Competitive paper

CALCULATIVE AND AFFECTIVE COMMITMENT - THE CASE STUDY OF THE BEST POLISH EMPLOYER "GAS TRANSMISSION OPERATOR"

The purpose of the article is identifying organisational factors influencing the calculative and affective commitment of employees occupying different positions in an organisation. The research was conducted on a group of 397 employees of Gas Transmission Operator GAZ-SYSTEM S.A. consisting of operational, specialist and management employees (1). The authors' choice of the analysed organisation was based on the excellent performance of the organisation in the area of building the organisational commitment. On the basis of the research results, one may conclude that the calculative commitment in the organisations is largely stimulated by the following factors: the economic work conditions, justice in the organisation and development opportunities while the affective commitment is mainly dependent on the perceived support from the organisation. In addition, the research confirmed existence of differences in factors influencing the intensity of both types of commitment in the analysed employee groups, differentiated both in terms of their positions and type of work in the organisation .

CALCULATIVE AND AFFECTIVE COMMITMENT - THE CASE STUDY OF THE BEST POLISH EMPLOYER "GAS TRANSMISSION OPERATOR"

INTRODUCTION

Contemporary organisations are forced to face increasingly conscious expectations of their internal and external stakeholders. In particular, those who work towards the goal of attracting the most talented employees, spare no effort to build a high quality, inspiring work environment by taking such measures as intensified communication with the staff, increasing staff participation and introducing professional personnel policy tools. Transparent and fair organisational policies (including the HRM practice) contribute to building a high quality work environment, which should result in enhancing employees' satisfaction.

It is worth noting that the employees – employers relationships evolve. Globalisation and free market challenges caused some changes in the strategies of organisations oriented towards cutting down their fixed costs and introducing more flexibility. In consequence, the nature of the psychological contract evolved from a relation-based contract to the transaction-based one. Employees tend to be less attached to organisations and less loyal but also less dependent on the organisation. An organisation may only do as much as ensure career development stimulants while the responsibility for career building and the need to decide about its progress and steps rests with employees. Employees do not guarantee long-term employment but rather make its continuation dependent on the degree of adjustment of employee's competences to the needs of the organisation. In turn, an employee decides to remain within the organisation as long as the opportunities to achieve their own goals, development of their own competences and self-fulfilment are created. Further to the above, a traditional organisational commitment model, which, according to Meyer Allen, is made of three components: an affective, normative and continuous component, must be revised and adapted to the ever-changing conditions (Mayer et

al. 2002). It is because the affective and normative aspects are no longer believed to be the crucial components of the organisational commitment. while the importance of the calculative or transactional component of attachment is growing. These components are related to employment benefits perceived by employees. Further to the above, according to the Social Exchange Theory (Emerson, 1976), which explains human behaviour in an organisation, including the essence of organisational attachment indicating that human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives, the exchange components change on both sides. Employees satisfied with their involvement in an organisation because of the opportunities to develop and grow in its structures or those experiencing mutual trust in relations feel a more intensive organisational attachment (Cropanzano and Mitchell, 2005). They also manifest trends to reciprocate by demonstrating behaviours of value for the organisation (Coyle-Shapiro, Shore, 2007).

In this study, it was assumed that the affective and calculative commitment are the most valuable for the organisation. The calculative commitment is valuable also because it seems to come first before the affective commitment is built. In line with the above, the purpose of this paper is identifying the factors affecting the calculative and affective commitment. In case of the affective commitment, it is the conviction on the emotional relationship between the employees and the organisation and in case of the calculative commitment, employees are convinced that they generate so many advantages from their organisation that, for the time being, they do not consider and do not search for other employment opportunities because of profits from continuation of their current employment.

Thus, our paper contributes to current research in two ways. First, it addresses changes in the organisational commitment and contributes to a better understanding of factors developing the calculative and affective commitment. Secondly, by building and testing theoretical models, it

points out to differences between factors affecting the calculative and affective commitment of employees occupying different positions in the organisation.

LITERATURE REVIEW

Organisational commitment

The literature underlines the importance of organisational commitment due to the conviction that organisations employing committed employees are more efficient because committed employees identify themselves with organisation's objectives to a larger extent than their less committed colleagues and they exhibit more attachment to the organisation.

Affective commitment refers to attachment to the organisation, identification, loyalty and a desire for affiliation. People with strong affective attachment remain in the organisation by choice. (Meyer, Allen, 1991, 1997, Meyer *et al*., 2002, Meyer *et al*., 2006). The links between affective commitment and high job performance are often indicated (Becker *et al*., 1996). Research also indicates that there is a negative relationship between affective commitment and turnover intention and real turnover (Meyer *et al*., 2002; Vanderberghe, Bentein, 2009). The findings were also confirmed by research in the IT sector, revealing a positive and significant relationship between affective commitment and reduction in turnover intention and increase in job satisfaction (Magni, Pennarola, 2008; Reid, Allen *et al*., 2008).

Allen and Meyer (1997) point to the existence of at least two other forms of commitment – continuance commitment and normative commitment – which may be less likely to be associated with high job performance. They are much less focused on such a sense of psychological belonging. Normatively committed employees feel a moral obligation to remain in the organisation, which is more associated with internalisation of organisation's norms and values, and the acceptance of goals and mission. Continuance commitment however, refers to a sense of being locked in because of the high costs of leaving, the sacrifices and disruptions involved and the perception that there are few available alternatives. The costs may be financial,

social or psychological and alternative options may appear to be blocked off or closed down. To measure the construct, its creators used theses supporting the intention to continue collaboration with the organisation for negative reasons (e.g. high costs of changing employers) and for positive reasons (advantages of an employee). For this reason, two interchangeable terms: continuance and calculative commitment are used in the literature. The first one exposes the negative reasons for continuing the collaboration while the other emphasises the positive ones. Cohen (2007) points out that the continuance and calculative commitment concepts should be separated. In his opinion, the calculative commitment applies to evaluation of advantages from remaining in the organisation contrary to continuance commitment, which results from evaluating the costs of leaving the company.

Similar were Lewicka's conclusions (2014) based on the qualitative research, which clearly identified two reasons behind remaining in an organisation, including calculative-based commitment arising from employment advantages perceived at the time and fear-based commitment triggered by fear of leaving the organisation.

The above-presented approach to commitment is a static approach which does not account for the time factor. It assumes that the affective commitment is the most valuable type of commitment for an organisation. It is assumed that it is connected with the intention to remain within the organisation, a greater loyalty as well as with improved performance. Generation of such positive results to the organisation is not attributed to other types of commitment. Still, some authors (Cohen 2007) indicate that the calculative commitment is also quite important for organisations.

According to Cohen (2007), employees come to a new job with a commitment-demonstrating attitude. However, the initial commitment is only expanded at a later stage in the socialising process and conditional to personal values, expectations and experiences. The dynamic approach was used in Cohen’s research who describes the commitment arising from measurable

aspects as instrumental commitment (related to the calculative commitment) and the commitment resulting from emotional motifs as the affective commitment. Both dimensions of the commitment are shaped by the processes occurring in the organisation but, primarily, they change upon becoming its rightful member, after one's entry into the organisation (Cohen 2007). He also assumes that the calculative commitment affects the affective commitment. The dependence is based on the assumption of the superiority of affective commitment as the highest level of organizational commitment. Evaluation of advantages from collaborating with the organisation seems a factor stimulating the affective commitment while the authors' believe that it does not exclude the possible co-existence of the commitment components, in particular in case of the employees with longer history of employment in the organisation. Still the relations call for continuation of in-depth research, in particular the research investigating the mechanism of their development in a time horizon.

It is appropriate to consider these aspects as components of commitment rather than types of commitment because the relationship of a unit with the organisation may, to a different extent, reflect all three components (Mayer, Allen, 1991). The article focuses on two types of the calculative and affective commitment which seem to have the biggest share in generating the added value for the organisation. Below find a list of factors whose impact on the affective and calculative commitment will be tested in the paper.

Job satisfaction

Researchers analyse various aspects of job satisfaction, including: the relationship between satisfaction and economic work conditions, evaluation of work conditions and content (Schjoedt, 2009), relationship between employee commitment and satisfaction (Rutherford et al., 2009; Tsa, Huang, 2008; Yousef, 2002), absenteeism (Tharenou, 1993), turnover rate (DeConinck, Stilwell, 2004; Rutherford et al. 2009) as well as counter-productive behaviours (Chen, Spector, 1992). The extent of job satisfaction expresses the general emotional attitude

and the way of thinking about job and organisation of employees employed in it. The notion of job satisfaction refers to the status of balance between employees' needs and expectations towards their job and satisfaction of the needs and expectations. Job satisfaction is a complex construct, which encompasses physical work conditions, economic work conditions, interpersonal relations, executed tasks and activities. (Spector, 1997). Some authors mention other job satisfaction enhancing factors, including: participaton and employee empowerment (Snipes *et al.* 2005), development opportunities (Jun *et al*. 2006) or promotion opportunities (Aydogdu, Asikgil 2011). The extent of employee's satisfaction with the employment package conditions the degree to which the employee makes its capital i.e. knowledge, competences, effort and creativity, available to the organisation (Wright, Davis 2003). Further to the above, in the era of competition organisations increasingly emphasise the importance of building work environment stimulating employees' job satisfaction and improved performance of organisations.

Organisational justice

It is increasingly emphasised and stressed that employees' feelings and behaviour in their work environment depend on the employees' perception of the organisation as a fair organisation. A number of decisions which directly affect employees is made in the organisation and, in consequence, classification of the processes to fair or unfair processes translates into some employee behaviour which is material from the point of view of organisations, including: job satisfaction, commitment, productivity, civic behaviour (Colquitt, 2001, Colquitt., 2002), trust (Hoy, Tarter 2004), counterproductive behaviour (Turek 2012) knowledge sharing (Park et al.2009) and willingness to learn (Wolumbwa et al. 2009).

Justice is defined as honesty and fairness perceived in the job environment (Greenberg 2011 p.38). According to the literature, a man appreciates three aspects of justice, in particular: distributive justice based on the conviction of a fair distribution of resources in an organisation,

such as awards, promotion, salaries, promotion opportunities. The procedural justice is related to just and fair procedures: methods, mechanisms and processes employed in the process of making decisions on the methods used to distribute resources. It is crucial that they are clear, transparent, comprehensible to employees because only in such case they can consider them just. The interactive justice is based on the need to receive fair treatment in interpersonal relations and received communication. In particular, it applies to persons exercising authority in an organisation, including the top management and line managers (Eberlin, Tatum 2008). The literature indicates some strong correlations between the feeling of the organsiational justice and performance as justice forms the basis for development of organisational trust (Wagner, 2010). In addition, it also mentions the important role of the following organisational factors: the industry, cultural standards, organisational structure, trust in the organisation and its evaluation (Lilly, Wrick 2006). Concluding, it is noteworthy that the feeling of justice in an organisation has a positive impact on employee behaviour and attitudes which prompts us to assume that justice influences the organisational commitment.

Perceived organisational support

Organisations interpret the conviction on the support they render as appreciation of their employees and caring for their good and well-being (Eisenberger et al. 2001). In the process of building the feeling of support, an organisation employs tangible and non-tangible influences and effects, including the communication method and mode, development opportunities or respecting employees' needs. The above-mentioned elements build employee conviction about the degree of recognition of their contribution and engagement by employees. A continuous exchange is occurring, which employees estimate on an on-going basis. If the assessment result is beneficial to the employee, they may improve their performance or intensify their commitment. However, if an employee has a feeling of a loss, there might be an intention to balance the relation. To this end, they can only lower the value of their contribution to the

relationship because they do not have a direct impact on the tools increasing the value of the exchange load on the part of the organisation. In addition, according to the research results, if employees' perception of an organisation is such that they believe that the organisation cares about their well-being and recognises their work (contribution), they tend to be less prone to demonstrate behaviour such as: coming late, absence from work, changing jobs, wasting one's time at work by browsing the Internet at work, demonstrating a passive attitude or burnout (Eder and Eisenberger 2008). Research shows that there exists the relationships between perceived organizational support, job satisfaction, age and gender, and national culture (Ayers, 2010). The above indicates that the perceived organisational support generates employee behaviour and attitudes which are positive for the organisation, therefore its impact on the organisational commitment can be assumed.

Perceived supervisor support

The perceived supervisor support is related to the employees feeling that they receive their manager's support whenever needed and that the manager promotes and champions their development and stimulates them to reach targets. Research show that support from managers leads to outcomes which are beneficial both for employees and the organisation such as reduced job stress and increased productivity (Rhoades, Eisenberger, 2002). Manager's support felt by employees should also breed obligations to reciprocate e.g. by adapting higher work standards and assisting the line manager in achievement of their targets event beyond the employees' responsibilities (Becker, Kernan, 2003; Bhanthumnavin, 2003). In turn, absence of support is usually caused by loss of employees' trust and possible dysfunction in the organisation (Zang et al. 2008), may add to intensification of conflicts at work, burnout, excessive stress and overwork (Schaufeli 2008). This is way it is presumed that the perceived supervisor support may affect commitment of employees in the organisation.

Development support

Employees appreciate the support that organisation give to development in the organisation because such support contributes to higher employability and, what is more, influences enhancement of their qualifications that they have at the time and which are related to requirements of their current job, increasing their performance effectiveness and efficiency. In addition, development support is also related to the possibility of using one's potential in the process of completing occupational tasks which is very likely to be related to increased motivation and job satisfaction. By creating opportunities to develop, an organisation is more likely to attract and keep its talented employees. Many authors point out to the impact of training and development on job satisfaction (Saks, 1996, Martensen and Gronholdt 2001). Also many authors mention a relationship between the opportunities to grow in an organisation and organisational commitment (Kooij, *et al.*, 2010; Lee, Kim, 2011, Katou 2013). Since modern employees are conscious of their value on the job market, they are more mobile and they manage their careers more consciously, the decision whether to stay in the company may also be the outcome of the development opportunities created by their employer.

METHODOLOGY

In the research, based on the literature presented in the theoretical part of the paper, a likely impact of the following factors was assumed: job satisfaction, organisational justice, perceived organisational support and perceived supervisor support on the degree of the organisational, calculative and affective behaviour.

Further to the above, the following research questions were asked:

1. Which of the analysed factors affect the level of the calculative commitment?
2. Which of the analysed factors affect the level of the affective commitment?
3. Do the factors influencing the calculative and affective commitment vary depending on the type of job (managerial and non-managerial positions)?

<u>Analysed organisation selection criteria; description of the organisation</u>

The case of GAZ-SYSTEM S.A., a gas transmission operator, was selected for the purpose of the research. GAZ-SYSTEM S.A., a company of strategic importance for the Polish economy, responsible for the transmission of natural gas and the management of the main transmission grid in Poland. The organisation was chosen not only because of its particular importance in Poland but also because of its very well managed human resources, which differentiates it from other organisations. GAZ SYSTEM S.A. is the winner of many awards in this area, e.g. only in 2013, it received (GAZ SYSTEM, 2013 Annual Report): came first in the "Best Corporate Employer" national competition, with employee commitment among the key ranking/scoring criteria; Top Employers 2013 certificate – best HR practices and high work environment standards; "Investor in Human Capital" accreditation for the best HRM practices contributing to improvement of work conditions and promoting employee development; "Well seen Company" award for strategy and communication .

GAZ-SYSTEM S.A. is a relatively young company, founded in 2004, which took over supervision and responsibility for transmitting natural gas in pipelines in Poland. The company's sole shareholder is the State Treasury. GAZ SYSTEM was set up in the execution of the provisions of the Gas Directive adopted by the European Council and Parliament in 2003, which obligated gas enterprises to separate gas transfer technology from gas trading and selling and allowed other entities access to the gas transmission network on equal footing (the TPA - the Third Party Access principle). As a result of the process, GAZ-SYSTEM S.A. was among the first European companies putting the principle of independent gas transmission into practice. Since December 2008, GAZ-SYSTEM S.A. owns LNG S.A. (Liquefied Natural Gas) set up to build and operate the LNG terminal. The LNG terminal will be instrumental in guaranteeing differentiation of natural gas supply directions translating into higher energy security of Poland. For this reason, GAS-SYSTEM is a company of key importance for the Polish economy and national energy security which is consequent in delivering project

increasing energy security of Poland, including: Expansion of the national gas transmission system, construction of the LNG terminal, construction of the LNG terminal in Świnoujście, expansion of transborder connections. In 2013, the company reported 2,393 full-time employees (including 25% of women and 75% of men) (GAZ SYSTEM, 2013 Annual Report, p.20). The Company's equity reached PLN 5,451 million and its net profit PLN 319 million (www.gaz-system.pl). The vision of GAZ-SYSTEM is: "to guarantee energy security and become an important operator integrating the transmission system in Europe (GAZ SYSTEM, 2013 Annual Report, p.38, http://www.gaz-system.pl/ea/rr2013/files/res/downloads/book.pdf). GAZ SYSTEM has also adopted its Code of Ethics and its Risk Management System. In 2013, the Company was ISO 26000 certified, which required revision of its corporate social responsibility principles in each key areas of its operations, including: Corporate governance, human rights, work relations, the environment, integrity in business dealings, customer relations, social engagement and development of the local community. TETA, a supporting platform, is used for the purpose of resource management. TETA contains modules responsible for the personnel, payroll and social segments as well as modules such as training, recruitment, appraisal system and time sheets. In 2013, the Talent Management Program was implemented based on innovative HR management concepts. Since 2008, the annual employee commitment survey forms a permanent part of the Company's HRM. The survey is conducted by Aon Hewitt (http://www.aon.com). It analyses 3 employee attitudes expressed by the following statements: 1. I have only nice things to say about the company I work for, 2. I would like to remain in my organisation because this is where I can find self-fulfilment, 3. I am prepared to make an extra effort for the organisation. Commitment of GAZ SYSTEM S.A. personnel measured with the method grew considerably from 28% in 2008 to 87% in 2013. The result is markedly above the average commitment reported for Poland (51%). With the high commitment, GAZ-SYSTEM S.A. ranked again among the top employers (the top ranking large corporate employer). With

such excellent results, GAZ-SYSTEM S.A. ranks high not only among the leading employers in Poland but also CEE region employers. For this reason, GAZ-SYSTEM S.A. was chosen by the authors of the paper to be analysed in terms of the calculative and affective commitment in the company. In addition, the research in GAZ-SYSTEM S.A. shows that 78% of the personnel know the company's business targets and feel actively motivated to deliver high performance, 90% are generally satisfied with working for GAZ-SYSTEM S.A. In particular, employees appreciate work conditions (87%), benefits (82%) and the life-work balance (82%) (http://www.gaz-system.pl).

The company's expectations towards its employees are high but, in exchange, it offers good salary packages at all management levels. E.g. the minimum agreed salary of the lowest level employees is independent of the location and sex of the employee. The average base monthly salary of the lowest level employees is 223% of the official minimum salary in Poland (PLN 1600.00) (http://www.gaz-system.pl/ea/rr2013). In addition, GAZ-SYSTEM S.A. offers an additional Employee Pension Scheme which the company set up without being required to do so. More than 80% of the staff participate in the Scheme GAZ-SYSTEM S.A. offers a social package including co-financing of vacations, sports and recreation, cultural and educational events or emergencies to all employees. The above show that GAZ-SYSTEM S.A. creates exceptional work conditions for its personnel, which is reflected in high commitment of the same (Aon Hewitt methodology, http://www.aon.com). For this reason, GAZ-SYSTEM S.A. was believed to be a very interesting enterprise in the context of analysing calculative and affective commitment of the staff.

Research sample structure

An electronic survey questionnaire was used for the purpose of our research (www.survey.monkey). Employees received e-mail invitations to participate in the survey. 432 of them responded but 397 survey questionnaires were filled out correctly. Most respondents

are between 36 to 55 years of age. Approximately 60% of the sample were men and 40% - women. The group of 397 included: 90 managers, 251 specialists, 56 – operational workers.

Measuring units applied

As the analysed constructs and job satisfaction or supporting development in an organisation tend to be very complex and include a variety of aspects, for the sake of learning about the in-depth nature of their relations it was decided to analyse their impact separately. For this reason, measures which were single items, were consequently applied in the survey to measure respondents' feelings about their job. The calculative commitment was measured on the basis of the statement "The company gives me so many benefits that it is not worthwhile to look for another employer for now" and the affective commitment with the statement "I feel emotionally linked to my organisation". The satisfaction survey was run on the basis of 3 single satisfaction-related statements on satisfaction from: the economic work conditions (pay, financial rewards, insurance), interpersonal relations (the quality of the relationship with the line manager, other employees, rivalry/ cooperation, feedback from managers), executed tasks and activities (attractiveness and variety of tasks and responsibilities, responsibility, independence). The procedural justice was measured on the basis of the statement “The procedures on which decisions in the organisation are based, are fair” and the distribution justice on the basis of the statement ”My salary reflects the effort I put into my work”. The organisational support was measured with the statement "My organisation considers my goals and values, creates conditions stimulating my performance” and the perceived supervisor support was measured with the statement “My supervisor cares about me, takes my goals and value into consideration, creates the right conditions stimulating my performance”. Supporting development in the organisation was analysed on the basis of 3 statements, of which 2 applied to the organisational support to staff development and one to using the staff’s potential.

The model was revised by using the stepwise approach which is a variation of a regression (and not the line regression only). A decision on using the approach was made because, in this case, only statistical variable are entered into the mode, predicators which actually "improve" the model built. By analysing the stepwise approach, only the variables and predicators which significantly forecast the dependent variable can be entered into the model. The approach allows for eliminating the multicollinearity issue i.e. eliminates some strongly correlated predictors. This means that subsequently introduced predictors also consider their mutual correlation. For each employee group i.e. operational jobs, specialist jobs and management job models were developed by using a backward stepwise approach, i.e. variables having the greatest impact on the dependent variable were included one by one (in steps) to the list of explanatory variables.

Survey results

Step I consisted in analysing the relationships of all the analysed factors on the basis of the analyses made on the basis of Pearson's correlation coefficient* (table 1).

Insert Table 1.

The strongest dependences were identified between the calculative commitment and satisfaction from the economic work conditions, conviction about justice in the organisation (and the distributive justice in particular), felt support of the organisation and, less important, felt support for development. To determine relations between variables, during the second survey step, a backward stepwise approach was applied to analyse the variables influencing the calculative behaviour for 3 analysed groups: operational, specialist and management staff. Below find the econometric model, where the independent variable is: x_1 – economic work conditions, x_2 – conviction that the company makes full use of employee's potential while the dependent variable is: Y – the calculative commitment.

* Pearson's correlation coefficient interpretation - when >0.2, there is practically no connection between variables, when from 0.2 to 0.4 - there is a clear but low dependence, 0.4 - 0.7 - moderate dependence, 0.7 - 0.9 - significant dependence, <0.9 – very strong dependence. Evaluation of a variable increases with higher evaluation of another one.

The model is as follows: $Y = 0.83X1 + 3.14\ X2 – 0.33$. $R^2 = 0.625$ shows the fitness of the model in 62.5% of cases**.**

Insert Table 2.

According to the results, one may conclude about the positive and significant impact of the factors of the model on the degree of the calculative commitment. The model equation shows that change of the economic work conditions by one unit results in the change of the calculative commitment by 0.83 of an unit while the increasing conviction that the organisation makes full use of the employee's potential by one unit brings about a change in the calculative design by 0.3.1 of an unit. As the next steps, factors affecting the calculative commitment of employees working as specialists were checked.

Below find the econometric model, where the independent variable is: x_1 – economic aspects of work, x_2 – procedural justice, x_3 – supporting improvement, while the dependent variable is: Y – the calculative commitment.

The model is as follows $Y = 0.53\ X1 + 0.16\ X2 + 0.12X3 + 0.9$. $R^2 = 0.39$ shows the fitness of the model in 39% of cases.

Insert Table 3.

There is a positive correlation between the economic aspects of work, the procedural justice noticed by employees in the organisation and the conviction the development of employees' competences in the organisation is supported and the calculative commitment. The model equation indicates that a change in the economic work conditions by one unit is related to the change in the calculative commitment by 0.53 of an unit, a change in the perception of the procedural justice and the conviction about supported development of employee competences by one unit is related with a change in the calculative commitment by 0.16 and 0.12 of an unit, respectively.

As the next step, the impact of the analysed variables on the calculative commitment for managerial positions was checked. Below find the econometric model, x_1– econometric aspects of work, x_2– distributive justice, x_3– procedural justice, and the dependent variable is: Y – the calculative commitment. The model is as follows: Y = 0.45 X1 + 0.27 X2 + +0.25.12X3 + 0.47. R^2 = 0.43 shows the fitness of the model in 43% of cases.

Insert Table 4.

According to the table 4, there is a positive correlation between the economic aspects of work, the distributive and procedural justice in the organisation perceived by the personnel and the calculative commitment level. The model equation indicates that a change in the economic work conditions by one unit is related to the change in the calculative commitment by 0.45 of an unit, a change in the perception of the distributive and procedural justice by one unit is related with a change in the calculative commitment by 0.27 and 0.25 of an unit, respectively. The same research approach was adopted when testing the impact of each factor separately onto the affective commitment.

Below find the econometric model, where the independent variable is: x_1 – perceived organisational support, and the dependent variable is Y – the affective commitment.

The model is as follows: Y = 0.43X1 +2.37. R^2 = 0.20 shows the fitness of the model in as little as 20 % of cases.

Insert Table 5.

According to the results, one may conclude that there has been noticeable positive impact of the perceived organisational support on the degree of the calculative commitment. The model equation shows that a change in the perceived support of the organisation by one unit is connected with a change in the affective commitment by 0.2 of an unit.

As the next step, factors affecting the affective commitment of employees working as specialists were checked. Below find the econometric model, where the independent variable is: x_1–

perceived organisational support, x_2 – executed tasks and activities, and the variable is: Y – the calculative commitment. The models as follows Y = 0.36 X1 + 0.22X2 + 1.95. R^2 = 0.23 shows the fitness of the model in 23% of cases.

Insert Table 6.

According to the table 6, there is a noticeable correlation between the perceived organisational support, the type of responsibilities (accountability, independence, attractiveness of tasks/jobs) and the calculative commitment. The model equation shows that a change by one unit in the perceived organisational support is connected with a change in the affective commitment by 0.36 of a unit, a change in responsibilities (their increased attractiveness, higher independence) results in the change of the affective commitment by 0.22 of a unit.

As the next step, the impact of the analysed variables on the affective commitment for managerial positions was checked. Below find the econometric model where x_1 – perceived organisational support, and the dependent variable is Y – the calculative commitment. The model is as follows: Y = 0.40 X1+ 2.74. R^2 = 0.19 shows the fitness of the model in as little as 19 % of cases.

Insert Table 7.

According to the table 7, there is a perceivable positive correlation between the perceived organisational support and the affective commitment. The model equation shows that a change in the perceived organisational support of the organisation by one unit is connected with a change in the affective commitment by 0.40 of a unit.

CONCLUSIONS

With the survey result, probable correlations of the analysed constructs could be found. These correlations suggest differentiated determinants of the calculative commitment existing for each group of positions in the surveyed organisation. In case of operational positions, these are: economic aspects of work and conviction that the organisation makes full use of its employees'

potential. In case of specialist positions, these are also the economic work conditions, the procedural justice in the organisation as perceived by employees and the conviction that the organisation supports development of their competences. In the case of managerial positions, these are economic work conditions as well as the procedural and distributive justice perceived by the personnel. In the light of the above, the conclusion is that the calculative commitment in the surveyed enterprise is the most significantly affected by the economic work conditions. However, as expected, their biggest impact was identified in case of operational positions, with the specialist positions less influenced and managerial positions the least influenced of them all. In case of specialist and managerial positions, conviction of justice in the organisation also plays an important role in the calculative commitment. Furthermore, the conviction about the organisational support of employees' development is also essential.

In turn, in each of the surveyed groups, the affective commitment was linked with the perceived organisational support. In addition, in case of the employees occupying specialist positions, it was linked with attractiveness of tasks, independence and accountability at their positions.

However, further in-depth research involving a broader scope of determinants is required to achieve full understanding of the interdependencies. While the researchers succeeded in identifying, to some extent, the antecedents of the calculative commitment, factors influencing the affective commitment seem more complex. In addition, note that some authors approach the calculative commitment as necessary for forming the affective commitment (Cohen, 2007) so its influence on it is likely. Therefore, in this context, it is vital to understand mutual relations between actions of organisations and managers and the process of building the organisational commitment. Also note that a rapid growth of knowledge-based economy led to organisations competing not only on the product/service and capital market but also on the talent market (Harmon *et al.*, 2010). Forecasts indicate a growing deficit of talents (Ewing et.al 2002). Organisations must deal with the issue of decreasing organisational commitment of their

talented employees and their growing mobility, resulting in the outflow of valuable candidates from the domestic (Polish) market attracted by benefits and perks offered in the old EU countries. Out of concern for attractive and stimulating work environment, the analysed enterprise introduced a talent management programme in 2013. The research results should give some indication of more effective talent management to HR departments, Including, apart from continued competitive pays offered to talent, the key issue of formulating an attractive development offer to employees occupying specialist positions as well as caring about attractive and varies tasks and responsibilities given to the employees. It is also crucial to make sure that the potential of the operational employee is rightly used e.g. by allowing them to come up with and participate in introducing some improvements.

In consideration of the identified impact of justice perception in an enterprise on the organisational commitment, it is also important to guarantee clear and transparent procedures for giving awards, promotions or qualifying to development programmes.

In this case, actions aimed at creating the feeling of support to the organisation grow in importance, e.g.: Recognising achievements, caring about life-work balance, conviction that employees' goals and values are taken into account. In the light of the above, from managers' point of view it is essential to monitor continuously factors influencing employees' commitment and interactions of these factors.

LIMITATION OF THE STUDY AND FURTHER RESEARCH

The quantitative research in a sample group of 397 people increases our present base of knowledge about the organisational factors influencing the calculative and affective commitment.

There are some limitations, however. It is necessary to continue research in order to obtain a larger number of samples and compare obtained results between different groups of employees.

It is also indispensable to investigate different companies, e.g. to compare small and medium-size companies with large companies and high-tech businesses with traditional ones.

Survey results, i.e. respondents' opinions, are declarative in nature, which unquestionably poses a significant limitation of the study. In particular, this concerns a situation when both dependent and independent values were obtained in the same way.

In the continuation of the research, it would be worthwhile to focus on confirming the comprehensive model of the impact that the organisational factors have on different types of commitment and also on confirming the relationship between the calculative and affective commitment based on the structural equation modelling (SEM) method. It would be also important to attempt an identification of other factors influencing the analysed constructs, including characteristics of respondents' personalities and respondents' values.

Notes

1. The study was carried out as part of the project subsidized by the Ministry of Science and Higher Education. Project title: Competence potential of selected employees' groups in terms of diversity management in innovative enterprises, nr 2013/09/B/HS4/01307.

LITERATURE

1. Ahmad, N., Oranye, N. 2010. "Job satisfaction and organizational commitment: a comparative analysis of nurses working in Malaysia and England". Journal of Nursing Management, 18 (5):582–591.
2. Aydogdu S., Asikgil B. (2011) An Empirical Study of the Relationship Among Job Satisfaction, Organizational Commitment and Turnover Intention International Review of Management and Marketing Vol. 1, No. 3, 2011, pp.43-53
3. Becker, T.E., Billings, R.S., Eveleth, D.M. and Gilbert, N.W. (1996), "Foci and bases of commitment: implications for performance", *Academy of Management Journal*, Vol. 39, pp. 464-82.
4. Becker, T. E., & Kernan, M. C. (2003). "Matching commitment to supervisors and organizations to in-role and extra-role performance". *Human Performance,* 16, 327–348.
5. Bhanthumnavin, D. (2003). "Perceived social support from supervisor and group members' psychological and situational characteristics as predictors of subordinate performance in Thai work units". *Human Resource Development Quarterly*, 14, 79–97.
6. Cohen A. (2007), "Commitment before and after: An evaluation and reconceptualization of organizational commitment", *Human Resource Management Review*, vol. 17, pp. 336–354.
7. Colquitt, J.A. (2001), "On the dimensionality of organizational justice: a construct validation measure", *Journal of Applied Psychology*, Vol. 86 No.3, pp.386-400.

8. Colquitt, J.A., Noe, R.A., Jackson, C.L. (2002), "Justice in teams: antecedents and consequences of procedural justice climate", *Personnel Psychology*, Vol. 55 No.1, pp.83-109
9. Coyle-Shapiro, J.A.M., Conway, N. (2005), "Exchange relationships: examining psychological contracts and perceived organizational support", *Journal of Applied Psychology*, Vol. 90, pp. 774-81.
10. Cropanzano, R., Mitchell, M. (2005), "Social exchange theory: An interdisciplinary review". *Journal of Management, vol. 31*(6), pp. 874.
11. Chen PY, Spector PE. (1992), Relationships of work stressors with aggression, withdrawal, theft, and substance use: an exploratory study. J Occup Organ Psychol Vol **65**, pp.177-84
12. DeConinck J.B., Stilwell C.D. (2004). Incorporating organizational justice, role states, pay satisfaction and supervisor satisfaction in a model of turnover intentions. J. Bus. Res., 57: 225-231.
13. Eberlin R.J, Tatum, B.Ch. (2008) "Making just decisions: organizational justice, decision making, and leadership", *Management Decision*, Vol. 46 Iss: 2, pp.310 – 329.
14. Eder P., Eisenberger R. 2008 „Coworker Withdrawal Behavior Perceived Organizational Support: Reducing the Negative Influence of Coworker Withdrawal Behavior", *Journal of Management* 34; 55
15. Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology, 86*, 42-51
16. Eisenberger, R., Huntington, R., Hutchinson, S., Sowa, D. (1986), "Perceived organizational support". *Journal of Applied Psychology*, 77,500-507.
17. Emerson R. M. "Social Exchange Theory", *Annual Review of Sociology*, Vol. 2 (1976), pp. 335-362.
18. Ewing M.J., Pitt L.F., de Bussy N.M. and Berthon P. (2002). Employment Branding in the Knowledge Economy, International Journal of Advertising, 21(1), pp.3-22.
19. GAZ SYSTEM, Annual Report 2013. http://www.gaz-system.pl/ea/rr2013/files/res/downloads/book.pdf .
20. Greenberg J. (2011) *Behaviour in Organisations*, Prentice Hall, New Jersey.
21. Harmon, J., Fairfield, K. & Wirtenberg, J. (2010) "Missing an Opportunity: ... and Sustainability", HR People and Strategy. Vol. 33, No. 1, 16-21.
22. Hoy, W.K., Tarter, C.J. (2004), „Organizational justice in schools: No justice without trust", *International Journal of Educational Management*, vol. 18, pp. 250-259.
23. Jun, M., Cai, S. and Shin, H., (2006), "TQM practice in maquiladora: Antecedents of employee satisfaction and loyalty", *Journal of Operations Management*, Vol.24, pp. 791–812
24. Katou, A.A. (2013),"Justice, trust and employee reactions: an empirical examination of the HRM system", *Management Research Review*, 2013, vol. 36(7), pp. 674-699.
25. Kooij, D.T., Jansen, P.G., Dikkers, J.S., & De Lange, A.H. (2010), "The influence of age on the associations between HR practices and both affective commitment and job satisfaction: A meta-analysis", *Journal of Organizational Behavior*, vol. 31, pp. 1111-1136.
26. Lee, J., Kim, S. (2011), "Exploring the role of social networks in affective organizational commitment: Network centrality, strength of ties, and structural holes", *American Review of Public Administration*, vol. 41, pp. 205-223.
27. Lewicka D. (2014). „The Influence of Organizational Trust upon Affective and Calculative Commitment" *The Journal of American Academy of Business, Cambridge* Vol. 20 No. 1 September pp. 205-212

28. Lilly J. D., Virick M. (2006) "The effect of personality on perceptions of justice", *Journal of Managerial Psychology*, Vol. 21 Iss: 5, pp.438 - 458
29. Magni, M., Pennarola, F. (2008), Intra-organizational relationships and technology acceptance", *International Journal of Information Management*, vol. 28, pp. 517-523
30. Martensen, A., Gronholdt, L., (2001), "Using employee satisfaction measurement to improve people management: an adaptation of Kano's quality types", *Total Quality Management*, Vol. 2 No.7/8, pp.949–957.
31. Meyer, J.P., Allen, N.J. (1991), "A three-component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1, pp. 61-89.
32. Meyer, J.P., Allen, N.J. (1997), *Commitment in the Workplace: Theory, Research, and Application*, Sage, Thousand Oaks, CA.
33. Meyer, J.P., Becker, T.E., Van Dick, R. (2006), "Social identities and commitments at work: toward an integrative model", *Journal of Organizational Behaviour*, Vol. 27 No. 5, pp. 665-683.
34. Meyer, J.P., Stanley, D.J., Herscovitch, L., Topolnytsky, L. (2002), "Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences", *Journal of Vocational Behavior*, Vol. 61 No. 1, pp. 20-52.
35. Park H., Yeon Son S., Lee S., Yun S. (2009) „Organizational justice and knowledge sharing", *International Journal of Business Research*, vol. 25, no. 4.
36. Reid, M. F., Allen, M. W., Riemenschneider, C. K., Armstrong, D. J. (2008), "The role of mentoring and supervisor support for state IT employees' affective organisational commitment", *Review of Public Personnel Administration*, vol. 28, no 1, pp. 60-78.
37. Rhoades, L., Eisenberger, R., Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support.Journal of Applied Psychology, 86, 825–836.
38. Rutherford, A , Rissel, C. (2004) A survey of workplace bullying in a health sector organisation, *Australian Health. Review*, vol. 28, no. 1, pp. 65-72.
39. Saks, A.M., (1996). "The relationship between the amount and helpfulness of entry training and work outcomes", *Human Relations* 49 (4), 429- 451.
40. Saks, A.M. (2006), "Antecedents and Consequences of Employee Engagement", *Journal of Managerial Psychology*, Vol. 21 Iss: 7, pp. 600-619.
41. Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, Burnout, and Work Engagement: Three of a Kind or Three Different Kinds of Employee Well-being?. *Applied Psychology*, *57*(2), 173-203.
42. Schjoedt, L. (2009), „Entrepreneurial job characteristics: An examination of their effect on entrepreneurial satisfaction", *Entrepreneurship Theory and Practice*, 33, 619–644.
43. Snipes, R.L. , Oswald, S.L., La Tourc, M., and Armenakis, A.A., (2005), "The effects ofspecific job satisfaction facets on customer perceptions of service quality: an employee-level analysis", *Journal of Business Research*, Vol.58, pp.1330– 1339
44. Spector, P. (1997), Job Satisfaction: Application, Assessment, Cause and Consequences, Sage Publication, London.
45. Tharenou, P. (1993). A test of reciprocal causality for absenteeism. Journal of Organisational Behaviour, 14, 269-290.
46. Tsai, M., Huang, C.C. (2008), The relationship among ethical climate types, facets of job satisfaction, and the three components of organisational commitment: a study of nurses in Taiwan, J Bus. Ethics, Vol. 80, 565–581.
47. Turek D., (2012) Kontrproduktywne zachowania pracowników w organizacji, Difin.

48. Vanderberghe, C., Bentein, K. (2009), “A closer look at the relationship between affective commitment to supervisors and organizations and turnover”, *Journal of Occupational and Organizational Psychology*, vol. 82, iss 2, pp. 331-348.
49. Wagner III J. A., Hollenbeck J. R.(2010) *Organizational Behavior*, Routledge, New York.
50. Walumbwa F.O., Cropanzano R., Hartnell C. A.(2009) “Organizational justice, voluntary learning behavior, and job performance: A test of the mediating effects of identification and leader-member exchange” Journal of Organizational Behavior Vol. 30, 8, 1103–1126.
51. Wright, B. Davis, B. (2003), “Job satisfaction in the public sector”, *The American Review of Public Administration*, Vol. 33 No. 1, 70-90
52. Yousef, D.A. (2002), Job satisfaction as a mediator of the relationship between role stressors and organisational commitment: a study from Arabic cultural perspective, *J Managerial Psychology*, Vol. 15.
53. Zhang, A. Y., Tsui, A. S., Song, L. J., Li, C., & Jia, L. (2008). How do I trust thee? The employee-organization relationship, supervisory support, and middle manager trust in the organization. *Human Resource Management*, *47*(1), 111-132.
54. http: // www.gaz-system.pl/nc/biuletyn-infromacji-publicznej/majatek?, 24.04.2015.
55. http://www.gaz-system.pl/centrum-prasowe/aktualnosci/informacja/artykul/201751/, 24 April, 2015.
56. http://www.gaz-system.pl/ea/rr2013
57. http://www.aon.com
58. www.survey.monkey

List of tables

Table 1. Pearson's correlation coefficient among surveyed constructs

Construct	Calculative commitment			Affective commitment		
	Position/ Job					
	operational	specialist	managerial	operational	specialist	managerial
Procedural justice	.409**	.386**	.406**	.251	.321**	.330**
Distributive justice	.715**	.518**	.548**	.140	.254**	.351**
Perceived org. support	.517**	.343**	.442**	.452**	.444**	.404**
Perceived subordinate support	.124	.233**	.378**	.272*	.245*	.337*
Satisfaction: physical work conditions	.154	.235**	.342**	No data	None	none.
Satisfaction: economic aspects of work	.753**	.585**	.538**	.086	.204**	.263*
Satisfaction: interpersonal relations	-.038	.183**	.201	.161	.195**	.159
Satisfaction: tasks	.252	.260**	.195	.106	0.328**	.176
HRM support for competencies development.	.372**	.388**	.364**	0.100	0.230**	.393**
Satisfaction: opportunity to develop competences	.379**	.390**	.380**	.214	.263**	.307**
Conviction that the organisation fully uses one’s potential	.352**	.307**	.250*	.360**	.216**	.162

In the table, statistically material correlations of the following cases were marked:

** - significant correlation at 0.01 (bilateral), *significant correlations at 0.05 (bilateral).

Table 2. Factors influencing the calculative behaviour. Operational positions.

Model	Non-standardised coefficients	Standardised coefficients	t	p
	B	Standard error	Beta	
Absolute term	-.326	.499		-.654
Economic aspects of work	.828	.102	.711	8.150
Conviction that the organisation makes full use of its employees' potential	.314	.113	.241	2.767

Source: Research data. $R^2 = 0.625$

Table 3. Factors influencing the calculative behaviour. Specialists positions.

Model	Non-standardised coefficients		Standardised coefficients	t	p
	B	Stand.error	Beta		
Absolute term	.968	.261		3.716	.000
Economic aspects of work	.532	.064	.469	8.291	.000
Procedural justice	.157	.062	.156	2.548	.011
HRM dept/ organisation supporting improvement of competences	.124	.054	.139	2.308	.022

Source: Research data. $R^2 = 0.39$

Table 4. Factors influencing the calculative behaviour. Managerial positions

Model	Non-standardised coefficients		Standardised coefficients	t	p
	B	Stand.error	Beta		
Absolute term	.476	.527		.903	.369
Economic aspects of work	.447	.154	.332	2.894	.005
Distributive justice	.266	.127	.251	2.091	.040
Procedural justice	.245	.087	.250	2.813	.006

Source: Research data. $R^2 = 0.43$

Table 5. Factors influencing the affective commitment. Specialists positions

Model	Non-standardised coefficients		Standardised coefficients	t	p
	B	Stand.error	Beta		
Absolute term	1.947	.283		6.870	.000
Perceived organisational Support	.362	.060	.374	6.021	.000
Executed tasks and activities	.220	.072	.188	3.029	.003

Source: Research data. $R^2 = 0.20$

Table 6. Factors influencing the affective commitment. Operational positions

Model	Non-standardised coefficients		Standardised coefficients	t	p
	B	Stand. error	Beta		
Absolute term	2.369	.440		5.381	.000
Perceived organisational support	.430	.120	.446	3.591	.001

Source: Research data. $R^2 = 0.23$

Table 7. Factors influencing the affective commitment. Managerial positions

Model	Non-standardised coefficients		Standardised coefficients	t	p
	B	**Standard error**	**Beta**		
Absolute term	2.746	.335		8.203	.000
Perceived organ. support	.395	.089	.434	4.436	.000

Source: Research data. $R^2 = 0.19$