



A STUDY ON HUMAN RESOURCE PLANNING IMPACT OF JOB CHARACTERISTICS ON JOB SATISFACTION OF EMPLOYEES IN PHARMACEUTICAL COMPANIES AT VISHAKHAPATNAM DISTRICT OF ANDHRA PRADESH, INDIA

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ABSTRACT

HRP is an industrial term for the broad set of activities support by multi-module application that help a manufacturing or the other business manage the important parts of its business. HRP can also include application modules for the human resource aspects of a business. Any changes in a technology such as HRP that directly controls business processes, work rhythm, information content, and decision scope will affect job satisfaction and job performance. The satisfaction of the employees is very important for a successful user acceptance of the technology in order to bring out a good performance output from Hackman developed the job characteristics model when technology was slowly blooming in certain fields of industries. HRP system implementations have the potential to drastically alter reactions to their work situation, so there is a possibility that job perceptions and the implementation of an HRP system can interact to influence employees' job satisfaction. Although job and job outcomes has extensively related these two sets of constructs, the role of technology implementation or the context in which the technology implementation occurs has not been explicitly modeled to understand how and why various job characteristics influence job satisfaction. For this reason the study is carried out to find out the impact of HRP system over the job characteristics model and its influence over the job satisfaction of HRP using employees is examined.

KEYWORDS: Human Resource Planning (HRP), Job Characteristics, Job Satisfaction.

1. INTRODUCTION

HRP system is an integrated computing system to automate the flow of material, information, and financial resources among all functions within a common database. Davenport (2000) proposed that implementing the HRP systems bring many benefits for the organization including reduction of cycle time, raise the flowing efficiency of information, generating the financial information fast, proceeding the business and assistance in development of new organizational strategies. Many companies are implementing HRP system as a means to reducing operating costs, enhancing competitiveness, increasing productivity and improving customer services. resource planning (HRP) systems have been popular in modern business operations. A survey by Fortune magazine (2007) revealed that seven out of ten global pharmaceutical and petroleum companies, nine out of ten global computer companies, and all the top ten global chemical companies. Another study by G.Stewart et al (2000) found that more than 60 percent of Fortune 100 companies had adopted HRP system. META Group (2004) estimates suggest that HRP adoption is as high as 75 percent among medium to large manufacturing companies, 60 percent



among service companies, and up to 80 percent among Fortune 500 firms. According to a research report, the Indian HRP market experienced compounded annual growth rate of 25.2 per cent during the period 2014-2018. The market was \$83 million in 2014, and is projected to be around \$180-190 million in 2017.

The JCM dimensions generally are found to significantly influence the behavioral and psychological job outcomes of employees. For example, Fried and Ferris (1987) reported correlation between autonomy and satisfaction and performance of 0.34 and 0.14, respectively. Brown and Peterson (1993) reported that greater amount of feedback, variety, autonomy, and other positive job characteristics are associated with greater job satisfaction.

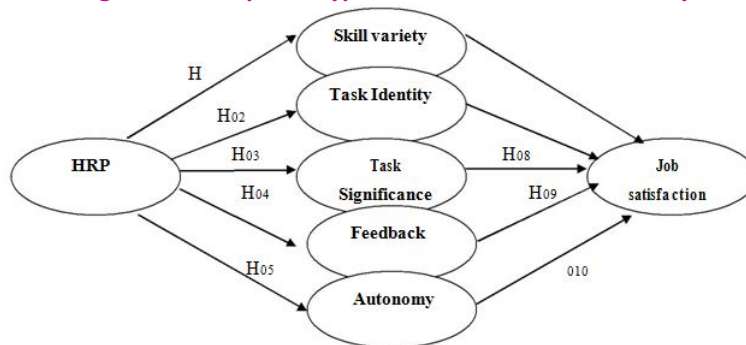
3. HRP AND JOB CHARACTERISTICS THEORY

Researchers argue that a healthy organization setting is created for an HRP system only when the employees have a positive relationship with their work, a relationship that will make them effective and give them a sense of job satisfaction (Davenprot,1999, Hammer and Stanton, 1999). The ultimate success of system lies in how the employees accept and adapt to the new process system. Many companies excessively emphasize the information technology, and they ignore that the most important factor for management should be people centred. Changing the personal behavior will promote the usage efficiency of the information (Marchand, *etal.*, 2000).

Out of all the job satisfaction theories the job characteristics model (JCM; Hackman and Oldham 1980) is used as the theoretical lens to understand the impacts of an HRP system implementation on employees jobs. The basic thesis of the JCM is that various job characteristics together influence job satisfaction. It is an important outcome in its own right and has been linked to other key job outcomes, such as organizational commitment, turnover intentions, and job performance. The primary aspirations of Job Characteristics Theory (JCT) were to explain how properties of the organizational tasks people perform affect their work attitudes and behavior and to identify the conditions under which these effects are likely to be strongest. Because the theory is situated at the boundary between basic knowledge and organizational applications there is empirical support likely to have an influence on job attitudes (Ang and Slaughter 2000). It is experienced that well designed jobs can have a positive impact on work attitudes and behaviors. Thus, job design takes on spe management.

Many studies showed that characteristics of the job are primary determinants of work outcomes. It is generally accepted that the way a job is designed has a subs impact upon the attitudes, beliefs, and feelings of the employee. The main objective of the study is to see whether the implementation of an HRP system has any influence over job characteristics factors to influence job satisfaction. Given that an HRP system implementation has a dramatic impact on work flow and It employees’ possible that the changes brought about by an HRP system implementation may have a dynamic relationship with what was previously believed to be a static influence on job satisfaction.

Figure 1 Conceptual Hypothetical Model for the study



4. REVIEW OF LITERATURE

The implementation of HRP systems cause greater change with broader impacts on employees, fundamentally changing the nature of tasks, workflows, and by extension, the jobs themselves (Davenport et al. 1996; Liang et al. 2007; Mullarkey et al. 1997). One of the most omnipresent organizational change activities in the last decade or so has been the implementation wide information technologies, that account for 30 percent of all major change activities in organizations today (Davenport 2000; Jarvenpaa and Stoddard 1998, Herold et al. 2007). HRP system implementations typically involve an extensive redesign of business processes and the deployment of new software to support those new business processes (Robey et al. 2002; Ross and Vitale 2000).

Any changes in a technology such as HRP that directly controls business processes, work rhythm, information content, and decision scope will affect job satisfaction and job performance. It is important to understand the relationships among job characteristics, work organization and job satisfaction (Davis and Moro, 2004). Researchers have highlighted the need for an evaluation of the success of HRP system implementation (Wu & Wang, 2006). Technological applications cannot succeed unless users have positive attitude towards them and consider them beneficial for themselves. The main success factors for implementing HRP system are users centered (Saatcioglu, 2009). Owing the importance of users, Saatcioglu (2009) determined user satisfaction as a measure to evaluate the success of HRP implementation. A research done by Longinidis and Gotzamani (2009) concluded that, end-users satisfaction can be influenced by three different factors. They found “Interaction with HR department” “Involve “HRP product and adaptability” are three level of end-users (Longinidis&Gotzamani, 2009). Wu et al. (2002) examined the satisfaction level of HRP system users. They focused on HRP users and divided them into two sub categories such as End-users and key users (IT related personnel engaged in interaction with consultants and others).Francoise et al. (2009) stressed for more user involvement throughout the HRP implementation project, since end-users knowledge can be used in areas where the HRP team lacks the expertise. Involving end-users in the HRP acquisition motivates and provides end-users with more knowledge about the issues and technologies concerning HRP system (Verville, et al., 2006). The findings showed that end-users involvement in acquisition phase of HRP system results in end-users desire for technology purchase. The end-users desire for technology acquisition according to Verville et al. (2006) was a critical factor in the success of HRP implementation as they found strong evidence that end-users desire for acquisition of HRP system resulted in end-users open acceptance of the HRP application following the implementation. Furthermore, claiming that the end-users involvement must be maintained throughout HRP implementation process including the acquisition phase. Woo (2007) claims that it is very common during HRP implementation process that organizations give very low priority to the acceptance and satisfaction of end-users which is found to be one among the important reason behind many HRP projects that didn't succeed at the first attempt.

5. RESEARCH METHODOLOGY

5.1. Sample Design

A sample design is definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample. Out of 12 pharmaceutical companies, three companies were selected through simple random sampling from Vishakhapatnam district, located in Andhra Pradesh, India. Employees who are directly involved in the HRP implemented activities were taken as respondents for the study. Total sampling size of the study was 204 respondents.

5.2. Instrument design

The job characteristics scale developed by Hackman and Oldham (1980) is taken for measuring the HRP user's skill variety, autonomy is measured for job satisfaction. In addition to the five job characteristics factors, three variables related to the factor HRP system users were also included in the scale.

Table 1 Reliability of the Instrument

S.No	Factors	No of items	Cronbach' Alpha
1.	Skill variety	3	0.771
2.	Task Identity	3	0.756
3.	Task significance	3	0.893
4.	Feedback	3	0.801
5.	Autonomy	3	0.865
6.	HRP	3	0.723

5.3. Hypothesis

The following are the null hypothesis formulated to test the conceptual model of job characteristics

H₀₁ : The HRP system implementation will have no influence on the skill variety

H₀₂ : The HRP system implementation will have no influence on the task identity

H₀₃ : The HRP system implementation will have no influence on the task significance

H₀₄ : The HRP system implementation will have no influence on the feedback.

H₀₅ : The HRP system implementation will have no influence on the autonomy.

H₀₆ : The job characteristics factor skill variety does not influence job satisfaction among the HRP using employees

H₀₇ : The job characteristics factor task identity does not influence job satisfaction among the HRP using employees

H₀₈ : The job characteristics factor task significance does not influence job satisfaction among the HRP using employees

H₀₉ : The job characteristics factor feedback does not influence job satisfaction among the HRP using employees

H₀₁₀ : The job characteristics factor autonomy does not influence job satisfaction among the HRP using employees

5.4. Sampling and research design

A total of 204 respondents were selected for the study from three pharmaceutical in Vishakhapatnam District (Andhra Pradesh, India). The sample respondents were selected by judgement sampling, as the respondents selected for the study possess a minimum of work experience in HRP module. The research design followed was descriptive in nature and survey method for data collection.

5.5 Data analysis tools

Factor analysis is done to arrive at the five job characteristics factors (to ensure construct validity of the item). To test the hypothesis correlation and regression was done.

6. FACTORS EXTRACTED FROM THE JOB CHARACTERISTICS VARIABLES

The factor analysis was run with the 18 variables so as to reduce the variables into sizable factors so that it will be easier for further analysis. The 18 variables were extracted by the principal component method using varimax rotation method. The factor analysis was also done to ensure the construct validity of the instrument used.

Table: 2 Factors extracted from the Job characteristics variables

	Items	F1	F2	F3	F4	F5	F6
Skill variety	S.V1	0.71	0.09	0.03	0.37	0.02	0.27
	S.V2	0.62	0.64	0.31	0.04	0.41	0.25
	S.V3	0.59	0.07	0.17	0.06	0.25	0.32
Task identity	T.I.V1	0.65	0.71	0.15	0.18	0.08	0.42
	T.I.V2	0.42	0.78	0.36	0.15	0.02	0.02
	T.I.V3	0.30	0.68	0.27	0.17	0.06	0.08
Task significance	T.S.V1	0.36	0.51	0.62	0.07	0.31	0.25
	T.S.V2	0.62	0.06	0.72	0.22	0.12	0.09
	T.S.V3	0.11	0.55	0.68	0.02	0.63	0.19
Feedback	F.V1	0.61	0.36	0.01	0.74	0.30	0.16
	F.V2	0.68	0.11	0.12	0.71	0.02	0.10
	F.V3	0.53	0.46	0.04	0.82	0.21	0.36
Autonomy	A.V1	0.33	0.60	0.18	0.29	0.88	0.22
	A.V2	0.54	0.41	0.06	0.31	0.74	0.09
	A.V3	0.64	0.33	0.16	0.14	0.81	0.17
HRP	E.V1	0.36	0.25	0.12	0.07	0.31	0.51
	E.V2	0.28	0.11	0.34	0.71	0.02	0.68
	E.V3	0.59	0.07	0.17	0.06	0.25	0.74

Source: primary data

Table shows the output result of the Factor analysis. The 18 variables were reduced to six factors

each factor with Eigen value more than one. The six factors extracted were named as Skill Variety, Task Significance, Task Identity, Feedback, Autonomy and HRP. The cumulative percentage of the six factors extracted was 0.83 implying that the extracted variable explains 83 per cent of the variables. The factor analysis was run with principal component method with varimax rotation.

Table 3 : Hypothesis results based on correlation between Job Characteristics Factors and HRP system

S.No.	Factor	Pearson Correlation	Asymp. Sig.	Null Hypothesis
1	Skill variety (H ₀₁)	0.872	0.000*	Rejected
2	Task Identity (H ₀₂)	0.714	0.000*	Rejected
3	Task Significance (H ₀₃)	0.619	0.000*	Rejected
4	Feedback (H ₀₄)	-0.842	0.000*	Rejected
5	Autonomy(H ₀₅)	-0.773	0.000*	Rejected

*Significant at 5 percent level

It can be inferred from the Table 3 that the correlation values of the job characteristics variables skill variety task identity, task significance, feedback and autonomy have resulted significant. Out of these five variables feedback and autonomy has negative influence.

Table 4 : Hypothesis results based on Multiple Regression between Job Characteristics Factors and job satisfaction.

Factors		Un-standardized Coefficients	Standardized Coefficients	t	Null Hypothesis	
		B	Std. Error		Sig.	
(Constant)		0.698	0.509	1.373	0.172	--
Skill variety	(H ₀₆)	-0.036	-0.073	-3.490	0.002*	Rejected
Task identity	(H ₀₇)	0.033	0.082	2.405	0.040*	Rejected
Task significance	(H ₀₈)	0.395	0.068	5.821	0.000*	Rejected
Feedback	(H ₀₉)	-0.057	-0.065	-2.868	0.035*	Rejected
Autonomy	(H ₀₁₀)	-0.556	-0.644	-1.324	0.152	Not Rejected

*Significant at 5 percent level

Table 4 shows the regression results of the relationship between the Job characteristics variables (independent variable) and Job satisfaction (job satisfaction). From the table it could be inferred that the variables task identity, skill variety, task significance and feedback are significant and they influence the job satisfaction. Among the four significantly related job characteristics variable, skill variety and feedback have

negative influence on job satisfaction The variable autonomy has no relationship job satisfaction.

6. SUGGESTIONS

Implementation of HRP systems causes greater change with comprehensive impacts on employees, basically changing the nature of tasks performed, flow of work, and by extension of this bring changes in themselves, in other words it brings changes in the characteristics of the job in which they are functioning and the research focuses on how the implementation of technology modifies the job satisfaction through its impact on job characteristics. So these are the suggestion given from the study for the organizations who have adopted HRP or yet to do.

- ☐ The organizations should also start concentrating on the employees satisfaction than on the success of the HRP implementation because HRP users are directly involved in the implementation so their job satisfaction is also important
- During the pre-implementation period even the management should check with HRP employees regarding with their system acceptance.
- HRP implementation is something which cannot be done by a single person, even though expertise's are made to do the is also needed for the proper flow of work.

7. CONCLUSION

The process of implementing new HRP systems in organizations is complex. While often hailed as a way to make employees more effective and efficient in their jobs, this research illustrated a contingent relationship between the implementation of an HRP system and well-established theoretical linkages between job characteristics and job satisfaction. Although researchers and practitioners have studied optimal system design aimed at increasing the overall acceptability of systems, this research underscored the importance of going beyond only a technical analysis of system requirements and functionality to a deeper analysis of the impact that a new HRP system is likely to have on the day-to-day jobs of affected employees. Our results suggested that the influence of HRP system implementation may be more complex than previously thought, at least in the immediate aftermath following implementation. In looking at some of the downstream consequences arising from HRP system implementation, our results suggest that managers should not only consider the HRP system as an important technological artifact in the organization, but also view it as a key driver of job design and organizational change strategies as well.

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