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An Empirical Study on Assessment of Personnel's Efficiency

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An Empirical Study on Assessment of Personnel's Efficiency

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Abstract- **Efficiency of personnel is to analyze the performance of human resources in the organization. Efficiency is one of the factors effective on the success of the organizations are their human resources which has directed effect on the productivity of the organizations. All types of organization should expect higher productivity by human resource. Hence the organization is trying to improve excellent efficiency of personnel. The aim of this paper is to evaluate employee's job performance. And also the organization to understand the level of success rate during training programme. This research paper is to find the effects of personnel's efficiency by using various statistical tools through SPSS software.**

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I. Introduction

The work of a personnel department deals specifically with procuring, hiring, training, placing, utilizing and maintaining an effective work force that will aid in the accomplishment of the firms objectives this does not mean to imply that other members of the management team do not have a part in the management and development of personnel to the country the responsibility for good personnel administration rest one very supervisor and manager in the organization personnel management is not a one-man responsibility nor can it ever be achieved by one individual it is a corporate, cooperative Endeavour that should stem from a common feeling and concept and should progress in a unified coordinated manner.

Efficiency of personnel is to analyze the performance of an human resources in the organization. Efficiency is one of the factors effecting on the success of the organizations are their human resources which has directed effect on the productivity of the organizations. For this reason, performance of human resources is very important. The performance of the personnel not only is summarized in the general concepts of productivity and effectiveness, but also different aspects are effective in performance. Without measurement, there will not be a basis for judgment and comment and assessment. This study is entitled with "Assessment of Personnel Efficiency Towards Prince Park Farm House Pvt. Ltd., The paper is to understand the existing efficiency level of each employee in the organization.

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II. Review of Literature

"According to Shiravizadeh (2009) with his colleagues measured and analyzed the personnel with the use of data envelope analysis. They considered each one of the personnel as a decision making unit with inputs and outputs. "In 2008, Rezapour and Asefzadeh in a study entitled "study of the economic efficiency of training medical centers affiliated to Qazvin University of Medical Sciences during the years 1998 to 2007, estimated the average technical, management and scale efficiency to be 0.90, 0.96 and 0.93, respectively.

"In the logic of the RBV, HR practices can configure a firm toward the acquisition, retention, and mobilization of human capital resources (Lado & Wilson, 1994). MHR practices differ from more generic sets of HR practices (e.g., benefits, paid vacation) because scholars argue that they influence employees' actions by aligning their goals with those of the organization and also by enhancing the employees' capacity to pursue those goals (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Gardner et al., 2011; Huselid, 1995; Subramony, 2009; Wright & Snell, 1998). MHR practices also conceptually differ from high-performance work systems (HPWSs) in that HPWSs focus on a broader and a more heterogeneous set of HR practices that can also include skill-enhancing practices designed to increase the knowledge, skills, and abilities of a workforce via training or selection (Jiang et al., 2012)."

"Borman and Motowidlo (1993) divided performance into task and contextual performance. Task performance was defined as the effectiveness with which job incumbents perform activities that contribute to the organization's technical core. On the other hand, (2) job dedication, includes "self-disciplined, motivated acts such as working hard, taking initiative, and following rules to support organizational objectives" (Van Scotter and Motowidlo, 1996: p.525). Contextual performance and related elements of performance, such as organizational citizenship behavior (OCB: Bateman and Organ, 1983; Smith et al., 1983), prosocial organizational behavior (Brief and Motowidlo, 1986), and

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extra-role performance (Van Dyne et al., 1995), contribute to organizational effectiveness.

III. Need for the Study

1. The study helps to check the effective evaluation towards employee's job performance.
2. It is needed to ensure that employees reach organizational standards and objectives.
3. To determine the present and future effectiveness of job performance of an employee.
4. To study will know about employee involvement towards the jobs and organization.
5. It is helps to understand the level of success rate of the training process.

IV. Scope of the Study

This study was carried out to define how the employees Personnel Efficiency in the organization is looking for doing the same, in addition what type of training should be used to improve Personnel's efficiency effectively. To conduct this research will help of certain tools were taken such as journals, net search, filling up of questionnaires and direct interactions with the higher designations of the organization.

V. Objectives of the Study

1. To understand the current status of the personnel's efficiency level of the organization.
2. To find the satisfaction level of training provide by the organization.
3. To determine the satisfaction level of an personnel in organization.
4. To provide a valuable suggestion to improve the personnel efficiency.

VI. Research Methodology

Research Methodology is the various procedures, schemes. Algorithms used in a scientific and systematic search for pertinent information on a specific topic. The data which are collected a fresh for the first time and thus happen to be original in character is called primary data. The primary data was collected from the customers through a well structured questionnaire. Respondent has filled the questionnaire. The data which have already been collected and analyzed by someone else is called secondary data. The secondary data was used mainly to support primary data. Company profile, website, magazines, articles were used widely. Target respondents are employee of Prince Park Farmhouse. The sample size for this study is 60. In this study Simple Random Sampling without Replacement is used.

The questionnaire which is used in this study is constructed using 5-point Likert scale (Strongly disagree to strongly agree) and the questions are in the form of the statements Demographic profile of the respondents, Personnel Efficiency related statements are included in this questionnaire.

The tools used for Data analysis are factor analysis, ANOVA, Cluster analysis, Chi-square. The Data collected are analyzed using the statistical software SPSS 16.0.

VII. Reliability Test

The test of reliability is another important test of sound measurement. A measuring instrument is reliable if it provides consistent results. A reliable measuring instrument does contribute to the validity. Reliability test has been done using the statistical software SPSS version 16.0. The reliability of the questionnaire is verified using the value of Cronbach's Alpha value

a) Reliability Test for Data Collection Instrument

The Personnel Efficiency cronbach alpha is 0.602 which are well above the threshold value of 0.6. Hence the research instrument is reliable.

Table 7.1: Reliability for Personnel Efficiency

Statement	Cronbach's Alpha if Item Deleted	Cronbach's Alpha Value
I am satisfied with my existing job.	.587	
I feel my job is secured.	.604	
I have workloads that allow me to do an excellent job.	.578	
My relationship with my supervisor is a friendly one.	.567	
There is a two- way communication between employer and employee.	.598	
My Organization communicates effectively and in a timely manner to its employees.	.592	
I feel convenient with my co-workers and feel free to share my ideas.	.580	
I am respected as individual.	.581	
My organization shares information with others who should know it.	.618	
I receive adequate training to do my work well.	.591	
I am satisfied with the opportunities I get to use my skills.	.605	
The management to importance to cost- Effective training.	.619	

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The training methods focus on developing team work and leadership skills.	.587	0.602
The induction training is a well planned exercise in the organization.	.612	
The organization considers training as a part of organizational strategy.	.614	
I am encouraged to achieve more and develop my potential.	.585	
Work recognition motivates me towards job.	.582	
Performance management helps me to develop the skills and capabilities of my employees.	.600	
Performance management helps me to motivate my employees.	.564	
I think people especially my superiors appreciate the work I do.	.588	
Is that the Organization helps to improve the competency level of an employees.	.585	
Is that the Organization helps to develop the interpersonal skill among the employees.	.594	
Is that the Organization helps to provide a complete work knowledge to the employees.	.589	
Is that the Organization helps to increase the living standards among the employees.	.595	
Is that the Organization creates the properwork infrastructure to the employees.	.587	
I am satisfied with my existing job.	.587	

VIII. Analysis of Data and Interpretation

a) Factorisation of Items in Personnel Efficiency

The Personnel efficiency variable is consisting of 25 statements. It is very difficult to analyze the interpretation of those statements. In order to reduce those statements we have been used factor analysis. It will separate those statements into similar or same group statements. The Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test for sphericity is used to test the sample adequacy for applying factor analysis. Kaiser recommends values greater than 0.5 as acceptable. Since the value is 0.694, it is a good value and hence we are confident that factor analysis could be appropriate for these data. The Bartlett's test of sphericity is significant, hence the R-matrix is not an identity matrix. It reveals that there is some relationship between variables and therefore the factor analysis is appropriate for these data.

Table 8.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.365
Bartlett's Test of Sphericity	Approx. Chi-Square	684.114
	Df	300
	Sig.	.000

Before going for factor analysis, suitability of data for the purpose of factor analysis has to be tested. KMO test and Bartlett's test are two such tests. The value of KMO of 0.365 indicates that a factor analysis is useful for the present data. Bartlett's test of Sphericity indicates whether the correlation matrix is an identity matrix, which would indicate that the variables are unrelated. The significance level gives the result of the test. Here, the significant value is 0.000 which indicates that there exist significant relationships among the variables. The resultant value of KMO test and Bartlett's test indicate that the present data is useful for factor analysis.

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Table 8.2: Total Variance Explained for Factorization

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	%of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.492	13.968	13.968	3.492	13.968	13.968	2.900	11.602	11.602
2	3.067	12.269	26.237	3.067	12.269	26.237	2.825	11.301	22.903
3	2.812	11.246	37.483	2.812	11.246	37.483	2.251	9.003	31.906
4	2.167	8.666	46.149	2.167	8.666	46.149	1.974	7.898	39.804
5	1.755	7.021	53.170	1.755	7.021	53.170	1.918	7.671	47.475
6	1.528	6.114	59.284	1.528	6.114	59.284	1.825	7.298	54.774
7	1.463	5.853	65.137	1.463	5.853	65.137	1.692	6.767	61.541
8	1.284	5.136	70.273	1.284	5.136	70.273	1.617	6.467	68.008
9	1.016	4.063	74.337	1.016	4.063	74.337	1.582	6.329	74.337
10	.858	3.432	77.769						
11	.806	3.226	80.995						
12	.766	3.064	84.059						
13	.655	2.619	86.678						
14	.615	2.459	89.138						
15	.538	2.151	91.288						
16	.399	1.594	92.883						
17	.381	1.522	94.405						
18	.342	1.369	95.774						
19	.272	1.086	96.860						
20	.231	.925	97.786						
21	.187	.748	98.534						
22	.158	.630	99.164						
23	.099	.397	99.561						
24	.060	.242	99.802						
25	.049	.198	100.000						

From the 25 statements only 9 statements have Eigen values more than 1. This means that these 5 statements can be used to explain maximum variance in the characteristics of people. The total variance accounted by all the three factors is 74.337 percent. This means that significant amount of variance is explained by the reduced three factors alone. Therefore, it is better to take three variables alone for further analysis. Among the three factors, the first factor accounts for around 12 percent of variance.

Table 8.3: Rotated Component Matrices

Factors	Variables Description	Component								
		1	2	3	4	5	6	7	8	9
Job Satisfaction	There is a two- way communication between employer and employee.	0.8								
	I am satisfied with my existing job.	0.7								
	I have workloads that allow me to do an excellent job.	0.6								
	My Organization communicates effectively and in a timely manner to its employees.	-0.6								

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	I feel convenient with my co-workers and feel free to share my ideas.	0.5								
Job Performance	Performance management helps me to motivate my employees.		0.8							
	My relationship with my supervisor is a friendly one.		0.8							
	Is that the Organization helps to improve the competency level of an employees.		0.6							
Job Training	My organization shares information with others who should know it.			0.8						
	I am satisfied with the opportunities I get to use my skills.			0.7						
	The management to importance to cost- Effective training.			-0.7						
Personnel Skills & Development	I receive adequate training to do my work well.				0.8					
	The training methods focus on developing teamwork and leadership skills.				-0.7					
	I am respected as individual.				0.5					
Work Infrastructure	Is that the Organization creates the proper work infrastructure for the employees.					0.8				
	The organization considers training as a part of organizational strategy.					-0.5				
	The induction training is a well planned exercise in the organization.					0.5				
Employee Perception	Is that the Organization helps to develop the interpersonal skill among the employees.						0.9			
	I think people, especially my superiors appreciate the work I do.						0.7			
Job Security	I feel my job is secured.							0.7		
	Work recognition motivates me towards a job.							-0.6		

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	I am encouraged to achieve more and develop my potential.							0.6		
Personnel Management	Performance management helps me to develop the skills and capabilities of my employees.								0.9	
Self Determination	Is that the Organization helps to increase the living standards among the employees.									0.9
	Is that the Organization helps to provide complete working knowledge to the employees.									-0.5

From the rotated component matrix it is clear that the first factor is having five statements, the second factor is having three statements and the third factor is having three statements, and fifth factor is having three statements, and sixth factor is having two statement, and seventh factor is having three statement, and eighth factor is having one statement, and ninth factor is having two statement.

Table 8.4: Group Ranking For Personnel Efficiency Factor

FACTORS	MEAN	RANK
Job Satisfaction	2.69	IV
Job Performance	2.84	I
Job Training	2.60	VI
Personnel Skills & Development	2.61	V
Work Infrastructure	2.75	III
Employee Perception	2.60	VI
Job Security	2.75	III
Personnel Management	2.78	II
Self Determination	2.84	I

The highest mean score of the variable is 2.84 and the lowest mean score is 2.60 for the variable. When we ranking to the factors Job Performance and Self Determination (2.84) are in the first rank, the employee gave more importance to the performance of the job and also their determination towards goal. The Personnel management (2.78) is in the second rank, it helps to develop the skills and capabilities of an employee. So it is second rank. The Work infrastructure and job security (2.75) are in third rank it tells about the working environment. The job satisfaction (3.62) is in fourth rank. The personnel skills and development (2.61) is in fifth rank and job training and employee perception (2.60) is in last rank.

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Table 8.5: Final Cluster Centers

FACTORS	Cluster		
	1	2	3
Job satisfaction	15.94	12.63	10.00
Job performance	10.31	8.00	3.00
Job training	7.94	7.65	13.00
Personnel skills & development	8.94	7.42	8.00
Work infrastructure	8.88	7.95	12.00
Employee perception	5.81	4.95	7.00
Job security	9.25	7.91	7.00
Personnel management	3.06	2.72	1.00
Self determination	6.62	5.37	4.00
Average	**8.53**	**7.18**	**7.22**
No. of. Cases	**16**	**43**	**1**

From the above table, k-means cluster analysis is used to categories Personnel efficiency into three cluster, findings of this analysis are taken from the cluster analysis, the results are 7.18% of the personnel efficiency variables belongs to the less efficiency with the cluster III which have 43 respondents, 7.22% of the personnel efficiency variables belongs to the moderately efficiency with the cluster II which have 1 respondents, 8.53% of the personnel efficiency variables belongs to the highly efficiency with the cluster I which have 16 respondents.

Table 8.6: Relationship between Personnel Efficiency and Clusters

FACTORS	Cluster		Error		F	Sig.
	Mean Square	Df	Mean Square	Df		
Job Satisfaction	69.975	2	2.263	57	30.923	.000
Job Performance	46.748	2	2.341	57	19.969	.000
Job Training	14.139	2	1.240	57	11.399	.000
Personnel Skills & Development	13.465	2	1.323	57	10.179	.000
Work Infrastructure	12.038	2	1.292	57	9.316	.000
Employee Perception	5.919	2	2.111	57	2.804	.069
Job Security	11.311	2	1.450	57	7.803	.001
Personnel Management	2.297	2	.800	57	2.872	.065
Self Determination	10.593	2	.909	57	11.658	.000

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The ANOVA table indicates that there exists a significant difference among all the three clusters. The significant value for all the factors is less than 0.05. This means that the all factors have significant contribution except employee perception, job security and personnel management and dividing employees into 3 segments based on the Personnel efficiency.

Table 8.7: Chi-Square Association between Personnel Efficiency and Demographic Variables

Demographic Profile	Chi-Square Value	Significance	Result
Gender	4.468	0.107	Not Associated
Age	4.061	0.398	Not Associated
Education	13.942	0.03	Associated
Marital Status	2.75	0.601	Not Associated
Work Experience	4.374	0.822	Not Associated
Salary	6.337	0.609	Not Associated
Designation	14.245	0.076	Not Associated

It is inferred that demographic variables like Gender (0.107), Age (0.398), Marital Status (0.601), Work Experience (0.822), Salary (0.609) and designation (0.076) has no association with different cluster and Education (0.030) has association with different clusters.

Table 8.8: Relationship between Personnel Efficiency and Gender

		Sum of Squares	Df	Mean Square	F	Sig.
Job Satisfaction	Between Groups	2.933	1	2.933	.640	.427
	Within Groups	266.000	58	4.586		
	Total	268.933	59			
Job Performance	Between Groups	30.839	1	30.839	9.121	.004
	Within Groups	196.094	58	3.381		
	Total	226.933	59			
Job Training	Between Groups	1.717	1	1.717	1.024	.316
	Within Groups	97.266	58	1.677		
	Total	98.983	59			
Personnel Skills & Development	Between Groups	.152	1	.152	.086	.770
	Within Groups	102.182	58	1.762		
	Total	102.333	59			
Work Infrastructure	Between Groups	10.023	1	10.023	6.628	.013
	Within Groups	87.710	58	1.512		
	Total	97.733	59			
Employee Perception	Between Groups	.998	1	.998	.441	.509
	Within Groups	131.185	58	2.262		
	Total	132.183	59			
Job Security	Between Groups	7.782	1	7.782	4.631	.036
	Within Groups	97.468	58	1.680		
	Total	105.250	59			
Personnel Management	Between Groups	.089	1	.089	.103	.749
	Within Groups	50.094	58	.864		
	Total	50.183	59			
Self Determination	Between Groups	2.000	1	2.000	1.634	.206
	Within Groups	70.983	58	1.224		
	Total	72.983	59			

The above table infers that, Personnel efficiency variables such as job satisfaction, job training, employee perception, personnel skills and development, personnel management and self determination are not

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having any significant relationship with gender. Job performances, job security and work infrastructure are having significant relationship.

Table 8.9: Relationship between Personnel Efficiency and Age

		Sum of Squares	df	Mean Square	F	Sig.
Job Satisfaction	Between Groups	12.518	2	6.259	1.391	.257
	Within Groups	256.416	57	4.499		
	Total	268.933	59			
Job Performance	Between Groups	8.736	2	4.368	1.141	.327
	Within Groups	218.197	57	3.828		
	Total	226.933	59			
Job Training	Between Groups	4.517	2	2.259	1.363	.264
	Within Groups	94.466	57	1.657		
	Total	98.983	59			
Personnel Skills & Development	Between Groups	6.045	2	3.023	1.789	.176
	Within Groups	96.288	57	1.689		
	Total	102.333	59			
Work Infrastructure	Between Groups	.961	2	.480	.283	.755
	Within Groups	96.773	57	1.698		
	Total	97.733	59			
Employee Perception	Between Groups	3.927	2	1.963	.873	.423
	Within Groups	128.257	57	2.250		
	Total	132.183	59			
Job Security	Between Groups	2.420	2	1.210	.671	.515
	Within Groups	102.830	57	1.804		
	Total	105.250	59			
Personnel Management	Between Groups	4.020	2	2.010	2.482	.093
	Within Groups	46.163	57	.810		
	Total	50.183	59			
Self Determination	Between Groups	.568	2	.284	.223	.800
	Within Groups	72.416	57	1.270		
	Total	72.983	59			

The above table infers that, Personnel efficiency variables such as job satisfaction, job training, employee perception, personnel skills and development, personnel management, self determination, Job performances, job security and work infrastructure are not having any significant relationship with Age.

Table 8.10: Relationship between Personnel Efficiency and Education

		Sum of Squares	df	Mean Square	F	Sig.
Job Satisfaction	Between Groups	8.368	3	2.789	.600	.618
	Within Groups	260.565	56	4.653		
	Total	268.933	59			
Job Performance	Between Groups	45.874	3	15.291	4.730	.005
	Within Groups	181.059	56	3.233		
	Total	226.933	59			
Job Training	Between Groups	4.893	3	1.631	.971	.413
	Within Groups	94.090	56	1.680		
	Total	98.983	59			
Personnel Skills & Development	Between Groups	6.419	3	2.140	1.249	.301
	Within Groups	95.914	56	1.713		
	Total	102.333	59			
Work Infrastructure	Between Groups	15.374	3	5.125	3.485	.022
	Within Groups	82.359	56	1.471		
	Total	97.733	59			
Employee Perception	Between Groups	18.691	3	6.230	3.074	.035
	Within Groups	113.493	56	2.027		

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	Total	132.183	59			
Job Security	Between Groups	22.014	3	7.338	4.937	.004
	Within Groups	83.236	56	1.486		
	Total	105.250	59			
Personnel Management	Between Groups	2.585	3	.862	1.014	.394
	Within Groups	47.598	56	.850		
	Total	50.183	59			
Self Determination	Between Groups	3.527	3	1.176	.948	.424
	Within Groups	69.457	56	1.240		
	Total	72.983	59			

The above table infers that, Personnel efficiency variables such as job satisfaction, job training, personnel skills and development, personnel management and self determination are not having any significant relationship. Job performances, job security, employee perception and work infrastructure are having significant relationship with education.

IX. Suggestion and Recommendation

These results show that the Job Performance and Self Determination factor is better in this company so that keep the company should need to maintain this performance properly. The company has to concentrate in Personnel Management in order to improve the work efficiency. They need to provide the Job Training process in order to improve the job performance of an employee in the organization.

X. Conclusion

This Project investigates the Personnel Efficiency at Prince Park Farmhouse. This study used Personnel efficiency variables such as Job Satisfaction, Job Performances, Job Training, Personnel Skills & Development, Work Infrastructure, Employee Perception, Job Security, Personnel Management and Self Determination. It can be concluded that Job Satisfaction and Job training have positive effect among employees but Personnel Management have less effects among employees. The study reveals that Personnel Efficiency is most important to the Organization. This research recommends that the management have to concentrate on employees' Personnel efficiency in order to develop the skills of the employees.

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