

# THE INFLUENCE OF JOB CHARACTERISTICS ON JOB SATISFACTION, ORGANIZATIONAL COMMITMENT AND MANAGERIAL PERFORMANCE

## A Study on Construction Companies in Central Java

**Indi Djastuti**

Diponegoro University, Semarang  
indidjastuti@yahoo.co.id

*The objective of this research is to analyze and to test the influence of Job Characteristics, Job Satisfaction, and Organizational Commitment on Managerial Performance. There are six hypotheses proposed in this study i.e. 1) the influence of job characteristics on job satisfaction of managerial employee. 2) The influence of job satisfaction on organizational commitment of managerial employee. 3) The influence of job characteristics on organizational commitment of managerial employee 4) the influence of job characteristics on performance of managerial employee 5) the influence of job satisfaction on performance of managerial employee 6) the influence of organizational commitment on performance of managerial employee. Based on the final data analysis, all proposed hypotheses are accepted. Autonomy and task identity have greatest contribution to the job characteristics variable. The continuant commitment has a great contribution to organizational commitment variable. However, satisfaction to the supervisor contributes substantially to job satisfaction variable. While, team work, initiative and reporting activities have greatest contribution to the performance of managerial employee variable. The research shows that organizational commitment variable as intervening variable that bridging the relationship between job characteristics variable and managerial employee performance variable. Path coefficient for organizational commitment variable is greater than job satisfaction variable in influencing managerial employee performance. Therefore, in order to enhance performance of managerial employees, it is necessary to build stronger organizational commitment, especially affective commitment.*

*Tujuan penelitian ini adalah untuk menganalisa dan menguji pengaruh karakteristik pekerjaan, kepuasan kerja, dan komitmen organisasi terhadap kinerja manajerial. Ada enam hipotesis yang diajukan dalam penelitian ini, yaitu : 1) Pengaruh karakteristik pekerjaan terhadap kepuasan kerja karyawan manajerial, 2) Pengaruh kepuasan kerja terhadap komitmen organisasi karyawan manajerial, 3) Pengaruh karakteristik pekerjaan terhadap komitmen organisasi karyawan manajerial, 4) pengaruh karakteristik pekerjaan terhadap kinerja karyawan manajerial, 5) pengaruh kepuasan kerja terhadap kinerja karyawan manajerial dan, 6) pengaruh komitmen organisasi terhadap kinerja karyawan manajerial. Hasil penelitian menunjukkan bahwa variabel komitmen organisasi sebagai variabel intervening yang menjembatani hubungan antara variabel karakteristik pekerjaan dan variabel kinerja karyawan manajerial. Koefisien jalur variabel komitmen organisasi lebih besar daripada variabel kepuasan kerja dalam mempengaruhi kinerja karyawan manajerial. Oleh karena itu, dalam rangka meningkatkan kinerja karyawan manajerial, pembangunan komitmen organisasi yang kuat terutama komitmen afektif sangatlah diperlukan*

### Abstract



Keywords: job characteristic, job satisfaction, organizational commitment and managerial performance.

**G**lobalization is an era of economic activities and information without boundaries marked by free commodity, information, technology and resources in and out of the country to another. Such conditions encourage the supply of human resources expertise from other countries. If this happens continuously, without anticipating some state with its human resources will still relatively behind in various fields. It will continue to lag. This widens the gap among countries, and in turn, developing countries will be more difficult to compete with developed countries.

Management, job design and organizational commitment are essential concepts that determine the success or failure of an organization. These three concepts are essentially inseparable from one another within a system of organization even all three concepts have a different understanding. Management is the art of achieving something through someone else (Parker Follett in Stoner et. al., 1996:9). Stoner et. al (1996:10) refer to management as the process of planning, organizing, directing and controlling activities to achieve organizational goals. So, management is the process of planning, organizing, directing and controlling activities using people to achieve organizational goals.

The rationale of understanding management is to achieve organizational goals, it must involve human resources through a better organization. The involvement of human resources have essentially complex due to its use for achieving organizational goals as planned. It requires creativity in sense of continually finding ways, opportunities and breakthroughs in use of human resources organizations. Organizers should consider

job design, job satisfaction, organizational commitment and employee's performance for the sake of effectiveness and efficiency of organizational goals.

In the context of approaches for design work motivation, Hackman and Oldham (1975) have developed a model of job characteristics approach, here in after referred to as the job characteristics theory. According to Hackman and Oldham (1975) in Robbins (2002: 218) the job should be diagnosed and corrected through five principal dimensions of work, namely: skill variety, task identity, task significance, autonomy and feedback. If all of five dimensions of work are higher, employees will feel the importance of work. Job characteristics model has shown to be positively associated with work outcome variables. In particular of five-dimensional work has essentially created three important psychological conditions which are: skill variety, task identity and significance of tasks that contribute to the increasing importance of the meaning of work. Autonomy is intended as a source of workers' sense of responsibility for the work. Feedback from work refers to knowledge, about the work. This variable will eventually refer to multiple benefits for individuals and organizations that employ them.

In summary, combining the five core of work dimensions, employees will feel well motivated and will alleviate quality in his work, very pleased with his work, will have lower absenteeism rates, turnover rates will be low too. The next described also that the theoretical model of job characteristics would be effective in describing the person's behavior, which have a high need for achievement. (Robbins, 2002: 220)

This would be in line with the behavior of employees at the managerial level at the completion of the construction sector jobs requiring a high reliability. Reliability of work the construction sector workers should be based on organizational commitment and job satisfaction higher. Locke (1976) defines job satisfaction as a positive emotional state resulting from the appreciation of one's job or working experience a person», meaning that job satisfaction is a reflection of one's feelings towards his job. This is apparent in the positive attitude of employees towards work and everything he faced in the workplace. Mowday et al., (1982) defines organizational commitment as a strong belief in goals and values of the organization is a willingness for make great efforts for the sake of organization, and a strong desire to remain become member of the organization.

Mowday et al., (1982), specifically distinguish between the commitment from job satisfaction by defining commitment as a strong response to organizational trust and job satisfaction as a response from our experience in specific of work tasks. Thus, it concluded that emphasize commitment to belief in the organization, including goals and shared values. While, emphasizing of satisfaction in a certain task environment for in which, workers doing his job.

As a result of the economic crisis until 2001, all construction business is still shadowed by uncertainty following by difficulties on the national economic recovery. Macroeconomic indicators show a deficit budget in 2002 was about 40 trillion. The value of government funded projects through a Public Works Department only 11 trillion for 2003 to be contested by around

55,000 contractors large, medium and small. This figure was 20% lower compared by 2002 (Soenarno, 2003). These things have make competition in construction business quite strict (Soenarno, 2003).

Furthermore, Christiawan and Sampurno (2003: 21) stated that construction companies are different from manufacturing companies. In manufacturing industries, production processes in the plant from the phase of the program, design, process until finished goods product is the company's internal activities. These are nothing to do with the consumer or party representative. Meanwhile, construction companies have unique production process, which is always interfering by its customers. They are placing their consultant supervisor to oversee construction activities in the field. Thus, product quality and duration of construction work are controlled by the users of services through the assistance of other parties who represent consumers.

Considering the role of the construction sector in gross domestic product in developed and developing countries, in Indonesia the rate of growth of the national construction sector has experienced a sharp decline. Based on data from the Central Bureau of Statistics Indonesia in 1996 has fallen from 12.8 percent to 7.4 percent in 1997. In 1998, it had contracted by 36.4 percent and 1.9 percent in 1999. In the year 2000 it grew to 5.5 percent and in 2001 dropped to 4 percent. Central Java as one of the provinces in Indonesia by 2000 began to rise with economic growth by 3.90 percent in constant prices. This figure is much different than the 1998 growth rate that is equal to 11.74 percent.

Suryono (2004) stated that employment in the construction sector requires human resources that have the competence and high commitment. Advantages of competence and high commitment of construction professionals will give a great influence for construction companies to compete both in domestic and overseas markets. Some results of research on employee competence at the managerial level in construction companies in Indonesia showed that there is less supportive attitude for the demanding needs of workers with good professionalism. It was shown that less than the level of discipline, not on time, less creative, hesitant in making decisions, not confident, inferior to foreigners as well as employee turnover remains high (Suryono, 2004). Employee's performance is still low especially at the managerial level that it should have a strategic role for the success of the organization, coupled with low-quality work, as stated Suryono (2004), was the allocation of funding for the construction sector are sourced from the state budget since the economic crisis hit Indonesia in 1997 - 1998 also declined. This causes the performance of the construction sector company in Indonesia tend to be low because of the increasingly sharp competition.

According to data available at the Construction Association of Indonesia (GAPENSI) achieved net profits of construction services business is still relatively small (2% -3%). This figure is much smaller when compared with other business services industry (6% -15%), unless, the turnover (exit-entry) of employees is quite high (1% -2%). Some costs has being allocated to the construction sector

workers is relatively small: only 4% -6% of the cost incurred for business activities. On the other hand, the design of construction sector employees at the managerial level bound by the rules were strict enough, such as contained in Act No. 18 Construction Services year 1999, Government Regulation No. 28 of the Business and Community Services Construction role. Meanwhile, David Mc Clelland, Evereft Plagen and Daniel Goleman in Mangkunegara (2005: 4) argued that the approach to psychology (motivational) to design a job performance will encourage employees to perform better.

This study will examine whether job satisfaction is influenced by job characteristics. Furthermore, job satisfaction will affect organizational commitment. Employee's performance is influenced by job characteristics, organizational commitment and job satisfaction. In addition, job characteristics will affect organizational commitment. Then, job satisfaction affects employee's performance. In this study, job satisfaction variable is a mediating variable toward the influence of job characteristics on employee performance. While, the commitment of organization is an intervening variable, it is strengthening the influence of job characteristics on employee's performance.

From the findings of this study the authors attempted to formulate a concept for the design of strategic policies for the organization based on analysis of job characteristics with dimensions of skill variety, task identity, task significance, autonomy, feedback are important to job satisfaction, organizational commitment and employee's performance, particularly at



the managerial level construction services company in particular.

The division of work in organizations is an important step for the achievement of organizational goals (Robbins, 2002: 168). Work must be analyzed before the functions of human resources do. A number of theories have attempted to identify the job characteristics of job characteristics-job tasks, how these characteristics are combined to form different jobs, and the relationship of job characteristics with satisfaction and employee performance (Robbins, 2002: 170; Herzberg, in Hanafi, 2002). subsequent models are considered as the source of the variation of worker behavior both in terms of certain job characteristics or characteristics of a particular organization. The result is led researchers to study the behavior of workers.

The influence of job characteristics on job satisfaction and organizational commitment was undertaken by Bhuidan and Menguc (2002); Glisson and Durick (1988). They have distinguished five dimensions of job characteristics that affects job satisfaction, namely: skill variety, task identity, task significance, task autonomy and feedback.

Relations of job characteristics on satisfaction occurs when a job is designed with high skill variety, task identity is clear, there is a clear task significance, providing a broad autonomy and always provide feedback in order to evaluate its importance.

*Hypothesis 1: Job characteristics has positive influence on job satisfaction of managerial employee.*

Assessment of an employee if satisfied

or not satisfied with his work, represents a complex summation of a number of elements of the job. Job satisfaction is determined by several factors: work that is mentally challenging, the rewards are decent, supportive working conditions. Rousseau (1978) suggests that these variables affect the characteristics of job satisfaction, organizational characteristics and characteristics of the individual / employee. How to measure job satisfaction, has been developed by several experts using (1) Job descriptive index (JDI) developed by Smith, Kendall, and Hulin (1969) which assess overall job satisfaction that are: job satisfaction supervision, satisfaction with coworkers, satisfaction with work itself, satisfaction with the payment, and satisfaction with promotion. (2) Minnesota Satisfaction Questionnaire (MSQ) is a rating scale to assess job satisfaction in which people show the extent to which they are dissatisfied with some aspect of their work (e.g. satisfaction against each salary, and opportunity to progress).

Employees whom they feel close to the organization views the organization as a place to meet their personal needs. Therefore they are willing to exert every effort for the company, and they will foster satisfaction from what they have done. Poznanski (1997); Alpander (1990) expressed satisfaction with organizational commitment can occur when an employee has a high level of satisfaction within the organization. The employees have a positive effect on organizational trust. Then they will feel bonded to the organization and all of its existing goals and values. With the positive beliefs and feelings attached to the organization's employees, then employees will feel committed

to their organization in the sense of identification with the organization's employees. It will be high which in turn it will be manifested in employee loyalty to the organization. Job satisfaction and performance related to each other intuitively and those are something that can be manipulated to gain organizational and individual (Cue and Gianakis, 1997). Some characteristics of workers have a major role in research that aims to predict organizational commitment. If it is assumed that the characteristics of workers associated with their trust in the organization, so, this study supports the notion that states that the problem of trust can be more varied influence on commitment than job experience. Some characteristics of workers can be used to estimate organizational commitment, namely years of service and how big their egos involve in employment, positively related to commitment. (Hulin and Blood, 1968; Hall and Scheneider, 1972, Goodale, 1973; Buchanan, 1974; Dubin, Champoux and Porter, 1975; Rabinowitzt and Hall, 1977; Steers and Spencer, 1977; Kidron, (1978).

*Hypothesis 2: Job satisfaction of managerial employees have a positive influence to organizational commitment.*

Research in effects of job characteristics on organizational commitment had been made by Dunham (1994); Agrawal and Ramaswari (1997). When employees have the dimensions of the work, then, employees will feel involved in carrying out their work to support the completion of their work. With such high involvement, the employee will increase their commitment to the organization. Langner et. al (1988) confirmed the influence of job characteristics

with employee performance when employees do their work by combining the five dimensions of work. Employees will be encouraged to display their work with high performance in terms of both quality of work, quantity of good work, education and knowledge better, works can be on time as well, and, communication can be run properly.

*Hypothesis 3: Job characteristics of managerial employees have positive influences to organizational commitment.*

The starting point of this study refers to the theory of behavioral science. This theory is based on objective research of human behavior in organizations. J. Richard Hackman and Greg Oldham who have contribute to behavioral science theories in the 1970s. The model theory is known as Hackman and Oldham job characteristics. There are five dimensions of job characteristics, namely: skill variety, task identity, task significance, autonomy and feedback which affect employee's performance with basing employees' psychological condition and the need for employees to grow.

*Hypothesis 4: Job characteristics of managerial employees have significant influences to the performance of employees.*

Employee's performance is a real achievement or accomplishment achieved in the quality and quantity of employees in performing their duties in accordance with a given responsibility. Employee's performance is measured by standard/criteria established by the company. Clifford and Gianakis (1997) shows the relationship of job satisfaction with

the performance of employees, when employees get satisfaction from their work done well, because there is compatibility between what is expected to the reality of the work performed which is influenced by job characteristics and organizational commitment. Thus, the employee will be motivated to work better. Management is to achieve high employee performance is primarily intended to improve the company's overall performance. (Barker, 2000: 124). Companies need to look at their performance of its human resources as a strategic issue as a means of helping to achieve a competitive advantage.

Even, Cue and Gianakis (1997) stated that good performance came from the work attitude in particular dimensions of job satisfaction. So that, HR performance evaluation becomes very important, as the company demands and requires improvement of work as a whole and sustainable in order to guarantee the existence of the company concerned as well as overall company performance.

*Hypothesis 5: Job satisfaction of managerial employees have a positive influence to performance of managerial level employees.*

Organizational commitment is needed to improve employee's performance. Commitment will encourage a choice of habits that support company's employees to work more effectively. Employees who have high organizational commitment will be oriented on their job. Research in the effects of organizational commitment on employee's performance had been conducted by Bishop, et al. (1997). When employees have a strong desire to become a member of organization, they

have willingness to try with high spirits (hard work for organization) and have some values and goals in common with organization. Then, they will be compelled to produce work with high performance.

*Hypothesis 6: Organizational commitment has positive influence to performance of managerial employees*

## **METHODS**

Design of this study is causal (causal studies) with survey research method conducted by taking samples from population and using questionnaires. Populations are 3,823 construction companies in Central Java were observed at managerial level employees and they are 13,733 employees. Level of construction companies are measured according to the law no. 18 in year 1999 on construction services. Systematic random sampling method is used to retrieve samples. Sample size plays an important role in estimation and interpretation results of Structural Equation Modeling (SEM), so that appropriate sample size is 200. (Hair et.al., in Ferdinand, 2002: 47).

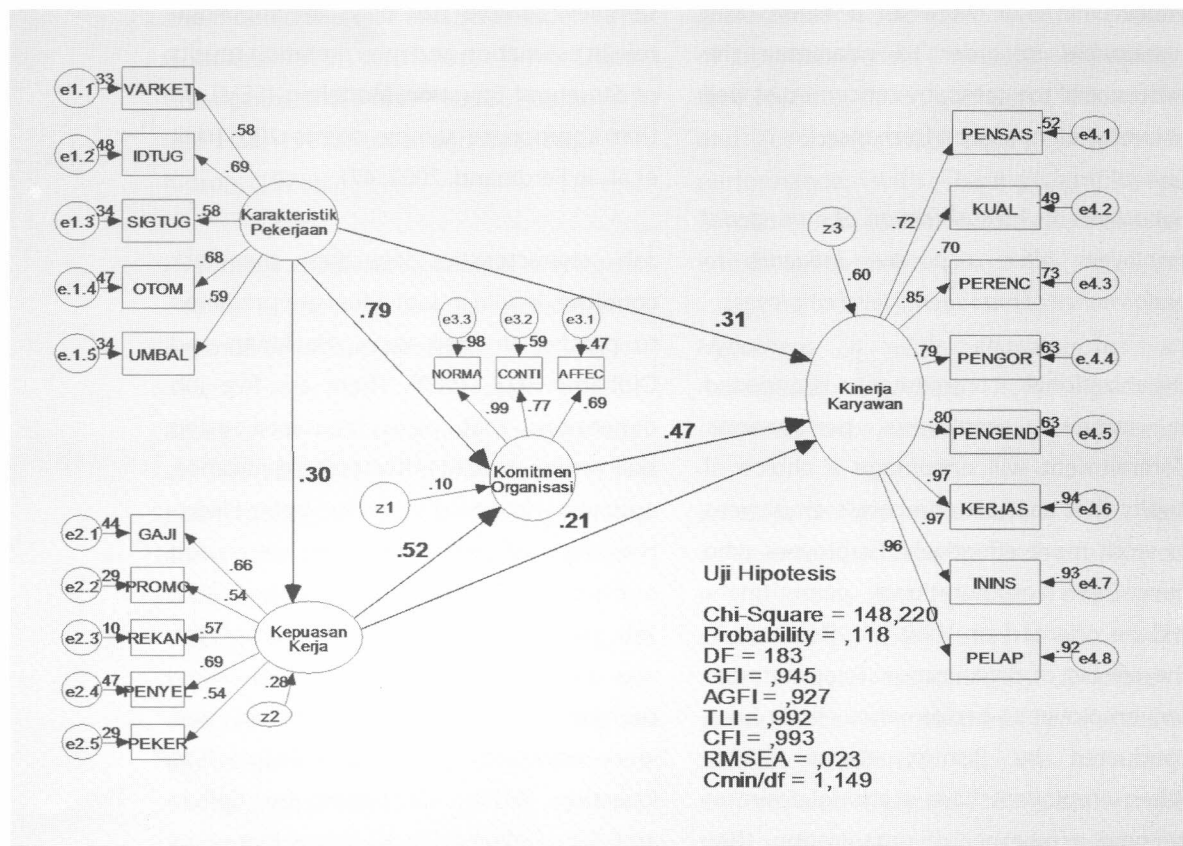
Job characteristics specifies the task condition in which individual are predicted to prosper in their work (Hackman and Oldham, 1975, 1980). There are five job dimensions that were measured using skill variety, task identity, task significance, autonomy and feedback. Five-point Likert-type scale of individual scores were used and accumulated (Cronbach Alpha =0.747). Job satisfaction of managerial employee was measured by satisfaction with salary, promotion, co-workers, supervisors, and work using Managerial Job Satisfaction Question (MJSQ) developed by Celluci and D.L. DeVries, (1978) using five-point

Likert-type scale and an individual score was accumulated (Cronbach Alpha = 0.704). While, organizational commitment may be defined as the relative strength of an individual's identification with and involvement in a particular organization (Steers, 1977). These variable was measured by three indicators, namely: affective commitment, normative commitment and continuant commitment. Measurement of variables by a summative scale level (Summated Rating Scale) or known as the five-point Likert-type scale (Cronbach Alpha =0.808). Employees performance is a real achievement or accomplishment achieved in the quality and quantity of employees in performing their duties in accordance with a given responsibility. Managerial employees performance was measured

by 8 (eight) indicators of Heneman (1974). Respondents were asked about their achievement of work objectives, quality of work according to quality standards, work planning, organizing, control, cooperation, initiative, reporting. Measurement of each indicator used 5 point Likert type scale (Cronbach Alpha =0.829).

Structural Equation Modeling (SEM) with AMOS 4.01 program package and SPSS 10.0 were using in this study. Full Structural Equation Model Measurement analyzes job characteristics, organizational commitment, job satisfaction and employee performance with structural equation model (structural equation modeling). SEM measurement results using AMOS 4.01 program shown in Figure 1 below.

Figure 1. Full SEM



Source: Primary data are processed, 2010



Description of Figure 1:

KP (X1) = Job characteristics of managerial-level employee

MARKET (X1.1) = Variations skills

IDTUG (X1.2) = Identity task

SIGTUG (X1.3) = Significance task

AUTO (X1.4) = Autonomy

UMBAL (X1.5) = Feedback

KPK (X2) = Managerial-level employee satisfaction

SALARY (X2.1) = Satisfaction with salary

PROMO (X2.2) = Satisfaction with promotion

COMPANION (X2.3) = Satisfaction with colleagues

PENYEL (X2.4) = Satisfaction with supervisor

JOBS (X2.5) = Satisfaction with the job itself

KO (X3) = Organizational commitment

AFFEC (X3.1) = Affective commitment

CONTI (X3.2) = Continuant commitment

NORMS (X3.3) = Normative commitment

KK (X4) = Employees Performance of managerial level

PENSAS (X4.1) = Achievement of targets

KUAL (X4.2) = Quality of work

PERENC (X4.3) = Planning work

PENGOR (X4.4) = Organizing

PENGEND (X4.5) = Control

KERJAS (X4.6) = Cooperation

INIS (X4.7) = Initiative

PELAP (X4.8) = Reporting

From the conceptual framework in Figure 1, it can be seen that there are relationships between exogenous variables with endogenous variables such as employee job characteristics {KP (X1)} with Organizational Commitment {KO (X3)}, Employee satisfaction {KPK (X2)}, and Employee performance {KK (X4)}. Also,

the job characteristic variables {KP (X1)} influence on organizational commitment variable {KO (X3)}.

In the conceptual framework, it also notes that organizational commitment variable which is not explained by job characteristics variables indicated by the number of variable variance. This is the conceptual framework given by the symbol (Z1) organizational culture variables such as leadership style, while job satisfaction variable which is not explained by job characteristics variables indicated by the number of variance of variables that given by the symbol (Z2) for instance organizational culture, leadership style, organizational climate, individual characters. For employee performance variables that are not explained by the variable job satisfaction, job characteristics and organizational commitment are shown by the amount of variance of variables, that is given by the symbol (Z3) for instance organizational culture, leadership style, organizational climate, employee attitudes. The result of the influence line diagram of job characteristics on job satisfaction, organizational commitment and employee performance of construction companies in Central Java in Figure 1, it can be said that the model fits with the data, because they meet the *goodness of fit* criteria. To test each hypothesis, it can be seen in Table 1.

Table 1 indicates that job characteristics has an effect to organizational commitment and have the highest influence with a path coefficient 0.789. Also, organizational commitment has an effect to performance of employees with a path coefficient 0.473. This model has been empirically fit to the data used in this study that can be seen from the chi-square model 148.220

Table 1 Effect Of Inter-Variable Coefficient Lane

	Path		Path coefficient	t statistic	Probability (p)
Employee satisfaction	←	Job characteristics	0.297	2.855	0.004
Organizational commitment	←	Job characteristics	0.789	9.521	0.000
Organizational commitment	←	Employee satisfaction	0.516	4.769	0.000
Employee performance	←	Employee satisfaction	0.212	2.363	0.018
Employee performance	←	Organizational commitment	0.473	5.783	0.000
Employee performance	←	Job characteristics	0.311	3.741	0.000

Table 2 Total Effect among Variables

Variables	Job characteristics	Organizational commitment	Job satisfaction	Employee performance
Organizational commitment	0.949	0.000	0.516	0.000
Job satisfaction	0.297	0.000	0.000	0.000
Employee performance	0.818	0.473	0.456	0.000

with a significance level 0.118, Goodness of Fit Index = 0.945, Adjusted Goodness of Fit Index = 0.927, Tucker Lewis Index = 0.992, Cmin / DF (minimum sample discrepancy function divided by the degree of freedom) = 1.149, Comparative Fit Index = 0.993 and the Root Mean Square Error of Approximation = 0.023 in the range from an expected value.

Table 1 shows that there are direct effects of job characteristics on organizational commitment 0.789 with a positive direction and of job characteristics on job satisfaction 0.297 with a positive direction. While, the influence of job characteristics on the performance of employees is 0.311 with a positive direction. Furthermore, the influence of job satisfaction on organizational commitment is 0.516 with a positive direction and the influence of

organizational commitment to employee performance at 0.473 with a positive direction. The direct effect is also seen in the influence of job satisfaction on employee performance of 0.212 with a positive direction. While the indirect effect of job characteristics on organizational commitment is 0.160 (positive). Job characteristics are also affected indirectly by 0.507 (positive) on the performance of employees. Also, job satisfaction has an indirect influence on the performance of employees 0.244 (positive). Because the indirect effects of job characteristics on employee performance (0.507) is higher than the direct effects of job characteristics on the performance of employees (0.311). It can be stated that there are variables that mediate the influence of job characteristics on employee performance.

Table 2 above shows that there is a total effect of job characteristics on organizational commitment amounted to 0.949 with a positive direction and of job characteristics on job satisfaction of 0.297 with a positive direction. While the influence of job characteristics on the performance of employees is 0.818 with a positive direction. Furthermore, the total effect of job satisfaction on organizational commitment amounting to 0.516 with a positive direction and the influence of organizational commitment to employee performance amounted to 0.473 with a positive direction. Total effect is also seen in the influence of job satisfaction on employee performance of 0.456 with a positive direction.

Hypothesis 1 stated that job characteristics have a significant positive effect on job satisfaction. It refers to the significant level of 5% which obtained a probability value of 0.004 which is below 0.05. Thus it can be stated that the hypothesis 1 is accepted. Hypothesis 2 states that job satisfaction has a significant positive effect on organizational commitment. It refers to the significant level of 5% which obtained a probability value of 0.000 which is below 0.05. Thus it can be stated that the hypothesis 2 is accepted. Hypothesis 3 states that job characteristics have a significantly positive effect on organizational commitment. It refers to the significant level of 5% which obtained a probability value of 0.004 which is below 0.05. Thus it can be stated that the hypothesis 3 is accepted. Hypothesis 4 states that the job characteristics have a significant positive effect on employee performance. It refers to the significant level of 5% which obtained a probability value of 0.000 which is below 0.05. Thus it can be stated that the

fourth hypothesis is accepted. Hypothesis 5 states that organizational commitment has a significant positive effect on employee performance. It refers to the significant level of 5% which obtained a probability value of 0.000 which is below 0.05. Thus it can be stated that hypothesis 5 is accepted. Hypothesis 6 states that job satisfaction has a significant positive effect on employee performance. It refers to the significant level of 5% which obtained a probability value of 0.018 which is below 0.05. Thus it can be stated that hypothesis 6 is accepted.

## RESULTS AND DISCUSSION

Job characteristics have positive and significant effects on job satisfaction as stated with the previous studies (Bhuidan and Menguc, 2002; Glisson and Durick, 1998, Sneed and Herman, 1990). These findings indicate that employees of construction companies have assessed that their work is designed with the motivational approach by applying the five dimensions of work which are: skill variety, task identity, task significance, autonomy and feedback. Those have improved employee's job satisfaction. The means that employment in construction companies is designed with a variety of high skill. Task identity is clear and with a clear task significance that provides a clear feedback of their work either to received praise or reprimand, or to give awards for outstanding workers or to give penalties for employees who make mistakes.

Employees at managerial level in the construction companies are also assigned with the responsibility relating to managerial jobs ranging from planning, organizing, directing and control. As it is known, the characteristic of construction

project work is unique, which requires the different resources such as labor, money, machines, methods, materials, organizational diversity, goals that involve a number of individuals with different expertise, a certain personality and character of uncertain tasks. In the normal construction project there is a stage which is processing the project resources to be a result of construction activities. The process that occur in a series of activities involving different parties directly or indirectly, such as project owners, consultants, planners, subcontractors, suppliers, financial institutions, government, labor. The management's duty is to make coordination to all parties involved in the construction project, so that, its objectives can be achieved with all parties to an optimal level. Therefore, careful planning must take into account for the five dimensions of work in construction companies.

Job satisfaction has a positive effect on organizational commitment as indicated with the previous studies (Alpander, 1990; Poznanski, 1997; De Connick, et. al., 1992, Sneed and Herman, 1990). These findings indicate that job satisfaction within the organization is absolutely necessary to create organizational commitment. Job satisfaction comprises five dimensions such as satisfaction with salary, satisfaction with promotion, satisfaction with co-workers, satisfaction with supervisor and worker satisfaction of job itself. Managerial-level employees of construction companies perceived that the five dimensions of job satisfaction have improved organizational commitment. Salary received by employees, fairness either internal and external aspects, promotion policy that meet the expectations of employees, a colleague

who has supported another employee who works with full responsibility. Supervisors give his subordinates moral support and provide high motivation. Employees also feel a sense of fun and interested in their work. They feel quite successful in carrying out the work that is currently done.

Research from Alpander (1990), Poznanski (1997) showed that job satisfaction positively and significantly influence the organizational commitment. Employees who gain job satisfaction show support and loyalty to the organization.

Job characteristics have a significant positive effect on organizational commitment. These findings indicate that the managerial-level employees of construction companies assess that the work on construction services company is designed with a motivational approach that is by applying the five dimensions of job such as skill variety, task identity, task significance, autonomy and feedback has increased the commitment of the organization. Employee who works with a high diversity of skills or accompanied the work with a variety of activities, range of responsibilities, non-monotonous, task identity in the sense that there is a clear objective in carrying out the work will have highly commitment. Employees are given the opportunity and involvement in completing a job from beginning to end. This findings are consistent with Dunham (1994), Sneed and Herman (1990), also Hunt, Chonko and Wood (1985) who explains that the job characteristics affect organizational commitment. Agarwal and Ramaswari (1997), also provide evidence that job characteristics affect organizational commitment. In this study resulted that the direct effect of job characteristics on



organizational commitment is higher than job characteristics on job satisfaction.

Job characteristics have a positive effect on the performance of managerial level employees. This result indicates that the managerial-level employees of construction companies perceived their work, which is designed with a motivational approach that is by applying the five dimensions of job skill variety, task identity, task significance, autonomy and feedback have improved their performance. This can be explained that when employees do the work by combining the five dimensions of employment, the employee has been encouraged to perform work with high performance. A high performance is shown by the fulfillment of the indicator that has been specified in the performance of managerial level employees. Furthermore, good quality work can be seen from the result of employees' compliance with the desired quality of the company. Employees have to use extra effort in completing their work. After all, they are always working on the task in accordance with a given responsibility. Employees are always actively working to set targets on each unit. This is done when employees are involved in preparing project budgets and company budgets. Managerial employee in construction company also has a skill in set-sharing, delegation of authority, coordination in carrying out his job, employment, keeping and maintain working relationships with the boss, subordinates and others, having initiative, creativity and always having new ideas in doing his job. Employee also has the skill in preparing the reports that have been systematically compiled and updated.

These findings fit with job characteristics

theory of Hackman and Oldham (1975) in Robbins (2002). Design works by five dimensions are: skill variety, task identity, significance, autonomy and feedback have a positive side. These five dimensions will increase job satisfaction, high motivation, high work involvement, job performance and lower the level of absenteeism and employee turn-over. Langner et al., (1988) also proved the influence of job characteristics on employee performance.

Job satisfaction has a positive effect on the performance of managerial employees. This finding is consistent with the researches conducted by Langner et al., (1988). These finding indicates that the managerial-level employees of construction companies perceived job satisfaction is needed to support employee performance. The influence between job satisfactions to employee performance occurs because the managerial level employees of construction companies recognize the relationship between what they want and what is realistic to have. High performance is also influenced by job characteristics and organizational commitment. The path coefficient of job satisfaction on employee performance indicates a low number compared to the influence of organizational commitment on employee performance. This indicates that for managerial level employees of construction companies, the role of organizational commitment is higher than the role of job satisfaction. This can occur due to general economic conditions that have an impact on employee behavior. In Indonesia's current economic conditions, with 12.6 million unemployment, and high inflation (18%), to get the job for someone is something being expected in and has their families also. The opportunity to get a job

will ease the burden of life. Furthermore, it could also help in actualizing employees needs and in developing employee's skills and ability.

Organizational commitment has a positive influence on the performance of managerial level employees. Employee has perceived that to enhance employee performance is absolutely necessary highly organizational commitment. High commitment organization is carried out by managerial level employee at a construction company, due to the activities of construction projects involving related parties, directly or indirectly. Each party has specific targets to be achieved. Project management needs to consider the involvement of each, as well as employment related to their respective functions and the cooperation of the parties involved in the project. Functionally, the parties involved in construction projects are project owner, consultants and contractors. While the construction work is carried out, it must also take into account the type of construction: heavy engineering projects, buildings construction, and residential building construction. State budget condition (how to speed return on investment), technical work and project administration. Nature of project: single, repeated and long term.

Organizational commitment relationship with employee performance has occurred where a high organizational commitment with indicators such as: when it is observed that the employee want to stay, and feel emotionally attached to the organization. From continuant commitment employees, they feel reluctant to leave the job because they might find difficulty to look for another job if they exit/quit the job. Normative

commitment makes employees feel loss when leaving the company. For employees, it is unethical to move from one organization to another. According to Mowday, Porter and Steers (1982), commitment is defined as a strong desire to remain a member of an organization, a willingness to try with high spirits (hard work) for the organization. Trust acceptance of the values or goals of the organization Meyer and Allen (1991, 1993). The findings also fit with studies of Bishop et al., (1997) that organizational commitment has affected the performance of employees.

With five dimensions of job characteristics that have been proven to increase employee job satisfaction managerial levels of construction company have implications for the need to continually review the level of job satisfaction of employees to ensure employees continue to feel satisfied. Hackman and Oldham (1976) stated that five of the principal dimensions such as skill variety, task identity, task significance, autonomy and feedback were developed to motivate and enhance employee satisfaction. Therefore, HR managers need to use the concept of Hackman and Oldham for each job. It is designed and improved through five different dimensions. The implication is that employees will feel a sense of importance, feel a responsibility to reach a particular work. Thus, there will be a connection between what is in the design work with what employees want. It will psychologically affect employee satisfaction.

Some of the ways that can also be used to increase job satisfaction is specifically related to job design with the motivational approach in division of work (job enlargement). Job enlargement is trying to

overcome job dissatisfaction by increasing job scope. Job scope shows the number and variety of different tasks or activities undertaken by the holder of the job. In this way, the various functions of the horizontal work of the sub units are combined with the organization that can give a variation of tasks for employees. This could also be done using the job rotation system, so employees can rotate from one job to another. Job enrichment, which overcomes the dissatisfaction from work by making the job more deep and challenging. This job enlargement is done vertically. That is an organizational unit is combined in one form of work, so that employees will feel the autonomy in the implementation bigger job. Each employee is given the responsibility to regulate its own speed, to fix its own mistakes and decide the best way to perform a job. Employees are also given the opportunity in making decisions that may affect the sub-units where they work, if this is provided, then it will increase employee job satisfaction.

Bhuidan and Buklend (2002) and Becherer et al., (1982), Glisson (1998) and Singh, Jagdip, and Gary, (1996) also have shown that the direct effect of job characteristics on job satisfaction. Bhuidan and Buklend, and Becherer et al., (1982) focuses on four dimensions of job characteristics: autonomy, diversity, identity and feedback. Autonomy means that employees have discretion in determining their work schedules, and freedom for what they want in their work. Diversity refers to the degree to which the job allows an employee to perform a series of choices in their work. Task identity refers to employees who perform his work and to identify the outcome of the efforts he is doing.

While, the feedback emphasizes the degree to which an employee receives information at their work that reveals how well they work. Satisfaction created by the five dimensions have implications to encourage organizational commitment. Employees who have high job satisfaction, would have a positive belief in the organization. This resulted if employees feel at ease in the organization and all of its existing goals and values. It makes the employees who is working at a construction company favored the company / organization with the values and goals and they have an interest to maintain the membership in the company. Pro-employee in the organization means the employees of construction companies already have a high commitment to the organization. This finding is in accordance with Robbins's statement (2002: 109) who explains that job satisfaction is important to understand by managers, because employees who are dissatisfied can perform several actions such as loss to follow, get out and do not have a good commitment to the organization. Luthans (1992) describes job satisfaction is an individual's general attitude towards work. Someone with a high level of job satisfaction shows a positive attitude towards his work, among other things remain in the company (don't want to move), willing to work overtime to complete the task, maintain confidentiality of company, prides the company on other people, willing to sacrifice personal goals and interests to achieving corporate objectives, provide basic repairs, obeying orders, maintain the rights to the company, helping other employees.

Mowday, Porter and Steers (1982), defines commitment as 1) a strong desire to remain a member of the organization, 2) a willingness

to try with high spirits (hard work) for the organization, 3) trust and acceptance of values and organizational objectives. The significance of the task makes the work of managerial level employees of construction companies has important for the organization as well as to other employees within the scope of the organization internally and externally. Autonomy makes employees manage their own jobs, have freedom of performing work, freedom of thought and freedom of action. Similarly, feedback makes the employee obtain information on how well they have worked, so they can know the effectiveness of its performance, in the sense that they can find out whether the job is done right, the work is in conformity with the standards of achievement of their work. Thus the managerial level employees of construction companies who works by using the five dimensions of work, have felt involved in carrying out the work.

With the inclusion of employees in carrying out this work, there is a psychological impact that employees will feel happy, and then this will encourage employees to increase its commitment. HR managers should involve employees not only to work but also in planning and evaluation of results achieved. To anticipate external changes which include an increase in fuel oil, increasingly in electricity tariffs as well as facing growing competition as high, it is necessary to create human resource management policies to achieve organizational goals and strategies to support the company's performance. Company's performance is highly dependent on employee performance. Employee performance is highly dependent on the commitment. Currently, according to a survey from Hay Group's employees

are still putting the index commitments in Indonesia at a low level (63), under the Philippines (77) and Malaysia (65). If the employee has a high commitment, then the performance is very good and will support the company's performance. Good performance will have an impact on economic growth both regionally and nationally.

### **MANAGERIAL IMPLICATIONS**

Job characteristics relationship with job satisfaction also organizational commitment and employee performance at the managerial level have number of implications as an intervening variable that relates the characteristics of employee job performance to job satisfaction variable. Management should pay more attention to variables, especially affective commitment which has smallest contribution in building organizational commitment. If contribution of affective commitment can be increased, it is expected that willingness, enthusiasm, and responsibility of the higher managerial level employees will increase. Employees will be bound emotionally and psychologically at the company, and this would make employees work more brilliantly with high performance level. Management companies need to create a strong incentive (key drivers) that can make employees have a high commitment, for example: by redesigning jobs to increase the autonomy of the task or tasks to expand and clarify the identity of employee duties. Besides, it is also concerned with job satisfaction variable with respect to indicators of wages and the role of supervisor who gives more contribution in building employee job satisfaction. Job characteristics variable that give large contributions are task identity and autonomy. Thus, in designing corporate



management, it would be more balance to pay more attention to employees of another level. It is more like to give an opportunity and a wider freedom to employees in completing tasks. Management does not need to create a lot of rules in designing work.

In the area of satisfaction with the salaries and satisfaction with supervisors, corporate management needs to pay attention better in making policies to provide wages to employees of managerial level. The policy of salary can provide internal and external fairness. In addition, the supervisor's role in directing and motivating employees is to support the creation of employee job satisfaction. Management needs to improve the skills of supervisors / superiors for the work to guide and motivate their employees.

Variable performances of employees which contribute a lot are cooperation, initiative and preparation of reports. Therefore, corporate management needs to improve the ability of employees to develop their cooperation skills, developing initiative and creativity in completing the task and the ability to create reports systematically. This may be done by creating a managerial level employee training programs both, on the job and off the job training.

Government should deliver good policy in managing the workforce, especially in the construction workforce. Implementation of human resource management planning the construction sector should pay attention to how its settings can increase employee commitment to organization, job satisfaction, and higher employee performance. The system of industrial

relations that governs the working relationship the government, employers and employees, governed by the provisions set by the government should set fairness, so that, the interests of various parties can be met.

The results of this research can be a basis of further research on the behavior of individuals and groups that exists within an organization or company. Research in both individual and organizational characteristics and organizational culture should be conducted to measure its association with commitment, satisfaction and performance of managerial level employees. Other service industries such as banking, manufacturing, private companies, state enterprises, and government agencies are hoped to make a pattern of human resource development related to the performance of managerial level employees.

## CONCLUSION

Review results after testing the effect of job characteristics on job satisfaction, organizational commitment and employee performance in construction companies, then it can be deduced that there are direct effects of positive and significant job characteristics on job satisfaction level of managerial employees. The variation of skills, task identity, task significance, autonomy and feedback significantly influences the managerial level employee job satisfaction. The design work in construction companies that performed with motivational approach that integrates the five dimensions of psychological job significantly influence job satisfaction of managerial level employees. In other words it can be concluded that there is compatibility between what is in the design work with what is desired by

employees at the managerial level in the construction services company.

There is a direct positive influence and significance of managerial level employee job satisfaction on organizational commitment. This means that job satisfaction, namely: satisfaction with salary, satisfaction with promotion, satisfaction with coworkers, satisfaction with supervisor, and satisfaction with the work itself significantly influence organizational commitment. The results identified that employees of construction companies are confident that job satisfaction can be obtained by increasing its commitment to increase job satisfaction. In order to achieve and realize the commitment of employees toward the organization supported by a good design job, there are positively and significantly direct effects of job characteristics on organizational commitment. The characteristics dimension of the work with skill variety, task identity, task significance, autonomy, and feedback have a positive effect on organizational commitment. This finding means that jobs in construction companies which has been designed with a motivational approach that integrates the five dimensions of job characteristics has created a strong incentive for employees to remain a member in the company. In addition, they are also compelled to try to attempt a high spirit and corporate interests with a willingness to work overtime, and doesn't want to move to another company, boasts the company, to keep the rules of the company even without supervision, to obey the order and to provide improvements. In other words, the effects of work design which performed with motivational approach have increased employees' organizational commitment in

construction companies.

There are direct effects of positive and significant job characteristics on the performance of managerial level employees. This means that the job characteristics: skill variety, task identity, task significance, autonomy, feedback will affect the performance of the employees. This finding means that construction companies have adopted the basic design work with motivational approach. Job design can provide encouragement to employees to achieve higher performance. Variations of high skills, a clear task identity, and task significance, psychologically make employees feel that their work is very meaningful. The success of the task is encouraging employees to improve work performance and a wide operating autonomy that generated a sense of responsibility for his work. A sense of responsibility has led to higher performance output. Feedback in the design work make the employees know the real results of his activity. This has led to improve his performance. There is a direct positive influence of organizational commitment on the performance of managerial level employees. This means that organizational commitment that is affective commitment, continuant commitment, normative commitment affect the performance of managerial level employees. This finding means that employees of construction companies were convinced that high organizational commitment will improve employee performance. The contribution of organizational commitment to employee performance has a path coefficient greater than job characteristics on employee performance and job satisfaction on employee performance. Improved

performance is necessary indeed and can be realized with well jobs characteristics, high organizational commitment and higher job satisfaction.

There is a direct positive influence and significance of job satisfaction on employee performance. This means that job satisfaction, such as, satisfaction with salary, satisfaction with promotion, satisfaction with co-workers, satisfaction with supervisor and satisfaction with the work itself is significantly and positively influence the performance of managerial level employees. These results indicate that job satisfaction perceived by the managerial-level employees of construction companies improve the performance of employees in the company. However, the influence of job satisfaction on employee performance has a lower contribution than the contribution of job characteristics and organizational commitment.

From the 6 (six) conclusions that have been proven partially quantitative, can derive a general conclusion that the performance of managerial level employees in construction companies is influenced by variables of job characteristics, job satisfaction and organizational commitment. But it should be noted that the variable organizational commitment and job satisfaction variable is an intervening variable, which support the relationship of job characteristics on the job performance of employees in managerial level. In this study, worker commitment to the organization as a variable has an indirect effect which is larger than the variable job satisfaction.

In line with behavioral science theory and the theory of Hackman and Oldham job

characteristics theory that five dimensions of job characteristics that is skill variety, task identity, task significance, autonomy, and feedback have an effect on job satisfaction and employee performance to employee groups who need higher development. The results of these researches have proved the existence of such influence for employees at the managerial level. But in this study, variable organizational commitment plays a role as intervening variables that mediates relationship of job satisfaction with job characteristics on employee performance. This is consistent with the research conducted by Shahid N Bhuidan and Buklend Menguc that characteristic of the work affect job satisfaction and organizational commitment. However, Shahid did not use indicators to measure the significance of the task in job characteristics and still questioned the role of organizational commitment. Thus, the firm's management in designing work might consider the significance of the task of managerial level employees in construction companies to support the employee's performance because it will impact on the company's performance improvement.

There are several limitations in this study like theories and supporting results from previous research. Research work related to organizational commitment, satisfaction and employee performance are still very limited to managerial level. Research conducted at the company's construction services, primarily related to employee behavior is also still limited. This resulted in proving the results of research with the supporting theory is also relatively limited. Employee performance variables measured only qualitatively, which relies on his superior alone. This allows the assessment

results still contain subjectivity. It would be better if the employee's performance is measured by involving some influential parties. This research was only done on the

company's construction services in Central Java, which cannot be used as the basis of generalizations that represent other companies in Central Java. ■

## References

- Agarwal, Sanjev and Sridhar N., Ramaswari (1997). Affective Organizational Commitment of Sales People : An Expanded Model, *Journal of Personal Selling & Sales Management*, 13 (2), 59-67.
- Allen, Natalie, J., and John P., Meyer (1990). The Measurement and Antecedent of Affective, Continuance and Normative Commitment to The Organization, *Journal of Occupational Psychology*, 63, 1-8.
- Alpander, G.G.(1990). Relationship Between Commitment to Hospital Goal and Job Satisfaction : A Case Studi of Nursing Departement, *Health Care Management Review*, 15(4), 51-62.
- Badan Pusat Statistik Propinsi Jawa Tengah, *Indikator Makro Ekonomi Jawa Tengah 2000*, Jawa Tengah : BPS.
- Barker, Alan. (2000). *How to Be Better at Managing People*, Jakarta : PT. Elex Media Komputindo.
- Becherer, Richard C., Fred W., Morgan and Lawrence M., Richard (1982). The Job Characteristics of Industrial Salesperson : Relationship to Motivation and Satisfaction, *Journal of Marketing*, 46, 125-35.
- Bhuidan Shahid, N., and Buklend Menguc (2002). An Extension and Evaluation of Job Characteristics, Organizational Commitment and Job Satisfaction, *Journal of Personal Selling & Sales Management*, 22(1), 1-11.
- Bishop, James Wallace and Scott, K. Dow K., Burroughs, Susan, M.(1997). How Commitment Affect Tean Performance, *Human Resource Magazine*.
- Buchanan, Bruce (1974). Building Organizational Commitment : The Socialization of Managers in Work Organizations, *Administrative Science*, 19, 533 - 946.
- Celluci, A.J., D.L. DeVries, (1978). *Measuring Managerial Satisfaction: A Manual for the MJSQ (Technical Report II)*, Center for Creative Leadership.
- Christiawan dan Sampurno (2003). *Kapita Selektu Industri Konstruksi Nasional*, Edisi : 1, Jakarta : PT. Nawa Management and Engineering Services.
- Clifford, P., Mc Cue and Gianakis Gerasimos, A.(1997). The Relationship Between Job Satisfaction and Performance : The Case of Local Government Finance Officers in Ohio, *Public Productivity & Management Review*, 21 ( 2), 170-191.
- Cue, M.C., C.P., and Gianakis, G.A.(1997). The Relationship Between Job Satisfaction and Performance : The Case of Local Government Finance Offices Ohio, *Public Productivity & Management Review*, 21 (2), 170-191.
- De Connick, James B, Bachmann, Duane P.(1992). Organizational Commitment and Turnover Intention of Marketing Managers, *Journal of Applied Business Research*, 10(3), 87-98



- Dubin R.J.E., Champoux, and L.W., Porter (1975). Central Life Interest and Organizational Commitment of Blue Collar and Clerical Workers, *Administrative Science Quarterly*, 20, 411-421.
- Dunham Rendall B. (1994). Organizational Commitment ;The Utility of an Integrative Definition, *Journal of Applied Psychology*, 79 (3), 370-380.
- Ferdinand, A.(2002). *Structural Equation Modelling dalam Penelitian Manajemen*, Semarang : BP. UNDIP.
- Glisson, Charles and Marck Durick. (1998). Predictors of Job Satisfaction and Organizational Commitment in Human Service Organizations, *Administrative Science Quarterly*, 33, 61-81
- Goodale J.G. (1973) Effect of Personal Background and Training On Work Values of the Hard-core Unemployed, *Journal of Applied Psychology*, 57, 1-9.
- Hackman, J., Richard, and Greg R., Oldham (1975). Development of The Job Diagnostic Survey, *Journal of Applied Psychology*, 60, 159-170.
- Hair, J.F., Anderson, R.E., Tatham, R.L., and Black, W.C.(1995). *Multivariate Data Analysis With Readings, Fourth Ed*, New Jersey : Prentice Hall.
- Hall, Douglas T., and Benjamin Schneider. (1972). Correlates of Organizational as A Function of Career Pattern and Organizational Type, *Administrative Science Quarterly*, 15, 176 – 190.
- Hanafi, M., Manduh (2002). *Manajemen*, Yogyakarta : UPP AMP YKPN.
- Heneman, H.G.(1975). Comparisons of Self and Superior Ratings of Managerial Performance, *Journal of Applied Psychology*, (59), 638-642.
- Hulin, Charles L., and Milton I., Blood. (1968). Job Enlargement, Individual Differences, and Worker Responses, *Psychological Bulletin*. 69, 41–45.
- Hunt, Shelby D., Lawrence B., Chonko, and Van R., Wood. (1985). Organizational Commitment and Marketing, *Journal of Marketing*, 49, 112-126.
- Iffaldano, M.T., and P.M., Muchinsky (1985). Job Satisfaction and Job Performance : A Meta Analysis, *Psychological Bulletin*, 97, 251-273
- Keputusan Presiden Nomor 18 tahun 2000, tentang Pedoman Pelaksanaan Pengadaan Barang / Jasa Instansi Pemerintah.
- Kidron, Aryeh (1978). Work Values and Organizational Commitment, *Academy of Management Journal*, 21, 239 – 247.
- Langner Paul H., Carol T., Kulik, Greg R., Oldham. (1988). Measurement of Job Characteristics : Comparison of The Original and The Revised Job Diagnostic Survey, *Journal of Applied Psychology*, 73 (3), 462 - 466
- Locke, Edwin, A.(1976). What Is Job Satisfaction ?, *Journal of Organizational Behavior and Human Performance*, 4, 309 – 336.
- Luthans, F.(1992). *Organizational Behavior*, Eight Edition, Singapore : Mc Graw Hill International Edition.
- Mangkunegara, AA Anwar Prabu.(2000). *Evaluasi Kinerja Sumber Daya Manusia*, Bandung : PT. Refika Aditama.
- Meyer, J.P., and Allen, N.J.(1991). A Three Company Conceptualization of Organizational Commitment, *Human Resource Management Review*, 1, 772 - 777
- Meyer, John P., Natalie J., Allen and Smith C.A.(1993). Commitment to Organizations and Occupations : Extension and Test of a Three-Component Conceptualization, *Journal of Applied Psychology*, 78, 538-551
- Mowday, R.T., Porter, L.W., and Steers, R.M. (1982). Employee Organization Linkages, *The Psychology of Commitment Absenteeism, and Turnover*, New York : Academic Press.

- Ostroff, Cheri.(1995). The Relationship Between Satisfaction Attitudes and Performance on Organizational Level Analysis, *Journal of Applied Psychology*, 77(6), 963 – 974.
- Peraturan Pemerintah Nomor 29 tahun 2000, tentang *Penyelenggaraan Jasa Konstruksi*.
- Peraturan Pemerintah Nomor 30 tahun 2000, tentang *Penyelenggaraan Jasa Konsultan*
- Poznanski, Peter J.(1997). *Using Structural Equation Modeling for Investigate The Causal Ordering of Job Satisfaction and Organizational Commitment Among Staff Accountants*, Printed in USA : Vol. 9, pp. 249 – 37.
- Rabinowitz, S., and D., Hall.(1977). Organizational Research on Job Involvement, *Psychological Bulletin*, 84, 265-288.
- Robbins, S.P.(2002). *Perilaku Organisasi : Konsep, Kontroversi, Aplikasi*, Alih Bahasa oleh Adyana Pujaasmaka, Jakarta : PT. Prenhalindo.
- Rousseau, Denise M.(1978). Characteristics of Departements, Positions, and Individuals : Context for Attitudes and Behavior, *Administrative Science Quarterly*, 23, 521 – 540.
- Singh, H.P., Jagdip, Willem Verbeke and Gary Rhoads. (1996). Do Organizational Practice Matter in Role Stress Processes? A Study of Direct and Moderating Effects for Marketing Oriented Boundary Spanners, *Journal of Marketing*, 60, 69-86.
- Smith, P.C., Kendall, L.M., and Hulin, C.L. (1969). *The Measurement of Satisfaction in Work Retirement*. Chicago, IL : Rand Mc Nally.
- Sneed, Jeannie and Carole M., Herman.(1990). Influence of Job Characteristics and Organizational Commitment on Job Satisfaction of Hospital Foodservice Employees, *Journal of The American Dietetic Association*, 90(8), 1072-1083.
- Soenarno. (2003). Daya Saing Jasa Konstruksi Nasional di Era Globalisasi, *Konstruksi*, 319, 22-29.
- Steers, Richard M, and D.G., Spencer. (1977). The Role of Achievement Notivation in Job Design, *Journal of Applied Psychology*, 62, 472 – 479.
- Stoner, James, A.F., R., Edward Freeman, Daniel R., Gielbert. (1996), *Management*, New Jersey : Prentice Hall.
- Suryono, Yoyon. (2004). *Strategi Peningkatan Profesionalitas Sumber Daya Manusia Konstruksi*. Makalah pada Seminar Nasional Membangun Industri Konstruksi Nasional menjadi Kelas Dunia : Tantangan Dan Prioritas”, UNDIP, Semarang : 1 – 9.
- Undang-Undang Republik Indonesia No. 18 tahun 1999 tentang Jasa Konstruksi.
- Vroom, V.H.. (1964). *Work and Motivation*, New York : Willey & Sons.