

Assessing the Impact of Job Characteristics on Service Quality of Thai Nurses: Mediating Role of Employee Involvement

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This particular study seeks to take a look at the effect of job characteristics on service quality of nurses working in hospitals of Thailand. The population of the analysis was comprised of almost all nurse doing work within Thailand. A random sample was selected to collect data from the research population, which consisted of 600 questionnaires sent out to nurses and patients or their attendants, while the returned questionnaires and valid to statistical analysis were (309) questionnaires, with the responding rate (51.5%). Structural Equation Modelling (SEM) was utilized being a statistical evaluation strategy to get the study goals. The outcome on the analysis suggested that there's a substantial direct effect of a) job characteristics on employee involvement and b) employee involvement on service quality. The present study also confirms the indirect effect of job characteristics on service quality through employee involvement. Thus, the primary study suggestion has oriented the supervisors to emphasizing on employee involvement by providing them opportunities to participate in job design and style to get the ideal organizational outcomes.

Key words: *Job characteristics, job design, employee involvement, service quality of nurses.*

Introduction

Quality of service is a worldwide concern of medical institutions. Healthcare structures have created, the standard of service offered by nurses has turned into a main concern for the health and nursing management service system. The caliber of nursing service is exclusively associated with patient safety as well as patient satisfaction. Patient problems is recognized as root cause of worldwide health issues, around 42.7 million unfavorable situations are faced by individuals across the globe (Dong et al., 2020). Thus, enhancing the quality of nursing service is able to have a significant influence on global wellness. The main issue for exploration on the caliber of nursing service will be the level to which medical service delivery system impacts nursing service quality. Recent scientific research has concentrated much on the consequences of nursing staff as well as nursing job atmosphere on service quality of nurses, as compared to the influence that job attributes have on medical services. The “job Demands Resources model” (JDR) details the relation among job attributes (employment information along with work outcomes, personal characteristics, and demands) (Menguc, Auh, Yeniaras, & Katsikeas, 2017).

The service quality of nurses in medical structures will be the crucial job consequence. An evaluation of patients' perceptions of service quality of nurses determined a selection of common themes which could be good at improving the quality of nursing service (Mauno, Ruokolainen, Kinnunen, & De Bloom, 2016). Further, they found a considerable favorable relation among independent nursing quality indicators and very subjective assessments of nursing service quality. Hashish (2017) discovered that nurses' perceptions of great nursing service quality were related to a reduced chance of mortality along with other negative outcomes. Based on The JDR model, employment resources have a hidden beneficial role which enhances workers' psychological well-being and health, and also improves work performance. Job resources are community, organizational, tangible, and emotional aspects of an institution 's targets (Albrecht, Breidahl, & Marty, 2018)

Job characteristics talk about elements regarding work; that's, an analysis of all elements on the work. Hackman's job-characteristics model proposed there's an internal psychological procedure that drives personnel to perform efficiently at the job. This motivational procedure depends on 5 key dimensions, including task identity, autonomy, task significance, skill variety, and feedback. Job characteristics are a helpful sign of job structure dysfunction, which may deepen our comprehension of the emotional perceptions of nurses' job experience (Sabra, 2020).

Based on the JDR design, job attributes foster a positive mental condition and improve work performance. Many scientific studies have stressed that employment attributes are favorably associated with job involvement (Chen & Chiu, 2009). Job involvement is defined as a

positive, fulfilling psychology state about work (Alshammari, Ayed, Qaied, Al-mawali, & Matalqa, 2016). Workers in highly traumatic medical environments who've a high level of job involvement is able to ameliorate the implications of job overload and then limited resources. Involved workers are anticipated to be contribute, productive, and creative to the institution 's achievement. Research has shown that job involvement is substantially relevant to employment outcomes, like workforce balance, turnover intention and work satisfaction (Hatch, Winefield, Christie, & Lievaart, 2011; Sun & Bunchapattanasakda, 2019). Tyson and Pongruengphant (2004) demonstrated that enhancing job involvement is able to have a beneficial impact on the caliber of service of lady health workers. Job involvement was linked with positive ratings of the caliber of healthcare in clinics. Job involvement is a good motivational condition of satisfaction, and investigation suggests that labor involvement mediates the connection among organizational attributes as well as work performance (Zopiatis, Constanti, & Theocharous, 2014).

Though studies have shown bivariate associations among quality, job involvement, and job characteristics of service, studies haven't confirmed the mediating consequences of job involvement on the relationships among employment attributes, as well as nursing service quality. Therefore, the mechanism by what job characteristics influence the caliber of nursing service remains not clear. Thus, the goal of the current study was analyzing the associations among job characteristics, job involvement, and nursing quality within medical facilities of Thailand. In case research is able to figure out exactly how employment attributes impact nursing service quality, this will help nursing administrators to apply interventions that are effective in encouraging nursing service quality.

Literature Review

Job Characteristics and Service Quality

Besides the concept and models utilized, the experts assessed previous research on the issue of employee effectiveness concerning the five job attributes that are skill variety, task significance, task identity, feedback, and autonomy. Skill variety will be the example wherein a job needs different things to be able to handle a complete function and entails different abilities and skills (Russell, Liggans, & Attoh, 2018).

Based on the literature of jobs, attempts are made at the beginning of the posts by employees to find functions from which they achieve or even reach the goals of theirs (Shropshire & Kadlec, 2012). Natural attributes of a job like a task significance and skill variety are generally related to a lower ratio of absenteeism (Li & Hsu, 2016). A report on skill variety, feedback, and general employee performance utilized a descriptive style which explained relevant elements of the aspects appealing to the present investigators (Chen & Chiu, 2009). In their research, facts were examined using a descriptive design like standard deviation and

the mean whereas inferential stats include Multiple regression and Pearson correlation assessment. Skill variety was discovered to affect job performance substantially. The analysis proven that skill variety was discovered to be the most substantial job characteristic in general. The research had various constraints to be resolved. Moreover, on account of the chosen methodology, the information gathered was susceptible to having a level of CMV. There seemed to be a reduced response rate, in which the management have been underrepresented in the sample of the study.

Task Identity is the ratio at which a specific task must have the realization of an entire portion associated with a job. Job uncertainty is linked with insufficient clarity of employment scope, function, and responsibility of each team member, unclear job description, and also incoherent direction from superiors. Along with other parts of a project, job identity is seen as having an optimistic impact on the production along with typical employee efficiency (Russell et al., 2018)

Very little attention in PE is viewed as the primary challenge which faces the market, which might be regarding insufficient proper task identity by the workers. Inferential and descriptive numbers have been used as the strategy of the investigation (Sabra, 2020). The results demonstrated that task identity had a tremendous impact on employee inspiration and is among the techniques for enhancing the amount of employee motivation, which means that as much as 67.9 % of employee inspiration might be discussed by job identity component. The results were restricted to the learning sector as well as the institution mentioned above only. The study was a case study; therefore, the results couldn't be generalized to various organizational setups.

A survey that was completed inside Thailand on job autonomy and task identity as correlates of burnout amongst Nurses in Thailand. A total of seventy-nine nurses participated in the area study. The study discovered that task identity was effective at lessening burnout through the other process determined in the JDR design Task identity was directly associated with work autonomy although not significantly. Nevertheless, the test of nurses from this research was minimal and thus limits generalization on the burnout correlates to Nigerian worker nurses in conventional terms (Nantsupawat et al., 2011).

Task significance is discussed as the speed at which the fundamental things of the task are important on the business and also have a pertinent impact on jobs and livelihood of peers as well as those without the group (Hassan, 2014). Task significance is an important component of employment characteristics, which increases employee performance. A study analyzed the roles of social perceptions and task significance in job stress as well as employee engagement (Li & Hsu, 2016). The study blended literature in social judgments and task significance to be able to assist explain employee participation in its 2 dimensions: job and business engagement. Information was collected from 337 individuals. As an outcome, the relations

between task significance with the thought social impact and worth showed the variance inside hindrance stressors as established with the moderated mediation analyses (Saks, 2019). A research on the impact of autonomy on job benefits that are work stress, employee performance, and satisfaction, with self efficacy because of the intervening variable. The descriptive analysis sought to set the effect of job satisfaction on work performance as well as career pressure on work performance (Das & Baruah, 2013; Jermstittiparsert, Suan, & Kaliappen, 2019; Saengchai, Thaiprayoon, & Jermstittiparsert, 2019; Siriattakul & Jermstittiparsert, 2019). Employees receive responses from the outcomes which result in the maintenance and construction of the jobs of theirs.

Employee Involvement as Mediator

In getting quality management methods, it was essential to inspire employee participation by permitting each employee amounts being engaged in decision making concerning various activities based on the limits of theirs of duty, to voice the opinions of theirs on job layout, and making recommendations about present operative duties (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Employee participation and quality control methods directly improved organization performance as well as productivity as well as work pleasure (Bradley, 2014)

The program of quality management methods is improved by employee involvement. Based on Sun and Bunchapattanasakda (2019) review, the crucial aspects for failure of quality control training application have been a broad (i.e., executives' and even in-house employees') not enough knowledge of the concepts also involved the convenience of such methods, together with the shortage of focus on employee involvement. Thus, it was necessary to place the emphasis on producing in house employees' participation and involvement in proficiency development for their activities via education or training programs (Guerci, Radaelli, Siletti, Cirella, & Shani, 2015).

They discovered that the failure of method implementation occurred since the organization didn't market employees' participation in sharing the tasks regarding quality management methods. Where workers weren't taught about the rules, regulations, techniques, and equipment to assist them to know and implement quality management methods. In addition, workers are lacked the assistance of professionals in every region, for example, staff working, qualitative group tasks in proper rewards and the organizations.

Workers have to be adept and also have suitable abilities, a great attitude towards quality control methods, plus have experience of quality control tasks or even activities. McKown (2017) found that success is impacted by employees or the failure of quality control methods. Workers have to be adequately educated and supported in the acquisition of theirs of

leadership attributes and to feel really involved in activities and feel proud of business performance.

Various researchers studied the concepts and qualities of employee involvement. These variables provided the sharing of information, skills and knowledge, benefits, and power (Sun & Bunchapattanasakda, 2019). They discovered that 4 elements of employee participation positively improved the improvement in quality control methods. The involvement in each aspect would produce results that are different based on how training and knowledge were shared. The 2 variables with the most impact had been sharing of education, rewards, and training. McKown (2017) discovered that to enable the organization to succeed in its use of quality control methods. Likewise, the worker has received knowledge, empowerment for personnel decisions, proper and adequate education, and also enjoy the advantages of an excellent way of recognition and rewards of achievement. Based on the above discussion, it is hypothesized that:

H1: Job characteristics has a direct association with employee involvement.

H2: Employee involvement has a direct association with service quality.

H3: Employee involvement mediates the relationship between job characteristic and service quality.

Methodology

This study finds empirical evidence on the research framework among the hospital industry in Thailand. The data were collected in three phases. First, the permission was taken from the competent authorities of the hospitals, and then the duty schedule was obtained from the officer in charge to assess the availability of nurses for completion of questionnaires. Second, the nurses were requested to fill the questionnaires after their duty to ensure no disturbance takes place in the hospital's operations. Finally, the data was collected from willing nurses through self-administered questionnaires. Before collecting the data, the nurses were briefed about the objective of the research, and they were guaranteed secrecy about their personal information.

A total of 309 nurses performing their duties in hospitals situated in the northern part of Thailand and the same numbers of patients or their attendants participated in the study. The questionnaire was split into two versions. The first version(A) of the questionnaire was comprised of 3 Parts. The first part consisted of questions intended to require demographic information of the participants. The second part contains all the scales of exogenous variable, and the third section encompasses the questions about the mediator. The second version(B) of the questionnaire was comprised of 2 parts. The first part contains questions that are intended to require "demographic information" of the participants, and the second part covers

the questions about the endogenous variable. The first version was distributed among the nurses in order to get their perception about their job characteristics and the level of their job involvement. The second version was distributed among the patients or their attendants to know their perception about the service quality of nursing staff.

The construct of job characteristics was measured by 20 items scale that is comprised of 5 dimensions i.e. job autonomy, skill variety, task identity, task significance and feedback. Each dimension of job characteristics construct was measured by 4-items (Sabra, 2020). The construct of employee involvement was measured by using 9-items scales (Kanungo, 1982). The construct of service quality was measured by using 5-items adopted from the study of Lee and Yom (2007). All the items of these scales were measured at 5-point Likert scale ranging from “1 (strongly disagree) to 5 (strongly agree)”. The data were analysed by partial least square structural equation modelling (PLS-SEM) approach by using SmartPLS 3.2.8. PLS-SEM approach is most suitable in assessing the causal relationship among constructs (Hair, Hollingsworth, Randolph, & Chong, 2017).

Data Analyses

Construct Reliability and Validity

The construct reliability, as well as validity, is essential to set prior to evaluating the study design (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014). Thus, to begin with, the convergent validity, as well as discriminant validity on the measurement design, were assessed. The measurement design of the research is explained in table 1. For that external design, all of the loadings had been above 0.5 that's necessary for setting up the reliability of all elements. Each construct has “Cronbach's alpha value,” i.e. greater than 0.70 and “average variance extracted (AVE)” is greater than 0.5 as well as “composite reliability (CR)” is higher than 0.60 which established the convergent validity on the research framework (Hair, Hult, Ringle, & Sarstedt, 2014).

Likewise, to make certain the “convergent validity” of internal design, all of the “standardized loadings” have been squared as well as divided by their overall quantity to have the AVE of higher order variables. In the “Fornell and Larcker criterion,” the diagonal values clearly show the square of AVE that has got to be bigger compared to the constructs' correlation with other variables as well as “Heterotrait Monotrait Criterion” values should be much less than 0.85 for setting the discriminant validity of research framework (Hair Jr, Hult, Ringle, & Sarstedt, 2017). Likewise, Table 2 and Table 3 revealed the outcomes of the “Fornell and Larcker criterion,” as well as the Heterotrait Monotrait Criterion, that has determined the discriminant validity of the construct.

Table 1: Measurement Model

Construct	Items	Loadings	Cronbach's Alpha	CR	AVE
Employee Involvement	EI2	0.609	0.751	0.774	0.510
	EI4	0.578			
	EI5	0.619			
	EI7	0.610			
	EI9	0.768			
Feedback	Fb1	0.868	0.757	0.775	0.540
	Fb3	0.698			
	Fb4	0.615			
Job Autonomy	JA1	0.830	0.726	0.845	0.646
	JA2	0.797			
	JA4	0.784			
Service Quality	SQ1	0.77	0.702	0.743	0.593
	SQ3	0.707			
	SQ5	0.622			
Skill Variety	SV1	0.669	0.705	0.750	0.501
	SV2	0.712			
	SV3	0.739			
Task Identity	TI2	0.766	0.767	0.818	0.600
	TI3	0.752			
	TI4	0.804			
Task Significance	TS1	0.765	0.796	0.831	0.622
	TS2	0.817			
	TS4	0.782			
Job Characteristics*	Feedback	0.804		0.896	0.635
	Job Autonomy	0.758			
	Skill Variety	0.715			
	Task Identity	0.798			
	Task Significance	0.900			

Note: Items EI1,EI3,EI6,EI8, Fb2, JA3,SQ2,SQ4,SV4, TI1 and TS3 deleted due to lower loadings

*Second order construct

Table 2: Fornell and Larcker Criterion for Discriminant Validity

	Employee Involvement	Feedback	Job Autonomy	Service Quality	Skills Variety	Task Identity	Task Significance
Employee Involvement	0.741						
Feedback	0.611	0.835					
Job Autonomy	0.457	0.782	0.804				
Service Quality	0.476	0.622	0.546	0.702			
Skills Variety	0.436	0.618	0.429	0.461	0.707		
Task Identity	0.482	0.508	0.393	0.495	0.540	0.774	
Task Significance	0.498	0.637	0.523	0.569	0.523	0.463	0.789

Table 3: Heterotrait-Monotrait Criterion for Discriminant Validity

	Employee Involvement	Feedback	Job Autonomy	Service Quality	Skills Variety	Task Identity	Task Significance
Employee Involvement							
Feedback	0.706						
Job Autonomy	0.621	0.778					
Service Quality	0.738	0.756	0.798				
Skills Variety	0.737	0.796	0.715	0.739			
Task Identity	0.732	0.801	0.554	0.803	0.725		
Task Significance	0.659	0.762	0.727	0.784	0.785	0.677	

4.2 Hypotheses Testing

To be able to evaluate the hypotheses established in literature review section, the present study has applied PLS SEM by using SmartPLS 3.0 software. The bootstrap procedure was used by applying blindfolding technique to evaluate the structural design of the study. The research framework is consisted of on two endogenous variables i.e., EI (mediator) and SQ (dependent variable). The model explains 40 percent variance in EI due to JC and 23 percent in SQ due to its predictors. Whereas, the value of Q^2 is 0.14 of EI and 0.10 of SQ that established the predictive relevance of the research framework (Henseler, Ringle, & Sarstedt, 2012). Additionally, the end result of PLS bootstrap procedure which approves the substantial association of EI with SQ with a beta value of 0.48, t-value of 11.13 and p-value < 0.05 and JC with EI with beta value of 0.63, t-value of 14.56 and p-value < 0.05 . The study also confirms the indirect effect of JC on SQ through EI with beta value of 0.30, t-value of 7.03 and p-value < 0.05 . Thus, all of the hypotheses of the research are dependent on the outcomes of the PLS-SEM findings.

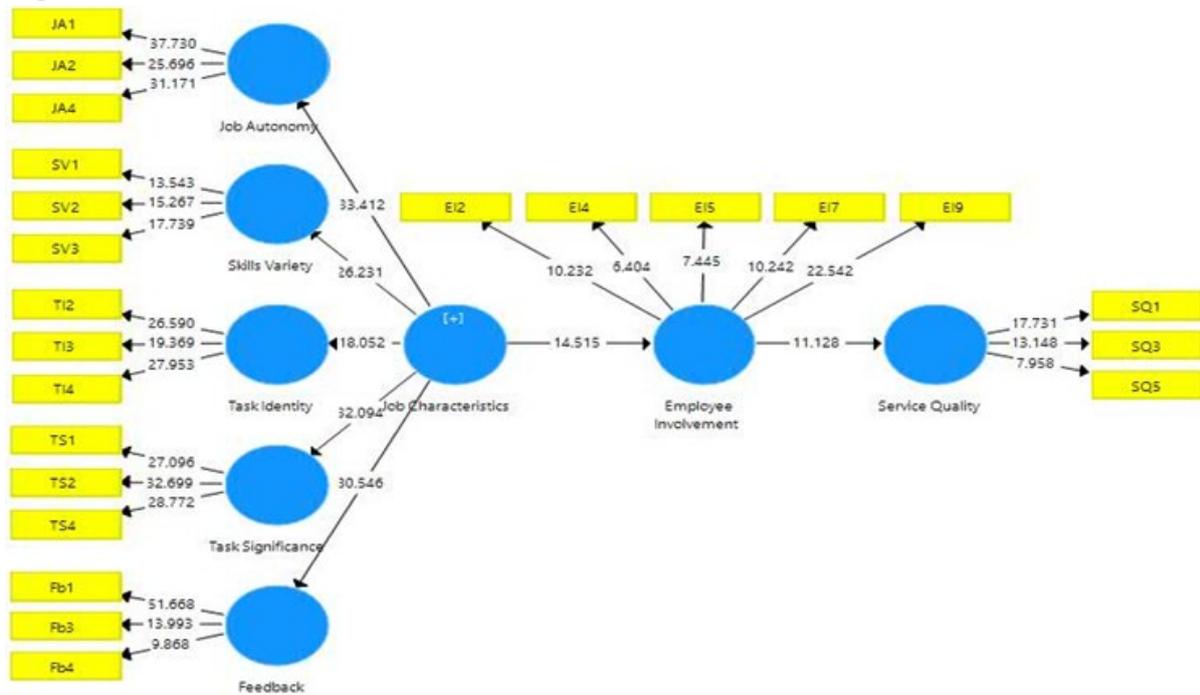
Table 4: Hypotheses Results

Hypothesis	Beta	S.E	T Value	P Value	CI ^{BCa} Low	CI ^{BCa} High	Decision
EI -> SQ	0.476	0.043	11.128	0.000	0.375	0.545	Supported
JC -> EI	0.629	0.043	14.515	0.000	0.536	0.709	Supported
JC -> EI -> SQ	0.299	0.043	7.031	0.000	0.210	0.372	Supported

Note: EI = Employee Involvement, SQ = Service Quality, JC = Job Characteristics

* Significance level < 0.05

Figure 2: Estimations of Structural Model



Discussions and Conclusion

The core objective of the present research was investigating the relationship between job characteristics (JC), employee involvement (EI), and service quality (SQ) of Thai nurses. The findings of the study inferred a substantial direct and indirect impact of JC on SQ of Thai Nurses. The findings of the present study also established the mediating effect of EI on nursing service quality. Additionally, the results of ours also demonstrated there was a major favorable connection among EI and SQ of nurses working in Thai hospitals. These results present a few explicit empirical supports verifying the recommended research framework. The findings revealed that JC had an immediate impact on EI, that is in line with the results of Chen and Chiu (2009). Based on “Job Characteristic Theory”, 5 core JC can foster three favorable psychological situations, that promote the notion of meaningfulness in nursing jobs, deep obligation for success and failure of the responsibility, and also giving responses regarding employee functionality. This mechanism can foster job satisfaction and career determination (Saks, 2019). The present research explored on hand facts that job characteristics are favorably linked with nursing service quality. This might be due to the fact that nursing staff completely use the professional skills of theirs and recognize the value of theirs, which in addition fortifies a nurse's feeling of accomplishment and mission. Hence, nursing staff are internally driven to offer excellent services. These outcomes could encourage nurse supervisors to discover that job design and also redesigning makes staff go through the meaningfulness as well as worth of the work of theirs and get individual obligation of the objectives and results of the job.



In the present research, employee involvement mediates the relationship among job characteristics and service quality of Thai nurses. These outcomes to a certain extent support the JDR design. Job characteristics could be regarded as job resources. The framework shows that employment resources are able to motivate employees to reduce job associated psycho physiological pressures, and also promote an individual's growth and development. Job characteristics are believed to cause psychological developments that stimulate commitment of the significance of labor and captivating obligation for feedback about job results, supplying escalation to amplified determination that is intrinsic and much better job efficiency.

Implications of the Study

The various ways are suggested by findings to enhance the caliber of nursing service quality by building techniques to enhance employee involvement subject to enhancement of justice job characteristics. Thus, supervisors must concentrate to nurses' feeling of job structure, by developing an environment and possibilities for reasonable competitors, setting up a reasonable and scientific pay control process as well as job evaluation mechanism, and motivating nursing staff to get involved in decision making and medical policy making. This analysis analyzed the encouraging practice of justice job characteristics to affect the quality and work engagement of service quality of nurses. Future research is suggested to confirm the useful significance of the JDR design.

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