

PREDICTING BIG-FIVE PERSONALITY TRAITS RELATION WITH EMPLOYEES' ENGAGEMENT IN PUBLIC SECTOR IN EGYPT

Dr. Safaa Shaban

Business Department, Faculty of Business Administration, Economics & Political Science,
The British University in Egypt (BUE), El Shorouk City, Cairo

ABSTRACT: *The objective of this study is to identify the relationship between personality five traits and employee Engagement of the employee in the public sector in Egypt. The study applied standardized questionnaire in developing two scales; one to measure the personality trait was adapted from (Goldberg, 1993) and Rich (2006). Correlation, regression and coefficient analysis conducted to investigate the effect of Big-Five personality on employees' JE and its dimensions. The result of this research study shows that there were positive relationships between Big-Five personality traits and EE dimensions. The traits of personality as Extraversion, Conscientiousness, and Openness to Experience were significantly related. Open to experience significant positively to physical engagement. However, Neuroticism not significant with emotional engagement. Agreeableness and open to experiences are significant with emotional engagement. Extroversion and neuroticism moderately and significantly with cognitive engagement.*

KEYWORDS: personality traits, Employee Engagement. Public sector Egypt, Extraversion, Conscientiousness, and Openness to Experience

INTRODUCTION

It is agreed and approved broadly that Job Engagement (JE) raised from two sources are personal and environment (Macey and Schneider, 2008). There is a need to test and to develop a clear understanding of the utility of the concept of engagements bases within employees' personality themselves. Employees' engagement is reflecting the motivation statutes of the employee (Harter et al., 2002). There are fewer studies have linked between the JE with different characteristics and its links with employees' personal attributes. Nevertheless, most of the theories and imperial studies have underlined one of these dimensions which are mainly investigating engagement as responding to characteristics of the job itself. Furthermore, many studies such as Schaufeli and Bakker (2004), Shirom (2010) and others emphasize the role of personality factors and the personality of employees and its relation to employees' engagement. The engagement of employees is mainly referring to individual behaviours and their personality during performing their work and duties (Kahn, 1990)

LITERATURE/THEORETICAL UNDERPINNING

Theoretical framework:

The variables of this study are as follows, independent variables personality and the dependent variable is employee Job Engagement.

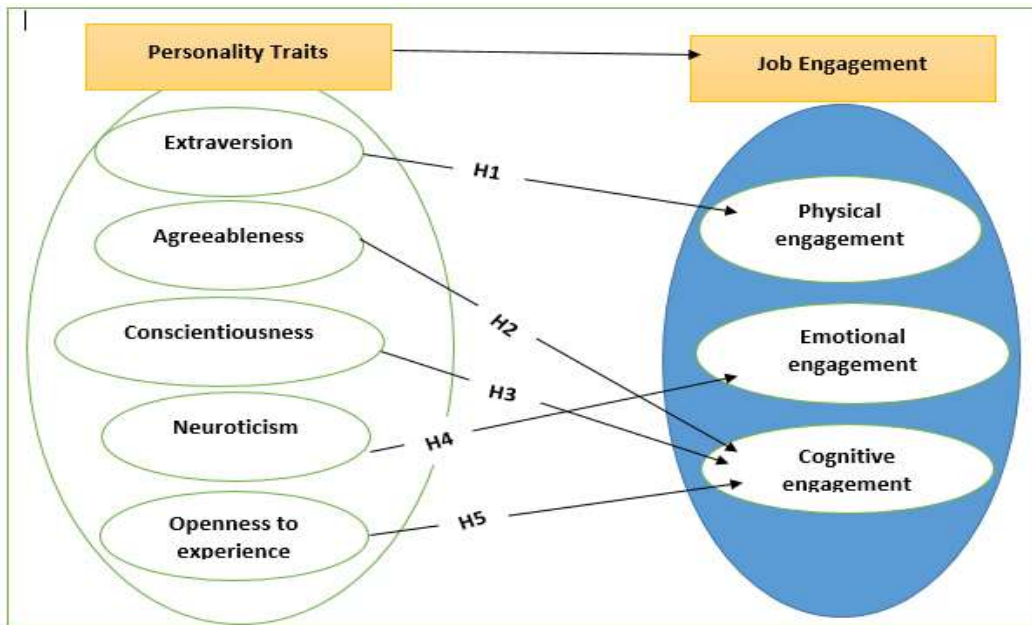


Figure 1: Theoretical framework for the study developed by the author

Personality traits

The module of Big-Five personality traits is built on a model which described the nature of individual differences as the human in five directions (McCrae & John, 1992). These five directions of Personality traits are gathered, summarized, explained and defined in five factors are: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to experience. Every factor contains take the direction of wide-ranging of the variety of traits rather than a single trait direction (Goldberg, 1993; John & Srivastava, 1999).

Big Five Dimensions	Facet (and correlated trait adjective)
Extraversion vs. introversion	Gregariousness (sociable) Assertiveness (forceful) Activity (energetic) Excitement-seeking (adventurous) Positive emotions (enthusiastic) Warmth (outgoing)
Agreeableness vs. antagonism	Trust (forgiving) Straightforwardness (not demanding) Altruism (warm) Compliance (not stubborn) Modesty (not show-off) Tender-mindedness (sympathetic)
Conscientiousness vs. lack of direction	Competence (efficient) Order (organized) Dutifulness (not careless) Achievement striving (thorough) Self-discipline (not lazy) Deliberation (not impulsive)
Neuroticism vs. emotional stability	Anxiety (tense) Angry hostility (irritable) Depression (not contented) Self-consciousness (shy) Impulsiveness (moody) Vulnerability (not self-confident)
Openness vs. closedness to experience	Ideas (curious) Fantasy (imaginative) Aesthetics (artistic) Actions (wide interests) Feelings (excitable) Values (unconventional)

Figure 2: sources: The Big Five Factors are (from John & Srivastava, 1999)

Extraversion: employees get their energy by interacting with other employees or leaders, while introverts get their energy from within themselves, extraversion includes the traits of energetic, talkative, and assertive (John & Srivastava, 1999).

Agreeableness: employees are friendly, cooperative, and compassionate, employees have low agreeableness may be more distant, Traits include altruism, tender-minded, trust, and modesty, being kind, affectionate, and sympathetic (John & Srivastava, 1999).

Conscientiousness: People are having a high degree of reliable and prompt, this trait includes being organized, methodic, and thorough.

Neuroticism: employees are called Emotional Stability, this dimension relates to one's emotional stability and degree of negative emotions, employees that score high on neuroticism often experience emotional instability and negative emotions. Traits include nervousness, moodiness, and temperamentality.

Openness to experience: employees are who like to learn new things and enjoy new experiences usually score high in openness, its include traits such as being insightful, having a wide variety of interests, imagination, curiosity, and creativity (Goldberg, 1993).

Job Engagement

Job Engaged concept refers to employees feel positive about their conditions in their work, but more than the satisfaction level, their motivation is to expend energy on their duties first and then the allocated tasks. Bakker and Leiter (2010, p. 1) gave the definition of JE as "a positive, fulfilling, affective-motivational state of work-related well-being". Another definition raised by Bakker, Bakker, and Leiter (2011) considering engagement as "engagement can be defined in term of high level of energy and high levels of involvement in work: (p.22). Kahn's (1990) as a founder who first introduced of the concept, he defined employee JE as "the harnessing of organisation member' selves to their work roles in which people employ and express themselves physically, cognitively, and emotionally during role performance "(p.694). Another definition raised by Rothbard (20001) which focuses on engagement is related to psychological attendance, and he defines it as "cognitive availability and amount of time one spends thinking about a role", while absorption "means being engrossed in a role and refers to the intensity of one's focus on a role" (p.656). Another definition for employee engagement is the willingness and the ability of the employee to contribute to the company's success, through putting extra effort, time and energy into the work" (Perrin, 2003). Shuck and Wollard (2010) said that employee engagement is the cognitive, emotional and behavioural of the employee's directed him/her toward organisational outcomes and goals.

Kahn (1990) developed a model of engagement including the re-engineering and deployment of the resources of intra-individual to complete and achieve their work roles. His modelling combined different components based on other scholars; the component of needs and motives (Maslow, 1954; Alderfer, 1985), social organisational context (Alderfer 1985), interactions with the working environment (Hackman and Oldham 1980). Kahn (1990) introduced engagement as a concept through three surfaces (physical, cognitive and emotional). Based on Khan's theory of engagement, people engaged in work based on three concepts which are physical, emotional and cognitive while they perform their take and work.

Physical engagement: this surface is summarized the JE as the effort on the job (Rich, 2006). Another author pointed that it is when individual become physical energies to achieve his/her duties (Kular et al., 2008).

Emotional engagement: according to Kahn conceptualization is a positive affective reaction toward the job. How employees feel toward these three factors is it positive or negative attitudes (Kular et al., 2008).

Cognitive engagement: according to Rich (2006) build on Kahn (1990) conceptualization, is the absorption and attention to the job. It is a concern with employees' belief and thought about the organization, management and working environment (Kular et al. 2008).

Relationship between personality and engagement

There are few research studies reported the possibility of the contribution of personality to JE. Halbesleben (2010) applying the meta-analysis approach to identify a minor number of reports related to optimism and self-efficacy (e.g., Xanthopoulou, Bakker, Demerouti, and Schaufeli, 2009), but comprehensive information about traits seems to be absent. For instance, when applied Big Five taxonomy (Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness) in the process to identify which trait factors are related or not to engage. Researchers like Langelaan, Bakker, Van Doornen and Schaufeli (2006) measured this relationship with only two of those traits, which are Neuroticism and Extraversion. However, Kim, Shin, and Swanger (2009) examined the five-factor comparison controlling with some job variables, and he identified that Conscientiousness alone was highly significant rather than other factors. But still there is a need for more additional information and theorizing are required in this relationship.

The first thing is to test the relationship between all five factors' possible associations with workers' engagement; different theories testing the possibility of differences between elements within these personality factors, the engagement studies reported here are unique in distinguishing between components of those kinds within a comprehensive assessment of all five factors of personality (e.g., Tett, Steele, & Beauregard, 2003). Other studies identified the possible associations with the broad factors of overall Extraversion stronger correlated with JE are predicted for the more energized components of Extraversion and Conscientiousness (Langelaan et al. (2006). furthermore, to sub-factor predictions above, engagement is expected to be primarily associated with three of the Big Five Emotional Stability (reverse-scored Neuroticism) and Extraversion, as identified by Langelaan et al. (2006). For instance, some studies have to highlight empirically the conceptually and Similarly of Extraversion have been identified as facts of affiliation and Social Potency (power of influencing other employees) (DeYoung, Quality, & Peterson, 2007). This study will confirm/test other dimensions of personality.

METHODOLOGY

Study Objectives

The main objectives of this study are, first, to examine the relationship between personality traits and employees' job engagement in the public sector in Egypt. Second, to test the

relationship between the big five traits of personality and its relationship with JE, for these hypotheses have been listed below as follows:

Research Hypothesis

H1 the relationship between Extraversion and physical Engagement is positive and significant

H2 the relationship between Agreeableness and job cognitive Engagement is significant and positive

H3 the relationship between Conscientiousness and cognitive Engagement is significant and positive

H4 the relationship between Neuroticism and job emotional Engagement is significant and negative

H5 the relationship between Openness to experience and job cognitive Engagement is significant and positive

Sample

The research conducted in the middle of 2017 by the survey. The sample was randomly chosen from two ministries as the sample of the public sector in Egypt. Self-determination survey was distributed randomly to 800 employees, only 581 were answered in an acceptable way and the rest of responded was not suitably answered the survey.

Measures instruments

A special questionnaire containing 85 questions to measure this study, a special questionnaire was build based on three sections. The first section included demographical data including age, qualification, and gender. The second section personality was adapted from John, O.P. & Srivastava, s. (1999) comprise of 44 questions. The third section the Engagement adapted from Rich (2006) was developed a JE Scale (JES) according to the Kahn's engagement. The questions were close-ended and using a Likert-type scale, responses were from strongly disagree (1) to strongly agree (5) intensity.

Statistical analysis

The descriptive statistic, correlation, regression, and coefficient analysis have been conducted using SPSS (Statistical Package for the Social Sciences) software version 20.0.

Reliability and Validity Analysis:

A check was carried out using the SPSS for assessing the reliability and validity of all the variables.

Table 1: Reliability and Validity Analysis of all variables

According to Ongore (2013) was investigated the validity and reliability of JES

Turkish Form (JES-TR) in another study. For personality, the scale was tested by Tomrukcu (2008). These two studies confirming the reliability and validity of the questioner.

Table 1: Reliability and Validity Analysis of all variables

Scale	JE	personality	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness to experience	Emotional engagement	Cognitive engagement	Physical engagement
Alpha	.913	.763	.783	.774	.801	.573	.663	.943	.952	.910

RESULTS AND FINDING

To analysis this study SPSS 24.0 used. To test the prediction hypothesis, a bivariate correlation analysis was used. These hypotheses were supported. The component of JE was correlated with the Big-five and significantly ($p < .01$).

On the level of physical engagement, the correlation statistic result shows that extraversion, conscientiousness, open to experience were recorded positively significantly correlated with physical engagement as all of these three scored ($p < .01$). While agreeableness and neuroticism recorded a correlation with physical engagement less than ($p < .05$). According to the analysis of the correlation. Regression analysis shows that ($r = .23$, $P = > .01$) after adding the three factors moderate correlation of physical engagement rescored ($r = .46$, $p < .01$) and ($r^2 = .22$, $p < .01$). A coefficient recorded extroversion ($\beta = .14$, $p = .15$). Only open to experience significant positively to physical engagement, which supported Hypothesis 1. This hypothesis has been confirmed by the qualitative approach. An employee confirmed that in this public sector engaged of the employees physically based on learning new experiences will return in benefits to the employee and will allow an employee to have new ideas and creativity in his work make him pioneer in his task. As been supported by Kular et al., (2008) The physical feature of engagement of the job related to how individual actions to accomplish his/her duties and tasks. Another author mentioned that according to Kahn conceptualization physical engagement is how employee put an effort on his/her job (Rich, 2006).

On the level of Emotional Engagement (EE), the correlation statistic result shows that extraversion, agreeableness, conscientiousness and open to experience were related to emotional engagement positively and significantly. While neuroticism was negative and significant with emotional engagement. A regression analysis shows emotional engagement recorded ($r = .56$, $r^2 = .32$, $p < .01$). After adding the three factors moderating correlating engagement recorded ($r^2 = .25$, $p < .01$). Coefficient statistical shows neuroticism ($\beta = .06$, $p = .53$) which not significant with EE. Agreeableness ($\beta = .37$, $p < .01$) and open to experiences ($\beta = .25$, $p < .05$) are significant with EE. This result supported Hypothesis 2. Also, this result has been conferment by employees, as more employee become friendly, cooperative and eager to learn and have creative and new ideas will be more engaged to his work and he will feel more committed and obligated to his work. According to the conceptualization of Khan and according to Rich (2006) employee engagement dimensions with employee about how they feel about their job and leadership, and as result of the un-satisfaction of the employees as result of Egyptian economic

situation and wages, they will have a negative feeling toward their organisations and leadership (Kular et al., 2008).

On the level of cognitive engagement, there was a significant positive relation between cognitive engagement and extraversion, agreeableness, conscientiousness, and openness to experience, while a negatively and significantly correlation between cognitive engagement and neuroticism. Regression analysis of cognitive engagement recorded ($r=.36$, $r^2=.13$, $p<.01$), when adding the three factors, shows that the Big-Five module significantly correlated with cognitive engagement. The coefficient analysis shows that Extroversion and neuroticism moderately and significantly. Open to experiences recorded ($\beta= .36$, $p<.01$). Agreeableness ($\beta=.19$, $P<.05$). Supported Hypothesis 5, Hypothesis 2 and Hypothesis 3.

Table 2: Correlation of the three variables of the research

	Mean	S. D.	Personality	Extraversion	Agreeableness	Neuroticism	Conscientiousness	Openness to experience	EE	PE	CE	JE
Personality	144.7059	10.02832	1									
Extraversion	18.8426	2.77897	.850**	1								
Agreeableness	20.3519	3.28211	.826**	.755**	1							
Conscientiousness	20.3333	4.67121	.747**	.756**	.754**	1						
Neuroticism	11.3524	4.54884	.781**	-.617**	-.672**	-.781**	1					
Openness to experience	30.2404	4.98248	.509**	.623**	.616**	.872**	-.559**	1				
EE	30.65	3.958	.288**	.320**	.487**	-.272**	.285**	.531**	1			
PE	36.11	3.977	-.243**	.537**	.229**	-.094	-.203*	.315**	.400**	1		
CE	37.23	3.422	.322**	.245**	.365**	-.367**	.322**	.518**	.667**	.709**	1	
JE	103.4722	10.01537	.322**	.322**	.432**	-.267**	.355**	.543**	.855**	.867**	.880**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

** $p<.01$, * $p<.05$ N= 281

As JE has been described by Khan (1990) as a component has three sub-dimensions. Afterward, Rich et al. (2006) explained that JE is in level higher level, that level included these three sub-dimensions. Consequently, we will consider the last explanation in this study analysis. When analyzing the correlation of JE and the big five factors, in this study a conclusion is there is a correlation between the JE and big Five as (table 1) shows. The highest recorded is of correlation with Openness to experience, and the lowest correlation was neuroticism as (Table 1) shows.

Regression analysis and standardized coefficient

Multiple regression analysis shows that the relationship between big Five factors and JE is moderately and significantly, the result shows ($r=.62$, $p<.02$). Also, the statistical analysis record shows that the total factors of JE are a moderate and significant relation ($r=.63$, $p<.01$) with the big five factors. The table (table 3) below shows the priority in order for the big five on JE.

Table 3: Multiple regression analysis

Predictor	physical engagement		emotional engagement		cognitive engagement	
	R	P	R	P	R	P
Openness to experience	.40	.01	.43	.01	.52	<.01
Agreeableness	.23	.05	.49	.01	.38	<.01
Conscientiousness	.31	.01	.28	.01	.32	<.01
Neuroticism	.31	.05	-.27	.01	-.25	<.01
Extraversion	.24	.01	.32	.01	.25	<.01

DISCUSSION

The main problem is facing the public sector in Egypt, there is no engagement of young generation in the process of digestion making related to their jobs. Also, there is a big number of workforce hold high qualification such as (Master and PhD) are not used well in the public sector. Although the public sector is facing a big problem is there is no taskforce prepared well to take the lead of the public sector in the future, and there will be a lack of experiment in the next 5 and 10 years. Therefore, the public running a big programme for public sector reform and preparing the second generation of leaders for this sector. This study investigated that the personality of an employee targeted to be future leaders is fit with the engagement required or no.

Results of this study suggest that the five-factor model is useful for examining the dispositional source of employees JE. All hypotheses were proved according to the correlation analyses which mean that it is logical to think there is a significant relationship between personality traits and JE. As for being justified by the qualitative part of this study, employees confirmed that their engagement based on their personality trait, also they mentioned as we have in their public-sector employee (X) and employee (Y). (X) stand for the good employee which he/she can put and physical engagement, they mentioned that "he/ she is ready for any movement" without any motivation source. While (Y) he needs for a motivation sources such as reward and promotion, especially in the public sector facing un-satisfaction of their wage conditions.

Meanwhile, two personality traits were found as significant predictors of JE and its dimensions. Openness to Experience was found as a significant of JE and its sub-dimensions (PE, EE, and CE). Openness to experience has become a prior personality trait because of the rapidly changing nature of current working life. Employees who adapt themselves to the changes can be more engaged in their job. Agreeableness was found as a significant predictor of JE and its two sub-dimensions (EE, and CE). Agreeableness is needed to work in peace and resolve the conflicts. Rich (2006) surveyed study supported that the confirmation of significant and moderate correlation between agreeableness and engagement. Agreeable employees can be more positive and motivated to resolve the problems and conflicts. Therefore, agreeable employees can be more engaged in their job because they can save their energy and flow it to their work roles.

Implication to Research and Practice

These study results have many crucial practical implications: first, contribute to the literature by highlighting the role of five big personality traits in job engagement in government sector in Egypt. The result could have many theoretical implications, the impact of the personality trait impact on engagement helps in clarifying in respect of the scope and examination of two variables especially in Egypt and in the government sector that have the huge workforce number of employees.

Second, it helps managers to allocated employees according to their personality traits and helps to motivate employees to achieve different tasks in teams or individuals, Authors such as Inceolgu, Warr (2012) points that to identify different characteristics between employees helps in the effective motivational state. Also, as found by Langelaan et al. (2006) that three of the personality traits associated with engagement. Hence the examination of these personality traits enhances our understanding of the nature of employees' motivation and improve performance in the government sectors and consequently improve their motivation and engagement. According to Hogan and Roberts (1996) in the review of the literature of personality and performance, they mentioned that to have a well predict of employee performance and productivity result of well constructional measurement of personality.

Third, considering the personality test in the recruitment process for the new staff and second generation of leaders will help the government sector, which sort of employees they have and how they engage in the specific task, and also it will help them to be aware of the motivational approach they use for this workforce.

CONCLUSION

this study aimed at enriching the top management leaders of the relationship between employee personality and engagement in their jobs and tasks allocated to them with in the government sector in Egypt during reform and change. The results explored that result shows that extraversion, agreeableness, conscientiousness and open to experience were related to emotional engagement positively and significantly. While neuroticism was negative and significant with emotional engagement.

The hypothesises have been tested above in statistical result and in the discussion.

Future Research

Following the limitations of this study. First, the focused of this study is limited to the employees in the 2 ministries are (MOCA and MOMP) in Egypt. Second, the sample (581 respondents) type of the is study may be limited to generalize the result to other ministries in Egypt because of the different leadership styles. Therefore, the future research study is needed to address the impact of personality on employee engagement of the employees in the public sector.

More researchers need to be done with other samples for further studies to compare the results. Employees in the public-sector eager to learn new experience for many reasons are. first new experiences make them well known from the top management especially if these skills required by the top management to be able to participate in the decision making. Second, the

employee in the public-sector eager to learn new experience because it can open another opportunity outside the public sector and more wage generate.

REFERENCES

- Alderfer, C.P. 1985. An intergroup perspective on group dynamics. In Handbook of organizational behaviour ed. J. Porsche, 190–222. Englewood Cliffs, NJ: Prentice-Hall
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology*, 20, 4-28.
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93, 880-896.
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48(1), 26.
- Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker and M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and practice* (pp. 102-117). London and New York: Psychology Press.
- Harter, J.K., Schmidt, F.L. and Hayes, T.L. (2002), “Business unit level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis”, *Journal of Applied Psychology*, Vol. 87 No. 2, pp. 268-279.
- Hogan R, Hogan J, Roberts BW (1996) Personality measurement and Employment Decisions. *American Psychologist* 51: 469-477.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research*. (pp. 102–138). New York: Guilford Press.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Kim, H. J., Shin, K. H., & Swanger, N. (2009). Burnout and engagement: A comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, 28, 96-104.
- Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). Employee engagement: a literature review. Kingston Business School, Kingston University.
- Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). Employee engagement: a literature review. Kingston Business School, Kingston University.
- Langelaan, S., Bakker, A. B., van Doornen, L. J. P., & Schaufeli, W. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-532.
- Langelaan, S., Bakker, A. B., van Doornen, L. J. P., & Schaufeli, W. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40, 521-532.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1, 3-30.
- Maslow, A. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60(2), 175-215.
- Ongore, O. (2013). Engagement scale Turkish form's validity and reliability study. Kastamonu University, *Journal of Economics and Administrative Sciences Faculty*, 2(1), 50-60.

- Perrin, T. (2003). Working Today: understanding what Drives Employee Engagement. US: The US reports.
- Rich, B. L. (2006). Engagement: Construct validation and relationships with job satisfaction, job involvement, and intrinsic motivation (Unpublished doctoral dissertation). University of Florida
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects of job performance. *Academy of Management Journal*, 53(3), 617-635.
- Rothbard, N.P. (2001), Enriching or Depleting: The Dynamics of Engagement in Work and Family Roles, *Administrative Science Quarterly*, Vol. 46(4), pp. 655-684.
- Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V., and Bakker, A.B., (2002), The Measurement of Engagement and Burnout: A Two sample confirmatory factor analytic approach, *Journal of Happiness Studies*, Vol. 3, pp.71-92.
- Shirom, A. (2010) Feeling energetic at work: On vigour's antecedents. In A. B. Bakker and M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and practice* (pp. 69-84). London and New York: Psychology Press.
- Shuck, B., and K. Wollard. 2010. Employee engagement and HRD: A seminal review of the foundations. *Human Resource Development Review* 9, no. 1: 89–110.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior*, 24, 335-356.
- Tomrukcu, B. (2008). Study of the relationship between five-factor personality traits and work values (Unpublished master dissertation). Eskişehir Osmangazi University
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior*, 74, 235-244. doi: 10.1016/j.jvb.2008.11.003.