 2024). The interviews were conducted in February and March 2024.

Sample's Demographics

The surveyed enterprises were predominantly micro and small businesses, reflecting the Bulgarian landscape and making the sample representative. About 30.7% of the companies have up to 9 employees, while another 30.4% employ between 10 and 49 people. The share of respondents with at least 250 employees is 13.6%. The respondents are evenly distributed among the four regions surveyed – 25% each. Predominantly, the staff has secondary education and is aged 30 to 49 years. Workers up to 29 years of age make up 14.4% on average. About 67.2% of the staff have general or specific secondary education, and 28.8% have at least a bachelor's degree. Nearly 60% of the companies serve the local or regional market.

About half of the companies define their performance as close to the industry average in terms of market leadership and innovations in products and services. About 20% perform better or worse than the average. The main strategies that the respondents apply for attracting customers and better positioning themselves compared to the competitors involve average price and quality (39%) or premium price with high-quality products/services (37%). The profit of 58% of the companies for the last financial year is close to the industry average. Only 4% of the participants earned a higher profit while 24% claim a lower profit level; 5% of the firms have not made any profit.

Staff Training Practices

53% of the surveyed organizations had at least one training session two years before the survey (February 2024). These companies are the subject of analysis in this study. A total of 631 internal (5 per enterprise on average) and 286 external trainings (3 per enterprise on average) were conducted. The ratio between training for managerial and non-managerial personnel is 18% to 82% for internal training and 42% to 58% for external one. A total of 8,800 employees participated in internal training (an average of 64 people per company), and 3,832 employees participated in external training (an average of 41 participants per company). The ratio between participants from managerial and non-managerial staff is 10% to 90% for internal and 32% to 68% for external training.

In 14% of companies, Human resource management (HRM) is handled by a person without proper qualification. These are mainly organisations with a small number of employees. For 45% of the companies, HRM is performed by a HR department or a HR expert. 10% use a specialised external provider while in 29% of the cases it is managed by the manager (owner) of the firm. A total of 62% have formalized HRM practices, including 37% with well-developed written strategies, plans, etc. Among companies with more than 250 employees, the total share of those applying HRM practices is higher than 90%. One-third of the companies, predominantly the smaller ones, do not apply specific HRM.

Table 1 summarizes the reasons for participating in training. Nearly 80% point out the importance of training for improving competitiveness or introducing innovations. This is most clearly expressed in the northwest as well as the southwest region. The existence of regulations on worker qualification is highlighted by 62% of the firms. It is selected by at least two-thirds of the firms in all regions but Sofia. Financial incentives from training investments and staff requests for training have the least weight. The output presented in Table 1 implies that the competitive landscape might explain the underlining motives for training. In region with a higher number of companies, such as the city of Sofia, training is viewed mainly as a tool for gaining a competitive advantage.

Table 1
Reasons for Training Participation

Reason	Total	Northwest	Southeast	Southwest	Sofia
To improve the competitiveness of the company	79.6%	90.3%	83.3%	90.6%	59.5%
Innovations requiring staff training	78.9%	93.5%	69.0%	90.6%	69.0%
Regulatory requirements	61.9%	93.5%	66.7%	68.8%	28.6%
To improve the image of the company	55.1%	90.3%	59.5%	62.5%	19.0%
Requests from employees	45.6%	90.3%	42.9%	56.3%	7.1%
Financial incentives (e.g. reduction of tax liabilities)	44.2%	87.1%	40.5%	59.4%	4.8%
Financial subsidies received (e.g. state, European, etc.)	40.8%	83.9%	23.8%	59.4%	11.9%

Some studies address the choice of training providers by focusing on the role of institutions in the higher education system (Aslam et al., 2022; Davis & Amirbekova, 2019). This question was also posed to the participants in the survey under discussion. According to the results, Bulgarian companies most frequently choose private training centers to provide employee training (see, Table 2). There is a notable disparity between companies based in Sofia and those in other regions. In the capital city, 95.7% of the companies opted for private training centers compared to just 45.5% in the southeastern region and 64.3% in the northwestern region.

Table 2
Distribution of Training Providers

	Total	By region			
		Northwest	Southeast	Southwest	The capital city of Sofia
University's training center	17.9%	17.9%	36.4%	9.1%	8.7%
NGO's training center	16.8%	14.3%	22.7%	31.8%	0.0%
Private training center	67.4%	64.3%	45.5%	63.6%	95.7%
Other	1.4%	4.3%	0.0%	0.0%	1.4%

This result appears paradoxical given the significant geographic imbalance in the distribution of higher education institutions (HEIs). The latter are heavily concentrated in the city of Sofia—home to 45% of all Bulgarian universities and university colleges. The preference for private training centers outside the capital may be due to a lack of viable alternatives. Possible explanations include the perceived inability or lack of trust in universities to meet specific vocational training needs, or the very nature of the training—particularly when it involves acquiring practical skills not typically covered by higher education (e.g., courses for blue collar workers).

The limited role of universities in continuing education aligns with findings of Mitreva (2019) for Macedonia as well as Neycheva and Baltov (2022) in a 2020 study on Bulgaria. In contrast, Fuchs et al. (2021) reported different results for Germany. In this study, university training centers were used by only 17.9% of respondents. They are most popular among the firms located in the southeastern region where 36.4% of the respondents claimed to use such educational units.

Results and Discussion: Factors Affecting Training Intensity

The following results are based on a correlation analysis aimed at identifying key determinants of company investment in continuing education. Training intensity is measured by the total number of internal and external training sessions conducted. The analysis includes only 137 companies that conducted at least one training session during the study period (2022–2023).

Training frequency is rated on a scale from 1 to 5. Outliers were identified using the z-score method; cases with a z-score greater than 3 (i.e., companies that conducted 25, 26, or 50 training sessions) were excluded from the descriptive statistics but included in the correlation analysis. Five intervals were created based on the average number of training sessions, using the mean $\pm 1/2$ standard deviation and mean $\pm 1/4$ standard deviation.

Table 3 presents the correlation coefficients and significance levels for variables that were statistically significant at the 0.01, 0.05, and 0.10 levels. Consistent with findings in the literature, training frequency is positively correlated with enterprise size. This also explains the significant positive correlation with the number of managers, particularly senior managers, who are typically responsible for making decisions about training investments.

The ratio between the employee and managerial staff of the firm also plays a role: a higher ratio is associated with a greater frequency of training sessions, suggesting that more workers are being trained. This finding is supported by both the descriptive analysis and the observed

data. It may also help explain the limited role of university training centers as training providers (see, Table 2).

Companies with a higher proportion of young employees (under the age of 29) are more likely to conduct training, with the correlation (-0.22) being statistically significant at the 10% level. Labor shortages—both for skilled and unskilled workers—also influence training activity. A negative correlation indicates that companies facing hiring challenges are more proactive in offering training.

In compliance with the institutional paradigm, industry and market-related factors are also significant. Companies that perceive themselves as industry leaders, have a strong market position, or are innovation-driven tend to invest more in training. However, further analysis is needed to determine whether this relationship is causal or merely correlational.

Table 3
Factors for the Intensity of Staff Training

Factor	Result	Level of significance
Size of the enterprise	.322 ^{***}	.000
Number of Senior Level Managers	.341 ^{***}	.001
Number of mid-level managers	.293 ^{***}	.005
Size of administration	.257 ^{**}	.015
Employee-to-manager ratio	.257 ^{**}	.015
Size of service personnel	.396 ^{***}	.000
Proportion of staff under 29	.204 ^{**}	.042
Share of staff with 9-19 years of experience in the company	-.172 [*]	.093
Staff shortage	-.218 ^{**}	.011
Scope of activities/market	.219 ^{**}	.011
Industry Leader	-.262 ^{***}	.003
Market share	-.201 ^{**}	.023
Innovation Leader	-.250 ^{***}	.005
Availability of HR Recruitment and Management Department/Specialist	-.180 ^{**}	.035
Availability of formalized HRM practices	-.189 ^{**}	.032
Communication of management with staff	-.214 ^{**}	.012
Comparative level of last year's profit	-.169 [*]	.064
Perception of learning as a normative requirement	.166 [*]	.056
Perception of training as an obligation for the employee	.152 [*]	.079
Perception of training as a choice for the employee	.174	0.046

^{***}Significance level 0.01, 0.05, 0.10.

Organizational culture also matters. The structure of hiring and personnel management, including training, and the presence of formal HR practices is significant at the 5% level. Companies with dedicated HR departments or qualified specialists are more active in training. Interestingly, a negative correlation was found between ease of communication between managers and employees on the one hand and training frequency on the other hand,

suggesting that companies with communication challenges conduct more training. This seemingly paradoxical result may be explained by company size: larger organizations with more hierarchical layers often face greater communication barriers.

The learning culture within organizations was assessed using a composite index based on 21 dimensions at the organizational, team, and individual level, following the framework of Polo et al. (2018). While the overall index showed a positive (but statistically insignificant) correlation with training frequency, three specific components were significant for Bulgarian companies.

Training as a regulatory requirement is significant at the 10% level, consistent with findings in Table 1. From an individual's perspective, the understanding that training is a choice of the employee shows a positive statistically significant at the 5% level correlation with the number of trainings. It should be noted that this relationship retains its sign and significance even after controlling for the company's size. The statement that training is an employee obligation is significant at the 10% level. Though, this result might reflect a lack of contextual clarity.

Conclusion

Bulgaria remains among the EU countries with the lowest participation rate. One key reason is the limited investment by the private sector in lifelong learning. This study focuses on training activities funded by the non-financial sector during 2022–2023. The analysis shows that the company demographics—particularly size—is a major determinant of the training frequency. This aligns with Bishop (2020), who also highlights the role of company size. Smaller firms often lack the time, financial resources, and HR capacity to implement structured training programs, which explains their lower participation. Larger firms, by contrast, tend to have more managers, administrative staff, and formal HR practices, all of which support training initiatives.

In support to the relevant studies, regional disparities also matter here. Companies in more economically developed regions (measured by GDP per capita) invest more in training. This finding is consistent with Stacho et al. (2019) for Slovakia and Neycheva and Baltov (2022) for Bulgaria. Firms that view themselves as market or innovation leaders also conduct more training, in line with the postulates of institutionalism (Esteban-Lloret et al., 2018).

Regulatory requirements for employee qualifications are another driver of vocational training investments, as also recognised by Smith et al. (2019) and Wotschack (2020). From the employee perspective, training is more likely when it is perceived as both a personal choice and a professional obligation. Among workforce characteristics being examined, such as educational background, distribution by age and gender, only the proportion of employees under 29 years of age seems to matter. The higher share of employees from the other age groups show no significant impact.

Another key finding of the current study is the limited role of Bulgarian universities as training providers. This is largely due to the nature of the training, which is often targeted at lower-skilled workers and falls outside the scope of traditional higher education.

Overall, the output supports several tenets of institutional theory—particularly the idea that training is often a response to external norms and regulations. In Bulgaria, these are typically

national or sector-specific mandates. Internal organizational factors such as learning culture or union presence appear to be less influential. This highlights the need for public policy to create stronger incentives and a more supportive environment for continuing vocational education and training, especially for micro, small, and medium-sized enterprises.

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Contact email: mneicheva@abv.bg