Effects of Needs-Supplies Fit and Demands-Abilities Fit on Employee Engagement: A Case of Malaysian Public University

Dr. Ameer A. Basit[1] and Dr. Rasidah Arshad[2]

Abstract

The influence of person-job fit on one's engagement with job has received less attention in employee engagement research. There is clear evidence that employees form and use fit perceptions as they pass through their organizational life, and these fit perceptions determine their choices while performing their jobs. The purpose of this study was to examine the effects of employees' perceptions of needs-supplies fit and demands-abilities fit on employee engagement. A self-administered survey was used to collect data from 161 academic and non-academic employees of a large public university located near Kuala Lumpur, Malaysia. Results of regression analysis showed that needs-supplies fit and demands-abilities fit had significant positive effect on employee engagement. Implications for theory and practice are discussed.

Key Words: Employee Engagement, Needs-Supplies Fit, Demands-Abilities Fit, Person-Job Fit, Malaysia

1. Introduction

Employee engagement refers to the degree of one's cognitive, emotional, and physical connection with work (Kahn 1990). Employees are regarded as engaged at work when they are cognitively vigilant, emotionally connected, and physically involved in performing their jobs. Employee engagement has recently become an important area of inquiry in organizational behavior research (e.g., Bakker et al., 2014; Christian et al., 2011) and human resource practice (e.g., Linley et al., 2010). Meta-analytic studies have shown that employee engagement is positively related to attitudes, behaviors, and well-being of employees (e.g., Christian et al., 2011; Halbesleben, 2010). Considering the benefits of employee engagement for employees and organizations, researchers and human resource practitioners believe that employee engagement not only drives bottom-line results, it is also a key to competitive advantage in the current business environment (Harter et al., 2002; Macey and Schneider, 2008; Rich et al., 2010). These promising outcomes of employee engagement have placed it at the forefronts of management research and practice. For some, employee engagement research is a breakthrough in the individual-organization relationship at work (Schohat & Vigoda-Gadot, 2010).

What makes an employee to demonstrate cognitive, emotional, and physical engagement with work? The extant research in employee engagement have addressed this question by identifying several dispositional and organizational factors that antecede and facilitate employee engagement, such as job design, leadership, and employee dispositions (Christian et al., 2011). The person-job fit domain, however, needs to be understood in the employee engagement research (e.g., Christian et al., 2011; Halbesleben, 2010). Because employees enter the job market with some expectations to be met by their organizations, their perceptions of person-job fit begin to take shape soon after they join their organizations. These fit perceptions continue to evolve over a course of time as a result of positive or negative interactions that employees have with their work environment. There is clear evidence that the fit between one's job and the work environment is not only a source of motivation and job satisfaction, but is vitally important to fully understand and modify one's attitudes and behavior at the workplace (Furnham, 2005; Latham, 2007). .

The limited available research on the fit-engagement relationship has found support for the effects of different forms of person-environment fit variables on employee engagement, such as work-role fit (e.g., May et al., 2004; Olivier and Rothmann, 2007), value congruence (e.g., Rich et al., 2010), and person-job fit (e.g., Saks and Gruman, 2011; Shuck et al., 2011). The effects of two aspects of person-job fit, such as needs-supplies fit and demands-abilities fit, however, have not been assessed separately in the employee engagement research. *Needs-supplies fit* refers to congruence between needs of employee and rewards offered by the job, while *demands-abilities fit* refers to congruence between skills and abilities of employee and demands of the job (Cable and DeRue, 2002; Edwards, 1991). One commonality which places needs-supplies fit, demands-abilities fit, and employee

[1] Department of Management, School of Business and Economics, University of Management and Technology Lahore, Pakistan. ameer.basit@umt.edu.pk
[2] Associate Professor, UKM-Graduate School of Business, Universiti Kebangsaan Malaysia Bangi, Malaysia. ameer.basit@umt.edu.pk

engagement in a close proximity is that all these are job-focused constructs. Thus, it is likely that needs supplies fit and demands-abilities fit may be important cognitive precursors to employee engagement (Christian et al., 2011). Therefore, an empirical examination of these relationships is warranted to understand their effect on employee engagement.

Thus, the purpose of this study is to examine the effects of needs-supplies fit and demands-abilities fit on employee engagement. This study is warranted for two important reasons. First, employees form and use fit perceptions as they pass through their organizational life, and these perceptions in turn predict their choices in their work activities (Cable and DeRue, 2002). We contend that employees also make these choices before demonstrating engagement with work because engagement involves decisions to allocate cognitive, emotional, and physical resources in the performance of work. Second, researchers and practitioners consider employee engagement as a primary source of competitive advantage, therefore investigation of more antecedents, including person-job fit, is necessary to understand different ways to predict and promote employee engagement at the workplace (e.g., Christian et al., 2011; Macey et al., 2009).

2. Literature Review

2.1. Employee Engagement

Employee engagement refers to the extent to which employees choose to invest their cognitive, emotional, and physical energies in work in a full and simultaneous manner (Kahn 1990). Kahn (1990) noted that employment and expression of one's cognitive, emotional, and physical selves in work occur at varying degrees depending upon some internal calculus that the employees consciously and unconsciously make before their engagement with work. Kahn (1990) further clarified that employees unconsciously seek satisfaction for three psychological needs before deciding their level of engagement with work. They want to know (1) How meaningful is to do this work? (b) Is it safe to do this work? and (3) How available they are to do this work?

Thus, meaningfulness, safety, and availability are three fundamental psychological conditions that drive the variations in employee engagement and must be met to the satisfaction of employees before they choose to fully engage with work. *Psychological meaningfulness* is "a feeling that one is receiving a return on investment of one's self in a currency of physical, cognitive, or emotional energy" (Kahn, 1990:704). Engagement of self is meaningful only when people feel worthwhile, useful, and valuable while performing their roles. They should feel they are contributing something to the work and also receiving from it. *Psychological safety* is "feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career" (Kahn, 1990:708). The expression of real self makes employees vulnerable to the negative consequences from managers, co-workers, and organizations. Employees feel safe when they trust they will not suffer for their engagement. Finally, *Psychological availability* is "the sense of having the physical, emotional, or psychological resources to personally engage at a particular moment" (Kahn, 1990:714). Employees tend to withdraw their engagement with work when they lack these resources needed to perform their work.

2.2. Needs-Supplies Fit and Employee Engagement

Under the rubric of person-job fit, needs-supplies fit is relatively a new construct introduced by Cable and DeRue (2002) to acknowledge the importance of rewards from job as part of the basic motivation for people to enter the labor market. Drawing on Kahn's (1990) self-in-role view of employee engagement, we argue that needs-supplies fit leads to employee engagement by satisfying the psychological needs of meaningfulness and safety. Needs are the starting point of motivation because employees expect that their jobs satisfy their needs (Alderfer, 1972; Locke, 2000). When employees perceive needs-supplies fit at the workplace, they are likely to experience meaningfulness in doing and continuing with their job, because needs-supplies fit perceptions signals to them that their jobs are providing a return on investment of their energies in the jobs and they are considered worthwhile, useful, and valuable (Kahn, 1990). We thus expect that needs-supplies fit may enhance employee engagement by satisfying one's need to have meaningfulness in work life. Moreover, individuals possess motivation to express their real selves in their everyday lives and seek to work in roles that better fit their self-concept, therefore we expect that such experiences may also contribute to the satisfaction of their psychological meaningfulness in work (Goffman, 1961; Kahn, 1990; May et al., 2004; Shamir, 1991).

Further to the role of psychological meaningfulness in explaining the relationship between needs-supplies fit and employee engagement, satisfaction of the psychological safety need of employees may also explain this relationship. It can be argued that needs-supplies fit may also signal to the employees that their work environment is conducive for the expression of their cognitive, emotional, and physical

selves in the performance of work without any threat to their self-concept, dignity, status, or career as a consequence (Kahn, 1990). Thus, we propose the following hypothesis:

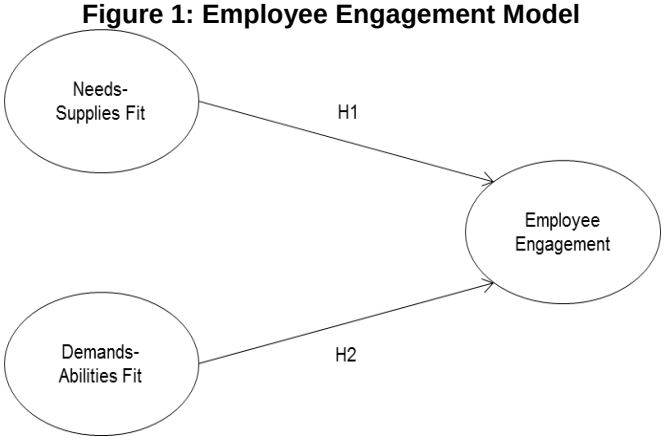
Hypothesis 1: Needs-supplies fit will be positively related to employee engagement.

2.3. Demands-Abilities Fit and Employee Engagement

Abilities consist of skills, knowledge, and energies that employees possess to meet demands of their jobs, whereas skills and knowledge increase and energies decrease with the use of abilities (Edwards, 1996). In his landmark qualitative study, Kahn (1990) noted that physical and emotional energies, insecurity, and outside life made employees psychologically unavailable to engage with work (Kahn, 1990). That is, high job demands drain physical and emotional energies of the employees and leave them psychologically unavailable to engage. Likewise, feelings of insecurity involving low self-confidence in abilities to meet the job demands, heightened self-consciousness about the perceptions and judgments of others, and misfit of personal values with organizational values also generate unnecessary anxiety and make employees less available to engage (Kahn, 1990). In a similar vein, preoccupation in the outside life issues also influences psychological availability and affects employee engagement as a result (Kahn, 1990). Following this line of reasoning, it can be argued that perceptions of demands-abilities fit indicate to the employees that their skills, knowledge, and energies have a good match with the demands of their jobs. As a result, employees are likely to feel psychologically available to fully engage their cognitive, emotional, and physical energies in the performance of work. Thus, we propose the following hypothesis:

Hypothesis 2: Demands-abilities fit will be positively related to employee engagement.

Figure 1: Employee Engagement Model



The conceptual model of the study is presented in Figure 1. As can be noted that needs-supplies fit and demands-abilities fit are two independent variables that predict the dependent variable of employee engagement.

3. Methodology

3.1. Study Location

This study was carried out at a large public university located near Kuala Lumpur, Malaysia. A self-administered survey was used to collect data from academic and non-academic employees. We distributed 300 surveys among employees in three faculties including business administration, economics, and engineering. Drop boxes were placed in front offices of each faculty, and respondents were requested to use those boxes to submit their responses. To access the academic staff, surveys were dropped in their personal mail boxes. Three weeks were given to the respondents to submit their responses. In the third week, reminders were sent to the academic staff at their departments' group e-mail addresses. Usable responses were received from 161 staff members (53.67%).

3.2. Measures

We used self-reported measures to assess needs-supplies fit, demands-abilities fit, and employee engagement. The two independent variables, needs-supplies fit and demands-abilities fit, were each assessed using three-item subscales developed by Cable and DeRue (2002). The dependent variable, employee engagement, was assessed using eighteen-item Job Engagement Scale (Rich et al., 2010). This scale provides six-item subscales each for assessing cognitive, emotional, and physical

engagement. Respondents indicated the extent of their agreement with each item on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

4. Results

Demographic scores of the respondents are presented in Table 1. An average respondent was a married Malay female employed as a non-academic staff with SPM/MCE level education. In addition, an average respondent was nearly 36 years old and had worked for the university for over 12 years.

Table 1: Demography of the Respondents

	N	**%**
Sex		
Female	102	63.4
Male	59	36.6
Marital status		
Married	121	75.2
Single	40	24.8
Race		
Malay	156	96.9
Indian	2	1.2
Foreigner	2	1.2
Chinese	1	0.7
Education		
SPM/MCE	53	32.9
Certificate/diploma	36	22.4
Bachelor degree	33	20.5
Doctorate degree	17	10.6
STPM/HSC	13	8.1
Master degree	9	5.5
Job Type		
Non-academic	130	80.7
Academic	31	19.3
	Mean (SD)	Range
Age	36.4 (10.7)	18.0–63.0
Tenure	12.4 (10.8)	0.8–35.9

Descriptive statistics and reliability scores of measures are presented in Table 2. It can be noted that the measures used in this study demonstrated reliability as Cronbach's alpha reliability coefficients of all measures are above the minimum acceptable limit of .70 (Hair et al., 2010). Among the three main variables of the study, the mean scores were highest for employee engagement (4.07) followed by demands-abilities fit (3.77) and needs-supplies fit (3.63). Among the three dimensions of employee engagement, emotional engagement showed the highest mean score (4.09) followed by physical engagement (4.07) and cognitive engagement (4.06).

Table 2: Measures, Descriptive Statistics, and Scale Reliability Scores (*n* = 161)

Measure (No. of Items)	**Sample Item (1- to 5-Point Scale)**	**Mean (SD)**	**Range**	**α**
Employee Engagement (18)		4.07 (.45)	2.94–5.00	.95
Cognitive (6)	At work, my mind is focused on my job.	4.06 (.56)	2.83–5.00	.91
Emotional (6)	I am excited about my job.	4.09 (.57)	2.83–5.00	.89
Physical (6)	I exert my full effort to my job.	4.07 (.53)	2.83–5.00	.89
Needs-supplies fit (3)	The job that I currently hold gives me just about everything that I want from a job.	3.63 (.67)	1.67–5.00	.78
Demands-abilities fit (3)	My personal abilities and education provide a good match with the demands that my job places on me.	3.77 (.67)	1.33–5.00	.80

Table 3 presents zero-order inter correlations among the study variables controlling for the effects of demographic variables, including sex, marital status, education, job type, age, and tenure. It can be noted that employee engagement is significantly correlated with needs-supplies fit (r = .57, p < .001) and demands-abilities fit (r = .52, p < .001). Furthermore, needs-supplies fit is significantly correlated with demands-abilities fit (r = .62, p < .001). As for the correlations between demographic and main variables of the study, sex of respondents is not associated with any of our independent or dependent variables. However, marital status (r = .17, p < .05), education (r = .25, p < .01), and age (r = .19, p < .05) are positively and job type (r = −.20, p < .05) is negatively correlated with employee engagement. Tenure (r = .17, p < .05) is positively correlated with needs-supplies fit. Finally, education (r = .18, p < .05) is positively and job type (r = −.17, p < .05) is negatively correlated with demands-abilities fit.

Table 3: Zero-Order (Pearson) Inter Correlations among Study Variables (n = 161)

	1	2	3	4	5	6	7	8
1. Sex								
2. Marital status	.15							
3. Education	.01	−.04						
4. Job type	−.04	.02	−.62***					
5. Age	.00	.40***	−.08	−.09				
6. Tenure	−.02	.35***	−.21**	−.01	.89***			
7. Employee engagement	.08	.17*	.25**	−.20*	.19*	.14		
8. Needs-supplies fit	.11	.02	.04	−.08	.13	.17*	.57***	
9. Demands-abilities fit	.11	.06	.18*	−.17*	.15	.13	.52***	.62***

Note. * p < .05. ** p < .01. *** p < .001.

The study hypotheses were tested using hierarchical regression as shown in Table 4. In the first step, the effects of demographics variables on employee engagement were analyzed. The results showed that only education was significantly related to employee engagement (r = .262, p < .05) among all demographic variables. In the second step, the effect of needs-supplies fit on employee engagement was examined controlling for the effects of demographic variables. Needs-supplies fit was found to be significantly related to employee engagement (r = .557, p < .001), and explained 29.3% of the variance in employee engagement. Thus, Hypothesis 1 was supported. In the third and final step, the effect of demands-abilities fit on employee engagement was examined controlling for the effects of both demographic variables and needs-supplies fit. The results showed that demands-abilities fit was significantly related to employee engagement (r = .198, p < .01), and explained 2.33% of the variance in employee engagement. Thus, Hypothesis 2 was also supported. In addition, the effect of education on employee engagement remained significant in all three steps.

Table 4: Results of Hierarchical Regression (n = 161).

	Step 1		Step 2		Step 3	
Variable	**Coeff.**	***SE***	**Coeff.**	***SE***	**Coeff.**	***SE***
1. Sex	.065	.080	−.001	.066	−.009	.065
2. Marital status	.102	.099	.133	.081	.130	.080
3. Education	.262*	.031	.219*	.025	.193*	.025
4. Job type	−.022	.127	−.004	.104	.002	.103
5. Age	.120	.008	.210	.007	.182	.007
6. Tenure	.051	.008	−.147	.007	−.133	.007
7. Needs-supplies fit			.557***	.048	.438***	.059
8. Demands-abilities fit					.198**	.059
ΔR^2			.293***		.023**	

Note. * p < .05. ** p < .01. *** p < .001.

5. Discussion

The purpose of this study was to examine the effects of needs-supplies fit and demands-abilities fit on employee engagement among employees of a Malaysian public university. Regression analysis based on data from 161 university employees revealed that both needs-supplies fit and demands-abilities fit were significantly and positively related to employee engagement. These results support our assertion that both needs-supplies fit and demands-abilities fit influence employee engagement.

These findings may be understood in the light of the self-in-role view of employee engagement (Kahn, 1990), which states that work elements, social systems, and one's personal resources and outside life determine one's willingness to engage with work. When employees perceive that the supplies (or rewards) received from their jobs meet their needs, they perceive psychological meaningfulness and safety and, as a consequence, demonstrate cognitive, emotional, and physical engagement while performance their jobs. In a similar vein, when employees perceive that they possess required ability to meet the demands of their jobs, they feel themselves psychologically available to invest their energies in work and, thus, tend to engage with work.

In addition, the mean score of demands-abilities fit (mean = 3.77) in the study was higher than that of needs-supplies fit (mean = 3.63). This pattern is consistent with earlier research for the reason that demands-abilities fit is a competence-related perception, and it is likely that employees skew it upward due to its greater implications for their self-esteem (Cable and DeRue, 2002; Lauver and Kristof-Brown, 2001).

Furthermore, we noted that among all demographic variables, only education of our respondents was significantly related to employee engagement (standardized beta = .193, $p < .05$), indicating that highly educated employees were more engaged with jobs in our study sample. We further investigated this pattern among our six educational groups by performing one-way ANOVA analysis. The results showed that the difference between groups was statistically significant ($F(5,152) = 4.332$, $p < .001$). In order to know which groups differed from each other, a Tukey post-hoc test was performed. The results revealed that employee engagement of the group with doctorate-level education (4.53 ± 0.37) was significantly higher compared to the three educational groups including SPM/MCE (3.93 ± 0.53, $p < .001$), certificate/diploma (4.03 ± 0.48, $p < .01$), and bachelor degree (4.05 ± 0.44, $p < .01$). There were, however, no statistically significant differences between other groups.

The relationship between education and employee engagement can be understood in the light of motivation and job design theories. Drawing on Maslow's motivation theory of hierarchy of needs (1954), it can be argued that because doctorate is the highest education in academic professions, it might contribute to the satisfaction of self-actualization needs of the employees and, thus, makes them willing to demonstrate higher job engagement. In a similar vein, viewing this finding from the job design theory (Hackman & Oldham, 1980), one might argue that jobs of PhD faculty have motivational characteristics such as skill variety, task identity, task significance, feedback, and autonomy. Therefore, it is likely that employees with doctorate-level of education experience more meaningfulness and responsibility in their jobs and tend to demonstrate higher job engagement.

5.1. Implications for University Administration

This study has important implications for university administration. First, our results showed that employees give great importance to the fulfillment of their personal needs in return for their engagement at the workplace. University administrators should create an environment where employees perceive that their jobs are instrumental in fulfilling their diverse psychological, social, and economic needs. They can do this by designing jobs that are motivational and satisfy psychological aspects of meaningfulness, safety, second, university administrators should demonstrate great care towards interpersonal aspects of jobs involving employees' interactions with their administrators and coworkers. Research has shown that positive and healthy interpersonal relationships at the workplace enable employees to fully express their authentic selves without fearing negative consequences to their self-concept, status, and career as a result of their engagement (Kahn, 1990; Kahn, 2010).

Third, managers can enhance perceptions of demands-abilities fit among their employees by customizing their selection practices at the time of hiring. For instance, selecting candidates with abilities that are congruent with the demands of their target jobs is likely to enhance demands-abilities fit that can ultimately lead to enhanced employee engagement.

Fourth, regular training programs focused on improving employees' ability to perform jobs can greatly improve demands-ability fit of those employees who have been newly hired and trying to adjust their selves to the new work environment.

Finally, it is important that managers highlight positive features of jobs in their day-to-day verbal and written communication within organization. By communicating how the jobs are meaningful and safe to do and by showing how these jobs do not put unnecessary burden and stress on employees, managers can enhance fit perceptions of their employees to stimulate employee engagement and can help their

organizations to have competitive advantage over their competitors (Harter et al., 2002; Macey et al., 2009; Rich et al., 2010).

5.2. Study Limitations and Future Research

This study has some limitations and caution is thus suggested while interpreting our findings. First, the cross-sectional nature of this study prevented us from claiming the causality between our variables with absolute certainty. We suggest that researchers should use longitudinal or experimental methods to test causality between fit variables and employee engagement in future research. Second, the influence of common-method bias cannot be denied in this study despite that fact that we carefully followed several procedural remedies to increase the accuracy of responses as suggested by Podsakoff et al. (2012). Among those procedural remedies, we ensured language clarity, labeling of all scale points, guidance with detailed instructions, maintenance of anonymity, assurance of confidentiality of responses, explanation of benefits of research, and freedom to withdraw participation in the survey without stating any reasons. Finally, generalization of our findings might be questioned as our respondents came only from one organization. Thus, replication of this study on a diverse sample taken from more than one organization would be more informative in terms of generalization of the findings of our study.

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