Dispositional Factors as Determinant of Employee Engagement in IT Sector: A Study in NCR Delhi

Ridhi Arora, Research Scholar
Dr. Bhavana Adhikari, Deputy Dean Academics
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1. Dr. Bhavana Adhikari
2. Ridhi Arora

1. Dr. Bhavana Adhikari, Assistant Professor, School of Business Administration, Department of Management, Lovely Professional University, India, email address bhav_adhikari70@yahoo.co.in
2. Ridhi Arora, Assistant Professor, School of Business Administration, Department of Management, Lovely Professional University, India, email address ridhi.arora23@gmail.com,
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Abstract
In the prevailing competitive environment, engaged employees are viewed as a strategic asset by both academicians and practicing managers alike. Recent research has shown that dispositional factors have a strong impetus on the engagement level of employees; organizations are now putting their thrust to appropriately map the type of personality of employees during hiring and selection process to determine the best role fit and attitude of employees. The purpose of the present study is to explore how dispositional factors act as determinant of employee engagement with special reference to IT Sector where talent retention and engagement has always been the topmost challenge. For the purpose of measurement of dispositional factors, second order factors namely extraversion, anxiety, tough-poise, independence, superego/control were taken as five independent variables while engagement was taken as single dependent variable. The dispositional factors were measured by the 16PF Questionnaire and employee engagement was measured by the Utretch Work Engagement Scale. The present study sought to answer what is the best combination of the dispositional factors which can best determine and predict employee engagement among the employees. The interpretations and findings have been obtained through administration of standardized questionnaires among the IT Sector employees. The study thus, primarily focus on bringing together some of the varied researches with the objective of providing useful insights with respect to understanding of the dispositional factors and employee engagement.

Key Words: Commitment, Employee engagement, Extraversion, Personality, Retention.
Introduction
Employee engagement has become matter of prime importance. Employee Engagement has emerged as highly useful concept in recent years particularly among the practitioners (Saks, 2006; Baker&Schaufeli, 2008). Research and Consultancy firms are also focusing their efforts to improve the engagement levels. Corporate results have demonstrated strong linkage between engagement, worker performance and business outcomes (ISR, 2005). Engagement and retention of employees has become the major challenge especially in IT Sector and Software industry where employee attrition rate remains high due to occurrence of rapid switch over of jobs among professionals and due to lack of well-tuned hiring process to determine the best role-fit for a desired job-profile in well alignment with the personality of employee with the environment, culture and job description. For this, the globalization of the marketplace mandates that managers of companies operating around the world should understand values, attitudes and behaviors of their employees, managers, customers and competitors (Mujitaba, 2008). For this, it has become very much vital for the organizations to determine and map the personality dispositions of their employees. Recent research has provided strong evidence that value congruence, perceived organizational support and core self-evaluation (CSE) which form very important factor of personality act as very strong engagement enhancers (Simmons, 2010). This provides an impetus to the fact that dispositional factors impact engagement level of employees in the organizations.

Concept of engagement is multidimensional in nature which involves two way interaction between employee and the organization. Engagement can be defined as harnessing of organization members selves to their work roles and such harnessing is changeable (Kahn, 1990) and is a key business driver for organizational success and is a key link to customer satisfaction, company reputation and all other stakeholder values (Lockwood, 2007). While on the other hand, Personality can be defined as composite of thoughts, behaviors, feelings that actually makes one person unique from another and is relatively unstable as people’s personality cannot be changed (Simmons, 2010). Past studies have found personality as the suggested cause of engagement. Organizations need to suitably map the personality of the person in alignment with the environment of the organization. Focus should be to determine the best role fit to establish best talent retention and employee engagement practices.

Literature Review
Theoretical Conceptualizations on Engagement
Kahn (1990) referred to engagement as a situation where people express themselves physically, cognitively and emotionally during work role performance. Engagement contains aspects of effort, involvement, flow, mindfulness and intrinsic motivation. Kahn concluded that individuals who experienced engagement at work were those who were more likely to feel a sense of psychological safety in their jobs. Kahn (1992) also introduced a similar construct which he termed as Psychological Presence that implies one who is connected to work, open to oneself as well as others, feeling complete rather than fragmented. In this context, he further emphasized that those jobs that limit the extent to which individuals use different skills and make important contribution may actually cause limitation in the Psychological Presence of individuals. Therefore, he referred Engaged people as those people who put more effort into their work as they are
identified with it. Britt (1999) defined engagement as a construct that includes components of responsibility and commitment. He stated that individuals are more likely to be when their job guidelines are clear and they feel that they have personal control over their job performance as well as when their training is relevant to their work. While Rothbath (2001) defined engagement as attention devoted to and absorption with work. Attention can be defined as cognitive availability which is the amount of time that an individual spent thinking about a work or family role. Absorption can be understood in terms of intensity of focus or being pre-occupied or engrossed in a task. Rothbath differentiated between engagement with work related matters from engagement with family related matters. Schmidt (2004) defined engagement as bringing satisfaction and commitment together. Engagement, is about passion and commitment—the willingness to invest oneself and expend one’s discretionary effort to help the employer succeed (Erickson, 2005). While satisfaction addresses more of an emotional or attitudinal element; commitment brings in motivational and physical elements. Ellis & Sorenson, (2007) endorsed a two dimensional definition of engagement which defined an engaged employee as a person who knows what to do at work and wants to do the work and stated that these two elements are necessary for driving productivity. Later on, Macey and Schneider’s (2008) study described employee engagement as having three facets namely trait engagement (positive views of life and work), state engagement (feelings of energy, absorption, commitment and satisfaction) and behavioral engagement (extra-role). Trait engagement describes personal characteristics or temperament (like positive effect) that might lead someone to be more inclined to experience engagement. Behavioral engagement describes the outcome of engagement. Steele and Fullagar (2009) described engagement as very similar to the psychological construct of flow that consist four core components which include optimal balance between challenges and skills, goal clarity, unambiguous feedback and self-determination. They considered flow of engagement as transitory rather than a long –lasting state. Hence, it was hypothesized that it should be malleable or easy to change.

Most acceptable Conceptualization of Engagement

Though past studies and researches have shown various conceptualizations to understand the meaning of engagement in conceptual terms, however, among all, the most useful and frequently used conceptualization in the academic literatures with widely demonstrated antecedents and known associated outcomes is the Schaufeli’s Conceptualization which takes into consideration three components as vigor, dedication and absorption. This construct of Engagement utilizes factor-analytical approach. According to this Engagement can be defined as a positive, fulfilling work-related state of mind which is characterized by vigor, dedication and absorption (Schaufeli, Salanova et al., 2002). Dimension of vigor can be defined as high energy and mental resilience while working. Dimension of dedication is characterized by strong psychological involvement, combined with enthusiasm, pride and a sense of challenge. Dimension of absorption can be defined as concentration and immersion in work. Therefore in today’s world of globalization where there exists cut throat competition, in order to gain competitive edge, for many companies, engagement is undoubtedly one of the single most powerful levers available to improve the productivity (Erickson, 2005). Robinson et al (2004) stressed the importance of ‘feeling valued and involved’ as a key driver of engagement.
The Sixteen Personality Factor Questionnaire
From the 1980s, topics about personality and workplace performance have gathered an increasing amount of attention in industrial and organizational psychology (Tett et al., 2003). Personality inventories have been utilized for various purposes in areas that include family counseling (Cattell & Nesselroade, 1968), stress management (Darling et al., 2004) and medical research (Cattell, 1989). At an individual level, personality inventories have been used for career assessment (Ward et al., 1976) and leadership development (Mottram, 1988). While at the organizational level, personality inventories have been used to explore counterproductive work behavior and organizational citizenship behavior (Spector & Fox, 2002), team work (Peeters et al., 2006), and job performance (Tett et al., 2003). Among various personality inventories, the Sixteen Personality Factors inventory (16PF) is one of the most widely used in the world today. The Institute for Personality and Ability Testing (IPAT) has developed an enormous database for the 16PF over the past thirty years. After more than a decade of research; it was first published by Dr. Raymond B. Cattell in 1949 (Conn & Rieke, 1994). Cattell yielded 16 primary personality factors: Warm (factor A), Conceptual Thinking (factor B), Emotionally Stable (factor C), Assertive (factor E), Lively (factor F), Rule-Conscious (factor G), Socially Bold (factor H), Sensitive (factor I), Suspicious (factor L), Practical (factor M), Private (factor N), Apprehensive (factor O), Open to Change (factor Q1), Self-reliant (factor Q2), Perfectionistic (factor Q3) and Tense/Driven (factor Q4) (Russell & Karol, 1994). To facilitate the scoring of 16PF, the sixteen primary factors have been condensed into five bipolar second order factors. Hence, through factor analysis, Cattell derived five additional factors, which became known as the original “big five.” The commonly used names of the factors are Introversion Vs. Extraversion, Low Anxiety Versus High Anxiety, Receptive Versus Tough-minded, Accomodating versus Independence and Unrestrained Versus Self-controlled (Russel & Karol, 1994).

Personality Dispositional Factors Contribution towards Engagement
Langelaan et al. (2004) conducted study on employees from various organizational backgrounds and this study supported significant negative relationship between need for stability and engagement and significant positive relationship between extraversion and engagement. Rich (2006) surveyed fire-fighters and results from the study demonstrated a significant and moderate correlation between consolidation and engagement. Further researches also provided with the finding regarding the role of extraversion in the engagement. Howard and Howard (2001) depicted from his study that firstly extraverts are more likely to be energized by people interactions and to enjoy being “in the thick of action” and secondly, extraverts are more likely to effectively motivate others, work as members of a team and act diplomatically. It was also revealed through this study that extraverts are often more energetic, enthusiastic and action oriented than average.

Objective of the study
Objective of the study is as follows:
To examine the best combination of dispositional factors which act as predictor of employee engagement.

Methodology
Sample
As part of the study for the purpose of measurement of employee engagement and personality dispositional factors, questionnaires were administered among the IT Sector Companies located in Delhi NCR. The sample size consisted of 60 employees from the IT Sector. Primary data was obtained using the questionnaire method while the secondary data was collected through published sources such as websites, magazines and journals.

Measures
In accordance with the objective of the study, two standardized questionnaires were utilized namely:

i) Utrecht Work Engagement Scale
The Utrecht Work Engagement Scale (UWES-17) contains a total of 17 items based on Schaufeli and Bakker (2003). All 17 items use the same frequency scale from 0-6; 0 being “never” to 6 being “always”. Each item referred specifically to measuring one of the three constructs; vigor, dedication and absorption.

ii) Sixteen Personality Factor Questionnaire
For the purpose of measurement of dispositional factors, The Sixteen Personality Factor Questionnaire Form A was administered among the respondents. The Questionnaire consist of 187 items for measuring and evaluating the sixteen primary factors namely Factor A, Factor B, Factor C, Factor E, Factor F, Factor G, Factor H, Factor I, Factor L, Factor M, Factor N, Factor O, Factor Q1, Factor Q2, Factor Q3 and Factor Q4. At the time of administration of 16 PF Questionnaire, full detailed instructions were provided to the respondents along with the test booklet and answer sheets. Later on for the purpose of documenting all the responses, all the answer-sheets were hand scored with a set of scoring stencils as per 16 PF Norms. In this manner all the responses were first of all converted to raw-scores which were then converted to sten scores. These scores were then fitted into the equations to obtain five second order factors namely extraversion, anxiety, tough poise, independence and superego/ control.

Statistical Analysis
Multiple regression analysis was done to reveal an overall predictive model of engagement including second order personality dispositional factors. For running Multiple Regression on the data, Engagement was the dependent variable and the five second order factors of personality as mentioned above were taken as the independent variables.

Results and Discussion
The Regression Analysis and the Analysis of Variance (ANOVA) are as shown in Table 1 and Table 2 respectively. As shown in the tables there is a variation between the variables under the study of the Models 1, 2 and 3. So, there must be some relation between the variables under the study that we have tried to explain with the help of the regression equation. The Co-efficients are given in the Table 3. Using Step-wise regression Analysis, three models were obtained which are best fitted from Table 4. Three resulting models are as represented below:

Model 1
This Model explains about 22% co-efficient of determination \(R^2\) between superego-control and employee engagement scores.

\[
\text{Employee Engagement} = 2.389 + 0.320(\text{superego and control})
\]
Model 2
This model explains about 35% co-efficient of determination between superego-control, Independence and employee engagement scores.

\[
\text{Employee Engagement} = 4.890 + 0.285 \times (\text{superego and control}) - 0.358 \times (\text{Independence})
\]

Model 3
This model explains about 41% co-efficient of determination between superego-control, Independence, Tough poise and employee engagement scores.

\[
\text{Employee Engagement} = 6.356 + 0.220 \times (\text{superego and control}) - 0.316 \times (\text{Independence}) - 0.237 \times (\text{Tough poise})
\]

Out of the three models represented above, Model 3 shows the best combination of personality dispositional factors which act as determinant of employee engagement amongst IT Sector with an accuracy of 41%. From the regression equation of Model 3, it can be interpreted that:

Firstly, for each unit increase in superego and control, engagement increases by 0.220. This implies that employees with higher superego strength and control have greater engagement levels because their personality disposition is such that they tend to conform to the expectations that others have of them as well as to the expectations that they have of them. Such employees are quite reliable for organizations as they have internalized the rules in which they function and are self-disciplined and do not take such actions which distort the rules of the culture and environment in which they work.

Secondly, for each unit increase in independence, engagement decreases by 0.316, this implies that employees who are high on independence factor have lower engagement as such employees tend to be aggressive and daring. Though, they exhibit greater initiative but they do not like working in a group and getting support from others. Such employees tend to have lower engagement as they always look for situations where their behavior is accepted and tolerated and also where they are possible rewarded.

Thirdly, for each unit increase in tough poise, engagement decreases by 0.237. This implies that employees with higher degree of tough poise have lower engagement levels than those employees who are emotionally sensitive. As employees who are high on tough poise, being bold and decisive, rely more on facts and do not get influenced by feelings of others. As a result, while talking quick decisions, they do not give much thought or analyze the situation and problem present before them, which may affect their work and hence engagement at work.

This study indicates that out of the five second order factors, superego-control, independence and tough-poise act as predictor of employee engagement. The other factors which are not statistically significant include extraversion and anxiety. This is in contradiction to the findings of the previous studies where extraversion has been found to be an important personality dispositional factor with greater contribution towards engagement. Wildermuth (2008) study revealed an overall predictive model of engagement including two personality traits namely extraversion and consolidation, these two traits together in combination affected 10% of the variability in engagement.
Implications
The study results show that personality dispositional factors significantly determine engagement among the employees. It is important for organizations to have a sound understanding of the how various personality dispositions may impact the level of engagement among the employees. This may help organizations to choose the right candidate at the time of hiring using personality testing. Simultaneously, through identification of various dispositions among the employees, organizations can also provide suitable training to employees for sharpening all those areas where more information and awareness is needed. Since personality is relatively unstable, there is significant requirement of investigation to be done in this field. This is also essential to bring more understanding and refinement to contribute and add value in the field of Industrial Psychology.

Conclusion
The results of the study provide useful insights in context to how personality dispositional factors determine the level of engagement among the IT Sector employees. The present study directly contributes to both the engagement and personality disposition literature both theoretically as well as empirically. The basic foundation of this research can be traced to the previous researches which have tried to explore the relationship between personality and employee engagement. Employee engagement has always been seen as the topmost HR challenge before the organizations. The study has sought to contribute in creating understanding and further implications of research in this area as there has been very few researches and investigation done in the past.
The study explores answer to the researchable question using two standardized questionnaires namely the Sixteen Personality Factor Questionnaire for measurement of personality dispositions and The Utretch Work Engagement Scale for the measurement of Engagement. For analysis, the study has taken into account five second order factors of personality as the independent variables and employee engagement score as the dependent variable. Running Stepwise regression methodology yielded with the result that out of five second order personality dispositions only superego and control, tough poise and independence are three personality dispositional factors which best determines employee engagement amongst IT Sector. The outcome from the study suggests that employee engagement is dependent on personality dispositional factors. The study can, thus be seen as important and relevant as it contributes and extends a growing research. At the same time, it also focuses on the creation of model by the IT Sector to map the personality of their employees which can be utilized during hiring of candidates or for developing the overall personality of their employees according to business requirements.

References


Table 1
Step-wise Regression Analysis

Model Summary

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<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
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a. Predictors: (Constant), Superegoandcontrol(X1)
b. Predictors: (Constant), Superegoandcontrol(X1), Independence(X2)
c. Predictors: (Constant), Superegoandcontrol(X1), Independence(X2), Toughpoise(X3)
d. Dependent Variable: Employeeengagementscores(Y)

Table 2
ANOVA

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<th>Model</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
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<td>Total</td>
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a. Predictors: (Constant), Superegoandcontrol (X1)
b. Predictors: (Constant), Superegoandcontrol(X1), Independence(X2)
c. Predictors: (Constant), Superegoandcontrol(X1), Independence(X2), Toughpoise(X3)
d. Dependent Variable: Employeeengagementscores(Y)

### Table 3

<table>
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<tr>
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a. Dependent Variable: Employeeengagementscores(Y)