
Organisational justice and employee work engagement: LMX as mediator

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Abstract: The paper examines the role that organisational justice plays in determining employees' work engagement and the way quality of leader-subordinate relationship (LMX) mediates this association. Data was obtained from an airline company from the Middle East. The sample consisted of 218 employees from several job levels who responded to a questionnaire measuring the study variables. Results indicated that distributive and procedural justice perception promoted quality relationship between leader and subordinate and higher quality of leader-subordinate relationship contributed to employees' work engagement. Among the three organisational justice factors, only interactional justice was related to employee work engagement. The study found a full mediation effect of LMX on interactional justice and employee work engagement.

Keywords: employee work engagement; organisational justice; leader-subordinate exchange relationship; LMX.

Reference to this paper should be made as follows: Hassan, A. and Jubari, I.H.A.A. (2010) 'Organisational justice and employee work engagement: LMX as mediator', *J. International Business and Entrepreneurship Development*, Vol. 5, No. 2, pp.167–178.

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1 Introduction

The concept of employee work engagement (EWE) is relatively new but is attracting a lot of attention of researchers and management practitioners (Robbins and Judge, 2009;

Hallberg and Schaufeli, 2006). It is observed that highly engaged employees have a passion for their work and feel deeply connected to their workplace. It is thus, defined as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective cognitive state that is not focused on any particular object, event, individual, or behaviour. Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication is characterised by a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli and Bakker, 2001, 2004).

Research studies on the organisational outcome of EWE have shown very encouraging results. For example, Harter et al. (2002) conducted a survey of approximately 8,000 business units in 36 companies and reported that compared with other companies, those whose employees had high-average levels of engagement had higher levels of customer satisfaction, were more productive, had higher profits, and had lower levels of turnover and accidents. Companies like Caterpillar took initiative to increase employee engagement that resulted in an 80% drop in grievances and a 34% increase in highly satisfied customers (Lockwood, 2007). Several recent studies have confirmed that employee engagement predicts employees' performance, satisfaction, organisational success, and organisation's financial performance (Bates, 2004; Baumruk, 2004; Harter et al., 2002; Richman, 2006).

Robbins and Judge (2009) argue that engagement becomes a real concern for most organisations because surveys indicate that few employees – between 17% to 29% – are highly engaged by their work. There is a deepening disengagement among employees worldwide today (Bates, 2004; Richman, 2006). It has even been argued that the majority of workers today, roughly half of all Americans in the workforce, are not fully engaged or are disengaged, costing US businesses \$300 billion a year in lost productivity (Bates, 2004; Johnson, 2004). In UK, estimates of the cost of disengaged workers on the British economy range between £37.2 billion and £38.9 billion (Flade, 2003). According to him, only 19% of the total British workforce are engaged while 61% and 20% are not engaged and actively disengaged respectively.

Several factors contribute to employee engagement. In his study on the psychological conditions of personal engagement and disengagement at work, Kahn (1990) found that there were three psychological conditions associated with engagement or disengagement at work, namely, meaningfulness, safety and availability. To examine Kahn Model, May et al. (2004) conducted an empirical study and found that meaningfulness, safety and availability were significantly related to engagement. Meaningfulness refers to the "feeling that one is receiving a return on investments of one's self in a currency of physical, cognitive or emotional energy" (Kahn, 1990). It is measured by how much employees find their job has purpose, significance, and importance and how much they feel they are valued and appreciated in the organisation. Safety is defined as "feeling able to show and employ one's self without fear of negative consequences to self-image, status or career" (Kahn, 1990). Availability consists of one's "sense of having the physical, emotional or psychological resources to bring the self into his/her work role" (Kahn, 1990). In the same study, it was also found that job enrichment and role fit were positive predictors of meaningfulness; rewarding co-worker and supportive supervisor

relations were positive predictors of safety while adherence to co-worker norms and self-consciousness were negative predictors; and resources available was a positive predictor of psychological availability while participation in outside activities was a negative predictor.

Gubman (2004) suggested that the factors that impact employee engagement can be categorised as:

- a shared values/sense of purpose – the alignment between employee and organisational values
- b quality of work life – employees' satisfaction with the work environment
- c job task – how interesting and challenging the work is
- d relationships – employees' level of satisfaction with all work-related relationships
- e total compensation – salary, benefits, and financial recognition
- f opportunities for growth – learning and development opportunities and chances for advancement
- g leadership – the level of trust between employees and leaders.

Another model of engagement comes from the burnout literature which describes job engagement as the positive antithesis of burnout (Maslach et al., 2001). In their structural model, Maslach et al. (2001) argued that the presence of specific demands (e.g., work overload and personal conflicts) and the absence of specific resource (e.g., social support, autonomy, and decision involvement) predicts burnout, which in turn, is expected to lead to various negative outcomes such as physical illness, turnover, absenteeism, and diminished organisational commitment.

Job demands are defined as “physical, social, or organisational aspects of the job that require sustained physical and/or mental efforts” (Demerouti et al., 2001). In situations that require high effort to sustain an expected performance level, those demands may become stressors and, therefore, associated with negative outcomes, such as anxiety, depression, and exhaustion. On the other hand, resources influence job engagement through the motivational process (Schaufeli and Bakker, 2004). Resources refer to “physical, social, or organisational aspects of the job that may:

- 1 be functional in achieving work goals
- 2 reduce job demands and the associated physiological and psychological costs
- 3 stimulate personal growth and development” (Demerouti et al., 2001).

In their recent study, Bakker and Demerouti, (2007) examined the job demands-resources model (JD-R) and hypothesised that job demands often lead to emotional exhaustion and health problems, whereas job resources facilitate high work engagement, as well as buffering the effects of work demands on emotional experience (Schaufeli and Bakker, 2004). As identified from previous studies, job demands include workload, time pressure, unfavourable physical environment, and difficult interactions with customers. Job resources, however, may include performance feedback, rewards, job control, and social support of colleagues and supervisors.

The last model of the antecedents and consequences of job and organisation engagement was recently developed by Saks (2006). The results indicated that there is a

meaningful difference between job and organisational engagement. It was found that perceived organisational support predicts both engagements while job characteristics only predicted job engagement. Furthermore, procedural justice predicted organisational engagement. Saks uses social exchange theory (SET) as the basis of his theoretical rationale, that is, employees will choose to engage themselves to varying degrees and in response to the resources they receive from their organisation. Engaged employees are more likely to have a high-quality relationship with their employer leading them to also have more positive attitudes, intentions, and behaviours.

Saks' (2006) finding supports leader-member exchange (LMX) theory that predicts several positive employee outcomes such as organisational citizenship behaviour, job satisfaction, organisational commitment, and intention to stay from high quality of leader-subordinate relationships (Dansereau et al., 1975; Liden et al., 1997; Settoon et al., 1996; Hassan and Chandran, 2005).

The development of LMX is theoretically rooted in the role theory and SET (Katz and Kahn, 1978; Blau, 1964). Graen and Scandura (1987) proposed a three-phase model of LMX development including role taking, role making, and role routinisation. In the initial dyadic exchange (role-taking), a leader initiates an assignment of tasks and begins to evaluate the behaviour of the member and then makes a decision regarding that behaviour. He also gathers important information regarding the member's potential for tasks in this phase. The exchange in the role-taking phase is based on economic transactions (Graen and Scandura, 1987).

After this stage, the role-making phase begins. Role-making is a continuation of the developmental process in which further exchanges are made (Bauer and Green, 1996). Graen and Uhl-Bien (1995) called this the acquaintance stage. During this stage, the leader and member evolve how each will behave in various situations and begin to define the nature of their dyadic relationship (Graen and Scandura, 1987). If a dyad is developing into a high quality exchange relationship, the exchange becomes more social and less economic (Graen and Uhl-Bien, 1995). Conversely, if the relationship is not evolving to the next level, the relationship will remain based on the employment contract (Bauer and Green, 1996). Therefore, role-making is built on the mutual contribution of valued resources. Each party must offer something that the other party sees as valuable, and each party must see the exchange as reasonably fair (Graen and Scandura, 1987). This is the stage at which behavioural aspects of trust come into play. The leader is taking a risk by delegating work to the member (Bauer and Green, 1996).

After the role-making stage, the behaviours of a leader and a member are much more predictable through role routinisation. The exchange is maintained over time through the process of collaborating on different tasks. The dyadic relationship involves the relational dimensions of trust, respect, loyalty, liking, support, and quality. The exchange of resources of the leader for collaboration on tasks by the member is controlled by mutual expectations (Graen and Scandura, 1987). However, due to the limited resources available to leaders for exchange and the investment of time necessary, a high quality of exchange tends to be developed and maintained in a limited number of leader-member dyads (Dienesch and Liden, 1986; Graen, 1976).

The SET, on the other hand, does not focus on the role of leader and followers as is the case in the role theory. It focuses on the exchange between them instead. Liden et al. (1997) described leader-member relationship development as a series of steps that begins with the initial interaction between the members of a dyad. This initial interaction is followed by a sequence of exchanges in which individuals test one another to determine

whether they can build trust, respect and obligation necessary for high quality exchanges (Uhl-Bien et al., 2000). If reception of an exchange behaviour is positive, the individuals continue the exchanges. But if the response to an exchange is not positive or if the exchange never occurs, opportunities to develop high quality exchanges are limited and relationships will likely remain at lower levels of LMX development (Dienesch and Liden, 1986; Uhl-Bien et al., 2000).

Both the job demand vs. resource model and LMX theory of leader-subordinate relationship argue that employee who receive higher economic and socio-emotional exchange of resources are more likely to bring themselves deeply in their jobs and to be more engaged as a repayment to the organisation resource. It is, therefore, hypothesised that:

H1 High quality of LMX will positively contribute to employee engagement.

2 Organisational justice and employee engagement

Organisational justice is defined as the employees' perception of fairness and justice in the organisations (Adams, 1965). Specifically, organisational justice is concerned with the ways in which employees determine if they have been treated fairly in their jobs and the ways in which those determinations influence other work related variables (Moorman, 1991). There is a general consensus that organisational justice consists of at least two components, namely, distributive and procedural justice. The former is concerned with perception of fairness in distribution of reward, whereas the latter relates to the fairness of the process of allocation decisions (Adams, 1965). A number of procedural justice criteria have been outlined, such as opportunities for control of the processes and the outcomes, ability to voice one's view points (Folger and Cropanzano, 1998) consistency, lack of bias, availability of appeal mechanisms, accuracy, and following ethical and moral norms (Leventhal et al., 1980). Bies and Moag (1986) added another component, namely, interactional justice, which focused on the way employees were treated by decision makers in the organisation and whether they show respect, sensitivity to individual differences, and explain decisions thoroughly.

Organisational justice construct has been widely used to predict employees' attitude and behaviour, such as job satisfaction, turnover intention, organisational citizenship, organisational commitment, and extra-role behaviour (Colquitt et al., 2001; Hassan and Mohd Noor, 2008; Martin and Bennett, 1996; Masterson et al., 2000; Sweeney and McFarlin, 1993). However, little empirical knowledge is available on the linkages between organisational justice and employee engagement.

Drawing evidence from the organisational justice researches and job demand vs. resource model, we propose the following hypothesis.

H2 All the three components of organisational justice, namely, distributive, procedural, and interactional, will positively contribute to employee engagement.

The perception of organisational justice is fostered with better quality relationship between leader and the subordinate (Lee, 2000, 2001; Tansky, 1993; Bias and Shapiro, 1987). As conceived in the LMX theory the dyadic relationship is based on trust, confidence, and support for in-group members. This may not be the case with out-group members. The nature of this relationship is expected to promote perception of

organisational justice among the in-group members but not in out-groups. Support for this hypothesis has come from a few studies (Hassan and Chandaran, 2005; Tansky, 1993). Gubman (2004) identified level of trust between leader and subordinates as one of the five determinants of employee engagement. Kozlowski and Doherty (1989) reported that the nature of interactions between leaders and subordinates mediates and structures subordinate's interpretations of organisational practices and events. As such, we hypothesise that:

H3 LMX will mediate the relationship between organisational justice and employee engagement.

3 Methods

Sample: the study was conducted in an airline company located in the Middle-East. A sample of 218 ground staff, working at the headquarters of the company, participated in the study. Purposive random sampling technique was used as data were collected with the help of personal contacts of the second author who is employed with this company. Sample represented several job categories such as, accountants, managers, passenger handling officers, reservation agents, sales employees, and supervisors. On an average they had worked with this organisation for 8.4 years (SD = 8.24). The age distribution ranged from 21 to 53 years and the mean age was 30.85 (SD = 7.26). About 66% of them were below 30 years in age, 66.5% (n =145) of them were males and almost 80% of them were having graduate level educational qualification.

Instruments: following scales were used in the study.

- a *Organisational justice perception scale:* Colquitt et al.'s (2001) 20-item organisational justice scale was used to measure employees' perception of procedural, distributive, and interactional justice. Examples of items for the three scale dimensions are: Were the rules and procedures adopted to make decisions in your workplace free from bias? (procedural justice); does the outcome of these decisions reflect the effort you have put into work? (distributive justice); has the person who makes decisions at your workplace treated you in a polite manner? (interactional justice).
- b *LMX scale:* LMX was measured by a 7-item scale developed by Scandura and Graen (1984). The items measured the quality of supervisor-subordinates relationship (LMX). Sample items were: "I usually know how satisfied my supervisor is with what I do", and "I have effective relationship with my supervisor".
- c *EWE scale:* Utrecht work engagement scale (UWES) (Schaufeli et al., 2006) was used to measure EWE. The UWES is composed of three subscales, namely, vigour (Example: At my work, I feel bursting with energy), dedication (example = I am enthusiastic about my job) and absorption (example = I forget other issues and get carried away when I am working). Each dimension is measured by three items.

All the measures used 7-point Likert scale (1= 'not at all' to 7= 'to a great extent'). The instruments were translated into Arabic and then back translated into English to establish the accuracy.

4 Results

The descriptive statistics, reliability, and intercorrelations among the variables are displayed in Table 1.

Table 1 Means, SD, Cronbach alphas and correlation among study variables

<i>Actor</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
PJ	3.25	1.56	.88							
DJ	3.34	1.82	.684**	.90						
IJ	4.13	1.71	.558**	.450**	.94					
LMX	3.94	1.68	.474**	.438**	.773**	.91				
Vigour	4.76	1.90	.341**	.313**	.445**	.474**	.87			
Dedication	5.13	1.72	.377**	.316**	.449**	.446**	.758**	.86		
Absorption	5.11	1.43	.332**	.268**	.371**	.386**	.711**	.747**	.75	
EWE	5.00	1.47	.386**	.331**	.467**	.490**	.913**	.924**	.889**	.92

Notes: N = 218; **p < 0.01; diagonal entries in italics indicate coefficient alpha; numbers in parentheses denote the number of items in the scale.

As displayed in Table 1 alpha values for all the scale and subscales were quite high and ranged from .94 for IJ to .75 for absorption facet of EWE scale. Mean scores indicated lower levels of endorsement for the three organisational justice dimensions. The lowest among them was procedural justice (mean = 3.25 on a 7-point scale). Quality of leader-subordinate relationship also turned out be on the lower side with the mean score of 3.94 on the LMX dimension. However, the employees were generally positive when endorsing their level of work engagement especially when it came to dedication. Overall, the total engagement mean was 5 on a 7-point scale. Correlations among all the variables were significant.

Multiple regression analysis was employed to test the hypotheses.

5 Organisational justice and LMX

Table 2 shows the contribution of organisational justice and demographic factors on the quality of dyadic relationship (LMX).

The result indicated significant contribution of two factors, namely, distributive and interactional justice on LMX – the latter stronger than the former.

Table 2 Organisational justice and demographic factors as predictor of LMX

<i>Independent variables</i>	<i>Std. β</i>
Procedural justice	-.03
Distributive justice	.13*
Interactional justice	.72***
Age	.03
Gender (male = 1)	.00
Education (lower secondary = 1)	.03
Experience	.06

Notes: *p < .05; ***p < .000, Adj. R² = .065 (F = 43.00, p < .000).

6 Organisational justice and EWE

Table 3 presents the regression results predicting employees' work engagement from organisational justice and demographic variables.

Table 3 Organisational justice and demographic factors as predictor of EWE

<i>Independent variables</i>	<i>Std. β</i>
Procedural justice	.14
Distributive justice	.14
Interactional justice	.29***
Age	.06
Gender (male = 1)	.13*
Education (lower secondary = 1)	.04
Experience	-.13

Notes: * $p < .05$; *** $p < .000$, Adj. $R^2 = .21$ ($F = 8.62$, $p < .000$).

Only interactional justice yielded significant contribution to EWE. Apart from that gender EWE relationship appeared significant showing females more engaged in their work compared to males.

7 LMX and employee work engagement

Table 4 displays the regression predicting EWE from LMX and demographic variables.

LMX turned out to be significantly associated with work engagement. Regression result in Table 4 shows no significant contribution of any other factor.

Table 4 LMX and demographic factors as predictor of EWE

<i>Predictors</i>	<i>Std. β</i>
LMX	.49***
Age	.04
Gender (male = 1)	.11
Education (lower secondary = 1)	.05
Experience	.12

Notes: *** $p < .000$, Adj. $R^2 = .22$ ($F = 11.91$, $p < .000$).

8 LMX as mediator of OJ and EWE relationship

According to by McKinnon et al. (1995) four conditions are required to test the mediating effect of a variable on the relationship between independent and dependent variable. First, the independent variable (PJ, DJ, and IJ) significantly affects the mediator (LMX). Second, the independent variable significantly affects the dependent variables (EWE). Third, the mediator (LMX) has significant unique effect on dependent variable. Fourth, the effect of the independent variable on the dependent variables will be reduced when

the mediators are added to the model. According to Baron and Kenny (1986), after controlling for the mediator variables (LMX), the power of the independent variable (PJ, DJ, and IJ) to predict the dependent variables (EWE) should become smaller or not significant at all. If the significance became smaller, it explains that partial mediation exists on the dependent variable. However, full mediation exists if the contribution becomes insignificant.

Regression results indicated that only two independent variables, namely, DJ and IJ, were significantly associated with the mediating variable i.e., LMX. Furthermore, among the three organisational justice facets (independent variables) only one, namely, interactional justice, significantly predicted EWE. However, LMX (mediating variable) was significantly related to EWE (dependent variable).

When only one independent variable, namely, interactional justice, fulfilled all the conditions we decided to examine the mediating role of LMX only on interactional justice and EWE relationship. Table 5 presents the result.

Table 5 LMX as mediator of interactional justice and EWE

<i>Predictors</i>	<i>Std. β</i>
LMX	.36***
Interactional justice	.16
Age	.03
Gender (male = 1)	.11
Education (lower secondary = 1)	.05
Experience	-.10

Notes: *** $p < .000$, Adj. $R^2 = .22$ ($F = 10.44$, $p < .000$).

Results entered in Table 5 show full mediation effect of LMX on interactional justice and EWE relationship.

9 Discussion

The present study draws hypotheses from other studies which have demonstrated positive contribution of LMX on employees' attitude and behaviour such as job satisfaction, organisational commitment and intention to stay (Graen et al., 1982; Hassan and Chandaran, 2005).

Also using job demand vs. resource model (Maslach et al., 2001; Bakker and Demerouti, 2007; Schaufeli and Bakker, 2004) as the theoretical basis we argue that quality of dyadic relationship between leader and subordinate is a resource that builds positive work attitude over time. The study, therefore, expected a positive relationship between LMX and employees' work engagement (H1). The results supported this hypothesis. It is in line with Saks' (2006) observation that engaged employees are more likely to have a high-quality relationship with their leaders leading them to also have more positive attitudes, intentions, and behaviours (Saks, 2006).

However, Hypothesis 2 was partially supported from the result as only interactional justice was found to be contributing to employees' work engagement. Procedural and distributive justice factors did not yield any significant impact on engagement. This

seems to be a unique finding as it goes against the results of other studies which demonstrate significant contributions of distributive and procedural factors on employees' attitude and behaviour such as organisational commitment (Hassan, 2002; Martin and Bennet, 1996). Perhaps in the Arab cultural context nothing assumes greater importance than interactional justice. Procedural and distributive aspects of organisational justice are given less importance. It was interesting to note that gender played a significant role in employees' engagement and females were found to be more engaged than males.

Hypothesis 3 had expected mediation effect of LMX on all three facets of organisational justice and engagement relationship. However, only interactional justice and engagement linkages fulfilled the conditions and yielded full mediation effect. The finding again reinforces the importance of quality of dyadic relationship between leader and subordinate in the workplace in promoting employees' work engagement. Organisational practices like treating employees with respect and dignity contribute to employees' work engagement if it is mediated by high quality of relationship that employees enjoy with their superiors.

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