



Moderating Effect of Growth Need Strength on the Relationship between Job Characteristics and Job Satisfaction

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ABSTRACT

This study is to determine the moderating effect of growth need strength (GNS) between self-esteem and job satisfaction among SRN's. Data were collected through survey using questionnaire. This study employed stratified random sampling involving a total of 390 nurses at selected general hospitals. The finding of the study contributes in the specific area of literature, theory and also in research design. The results of this study suggest that the GNS as moderator have played significant important role between job characteristics and job satisfaction. It is also provide a much better conducive working environment and by incorporating policies that can improve job satisfaction.

Keywords: Growth Need Strength, Job Satisfaction, Job Characteristics, Linear/Hierarchical Regression

JEL Classifications: M (M12)

1. INTRODUCTION

Ministry of Health (MOH) (2009-2014) has found itself in a position where it has inadequate empirical information that might guide its efforts in enhancing psychological well-being for SRN of ensuring effective and efficient operation for any general hospital.

It has been established that, the psychological well-being for SRNs is determined to a large extent by that person's satisfaction with the individual experience of the various domains of life (Barnett et al., 2010). One important domain is job satisfaction among the SRN (Bibi, 2008).

According to Economic Transformation Plan (2010), the decline in job satisfaction and the lack of a comprehensive approach to improve it may be the result of the limiting assumption on growth need strength (GNS) towards nurses working in government hospitals. Moreover in hospital operation, it is especially important for the SRNs to experience a better GNS that will contribute to job satisfaction.

2. REVIEW OF LITERATURE

2.1. Relationship between Job Characteristics and Job Satisfaction

A study conducted by Huang and Vliert (2003) to determine the relationship between job characteristics and job satisfaction. Two questionnaires were administered to 107,292 employees in 49 countries. All of the surveys were translated into the languages of the countries under investigation. Of those who received the survey, 76% responded. In order to measure job satisfaction the survey included seven items: (a) Being treated with fairness and respect, (b) pay, (c) recognition, (d) benefits, (e) career opportunities, (f) job security, and (g) training. The results indicated that the link between job characteristics and job satisfaction varied from country to country. The results also showed that the link between the two could be explained in terms of national wealth, social security, individualism, and cultural power. The relationship between job characteristics and job satisfaction was stronger in richer countries, higher social security countries, and more individualistic countries. In poorer, less individualistic countries

with inadequate social welfare programs, job characteristics did produce job satisfaction. In conclusion, the positive relationship between job characteristics and job satisfaction was basically the same across the 49 countries. These findings are in harmony with the explanation drawn from the socioeconomic perspective, on the one hand, and the cultural perspective on the other (Huang and Vliert, 2003).

Gelsema et al. (2005) studied the significance of organizational and environmental work conditions on the job characteristics of nurses, on their health, and well-being. The sample consisted of 807 registered nurses working in hospital in Leiden, Netherlands. Direct influence of work conditions on outcomes was evaluated and it indicated that personnel resources ($r = 0.32$) and ($P < 0.001$) are related to job satisfaction (Gelsema et al., 2005).

This was consistent from a study by Ahmad et al. (2012) on job nature in extension services is associated with work in rural areas and expects extension workers to show high levels of interest and job satisfaction. A survey of 52 extension workers was conducted in Markazi Province of Iran to explore the relationship between job characteristics and job satisfaction extension workers using Brayfield and Rothe job satisfaction index. The study found that the majority of the extension workers (65.5%) belonged to the intermediate level of job satisfaction, followed by 29.1% and 5.5% belonging to high and low levels of job satisfaction, respectively. Regression results also explained 30% of the variances in job satisfaction. Two independent variables that accounted for the explained variances were the job challenge level (22%) and extension workers' ability to serve rural communities (8%). These results may be useful to policy makers both in the public and private sector and directors in general (Ahmad et al., 2012).

Similarly in Malaysia, a study by Mohd and Mohd (2004) examined the relationship between job characteristics and the employees' job satisfaction. The data were collected from 150 respondents by using a structured questionnaire and analyzed by using Pearson correlation, t-test and ANOVA. Results of the study indicate significance relationships between job characteristics and job satisfaction (Mohd and Mohd, 2006).

2.2. Moderating Effect between Job Characteristics and GNS

Many studies have indicated that GNS is commonly associated with job characteristic (Hackman and Oldham 1975; 1976; 1980). Scholars who have examined the association between GNS and job characteristics have reported statistically significant and meaningful amount of explained variance in job satisfaction (Judge et al, 2002). Furthermore a meta-analytic study by Ferris and Fried (2006) on the validity of the job characteristics model also found a strong relationship between job characteristics and job satisfaction ($r = 0.56$). True variance across studies was found for the job characteristics relationship; however, subsequent analyses suggested that GNS moderates this relationship (Ferris and Fried, 2006).

Support for GNS as a moderator between job characteristics and job satisfaction has been encouraging. Others studies that have

supported GNS as a moderating variable were been reported by Hackman and Oldham (1980) and Ferris and Fried (2006). Only one study was identified to show that GNS was an ineffective moderator (Klein, 1977).

Thus this study is to determine the influence of GNS on the relationship between job characteristics and job satisfaction among state registered nurse at selected general hospital.

3. METHODOLOGY

This study is a quantitative research with 390 of nurses at selected general hospitals. This study intends to determine the moderating effect of GNS on the relationship between job characteristics and job satisfaction among SRNs at selected general hospitals. The scope of the study is limited in the areas of sample size, data collection methods and data analysis. The study used the critical mass of the sample population from the total population to measure the job characteristics of GNS on the relationship between job satisfaction and job characteristics among SRNs at selected general hospitals and thus may result in a smaller sample size.

3.1. Job Characteristics

Job characteristics were measured based on job characteristics inventory developed by Cook et al. (1981). The proposed instrument was an improved measure of perceived job characteristics from the scale developed by Hackman and Lawler (1971). The entire 5-point Likert type format items from 11 to 30 are statement questions with no positive and negative items ranging from "almost none (0-20%)" to "a great deal (81-100%)."

The inventory was originally created through a study of employees in a large medical center, and managers and supervisors in a manufacturing firm (Cook et al., 1981). The original instrument had two interpersonal dimensions "dealing with others" and friendship opportunities" which were dropped in this study because they were not deemed appropriate. The respondents were asked to determine the extent of the task conditions present on the job. Coefficients alpha on the original scale from previous studies have been satisfactory, ranging from 0.72 to 0.90 (Cook et al., 1981).

3.2. GNS

The measure of GNS was adapted from the instrument developed by Hackman and Lawler (1971). The intention to develop the original instruments was derived from previous empirical and theoretical works proposing that such needs may moderate the relationship between job characteristics and job satisfaction (Cook et al., 1981). The entire items on 12 items from 76 to 87 are statement questions with nil positive and negative items.

The instrument was also best considered in conjunction with Hackman and Oldham's (1975) GNS instrument. It was reported by Cook et al. (1981) that an initial sample of 332 varied government employees obtained an alpha coefficient of 0.93 using ten items from the scale. Responses were on a 5-point Likert type format ranging from "almost none (0-20%)" to "a great deal (81-100%)." The mean item score was used as the overall index.

3.3. Job Satisfaction

According to Weiss et al. (1977), job satisfaction was measured based on the Minnesota satisfaction questionnaire (MSQ). The measure was of the primary indicators associated with a comprehensive theory of work adjustment developed by Dawis and Lofquist (1969). Responses to the questionnaire were given on a 5-point scale ranging from “very dissatisfied” to “very satisfied.”

Cook et al. (1981) indicates that the MSQ appears to provide a sound measure of job satisfaction since it has tapped a wide range of features. The Hoyt internal reliability coefficients for the scale have been respectable (ranging from 0.59 to 0.97 across occupational groups). Substantial inter correlations among the MSQ scales justified the global satisfaction score (Saunders, 1986).

The level of measurement selected for measuring all the variables discussed above was categorized at the interval scale. It is defined as a level of measurement that provides equal intervals from an arbitrary origin. The interval level of measurement is superior to the nominal and ordinal measurement scales. This level of measurement yields continuous data, which can be analyzed by more powerful correlation and multiple regression procedures.

4. DISCUSSION ON FINDINGS

4.1. Sampling Result

A total of 390 questionnaires were returned with a response rate of 87% from 450 of questionnaires. The statements were put on a Likert scale of 1-5 to measure the moderating effect of GNS on the relationship between job characteristics and job satisfaction among the SRN at the selected general hospitals.

The study targeted SRNs who work at selected general hospitals. The selected general hospital has 11 departments which include:

1. Ophthalmology,
2. Ear, Nose and Throat,
3. Rehabilitation,
4. Orthopedic,
5. Pediatric,
6. Obstetric and Gynae,
7. Surgical,
8. Medical,
9. Neurosurgery,
10. Intensive Care Unit and
11. Emergency Department.

Based on the communication with representative of the hospital director, it has been acknowledged that the population consist of 3200 SRNs working at selected general hospitals. It represents a crude yardstick to achieve the aim of this study. Thus, in the context of this study, the appropriate sampling design selected was stratified random sampling.

According with Hair et al. (2007), stratified random sampling is a “process in which certain sub-groups or strata are selected for the sample in the same proportion as they exist in the population. Since there are eleven departments in selected

general hospital, this research design would increase the likelihood of representativeness. In order to calculate and gain a more accurate result on the sample size, Slovin’s formula was used. A few studies of job satisfaction have used Slovin’s formula to estimate the sample size of the study (Lasco and Baguinat, 2009; Gede, 2012).

Figure 1, illustrates the basis to estimate the sample size through Slovin’s Formula.

Figure 1: Slovin’s formula

$$n = \frac{N}{1 + Ne^2}$$

Where, n = Sample size, N = Population of SRNs in selected general hospitals, e = Desired margin of error

The estimated sample size is 356 by using 0.05 desired margin of error (e) and the population of SRNs in selected general hospitals is 3200. The result from Slovin’s formula proves that the estimated sample size falls within the same range which is suggested by Varkevisser et al. (2003).

Figure 2 shows justification of the Slovin’s calculation:

Figure 2: Slovin’s calculation

$$\begin{aligned} &= 3200 / (1 + 3200 * 0.05^2) \\ &= 3200 / (1 + 3200 * 0.0025) \\ &= 3200 / (1 + 8) \\ &= 3200 / 9 \\ &= 356 \end{aligned}$$

The Sloven formula shows that the number of 356 observations can efficiently represent the population in this study. However in order to increase accuracy with a larger sample, the survey was conducted with 450 respondents.

In order to illustrate the accessible population located in eleven departments in selected general hospitals, a sampling frame was constructed. The 450 respondents were selected in proportion to the accessible population in the eleven departments. Out of the 450 questionnaires, 390 were filled completely and the response rate was 87%. It can be perceived that there was relatively high external validity. There was also confident that the responses were representative of the total sample (Hair et al., 2007).

Table 1 shows the breakdown of respondents in the eleven departments.

The summary of sampling flow and result in this study as illustrated in Figure 3.

4.2. Relationship Analysis between Job Characteristics and Job Satisfaction

Based on the result, it reveals that job characteristics component are statistically significant at 1% levels, contributing to the job characteristics and have positive effects on job satisfaction among

390 respondents. R^2 is the coefficient of determination, interpreted as the percentage of variance in Y (job characteristics) that can be explained by X (job satisfaction). The highest R^2 of 0.504 indicates that 50.4% of the variance in job satisfaction can be explained by job characteristics.

Table 2 shows regression analysis is performed to determine the relationship between job characteristics and job satisfaction by using linear regression.

Figure 3: Flow chart of sampling process

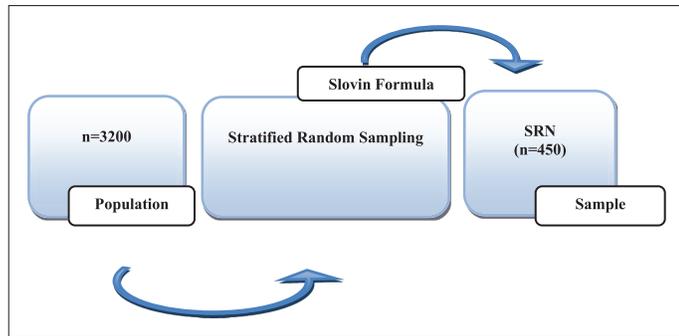


Table 1: Distribution of respondents from selected general hospitals

Departments	Population	Sample	Percentage
Ophthalmology	250	35	7.8
Ear, Nose and Throat	102	14	3.2
Rehabilitation	290	41	9.1
Orthopedic	245	35	7.7
Pediatric	240	34	7.5
Obstetric and Gynae	350	49	10.9
Surgical	450	63	14.1
Medical	720	101	22.5
Neurosurgery	100	14	3.1
Intensive Care Unit	276	39	8.6
Emergency Department	177	25	5.5
Total	3200	450	100.00

Table 2: Linear analysis between job characteristics and job satisfaction

Variable	Constant	R ²	SE B	Beta	Sig
Job characteristics	0.913	0.504	0.045	0.901	0.001*
Job satisfaction					

*P<0.01. SE: Standard error

Table 3: GNS between job characteristics and job satisfaction

Variable/s	R2	R2Δ	FΔ	SE B	Beta	Sig
Step 1						
Job characteristics	0.504	0.504	227.702	0.045	0.901	0.001*
Step 2						
Job characteristics				0.066	0.265	0.001*
GNS	0.636	0.132	111.091	0.038	0.446	0.001*
Step 3						
Job characteristics				0.075	0.321	0.001*
GNS				0.077	0.556	0.001*
Job characteristics×GNS	0.639	0.003	54.856	0.017	-0.027	0.105

R²=0.504 in Step 1; R²Δ=0.132 in Step 2 (P=0.05); R²Δ=0.003 in Step 3 *P<0.05. GNS: Growth need strength

The results for GNS as moderator on the relationship between job characteristics and job satisfaction, hierarchical regression analysis show that 50.4% of the variance on job satisfaction is explained by job characteristics which indicates significant relationship between job characteristics and job satisfaction ($R^2 = 0.504$, $F\Delta = 227.702$, $P < 0.05$) (Table 2). In Step 2, the GNS variable contributes additional 13.2 % to explain the job satisfaction ($R^2 = 0.636$, $R^2\Delta = 0.132$, $F\Delta = 111.091$, $P < 0.05$). In the Step3, with both job characteristics and GNS variables already in the equation, the results show that the interaction variable (job characteristics × GNS) contributes additional explanation of 0.3% of the variance.

However, the interaction variable is not statistically significant ($R^2 = 0.639$, $R^2\Delta = 0.003$, $F\Delta = 54.856$, $P > 0.05$). This finding suggests that GNS, at the 5% level of significance, is not a moderator variable in the relationship between job characteristics and job satisfaction.

The following regression equations were used to analyze the role of GNS as moderator of the relationship between job characteristics and job satisfaction variable:

$$\text{Equation 1} = \text{Job satisfaction} = a + b1 (\text{job characteristics}) + e$$

$$\text{Equation 2} = \text{Job satisfaction} = a + b1 (\text{job characteristics}) + b2 (\text{GNS}) + e$$

$$\text{Equation 3} = \text{Job satisfaction} = a + b1 (\text{job characteristics}) + b2 (\text{GNS}) + b3 (\text{job characteristics} * \text{GNS}) + e$$

Table 3 presents the result of hierarchy regression.

5. CONCLUSION AND IMPLICATION

5.1. Significant of Job Characteristics for Job Satisfaction

The results of linear regression analysis show that 50.4% of the variance of the job satisfaction is explained by job characteristics which indicates significant relationship between job characteristics and job satisfaction.

Result from hierarchical regression with GNS variable shown that contributes additional 13.2% to explain the job satisfaction. With both job characteristics and GNS variables already in the equation, the results show that the interaction variable (job characteristics × GNS) contributes additional explanation of 0.3% of the variance.

However, the interaction variable is not statistically significant. This finding suggests that GNS, at the 5% level of significance, is not a moderator variable in the relationship between job characteristics and job satisfaction.

5.2. Role of GNS

Growth needs strength play an importance role because it acts as a strong need for personal challenge and accomplishment, for learning, and for professional development on the job.

From the result, it can be concluded SRN's who have strong growth needs strength are predicted to develop a strong internal motivation when working on complex and challenging jobs. In other words, nurses with strong growth needs strength will respond more positively to the conflict in their personal life due to their job.

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