

Exploring the Relationships between Job Satisfaction, Work Engagement and Loyalty of Academic Staff

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Abstract—This paper aims to link together the concepts of job satisfaction, work engagement, trust, job meaningfulness and loyalty to the organisation focusing on specific type of employment – academic jobs. The research investigates the relationships between job satisfaction, work engagement and loyalty as well as the impact of trust and job meaningfulness on the work engagement and loyalty. The survey was conducted in one of the largest Latvian higher education institutions and the sample was drawn from academic staff (n=326). Structured questionnaire with 44 reflective type questions was developed to measure the constructs. Data was analysed using SPSS and Smart-PLS software. Variance based structural equation modelling (PLS-SEM) technique was used to test the model and to predict the most important factors relevant to employee engagement and loyalty. The first order model included two endogenous constructs (loyalty and intention to stay and recommend to work in this organisation, and employee engagement), as well as six exogenous constructs (feeling of fair treatment and trust in management; career growth opportunities; compensation, pay and benefits; management; colleagues and teamwork; and finally job meaningfulness). Job satisfaction was developed as second order construct and both: first and second order models were designed for data analysis. It was found that academics are more engaged than satisfied with their work and main reason for that was found to be job meaningfulness, which is significant predictor for work engagement, but not for job satisfaction. Compensation is not significantly related to job engagement, but only to job satisfaction. Trust was not significantly related neither to engagement, nor to satisfaction, however, it appeared to be significant predictor of loyalty and intentions to stay with the University. Paper revealed academic jobs as specific kind of employment where employees can be more engaged than satisfied and highlighted the specific role of job meaningfulness in the University settings.

Keywords—Job satisfaction, job meaningfulness, higher education, work engagement.

I. INTRODUCTION

IN latest HR research and practice the particular importance is addresses to the concept of employee engagement, given recent evidence about its impact on employee performance. The construct employee engagement is related to other earlier concepts like job satisfaction and employee commitment, but it definitely is not the same [1]. An engaged employee is enthusiastically and proudly involved in his or her job and organization and committed to the work. Engagement refers to persistent and pervasive affective-cognitive state that is not strictly focused on any particular object, individual, or behaviour. It is related to “meaning seeking” attitude of

fulfilment from the job [2]. There is general agreement among HR professionals that engaged workers 1) believe in their organization; 2) desire to work to make things better; 3) understand the business context and the “bigger picture”; 4) are respectful and helpful to colleagues; 5) are willing to go “the extra mile” and 5) keep up to date with developments in their field. This corresponds to findings by the Institute for Employment Studies [3].

Satisfaction and engagement are two important, but still distinct constructs [2], [4]. Several researchers consider job satisfaction as part of, or component of engagement [1], [5], however others state that satisfaction is antecedent of engagement. According to the Society of Human Resource Management (SHRM) survey in United States in 2014, 86% employees reported overall satisfaction with their current job, an improvement of five percentage points since 2013; however, in spite of the high level of satisfaction they appeared to be only moderately engaged. The results showed 3.7-engagement index on scale from 1 to 5 where 1 representing the least engaged and 5 representing the most engaged. 2014-year’s index was slightly higher than previous 2013-year’s index of 3.6 [6]. An organization can have satisfied employees who are not engaged and vice versa [2].

According to various perspectives, employee engagement may or may not be aligned with employee job satisfaction [6] and they are not the only aspects that might be related to job performance, organisational commitment, and loyalty. The Society of Human Resource Management as top job satisfaction aspects in 2014 indicated respectful treatment of all employees at all levels (75%) and trust between employees and senior management (65% of the respondents) [6]. Thus, the importance of trust and fair treatment should be considered.

Engagement involves the expression of self through work [7], [8]. It is related to such behaviour as initiative and learning, which is especially necessary and valued for academic staff. In many cases, the task or the job itself is the key to satisfaction and engagement, as the job characteristics model, designed by [9], presents. In case of academic jobs, the meaningfulness of the work might become more important than being happy at work. The term “meaningfulness” is used to describe the amount or degree of significance employees believe their work possesses [10] and previous studies reveal that it increases job satisfaction, engagement and performance [11]. Moreover, employees who derive meaning from their work are more than three times as likely to stay with their organizations [9]. Similarly researcher have found that

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engaged employees are committed to their organisations [12] and are two times more likely to stay in their current job [6].

Given all the above interrelationships, this study links together the concepts of job satisfaction, engagement, trust, job meaningfulness and intentions to stay with the organisation focusing on specific type of employment – academic jobs. The objective of this paper is to investigate the relationships between job satisfaction, work engagement and loyalty of academics in selected Latvian higher education institution as well as the impact of trust and job meaningfulness on the work engagement and loyalty.

The paper is structured as follows. Since the focus in the paper is on work engagement, literature review starts with its definitions and measurement possibilities. Further, other relevant variables are briefly discussed. Empirical part describes methodology and presents data analysis using structural equation modelling technique with Smart-PLS software. Paper ends with discussion and conclusions.

II. THEORETICAL DEVELOPMENT AND HYPOTHESES

Numerous studies are performed about job satisfaction and summarising previous researches it can be concluded, that several predicting factors of employee satisfaction are commonly used. Supervisor or manager, salary and benefits, career development and training opportunities, working conditions are the most frequently used constructs [13]-[20].

Still employee engagement as concept is quite new in academic literature and HR practice. Firstly, it is important to have a clear definition and understanding of engagement as a concept. One of the first who introduced the concept of employee engagement was [7] describing it as expression of self through work and employee-role related activities [8]. Since that, employee engagement in academic literature has been defined and measured in many different ways. The most popular definition used by the research community presents engagement as “a positive, fulfilling, work related state of mind” [21]. Robinson defines engagement as a ‘positive attitude towards the organisation and its values’ [22], and relevant measurement scale includes psychological engagement, advocacy, and involvement dimensions. Rich, Lepine and Crawford argue that engagement happens when “organisation members harness their full selves in active, complete work role performances by driving personal energy into physical, cognitive and emotional labours” [23]. According to Saks, ‘job engagement is associated with a sustainable workload, feelings of choice and control, appropriate recognition and reward, a supportive work community, fairness and justice, and meaningful and valued work’ [24]. Society of Human resource Management describes engagement as employees’ connection and commitment to their work and their particular organization. It includes the environment and the work itself as well as employees’ opinions and behaviours [6].

Similar as with definitions, academic literature, and practice presents various *measurement scales* for measuring employee engagement. Employee surveys normally include key areas influencing the staff experiences [5]. West and Dawson

distinguished between two types of engagement and measured employee engagement as a multidimensional attitude via three dimensions [25]. First dimension was engagement with job itself or motivation; the second and third dimension were advocacy and involvement and measured identification with the organisation. Motivation reflects an enthusiasm for and psychological attachment to the activities of the job. Advocacy signifies a belief that the organisation is a good employer and service provider thus it is worthy of recommendation to others. Involvement refers to employees feeling that they have opportunities to make improvements to their own job and to the organisation that they are listened to.

One of popular scales is Utrecht Work Engagement Scale (UWES), which is used to measure the levels of engagement. This scale is based on definition of engagement as ‘a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption’ [21]. Thus, the scale has three subscales – Vigour, Dedication and Absorption. Vigour means high levels of energy and mental resilience, willingness to invest effort in the work, and persistence even in the face of difficulties. Dedication refers to strong involvement and experiencing a sense of significance, pride and inspiration. Absorption is characterized by being fully concentrated and emerged in the work and identification oneself with the job or profession. This approach uses 7-point scale and measures more engagement with the job itself and less with the organisation.

Measurement scale developed by Gallup includes 12 questions devoted to both work engagement types - job and organisational engagement. Similar to Maslow pyramid, the questions are grouped in four levels. The basic level ‘entitlements’ addresses participant employee’s basic needs; the second level ‘contributions’ focuses on how employees are doing as an individuals and how others in the workplace perceive them; third level ‘community’ measure how and whether employees fit in their organisation; final level ‘growth’ is related to the question “How can we all grow?” [2]. Five point Likert-type scale from (1) ‘strongly disagree’ to (5) ‘strongly agree’ is used. If the respondent employee can answer all 12 questions positively, he or she is an engaged employee and has a clear focus and a shared sense of purpose [26].

The validity of engagement concept and the measurement scales is tested in relation to the work outcomes [27]. Several researchers have found that organisational engagement was a much stronger predictor of all of the outcomes than job engagement. Besides, perceived organisational support and feeling valued is the only significant predictor of both job and organisational engagement [3], [24]. Fairness, justice, and perceptions of trust are crucial causes at the level of the job and at the organisational level leading to higher levels of engagement.

In general two dimensions or source of engagement can be recognised – organisational support and work itself [3]. The organisational engagement recognises the firm as a social entity and provides an employee a source of identification beyond the job, whereas work itself also may provide

employee a strong sense of significance. It is not necessary that both types of engagement are present. In some professions, like academics, actual job itself can be intrinsically satisfying, while the organisation might be not. In some situations, the employees personally take pride in their job regardless of organisations, which do not provide them with feeling of being valued. This leads to concepts of fair treatment and trust, and job meaningfulness.

Meaningful work refers to employees believes that what they do is significant and serves an important purpose. Meaningful is work that gives the employee life experience as it is a source of contact with other people, objects and ideas. The job acts as tag, which marks the position of the employee in his place of employment as well as in society. Thus, some jobs are inherently more meaningful than others [28]. Many people work at relatively low-paying jobs because they find their work meaningful [29] and believe that their work can make a difference. Meaningfulness, comes from being a "giver," and relates to some amount of self-sacrifice [9]. Hackman and Oldman conclude that if the job is high in three psychological states (skill variety, task identity and task significance), the worker is likely to experience his/her job as meaningful [11]. Moreover, if only one of these three job characteristics is perceived as high enough, the rest may be low; still it is possible that the employee will experience job meaningfulness. Previous studies have demonstrated the positive impact of meaningfulness on employee engagement [7]. Recent CIPD research found that meaningfulness is the most important driver of engagement [30].

Next important concept of this study is *Trust*. Employees need to trust that their leader will treat them fairly and have the capacity to make the organisation successful [31]. Many different definitions of trust can be found in academic literature. Trust is defined as "reciprocal faith in one's intentions and behaviours" [32] or "the belief in the integrity, character, and ability of a leader" [22]. Trust is two way process - employee trust in leaders and management trust in employees. Many researcher have found strong effect of trust on job satisfaction [33], [34], however one of the major potential consequences of trust is organisational commitment and loyalty [35], [39].

Since the research aim is to link all the above-mentioned constructs together, they are included in the research model and the following research questions formulated:

- RQ1: Which constructs are the best predictors of work engagement in respect to academic jobs?
- RQ2: Which constructs are the best predictors of employee loyalty and intentions to stay in respect to academic jobs?
- RQ3: What is the relationship between job meaningfulness and work engagement, job satisfaction and loyalty for academics?
- RQ4: What is the relationship between trust and work engagement, job satisfaction and loyalty for academics?

III. DATA AND MEASUREMENT

A case study was used to collect the data on the variables and the academic personnel from one of the largest Latvian Universities were chosen. Sample size for this research was 326 respondents what is 60% from academic personnel of the particular University.

Survey instrument – a structured questionnaire with 44 questions was developed for measuring the constructs of the model: satisfaction, engagement, loyalty, trust, and job meaningfulness. Satisfaction included 4 sub-constructs – compensation, management, team and growth possibilities (see Fig. 1). The questionnaire measured all items on a 5-point Likert-type scale, where 1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree and 5 = strongly agree. The survey was prepared in Latvian language and included demographic variables like age and tenure. Further the constructs, their coding, number of corresponding statements and samples are described.

Engagement (ENG) was measured with 12 statements developed according to Gallup instrument and included statements relevant to entitlements, contributions, community and growth. Sample statements are "I know what is expected from me at work" and "In the last six months someone at work has talked with me about my progress". Loyalty (LOY) was measured with three statements, for example, "I think I will be working at this University many years from now". Trust (TRUST) was measured with seven statements and refers to fair treatment and trustful relationships within the organisation, like "Compensation I receive is fair" and "I trust the information I receive at work". Job meaningfulness (JOB) was measured with two statements, for example, "My job is meaningful". Satisfaction (SAT) in the model is second order construct and is not measured directly. It includes four sub-constructs - compensation, management, team, and growth possibilities. Employee satisfaction with compensation (COMP) was initially measured with five statements and an example is "I am satisfied with the current pay system in my university". Scale Management (MAN) with five items measured academic personnel satisfaction with management and sample statement is "My manager inspires me". Satisfaction with colleagues and teamwork (TEAM) includes two statements, like "When I have problems at work colleagues support me". Career growth possibilities (GROW) was initially measured with seven items, for example, "I have clear career path in this organisation" and "I use offered possibilities for professional development".

IV. FINDINGS AND ANALYSIS

Data was analysed using SPSS and Smart-PLS software. First Cronbach's alpha coefficients for all relevant constructs were calculated and K-S test for normality of data performed with SPSS programme. Variance based structural equation modelling (PLS-SEM) technique was used to test the model and to predict the most important factors relevant to employee engagement and loyalty. The particular technique was chosen because it implies the features of multiple regression and does

not assume normality of data distribution, and K-S test performed with SPSS indicated that data are not normally distributed. Besides this technique allows including larger number of indicators [37]. The statistical objective of PLS-SEM is to maximize the explained variance of endogenous latent constructs or dependent variables.

Two types of models were used in this study – first-order and higher-order models. The first-order model included two endogenous constructs - LOY (loyalty and intention to stay), ENG (employee engagement) and six exogenous constructs – TRUST (feeling of fair treatment and trust in management); GROW (career growth opportunities); COMP (compensation, pay and benefits); MAN (management) and TEAM (colleagues and teamwork); JOB (job meaningfulness). All constructs were measured with reflective type questions. Job satisfaction was developed as higher order construct.

To evaluate reflectively measured models the following should be examined: outer loadings (size and significance); composite reliability; average variance extracted (AVE) or convergent validity; discriminant validity [36]. In order to do so model is designed (see Fig. 1) with the help of Smart PLS software and algorithms calculated.

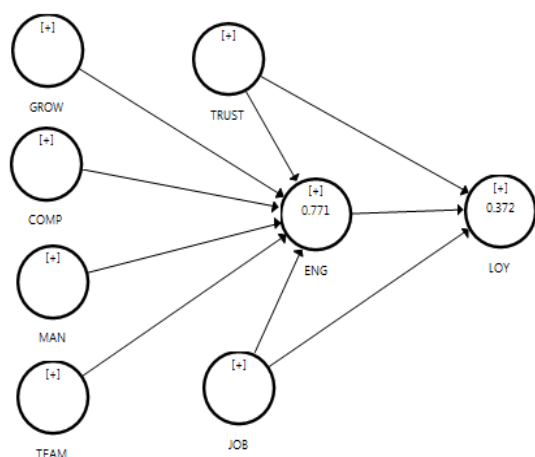


Fig. 1 First-order model

A. Outer Model Results

The outer model shows how correctly each construct is measured or how each set of indicators are related to their latent variable. Some items, after examination of the statements and their wording, were excluded from the model since their loadings were below the minimum threshold value 0,708. These items are trust1; trust3; grow3, 4, 5 and pay1 and man1. Some items measuring engagement also have small loadings, still it was decided to leave them all as they correspond to well-developed measurement model (Gallup) and Cronbach's alpha coefficient for the construct is 0.82. The remaining manifest variables exhibit outer loadings high enough and are good measure of their latent variables. Bootstrapping procedure was used to determine statistical significance. All loadings were statistically significant ($p = 0.000$).

Convergent Validity of the reflective constructs is examined with average communality or AVE (average variance extracted). It should be at least higher than 50%. In the model AVE scores are the following: LOY 0.68; ENG 0.34; TRUST 0.69; JOB 0.75; GROW 0.63; COMP 0.62; MAN 0.80 and TEAM 0.70. All the score, except ENG, are well above 0.5 and thus are acceptable. Engagement is left as it is due to above-mentioned reasons.

Composite Reliability is an estimate of constructs' internal consistency and should be above threshold level 0.7. Composite reliability scores of the model are the following: LOY 0.86; ENG 0.86; TRUST 0.85; JOB 0.86; GROW 0.87; COMP 0.87; MAN 0.94 and TEAM 0.82. Composite reliability scores are well above the minimums thus indicating sufficient reliability.

Discriminant Validity represents the extent to which measures of a given construct differ from measure of other constructs in the same model. Heterotrait-Monotrait (HTMT) ratio of correlations is used to measure discriminant validity [36]. HTMT is a ratio of the within construct correlations to the between construct correlations. All HTMT values should be lower than 0.85 for conceptually distinct constructs, such as work management perceptions and compensation, and lower than 0.9 for similar constructs. The HTMT values ranged from 0.288 to 0.748 and since all values are lower than 0.85 thus the validity is confirmed. Besides Bias Corrected confidence intervals showed that neither the high nor the low confidence intervals includes a value of 1. Thus, the discriminant validity is demonstrated by the HTMT method.

Collinearity statistics revealed that all values are less than 5, thus indicating that collinearity is not a problem for the model.

B. The Inner Model Results of the First-Order Model

The primary evaluation criteria for SEM are R^2 results. R^2 values 0.75, 0.50 and 0.25 for endogenous latent variables indicate substantial, moderate or weak predicting capacity [36]. As seen from Table I, R^2 (LOY) = 0,372 and; ENG R^2 = 0.771, thus the model has substantial predicting capacity for engagement, however weak predicting capacity for loyalty.

TABLE I
 FIRST-ORDER INNER MODEL RESULTS

Construct	First-order model			
	ENG		LOY	
	Path Coefficient	P Value	Path Coefficient	P Value
R^2	0.771		0.372	
ENG			0.554	0.000
TRUST	0.012	0.786		
JOB	0.273	0.000		
GROW	0.314	0.000		
COMP	0.032	0,390		
MAN	0.234	0.000		
TEAM	0.266	0.000		

The individual paths coefficients of the PLS structural model are interpreted as standardised beta coefficients of OLS regressions [36]. Data analysis reveals strong relationship

between engagement and loyalty. As seen from Table I, compensation and trust is not significant predictor of work engagement.

C. Higher order Model (HOC) and Results

PLS enables to investigate models at high level of abstraction instead of simply interrelating the dimensions. In order to distinguish job satisfaction from engagement higher-order model using the hierarchical components approach was designed [38]. A second order factor satisfaction (SAT) is directly measured by observed variables for all the first order factors. The manifest indicators GROW, COMP, MAN and TEAM are repeated to also represent the higher order construct.

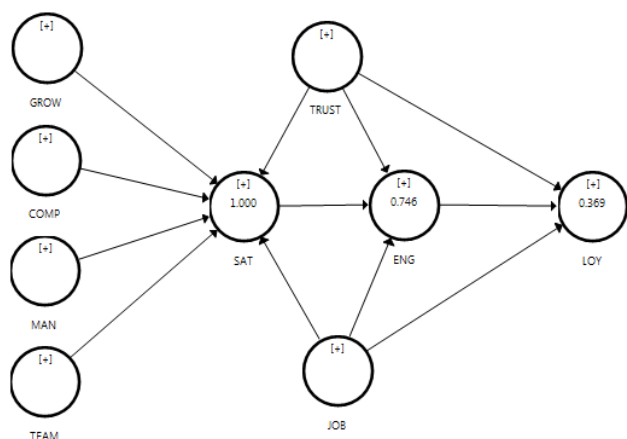


Fig. 2 Higher-order model (HOC)

As seen from the Fig. 2, the higher-order model, $LOY R^2 = 0.37$ and $ENG R^2 = 0.75$, thus the model has substantial predicting capacity for engagement, but better than first-order model predicting capacity for loyalty, however still moderately weak. All the relationships between the latent variables (except three non-significant relationships) are positive. Thus for each of relationships an increase of the value of an independent latent variable is associated with the increase in value of dependent latent variable. The highest statistically significant path coefficients are SAT- ENG (0.69); MAN-SAT (0.45); GROW-SAT (0.37); COM-SAT (0.26); JOB-ENG (0.32) as seen in Table II.

Data from Table II show that job satisfaction (SAT) is significant predictor of engagement (ENG). Compensation (COMP) is significant predictor of satisfaction. Job meaningfulness (JOB) is significantly related to engagement, but not to satisfaction. Trust (TRUST) does not have significant effect neither on satisfaction, nor on engagement, however, as predictor of loyalty to the organisation it is still statistically significant.

Descriptive statistics (e.g. means and standard deviations) were used to analyse the data. Table III reports mean values of all constructs, standard deviations and Cronbach's alpha coefficients. Data reveals that the mean value for engagement is 3.54 and is much higher than the mean value for job satisfaction, which is 3.1.

TABLE II
SECOND-ORDER INNER MODEL RESULTS

Construct	Higher-order model					
	ENG		SAT		LOY	
	Path Coefficient	P Value	Path Coefficient	P Value	Path Coefficient	P Value
R^2	0,746				0,369	
ENG					0,283	0,000
TRUST	-0,051	0,194	-0,002	0,108	0,144	0,006
JOB	0,319	0,000	0,000	0,948	0,302	0,000
GROW			0,369	0,000		
COMP			0,258	0,000		
MAN			0,450	0,000		
TEAM			0,182	0,000		
SAT	0,698	0,000				

TABLE III
MEAN VALUES, STANDARD DEVIATIONS AND CRONBACH'S ALPHA COEFFICIENTS OF THE SCALES

	MEAN	STDEV	Cronbach's alpha
ENG	3,54	0,67	0,75
SAT	3,1	0,77	0,89
GROW	3,29	0,97	0,81
COMP	2,41	0,92	0,81
MAN	3,51	1,11	0,92
TEAM	3,48	0,89	0,6
TRUST	3,1	0,77	0,75
JOB	3,54	0,38	0,7
LOY	3,54	0,87	0,77

V. DISCUSSION

The objective of this paper was to investigate the relationships between job satisfaction, work engagement and loyalty of academics. The data confirm a significant link between job satisfaction and work engagement (path coefficient 0.7; $p=0.000$). However, academics appeared to be more engaged than satisfied – they are moderately engaged (mean $ENG=3.54$), however the level of satisfaction is close to the scale average (mean $SAT=3.1$) indicating that they are neither satisfied nor dissatisfied. This finding is in line with conclusions of ADP Research Institute [2] that an organization can have satisfied employees who are not engaged and vice versa. Satisfaction appeared to be component of engagement with the highest path coefficient (0.69). Similar findings were made by [5], and [1].

The research also aimed to reveal the impact of trust and job meaningfulness on work engagement and loyalty. In case with academic employment, job meaningfulness appeared to be significant predictor of engagement (path coefficient 0.32; $p=0.000$), however, not significant for job satisfaction. Data show that due to the perceived meaningfulness of their jobs academics of the selected university are still moderately engaged in spite of the low job satisfaction. Job meaningfulness is also significant predictor of loyalty (path coefficient 0.302; $p=0.000$). Still Rothmann and Jordaan found that although academics are attached to their job activities they may not show the same level of attachment to their institutions [8]. However, this study shows that attachment to the job in case of Latvian academic staff is the same as attachment to the

institution. The finding about job meaningfulness and predictor of work engagement is in line with similar studies performed by [7], and [30].

Trust and perceived fairness of management and procedures appeared to be related neither to job satisfaction nor to work engagement. However, it is significant predictor of loyalty and willingness to stay with the organisation (path coefficient 0.144; $p=0.006$).

Other interesting finding is related to compensation. It appeared to be not significant predictor of work engagement, however, it exhibited significant relationship with job satisfaction (path coefficient 0.256; $p=0.000$). Although compensation directly does not create engaged workforce, it still is important in order to ensure satisfaction.

Two factors exhibited significant predicting relationship with both satisfaction and engagement. One of the factors that is significant predictor of both is growth possibilities (GROW-SAT path coefficient 0.314; $p=-0.000$; GROW-ENG path coefficient 0.369; $p=-0.000$). This finding is in line with previous researches that combined training and career development in one construct and have found it to be significant predictor of job satisfaction [13] and engagement [8]. Other similar factor is management (MAN-SAT path coefficient 0.45; $p=0.000$; MAN-ENG path coefficient 0.32; $p=0.000$) which contributes to both satisfaction and engagement.

VI. CONCLUSION

Job satisfaction and engagement are meaningful parameters of human resource management and should be analysed in context of other factors as well as industry and type of engagement [39]. During the recent economic crisis, the education sector in Latvia was affected severely. Besides, the declining size of population in the country goes in line with the decrease of the number of students, leading to decreased financing of the Universities. Nevertheless, higher education institutions should always consider their academic staff as capital, which is the driving force for success and positive student experience in the future. In spite the relatively high engagement of academics, which might be ensured due to the nature of their jobs, human resource management policies in academic institutions, should investigate possibilities to increase level of job satisfaction that will lead to higher level of engagement.

Every organisation expects its employees to be engaged and stay working at this organisation for longer period. This study suggests that to increase work engagement of academic staff in higher education institutions growth and development opportunities should be addressed as primary aspect. It is important to ensure variety of learning opportunities and career growth possibilities. Second aspect, which should be addressed, is management support and good relationships with line managers, clear communication and participation in decision-making.

Since job meaningfulness contributes to work engagement and loyalty to organisation, it is worth investing in job

characteristics and job design by raising psychological meaningfulness [38] and thus promoting work engagement.

Academic leaders should ensure fair treatment, transparency of procedures and policies and equal opportunities for all staff members in order to raise the level of trust in the organisation and management. Although this will not directly raise level of satisfaction and engagement, it is prerequisite for academics to stay with the organisation and relate their future career with the respective institution.

This study has some limitations, which indicate a path of future research. The respondents of the survey are academics from single institution thus the limitation should be attributed to the generalisation of findings. Data from other higher education institutions should be gathered and results compared.

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