



International Journal of Business & Management Tomorrow



Bande Subhan

Job Characteristics as Predictors of Work Motivation and Job Satisfaction of Bank Employees

S.Md.Azash, Associate Professor, Annamacharya Institute Of Technology And Sciences

Ramesh Safare, Associate Professor, Annamacharya Pg College Of Management Studies

Dr.N.Thirupalu, Professor, Chaithanya Institute Of Business And Management

Bande Subhan, Assistant Professor, Annamacharya Pg College Of Computer Studies

Abstract

In this study an attempt have been made to study job characteristics as a predictor of work motivation and job satisfaction. For achieving these objectives data is collected with the help of administration of questionnaire to bank officer working in the both public and private sector banks in Andhra Pradesh. The principal tools for analysis of data are carried out with the help of correlation and multiple regression analysis. The results reveal that Skill variety identified as significant and positive predictor of the job satisfaction whereas task identity, task significance, autonomy and feedback are negative predictor of job satisfaction. With regard to intrinsic motivation is caused by Task significance, autonomy and feedback are significantly and positively predictor of intrinsic motivation. Autonomy is only the dimension which is negatively predictor of extrinsic motivation.

Key words: job characteristics, job satisfaction and work motivation

1. Introduction

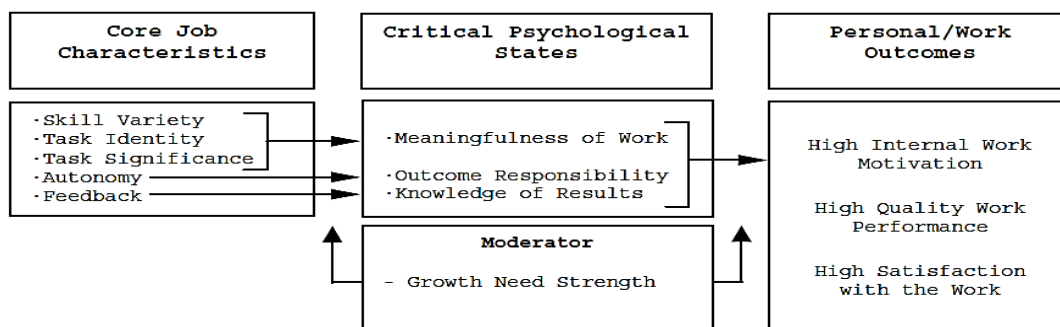
The concept of job characteristics model focuses on designing a job so that it motivates a person (Droar, 2006) . Based it on job diagnostic survey, Hackman, Oldham, Janson, and Purdy (1976) developed this approach. Job characteristics are objective characteristics of jobs, particularly the degree to which jobs are designed so that

they enhance the internal work motivation and the job satisfaction of job incumbents (Hackman & Oldham, 1974). The five core job features, which are task significance, task variety, task identity, autonomy and feedback, believed to positively correlate with job satisfaction and performance (Hunter E.P., 2006). Skill variety is ostensible variety and intricacy of skills and talents required by a job to perform it (Buys M. O., 2007). Task identity requires from a worker to perform all the tasks necessary to complete the job from beginning to the end of the production process whereas the worker's feeling for his job that it is meaningful for his colleagues and organization because of its impact upon them is termed as task significance (Hackman, 1976). When the job provides its owner the freedom and power to exercise his own authority while taking the decision is the job feature of autonomy (Buys M. O., 2007). When Employee gets direct and clear information about his performance on his job it is known as feedback characteristic of job (Hunter, 2006). The job characteristic model predicts that if the afore mentioned job features are present in a job, the job incumbent will be more likely to have high internal work motivation, high quality and performance, high satisfaction with the work and low absenteeism and turnover (Gomez-Mejia). Accordingly, the current investigation was undertaken in order to see how various job features in the banking sector of Andhra Pradesh might have been influencing the motivation and job satisfaction levels of bank employees.

2. Review of Literature

The Job Characteristics Model has its roots in the pioneering works of (Herzberg, 1966), (Turner, 1968), Blood and Hulin (1967) and (Hulin, 1968), all of who examined the relationship between certain objective attributes of tasks and employees' reactions to their work. On the basis of these works, Hackman and Oldham developed the theory that the job itself should be designed to possess fundamental characteristics needed to create conditions for high work motivation, satisfaction and performance. The concepts of their Job Characteristics Theory are diagrammed in Figure 1. Hackman and Oldham began by searching for the basic psychological states that promote high-performance motivation and satisfaction at work. The three conditions they suggested were: (a) a person must experience the work as meaningful, as something which is generally valuable and worthwhile; (b) a person must experience responsibility for the results of the work, that is, he/she must feel personally accountable and responsible for the work results; (c) a person must have knowledge of the final results of the work being done, that is, he/she must understand the effectiveness of his/her job performance. For the development and maintenance of strong internal work motivation (Hackman, 1975), assert that it is necessary for all three critical psychological states of experienced meaningfulness, experienced responsibility, and knowledge of results to be present.

Since the three critical psychological states are, by definition, internal to persons, they cannot be directly manipulated in managing work. Therefore, the authors began with the question of how the critical psychological states could be created. They identified five core job characteristics of skill variety, task identity, task significance, autonomy, and feedback as reasonably objective, measurable and changeable properties of work and that foster the desired psychological states, which in turn motivate positive personal/work outcomes. They further suggested that skill variety, task identity, and task significance contributed to the experienced meaning fullness of the work while autonomy accounted for experienced responsibility, and feedback established knowledge of work results.



A job high in motivating potential must be high on at least one of the three job characteristics that prompt experienced meaningfulness, and high on both autonomy and feedback, to create conditions which foster all three critical psychological states (Hackman and Oldham, 1980, p.81). The overall motivating potential of a job can be determined by the computation of a motivating potential score, which is calculated as illustrated in Table 1: The Motivating Potential Score formula as computed by Hackman and Oldham (1974)

$$\text{Motivating Potential Score} = \frac{\text{Skill Variety} + \text{Task Identity} + \text{Task Significance}}{3} \times \text{Autonomy} \times \text{Job Feedback}$$

The motivating potential score provides a quantitative diagnosis of the job situation in question by means of the scores obtained from the Job Diagnostic Survey (Hackman and Oldham).

Additionally, Hackman and Oldham have included in their Job Characteristics Model a factor of growth-need strength as a moderator of both core job characteristics-critical psychological states relationships and the critical psychological states- Personal/work outcome relationships. Growth-need strength refers to an individual's desire to be challenged and to grow on the job or one's need for personal accomplishment, learning, and Development on the job (Hackman and Oldham, 1980, p.85). Hackman and Oldham believe that individuals with strong growth needs will respond more positively to jobs that are high on the core job Dimensions because such jobs provide opportunities for Professional advancement. On the other hand, individuals with weak growth needs will experience little internal motivation from complex jobs, either because they do not recognize or value, the opportunities present for professional development.

(Mayo, 1946), suggested that psychological and sociological factors were of major importance in determining worker behavior, effectiveness, and satisfaction. (Herzberg, 1966) And his associates contributed to the job enrichment movement with the intentions of creating a means of increasing motivation, satisfaction, and productivity of people at work. The worker must believe that it is possible to succeed and that he or she will be rewarded for being successful (Vroom, 1964). Turner and Lawrence (1965) (Turner, Industrial jobs and the worker: An investigation of response to task attribute, 1965) initiated the research on objective characteristics of jobs as applied to work design. They examined the relationship between certain attributes of tasks and employees' reactions to their work. They devised measures of six requisite task attributes: variety, autonomy, required interaction, optional interaction, knowledge and skill required, and responsibility. These attributes were predicted to relate positively to employee satisfaction, effectiveness, and attendance.

Spawned by the basis of these previous works, Hackman and Oldham (1975) developed the Job Characteristics Model and the Job diagnostic Survey. Their theory proposes that the job itself should be designed to possess certain characteristics that create conditions for high work motivation, satisfaction, and performance.

Job satisfaction is the extent to which an employee feels about his or her job (Odon, 1990) (Demir, 2002) refers job satisfaction to employees' feel of contentment and discontentment for a job. (Cranny, 1992) Concluded that job satisfaction is a contribution of cognitive and affective reactions to the differential perceptions of what an employee wants to receive compared with what he or she actually receives. Job satisfaction has long been an important concept in the organizational study of the responses employees have to their jobs.

The identification of factors that relate and give impact on turnover intentions is considered as important due to some recent evidence that job characteristics and job satisfaction is more efficacious predictor of turnover intentions than is intention to remain (Kopelman, 1992)

The design of job has long been considered an important influence on individuals' intrinsic motivation and later lead to higher job performance level of employees (Amabile, 1985)

Autonomy, feedback, skill variety, task significance and task identity have been proposed as dimensions of job factors that affect employee performance (Tierney, 2002). Core job dimensions refer to the underlying characteristics of a job and how these factors affect job outcomes such as performance, involvement, motivation and satisfaction (Cook, 2001). (Garg P. and Rastogi, 2006)), they revealed that job characteristics have a substantial impact on employee performance. The design of job has long been considered an important influence on individuals' intrinsic motivation and later lead to higher job performance level of employees (Amabile, 1988,) (Amabile T. , 1985) (Kanter, 1988) (George & Zhou, 2001) (Oldham & Cummings, 1996) (Tierney & Farmer, 2002) (McCrae, 1987) (Ruscio, Whitney, & Amabile, 1998) (West & Farr, 1989).

The job characteristics model suggests that there are five core job dimensions namely autonomy, skill variety, task identity, task significance and feedback. Core job dimensions refer to the underlying characteristics of a job and how these factors affect job outcomes such as performance, involvement, motivation and satisfaction (Cook & Hunsaker, 2001) (Bhuain & Menguc, 2002) explored the new configuration of job characteristics, organizational commitment, and job satisfaction. This was done by examining the interactive effect of job characteristics and organizational commitment among expatriate salespersons. This investigation offers interesting findings because respondents reported higher level of satisfaction if they perceive their job provides higher level of autonomy, identity, and feedback. Conversely, task variety does not have a positive impact on the respondents' satisfaction level. With a higher level of satisfaction, respondents were also reported to have a higher level of organizational commitment.

A study conducted earlier by (Bhuain, Al-Shammari ., & Jefer, 2001) echoed the similar findings that job autonomy, task identity, and feedback have impacted job satisfaction, while task variety has influenced employees' commitment. An empirical investigation by (Chang & Lee, 2006) in the manufacturing, banking, and service industries revealed that personality traits and job characteristics have a positive and significant influence on organizational commitment as well as job satisfaction. (Schneider, 2003) Concurred that job characteristics have impacted managers' commitment and satisfaction. Similarly, (Sanker & Wee, 1997) conducted a study on job characteristics job satisfaction association in three different countries and they reported that job characteristics influenced job satisfaction of the respondents in all of the countries.

Base on the above empirical studies it is inferred that job characteristics have a positive influence on the work motivation and job satisfaction to achieve this objective an investigation is carried out based upon the selected bank employees in Andhra Pradesh.

3. Research Design and Method

3.1 Objectives of the Study

- To investigate job characteristics as a predictor of job satisfaction.
- To investigate job characteristics as a predictor of work motivation.

3.2 Hypothesis of the Study

H0: job characteristics are not predictor of job satisfaction and work motivation.

3.3 Sampling Method and Size

Samples of 215 bank officers are selected for the study base on simple random sampling out of 215 respondents 169 (78.6%) of respondents are in public sector and remaining 46 respondents (21.4 %) are in private sector working in various cities of Andhra Pradesh.

3.4 Sources of Data

In this study both primary and secondary data is used. Primary data is collected with the help of questionnaire, observation and interview methods and secondary data is collected from the various sources such as journals, books, bank reports etc.,

3.5 Research Instrument and Reliability

the research instruments which is used for measuring job characteristics is job diagnostics survey developed by (Hackman & Oldham, 1976) is used to measure the five core job features of job characteristics model. The questionnaire consists of 23 items, and items were scored on 5 point Likert type scale from '5' strongly agree to '1' strongly disagree the alpha coefficient reliability of the scale was reported 0.76; the coefficient alpha for the job characteristics ranged from .59 to .78 (Scott, Swortzel, & Taylor, 2005).work preference inventory developed by (Amabile, Hill, Hennessey, & Tighe, 1994) is used for measuring intrinsic and extrinsic work motivation. The test reliability for two primary subscales that is for intrinsic and extrinsic motivation scale is .86 and .85 respectively. In this study Job satisfaction was measured by using a three item job satisfaction sub-scale of Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Henkins, & Klesh, 1979) .It was 6 point Likert scale where high scores indicate higher levels of job satisfaction and vice versa. Internal consistency reliability of this scale is .77 (Cammann, Fichman, Henkins, & Klesh, 1979).

3.6 Tools of Analysis

In this study statistical analysis of the data is performed with the help of SPSS (17version).The study uses both descriptive and inferential statistics. Descriptive statistics such as Mean, Standard Deviation are used for demographical data and Correlation and Multiple Regression analysis is carried out to find out the job characteristics as the predictor of work motivation and job satisfaction.

4. Analysis and Implication

Table1 depicted the demographic characteristics of respondents out of 215 respondents for study the majority of them male 195 (90.7%) and rest of female 20 (9.3%).Age of the respondents are categories into three groups from 20 years–to-50 years. Out of 215 respondents 20-30 age group are 86 (40%), 30-40 years of age are 94 (43.7%),40-50 years of age are 19 (8.8%) and rest of 16 (7.4%) are in above 50 years age. With regard to education qualification majority of respondents are graduate 194(90.2) and rest of respondents are post graduate 21(9.8). The details of experience of the respondents are grouped into three categories 0-5 years of experience having 102 (47.4), 5-10 are 94 (43.7) and rest of 19 (8.8%) are having above 10 years of experience. With regard to sector of bank majority of respondents 169 (78.6) are in public sector and rest of them in private sector 46 (21.4).

Table 1: Demographic Characteristics of Respondents

Characteristics		Frequency	Percentage
Sex	Male	195	90.7
	Female	20	9.3
Age	20-30	86	40.0
	30-40	94	43.7
	40-50	19	8.8
	Above 50 years	16	7.4
Qualifications	Graduate	194	90.2
	Post-graduate	21	9.8
Experience	0-5	102	47.4
	5-10	94	43.7
	Above 10 years	19	8.8
Type of Bank	Public Sector	169	78.6
	Private sector	46	21.4

Table 2 depicted the inter correlation matrix for job characteristics and job satisfaction, intrinsic motivation and extrinsic motivation from the table 2 it is inferred that except skill variety is correlated ($r=.205$) with the job satisfaction and it is also significant at 0.01 level and remaining job characteristics are not correlated with job satisfaction task significance ($r=-.032$), task identity ($r=-.008$), autonomy ($r=-.215$) and feedback ($r=-.144$).

Table 2: Correlation between Job Characteristics, Work Motivation and Job Satisfaction

Variable	1	2	3	4	5	6	7	8
1 Skill Variety	1	.175**	.081	.016	.105	.205**	-.037	.206**
2 Task Significance	.175**	1	-.037	-.133	.143*	-.032	.171*	.450**
3 Task Identity	.081	-.037	1	.050	-.228**	-.008	-.097	-.026
4 Autonomy	.016	-.133	-.060	1	.322**	-.215**	.042	-.114
5 Feedback	.105	.143*	-.228	.322**	1	-.114	.138*	.276**
6 Job Satisfaction	.205**	-.032	-.008	-.255**	-.114	1	-.145*	-.037
7 Intrinsic Motivation	-.037	.171*	-.097	.042	.138*	-.145	1	.072
8 Extrinsic Motivation	.206**	.450**	-.026	-.114	.276**	-.037	.072	1

** Correlation is significant at the 0.01 level (2-tailed) *Correlation is significant at 0.05 levels (2-tailed)

Intrinsic motivation is correlated with task significance ($r=.171$), feedback($r=.138$) at 0.05 level of significance and remaining job characteristics are not correlated and is not significance skill variety ($r=-.037$), task identity ($r=-.097$) and autonomy ($r=.042$).Skill variety ($r=.206$), task significance ($r=.450$) and feedback ($r=.276$) were significantly and positively related to extrinsic motivation and remaining job characteristic task identity ($r=-.026$) and autonomy ($r=-.144$) are not related to extrinsic motivation.

The multiple regression analysis in the table 3 demonstrated job characteristics was statistically significant in predicting job satisfaction { $f(5,209) = 4.823, p < .001$ }.Skill variety identified as significant and positive predictor of the job satisfaction whereas task identity, task significance, autonomy and feedback are negative predictor of job satisfaction.

Table 3: Multiple Regression Analysis for Predicting Job Satisfaction (n=215)

Variable	B	t	Sig.	f	sig
Constant	-1.757	.000	1.000	4.823	.000
Skill Variety	.234	3.491	.001		
Task Significance	-.092	-1.351	.178		
Task Identity	-.033	-1.480	.632		
Autonomy	-.207	-2.907	.004		
Feedback	-.067	-.907	.365		
R =.322		R ² = .103		Adjusted R ² = .082	

Predictor: skill variety, task significance, task identity, autonomy and feedback

The multiple regression for intrinsic motivation is presented in the table 4 from the table it is observed that job characteristics was statistically significant in predicting intrinsic motivation { $f(5,209) = 2.343, p < .05$ }. Task significance, autonomy and feedback are significantly and positively predictor of intrinsic motivation except skill variety dimension is negative predictor of intrinsic motivation. In case of extrinsic motivation the results (table 5) turns out to be statistically significant { $f(5,209) = 16.452, p < .000$ }. Skill variety, task significance, task identity and feedback are significantly and positively predictors of extrinsic motivation and autonomy is only the dimension which is negatively predictor of extrinsic motivation.

Table 4: Multiple Regression Analysis for Predicting Intrinsic Motivation (n=215)

Variable	B	t	Sig.	f	sig
Constant	1.724	.000	1.000	2.343	.043
Skill Variety	-.072	-1.044	.298		
Task Significance	.173	2.464	.015		
Task Identity	-.066	-.940	.348		
Autonomy	.040	.544	.587		
Feedback	.093	1.230	.220		
R = .230		R ² = .053		Adjusted R ² = .030	

Predictor: skill variety, task significance, task identity, autonomy and feedback

Dependent: intrinsic motivation

Table 5: Multiple Regression Analysis for Extrinsic Motivation (n=215)

Variable	B	t	Sig.	f	sig
Constant	2.416	.000	1.000	16.452	.000
Skill Variety	.111	1.844	.067		
Task Significance	.372	6.086	.000		
Task Identity	.051	.831	.407		
Autonomy	-.158	-2.473	.014		
Feedback	.274	4.169	.000		
R = .531		R ² = .282		Adjusted R ² = .265	

Predictor: skill variety, task significance, task identity, autonomy and feedback

Dependent: extrinsic motivation

5. Discussion

the overall, results of the study in tune with the previous studied relating to the job characteristics are the successful dimensions in predicting job satisfaction, intrinsic motivation and extrinsic motivation. The unique contribution of the current study, however, was that it incorporated both of the affective outcomes proposed by job characteristics model. Skill variety was found to be the most important predictor of job satisfaction. This leads to the psychological state of experienced meaningfulness of work which in turn determines one's level of job satisfaction. This finding is harmonious with that of a recent study by (Hoonakker, Alexandre, & Pascale, 2004) who found job characteristic model as a significant model predicting job satisfaction.

The success of job characteristics in predicting intrinsic motivation is again an empirically as well as theoretically supported finding (see Table 4). Theory (e.g. Job Characteristics Theory) as well as empirical studies (Fried & Ferris, 1987) (Hackman J. &, 1976) reveals that intrinsic motivation is primarily related to work content variables. Task significance, autonomy and feedback were the significant predictor of intrinsic motivation.

The job characteristics were also successful in demonstrating a statistically significant predictive model of extrinsic motivation (see table 5). A closer scrutiny of the results, however, revealed that the job characteristics were only able to explain 26.5% of the variance on extrinsic motivation in comparison with 3% in case of intrinsic motivation. Skill variety, task significance, task identity and feedback are significantly and positively predictor of extrinsic motivation and autonomy is only the dimension which is negatively predictor of extrinsic motivation. The elements of the job that make ones' work more challenging and worthwhile primarily determines one's intrinsic work motivation (Jansen, de Jonge, & Bakker, 1999). Skill variety, task identity, task significance, and autonomy are the job characteristics which render one's job more challenging and personally meaningful.

The study has demonstrated the predictive validity of job characteristics in relation to work motivation and job satisfaction and was consistent with (Parker, Wall., & Corderly, 2001) review of the literature pertaining to job characteristics model who reported that the collective effects of the core job characteristics on affective responses (satisfaction and motivation) have been largely supported, but those for behavior (i.e. work performance, turnover and absence) less consistently. Second, the more particular features of the model remain unproven. For, Example, the specified links between the job characteristics and the critical psychological states

has not been confirmed. Future research should, therefore, incorporate critical psychological state in predicting behavioral outcomes. ■

S.MD.Azash^{1*}

Associate Professor
 Annamacharya Institute of Technology and Sciences
 Rajampet – 516126
 Kadapa District (AP), India
 E-mail: ejaz008@gmail.com
 Cell: +919966852170

Dr. N.Thirupalu³

Professor
 Chaithanya Institute of Business Management
 Hyderabad (AP), India
 E-mail: ajas_basha@yahoo.com
 Cell: +919885744354

Ramesh Safare²

Associate Professor
 Annamacharya PG College of Management Studies
 Rajampet - 516126
 Kadapa District (AP), India
 E-mail: rameshsafare@gmail.com
 Cell: +919701665038

Bande Subhan⁴

Assistant Professor
 Annamacharya PG College of Computer Studies
 Rajampet – 516126 Kadapa District (AP), India
 E-mail: bsubhan.ap@gmail.com
 Cell: +919491422998

References

- Amabile, T. M. (1988.). A model of creativity and innovation in organizations. *research in Organizational Behavior* , 10, 123-167.
- Amabile, T. (1985). Motivation and creativity: effects of motivational orientation on creative writers. *Journal of Personality and Social Psychology* , 48 (2), 393-399.
- Amabile, T., Hill, K., Hennessey, B., & Tighe, E. (1994). The Work Preference Inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology* , 66, 950-967.
- Bhuain, S. N., Al-Shammari ., E., & Jeft, O. (2001). Work-related attitudes and job characteristics of expatriates in Saudi Arabia. *Thunderbird International Business Review* , 43 (1), 21-31.
- Buys, M. O. (2007). " The construct validity of the revised job diagnostic survey ",. (38, Ed.) *South African Journal of Business Management* , , 33-40.
- Buys, M. O. (2007). "The construct validity of the revised job diagnostic survey" ,. *South African Journal of Business Management* , , 38., 33-40.
- Cammann, C., Fichman, M., Henkins, D., & Klesh, J. (1979). *The Michigan Organizational Questionnaire*. University of Michigan, Ann Arbor.
- Chang, C. S., & Lee, M. (2006). Relationships among personality traits, job characteristics, and organizational commitment: An empirical study in Taiwan. *The Business Review* , 6 (1), 201-207.
- Cook, C. W., & Hunsaker, P. (2001). *Management and Organizational Behavior*. (Mcgraw-hill, Ed.) Boston.
- Droar, D. (2006, MAY). *The Job characteristics model*. Retrieved from http://www.arrod.co.uk/archive/concept_job_characteristics.php.
- Fried, Y., & Ferris, G. (1987). The validity of the job characteristics model: a review and meta-analysis. *Personnel Psychology* , 40, 287-332.
- George, J. M., & Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *JOURNAL of Applied Psychology* . , 86 (3), 513-524.
- Gomez-Mejia, R. B. *Management* (2 ed.). New York:: McGraw-Hill Irwin.
- Hackman, J. &. (1976). " Motivation through the design of work: Test of a theory",. (16, Ed.) *Organizational Behavior and Human Performance* , , 250-279.
- Hackman, J., & Oldham, G. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance* , 16, 250-279.
- Hoonakker, P., Alexandre, M., & Pascale, C. (2004). The relation between job characteristics and quality of working life: The role of task identity to explain gender and job type differences. *Human Factors and ergonomics Society, Macroergonomics*, (pp. 1571-1575).
- Hunter E.P. (2006). Viability of the job characteristics model in a team environment: Prediction of job satisfaction and potential moderators.
- Jansen, P. M., de Jonge, J., & Bakker, A. (1999). Specific determinants of intrinsic work motivation, burnout and turnover intention: a study among nurses. *Journal of Advanced Nursing* , 29, 1360-1369.
- Kanter, R. M. (1988). When a thousand flowers bloom: Structural, collective, and socia conditions for innovation in organizations. *Research in Organizational Behavior* , 10, 169-211.
- McCrae, R. R. (1987). Creativity, divergent thinking and openness to experience. *Journal of Personality and Social Psychology* , 52 (6), 1258-1265.
- Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal* , 39 (3), 607-634.
- Parker, S. K., Wall, T., & Corderly, J. (2001). Future work design research and practice: Towards an elaborated model of work design . *Journal of Occupational and Organizational Psychology* , 74, 413-440.
- Ruscio, J., Whitney, D., & Amabile, T. (1998). Looking inside the fishbowl of creativity: Verbal & behavioral predictors of creative performance. *Creativity Research Journal* , 11 (3), 243-263.
- Sanker, C. S., & Wee, Y. (1997). Factors influencing job satisfaction of technical personnel in the U.S, Singapore, and India. *Engineering Management Journal* , 9 (3), 15-21.
- Schneider, S. E. (2003). *Organizational commitment, job satisfaction, and job characteristics of managers: Examining the relationships across selected demographic variables*. Unpublished doctoral dissertation, New York University, New York.
- Scott, M., Swortzel, K., & Taylor, W. (2005). Extension agents' perceptions of fundamental job characteristics and their level of job satisfaction. *Journal of Southern Agricultural Education Research* , 55, 88-101.
- Tierney, P., & Farmer, S. (2002). Creative self-efficacy: Its potential antecedents and relationships to creative performance. *Academy of Management Journal* , 46 (6), 1137-1146.
- West, M. A., & Farr, J. (1989). "Innovation at work: psychological perspective. *Social Behaviour* , 4, 173-184.