

THE INFLUENCE OF EMPLOYEE HUMAN RESOURCE SATISFACTION ON EMPLOYEE INNOVATIVE WORK BEHAVIOR

ABSTRACT

Aims: This study examines the influence of employee HR satisfaction on employee innovative work behavior. It also examines whether employee perceptions about the demanding aspects of their jobs mediate the relationship between HR satisfaction and innovative work behavior.

Study design: Employee attitude surveys were administered to employees across five firms.

Place and Duration of Study: The study was carried out in Ireland, in firms where high performance work systems were in use between 2007 and 2009.

Sample: A sample of 220 employees who represented production, maintenance, service and clerical areas, and employees from administrative and executive areas.

Methodology: Five companies participated, all of which were represented in the upper quartile of high performance work system utilization of the larger study. These five firms represented an upper, medium and lower range within this quartile. Based on the profile and utilization of high performance work systems in these companies, on average, the companies' utilization of HPWS was about 48.81 per cent. The companies came from the manufacturing, financial services, transport and communication industries.

Results: Of the sample, 67% were male. In terms of education level, 33 per cent had completed their secondary level education. With regard to occupational type, the technician category was the smallest with a 7 per cent of the total sample; the professional group was the largest accounting for 30 per cent of the respondents. The majority of the respondents (85%) were of Irish origin. Employee HR satisfaction with communication and feedback practices was positively related to employee innovative work behavior ($\beta = .59$, $p < .001$). The HR satisfaction measures accounted for 18 per cent of the variance explained in innovative work behavior ($\Delta F = 5.581$, $p < .001$). Employee HR satisfaction had an indirect effect on employee innovative work behavior via perceptions of job demands as computed through the Sobel test, (Sobel $z = -1.76$, $P = .078$).

Conclusion: Employees' perceptions matter in determining behavioral outcomes, because they are determinant in eliciting discretionary efforts such as innovative work behavior, which in turn affect company performance.

Keywords: HR Satisfaction, Employee Performance Outcomes, Innovative Work Behaviour, High Performance Work Systems, Job Demands

15 1. INTRODUCTION

16

17 One of the main objectives of innovation is to encourage and empower employees to
18 contribute and implement their ideas to enhance effectiveness (19). This includes the
19 creation of an innovative culture whereby management discovers new ways of organizing,
20 leading, coordinating and motivating employees to be innovative by contributing and
21 pursuing their ideas (29,19). In this regard, in order to successfully manage innovation and
22 achieve firm goals, management has to support employee innovation (52,2). This is possible
23 if management utilizes employees' skills and expertise effectively, while employees in turn
24 must be willing and able to innovate and develop the required competencies (49). This study
25 explores how HRM practices and job designs can shape employee perceptions and
26 influence their innovative work behavior.

27 High performance work system (HPWS) theory suggests that there are different ways
28 through which HRM practices can impact on performance such as through improving
29 employee attitudes (1,55) and eliciting positive employee responses (45). In particular, there
30 is a suggestion that employee attitudes of commitment and involvement can influence
31 employee and company performance outcomes (15). In this regard, an examination of the
32 presence and utilization of HRM practices, sometimes called high involvement HRM (14) in a
33 firm should go hand in hand with an assessment of employee reactions to the presence of
34 these HRM practices (12). The rationale for this argument is what (23:11) highlight when
35 noting that, 'the fulcrum of the HRM-performance causal chain is the employees' reactions to
36 HR practices as experienced by them'. On the same line, strategic HRM scholars have held
37 the view that firm level practices are not in and of themselves the source of competitive
38 advantage; rather, it is the people who are selected, developed, through these practices that
39 represent the true resource and enable a sustainable advantage over industry rivals (57).
40 Such an assessment can also be made effectively by looking at the extent to which
41 employees are satisfied with the job and workplace aspects. The job and workplace aspects,
42 however, should be linked with HRM practices, that is, they are job-related HRM practices.
43 The focus of this paper, therefore, is on employee reactions to these job-related HRM
44 practices on their innovative work behavior.

45

46 2.1. THEORY: SOCIAL EXCHANGE THEORY

47 Theoretically, this study uses the norm of reciprocity and the social exchange theory (10,28)
48 to explain and integrate employee behaviors with the company's provision of policies,
49 practices and opportunities which are important in facilitating generalized norms of
50 reciprocity (21; 28, 41). These norms of reciprocity can be described in terms of 'the extent
51 to which the parties are concerned with equivalence of exchange, immediacy of
52 reciprocation and focus of interest (self vs. mutual)' (17,18,22). According to social exchange
53 theory, when firms invest in their employees, their employees tend to reciprocate in positive
54 ways (18,24,47). In other words, it is assumed that employees balance their working efforts
55 with the degree they perceive the organization to reciprocate with desired returns (51). Thus,
56 company inducements (through the positive management of HRM practices) motivate
57 employees to be pro-social and desire to expend effort to benefit the company. These
58 inducements also create obligations on the part of employees to reciprocate in positive ways
59 (24, 28, 35,51).

60 Further to the norm of reciprocity, literature shows that employee and employer agreement
61 in the form of I-deals, that is, 'voluntary, personalized agreements of a nonstandard nature
62 negotiated between the employee and the employer regarding terms that benefit each party'
63 (44:978) suggests a tendency among employees to continue working with the employer
64 something which can motivate employees to exert effort and thus benefit the company in

positive ways. One of the ways through which employees can benefit the company is being pro-social and innovative. In the same way, psychological contract like I-deals determines the extent to which employees are increasingly attached to the organization (31) and thus more likely exert effort in accomplishing their jobs. In this regard, employee HR satisfaction is an important aspect in this study because, when an agreement between and employee and the employer becomes a standard norm to all employees in the organization, it is regarded as a HR practice rather than a mere individual agreement (42). Any dissatisfaction with job-related HRM practices may therefore lead into withdrawal and lack of involvement in issues related to workplace performance. The rationale behind this suggestion being what (23:11) noted as 'the fulcrum of the HRM-performance causal chain is the employees' reactions to HR practices as experienced by them'.

The study also examines whether perceptions of job demands will mediate the relationship between employee HR satisfaction and IWB. Figure 1 provides a model which summarizes the relationships that will be examined.

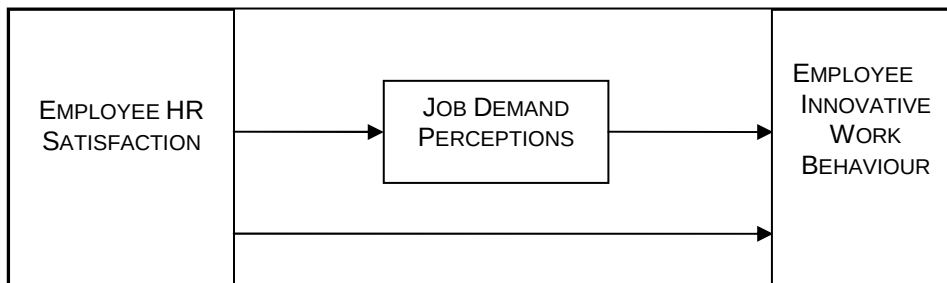


Figure 1: Model of Employee HR Satisfaction, Job Demand Perceptions and Employee Innovative Work Behavior

2.2. MANAGEMENT INNOVATION AND INNOVATIVE WORK BEHAVIOR

In many firms, innovation is regarded as a long-term survival strategy and a source of sustained competitive advantage (50). Therefore, the ways in which innovative work behavior among employees can be fostered represents an important issue which need to be sustained (16, 20,36,52). Innovative work behavior (IWB) is defined as 'the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or organization' (20:288). It is also related to 'the voluntary willingness by the individual employees to constitute on-the-job innovations – for example, through the upgrading of ways of working, communication with direct colleagues, the use of computers, or the development of new services or products' (20). Similarly, employee perceptions of their firm's expectations about employee behavior can influence their level of innovativeness (46,11). For example, (46) found that employee perceptions of the climate for innovation influenced their IWB, in particular, when they were dealing with individual problem solving, when they were dealing with work group relations, and also when they had to deal with the relationship between employees and leadership in the company. In this respect, one might expect that there will be an association between employee IWB and the extent to which a firm fosters the climate for innovation.

It should be noted that IWB may consist of engaging in extra role job demands which may not be mandated by the firm (29). These are acts that depend very much on how employees decide to take charge, cooperate and thus initiate constructive change and behave

107 innovatively (29,20). Employee perceptions of management practices and policies have,
108 therefore, an important role in determining IWB. Employees may decide to cooperate and
109 act innovatively, or they may restrict their innovativeness since they have personal control in
110 relation to extra-role activities (20).

111 The literature exploring the linkages between HRM practices and innovation suggests that
112 motivational practices are important in promoting employees' willingness to display IWBs
113 (36). This includes the identification of practices to motivate employees to have a sense of
114 production ownership (autonomy), through which they can engage in effective problem
115 solving and cope with high job demands (20). Thus, employees are more likely to engage in
116 IWB when they feel that they have ownership of the problems concerning them in the
117 workplace (37). A study by (11) suggests that employee perceptions of commitment-oriented
118 HRM practices shape desired employee behaviors and attitudes such as trust. Thus, HR
119 practices can be one of the means through which firms can elicit employee involvement and
120 IWB (20). Similarly, a study by (2) found that employee perceptions of individual, group and
121 organizational factors had an impact on innovative behaviors. This perspective relates to the
122 conventional role of social capital in the firm since the strength of relationships inside the firm
123 and the ability to foster knowledge sharing and employee interaction leads to quality social
124 relationships in the organization (54). Accordingly, (56) found a positive relationship between
125 the presence of social capital and measures of both incremental and radical innovation
126 capabilities. In this regard, employee reactions to HRM practices, which are job-related
127 practices, can be related to their innovativeness. Similarly, it should be noted that the

128 HRM theory on the role of climate for innovation (13b) suggests that utilization of HPWS is
129 likely associated with organizations which foster extra role behaviors, which in turn lead to
130 greater knowledge sharing, communication and innovative ideas (30).

131 On the basis of this evidence from the literature, and through the lens of social exchange
132 theory and the norm of reciprocity, the present study proposes that there will be an
133 association between employee HR satisfaction and the extent to which they engage in extra
134 role behaviors. In this regard, the following hypothesis is proposed:

135 *Hypothesis 1: HR Satisfaction will be positively related to employee innovative work*
136 *behavior.*

137 **2.3. EMPLOYEE HR SATISFACTION AND JOB DEMAND PERCEPTIONS**

138 Based on the job demands-resources (JD-R) model (64,6), studies have classified working
139 conditions into two main categories: job demands and job resources. While job resources
140 foster and enhance personal growth, learning and development, job demands require effort
141 and are related to physiological and psychological costs (8). Job resources (also referred to
142 as job control) include practices that foster employee autonomy such as freedom in how to
143 carry out given tasks, performance feedback, learning and development, and social support
144 (7,8). Job demands can be defined as psychological stressors, which include having to work
145 fast and hard, having too much work to do within too little time, and having a heavy workload
146 (5,25,22,34). The job demands construct is normally used to assess employees' feelings and
147 thinking about demanding aspects of their job or role obligations (21). It is also related to
148 performance-related/proactive behaviors (23, 34,33).

149 When job stressors occur, an employee has to look for ways to adapt to the demanding
150 aspects of the job because job demands imposed on employees may affect their behavioral
151 and affective responses (21). Some studies suggest that higher job demands provide an
152 elevated state of arousal in a worker, which in turn will make them either cope with the

153 situation by modifying their work context or by upgrading their skills and abilities in order to
154 match the high job demands (20,21,22). Likewise, (22) contends that redesigning one's work
155 processes may allow an increase in decision latitude among many workers and reduce
156 mental strain and so lead to an increased ability to cope with job demands without affecting
157 firm performance. This line of thinking has been supported by researchers exploring the
158 positive effects of work demands on performance (26), as well as job-related attitudes (38).
159 Overall, the evidence suggests that certain job demands have a positive influence on
160 employees' experiences at work (26,34).

161 Other studies suggest that employees' perceptions of work demands may not be beneficial
162 to employees (3,4). Such studies have included an examination of employee attitudes
163 towards heavy workloads, conflicting or ambiguous job roles and job satisfaction (25). Most
164 of these studies reported to evidence of a negative relationship between stressful jobs and
165 job performance (30). Furthermore, a recent study exploring the links between job demands
166 (workload) and various indicators of performance found no relationship (26). Thus, the
167 evidence is mixed and is still unclear whether job demands are regarded as challenging and
168 thus positive in enhancing performance (34), or as a hindrance at work which may limit
169 performance (26,25).

170 Based on such mixed evidence, there is a need to examine the role of job demands in the
171 relationship between employee HR satisfaction and employee performance outcomes i.e.,
172 innovative work behavior. There is research evidence to suggest that work-related demands,
173 although potentially stressful or challenging, have potential gains for individuals and may
174 mediate the relationship between work characteristics and favorable work attitudes (13). A
175 recent study by (27) suggests that job demands may explain the relationship between HRM
176 practices and employee attitudinal outcomes. They suggest that 'several stressors in the
177 work environment increase the likelihood of the individual employee experiencing high levels
178 of strain, a negative and deterring response to engaging in that work' (27). Thus, perceptions
179 of job demands can explain how and why a relationship exists between perceptions of HRM
180 practices and employee behavioral outcomes such as IWB. This paper proposes that
181 employee perceptions of job demands can explain the relationship between HR satisfaction
182 and IWB. In other words, it tests the extent to which perceptions of job demands will mediate
183 the relationship between hr satisfaction and innovative work behavior. This study therefore
184 proposes the following hypothesis:

185 *Hypothesis 2: Job demand perceptions will mediate the relationship between HR satisfaction*
186 *and innovative work behavior.*
187

188 **3. METHODOLOGY**

189 **3.1. Sample and Sampling Procedures**

190 This paper is based on data gathered through a survey of employees working in firms where
191 high performance work systems (HPWSs) were in use, as identified in a larger firm level
192 study (24). All of the 132 firms included in the original study were invited to participate in the
193 research. Five companies agreed to participate, all of which were represented in the upper
194 quartile of high performance work system utilization of the larger study. However, these five
195 firms represented an upper, medium and lower range within this quartile. Based on the
196 profile and utilization of HPWS in these companies, on average, the companies' utilization of
197 HPWS was about 48.81 per cent. In other words, a score above 48.81% implied a more
198 extensive use of HPWS. In this regard, though not on similar level, all the five companies
199 had an extensive utilization of HPWS compared to other companied that were included in

the intermediate or lower quartiles. The companies came from the manufacturing, financial services, transport and communication industries.

A random sample of employees from these companies was selected, which represented production, maintenance, service and clerical areas, as well as employees from administrative and executive areas. The survey was distributed to approximately 40 to 100 employees across each of the companies. A total of 220 responses were received and the overall response rate (weighted) was 53 per cent. Table 1 provides the survey response rates across the five companies. This response rate is favourable when it is compared to survey-based HPWS related studies as reviewed by (9c). Similar studies had response rates ranging from 6 per cent to 28 percent and had an average of 17.4 per cent (19b). It should be pointed likewise that more recent studies have shown an increase in response rate in HPWS-related studies. (21b), for example, had a response rate of 28.7 per cent, (21c) had a response rate of 30.7 per cent and (19c) had a response rate of 34.2 per cent. Since there was no available data for the non-responding employees, it was difficult to compute any measures of a non-response bias.

Table 1: Employee Response Rate

COMPANY	SURVEYS DISTRIBUTED	SURVEYS RETURNED	RESPONSE RATE (%)
COMPANY 1	100	91	91
COMPANY 2	40	15	37.5
COMPANY 3	40	16	40
COMPANY 4	100	58	58
COMPANY 5	100	40	40
WEIGHTED AVERAGE	380	220	53.3

Of the sample, 67 per cent were male. In terms of education level, 33 per cent of the sample had completed their secondary level education. With regard to occupational type, while the technician category was the smallest with a 7 per cent of the total sample, the professional group was the largest accounting for 30 per cent of the respondents. The majority of the respondents (85%) were of Irish origin.

3.2 Data Analysis Strategy

In order to carry out Factor Analysis (FA) in this study, data analysis included the examining and testing if the data was suitable for Factor Analysis. This was tested through the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. This test indicates the extent of common variance among the variables, that is, indication of underlying or latent common factors. The test also assesses the extent of multicollinearity problems. Kaiser (1974) recommendations include: accepting values greater than 0.5 as barely acceptable, any values below 0.5 are unacceptable. Values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good and values between 0.8 and 0.9 are excellent. Values above 0.9 are superb (cited in Hutchinson and Solfroniou 1999; see also Dziuban and Shirkey 1974: 359). Table 2 presents KMO statistic for the scales analyzed in this study. Each of the scales was identified as suitable for Factor Analysis. The main analytical procedures that

236 were employed in this study include correlation and multiple regression analysis (Ordinary
237 Least Squares, OLS).

238

239 **Table 2: KMO Statistic for Multiple Scales used in this Study**

S/N	Measure	KMO Statistic	Significance
1	Innovative Work Behavior	.907	.000
2	Job Demands Perceptions	.784	.000
3	Employee HR Satisfaction	.863	.000

240

241 **3.3 Research Paradigm**

242 This study uses a positivist approach since it is appropriate in the area of business and
243 management studies and works legitimately in quantification, i.e., quantitative approach in
244 data collection, analysis and interpretation of findings. The researcher is aware that no
245 methodology is without flaws or critics who will challenge its validity and reliability in social
246 science. However, it is also clear that most of the research designs and studies of HR-
247 performance relationship have not succeeded in establishing unequivocally a causal
248 relationship between HR and performance outcomes (15b). Similarly, most of these studies
249 suggest correlational relationships (which do not mean causal relations), and agree in many
250 cases that HR practices contribute to positive employee outcomes (9b; 15b). In this regard,
251 this study is consequently cognisant of potential threats to valid interpretations of results
252 from field research and accordingly has tried to minimize any flaws that may invalidate data
253 collection, analysis and presentation of findings. Care has also been taken in utilizing all the
254 advantages and benefits that survey research gives in the area of business studies. Since
255 surveys have dominated most of the research in business studies, this research is aligned
256 with the mainstream research methods in business studies.

257 **3.4 Ethical Considerations**

258 This study was carried out with assurance of respondents' confidentiality and no individual
259 names were identified at any stage of the study. Likewise, the results of this study are
260 reported in aggregate form only and individual companies are not be identifiable from the
261 report. While the code number on the last page of the survey helped us to track responses, it
262 also prevented anyone other than the researchers from associating questionnaires with their
263 companies. The study also received approval from the University of Limerick Research
264 Ethics Committee at its meeting on 8 June 2006.

265 **4. MEASURES**

266 **4.1. INNOVATIVE WORK BEHAVIOR**

267 Innovative work behavior (IWB) was measured by adapting (20, 21) nine item measure for
268 innovative work behavior in the workplace. This measure asked respondents to indicate how
269 often they perform innovative work behaviors including, for example, creating new ideas for
270 difficult issues, generating original solutions for problems, and mobilizing support for

innovative ideas. The response was in the format of a five-point scale ranging from (1) never to (5) always. When an exploratory principal components factor analysis with varimax rotation was conducted, it yielded three factor loadings with initial eigenvalues greater than 1. The three factor loadings extracted correspond to the nature of the original measure. The original measure assesses three areas of IWB. Thus in this study, idea generation (alpha .90), idea mobilization (alpha .87) and idea realization (alpha .90) were established. Consistent with the original scale, the three factors/dimensions were combined to form the measure of individual IWB. The Cronbach's alpha coefficient for the measure was .95. Table 3 below provides details for factor loadings on IWB measure.

Table 3. Factor Loadings: Innovative Work Behavior

Items	IR	IM	IG
Transforming innovative ideas into useful applications	.841		
Evaluating the utility of innovative ideas	.785		
Acquiring approval for innovative ideas	.617		
Searching out new working methods, techniques or instruments		.827	
Introducing innovative ideas into the work in a systematic way		.659	
Making organisational members enthusiastic for innovative ideas		.607	
Generating original solutions for problems			.875
Creating new ideas for difficult issues			.776
Mobilizing support for innovative ideas			.608

4.2. JOB DEMANDS

Job demands was measured using Van Veldhoven and Meijman's (1994) eight item scale which assesses employees' views about demanding aspects of their job. Examples of items included (a) 'Do you have to work fast?' (b) 'Do you have too much work to do?' (c) 'Do you have to work extra hard to finish a task' and (d) 'Do you work under time pressure?' Response options ranged from (1) Never to (5) Always. When an exploratory principal components factor analysis with varimax rotation was conducted, it yielded two factor loadings with initial eigenvalues greater than 1. The two factor loadings extracted correspond to the nature of the original measure. The first dimension consisted of four items reflecting job demands in terms of workload of the tasks to be performed. The Cronbach's alpha for the measure was .81. The second dimension consisted of four items relating demanding aspects of the job to the pace of the tasks. The Cronbach's alpha for the measure was .75. Table 4 below provides details for factor loadings on Job Demands measure.

296

297 **Table 4. Factor Loadings: Job Demands Perceptions**

Items	Workload	Task Pace
Do you have to work fast?	.849	
Do you have too much work to do?'	.796	
Do you have to work extra hard to finish a task'	.766	
Do you work under time pressure?	.701	
Can you do your work in comfort?		.863
Do you have to deal with a backlog at work?		.855
Do you have problems with the pace of work?		.634
Do you have problems with the workload?		.508

298

299 **4.3. HR SATISFACTION**

300 Employee HR satisfaction was captured by assessing various HRM-related aspects of job
301 satisfaction. This measure was adapted from (4) CORUS survey instrument and used a
302 Likert scale response format, where scores ranged from (1) very satisfied to (5) very
303 dissatisfied. All the items were reverse coded in such a way that higher scores depicted
304 higher satisfaction. The main question asked of respondents was 'how satisfied are you with
305 the following aspects of your job?' Responses included 22 items which comprised items
306 such as: (a) 'your rate of pay' (b) 'payment according to your performance' (c) 'the amount of
307 training you receive' (d) 'communication between organization and employees' (e) 'the work
308 conditions.' Literature on HR satisfaction suggests that satisfaction is not one-dimensional.
309 In this regard, an exploratory principal components factor analysis with varimax rotation was
310 conducted which yielded five factor loadings with initial eigenvalues greater than 1. The
311 generated five factors had a cumulative percentage of total variance explained 59%. Since
312 one of the items was below .45, the cut off point for factor loadings as recommended by (58),
313 only 21 items which had acceptable factor loadings were used in creating the scales for
314 various dimensions in the measure of employee HR satisfaction. The measure as
315 aforementioned assesses employees' experiences of HRM practices as have been
316 implemented in their firm or organization (55:1173). The five factors extracted and rotated
317 were related to communication and feedback (alpha .84), training and development (alpha
318 .78), remuneration and appraisals (alpha .77), job security (alpha .70), and public relations
319 (alpha .62). The items which loaded on each factor were averaged to get factor scores for
320 each dimension. In order to conduct a mediation test appropriately, a composite measure of
321 employee HR satisfaction was computed. The Cronbach's alpha for the measure was .90.
322 Table 5 below provides details on factor loadings on HR satisfaction measure.

323

324 **Table 5. Factor Loadings: HR Satisfaction**

Items	C&F	T&D	P&A	JS	PR
The attention paid to suggestions you make	.797				
The recognition you get for good work	.724				
The number of times you receive performance feedback	.703				
Communication between organisation and Employees	.579				
Your chance of promotion	.494				
Your opportunity to use your abilities	.480				
Industrial relations between management and workers	.400				
The amount of training you receive		.879			
The intensity of the training you receive		.871			
The ability to perform more than one job		.580			
Payment according to your performance			.826		
Your rate of pay			.768		
The way appraisal is related to payment			.615		
Your job security				.694	
The physical work conditions				.653	
Pension provisions				.502	
The level of healthy and safety				.469	
Your involvement in programmes on grievance or complaint procedures				.464	
Relationship with your immediate boss					.744
Relationship with fellow workers					.544
The overall hours of work					.501

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329 **4.4. CONTROL VARIABLES**

330 A number of variables were also controlled for in the model. These were: company, age,
331 education, and gender. We controlled for education using two dummy variables: one for
332 those with a primary degree or higher, and one for those who had completed second level
333 (excluding from the analysis those educated above second level but below degree level).
334 Gender was coded as 1 for male and 0 for female.

335 **Table 6. Means, Standard Deviations and Pearson Correlations¹**

	MEASURES	MEAN	SD	N	1.00	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	GENDER	0.68	0.47	215														
2.	EDUCATION LEVEL	3.69	1.20	215	-.22**													
3.	AGE	3.00	1.10	216	.12*	-.16**												
4.	OCCUPATION TYPE	3.88	1.66	219	-.23**	.34**	0.05											
5.	COUNTRY OF ORIGIN	2.88	0.63	218	-0.05	-.12*	0.08	0.10										
6.	COMMUNICATION & FEEDBACK	3.18	0.76	219	-0.06	.13*	-0.07	0.10	-.14*	(.84)								
7.	TRAINING & DEVELOPMENT	3.42	0.94	219	-0.06	0.08	-0.02	0.01	0.02	.45**	(.78)							
8.	PAYMENT AND APPRAISALS	3.04	0.87	218	-0.07	0.05	0.05	-0.03	-0.03	.53**	.25**	(.77)						
9.	JOB SECURITY	3.62	0.69	218	-0.11	.13*	0.06	.19**	-0.07	.62**	.35**	.50**	(.70)					
10.	PUBLIC RELATIONS	4.12	0.69	219	-.21**	0.09	0.02	0.11	0.00	.47**	.30**	.40**	.52**	(0.62)				
11.	JOD DD-PACE	3.34	0.74	219	-0.03	0.09	-.15*	0.10	-.15*	-0.01	0.03	-.16**	-.16**	-.21**	(.81)			
12.	JOB DD-WORKLOAD	2.57	0.72	219	0.02	0.04	0.10	.13*	-0.05	-.17**	-0.02	-.22**	-.20**	-.20**	.45**	(.62)		
13.	IWB	2.70	0.91	217	0.03	0.12**	-0.01	.23**	.19**	.42**	.13**	.15**	.19**	0.10	.27**	.13*	(.94)	
14.	HR SATISFACTION COMP MEASURE	3.47	0.57	220	-.117*	.119*	.01	.11	-.08	.88**	.59**	.71**	.82**	.67**	-.10	-.22**	.30**	(90)

336 Notes: significant at the 0.01 level (one Tailed) *Correlations significant at the 0.05 level (One tailed)

337 ¹Scale reliabilities for relevant measures appear in parentheses in the upper diagonal for each variable.

5. RESULTS AND DISCUSSION

The means, standard deviations and inter-correlations for all study variables are reported in Table 6.

The multiple regression analysis examined the extent to which employee HR satisfaction (as a multi-dimensional measure, i.e., the five dimensions of the satisfaction measure were all used in the regression analysis) explain employee innovative work behavior. Table 3 provides details of the results of the analysis.

Hypothesis 1 predicted that HR satisfaction would be positively related to employee innovative work behavior. As shown in table 7, after controlling for company, age, education, and gender, employee HR satisfaction with communication and feedback practices (model 2) was positively related to employee innovative work behavior ($\beta = .59$, $p < .001$), thus supporting hypothesis 1. In this regard, models 1 and 2 present results relating to the extent to which control variables (model 1) and the HR satisfaction dimensions (model 2) explain employee innovative work behavior. Model 3 presents the results when the job demands variable (i.e. the mediator) was added. Model 1 accounted for 11 per cent of the variance explained in employee innovative work behavior [$F(9,203) = 2.624$, $p < .05$]. The addition of the HR satisfaction measures accounted for a further 18 per cent of the variance ($\Delta F = 5.581$, $p < .001$). The addition of the mediator variable accounted for a further 4.5 per cent of the variance in the model ($\Delta F = 5.86$, $p < .001$). Overall, the models accounted for 33 per cent of the variance (Model R2) in employee innovative work behavior [$F(16,203) = 5.868$, $p < .001$].

Table 7. Multiple Regression Analysis for Employee HR Satisfaction and Employee Innovative Work Behaviour^a

	INNOVATIVE WORK BEHAVIOUR		
	MODEL 1	MODEL 2	MODEL 3
<i>CONTROLS</i>			
COMPANY 1	-.07	-.07	-.07
COMPANY 2	.01	-.04	.01
COMPANY 3	.13	.09	.07
COMPANY 4	-.07	-.05	-.04
AGE (< 30)	-.16	-.17	-.16
AGE (41+)	.05	.01	.00
EDUCATION (DEGREE OR HIGHER)	-.03	-.01	-.06
EDUCATION (SECOND LEVEL)	-.04	-.05	-.06
GENDER (MALE)	.08	.10	.11
COMMUNICATION AND FEEDBACK		.59***	.56***
TRAINING AND DEVELOPMENT		-.07	-.11
REMUNERATION AND APPRAISALS		-.04	-.02
JOB SECURITY		-.11	-.08
PUBLIC RELATIONS		-.10	-.27
JOB DEMANDS	-	-	.21**
CHANGE IN F	2.62**	9.58***	6.38**
CHANGE IN R^2	.109	.18	.045
F	2.62**	5.48***	5.87***
ADJUSTED R^2	.067	.236	.277

360 **Notes:** ^aCompany 5 is omitted in this regression since it is a reference group variable; ^bMissing
361 data and listwise deletion reduced sample size from 220 to sizes ranging from 187 to 205 in
362 different variables in the multiple regression analysis. *** $p < 0.001$; ** $p < .01$, * $p < 0.05$, † $p <$
363 $.10$; all tests are one-tailed.

364 In order to assess the mediation effects of employee perceptions of job demands on the
365 relationship between HR satisfaction and innovative work behavior, (9) conditions for mediation
366 were followed. We also used a Sobel test (48), which provides a more direct test of indirect
367 effects (i.e., Sobel Z). The test assesses whether a mediator carries the influence of an
368 independent variable to a dependent variable. Specifically, it focuses on the product term based
369 on the logic that the product is equal to the difference between the total effect and direct effect,
370 rather than on individual paths in the mediation model (39).

371 Since it was very cumbersome to test mediation using five dimensions of the HR satisfaction
372 measure, a composite measure of HR satisfaction was used rather than the individual aspects.
373 The first step in the mediation test was significant and HR satisfaction was positively related to
374 innovative work behavior ($\beta = .29$, $p < .001$). The second and third steps were also significant;
375 HR satisfaction variable significantly predicted job demand perceptions ($\beta = -.14$, $p < 0.1$). On
376 the other hand job demand perceptions significantly predicted IWB when controlling for the
377 measure of HR satisfaction ($\beta = .27$, $p < .001$). The last condition as highlighted by (9) states
378 that in order to claim for a partial or full mediation, the effect of the predictor (in this case HR
379 satisfaction) on the dependent variable (in this case innovative work behavior) should be
380 reduced to zero (full mediation) or merely reduced (partial mediation) when controlling for the
381 mediator (job demand perceptions) was not met. Thus, a Sobel test was carried out. Table 8
382 provides the results for the mediating effects of job demands on the relationship between HR
383 satisfaction and employee innovative work behavior. The mediation regression results showed
384 that employee perceptions of job demands (the mediator variable) did not have a complete
385 mediation effect on the relationship between HR satisfaction and employee IWB. In this regard,
386 hypothesis 2 was not supported. However, the model showed that employee HR satisfaction
387 had an indirect effect on employee innovative work behavior via perceptions of job demands as
388 computed through the Sobel test, (Sobel $z = -1.76$, $P = .078$).

389 **Table 8: Regression results predicting the mediation effects of Job Demands on the**
390 **relationship between HR Satisfaction and IWB^a**
391

PREDICTORS	INNOVATIVE WORK BEHAVIOR						
	B (S.E)	T	F	DF	R ² CHANGE	TOTAL R ²	SOBEL Z
MODEL 1							
HR SATISFACTION	.46*** (.108)	4.2***	4.35***	(10,204)	.075***	.18***	
MODEL 2							
JOB DEMANDS	.32*** (.08)	4.05***			.064***	.24***	
HR SATISFACTION	.52*** (.105)	4.89***	5.76**	(11,204)	.094***	.25***	-1.76 [†]

392 Note: ^aSobel test results are two tailed; N = 205

393 *** $p < 0.001$; ** $p < .01$, * $p < 0.05$, † $p < .10$

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397 5. DISCUSSION AND CONCLUSION

398

399 5.1. DISCUSSION

400 The research demonstrates the importance of certain HRM practices in influencing innovative
401 work behaviors among employees. Hypothesis 1 proposed that HR satisfaction (represented by
402 various dimensions of satisfaction with HRM practices) would be positively associated with
403 innovative work behavior. The study found a significant relationship between innovative work
404 behavior and one dimension of employees' HR satisfaction namely communication and
405 feedback. The regression model showed that HR satisfaction which is related to communication
406 and feedback accounted for about 4 per cent of the unique variance in innovative work behavior
407 (reflected in the partial correlations coefficients), above what was explained by the control
408 variables model. These findings are consistent with studies which have generally associated
409 employee perceptions of HRM practices with innovation, and innovative work behavior
410 (2,20,36,46,52). The findings are also consistent with studies that suggest that HRM practices
411 can be used as ways of encouraging employees to work innovatively (2,16,20,21 27,40). What
412 is new in this finding is the aspect that only the communication and feedback dimension of the
413 measure of HR satisfaction was significant. Other variables which were significant included
414 occupation type and type of the firm the employee was as control variables. The practical
415 implication of this trend is that each HRM practice may have its own effect in influencing
416 employee perceptions and their resultant effect in performance outcomes.

417 In this regard, these findings suggest that employees are more likely to engage in innovative
418 work behavior depending on the extent to which they are satisfied with how the management
419 effectively communicates their objectives and goals to the employees. It should be noted that
420 innovative work behavior consists of practices which suggest discretion among the employees.
421 In this respect, if there is lack of proper communication and feedback between the management
422 and the employees regarding the extent to which they can engage in innovative work behavior,
423 employees may withdraw their propensity to innovate. Literature shows that innovative work
424 behavior is also related to employees' efforts and decision to 'take charge' and initiate change in
425 a respective work role (28). The study findings showed that only communication and feedback
426 practices explained the variance in innovative work behavior. Furthermore, Model 2 in total has
427 only 33 per cent of variance explained. The variance explained is in line with various HR related
428 studies of similar nature, which gives researchers room for further studies on the other
429 hypothesized variables. On the other hand, there was no alternative hypothesis which could
430 explain the reasons behind the remaining 67% variance unexplained. Nevertheless, the level of
431 variance explained is acceptable. Related to communication and feedback as the main
432 significant independent variable in the study, this study suggests that empowerment among
433 employees is a potential outcome of good communication and feedback which leads to
434 innovative work behavior. Caution must be taken in this respect, however, that due to our small
435 sample size, conclusions made should be made with view of a possibility of other factors being
436 significant should the sample size be a little big in size. Thus, in order to get more benefits from
437 employees' extra-role behaviors, management should extensively utilize HRM practices that
438 foster effective communication and feedback since these practices have the potential for
439 influencing employees' innovative work behavior. In this respect, the company management
440 should encourage employee participation in such areas like decision making. They should also
441 encourage practices which enhance the communication of important or relevant company

information to employees. These may include relevant financial or operating performance information. They should also encourage employee-employer communication in particular with regard to matters related to grievance or complaint resolution procedures. The findings are beneficial to both the employer and the employees because understanding employees' HR satisfaction can assist in channeling employee voice and in ensuring that people management aligns with company goals. Employee voice can be used as a means through which employees suggest improvements in working conditions, training methods, and safety procedures (53). Similarly, these findings suggest to practitioners that employees can be motivated and developed in knowledge, skills and abilities, to work innovatively for the benefit of the company.

With regard to hypothesis 2, the results for the mediation analysis between employee HR satisfaction and innovative work behavior showed that employee perceptions of job demands did not fully or partially mediate the relationship between HR satisfaction and IWB as hypothesized. There were, however, findings related to the indirect effects of employee HR satisfaction on employee IWB via perceptions of job demands. These indirect effects were assessed using the Sobel test. In this regard (32) highlights that, an understanding of how people behave at work, and how they interact with their working environment, can assist a company in the creation of an environment that does not require more than the worker can give. These findings have practical implications to the employer because understanding employees' perceptions of the demanding aspects of the job can aid a company in designing work roles that are not detrimental to both the company and employees. It is also important to the employers to understand the role of perceptions of job demands especially when these perceptions are related to employee-behavioral outcomes. These findings should aid employers in understanding that, although perceptions of job demands do not completely mediate the relationship between HR satisfaction and behavioral outcomes, they do play a role in carrying over the influence of these HRM perceptions on behavioral outcomes. Thus, employee perceptions of demanding aspects of the job indirectly influence the relationship between HR satisfaction and IWB. In simple terms, too much workload may mitigate employees' HR satisfaction which in turn may reduce employees' willingness to take charge and engage in extra-role behaviours.

Based on social exchange theory (10) and the norm of reciprocity (28), this study has demonstrated that employees will reciprocate in beneficial ways when they perceive that their company treats them well. This theoretical perspective was supported by the findings regarding employee HR satisfaction, the independent variable in regressing employee innovative work behavior. In particular, this study suggests that employers should adopt practices that address the manner in which employees get performance feedback and the way the company communicates with its employees. The study has also shown that there is a positive relationship between employee HR satisfaction and employee innovative work behavior. This association indicates that employees' perceptions matter in determining behavioral outcomes, in particular, innovative work behavior. These employee performance outcomes are important in eliciting discretionary efforts, which in turn affect company performance.

5.2. LIMITATIONS

A number of limitations to the study should be noted. There was a relatively small response rate in this study. The greatest challenge relating to securing companies to participate in employee surveys involved claims by the management that they have had numerous employee surveys submitted to the company for completion. Therefore, additional surveys were considered unnecessary, inconvenient, and costly in terms of finance and time that employees usually spend out of the job completing questionnaires. Despite the investigator's efforts to convince the companies that the surveys would be beneficial for the companies and the researchers, very few companies accepted the invitation. Accordingly, these research

constraints necessitated that any generalizations of this work should be made in the knowledge that the response rate for the employee sample was relatively small. Similarly, due to lack of information about employees who did not complete the surveys, it was difficult for this study to assess a non-response bias between responding and non-responding employees. This weakness may limit generalizations that can be made in this study. In the same manner, lack of adequate sample made it impossible to use Structural Equation Modeling which would be an alternative in simultaneously testing the relationships among variables in the model.

499

500 **5.3. CONCLUSION**

This study has attempted to examine the association between employee HR satisfaction and employee performance outcomes, namely innovative work behavior. The study also assessed the influence of employee job demand perceptions on the relationship between HR satisfaction and innovative work behavior. Overall, the study has demonstrated that employee HR satisfaction influence innovative work behavior. Similarly, job demand perceptions have an indirect effect on employee propensity to engage in innovative work behavior. Thus, in order to improve innovation, management has to adopt and encourage HRM practices which are more likely to motivate employees to engage in extra role behaviors.

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