

Linking reward types to organizational performance in Central and Eastern European universities: The mediating role of affective commitment*

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Abstract

Scholars and managers have been discussing and investigating assets that could offer superior performance for decades, and they found that human resources are the most important asset that enables organizations to improve their organizational performance. This study focuses on rewarding systems in universities as one of the human resource management practices, and its effects on universities' organizational performance. Furthermore, it provides a research model which examines the direct and indirect effects of reward types on organizational performance, where affective commitment is used as a mediator between rewards and organizational performance. This study provides empirical evidence for affective commitment mediating the link between rewards and organizational performance in a sample of 825 academics and administrative staff at universities from Central and Eastern European countries. Exploratory and Confirmatory factor analyses were performed to assess the reliability of scales, whereas structural equation modelling was utilized to evaluate the proposed research hypotheses. Our results showed that affective commitment mediates the link between some rewards and organizational performance. Research results indicate the significance of extrinsic and intrinsic rewards to improve affective commitment and organizational performance in universities. Moreover, this research also contributes to the knowledge of the antecedents of affective commitment and organizational performance.

Keywords: rewards; affective commitment; organizational performance; Central and Eastern Europe; universities.

JEL Codes: M520, M540

Introduction

Universities are educational institutions where students receive knowledge and training and improve their skills before they start their professional life. The companies in today's competitive business, on the other hand, endeavour to recruit qualified employees with satisfactory knowledge and skills. In this respect, the educational quality of the universities is vital for the postgraduation employability of students. While public universities have been thought of as the experts at providing higher education through experienced academics for the last

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decade, today, private universities with better infrastructures and educational opportunities have been established. In recent years, in fact, the number of private universities worldwide has increased greatly, with university education becoming a lucrative trade. Today, both public and private universities are in need of providing students with extra opportunities on top of physical facilities so as to attract prospective students and retain and satisfy the current ones. In this competitive higher educational business, the organizational performance of public and private universities, and the factors that influence their performance have become very crucial.

Whereas there are a lot of factors that affect organizational performance of universities, recent studies have become increasingly interested in the role of human resources and have suggested that human resources, in particular employees which enable universities to improve their competitive advantage, increase organizational performance, compete in the challenging market for a long period of time, and on the other hand, are at the same time difficult to imitate and copy are the most important assets of universities. In other words, employees have a significant role in increasing ratings in specific areas such as program quality, research quality, research contribution, the reputation of faculty, quality of graduates, and training of future leaders (Singh & Kassa, 2016). In this regard, plenty of researches have concentrated on factors that impact employee performance in universities (Chen, Wang, & Yang, 2009; Lawrence & McCollough, 2001). Based on this previous research, human resource management (HRM) practices have been found as one of the most important factors that positively influence employee performance, and by extension, organizational performance (Amin et al., 2014; Guest et al., 2003). Selection, recruitment, job definition, planning, training and development, rewarding system, career planning, team work, performance appraisal, and employment security are the most frequently studied human resource practices which influence organizational performance (Amin, et al., 2014; Lin & Kuo, 2007; Lee, & Wu, 2010; Lin, Yao, & Zhao, 2014). However, rewards and reward types in universities have sparked a special interest in searching for ways to keep both high quality academic and administrative staff in the organization and to enhance their performance. Rewards and affective commitment are frequently examined together (Allen & Meyer, 1990; Angle & Perry, 1983; Loscocco, 1990; Meyer & Allen, 1991; Meyer & Smith, 2000; Young, Worchel, & Woehr, 1998) and are of particular importance to universities because they are found to affect employees' performance (Dinc, 2018; Smeenk, Teelken, Eisinga, & Doorewaard, 2009). There is an abundance of studies that have examined rewards, affective organizational commitment, and their relationship to the organizational performance of employees in higher education institutions, but literature focusing on the indirect effect of affective commitment in the relationship between reward types and the organizational performance is severely limited. What is also lacking are empirical studies that explore

the relationship between reward types, affective commitment, and the organizational performance of employees in universities from Central and Eastern European countries.

In Central and Eastern European countries, most of the universities are public universities and rewards in public sectors which were funded by the state were limited according to the budget of universities. Some of the rewards in the public sector, such as salary and financial benefits were fixed by the regulations. Universities can not make any changes in these financial rewards (Manşa, Şarlea, & Vaidean, 2015). On the other hand, universities can provide non-financial rewards. Studies indicate that non-financial rewards are as important as financial rewards for the organizational performance of universities due to the nature of academic positions. In this regard, the relationship among types of reward, the affective commitment of employees, and organizational performance of the universities attract attention. The purpose of this study is to examine the mediating effect of employees' affective commitment in the relationship between reward types and organizational performance in public and private universities in Central and Eastern European countries.

Objectives and contribution of the study

This study investigates rewarding systems in universities from Central and Eastern European countries and its effects on universities' organizational performance and mediating effect of affective commitment between rewards and organizational performance. This study aims to fulfil the following gaps in the literature:

- Rewarding systems and their influence on organizational performance have not been researched sufficiently in the university context, especially in Central and Eastern European countries. This study will contribute to filling the literature gap concerning this region and the high education sector.
- It aims to find which types of rewards could be used as predictors for affective commitment and contribute to the list of possible antecedents for affective commitment among rewarding types.
- This study attempts to expand the current literature by introducing and investigating affective commitment as mediators in the link between rewarding systems and organizational performance.
- In most studies, rewards are investigated as one of HRM practices or some studies focused on one or a few reward types. This study contributes to the literature by analyzing 12 different reward types: working condition, pay satisfaction, satisfaction with benefits, promotional opportunities, team support, supervision, role clarity, training, feedback, participation in decision making, autonomy, skill variety.

Conceptual framework and hypotheses development

Rewards

The reward is described as all forms of financial return, tangible services, and benefits an employee receives as part of an employment relationship (Bratton & Gold, 1994). They are important determinants of employee job attitudes such as organizational commitment (Steers & Porter, 1991) and employee and organizational performance. According to Porter and Lawler (1968)'s categorization, rewards can be divided into two groups: extrinsic and intrinsic rewards. Katz and Van Maanen (1977) also classified organizational rewards into three categories: task, organizational, and social rewards. Task rewards are intrinsic rewards, while organizational and social rewards can be called as extrinsic rewards (Malhotra et al., 2007; Nazir et al., 2016).

Extrinsic rewards are rewards that are consequences of factors which are not related to work. As a dimension of extrinsic rewards, *extrinsic social rewards* are those which are perceived through interaction with other employees. Friendly and helpful colleagues can be examples of social rewards. These rewards are the result of interaction among employees in the organization. They are related to the availability of positive relationships on a personal level between a supervisor and an employee or between employees in the work environment (Newman & Sheikh, 2012 b). While *satisfaction with supervision* shows the level of satisfaction of employees with their supervisor's behaviour towards them, and how considerate the supervisor is (Malhotra et al., 2007), *team support* is a psychological assistance and feedback offered by colleagues in the organization (Miao, Newman, Sun, & Xu, 2013). Team support regards whether colleagues are helpful and friendly and whether the job provides the necessary environment to make friends (Kalleberg, 1977).

Of another extrinsic reward type, *extrinsic organizational rewards* are the rewards which are provided by the organization to improve motivation, performance, and maintain commitment. Working conditions, benefits, promotional opportunities, and pay satisfaction can be considered as extrinsic organizational rewards (Malhotra et al., 2007; Mottaz, 1988; Nazir et al., 2016). These rewards are not related to the content of the work itself and consist of tangible financial benefits such as fringe benefits, promotional opportunities, and pay. *Working conditions* can be considered as a reward if it enhances the quality of the work environment. It includes the organization of the work, facilities offered, and the job/role design (Armstrong, 2007). Rust, Zahorik, & Keiningham, (1995) state that working conditions are essential elements which influence job attitudes of employees. *Pay satisfaction* can be described as the satisfaction with the amount of pay that employees receive for the work they do. The pay difference between an organization where an employee works and other organizations has also an important effect on his\her pay satisfaction (Malhotra et al., 2007; Newman and

Sheikh, 2012 b). *Satisfaction with benefits* refers to the level of employees' satisfaction from organizational benefits. Employee benefits are arrangements which are made for employees by their organizations in order to improve employees' well-being. These benefits are supplied in addition to regular payment and they are an essential portion of the total reward package. Benefits may include a pension scheme, sick pay, or insurance cover, and arrangements such as paid leave or holidays, which are not exactly a payment (Armstrong, 2007). *Promotional opportunities* involve employees' perception of adequacy and satisfaction regarding the organization's promotion policy and possibilities for promotions. Opportunities for promotion and developing career are important for the organization since they are an essential part of the HRM practices whose goal is to improve employees' commitment to their organizations (Malhotra et al., 2007; Meyer & Smith, 2000).

Intrinsic rewards are those which are related to the content of the work itself. They involve job characteristics which might motivate employees. Skill variety, feedback, and autonomy can be counted as intrinsic rewards (Hackman and Oldham, 1976; Malhotra et al., 2007). Role clarity and participation in decision making have also been considered as intrinsic rewards due to their motivational effects on employees (Glisson and Durick, 1988; Malhotra et al., 2007; J. Singh, 1998). Moreover, employees at all organizational levels understand the importance of upgrading their knowledge and consider training opportunities as an essential element in the whole reward package. (Armstrong, 1993). Training is seen as an important motivator and therefore, it is regarded as an intrinsic reward (Malhotra et al., 2007). *Role clarity* is the level of employees' understanding of their employer's expectations regarding their performance in the organization (Newman and Sheikh, 2012 a; Teas, Wacker, and Hughes, 1979). If employees are uncertain about their employer's expectation from them, they may feel confused and this feeling may result in greater stress and decreased commitment to the organization (de Ruyter, Wetzel, and Feinberg, 2001; Newman and Sheikh, 2012 a; Wetzel, de Ruyter, and Bloemer, 2000). *Skill variety* refers to the type of abilities and skills which are necessary to perform the work, and how challenging or monotonous the work is (Malhotra et al., 2007). When employees do a job in which they need to use various skills, they may develop a feeling of competence and confidence in their skills (Hackman and Oldham, 1976; Miao et al., 2013). *Autonomy* denotes the ability which enables employees to work and carry out tasks in their own way. It is an essential intrinsic motivator. It increases the self-esteem of employees and gratifies their psychological needs. It also generates high levels of normative and affective commitment of employees (Williamson et al., 2009; Miao et al., 2013). *Feedback* contains praise and recognition obtained from their supervisor for a good performance (Hackman & Oldham, 1976; Malhotra et al., 2007; Young et al., 1998). Encouraging and constructive feedback can also motivate employees by validating their success and

providing social encouragement to avoid cheating at work. However, providing effective and helpful feedback may help supervisors establish empathy with employees, and encourage employees to express their ideas to the management about how organizational practices or policies could be advanced (Favero, Meier, and O'Toole, 2016). *Training* is an activity which is planned by the organization in order to increase employees' skills and knowledge about the job or to modify their behaviours or attitudes in a way which is in line with the objectives of the organization and the job requirements (Al-Emadi and Marquardt, 2007; Noe, 2002). *Participation in decision making* regards the ability of employees to affect decisions about the job they are doing (Malhotra et al., 2007; Nazir et al., 2016; Teas, 1983). It can produce several outcomes such as reduced industrial disagreement, the democratization of workplace, and involvement of employees in decisions (Cotton, Vollrath, Frogatt, Lengnick-Hall, and Jennings, 1988).

Rewards and organizational performance relationship

Organizational performance has been studied extensively as a dependent variable in human resources management related research (Alaarj, Abidin-Mohamed, & Bustamam, 2016; Sambasivan, Siew-Phaik, Mohamed, & Leong, 2011). It is defined as the degree to which companies achieved their business objectives (Elenkov, 2002). Gibson, et al (2011) also defines it as the outcome achieved by members of an organization. Employees' performance is very crucial and has a direct influence on organizational performance. Therefore, the latter definition is more convenient for this study.

Previous literature on HRM outcomes has been based on social exchange theory (Aryee, Budhwar, & Chen, 2002; Gould-Williams, 2007). Social exchange theory argues that investments of organization and its management in HRM practices will cause positive work attitudes and behaviour (McClean & Collins, 2011; Nishii & Mayer, 2009; Voorde, et al, 2012). The argument is based on the principles of reciprocity in social exchange theory (Blau, 1986) positing that individuals feel obligated to respond in kind when they see fair and good behaviour directed towards them. The need for reciprocity is the starting mechanism for social interaction and group structure (Blau, 1986). According to this reasoning, employees who positively value HRM practices such as rewards will reciprocate through showing attitudes and behaviours that are valuable for the organization (Gould-Williams, 2007; Voorde et al., 2012). Thus, organizational performance will be enhanced.

This finding has found support from ample literature in many business sectors (Guest, Michie, Conway, & Sheehan, 2003; Lin et al., 2014) and university context (Amin et al., 2014; Dinc, 2018; Hadziahmetovic & Dinc, 2017). For example, (Amin et al., 2014) examined the relationship between human resource management practices and organizational performance at public universities on

300 employees, including academics and administrative staff members. Their results showed that human resource management practices such as training, career planning, job definition, recruitment, compensation, and performance appraisal have a positive effect on universities' organizational performance. Although organizational rewards and performance relationship have been given considerable attention by researchers, the relationship among rewards, affective commitment, and organizational performance in particular mediating role of affective commitment in this relationship has been scarce in the literature.

Affective commitment as a mediator

In the present article, a theoretical model is elaborated that builds on the assumptions that it is an organizational performance which is affected by rewards are mediated by employees' affective commitment. In the model, along with rewards, the mediating role of affective commitment becomes important in enhancing organizational performance. Organizational commitment is described as the level of involvement and identification with an organization (Newman, Thanacoody, & Hui, 2011; Steers, 1977). It has been used as a behavioural and attitudinal construct in many studies. The attitude related studies explore the development of employees' psychological or emotional attachment to their organization (Al-Emadi and Marquardt, 2007; Meyer and Allen, 1997). On the other hand, behaviour-related studies state that employee's decision of staying with or leaving the organization depends on the received financial benefits (Al-Emadi & Marquardt, 2007; Becker, 1960). The three-component model, developed by Allen and Meyer (1990), is one of the most cited and well-known models used to describe organizational commitment. The three components which are used in the model are affective commitment, continuance commitment, and normative commitment (Malhotra et al., 2007; Miao et al., 2013). Employees with a strong affective commitment remain with the organization because they want to, those with a strong continuance commitment remain because they need to, and those with a strong normative commitment remain because they feel they ought to do so. (Meyer, Allen, & Smith, 1993). When compared to other commitment types, affective commitment has been recognized as the most precise estimator of organizational behaviour (Chen & Francesco, 2003; Meyer & Allen, 1991; Newman & Sheikh, 2012 b).

Affective commitment is among the most explored constructs in studies related to workplace behaviour (Newman and Sheikh, 2012 b). It is an "emotional attachment to the organization characterized by an acceptance of the organization's culture and primary values and by a willingness to remain with the organization" (Park & Rainey, 2007). Although there are three types of commitment, affective commitment is the focus of this article, for some reasons. First, it was selected in order to remain consistent with previous studies that examined re-

ward types (Allen & Meyer, 1990; Angle & Perry, 1983; Losocco, 1990; Meyer & Allen, 1991; Meyer & Smith, 2000; Young et al., 1998). Namely, affective commitment is typically used in reward and affective commitment relationships. Next, of the three dimensions of organizational commitment, the positive effect of affective commitment on employee behaviours and performance has received the greatest support by empirical studies (Bolon, 1997; Moorman, Niehoff, & Organ, 1993; Shore & Wayne, 1993). Finally, affective commitment is more critical in higher education institutions and therefore has been used as a proxy for organizational commitment in universities (Dinc, 2018; Smeenk et al., 2009).

Literature review

The literature review presented in this paper is examined chronologically and in tabular form (Table 1).

Table 1: Researches into relationships among rewards, affective commitment, and organizational performance

Researchers	Themes	Findings
Young, Worchel, and Woehr (1998)	The study examined the factors associated with organizational commitment among blue-colour workers.	Both intrinsic and extrinsic rewards are equally predictive of commitment.
Meyer and Smith (2000)	The study was conducted to examine the mechanisms involved in observed relations between HRM practices and organizational commitment.	Affective commitment is influenced by both intrinsic and extrinsic rewards positively.
Fey et al. (2000)	The effect of HRM practices on performance in Russia is investigated. It also tested the mediating effect of some variables such as motivation in this relationship.	The study provided some support for the use of HRM outcomes such as high salaries and non-technical training as a mediating variable between HRM practices and firm performance.
Boselie et al. (2001)	The relationship between HRM practices and firm performance was explored in Netherland. The study also examined the mediating effect of HRM outcomes.	The mediating relationship between human resource management and organizational performance is not at a satisfactory level.
(Meyer, Stanley, Herscovitch, & Topolnytsky (2002)	The conducted meta-analyses to assess (a) relations among affective, continuance, and normative commitment to the organization and (b) relations between the three forms of commitment and variables identified as their antecedents, correlates, and consequences.	The affective commitment was strongly and positively related to job performance and negatively linked to employee turnover.

Researchers	Themes	Findings
Riketta (2002)	A meta-analysis was conducted to estimate the true correlation between organizational commitment and job performance.	The affective commitment was positively correlated to job performance.
Paul and Anantharaman (2003)	This paper, based on a study on Indian software companies, is an attempt to develop and test a causal model linking HRM with organizational performance through an intervening process.	It has been found that each and every HRM practice under study has an indirect influence on the operational and financial performance of the organization. Further, HRM practices such as training, job design, compensation and incentives directly affect the operational performance parameters.
Chen & Francesco (2003)	The study examined the relationship between the three components of organizational commitment and performance using a sample of 253 supervisor-subordinate dyads from the People's Republic of China.	Results showed that affective commitment related positively to in-role performance.
Smeenk et al. (2006)	This paper examines the effects of HRM practices on organizational commitment among Dutch university employees in two faculties with different academic identities.	Findings reveal that in the Separatist faculty decentralization, compensation, training/development, positional tenure, and career mobility have significant effects. Age, organizational tenure, level of autonomy, working hours, social involvement and personal importance significantly affect the employees' organizational commitment in the hegemonist faculty.
Malhotra et al. (2007)	The research examines relationships among frontline employees' perceptions of rewards (extrinsic and intrinsic) and the three components of organizational commitment (i.e. affective, normative and continuance).	It highlights the significance of both extrinsic and intrinsic rewards to develop affective, normative and continuance commitment
(Paré & Tremblay, 2007)	The present study investigates the relationships between a multidimensional, theoretically grounded configuration of high-involvement HRM practices and turnover intentions.	Key findings reveal that procedural justice, affective and continuance commitment, and citizenship behaviours partially mediate the effects of high-involvement HRM practices on the turnover intentions of highly skilled professionals.

Researchers	Themes	Findings
Gong et al. (2009)	<p>In this study, a dual-concern (i.e., maintenance and performance) model of HRM was developed. Commonly examined HR practices that apply to the middle manager level was examined and was classified into the maintenance- and performance-oriented HR subsystems.</p>	<p>The performance-oriented HRM subsystems had a positive relationship with firm performance and that the relationship was mediated by middle managers' affective commitment to the firm.</p>
Ian et al. (2009)	<p>The purpose of this paper is to develop an interactionist framework for examining how the cultural dimension of collectivism interacts with organizational rewards to influence affective commitment.</p>	<p>Results showed a significant two-way interaction between the cultural dimension of collectivism and organizational rewards on employees' affective commitment.</p>
(Sial, et al. 2011)	<p>The purpose of this research is to probe into the effects of HRM practices namely promotion, performance evaluation, and compensation on organizational commitment of faculty members of Universities in Pakistan.</p>	<p>The results show that organizational commitment is strongly, positively influenced by compensation practices adopted by the universities.</p>
Newman & Sheikh (2012)	<p>The study investigates the relationship between organizational rewards and employee commitment in Chinese small- and medium-sized enterprises.</p>	<p>Extrinsic rewards were found to be strongly related to both affective and continuance commitment, whereas satisfaction with supervision and role clarity positively influenced affective commitment.</p>
Lin et al. (2014)	<p>Based on the social exchange theory, the paper investigates the relationship between employee benefits and firm performance by studying 324 firms of different ownership forms in China.</p>	<p>The study finds that a combined employee benefits system produces significant associations with overall firm performance and that the strength of the relationship is mediated by attitudinal and behavioural outcomes.</p>
Amin et al. (2014)	<p>The purpose of this paper is to examine the impact of HRM practices on organizational performance.</p>	<p>The study has found that HRM practices: recruitment, training, performance appraisal, career planning, employee participation, job definition, and compensation have a significant relationship with university performance.</p>

Researchers	Themes	Findings
Chowhan (2016)	The study examines the relationships between skill-enhancing, motivation-enhancing and opportunity-enhancing bundles of practices, innovation, and organizational performance, and looks at the mediating effect of innovation over time at the workplace level.	The results indicate that the temporal pathway from skill-enhancing practices to innovation to organizational performance is positive and significant.
Nazir et al. (2016)	The purpose of this paper is to explore the relationship between extrinsic, intrinsic and social rewards and affective and normative types of organizational commitment and finally Chinese workers turnover intention in the public and private sector.	The findings exhibit that extrinsic, social and intrinsic rewards were significantly related to affective and normative commitment. Findings suggest that satisfaction with extrinsic benefits, supervisor support, coworker support, autonomy, training and participation in decision making has a substantial impact on employee's affective and normative commitment.
Dinc & Plakalovic (2016)	The main purpose of this paper is to examine the impact of caring climate, employees' job satisfaction, and affective commitment on job performance in the banking sector.	This research discovers an indirect relationship between overall job satisfaction and job performance through a mediating role of affective commitment.

Given Table 1 most researches showed that affective commitment had a mediating impact in the relationship between reward types and organizational performance.

Hypotheses:

Hypothesis 1 a: Affective Commitment mediates the relationship between Working Conditions and Organizational Performance.

Hypothesis 1 b: Affective Commitment mediates the relationship between Promotional Opportunities and Organizational Performance.

Hypothesis 1 c: Affective Commitment mediates the relationship between Satisfaction with Benefits and Organizational Performance.

Hypothesis 1 d: Affective Commitment mediates the relationship between Pay Satisfaction and Organizational Performance.

Hypothesis 2 a: Affective Commitment mediates the relationship between Team Support and Organizational Performance.

Hypothesis 2 b: Affective Commitment mediates the relationship between Supervision and Organizational Performance.

Hypothesis 3 a: Affective Commitment mediates the relationship between Role Clarity and Organizational Performance.

Hypothesis 3 b: Affective Commitment mediates the relationship between Training and Organizational Performance.

Hypothesis 3 c: Affective Commitment mediates the relationship between Feedback and Organizational Performance.

Hypothesis 3 d: Affective Commitment mediates the relationship between Autonomy and Organizational Performance.

Hypothesis 3 e: Affective Commitment mediates the relationship between Participation in Decision Making and Organizational Performance.

Hypothesis 3 f: Affective Commitment mediates the relationship between Skill Variety and Organizational Performance.

Research methodology

This study aimed to investigate how universities in Central and Eastern European countries established reward systems and their direct and indirect influence on organizational performance. Several quantitative research methods were performed on the collected data by using Descriptive Analysis, Exploratory Factor Analysis, Confirmatory Factor Analysis, Structural Equation Modelling, and Ordinary Least Square (OLS) regression methods in SPSS and AMOS statistical software programs.

Samples and procedures

The target population was comprised of academics and administrative staff in universities located in Central and Eastern European countries. Among the 12 selected countries, 7 are members of the EU, namely Slovakia, Poland, Slovenia, Croatia, Czech Republic, Romania, and Bulgaria, while the other 5, namely, Montenegro, Serbia, Macedonia, Albania, and Bosnia and Herzegovina are Balkan countries. Well-known public and private universities in those countries were selected as a target group.

The survey instrument was developed using online survey tools and the web-link of the survey was distributed to all members in the sample via e-mail. These members were sent a follow-up notice 2 weeks later electronically. After approximately 4 weeks, another follow-up was sent to participants via mail. In total around 20000 e-mails were sent. When the respondents completed the online

survey, they were able to click on a button labelled "Submit Responses." A note of thanks appeared on the screen, and the responses were registered in the appropriate data file. 825 academic and administrative staff from 94 different universities completed the survey.

The survey was comprised of 76 questions, and among those, 10 questions were related to demographic information of participants. In order to assess survey questions, seven-point Likert scale was used. In the Likert scale, 1 was used for the label "Strongly Disagree" and 7 was used for "Strongly Agree."

Outliers, unengaged responses, and responses with missing data were investigated. Outliers were considered to be responses which were significantly different than others. The study used Crook's distant method in order to detect them. For the investigation of the participants' engagement, the standard deviation of each response was examined. Responses in which participants answer all questions with the same answer-choice, or in which they answer many subsequent questions with the same answer were called "unengaged responses." Such responses have a standard deviation value zero, or very close to zero. The study visually and one by one examined responses which had a very low standard deviation value to confirm whether they actually were unengaged responses. The final screening process was applied to investigate responses with missing data. No response was identified as an unengaged response or an outlier in collected data. 14 participants left some questions unanswered, however, the number of unanswered questions was less than 6. Considering that the number of unanswered questions was not significantly high, none of the responses was deleted from the dataset, and missing values were replaced with a median value of those questions. All 825 responses were considered to be valid and useable.

Majority of the participants (69.7 %) were more than 36 years old and 83 % of all participants had a PhD degree. 81.8 % of them had more than 5 years of working experience in their current universities, which could be considered a sufficient amount of experience for being able to give valuable information about universities' human resource-related activities. Table 2 summarizes sociodemographic characteristics of respondents.

Table 2. Sociodemographic profile of respondents

Variable	Demographics	Count	Percentage
Age	20–25	20	2.4 %
	26–29	58	7.0 %
	30–35	172	20.8 %
	36–40	145	17.6 %
	Above 40	430	52.1 %
Gender	Male	405	49.1 %
	Female	420	50.9 %

Variable	Demographics	Count	Percentage
Marital Status	Married	594	72.0 %
	Single	231	28.0 %
Education Level	Doctorate Degree	690	83.6 %
	Master's degree	121	14.7 %
	Bachelor's degree	9	1.1 %
	High School	5	0.6 %
Organization Type	Public	668	81.0 %
	Private	157	19.0 %
Title/Position	Assistant	134	16.2 %
	Assist. Prof. Dr.	278	33.7 %
	Assoc. Prof. Dr.	197	23.9 %
	Prof. Dr.	168	20.4 %
	Head of Office	5	0.6 %
	Employee	39	4.7 %
Administrative Responsibility (Among academicians)	Coordinator	4	0.5 %
	Yes	403	51.3 %
	No	383	48.7 %
Work Experience at the Current University	Less than 5 years	150	18.2 %
	5–10 years	222	26.9 %
	10–15 years	156	18.9 %
	more than 15 years	297	36.0 %
Total Work Experience	Less than 5 years	57	6.9 %
	5–10 years	156	18.9 %
	10–15 years	155	18.8 %
	more than 15 years	457	55.4 %
Country	Romania	125	15.2 %
	Bulgaria	109	13.2 %
	Czech Republic	83	10.1 %
	BiH	80	9.7 %
	Albania	79	9.6 %
	Macedonia	75	9.1 %
	Croatia	69	8.4 %
	Slovenia	67	8.1 %
	Poland	59	7.2 %
	Slovakia	40	4.8 %
Ethnicity	Serbia	29	3.5 %
	Montenegro	10	1.2 %

Measures

All survey questions were gathered from the reviewed literature. Validity and quality of the selected questions were tested in various studies by different researchers. Nevertheless, survey questions were slightly modified for the purpose of this study. Questions were originally developed in English and they were not translated to any other language. Considering that the survey was distributed to participants in several countries, the main reason behind the language choice was to avoid biases which may occur due to translation. A pilot test was applied with a draft version of the survey to investigate possible problems with wording, structure, and a general understanding of questions' concept. The pilot test was distributed among 25 academicians and administrative staff members with various years of experience. Based on the feedback collected from the pilot test participants, there were a few minor modifications related to wording, while one question was extended by adding an example in order to explain a specific term.

The survey consisted of four sections. Questions in the first section were related to the rewarding system in universities, and the second section of questions was related to the affective commitment. The third section was designed to assess information regarding organizational performance at universities. Finally, the fourth section investigated the demographic background of the participants.

Rewards were divided into three separate sections as extrinsic organizational rewards, extrinsic social rewards, and intrinsic rewards. Extrinsic organizational rewards were measured by using the scale which was previously used by Malhotra et al. (2007). Four dimensions were used to measure extrinsic organizational rewards. These were working condition, pay satisfaction, satisfaction with benefits, and promotional opportunities. Working conditions were measured with a 2-item scale which was developed by Malhotra et al. (2007). Pay satisfaction was measured with a 3-item scale which was also developed by Malhotra et al. (2007) and later used by Newman and Sheikh (2012 a). Satisfaction with benefits was measured with a 2-item scale which was developed by Spector (1997), and later modified and used by Malhotra et al. (2007). Promotional opportunities were measured with a 2-item scale which was developed by Mottaz (1988), and later used by Young et al. (1998) and Malhotra et al. (2007).

Extrinsic social rewards were measured by using the scale which was previously used by Malhotra et al. (2007). Two dimensions were used to measure extrinsic social rewards, namely supervision and team support. Supervision was measured with 6-item scales which were developed by House and Dessler (1974) and later used by Teas (1983), Singh (1993), and Malhotra et al. (2007). Team support was measured with 4-item scales which were developed by Mottaz, (1988), and later used by Parasuraman, Berry and Zeithaml (1990), and Malhotra et al. (2007).

Intrinsic rewards were measured by using the scale which was previously used by Malhotra et al. (2007). Six dimensions were used to measure intrinsic rewards, namely role clarity, skill variety, autonomy, feedback, training, and participation in decision making. Role clarity was measured with 5-item scales developed by Rizzo, House, and Lirtzman (1970), and later used by Malhotra et al. (2007). Skill variety was measured with 2-item scales which were developed by Hackman and Oldham (1976), and later used by Buchanan and Huczynski (2004) and Malhotra et al. (2007). Autonomy was measured with 3-item scales developed by Hackman and Oldham (1976) and later used by Malhotra et al. (2007), Singh (1993), Teas (1983), and (Newman & Sheikh, 2012 a). Feedback was measured with 2-item scales which were developed by Hackman and Oldham (1976), and later used by Malhotra et al. (2007) and Young et al. (1998). The training was measured with 2-item scales which were developed by Boshoff and Allen (2000), and later used by Malhotra et al. (2007). Participation in decision making was measured with 3-item scales developed by Vroom, (1959), and later used by Malhotra et al. (2007) and Teas et al. (1979).

In order to measure affective commitment, the study used a 6-item scale which was developed by Allen and Meyer (1990, 1991). This scale has been widely used in a number of other studies (Benton and Magnier-Watanabe, 2014; Came-
lo-Ordaz, García-Cruz, Sousa-Ginel, and Valle-Cabrera, 2011; Dinc and Aydemir, 2014; Dinc, 2018; Martin-Perez and Martin-Cruz, 2015; Newman and Sheikh, 2012 a).

Organizational performance is difficult to measure. Chakravarthy, (1986) has stated that it is hard to conduct a comparative analysis of organizational performance by using common financial methods such as return on sales (ROS), return on capital (ROC), and return on equity (ROE). Moreover, Kaplan & Norton, (1992) found that traditional accounting methods such as earnings per share (EPS) and return on investment (ROI) might provide deceiving information regarding the innovation and continuous progress. This proposes that these classical accounting methods are not truly suitable for measuring the overall performance of organizations, therefore non-financial components such as innovations, stakeholders, customers, and investors have lately been recognized as more precise indicators (Tubigi & Alshawi, 2015). In situations where, objective financial performance data are not accessible, or difficult to assess, subjective performance measures such as perceptions of the organization's representatives could be a justifiable alternative (Allen & Helms, 2006; Delaney & Huselid, 1996; Dess & Robinson, 1984; Dollinger & Golden, 1992; Kim, 2005; McCracken, McIlwain, & Fottler, 2001; Venkatraman & Ramanujam, 1987). Although perceptual and self-reported performance measures are considered doubtfully, researchers have shown that there is a high correlation between objective and perceptual measures (Dollinger & Golden, 1992; Kim, 2005; McCracken et al., 2001; Venkatraman & Ramanujam, 1987). Moreover, using per-

ceptual measures make an analysis of nonprofit and profit-making organizations possible (Delaney & Huselid, 1996). Following the similar researches in this area, this study used perceived organizational performance to measure organizational performance. Benchmarked or relative measures were constructed from survey questions that asked participants to evaluate the organizational performance of their university relative to the performance of their competitors. A 5-item scale developed by Deshpandé, Farley, & Webster (1993) and Drew (1997) and used by many researchers (Andreeva & Kianto, 2012; Chuang, Liao, & Lin, 2013; Lee & Choi, 2003; Liao, 2011) is adapted for this study. Respondents answered five questions which were comparing their university's performance with a key competitors' performance according to five performance factors: number of students, general success, profitability, growth rate, and innovativeness (Deshpandé et al., 1993; Drew, 1997).

A quantitative analysis of collected data was performed by using descriptive analysis, factor analysis, and structural equation modelling (SEM). SPSS 23.0 was used for descriptive analysis and exploratory factor analysis (EFA), while AMOS 23.0 was used for confirmatory factor analysis (CFA) and structural equation modelling. Maximum likelihood factor extraction method with Promax rotation was used for the exploratory factor analysis. Adequacy of data was examined by using KMO statistics and Bartlett's Test of Sphericity. Upon exploratory factor analysis, Cronbach's alpha was computed for each factor in order to confirm its reliability. In order to determine the structure of factors in collected data, CFA was used as a measurement model of SEM. Goodness-of-fit indices were calculated during SEM, and if the fit of a proposed model was not appropriate, the proposed model was modified slightly according to recommendations given in AMOS results section.

Results

Data analysis

Scale reliability and validity

Maximum likelihood extraction with Promax rotation was performed in order to determine factor loadings of each item on the constructs. Items which did not have a sufficient factor loading on any construct were deleted from a data set. This research used Hair's (1998) proposals during factor loading evaluation. He suggested using 0.3 loading level as a minimum level of factor loading for 825 samples. Factor loadings for all items were examined, and the factor to which they belong was determined. One item was removed from the dataset since it did not have sufficient loadings to any factors. Table 3 summarizes range of factor loadings of items after the deletion of one item, where all loadings meet the criteria of Hair (1998).

Internal consistency of factors was calculated using Cronbach's alpha coefficient. Nunnally (1978) suggested that a group of items whose Cronbach's alpha coefficient was higher than 0.7 could be considered to be internally consistent. As presented in Table 3, all of Cronbach's alpha coefficients were higher than 0.7.

Table 3. Factor statistics

Factors	Cronbach's Alpha	Number of Items	Number of Removed Items	Component Loading Range
WC: Working Conditions	0.949	2	0	.835-.982
PS: Pay Satisfaction	0.893	3	0	.772-.984
SWB: Satisfaction with Benefits	0.865	2	0	.647-.976
PO: Promotional Opportunities	0.81	2	0	.751-.761
SU: Supervision	0.954	6	0	.737-.959
TS: Team Support	0.918	4	0	.690-.989
RC: Role Clarity	0.882	5	0	.563-.938
SV: Skill Variety	0.795	2	0	.811-.831
AU: Autonomy	0.831	3	0	.500-.979
FB: Feedback	0.937	2	0	.807-.952
PA: Participation with Decision Making	0.925	3	0	.655-.861
TR: Training	0.894	2	0	.867-.959
AC: Affective Commitment	0.859	6	1	.403-.948
OP: Organizational Performance	0.887	5	0	.733-.858

Confirmatory Factor Analysis (CFA) was conducted to determine if the number of factors (14 factors were used) and loading values of measured items on factors confirms that the proposed factor structure fit the hypothesized model. CFA analysis was conducted using AMOS software.

The first step at CFA was to check the model fit, and this study used several fit indices for that, namely, the chi-square fit index, GFI (goodness-of-fit) index (Jöreskog & Sörbom, 1989), CFI (Comparative fit index) (Bentler, 1990), RMSEA (Root Mean Square Error of Approximation) (Bollen, 1989), TLI (Tucker-Lewis Index) (Tucker & Lewis, 1973), IFI (Incremental Fit Index), and NFI (Normed Fit Index) (Hooper, Coughlan, & Mullen, 2008). Model fit values were within acceptable range: Chi-square/df (χ^2/df)=2.515 ($p<0.001$); GFI=0.848; CFI=0.941; TLI=0.935; RMSEA=0.043; IFI=0.941; NFI=0.905.

Table 4. CR, AVE, MSV and inter-factor correlation values

	CR	AVE	MSV	AU	WC	PS	SWB	PO	SU	TS	RC	SV	FB	TR	PA	AC	OP
AU	0.842	0.644	0.257	0.802													
WC	0.949	0.904	0.530	0.422	0.951												
PS	0.896	0.742	0.421	0.241	0.611	0.862											
SWB	0.866	0.764	0.536	0.303	0.620	0.649	0.874										
PO	0.811	0.682	0.536	0.478	0.728	0.637	0.732	0.826									
SU	0.954	0.775	0.630	0.397	0.572	0.380	0.440	0.638	0.880								
TS	0.919	0.741	0.298	0.342	0.453	0.323	0.414	0.507	0.546	0.861							
RC	0.885	0.606	0.438	0.507	0.549	0.375	0.436	0.662	0.545	0.491	0.779						
SV	0.800	0.667	0.204	0.452	0.148	0.045	0.135	0.218	0.202	0.228	0.444	0.817					
FB	0.937	0.882	0.623	0.409	0.553	0.398	0.477	0.649	0.741	0.511	0.617	0.249	0.939				
TR	0.895	0.810	0.582	0.298	0.546	0.474	0.559	0.646	0.541	0.428	0.562	0.164	0.650	0.900			
PA	0.927	0.808	0.630	0.438	0.550	0.397	0.484	0.639	0.794	0.528	0.593	0.235	0.789	0.598	0.899		
AC	0.866	0.573	0.312	0.373	0.503	0.370	0.385	0.559	0.486	0.387	0.496	0.221	0.519	0.432	0.544	0.757	
OP	0.897	0.636	0.420	0.328	0.553	0.395	0.443	0.584	0.519	0.396	0.459	0.180	0.541	0.497	0.522	0.509	0.797

Correlation values and standardized regression weights of the proposed model were used to calculate convergent validity (CV) and composite reliability (CR) by evaluating the discriminant validity (DV), average shared variance (ASV), maximum shared variance (MSV), and the average variance extracted (AVE).

Table 4 includes CR, AVE, MSV, and inter-factor correlation values to assess convergent validity, discriminant validity, and reliability. Reliability was assessed by examining CR values for each factor. All CR values were higher than 0.7 (required threshold). Therefore, the reliability of the factor structure was confirmed. Convergent validity was assessed by examining AVE values. AVE value for each factor was higher than 0.5 (required threshold), thus, convergent validity was also confirmed. In order to assess discriminant validity, MSV and AVE values were compared, and the square root of AVE was compared with inter-factor correlation for each factor as well. The square root of AVE had a higher value than correlation values for each factor, while all AVE values were greater than MSV values. Hence, discriminant validity was confirmed for the extracted factor structure.

Model testing

The relationship between factors of rewarding and organizational performance and the mediating effect of affective commitment between factors of rewarding and organizational performance were analyzed using the structural equation modelling method in AMOS.

First of all, the hypothesized model was developed using factor structures which were confirmed in the CFA analysis, and then the model fit was investigated. Model fit indices were found as follows: Chi-square/df (χ^2/df) = 2.523 ($p<0.001$); GFI=0.848; CFI=0.940; TLI=0.935; RMSEA=0.043, IFI=0.940; NFI=0.905. Model fit indices showed that all indices met the required conditions for a good model fit.

In order to assess the mediating role of a factor among two factors, the bootstrapping method in AMOS was used. Bootstrapping was suggested for mediation testing by Hayes, (2009), MacKinnon & Pirlott, (2015), and Preacher, (2015) over Baron and Kenny and Sobel's approaches. This study separately examined the significance of direct and indirect effects of factors of rewarding on organizational performance through affective commitment.

Afterwards, significant direct and indirect effects through affective commitment were examined. If both direct and indirect effects were found significant, it was concluded that partial mediation existed. On the other hand, if a direct effect was not significant, but the indirect effect was significant, it was concluded that a full mediation existed.

The direct effect of factors of rewarding on organization performance and affective commitment was examined. Table 5 and Table 6 present the direct effect of factors on other factors according to the hypothesized model using both SEM and OLS. Significant connections were shown in bold and with an asterisk (*) according to a significance level. According to results, participation and promotional opportunities had a significant effect on affective commitment, and affective commitment and feedback had a significant effect on organizational performance. Moreover, results showed that working conditions had a significant effect on affective commitment and organizational performance.

Table 5. Direct and indirect effects of rewarding types

		Standardized Direct Effects on Affective Commitment	Standardized Direct Effects on Organizational Performance	Standardized Indirect Effects on Organizational Performance (Mediated by Affective Commitment)
Extrinsic Organizational Rewards	WC	0.14**	0.19***	0.03*
	PS	0.03	-0.006	0.01
	SWB	-0.09	-0.01	-0.02
	PO	0.24*	0.17	0.04**
Extrinsic Social Rewards	SU	-0.04	0.07	-0.01
	TS	0.03	0.02	0.01
Intrinsic Rewards	SV	0.04	0.03	0.01
	AU	0.04	-0.01	0.01
	FB	0.08	0.11*	0.01
	TR	0.01	0.09	-0.005
	PA	0.23***	-0.03	0.04***
	RC	0.07	-0.093	0.01
			0.19***	

*: p>0.05; **: p>0.01; ***: p>0.001

Table 6. Direct and indirect effects of rewarding types (Using OLS)

Models	Equation 1:	Equation 2:	Equation 3:	
	Mediator= f(Independent)	Dependent= f(Independent)	Dependent= f(Independent and Mediator)	
	Coefficients for Independent Variables	Coefficients for Independent Variables	Coefficients for Independent Variables	Coefficients for Mediators
WC→AC→OP	0.092 (0.107) (2.638) *	0.183 (0.185) (5.349) *	0.169 (0.17) (4.975) *	0.154 (0.132) (4.532) *
PS→AC→OP	0.068 (0.058) (1.949)	0.11 (0.08) (3.17)	0.099 (0.072) (2.882)	0.162 (0.139) (4.752) *
SWB→AC→OP	0.011 (0.011) (0.303)	0.099 (0.086) (2.85)	0.097 (0.085) (2.837)	0.169 (0.145) (4.928) *
PO→AC→OP	0.09 (0.173) (2.599) *	0.157 (0.259) (4.575) *	0.143 (0.236) (4.198) *	0.157 (0.135) (4.588) *
SU→AC→OP	0.066 (0.063) (1.897)	0.094 (0.077) (2.702)	0.083 (0.068) (2.416)	0.164 (0.141) (4.782) *
TS→AC→OP	-0.032 (-0.04) (-0.92)	-0.055 (-0.059) (-1.585)	-0.05 (-0.053) (-1.45)	0.168 (0.144) (4.892) *
RC→AC→PO	-0.018 (-0.028) (-0.506)	-0.13 (-0.178) (-3.749)	-0.127 (-0.174) (-3.714)	0.167 (0.144) (4.91) *
SV→AC→OP	0.066 (0.063) (1.896)	0.094 (0.077) (2.702)	0.083 (0.068) (2.416)	0.164 (0.14) (4.782) *
AU→AC→OP	0.11 (0.126) (3.18) *	0.047 (0.047) (1.362)	0.029 (0.029) (0.841)	0.166 (0.142) (4.814) *

Models	Equation 1:	Equation 2:	Equation 3:	
	Mediator= f(Independent)	Dependent= f(Independent)	Dependent= f(Independent and Mediator)	
	Coefficients for Independent Variables	Coefficients for Independent Variables	Coefficients for Independent Variables	Coefficients for Mediators
FB→AC→OP	0.062 (0.078) (1.768)	0.065 (0.07) (1.86) *	0.054 (0.059) (1.584) *	0.166 (0.143) (4.835) *
TR→AC→OP	-0.129 (-0.155) (-3.733)	-0.022 (-0.023) (-0.62)	0.001 (0.001) (0.008)	0.169 (0.145) (4.894) *
PA→AC→OP	0.109 (0.164) (3.143) *	0.015 (0.019) (0.415) *	-0.004 (-0.005) (-0.117)	0.17 (0.145) (4.918) *

Note: *Not significant at .05 level. Values in the first parentheses are standardized coefficients. Values in the second parentheses are t-values.

Table 5 also presents the indirect effects of factors of rewarding on organizational performance through affective commitment. The results showed that participation, promotional opportunities, and working conditions had a significant indirect effect on organizational performance. Research model and standard regression weights can be seen in Figure 1.

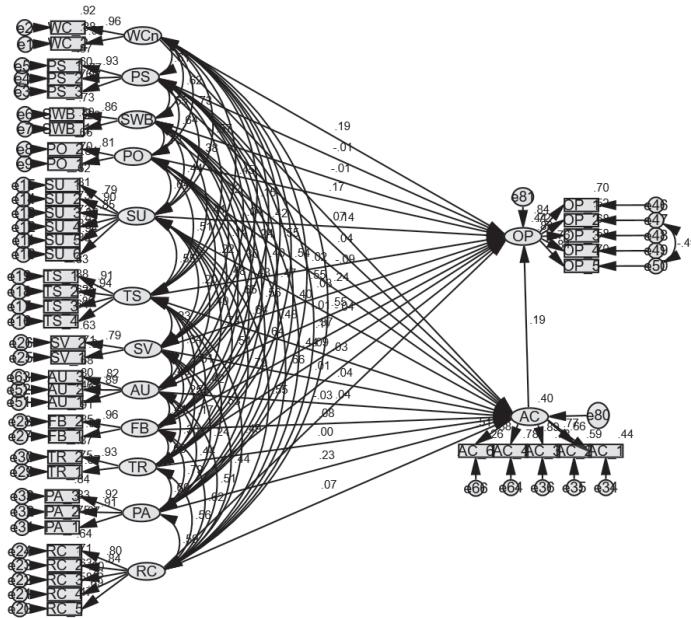


Figure 1. Research model and standard regression weights.

Results according to SEM analysis showed that participation in decision making and promotional opportunities only had an indirect effect through affective commitment on organizational performance, however, working conditions had both direct and indirect effect through affective commitment on organizational performance. Therefore, it could be concluded that the link between participation in decision making and promotional opportunities and organizational performance

was fully mediated by affective commitment, whereas, the link between the working condition and organizational performance was partially mediated by affective commitment. Moreover, since other reward types did not have any significant indirect effect on organizational performance, it could be stated that affective commitment did not mediate the link between satisfaction with benefits, pay satisfaction, supervisor, team support, feedback, skill variety, autonomy, role clarity, and training and organizational performance. Moreover, OLS regression results confirm the SEM results except for results about promotion opportunities where according to SEM analysis, affective commitment fully mediates the relationship between promotional opportunities and organizational performance, but, OLS results indicate that this relationship is partially mediated by affective commitment. Therefore, hypotheses 1 a, 1 b, and 3 e are supported, and all other hypotheses are rejected.

Discussion

This study examined the mediating role of affective commitment in the relationship between reward types and organizational performance in universities in Central and Eastern European countries. According to the results of the study, affective commitment mediated the relationships between working condition, promotional opportunities, and participation in decision making and organizational performance. However, the link between satisfaction with benefits, pay satisfaction, team support, supervision, skill variety, autonomy, feedback, role clarity, and training and organizational performance were not mediated by affective commitment. Moreover, results showed that affective commitment had a significant positive effect on organizational performance. The theoretical and practical implications of the study are highlighted in the following paragraphs.

Theoretical implications

This research has several theoretical implications. Firstly, it finds support for the mediators of the relationship between reward types and organizational performance. Several studies showed that the relationship between human resource management and organizational performance was mediated by some variables, however, a number of studies investigated these mediating variables and indicated that there was a need for a further and detailed research of this relationship (Boselie et al., 2001; Chowhan, 2016; Fey et al., 2000; Guest, 2001; Huselid, 1995; Macduffie, 1995; Park et al., 2003; Paul and Anantharaman, 2003). This study results demonstrated that affective commitment variable could be used as a mediator in this link and found the mediating role of affective commitment between working condition, promotional opportunities, and participation in decision making and organizational performance. These findings were consistent with the literature. For example, Gong et al. (2009) investigated the mediating

role of affective commitment in the relationship between some reward types (feedback, participation in decision making, promotional opportunities, and training) and organizational performance, and found that affective commitment mediated that relationship. However, they investigated only four rewarding types and did not mention other types which were included in this study such as working condition, satisfaction with benefits, pay satisfaction, team support, supervisor, role clarity, autonomy, and skill variety. Another study which supported the findings of this study was Edgar & Geare (2005)'s study about the working condition in organizations. They stated that a safe and good working condition was found as the most consistent and statistically significant variable which influenced all workplace attitude-related aspects.

With regard to the mediating role of affective commitment, it was also found that the relationship between extrinsic social rewards such as team support and supervision, and organizational performance was not mediated by affective commitment. Moreover, team support and supervision did not have a significant influence on organization performance. These findings were in line with Malhotra et al.'s (2007) study, where they investigated the effects of extrinsic social rewards on affective commitment and found no evidence to support that relationship. Furthermore, Malhotra et al. (2007) indicated that skill variety, training, and feedback did not have a significant influence on organizational performance.

Another theoretical implication of this study was that it examined rewarding types in detail. Most of the studies considered rewarding as one of HRM practices without detailed differentiation of rewarding types. Some studies focused on only one type of rewards. Moreover, most reward-related studies focused only on financial rewards. However, in this study, twelve different types of rewards were investigated, and they were gathered in three groups as extrinsic organizational, extrinsic social, and intrinsic rewards. Therefore, this study contributed to rewards literature with its detailed investigation and combination of all reward types in one study. The analysis showed that only working condition and feedback among 12 rewarding types have a direct significant effect on organizational performance.

Finally, this study suggested possible antecedents for affective commitment among rewarding types in Central and Eastern European universities. It aimed to find which types of rewards could be used as predictors for affective commitment. The study results revealed that working condition, participation in decision making, and promotional opportunities had a significant positive effect on the affective commitment of university employees. Additionally, by obtaining results regarding the relationship between affective commitment and reward types, this study contributes to affective commitment literature.

On the other hand, the study results regarding the satisfaction with benefits and pay contradicted with Carlson, Upton, & Seaman's (2006) study where they in-

vestigated the usage of cash, noncash, perk, and benefit type compensations for the different rank of employees in small and medium-sized family companies. They found that all financial benefits had a positive effect on organizational performance. The reason for this contradiction could be due to differences between organization types since the commitment of employees in small and medium-sized companies could be affected easily with financial benefits. However, results of the study regarding satisfaction with benefits and pay satisfaction contradicted their findings, in a way that our results indicated that satisfaction with benefits and pay satisfaction did not have a significant influence on organizational performance. The findings about autonomy and role clarity also contradicted with Miao et al. (2013) and Newman and Sheikh (2012 a). Miao et al. (2013) investigated the relationship between intrinsic rewards and organizational commitment in the Chinese public sector and found that there was a significant positive relationship between autonomy and organizational performance. Newman and Sheikh (2012 a) studied the effect of intrinsic rewards on organizational performance in small Chinese enterprises and found that role clarity had a positive effect on organizational performance. This contradiction could be due to the nature of the job and organization. Academics already had some degree of autonomy in their professor roles. They may not perceive it as a reward; therefore, it may not have an influence on their affective commitment. Similarly, the description of the professor role was well defined at universities, so it did not cause any confusion. Therefore, a clear description of their duties was not perceived as a reward.

Practical implications

In addition to its contribution to the theory, there are some practical implications of this study. The study results found that affective commitment had a positive influence on universities' organizational performance. These findings give suggestions to the administrations of universities in Central and Eastern European countries for improving their performance. The administrations of universities should try to find ways to increase the affective commitment of their employees since employees with a high-level affective commitment would feel emotionally attached to the university. Academics who have an affective commitment to their universities would be willing to represent themselves and their universities in national and international platforms. They could also improve the quality of their research, bring funds and projects to the university, and help students improve the educational level. In order to improve affective commitment, different types of rewards were suggested in the literature, and they have also been implemented by many organizations. Twelve different types of rewards were examined in this study and it was found that promotional opportunities, participation in decision making, and working conditions have a positive significant effect on affective commitment. University administrations should more focus on improv-

ing the working conditions of the employees because the working condition was found to be the most influential independent variable among all rewarding types. It had a positive influence on both affective commitment and organizational performance. Moreover, university administrations should organize some regular meetings to take ideas of their employees about academic and administrative issues of the universities. By this way, they can involve their staff in the decision-making process. These meetings can also be useful for the feedbacks of employees. Because the feedback was found to have a direct positive influence on organizational performance. Constructive feedback always helped improve an organization's performance since constructive feedback could be the recognition of a good performance as well as guidance for improving a low performance. Employees would appreciate the recognition of their good performance and try to improve themselves in areas where they perform poorly. Feedback system would also prevent cheating at work. Therefore, a good constructive feedback system would improve the performance of any organization. The university administrations should also be fair in promoting their academics and administrative employees. Effectively working academic councils and administrative committees can make employees' promotional issues fair. Finally, to enhance employees' emotional attachment to their organisations, universities should organise extracurricular activities. Employees who are committed to their universities will put in extra effort, leading to satisfied and happy students and enhanced organizational performance.

The study findings give recommendations to the university administrations in Central and Eastern European countries about their rewarding system. Since most of the universities in these countries are public universities and rewards in these universities were funded by the state, the university administrations should do official requests to the Ministries of education in these countries to rise budget and increase number of funds for public universities. They can also strengthen their relationships with bureaucrats to enhance their awareness about limited funds of the universities and by this way encourage them to do amendments on relevant regulations. The university administrations in these countries should also be more involved in cooperation with companies in the private business sector to find the additional budget for their universities.

Limitations and future work

This study has several limitations. First of all, target countries consisted of a mix of European Union members, non-EU members, economically developed, and economically developing countries. Economic and membership status of countries caused the development of different procedures and practices in each country. Therefore, variations among target countries and their development status are the main reason for this limitation.

Moreover, the research model was tested on both private and public universities. Public universities in these countries were mostly old and large universities with long years of tradition and a high number of employees and students, whereas, private universities were mostly young and smaller. Practices, procedures, and organizational goals in private universities were different than those in public universities. These differences among universities would affect their responses. A separate analysis of private and public universities could give a deeper insight into the status of rewarding systems, affective commitment, and organizational performance activities. Future research could strengthen the findings of this study and the validity of the proposed model by replicating it at universities from different regions and different knowledge-oriented sectors. Another future research direction could be an analysis of countries according to their economic status. Developed and developing countries could be analyzed separately in order to investigate the effect of development status on human resource activities at universities in the studied region.

Conclusion

Universities' performance is highly dependent on individuals' performance considering that almost all activities at universities are based on human resources. Therefore, the commitment of individuals to university has a very important role in improving universities' performance. This study developed and tested a research model whose implementation would increase organizational performance. Effects of rewards on the organizational performance and the mediating role of affective commitment between rewards and organizational performance were examined. Results of statistical analysis showed that affective commitment mediated the link between some of the rewards and organizational performance. Among 12 types of rewards, the feedback was found to have a statistically significant positive direct effect on organizational performance, where promotional opportunities, participation in decision making, were found to have a statistically significant positive indirect effect on organizational performance through affective commitment. Moreover, the working condition was found to have both direct and indirect statistically significant effect on organizational performance. The remaining 8 types of reward, namely, satisfaction with benefits, pay satisfaction, team support, supervision, autonomy, training, role clarity, and skill variety were found to have no direct or indirect effect on the organizational performance. Furthermore, an affective commitment was found to have a statistically significant direct effect on organizational performance. Based on the number of findings, this study contributes to the literature of human resource management practices, organizational commitment, and organizational performance. Findings will help managers of universities identify the most beneficial and efficient types of rewards in order to obtain a better and improved organizational performance.

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