# COMPETENCY-BASED PROFESSIONAL DEVELOPMENT IN SHAPING AFFECTIVE ORGANIZATIONAL COMMITMENT

## Introduction

Organizational commitment (OC) has been the subject of many studies. Interest in this concept dates back to the 1960s, but in 1986 Meyer and Allen [Cohen, 2013] proposed the Multidimensional Approach. On the basis of the literature and their own empirical research they developed a three-component concept of OC and a tool for measuring it. Studies in the field of human resource development (HRD) show that OC is related to various other factors, both as a dependent or independent variable [Giauque et al., 2010; Kim et al., 2017]. Furthermore, for the sake of understanding the complicated issues in HRD, researchers have frequently focused on selected dimensions of OC.

Because it is postulated in the literature that affective organizational commitment (AOC) is an essential part of OC and some classic studies have proved that the strongest relationship exists between training and AOC [Bartlett, 2001], the authors decided to focus their interest on AOC. In the literature research, the authors established that this dimension of commitment is associated with such variables as personal characteristics (personality traits and their suitability for the work environment); structural characteristics (a sense of organizational fairness and decentralization of the decision process); economic and philanthropic corporate social responsibility

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(CSR); job characteristics (work that offers challenges and the possibility of using one's competences); and work experiences [Allen, Meyer, 1996; Kim et al., 2021; Mercurio, 2015].

Professional competences play an important role as regards the sources of an employees' engagement in a public institution. It is essential to develop and shape them because those competencies are needed for self-fulfillment and personal development, social integration and employment, as well as being active and useful for an organization. Developing a set of professional competences is now becoming a strategic goal not only at the level of institutions, but also at the socio-cultural environment level.

The concept of competence was first used by the American social psychologist McClelland in the late 1960 s and early 1970 s. A breakthrough in interpreting the concept of competence was the emergence of a definition by R.E. Boyatzis, according to which competences are the sum of general knowledge, motivation, features, ideas about oneself, social roles, and the skills that are necessary for the proper performance of one's job. Since then, many definitions of competences have appeared in the literature on the subject. Having analyzed them, two approaches to defining this concept can be distinguished. The first approach links competences directly with a human being - personal competences [Friensen, Anderson, 2004; Dessler, 2009]. The second approach links competences with the job and/or position that is performed. Based on the reviewed literature, the authors assumed that the most appropriate assumption in view of the aim of the research procedure is the competences model proposed by Filipowicz [Filipowicz, 2004]. In this concept, competence is a hidden trait that manifests itself in behavior. He divided professional competences into two groups: basic (competences that are necessary to all the employees of an organization and are the basis of other competences [Horrocks et al., 2019] and executive (competences that are necessary to perform a given job in a specific position [Kakabadse, 1993]. Filipowicz further subdivided these groups, distinguishing the following types of basic competences: cognitive (concerning one's readiness to learn) [Castañeda et al., 2018]; social (connected with the ability to cooperate in a team) [Riggio, 2010]; and personal (connected with self-confidence) [Filipowicz, 2014]; as well as the following types of executive competences: business (related to the knowledge of a given industry) [Ribeiro-Soriano et al., 2014]; company (enabling identification with the company); and managerial (shaping strategic thinking [Filipowicz, 2014].

The authors noticed that in the literature on the subject relatively sparse evidence of a relationship between OC and competences can be found [Renyut et al., 2017]. For example, studies of temporary employment agency employees showed a relationship between AOC, competences and development opportunities in respect of the client and the agency [Woldman et al., 2018]; a relationship between managerial competences and OC among nurses [Almutairi, Bahari, 2022] was shown; and AOC was also

a significant intermediate factor between perceived organizational support and nurses' self-competences [Battistelli et al., 2019]. For the aforementioned reasons, the authors decided to explore this issue.

Staff development and promotion opportunities constitute an element of competency management because employees are rewarded for their efforts, their enthusiasm to deepen their knowledge and skills increases, they are motivated to work more efficiently, employee morale increases, dissatisfaction is reduced, and job satisfaction is increased [Randhawa, 2007]. This, in turn, has an impact on the competencies that shape AOC. Therefore, it was assumed that competency management would be a good mediator explaining the relationship between competencies and AOC, which has been tested.

# 1. Empirical studies

#### 1.1. Context and research area

Empirical studies were conducted among professional firefighters in Poland who were employed by a public institution serving to ensure the internal security of citizens. The duties of professional firefighters are determined by the employer's strategy, which depends upon the provisions contained in international, European and national laws, as well as other strategic documents relating to ensuring safety and determining the directions of a country's development. The authors noticed a research gap because these Polish institutions require a deep transformation in the area of HRD and, moreover, there is little independent scientific research into the functioning of this public service. So far, employees have been administered rather than organized using the potential of competency-based management [Hoffman, 2015]. However, in some OECD countries the importance of competences is emphasized in the public sectors and competency management has been successfully implemented in them [Skorková, 2016]. Experience from other countries was the ground for formulating the practical aims of the research. Firstly, the study shows how AOC in the Polish public institution could be created by managing the development and careers of highly competent employees, and secondly it identifies areas where improvement is necessary.

In the Polish public fire service, where the study was conducted, AOC is influenced by such management practices as employment stability; professional social mission; organizational support (employee benefit fund, psychological assistance program); internal education and training system; the presence of challenges; and such elements of organizational culture as elevated standards and values, and the fire service ceremonial.

# 1.2. Tested model and hypotheses

In the tested models, the perceived opportunities for development and promotion offered by the organization were considered an intermediate variable between competences and AOC. The mediation analysis was carried out according to the diagram in Figure 1, and the statistically significant results are presented in Tables 4 and 5.

 $(a) \ \beta_1 \\ (b) \ \beta_2 \\ Explanatory \ variable - \\ competences \\ (c') \ \beta_4 \\ (c') \ \beta_4 \\ Explanatory \ variable - \\ affective \ organizational \\ commitment \\ (c') \ \beta_4 \\ (c') \ \beta_5 \\ (c') \ \beta_6 \\ (c') \ \beta_6 \\ (c') \ \beta_7 \\ (c') \ \beta_8 \\$ 

Figure 1. Relationships in mediation analysis

Source: own study.

Figure 1 shows a diagram illustrating the analyses conducted. The explanatory variables, in this case, individual competences, influence the mediator's value. Specifically, when these competences increase by one standard deviation (SD), the mediator (representing development and career opportunities) changes by a value equivalent to the β1 coefficient of its standard deviation. This change is depicted in path (a). Conversely, an increase in the mediator's value by one SD results in a change in the AOC (the explained variable) by the value of the β2 coefficient of its standard deviation, shown in path (b). The p-values indicate the statistical significance of these relationships. The value of the  $\beta$ 3 coefficient is assigned to path (c), connecting individual competences with the AOC dimension, reflects the strength of these relationships before the mediator is included; while the value of the  $\beta4$  coefficient is assigned to path (c'), after the mediator is included in the analysis. Complete mediation occurs when the initially significant relationship expressed by the value of  $\beta 3$  becomes insignificant after this procedure, which is expressed by  $\beta$ 4; while partial mediation occurs when the value of  $\beta 4$  is still statistically significant, but reduced in relation to  $\beta 3$ . In turn, complete suppression occurs when a statistically insignificant relationship expressed by a negative β3 value becomes significant after the suppressor is included,

which is expressed by a negative  $\beta 4$  value. Partial suppression denotes an increased significance of  $\beta 4$  compared to  $\beta 3$ . The statistically significant values for the group of managers are shown in Table 4, and for the people in operational positions in Table 5.

In the study two hypotheses were proposed:

- *Hypothesis 1* assumes that the perception of career development and promotion opportunities plays the role of an intermediate variable between basic and executive competences and affective commitment among the management of the analyzed organization.
- *Hypothesis 2* assumes that the perception of career development and promotion opportunities plays the role of an intermediate variable between basic and executive competences and affective commitment among the group of firefighters in operational positions.

# 1.3. Materials and Methods

#### 1.3.1. Measures and Procedures

In the initial phase, the authors conducted qualitative studies involving experts (n = 11). These experts identified varying requirements for employees in both managerial and operational positions across five of the six professional competences. The main research used the PAPI method and the questionnaire was disseminated across Poland. Given the absence of existing tools that measure the study's parameters tailored to the public fire service's needs, the authors found it imperative to develop a new tool. This decision was rooted in the necessity to align measurement tools with specific job requirements. It comprised items measuring the specific competences included in Filipowicz's model, and those diagnosing the perception of opportunities for developing professional competences and promotion offered by the employer. The tools used for this study were single-factor and relied on respondents' selfassessment. Responses were collected using a five-point Likert scale, where 1 stands for "I strongly disagree" and 5 represents "I strongly agree". The tool's reliability was assessed using the Cronbach's alpha reliability factor. Theoretical validity was determined by analyzing intergroup differences, especially by comparing the mean scores of respondents from the 1st and 4th quartiles. Due to significant differences in these scores, the scales under analysis can be considered valid. Detailed results are showcased in Table 1.

The research incorporated the Organizational Commitment Scale by Allen and Meyer [Allen, Meyer, 1996] This was used in its Polish adaptation by Bańka, Bazińska and Wołoska [Bańka et al., 2022]. While this adaptation retains the three subscales present in the original, only the affective (emotional) subscale was used for further analysis. The obtained values of the reliability indicators for the subscale

are comparable with the reliability of the original scales, and the theoretical validity was confirmed by correlation studies with other constructs [Allen, Meyer, 1990, 1996; Bańka et al., 2002].

Table 1. Reliability and validity of the questionnaire's scales

Scales		±	's llity	Validity measures								
		Number of items	Cronbach's alpha reliability	Q1	Q4	t	p	95% CI		p s		
		Num		M (SD)	M (SD)			LL	UL	Cohen's d		
Competences	cognitive	3	0.7	3.70 (0.46)	5.00 (0.00)	-27.63	<0.001	-1.40	-1.21	3.19		
	social	5	0.8	3.60 (0.44)	4.87 (0.10)	-22.66	<0.001	-1.39	-1.16	3.84		
	personal	6	0.9	3.76 (0.40)	4.91 (0.08)	-28.30	<0.001	-1.24	-1.08	3.43		
Compe	business	3	0.7	2.64 (0.47)	4.54 (0.27)	-18.84	<0.001	-2.11	-1.70	5.78		
	company	4	0.8	3.78 (0.38)	5.00 (0.00)	-30.33	<0.001	-1.29	-1.13	1.69		
	managerial	6	0.9	3.14 (0.46)	4.68 (0.24)	-24.92	<0.001	-1.66	-1.41	4.01		
Perceived opportunities for developing competences and promotion		4	0.7	2.80 (0.41)	4.18 (0.23)	-24.54	<0.001	-1.49	-1.27	4.04		

Source: own study.

To ascertain the presence of common method bias, Harman's single factor test was performed. Initially, this involved conducting an exploratory factor analysis with an unrotated factor solution based on the questionnaire's test items. As a result, 7 factors were distinguished with an eigenvalue above 1. When examining a single-factor solution, the items from the questionnaire accounted for 35.39% of the variance. This suggests that common method bias is not present. The statistical methods used in the study are those of descriptive statistics. Additionally, the research made use of the test of differences between the means, the classic approach of Baron and Kenny's mediation analysis [Baron, Kenny, 1986] presented in Figure 1, as well as the bootstrapping method, analyzing the significance of the indirect effects of the explanatory variable (competences) on the explained variable (OC dimensions), in which it is assumed that if the values of Boot LLCI and Boot ULCI have the same sign (negative or positive) and are not separated by 0, then the indirect effect is significant [Hayes, 2017]. In this operation, SPPS Statistics was used.

#### 1.3.2. Participants

Empirical research was carried out on a group of 246 firefighters from operational units directly involved in rescue and firefighting activities employed by the public fire service in Poland. Men constituted 96% of the group, and the gender distribution reflected the employment structure in this organization.

The characteristics of the respondent group in terms of sample size, age and length of service are shown in Table 2. The study included people with at least one year of service, which was the result of an assumption that a shorter period of service does not guarantee the experience necessary to provide answers in the areas covered by the research.

Table 2.	Characteristics	of the	research	sample
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Parameters		Posi	Total		
Parameters		Managerial	Operational	IOLAI	
Age in years	М	40.21	33.53	35.87	
	SD	7.28	6.69	7.59	
Length of service in years	М	17.85	9.64	11.65	
	SD	7.18	5.88	7.47	
Sample size	N	86	160	246	
	%	35	65	100	

M – mean, SD – standard deviation, Me – median, min – minimum value, max – maximum value. Source: own study.

Based on the qualitative study findings from the first stage of the research, the respondents in the main study were divided into two groups: managers and operational personnel. The first group includes people at different levels of the organizational hierarchy who have subordinates. In terms of working conditions and requirements, the work of the lowest-level managers is fairly similar to the work in operational positions, while higher-level managers face different challenges, and the number of these positions is limited. The group of operational personnel was fairly homogeneous in terms of their professional activities.

The results of statistical analyses comparing the parameters for firefighters occupying operational and managerial positions (Table 3) show in most cases statistically insignificant differences (Student's t-test for independent samples) between the two groups on the individual scales. An improvement in the level of managers' competences in relation to people in operational positions was noted in terms of managerial competences (p = 0.000).

Table 3. Mean values and standard deviations for operational and managerial positions

Mean values	Mean values of			Basic competences			Executive competences		
parameters calcula a scale range fron	ated on	Cognitive	Social competences	Personal competences	Business competences	Company	Managerial competences	Perceived opportunities for developing professional competences and promoti	Affective Organizational Commitment
Managerial	М	4.267	4.253	4.285	3.9	4.375	4.116	3.89	3.628
positions	SD	0.702	0.765	0.69	0.863	0.709	0.84	1.063	1.139
Operational	М	4.173	4.176	4.202	3.810	4.305	3.709	3.898	3.534
positions	SD	0.720	0.747	0.705	0.827	0.705	0.817	0.977	1.165
Total	М	4.2	4.2	4.2	3.8	4.3	3.9	3.9	3.6
respondents	SD	1.63	2.58	3.19	1.88	2.09	3.85	2.78	4.15

Source: own study.

# 2. Results

After making the initial analyses of Pearson's r, the authors decided to enrich their research with a mediation model which would make it possible to discover a deeper relationship between the analyzed variables.

The mediation analysis was carried out according to the diagram in Figure 1, and the statistically significant results are presented in Tables 4 and 5.

# 2.1. Employees in managerial positions

After the literature studies and the above-mentioned findings, two research hypotheses were formulated.

*Hypothesis 1* assumes that the perception of career development and promotion opportunities plays the role of an intermediate variable between basic and executive competences as well as affective commitment among the management of the analyzed organization.

The mediator, representing opportunities for development and promotion as perceived by managers, significantly links affective commitment to nearly all competency categories. In the case of:

 cognitive competences, the model is well-fitted and explains 25.8% of the variance of affective commitment. In the discussed variant, there is complete mediation. These findings were confirmed by indirect effect analysis;

Table 4. Analysis of mediation models for the group of managers

			Explained variable – affective organizational commitment							
Туре		Coefficients	В	asic competence	es	Executive competences				
of analysis		Coemeients	cognitive competences	social competences	personal competences	company competences	managerial competences			
		F(2.82)	14.284	13.912	18.22	18.392	15.465			
Regression model analy	vsis.	р	0.000	0.000	0.000	0.000	0.000			
model unuly	313	$\mathbb{R}^2$	0.258	0.253	0.308	0.31	0.274			
	а	$\beta_1$	0.263	0.345	0.272	0.261	0.365			
		t(1.83)	2.48	3.350	2.572	2.46	3.568			
Je		р	0.015	0.001	0.012	0.016	0.001			
Path values in mediation model	b	$\beta_2$	0.467	0.467	0.427	0.429	0.432			
ation		t(2.82)	4.74	4.593	4.473	4.515	4.278			
nedia		р	0.000	0.000	0.000	0.000	0.000			
.⊑	С	$\beta_3$	0.235	0.248	0.372	0.372	0.334			
lues		t(1.83)	2.198	2.328	3.656	3.646	3.233			
:h va		р	0.031	0.022	0.000	0.001	0.002			
Pat		$\beta_4$	0.112	0.086	0.256	0.26	0.177			
	c′	t(2.82)	1.132	0.849	2.685	2.733	1.75			
		р	0.261	0.398	0.009	0.008	0.084			
Bootstrappir	na	β	0.123	0.161	0.116	0.112	0.158			
(sampling	.9	BootLL	0.021	0.071	0.030	0.020	0.062			
5000)		BootUL	0.221	0.221 0.254		0.206	0.276			

F (df) – analysis of variance coefficient (degrees of freedom);  $R^2$  – measure of model fit;  $\beta$  – standardized regression coefficient; t – value of the t-test; p – significance level

Boot LLCL and Boot ULCI refer to the upper and lower 95% confidence intervals of the indirect effects by the bias-corrected percentile Bootstrap method.

Source: own study.

- social competences, the model explains 25.3% of the variance of the analyzed commitment and has a good fit. There is complete mediation here, which was additionally confirmed by indirect effect analysis;
- personal competences, the model is well-fitted and explains 30.8% of the variance of affective commitment. After including the mediator in the analysis, path c' remains statistically significant. This procedure, however, weakens the relationship between the explained and the explanatory variables. In this case, partial mediation occurs, confirmed by indirect effect analysis;
- company competences, the model is well-fitted and explains 31% of the variance of the analyzed commitment. As above, this mediation is partial and the relationship has been confirmed by indirect effect analysis;

managerial competences, the model is well-fitted and explains 27% of the variance of affective commitment. In this case, due to the insignificance of the relationship between managerial competences and affective commitment after including the mediator variable in the analysis, complete mediation occurs.

The above data show that managers who see opportunities for development and promotion within the organization are characterized by

- highly developed problem-solving skills, willingness to learn and be creative (cognitive competences);
- strong relationships with supervisors and colleagues, good communication skills, teamwork abilities, and the capacity to influence the environment (social competences);
- better orientation a focus on effective and efficient performance, notable diligence and perseverance, and adept decision-making (personal competences);
- adhering to company ethics and values, using both professional knowledge and professional efficiency (company competences);
- belief in their own importance for the organization, effective stress management, skillful team building and management (especially under changing environmental conditions), and the willingness to make and stand by unpopular (managerial competences). These traits foster positive emotions towards the organization and a sense of identification, which contributes to their affect-based decision to remain with the organization.

# 2.2. Employees in operational positions

Next, the research tested **Hypothesis 2**, which assumes that the perception of career development and promotion opportunities plays the role of an intermediate variable between basic and executive competences and affective commitment in the group of firefighters in operational positions.

Explaining the dependence mechanism in which the perception of development and promotion opportunities by firefighters in operational positions mediates between affective commitment and:

- cognitive competences: the model was found to have a good fit and explain 19.2% of the variance in the explained variable. Before (c) and after (c') including the mediator, the relationships between the explanatory and explained variables were statistically significant. Thus, partial mediation is evident, confirmed by the bootstrapping method;
- social competences: the model demonstrated a good fit and explained 20.3% of the variance in the explained variable. Both before and after including the mediator, the relationships between social competences and affective commitment were

- statistically significant, indicating partial mediation. As with the previous model, the indirect effect of mediation turned out to be statistically significant;
- personal competences: the model achieved a good fit, explaining 17.7% of the variance in the explained variable. Partial mediation is also observed in this case (relationships c and c' are statistically significant), and its indirect effect is confirmed;
- company competences: the model was well-fitted and explained 20.7% of the variance in the explained variable. Due to the statistical significance of paths c and c', the mediation is partial, and its significance is confirmed by indirect effect analysis.

Table 5. Analysis of mediation models for operational positions

			Explained variable – affective organizational commitment							
Type of an	alysis	Coefficients		Executive competences						
			cognitive competences	social competences	personal competences	company competences				
		F(2.158)	18.78	20.13	16.98	20.63				
Regression model anal	vsis	р	0.000	0.000	0.000	0.000				
moder und	7313	R2	0.192	0.203	0.177	0.207				
		$\beta_1$	0.382	0.531	0.442	0.419				
	a	t(1.159)	5.207	7.894	6.211	5.816				
gel		р	0.000	0.000	0.000	0.000				
Path values in mediation model		$\beta_2$	0.310	0.252	0.316	0.285				
ttion	b	t(2.158)	4.012	3.009	3.929	3.651				
nedia		р	0.000	0.003	0.000	0.000				
.⊑		$\beta_3$	0.331	0.396	0.311	0.374				
lues	с	t(1.159)	4.428	5.450	4.03	5.09				
:h va		р	0.000	0.000	0.000	0.000				
Pat		$\beta_4$	0.213	0.263	0.171	0.255				
	c′	t(2.158)	2.75	3.14	2.13	3.27				
		р	0.007	0.002	0.04	0.001				
_		β	0.119	0.134	0.14	0.119				
Bootstrapp (sampling)		BootLL	0.031	0.035	0.044	0.035				
, samping		BootUL	0.223	0.243	0.254	0.22				

F (df) – analysis of variance coefficient (degrees of freedom);  $R^2$  – measure of model fit;  $\beta$  – standardized regression coefficient; t – value of the t-test; p – significance level.

Boot LLCL and Boot ULCI refer to the upper and lower 95% confidence intervals of the indirect effects by the bias-corrected percentile Bootstrap method.

Source: own study.

Opportunities for development and promotion within the public fire service act as partial mediators between all the basic competences outlined in Filipowicz's concept [Filipowicz, 2014] and the company competences categorized as executive competences. Enhanced problem-solving skills, eagerness to learn, and creativity (cognitive competences); improved relationships with supervisors and colleagues, refined communication skills, effective teamwork, and the ability to influence (social competences); a strong focus on efficient and effective actions, notable diligence and perseverance, and adept decision-making (personal competences); as well as a commitment to company ethics and values, the application of professional knowledge, and demonstrated professional efficiency (company competences) all elevate the perception of professional development and promotion opportunities within the organization. This heightened perception fortifies the belief in one's significance within the organization, leading to positive emotions towards the organization and a deeper identification with it. This, in turn, contributes to the affect-based decision to remain committed to the organization.

# Conclusions

According to Meyer and Allen's model [Allen, Meyer, 1996] and numerous studies based on it, both skills [e.g. Zarei et al., 2010], career opportunities [e.g. Cicekli, Kabasakal, 2017], and development [Bulut, Culha, 2010] are important for shaping organizational commitment.

Managerial competences anchor managers to the employer through AOC. All firefighters who perceive the possibility of promotion and development have a high level of AOC especially when they notice an enhancement in their social competences. Researchers from different countries have reached similar findings, emphasizing the significant role of various training methods in shaping emotional-based attachment [Carolino, Rouco, 2022].

Table 5. Matrix of mediating variable effects

	Competences								
AOC		Basic		Executive					
	cognitive	social	personal	business	company	managerial			
managerial positions	М	М	PM	-	PM	М			
operational positions	PM	PM	PM	-	PM	-			

M – mediation effect, PM – partial mediation effect.

Source: own study.

Table 5 indicates that competence-based professional development holds greater importance (both in terms of quantity and intensity) for managerial positions compared to operational roles. However, for both categories, there is a significant untapped potential in competency-based employee development management. Systematically employing this management approach can bolster the formation of AOCs, representing the most precious form of employee commitment. It might be beneficial to conduct analogous research within other uniformed services. Investigating the role of competency-based professional development in shaping affective organizational commitment within the police force, for instance, would be particularly insightful".

#### Limitations

The survey respondents conducted a self-assessment. Several encumbrances associated with research using self-assessment may lead to questionable results. Such an approach is criticized by Chelpa, who states that making a self-assessment of a particular trait does not provide information about its actual level, but about the respondent's perception of it and, in combination with an objective measurement, about the accuracy of this perception. The tendency to falsify the disclosed information about oneself is particularly intensified when the information, according to the respondent, can be used in the near future to make personnel decisions [Chełpa, 2003]. Despite the encumbrances mentioned above, self-assessment has been used in scientific research. This is supported by Dabek's survey of executives in Polish enterprises [Dabek, 2002], Walkowiak's research on the competencies of local government managers [Walkowiak, 2004], and Rakowska's survey of managerial staff [2007]. Rakowska extensively discusses the use of self-assessment in research and emphasizes that the addressee of the questionnaire must possess the intellectual potential and capacity for self-assessment and that the survey must not serve personnel purposes [Rakowska, 2007]. Both of these requirements were fulfilled in the research proceedings, as the survey respondents participated in a way that ensured anonymity. Although criticized and likely to produce less reliable results than a survey using standardized and validated measurement instruments, self-assessment remains a necessary choice in situations of larger samples, dispersion of respondents, and the need to maintain the cost regime of surveys [Chomicz, 2015].

## References

- [1] Allen N.J., Meyer J.P. [1996], Affective, continuance, and normative commitment to the organization: An examination of construct validity, *Journal of Vocational Behavior* 49(3).
- [2] Almutairi H., Bahari G. [2022], A multisite survey of managerial competence and organizational commitment among nurses working at public hospitals in Saudi Arabia, *Journal of Nursing Management* 30(1): 179–186.
- [3] Bańka A., Bazińska R., Wołoska A. [2002], Polska wersja Meyera i Allen skali przywiązania do organizacji [Polish version of Meyer and Allen on the scale of attachment to organizations], *Czasopismo Psychologiczne* 8: 65–74.
- [4] Baron R.M., Kenny D.A. [1986], The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations, *Journal of Personality and Social Psychology* 51: 1173–1182.
- [5] Bartlett K.R. [2001], The relationship between training and organizational commitment: A study in the health care field, *Human Resource Development Quarterly* 12(4): 335–352.
- [6] Battistelli A., Odoardi C., Vandenberghe C., Di Napoli G., Piccione L. [2019], Information sharing and innovative work behavior: The role of work-based learning, challenging tasks, and organizational commitment, *Human Resource Development Quarterly* 30(3): 361–381.
- [7] Bulut C., Culha,O. [2010], The effects of organizational training on organizational commitment, *International Journal of Training and Development* 14(4): 309–322.
- [8] Carolino J., Rouco C. [2022], Proficiency level of leadership competences on the initial training course for firefighters; A Case Study of Lisbon Fire Service, *Fire* 5(1): 22.
- [9] Castañeda D.R., Huang A., Avalos A.R. [2018], Willingness to learn: Cultural intelligence effect on perspective taking and multicultural creativity, *International Business Research* 1/07: 116.
- [10] Chełpa S. [2003], *Kwalifikacje kadr kierowniczych przedsiębiorstw przemysłowych: kierunki i dynamika zmian*, Wydawnictwo Akademii Ekonomicznej we Wrocławiu, Wrocław.
- [11] Chomicz M. [2015], Ujęcie badawcze kompetencji kierowników projektów, *E-mentor* 2(59), http://www.e-mentor.edu.pl/artykul/index/numer/59/id/1170 (14.02.2023).
- [12] Cicekli E., Kabasakal H. [2017], The opportunity model of organizational commitment: Evidence from white-collar employees in Turkey, *International Journal of Manpower* 38(2): 259–273.
- [13] Cohen A. [2013], Organizational commitment theory, in: Kessler E.H. (ed.), *Encyclopedia of management theory*, 1: 526–529.
- [14] Dąbek M. [2002], Menedżerowie okresu transformacji: problemy, potencjał, rozwój, Wydawnictwo Uniwersytetu Wrocławskiego, Wrocław.
- [15] Dessler G. [2009], A framework for human resource management, Prience Hall, *Upper Saddle River*, 1.

- [16] Filipowicz G. [2004], Zarządzanie kompetencjami zawodowymi [Managing of professional competences], Wydawnictwo Naukowe PWN, Warsaw.
- [17] Filipowicz G. [2014], Zarządzanie kompetencjami. Perspektywa firmowa i osobista, Wolters Kluwer.
- [18] Friensen N., Anderson T. [2004], Interaction for lifelong learning, *British Journal of Educational Technology* 35(6): 69–84.
- [19] Giauque D., Resenterra F., Siggen M. [2010], The relationship between HRM practices and organizational commitment of knowledge workers. Facts obtained from Swiss SMEs, *Human Resource Development International* 13(2): 185–205, https://Doi.Org/10. 1080/13678861003703716.
- [20] Graham C.M., Nafukho F.M. [2010], Integrative literature review: Organizational commitment and workplace outcomes: A conceptual model for truckload transportation carriers, *Human Resource Development Review* 9(3): 266–284.
- [21] Hayes A.F. [2017], *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford Press.
- [22] Hoffman N. [2015], Budowanie kompetencji zawodowych pracowników Państwowej Straży Pożarnej na przykładzie specjalistycznej grupy chemicznej, Poznań Univeristy of Economics and Busienss.
- [23] Horrocks P., Trippett V., Aitken P. [2019], An evaluation of the self-reported knowledge base of disaster management core competencies of Australian paramedics, *Prehospital and Disaster Medicine* 34.
- [24] Kakabadse A. [1993], The success levers for Europe: The Cranfield executive competences survey, *Journal of Management Development* 12(8): 12–17.
- [25] Kim J. (Sunny), Milliman J.F., Lucas A.F. [2021], Effects of CSR on affective organizational commitment via organizational justice and organization-based self-esteem, *International Journal of Hospitality Management* 92: 102691.
- [26] Kim W., Kim J., Woo H., Park J., Jo J., Park S.H., Lim S.Y. [2017], The relationship between work engagement and organizational commitment: Proposing research agendas through a review of empirical literature, *Human Resource Development Review* 16(4): 350–376.
- [27] Kowal J. [1998], Metody statystyczne w badaniach sondażowych rynku, PWN, Warsaw.
- [28] Mercurio Z.A. [2015], Affective commitment as a core essence of organizational commitment: An integrative literature review, *Human Resource Development Review* 14(4): 389–414.
- [29] Rakowska A. [2007], Kompetencje menedżerskie kadry kierowniczej we współczesnych organizacjach, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin.
- [30] Randhawa G. [2007], Human resource management, Atlantic, New Delhi.

- [31] Renyut B.C., Modding H.B., Bima J., Sukmawati S. [2017], The effect of organizational commitment, competence on Job satisfaction and employees performance in Maluku Governor's Office, OSR Journal of Business and Management 19(11): 18–29.
- [32] Ribeiro-Soriano D., Palacios M.D., Carañana D., C.A., Peris-Ortiz M. [2014], How to create international business competences and their impact on firm performance, *European Journal International Management* 8(3).
- [33] Riggio R.E. [2010], Before emotional intelligence: Research on nonverbal, emotional, and social competences, *Industrial and Organizational Psychology* 3(2): 178–182.
- [34] Skorková Z. [2016], Competency models in public sector, *Procedia Social and Behavioral Sciences* 230: 226–234.
- [35] Walkowiak R. [2004], *Model kompetencji menedżerów organizacji samorządowych*, Wydawnictwo Uniwersytetu Warmińsko-Mazurskiego, Olsztyn.
- [36] Woldman N., Wesselink R., Runhaar P., Mulder M. [2018], Supporting temporary agency workers' affective commitments: exploring the role of opportunities for competence development, *Human Resource Development Review* 21(3).
- [37] Zarei M.H., Jandaghi G., Haj K.F. [2010], Relationship between Interpersonal Communication Skills and Organizational Commitment (Case Study: Jahad Keshavarzi and University of Qom, Iran), *European Journal of Social Sciences* 13(3).

# COMPETENCY-BASED PROFESSIONAL DEVELOPMENT IN SHAPING AFFECTIVE ORGANIZATIONAL COMMITMENT

#### Abstract

Existing literature suggests that human capital in public organizations is is partly unused and in some cases, even wasted [e.g. Goncharuk & Prufyus, 2018; Johnston, 2020; Mukhtar & Azman Ali, 2010; Szabo, 2016]. Therefore, the authors decided to explore the hidden relationships that that could enhance employee management.

The main aim of the article is to demonstrate the empirically validated relationship between professional competences and affective organizational commitment, with the significant mediating role of career development and promotion opportunities.

The empirical research included qualitative investigations of experts in the field of fire service and quantitative studies of firefighters employed in managerial and operational positions. The research procedure included Baron and Kenny's mediation analysis which helped the authors to verify the scientific hypotheses and formulate practical conclusions. It was determined that the proposed mediator significantly elucidates the relationship between

competencies and the affective organizational commitment of firefighters, irrespective of their rank within the organization. The insights garnered from this research may inspire further exploration into the nuanced mechanisms of dependency in organizational behavior, especially since this area remains relatively uncharted in existing studies.

KEYWORDS: COMPETENCES, HUMAN RESOURCES DEVELOPMENT, AFFECTIVE ORGANIZATIONAL COMMITMENT, MEDIATION ANALYSIS

JEL CLASSIFICATION CODE: M5

# ROZWÓJ ZAWODOWY OPARTY NA KOMPETENCJACH A KSZTAŁTOWANIE AFEKTYWNEGO ZAANGAŻOWANIA ORGANIZACYJNEGO

Streszczenie

Głównym celem artykułu jest wykazanie empirycznie zweryfikowanych związków pomiędzy kompetencjami zawodowymi a afektywnym zaangażowaniem organizacyjnym, z uwzględnieniem istotnej roli rozwoju kariery i możliwości awansu, jako mediatora. Badania empiryczne obejmowały badania jakościowe, w których udział wzięli eksperci z dziedziny pożarnictwa oraz ilościowe z udziałem strażaków zatrudnionych na stanowiskach menedżerskich i wykonawczych. Procedura badawcza obejmowała analizę mediacji Barona i Kenny'ego, co pomogło autorkom zweryfikować hipotezy naukowe i sformułować praktyczne wnioski. W wyniku przeprowadzonej procedury badawczej ustalono, że przyjęty mediator wyjaśnia w sposób istotny związek pomiędzy kompetencjami a afektywnym zaangażowaniem organizacyjnym strażaków, niezależnie od pozycji w hierarchii organizacyjnej.

Uzyskane przez autorki wyniki mogą się stać zachętą dla kolejnych badaczy do odkrywania innych, ukrytych i nieoczywistych mechanizmów zależności w obszarze zachowań organizacyjnych, zwłaszcza że zagadnienie to nie stanowiło punktu centralnego licznych badań.

Słowa kluczowe: kompetencje, rozwój zasobów ludzkich, afektywne zaangażowanie organizacyjne, analiza mediacji

KOD KLASYFIKACJI JEL: M5