

The Impact of Core Job Characteristics and Critical Psychological State on Job Satisfaction of the Academic Staff Members in the SLIATE

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Abstract

The qualified workers are interested to do more challenging jobs. Dull and repetitive work is more frustrating. This kind of frustration can lead to the increase of less quality outputs. Therefore, it is important to fit the job to the employee in order to have both qualified and satisfied workforce. This study investigated the impact of job design on job satisfaction of the lecturers in Sri Lanka Institute of Advanced Technological Education. The research conducted using job characteristic model developed by Hackman and Oldham and five hypotheses were developed. The data were analyzed through the path analysis in structural equation modeling (SEM). The outcome of the results concluded that the certain core job characteristics of “skill variety” and “task significance” were not able to predict the critical psychological state of “experience meaningfulness”, and these critical psychological states in turn were able to predict job satisfaction. Core job characteristics- “feedback” and “skill Variety” have the highest impact on job satisfaction. “Experience meaningfulness” was determined by the core job characteristic of “task identity” and “experience responsibility” was determined by the core job characteristics of “Autonomy” and “feedback”.

Keywords: core job characteristics, critical psychological states, skill variety, task significance, experience

Introduction

Hackman and Oldham (1975) have demonstrated that the content of an individual’s job is one of the critical determinants of his internal motivation level. These authors have demonstrated further the fundamental characteristics of jobs can establish conditions so that it is possible for workers to obtain personally rewarding experience by doing well on their jobs. So enriching the characteristics of jobs level of internal motivation should be increased in many situations as should individual work performance.

Pinder (1984) said that many employees are better educated and well-heeled these days which means their survival needs are less prominent, and growth needs are stronger. In current society the workforce is more talented. Most of them have degrees as well as masters which adds strength to their growth needs. The workforce is interesting to do more

challenging job not like past. For the qualified workforce Dull, repetitive work is now more frustrating. Frustration increases absenteeism, turnover and less quality output.

Problem Statement

Kudaligama (1991) focused on ‘A Study of the Effects of the Group Method of Team Teaching on Student Achievement in Secondary School Classes’. These researches had not focused on job design and teachers’ satisfaction.

Understanding the relationship between employees and their jobs is basic to understanding both organizational productivity and the quality of the employees' work. It should be the first variable examined when attempting to develop an organization which is staffed and managed so employees are simultaneously utilized and satisfied to the fullest extent and where neither the goals of the organization nor the personal needs of the employees override each other.

Problem Statement: What is the impact of core job characteristics and critical psychological states on the satisfaction of the lecturers in the SLIATE?

Research Objectives

1. To identify the core job characteristics that have been included in the lecturer job.
3. To identify the level of satisfaction of the lecturers.
4. To identify the impact of job designing to the satisfaction of the lecturers.

Literature survey

The experiment of Hawthorne studies conducted at the Hawthorne plant of the Western Electric Company in Chicago, Illinois from 1927 to 1933, by Mayo (1946) suggested that psychological and sociological factors were of major importance in determining worker behavior, effectiveness, and satisfaction; the mere act of management showing people that they are concerned about them usually motivate them to better job performance.

Vroom (1964) presented a theory of worker motivation, which focused on motivational dynamics as a force within employees. His theory, called the “Expectancy Theory”, included three concepts, which contributed to the force of motivation: (a) valence, (b) expectancy, and (c) Instrumentality. Vroom believed that motivation occurs when: (a) outcomes or rewards being offered are perceived by the worker as being desirable; (b) the worker knows what needs to be done to obtain desired outcomes; (c) the worker is confident that he or she is able to do what is necessary to perform adequately. Individual motivation is viewed as a function of a person’s perception that his or her increased performance will result in certain rewards, which ultimately aids the pursuit of personal goals. In short, to be motivated, the worker must believe that it is possible to succeed and that he or she will be rewarded for being successful (Vroom, 1964; Silver, 1983).

Turner and Lawrence (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. These attributes were predicted to relate positively to employee satisfaction, effectiveness, and attendance. There are six task attributes: Variety, autonomy, required interaction, optional interaction, knowledge and skill required, and Responsibility. The Requisite Task Attributes Index was resulting from the six measures and used to test relationships between the design of jobs and employee reactions to them. Positive relations were found between the Requisite Task Attributes Index and employee satisfaction for workers. The researchers concluded that reactions to

jobs high on the Requisite Task Attributes Index were moderated by differences in the cultural backgrounds of employees.

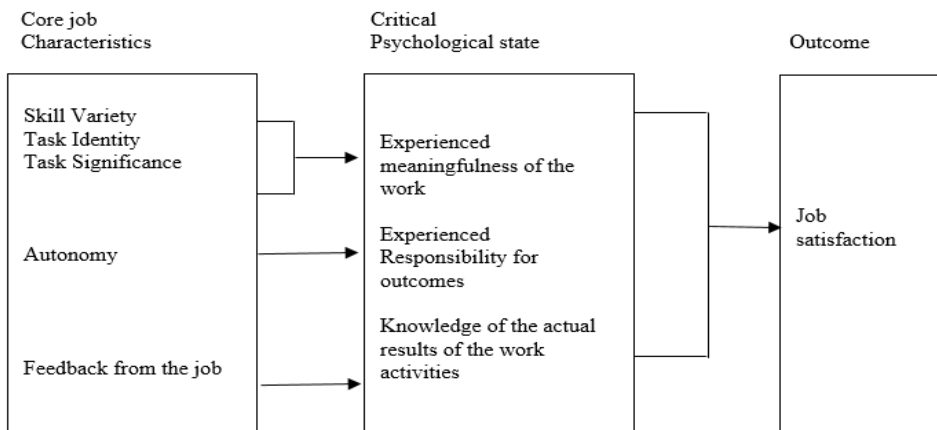
Blood and Hulin (1967) and Hulin and Blood (1968) rather than cultural background differences Hackman and Lawler (1971), suggested that previously found differences in how members in groups responded to their jobs might be explained in terms of employees' personal need for professional growth and development. They suggested that employees should react positively to four core dimensions adapted from those used by Turner and Lawrence: variety, autonomy, task identity, and feedback. Moreover, a measure was developed to reflect the level of employee desire for the satisfaction of higher-order needs. Hackman and Lawler (1971) revealed that when jobs are high on the four core dimensions, employees having higher intrinsic motivation to perform well. In addition, the researchers provided evidence that key characteristics of the job itself can directly affect employee attitudes and behavior. 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. The model Hackman and Lawler developed is outlined in Figure 2.1.

Barnabe and Burns (1994) recommended further study of the usefulness of the model and the Job Diagnostic Survey instrument for education. Additionally, they suggested that the model should be tested in other areas of North America and other countries within various educational settings.

Methodology

Conceptual Framework of the Study

This study focuses to test the impact of the core job characteristics and CPS on satisfaction of the lecturers in SLIATE. Since the Hackman and Oldham model is the most complete, theoretically based model and has a specific measuring device, it has been used as the theoretical framework for this study.



The following hypotheses were generated to test the model:

Hypothesis 1: experience meaningfulness of the work will be influenced by skill variety, task identity, task significance.

Hypothesis 2: experienced responsibility for the work will be influenced by autonomy.

Hypothesis 3: knowledge of the actual outcomes of the work will be influenced by feedback.

Hypothesis 4: job satisfaction will be predicted by skill variety, task identity, task significance, autonomy, and feedback.

Hypothesis 5: the satisfaction will be predicted by experienced meaningfulness of the work, experienced responsibility for the work, and knowledge of the actual outcomes of the work

Population and Sample

The population consisted of all the academic members in 11 ATIs under the SLIATE. All the population taken as a sample (n=175). The geographical distribution of the population is presented in table 1. The one hundred seventy five questionnaires were distributed and one hundred forty one were used.

Table 1. Geographical distribution of the ATIs participating to the research

Advanced Technological Institute	Number of Lecturers
Dehiwala	23
Kandy	20
Labuduwa	40
Badulla	06
Niwala	11
Mattakkuliya	25
Ampara	16
Jaffna	15
Trincomalee	06
Kurunegala	15
Kegalle	09

Data collection procedure

Data was collected through the mailed survey. The questionnaire and the covering letter were mailed to the lecturers to collect the data.

The approval was taken from the Director General of the SLIATE and each ATI director was contacted by phone to explain about the survey. One lecturer (liaison) was selected from each ATI and was contacted from phone and explain the purpose of the survey. The 175 surveys sent to the ATIs, 141 were completed for a return rate of 83percent.

Reliability Analysis

The Cronbach's Alpha was used to analyze the inter item consistency reliability of the variables. Following are the results of reliability analysis.

Cronbach's Alpha	N of Items
.857	9

Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient

is to 1.0 the greater the internal consistency of the items in the scale. Based upon the formula $\alpha = \frac{rk}{1 + (k - 1)r}$ where k is the number of items considered and r is the mean of the inter-item correlations the size of alpha is determined by both the number of items in the scale and the mean inter-item correlations .

Analysis

The following manipulations were carried out on the data: mean, standard deviation, frequencies, correlations, and a path analysis and model testing .The two-step approach recommended by Anderson and Gerbing (1988) was followed.in the first step it was measured whether observed variables are really measuring the underlying theoretical constructs and whether the measurement model provides evidence of an acceptable fit to the sample data. Model testing was performed using the AMOS 20 (Arbuckle and Wothke 1999) software package.

Core job characteristics and their relationship to motivating potential.

The core job characteristic scores were rated using a combined of two different Likert scales with a range of one to seven. The first scale, in section one of the survey, assessed the degree to which the job dimensions were present (1 = very little, 4 = moderate, 7 = very much). The second scale, in section two of the survey, assessed the accuracy of statements in describing the job (1 = very inaccurate, 4 =uncertain, 7 = very accurate).

As indicated in table 2 in all dimensions mean scores are nearly 4. This shows that moderate presence of the dimensions.

Table 2. Mean and Standard Deviation of the job dimensions in lecturer job in SLIATE

	N	Minimum	Maximum	Mean	Std. Deviation
Skill Varity	141	3	5	3.99	.423
Task Identity	141	2	5	4.04	.631
Task significance	141	3	5	4.02	.567
Autonomy	141	2	5	4.05	.625
Feedback	141	2	5	3.96	.675
Experience meaningfulness	141	3	5	3.89	.360
Knowledge of result	141	3	4	3.96	.203
Experience responsibility	141	3	4	3.78	.416
General Satisfaction	141	3	4	3.69	.465
Valid N (listwise)	141				

Note. N = number of subjects

Motivating potential score of the SLIATE.

Skill Variety	Task Identity	Task Significance	Autonomy	Feedback	MPS
3.99	+	4.04	+	4.02	
					X 4.05 X 3.96 = 64.4
					3

Note. MPS = Motivating Potential Score

Figure 1. Motivating potential score of the SLIATE

Critical psychological States

The scores were determined using a Likert scale with a range of one to seven (1 = disagree strongly, 4 = neutral, 7 = agree strongly). The table 4 shows the mean and standard deviation of each Critical Psychological States.

As indicated in the table 4 scores remained close to a neutral response in each Psychological States.

General satisfaction.

The scores were determined using a Likert scales with a range of one to seven. The first scale, used in sections three and five of the survey, assessed the General satisfaction (1 = disagree strongly, 4 = neutral, 7 = agree strongly). As indicated in the table 5 general satisfaction is lower than neutral (M=3.6).

Comparison to national norms.

The lecturer job in SLIATE were compared to normative data established by Oldham, Hackman, and Stepina (1979) to give the meaning to the data in the study. The normative data are based on the results of studies involving 6,930 employees holding 876 jobs in 56 organizations. The jobs included in those studies were highly heterogeneous and divided into nine job groups established by the Equal Employment Opportunity Commission (EEOC) and defined in the Dictionary of Occupational Titles (DOT) published by the U.S. Department of Labor. In establishing the national norms, Oldham, Hackman, and Stepina (1979) placed the teaching occupation in the group labeled “professional job family” and therefore it was chosen from the nine job groups to test for significant differences when compared to the results of this study.

The core job dimensions and motivating potential score means and standard deviation for the lecturer job and the professional job family groups proposed by Oldham, Hackman, and Stepina as normative data are presented in table 3.

Table 3. Mean values and standard deviation of Core job characteristics in SLIATE lecturers with the professional job family group

	SLIATE		PRO	
	M	SD	M	SD
Skill Variety	3.99	.42	5.4	1.0
Task Identity	4.04	.63	5.0	1.2
Task Significance	4.02	.56	5.6	.95
Autonomy	4.05	.63	5.4	1.0
Feedback from Job	3.96	.67	5.1	1.1
Motivating Score	64		154	

Note. SLIATE=SLIATE lecturer job, PRO = Professional Job family group

Table 3 shows that the mean value, standard deviation of critical psychological state of lecturers and professional Job Families used to establish the National Norms. Table Means for the Psychological States of the SLIATE Job and the Professional Job Families used to establish the National Norms.

Table 4. Psychological States of SLIATE and PRO

Psychological States	SLIATE		PRO	
	Mean	SD	Mean	SD
Experienced Meaningfulness	3.89	0.36	5.4	0.87
Experienced Responsibility	3.78	0.42	5.8	0.72
Knowledge of Work Results	3.69	0.46	5.0	0.99

Note. SLIATE=SLIATE lecturer job, PRO = Professional Job family group

The means and the standard deviation for the critical psychological states found in this survey were lower than the means of the professional/technical group and the JDS norms.

Table 5. Mean for the General satisfaction of the SLIATE Job and the Professional job family used to establish the National Norms

	SLIATE		PRO	
	M	SD	M	SD
General Job Satisfaction	3.69	.46	4.9	0.99

Note. SLIATE=SLIATE lecturer job, PRO = Professional Job family group

Hypotheses Testing

Findings on hypothesis one (H1)

Hypothesis one states: The critical psychological state “experience meaningfulness of the work” will be influenced by the core job characteristics of “skill variety”, “task identity”, “task significance”.

The Job Characteristics Model states that the core job characteristics "skill variety", “task identity” and "task significance" relate to the critical psychological state of "experienced meaningfulness of the work".

In this study the regression weight for task characteristics of "skill variety" ($p=.799, \beta=.024$) and "task significance" ($p=.352, \beta=.060$) in the prediction of the psychological state "experienced meaningfulness of the work" is not significantly different from zero at the 0.05 level (Table 4.7). Hence H1 is partially support by the research data since “skill variety”, and “task significance were not predicted the proposed critical psychological state of “experience meaningfulness of the work”.

Findings on hypothesis two (H2)

Hypothesis two states: The critical psychological state “experienced responsibility for the work” will be influenced by the core job characteristic of “autonomy”

The task characteristic” autonomy” in the prediction of proposed critical psychological state of “experienced responsibility for the work” is significantly different from zero at the 0.001 level . ($\beta=.538$) (Table 4.7). Hence H2 is supported by the sample data.

Findings of hypothesis three (H3)

Hypothesis three states: The critical psychological state “knowledge of the actual outcomes of the work” will be influenced by the core job characteristic of “feedback”. The regression weight for the task characteristic “feedback” in the prediction of the proposed

critical psychological state of “knowledge of the actual outcomes” significantly different from zero at the 0.001 level.($\beta=.090$) (Table 4). Hence H3 is supported by the sample data.

Findings of hypothesis four (H4)

Hypothesis four states: The satisfaction will be influenced by the five core job characteristics. The regression weights of “Task Identity” ($p=.510$, $\beta=-.090$), and “Autonomy” ($p=.867$, $\beta=-.015$) is not significant when predicting the satisfaction. Hence the proposed relationship between job satisfaction and core job characteristics was partially supported by the sample data as all the core job characteristics did not consistently predict the satisfaction.

Findings of hypothesis five (H5)

Hypothesis five states: The satisfaction will be influenced by the three critical psychological states. The regression weight for the critical psychological states of “experienced meaningfulness” ($p=.006$, $\beta=-.306$) “experienced responsibility”($p=.020$, $\beta=-.189$) and “knowledge of the actual result of the work”($\beta=.829$) in the prediction of satisfaction is significantly different from zero at the 0.01 level.

Hence the proposed relationship between satisfaction and three critical psychological states were supported by the sample data.

Some researchers (Brief & Aldag, 1975; Frank & Hackman, 1975; Hackman, Pearce & Wolfe, 1976; Staw & Oldham, 1978) have examined the relationship between the core characteristics and the psychological states either ignoring the psychological states entirely or in addition to examining the intervening effect of the psychological states. Hackman and Oldham (1976) also looked at this relationship but found the relationship of the core characteristics to satisfaction was stronger when it operated through the psychological states.

Recommendation for Practice

It shows that lecturers in SLIATE are not satisfied with which the chances that are provided by the SLIATE to involved with different activities requiring a variety of skills outside of teaching. Hence, the Director General of SLIATE, other deputy directors of SLIATE as well as particular directors of ATI may want to begin exploring ways to either create or delegate various administrative tasks (i.e., public relations, marketing, web site development and maintenance, program and curriculum design, etc.) to lecturers in an attempt to improve their interest within the institution. The authoritarians should concern to improve the industrial knowledge of the lecturers and they should be provided chances to practically involve with it. As well they should be provided chances to do more research which is a great opportunity to broaden their knowledge.

In the sample majority of the lecturers were Assistant lecturers (49%) and there were very few Senior lecturers (12%). This shows that employee retention is a problem within the organization. To improve the retention of the SLIATE Directors may want to consider various ways to diversity activities of the SLIATE. When we are considering the designing of the job it is important to provide them more chances to involve with various other activities (eg. administration, research) other than lecturing.

There must be a good feedback programme within the organization. The behavior model shows that there is a positive relationship between feedback and lecturer satisfaction. Directors, in an effort to improve the degree to which lecturers receive clear

information about his or her work performance, should consider developing various avenues of communication that would be available for all lecturers (i.e., mentoring programs, periodic performance reviews, etc.). When the job provides a feedback about how they are going within their job the ultimate result will be better for the students as well.

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