

## **A Study of the Effects of High Performance Work System on Employee's Proactive Behavior and Mediating Role of Psychological Empowerment among the Airline Staff in United Arab Emirates**

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**Abstract:** Aviation industry is facing severe challenges such as increase in fuel prices, heavy competition, and changing customer needs. By giving importance to the human resource issues and strategically utilizing staff capabilities, firms in aviation industry can better address such challenges. In this context, in current study, our objective was to test the effects of High Performance Work System (HPWS) on employee's perceived psychological empowerment and proactive behavior. Additionally, the employee's perceived psychological empowerment is proposed as mediator between the relationship of HPWS and employee proactive behavior. Primary data for this study is collected using the survey measure adapted from previous sources. Through convenience sampling, data is collected from staff from selected airline firms located in the UAE region (n=177). Findings indicate that HPWS dimensions including training and compensation have positive and significant effects on employee's proactive behavior. Similarly, the HPWS dimensions including recruitment and compensation have positive and significant effects on employee's perceived psychological empowerment. Further, our findings indicate that psychological empowerment function as a mediator between the HPWS dimensions of recruitment and compensation and employee proactive behavior. Our findings have implications for the management of the aviation industry firms.

**Keywords:** High Performance Work System, Psychological Empowerment, Proactive Behavior, Aviation Industry, UAE.

## **INTRODUCTION**

The function of managing staff previously known as personnel management and human resource management is now evolving as strategic human resource management. Scholars in the HRM field have come up with different names and set of HRM related practices commonly known as high performance work systems (HPWS). Three issues related to the HPWS are emerged. One is that HPWS related research mostly takes the managerial point of view and ignores the employee's perspective [1, 2]. Second, most studies investigated the intended HPWS ignoring the difference between the intended and actual HPWS practices [3, 4]. Third issue is related to the limited understanding about the mechanism through which the human resource practices leads to the favorable employee and organizational outcomes [1, 5]. In current study, we address the three issues by focusing on employee's perspective, investigating perceived HPWS rather than intended practices, and focus on intermediary mechanism.

The objectives of the study are as under.

- To measure the effects of HPWS on employee's proactive behavior
- To assess the effects of HPWS on employee's psychological empowerment
- To test that whether psychological empowerment function as a mediator between the relationship of HPWS and employee's proactive behavior.

The significance of the study is that it contributes to the literature of HPWS and further explains how HPWS leads to the desired employee behavior and the intermediary process. It also addresses the gap by focusing on the employee perspective rather than the managerial perspective. The findings of the study can be helpful for the management of the airline companies operating in the UAE. The findings can also be utilized by the management of other service oriented organizations as well as academics, consultants, and so on.

High performance work system refers to the set of interrelated and distinct HRM practices having its own overarching structure designed with the aim to

improve knowledge and skills of staff, reorganize work, and improve workers attitude, all leading to the improved performance of organization [6]. Different authors used different set of HR practices for measuring HPWS. For example, Shin [7] included selective selection, training, employee involvement, performance appraisal, and performance based pay as component of HPWS. Similarly, Karatepe and Vatankhah [8] used career opportunities, empowerment, selective staffing, rewards, job security, team work, and training as set of practices making HPWS. In current study, we used the four practices including staffing and recruitment, training and development, performance appraisal, and compensation and reward as components of HPWS.

Accordingly, recruitment refers to the process of seeking and attracting potential employees, while, selection refers to the process of identifying applicants with the right knowledge, skills, and abilities, which help organization achieving its goals [9]. Training and development is an important aspect of HPWS since it improves employee's knowledge, skills, and behavior [10]. An organization's investment in employee's training and development also send the signal that organization give value to its employees and employees are likely to return good work, motivation, and performance to the organization [10]. Performance appraisal is about making assessment of individual and team performance [11]. A good performance appraisal system enable organization and its management to highlights staff strengths and weaknesses which can then be used to design good training program [10]. Modern HPWS advocates performance based compensation system [12]. Performance based compensation system is important since it give motivation to perform and leads to improved staff performance [13].

We used proactive behavior of employees as one of the outcome. Pakrer *et al.*, [14] describe proactive behavior as taking control to make things happen rather than watching things happen. Initiative, change, and future perspective are characteristics of such behavior. It is highly important in organizations having decentralized structures [15]. The benefit of proactive behavior is that if such behavior exists, manager may not need to tell everything while employees themselves initiate and take responsibility as some issue arises. The literature suggests that proactive behavior is product of two types of factors. One factor is individual characteristics such as personality type, internal motivation, or goal orientation [16]. The second factor is external or environmental characteristics such as organizational environment, leadership style, and HRM practices [17, 18]. In current study, we use the HPWS as explaining the employee's proactive behavior which is part of the external factor.

Psychological empowerment is a four dimensional concept as proposed by Spreitzer [19]. Meaning is the first dimension and refers to the importance of one's own work role. Competence is the second dimension and refers to the confidence of completing the tasks assigned based on the own capabilities. Impact is the third dimension and is about the outcomes of one's work on the work environment. Autonomy is the fourth dimension and is about having discretion in completing the task according to own will. The antecedents of psychological empowerment include work related factors including leadership style such as transformational and transactional, organizational environment, and so on [20, 19]. The positive outcomes of psychological empowerment include innovation [21]; and creative process engagement and intrinsic motivation [22].

The connection between HPWS and employee proactive behavior is based on different theoretical concepts including image defense and enhancement motives [23]; and norm of reciprocity means employees feel obliged to reciprocate by being proactive [24]. The AMO model (ability, motivation, opportunities) model is now frequently used to explain the HPWS and employee proactive behavior [25, 26]. Besides the theoretical support, past studies shows that HPWS is linked to the proactive behavior. A study conducted by Maden [27] found relationship between fair reward, competence development, and empowerment on employee's proactive behavior. Another study conducted by Arefin, Arif, and Raquib [28] found support for the relationship between HPWS as a whole and employee proactive behavior. On the basis of past studies and theoretical support, we propose that HPWS will positively contribute to the employee's proactive behavior.

The relationship between HPWS and psychological empowerment is such that when organization provides training and development opportunities to its staff, it will improve their capabilities, resulting in increased motivation and confidence to create an impact on organization [29]. Broader job design and team based work which are key elements in HPWS are likely to give greater sense of autonomy to individuals also leading to the psychological safety [30]. Past studies found significant impact of HPWS on employee's psychological safety [28, 31].

The mediating role of psychological empowerment between the relationship of HPWS and employee proactive behavior is based on the premise that proactive behavior is motivation driven. Several authors advised to include motivational factors in the connection between the HPWS and employee outcomes [28, 32]. Since the psychological empowerment function as a predictor of proactive behavior, therefore,

our hypothesis is that HPWS create ability, motivation, and opportunities for staff which create psychological empowerment and further leads to the proactive behavior of staff. Therefore, we propose that psychological empowerment function as a mediator between the relationship of HPWS and staff proactive behavior.

**MATERIALS AND METHODS**

**Research Design**

The research design of the current study is explanatory and cross-sectional. It is explanatory since it explains the relationship between the variables. Further, it is cross sectional since data is only collected at one point in time.

**Study Area**

The study is based on the area of United Arab of Emirates. This region is selected since several regional airlines have operations in this region.

**Population, Sample, and Sampling Procedure**

The targeted population of the current study is all the employees of the airlines located in the United Arab of Emirates. There are four local commercial airline carriers in the UAE namely Air Arabia, Emirates, Etihads Airways, and Flydubai. Based on the company’s websites information, there are about 93000 employees of the four airlines. In current study, the sampling is based on the convenience sampling. A total of 325 surveys were distributed out of which 177 were returned.

**Measure**

HPWS is measured by four variables namely staffing and recruitment, performance appraisal, compensation and reward, and training and development based on Human Resource Management Practices and Policies Profile (HRMPPP) adapted from Schuler and Jackson [33]. In this measure, there are 5 items for staffing and recruitment, 5 items for

performance appraisal, 7 items for compensation and reward, and 6 items for training and development. Psychological empowerment is measured by 12 items and adapted from Spreitzer [19]. Proactive behavior is measured by 13 items and adapted from Parker and Collins [14].

**Data collection**

Survey was physically distributed among staff in selected offices and collected back later by research assistants.

**Pre-Testing of Survey Instrument**

A small scale pilot study is conducted involved a sample size of 30 employees from the selected organizations. The participants of the pilot study were asked to give their feedback on the survey. Mostly, the survey items were found easier to understand by the participants. Average time to complete the survey was 15 minutes. Reliability statistics on the data collected from the pilot study was also acceptable (Cronbach alpha >0.70) indicating that measure adapted is reliable.

**Data Analysis**

Data is analyzed by the frequencies, descriptive statistics, regression, and the mediation. While running the regression analysis, its basic assumptions including normality of error term, no multicollinearity, homoscedasticity, and no autocorrelation were also tested.

**Ethics**

Ethical issues were managed in current study including maintaining voluntary participation and no use of force, no deception, maintenance of confidentiality were ensured in current study.

**RESULTS AND DISCUSSION**

Results including demographic details, descriptive statistics, regression analysis, and the mediation analysis are as under.

**Table-1: Demographic Information of the Survey Participants**

	Frequency	Percentage
Gender		
Male	149	84.2%
Female	28	15.8%
Age		
18 to 30 Years	71	40.1%
30 to 45 Years	83	46.9%
45 to 60 Years	16	9%
Above 60 Years	7	4%

As shown in table-1 above, there were total of 177 survey participants. From total, 149 (84.2%) were male and 28 (15.8%) were female. Age wise, 71 (40.1%) participants belonged to the age category of 18

to 30 years; 83 (46.9%) belonged to the 30 to 45 years; 16 (9%) belonged to the 45 to 60 years of age; and 7 (4%) belonged to the above 60 years of age category.

**Table-2: Descriptive Statistics**

	No. of Items	Mean	S.D	Cronbach Alpha	1	2	3	4	5	6
Recruitment	05	3.631	.806	.775	1					
Training	6	3.663	.734	.798	.752**	1				
Performance Appraisal	05	3.571	.860	.813	.768**	.763**	1			
Compensation	07	3.511	.715	.819	.589**	.651**	.777**	1		
Proactive Behavior	12	3.442	.728	.870	.608**	.666**	.663**	.653**	1	
Psychological Empowerment	13	3.561	.650	.907	.619**	.603**	.669**	.689**	.726**	1

n=177, \*P < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

The descriptive statistic is given in table-2 above. Results indicate that according to the survey participants, in selected airlines, there is above average level of effective recruitment (M=3.63, SD=.80); training (M=3.66, SD=.73); performance appraisal (M=3.57, SD=.86); and compensation (M=3.51, SD=.71). Further, the proactive behavior of employees is also above average level (M=3.44, SD=.72); and same for the perceived psychological empowerment (M=3.56, SD=.65). Further, all variables had Cronbach alpha of above 0.70 indicating that measure adapted are reliable in this particular context. The correlation

analysis suggest that recruitment (r=.608, P<.05); training (r=.666, P<.05); performance appraisal (r=.663, P<.05); and compensation (r=.653, P<.05) are positively and significantly associated with proactive behavior of employees. Similarly, the psychological empowerment is also positively associated with four HPWS dimensions including recruitment (r=.619, P<.05); training (r=.603, P<.05); performance appraisal (r=.669, P<.05); and compensation (r=.689, P<.05). Employees proactive behavior and psychological empowerment is also positively and significantly associated (r=.726, P<.05).

**Table-3: Regression and Mediation Analysis**

	Model I	Model II	Model III	Model IV
	Path c (Step 1)	Path a (Step 2)	Path b (Step 3)	Path c/ (Step 4)
(Constant)	.733	1.081	.691	.237
Gender	-.131	-.045	-.063	-.110
Age	-.157*	-.069	-.136	-.125
Recruitment	.118	.191**		.030
Training	.280**	.058		.253**
Performance Appraisal	.076	.077		.041
Compensation	.329***	.389***		.150
Psychological Empowerment			.803***	.460***
Rsquare	.555	.553	.536	.631
Adjusted RSquare	.540	.537	.528	.615
Change in RSquare	.526	.539		.095
FStat	35.371	35.051	66.598	41.215

Control Variables: Gender (Male), Age (18 to 30 Years)

Independent Variable: Recruitment, Training, Performance Appraisal, Compensation

Mediating Variable: Psychological Empowerment

Dependent Variable: Proactive Behavior

n=177, \*P < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Regression and mediation models results are given in the table-3 above. For testing the mediation model, we used the Baron and Kenny [37] and Kenny [36] approaches. For classical model, we run four regression models. In Model I, relationship between HPWS and employee proactive behavior is tested. Result indicate that when controlling for employee's gender and age, recruitment (β=.118, P>.05); training (β=.280, P<.05); performance appraisal (β=.076, P>.05); and compensation (β=.329, P<.05) have positive influence on employee proactive behavior. The four dimensions of HPWS explain 55.5% change in the

dependent variable of employee proactive behavior. In Model II, we checked the relationship between HPWS and employee psychological empowerment. Result indicate that when controlling for employee's gender and age, recruitment (β=.191, P<.05); training (β=.058, P>.05); performance appraisal (β=.077, P<.05); and compensation (β=.389, P<.05) have positive influence on employee's psychological empowerment. The four dimensions of HPWS explain 55.3% change in the dependent variable of employee psychological empowerment. In Model III, we checked the effects of psychological empowerment on employee's proactive

behavior. Result indicate that when controlled for gender and age, psychological empowerment is having positive and significant influence on employee's proactive behavior ( $\beta=.803, P<.05$ ). The psychological empowerment explains 53.6% change in the dependent variable of employee's proactive behavior. Finally, in Model IV, we checked the effects of HPWS on employee proactive behavior while controlled for psychological empowerment. Result indicate that when controlling for employee's gender, age, and psychological empowerment, recruitment ( $\beta=.030, P>.05$ ); training ( $\beta=.253, P<.05$ ); performance appraisal

( $\beta=.041, P>.05$ ); and compensation ( $\beta=.150, P>.05$ ) have positive influence employee proactive behavior. The four dimensions of HPWS explain 63.1% change in the dependent variable of employee proactive behavior. Comparing the model IV with model I, it can be noticed that the significance level of only one variable namely compensation changed from significance to insignificant. Further, there is not much change in the Rsquare so indicating that mediating hypothesis is not supported. Additionally, we tested the mediating model using the Kenny [36] approach. Results are as under.

**Table-4: Total, Direct, and Indirect Effects for the relationship between HPWS Dimensions and Employee Proactive Behavior Mediated by Percieved Psychological Empowerment**

	Path a $\beta$	S.E. of a	Path b $\beta$	S.E. of b	c'	ab	c= c'+ab	Direct Effects c'/c	Indirect Effects ab/c	Sobel Test
Recruitment	.191	.071	.803	.058	.030	0.153	0.183	0.163	16.36	2.64**
Training	.058	.078	.803	.058	.253	0.046	0.299	0.844	84.45	0.74
Performance Appraisal	.077	.081	.803	.058	.041	0.061	0.102	0.398	39.87	0.94
Compensation	.389	.075	.803	.058	.150	0.312	0.462	0.324	32.44	4.85***

n=177, \*P < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

The direct, indirect, and total effects are calculated and given in the table-4 above. Further, Sobel test is used to test the mediation hypothesis. Result indicate that recruitment ( $Z=2.64, P<.05$ ) and compensation ( $Z=4.85, P<.05$ ) have significant effects on employee proactive behavior mediated by employee's perceived psychological empowerment. Thus, we partially support the mediating hypothesis.

**DISCUSSION**

The objective of the study was to measure the effects of HPWS on employee's proactive behavior and psychological empowerment. Additionally, the objective was to test if psychological empowerment functions as a mediator between the HPWS and the employee's proactive behavior. Data is collected from the four airline employees in the UAE airports through convenience non-random sampling using the pre-developed survey measure. Findings indicate that in the selected sample, the perceived HPWS was high. Similarly, the perceived psychological empowerment and the proactive behavior were also slightly above average level. Further, our findings indicate that HPWS components including training and compensation had positive and significant effects on employee's proactive behavior. This finding is similar to the findings of previous studies including Maden [27] and Arefin *et al.*, [28]. Our second finding is that HPWS dimensions including recruitment and compensation had positive and significant effects on employee's perceived psychological empowerment. This finding is also similar to the finding of previous studies including Arefin *et al.*, [28], and Carvalho & Chambel [31]. We also found support that perceived psychological empowerment function as a mediator between the

dimensions of recruitment and compensation with the employee's proactive behavior. The relationship is supported by other studies which also found that psychological empowerment function as a mediator between the HPWS and employee behavior and performance [34, 35, 32]. Overall, our findings are consistent with the findings of previous studies and is supported by the AMO model of HPWS [25, 26].

**CONCLUSION**

On the basis of the findings of the study, it can be concluded that HPWS is important and should not be ignored by the management of the airline management. Further, it can be concluded that good Human Resources management practices leads to the favorable outcomes in this particular context. The findings of this study are significant since it highlights that employee perspective is important and should not be ignored. Further, significance of the study is that it also contribute in understanding the intermediary mechanism of HPWS and employee outcome relationship.

**RECOMMENDATIONS**

Our first recommendation is that airline companies in the UAE region should take the human resource issues very seriously. Accordingly, organizations in aviation field should focuses on proper recruitment and selection of staff, proper emphasis on employees training and development, fair administration of performance appraisal, and offers competitive compensation. Further, organizations should strive to develop a positive perception of employees regarding psychological empowerment as it

also leads to the favorable employee related outcomes including employee proactive behavior.

### Limitations of the Study

The limitations of the study include its research design which is cross sectional and small sample size drawn on convenience basis from selected airline firms from single region. Further, the sole focus on quantitative methodology and use of survey as single method of data collection is also its limitation. A future researcher should focus on bigger and diverse sample size and multiple methods of data collections.

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