MODELING TURNOVER AND THEIR ANTECEDENTS USING THE LOCUS OF CONTROL AS MODERATION: EMPIRICAL STUDY OF PUBLIC ACCOUNTANT FIRMS IN JAVA INDONESIA

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ABSTRACT

The objectives of this study was examined modeling turnover intentions and their antecedents using Locus Of Control as moderation, empirical study of public accountant firms in Java Indonesia. This study use SEM (Structural Equation Modeling) and LISREL (Lineer Structural Relation) to confirm the moderating effects related to TI (turnover intention), and considers on OC (Organizational Commitment), JS (Job Satisfaction), and POS (Perceived Organizational Support) as individual or organizational outcomes.

This research found that turnover intention influencing by internals Locus of Control and externals Locus Of Control as moderation was negatively relationship to OC and JS, while POS as JS antecedent factor was negatively affected to JS, therefore it can be concluded that POS had negative relationship to TI.

The antecedent examined was perceived organizational support (POS); job satisfaction and OC were mediating constructs. Test results indicated a stronger influence of job satisfaction on TI and OC among those with an internal LOC than those with an external LOC. However, the influence of POS on job satisfaction and OC was stronger among externals than internals.

*Key words: turnover intention, Organizational Commitment, Job Satisfaction, Perceived Organizational Support*
I. Introduction

Employee turnover intention (TI) becomes important overlooked in many firms, including service-based organization. Public Accountant Firms, which employees are accountants were concerned at services, was influenced by the topic, Accountant’s job is full of risk and he must be prudent in doing his job. Accountant has obligation to keep their behaviors standard to the organization where they work, their professions, society and them selves (Fine et.al, 2004). Commonly, firms attempt to decrease Employee Turnover Intention because it may cause firms loss. Kollaritsh (1968) shown that around 85 % public accountants at big Public Accountant Firms left their jobs to search for alternative employment (Belkaoi,1989). Commonly, significantly characteristics influencing turnover intentions of public accountants at Public Accountant Firms are, Instrument and Job Satisfaction. Susskind et.al (2000), suggested that any cumulative research results showed significant and negative relationship related to TI on a consistent basis. Recent model of TI have linked job satisfaction with TI through various intermediate withdrawal cognitions such as Instrument (OC) and Perceived Organizational Support (POS) (Susskind et.el, 2000; Mannheim, Baruch and Tal, 1997).

At the previous researches have been found that Job satisfaction is one of the most important factors which is influencing worker’s satisfaction because most of their time were spend at their work place (Riggio, 1990). Many researches related to Job Satisfaction and Instrument (OC), which influencing Employee Turnover Intentions were found. Gregson (1992) stated that Job Satisfaction is the beginning of Instrument at Accounting Firms. In the other word, Job Satisfaction influenced Instrument. In addition, Aranya et.al (1982) argued that there was a statistical correlation between instrument and job satisfaction. While, Suwandi and Indriantoro (1992) stated that there
was a consistent relationship with the previous researches, that Job Satisfaction was positively correlation with instrument. On the other hand, there were some empirical evidence which shown that job satisfaction and instrument had unclear relationship and inconsistent. Mathiew (1988), Price and Mueller (1986), William and Hazer (1986), argued that job satisfaction were the previous variable of the instrument, while Bateman and Stasser (1984) found that instrument was the previous variable of job satisfaction. While some of the current researches found that both Instrument and Job Satisfaction were related reciprocally without influencing each other (Mathiew, 1991). While perceived organizational support (POS) has been found to positively influence both TI and OC (Susskind et.al, 2000). Furthermore, several studies have recently found that psychological variables may be useful to understand TI and Job Satisfaction.

According to those research gaps from the previous researches and literature exist, this study will investigate employees turnover intentions and its antecedents using the Locus of Control as the moderator variable, this study take a starting point from the previous research of Chou Kang Chiu, Chieh Peng Lin, Yuan Hiu Tsai & Cing Yun Hsiao (2005), which is observed TI and their antecedents using the locus of control as a moderation: A case of Customer Service Employees to find the new evidence. Using Susskind et.al (2000) model as a guide, this study will explore the causal model of TI using a specific psychological moderating variable: Locus of Control (LOC)

This study differs from the previous research in two ways. First, the object of this research where examined public accountants at Public Accountant Firms in Java, Indonesia. Second, this study was using La Rose model to explore the causal model of LOC. This study use SEM (Structural Equation Modeling) and LISREL to confirm the
moderating effects related to TI, and considers on OC, Job Satisfaction, and POS as individual or organizational outcome.

The remaining sections of this paper are organized as follows: Section II presents an overview of literature, such definitions of each variable and develops testable hypotheses. Section III describes the methodology and measurements of variables. Section IV reports and discuss the result. Section V summarizes the findings of this research.

II. Literature Review and Hypotheses

Job Satisfaction (JS), Instrument (OC) and Turnover Intentions (TI)

Job satisfaction was effectiveness or emotional response to several aspects of jobs or works Kreitner dan Kinicki, (1995). Thus definition shown that job satisfaction was not the single concept, in contrast individuals can relatively satisfied with one aspect of their job and unsatisfied with their other jobs. Anastasia (1979) concluded that several researches related to job satisfaction and turnover intentions relationship (such as: Lockle, 1976; Porter and Steer, 1973) found that there was a relation between job satisfaction and turnover intentions. Turnover intentions at organization was commonly related to their unsatisfied of what they wanted and what they got from their organization such as: salary, promotion, their chef support and their perceived of their own work (such as: task variations, responsibility, and autonomy).

The presence or absence of numerous attributes in the employing organizations influences worker’s attitudes concerning one’s commitment to his/her organization (Herzberg, 1966; Steers, 1977). Job satisfaction and OC are related, but distinguishable attitudes. Job satisfaction is associated with the affective response to the immediate work environment, while OC is more stable and enduring (Norris and Niebuhr, 1983).
A number of empirical studies confirm the important role of OC and Job satisfaction in the turnover process (Chiu and Francesco, 2003; Susskind et.al, 200). It generally indicates that one’s TI is negatively related to Job satisfaction and OC. Near (1989), Lachman and Aranya (1986), argued that employees with highly-committed to their organization are low likely to quit rather than employee with low-committed to their organization. Employees may be temporarily dissatisfied with their job, but never remain the low-committed to their organizations.

The evidence that JS has a direct effect on TI as well as an indirect effect through OC has been found (Blau, 1987). This relationship is supported by a number of research which identify JS as an antecedent of OC (Tett and Meyers, 1993) the numerous studies have provided evidence of a strong negative relationship between JS and TI (Mannheim, Baruch and Tal, 1997; Abraham, 1999). Lawler (1971 to Luthan, 1995) suggested the similar approach that satisfaction and dissatisfaction was inappropriate function between what individuals' feel and amount of feedback they accepted. Dissatisfaction of salary commonly influenced low job satisfactions of feedback to predictably job components (Lawler, 1990). Meanwhile, individuals with high eagerness to their job had low dissatisfied of their acceptably salary (Motowidlo, 1982)

Job satisfaction can predict absence level and employees turnover, although its relationship was moderate. Motowidlo (1983) used job satisfactions to predict turnover intentions, the real effect of turnover intentions was shown at turnover intentions it selves. The study of Bateman and Strasser (1984) at Zelfane (1994) result was supported that nurses and other staffs job satisfaction, colleagues and supervisor were the strong predictor of commitment. According to Slattery and Selvarajab (2005) stated
in social exchange theory, that there was a social exchange relationship between two individuals or more or between organization and their workers, and between job satisfaction and instrument as antecedent of turnover intentions (Horn and Griffeyh, 1995) at Slattery and Selvarajan (2005). Therefore the hypotheses are summarized as follows:

H1 : OC has a negative influence on TI  
H2 : Job satisfaction has a negative influence on OC  
H3 : Job satisfaction has a negative influence on TI

**Perceived Organizational Support (POS), Job Satisfaction (JS), Organizational Commitment (OC)**

POS is related to employees’ satisfaction in term of their perception about their organization’s support. This describes the extent to which employees believe that their employer is concerned with their well being (Shore and Tetrick, 1991) and is influenced by aspects of the organization’s treatment of the employees. Generally, employees will be satisfied with their jobs and committed to their organizations if they are content with the nature of work itself, and if they perceive current pay policies and future opportunities for promotion within their organizations to be adequate. Therefore, POS is an important influence on job satisfaction. Without sufficient POS, employees may be dissatisfied with their job and view their task negatively. Shore and Tetrick (1991) argued that POS shows a strong empirical relationship with OC, yet remains distinct from commitment because POS focuses on employee accounts of organization’s awareness, whereas OC represent reported individual employee concern for the organization (Shore and Wayne, 1993). Therefore the hypotheses are summarized as follows:
H4 : Perceived organizational support (POS) has a positive influence on job satisfaction (JS)
H5 : Perceived organizational support (POS) positively influences on Organizational Commitment (OC)

Locus of Control (LOC)

JS has held a prominent place in the organization and has significant correlation with LOC for ages. LOC is an important construct describing individual differences. It is one of the most widely studied personality concept (Matsumoto, 2000) and has often used for predicting employees’ behavior (Spector, 1988; Spector et.al, 2002). LOC is a well-documented personality trait that refers to individual differences in a generalized belief in internal versus external control of reinforcement (in the context of a stimulus and response) (Rotter, 1966; Christohee Boone, Woody V.O and Arjen V.W et.al, 2005). LOC is strongly associated with individual’s feeling of potency. LOC can also be defined as: The degree to which the individual perceives that the reward (obtained) follow from or is contingent upon his own behavior or attributes (Rotter1996).

In many researches, the importance of LOC to work experience has been shown that the internals earned higher compensation, had higher-status occupation, and were more satisfied with their job. People with an external LOC (externals) tend to feel like pawns in a complicated environment governed by forces outside their own control, whereas internals feel they are active masters of their own fates. Generally, people differ in term of the amount of control their believe they have over their own behavior and environment (Lefcourt, 1966; Rotter, 1966; Levenson, 1974; Desmond Lam and Dick Mizerski et.al, 2005). Hoffman et.al (2000) stated that internals are likely tend to initiate new activities and undertake efforts or action in order to manage events around them actively and hence, are more action oriented. In addition Blau (1987) showed that
internals exert greater effort personally likely to take an active posture with respect to their environment (Kren, 1992) and external may adopt a passive role. Externals often feel a lack personal control and believe their actions do not necessarily lead to their desired result. Externals are more likely to wait until environmental factors forces them to leave.

Regarded to such aspects the LOC are hypothesizing to exist in the relationships between job satisfaction and OC and between OC and TI. Therefore those relationships would be moderated by LOC, for which the relationship is stronger for internals than externals. Finally, we hypothesize as follows:

H1a : the negative relationship between OC and TI is stronger for internals than externals.
H2a : the negative relationship between job satisfaction and TI is stronger for internals than externals.
H3a : the positive relationship between POS and job satisfaction is stronger for than externals.
H4a : the positive relationship between POS and OC is stronger for internals than for externals.
H5a : the positive relationship between POS and OC is stronger for internals than for externals.

Regarded to the hypotheses made, the research framework have been made as follows:

III. Methods

General View of Respondents

Data were collected using questionnaires, which was delivered to 500 respondents of auditor staffs in Public Accountants Firms in Java. This Research population, like other research for example, Aranya Et al (1982), Noriss And Buhr (1983) and Meixener and Bline (1989), using staff of public accountant firms individually as analysed unit. Intake sampel of pursuant to population public accountant
firms amount. Address And Data taken away from a Directory Public Accountant Firms of Year 2005 published by IAI Public Accountant Compartement as sampling. Hereinafter the gathering sample technique by accidental sampling that is sampling technique owning sample from easiest unit or individual met or accessed.

Total questionnaires accepted were 113 and only 103 respondents can be analyzed. The reducing from total respondents which can be analyzed because of several reasons such as: 6 respondents did not complete all of the questions given, and 4 respondents gave uncompleted answers. The final data which was analyzed was more than the limitation of the minimum data analyzed using LISREL. From 103 respondents 48 respondents identified as internals and 55 respondents identified as externals. The characteristics of those respondents were shown as follows on table 1.

**Construct Measurement.**

All variables investigated were measured on scales drawn and modified from the existing literature, and three common steps were employed to choose items for measurement from the existing literature. First, the items from the existing literature were all translated into Indonesian.

A five-point Likert scale anchored by Strongly Agree/Strongly Disagree was used for scaling. TI were measured using the four items (Bluedorn, 1982) set out in Appendix A: turnover inventions, organizational commitment, job satisfaction, and perceived organizational support. Job satisfaction was measured using these items (Hackman & Oldham, 1975; Churchill, Ford, & Walker, 1974). A sample item was, “I am generally satisfied with the kind of work I do in this job.” OC was assessed by five-
item affective organizational commitment taken from the Organizational Commitment Questionnaire (OCQ) of Mowday, Steers, and Porter (1979). POS investigates whether employees feel their organization cares about their satisfaction at work, cares about their opinion, would help them if they needed a special favor, would help if they have a problem, and considers their goals and values. POS was measured using five retained scale items (Susskind et al., 2000) due to their good validity tested by Susskind et al. (2000), which were originally from Eisenberger, Fasolo, and Davis-LaMastro (1990).

LOC here was measured via rating format of an abbreviated version of LOC (Barnett & Lanier, 1995). Sample items include: “Many of the unhappy things in people’s lives are partly due to bad work,” and “People’s misfortunes result from the mistakes they make.” The abbreviated LOC has eleven items originally from Rotter’s (1966) scale (Barnett & Lanier, 1995). Two measures of LOC were obtained: one in the original forced-choice format and one in a four-point rating format (Barnett & Lanier, 1995). Respondents were first asked to respond to the items in the original format by selecting the statement from each pair that better reflected their beliefs. Then they were asked to indicate whether the chosen internal or external statement was “much closer” or “slightly closer” to their belief. If the chosen belief was much closer or slightly closer to the internal statement, it was scored a 1 or a 2, respectively. If the chosen belief was slightly closer or much closer to the external statement, it was scored a 3 or 4. Total scores for the rating format were divided by the number of items in the scale and could therefore range from 1 to 4 (Barnett & Lanier, 1995).

While to show the measurement of variables of this study such as (Job Satisfaction, Perceived Organizational Support, Turnover Intention, and OC) we used absolute frequency table which was shown average value, theoretical range, real range,
and deviation standard, which was shown at table 2. Based on the table 2, the measurement of Job Satisfaction variable shown that respondents’ answers were around 5-19, which was lower than the maximum limitation of theoretical range, which was around 4-20. This value indicated that respondents shown low Job Satisfaction. On Perceived Organizational Support variable, the score was around 5-9 with theoretical range was around 4-20, indicated that respondents shown the low appreciation to Perceived Organizational Support in Public Accountant Firms, while for Turnover Intention the score was around 5-19 with theoretical range was around 4-20, indicated that respondents has low appreciate on turnover intention at their firms. Instrument variable was around 5-25 with theoretical range was around 6-25, this was indicated that respondents had low commitment to their organizations

Data Analysis

This study used SEM (Structural Equation Model) and LISREL (Linier Structural Relation) to conduct the data analysis for confirmatory factor analysis. SEM, a multivariate statistical techniques based on regression, can be used to confirm the significant relation among variables which LOC as moderating variables. Before doing SEM analysis, it suggested to have screening data to conduct descriptive measurements (mean, standard, and deviation) and the most important was to convince SEM assumptions were fulfils, there was normality Ghozali and Fuad (2005). The result of screening data from variables such as Job Satisfaction, Perceived Organizational, Turnover Intentions and Instrument were normal, both in univariate and multivariate, it can be seen at p-value which was more than 0.05
Data analysis process afterwards was measuring reciprocal relationships among the variables. Considering that the data were behavioral data which collected by questionnaires, statistical test were needed to confirm the appropriate of questionnaires. We used reliability test using SPSS programmed and validity test with confirmatory factor analysis using LISREL. After those tests, research analysis done

**Reliability Test and Confirmatory Factor Analysis**

Consistency dependence degree and measurement stability, measured using reliability test. The result of reliability test using SPSS 12 found that alpha correlation of cronbach was higher than 0.7, while confirmatory factor analysis test using LISREL showed that there were no eliminated indicators, on the other words all of the variables were accepted. The measurement result shown on table 3

**Hypothesis Analysis Result**

Before analyzing SEM full model this used to divine variable latent, model was analyzed using confirmatory factor analysis to find each indicator in fit model. Fit to the purpose, this found the relation among variables (Job Satisfaction, Perceived Instrument, Turnover Intentions, and Instrument), with Locus of Control as moderation. All the variables simultaneously measured using structural equal with LISREL 8.54 (Linier Structural Relation) as the measurement instrument. This study confirmed the hypothesis as follows:

**Hypothesis 1** confirmed that OC has a negative influence on TI was significant because t value was negative -1.827 higher than -1.296 of the total sample for more than 60 samples. This research was supported the previous research which stated that OC has a negative influence on TI. This hypothesis was supported, according
to some of researches Organizational Commitment were characterized as the acceptance of behavioral goals and a willingness to exert effort on the organization’s behalf (Angle and Perry, 1981; Porter et.al, 1974) on Hossein Nouri. Psychology and organizational behavior studies indicated that instrument is linked to work outcomes such as job performance (Mathieu and Zajac, 1990; Randall, 1990). Randall (1990) noted in her meta analysis of Instrument, researchers have theorized that OC is directly related to positive work outcomes such as low turnover. Therefore, the public accountants should alter their strategies to achieve high OC and reduce TI.

**Hypothesis 2** stated that Job satisfaction has a positive influence on OC was significant because t value 1.77 higher than 1.296 with total sample more than 60 samples. This result was supported the previous researches which stated that Job satisfaction has a positive influence on OC, according to a number of empirical studies confirmed that it generally indicated that one’s TI is negatively related to Job satisfaction and OC. Near (1989), Lachman and Aranya (1986), argued that employees with highly-committed to their organization are low likely to quit rather than employee with low-committed to their organization. Employees may be temporarily dissatisfied with their job, but never remain the low-committed to their organizations. Although, some of accounting research has shown that OC and JS were positively related to one another (Bline et.al, 1991; Aranya et.el and Ferris, 1984), in general, it appeared that JS preceded OC (Gregson, 1992; Farkas and Tetrack, 1989; Curry et.al, 1986, William and Hazer, 1986; Bateman and Strasser, 1984). The presence or absence of numerous attributes in the employing organizations influences worker’s attitudes concerning one’s commitment to his/her organization (Herzberg, 1966; Steers, 1977). Job satisfaction and OC are related, but distinguishable attitudes. Job satisfaction is associated with the
affective response to the immediate work environment, while OC is more stable and enduring (Norris and Niebuhr, 1983). Therefore, this research was shown that Job satisfaction has a positive influence on OC.

Hypothesis 3 stated Job satisfaction has a negative influence on TI was significant because t value negative -4.19 was higher than -1.296 with total sample more than 60 samples. This result was supported the previous research which stated that Job satisfaction has a negative influence on TI, some researches related to Job satisfaction shown that JS has a direct effect on TI as well as an indirect effect through OC (Blau, 1987). This relationship is supported by a number of research which identify JS as an antecedent of OC (Tett and Meyers, 1993) the numerous studies have provided evidence of a strong negative relationship between JS and TI (Mannheim, Baruch and Tal, 1997; Abraham, 1999). Lawler (1971 to Luthan, 1995) suggested the similar approach that satisfaction and dissatisfaction was inappropriate function between what individuals’ feel and amount of feedback they accepted. Dissatisfaction of salary commonly influenced low job satisfactions of feedback to predictably job components (Lawler, 1990). Meanwhile, individuals with high eagerness to their job had low dissatisfied of their acceptably salary (Motowidlo, 1982). Job satisfaction can predict absence level and employees turnover, although its relationship was moderate. Motowidlo (1983) used job satisfactions to predict turnover intentions, the real effect of turnover intentions was shown at turnover intentions it selves.

Hypothesis 4 confirmed that POS has a positive influence on Job Satisfaction was significant, because t value positive 2.18 was higher than 1.296 with total sample more than 60 samples. This research was supported the previous which stated POS has a positive influence on Job Satisfaction some researches shown that generally, employees
will be satisfied with their jobs and committed to their organizations if they are content with the nature of work itself, and if they perceive current pay policies and future opportunities for promotion within their organizations to be adequate. Therefore, POS is an important influence on job satisfaction. Without sufficient POS, employees may be dissatisfied with their job and view their task negatively.

**Hypothesis 5** stated that POS positively influences on OC were significant because t value was positive 2.73 higher than 1.296 with total sample more than 60 samples. This result was supported the previous researches such as Shore and Tetrick (1991) argued that POS shows a strong empirical relationship with OC, yet remains distinct from commitment because POS focuses on employee accounts of organization’s awareness, whereas OC represent reported individual employee concern for the organization (Shore and Wayne, 1993). Therefore, the higher POS accepted the higher Organizational Commitment hold. If organization is concerned about employees’ POS, it would raise individuals’ Perceived Organizational Support (POS). The Hypotheses 1-5 Resume shown on table 4.

The measurement for both internals LOC and externals LOC using t test differences with LISREL 8.54. The complete result was shown on table 5. This study confirmed the hypotheses result related to internals LOC and externals LOC affected to variables such as TI, OC, JS, and POS as follows:

**Hypothesis 1a** stated the negative relationship between OC and TI is stronger for internals than externals. Result measurement of LOC for internals showed that t value was negative 1.65 while for externals negative 1.57 higher than 1.303 with total sample 40. Relationship between OC and TI is stronger for internals than externals and
Hypothesis 1a supported. Strong instrument is characterized as the acceptance of behavioral goals and a willingness to exert effort on the organization’s behalf (Angle and Perry, 1981; Porter et al., 1974) on Hossein Nouri. Psychology and organizational behavior studies indicated that instrument is linked to work outcomes such as job performance (Mathieu and Zajac, 1990; Randall, 1990). Randall (1990) noted in her meta analysis of organizational commitment, researchers have theorized that OC is directly related to positive work outcomes such as low turnover.

Hypothesis 2a stated the negative relationship between job satisfaction and TI is stronger for internals than externals. Measurement result for internals LOC showed that the t value was negative 1.99 while for externals LOC was negative 1.85 higher than 1.303 with total sample 40. Relationship between JC and TI is stronger for internals than externals and hypothesis 2a supported. The influence of job satisfaction on TI and OC is stronger for internals than for externals. Therefore, public accountants should consider prioritizing the needs of internals whenever those internals express low job satisfaction. Ignoring their satisfaction may cause internals to react by quitting. Consequently, consulting with employees and listening to their constructive suggestions can help retained good employees and avoid turnover. Specifically, this finding suggest that serious problems may exist in an organization when both internals and externals have low OC. High turnover may occur due to high TI originally influenced by low OC. The best response in this situation may be to examine whether the organizational offers inadequate support to its employees. Other recommendations include enhancing psychological well-being in the workplace so as to improve employee perceptions of organizational support. The higher they perceive organizational support the lower TI happened. Providing positive feedback on employee performance can also increase...
employee job satisfaction and OC, consequently reduce TI. The comments of Mannheim et.al (1997) and Blau (1987), this study confirms that the overall fit of data to the model supports the notion that the relationship of job satisfaction to TI is stronger for internals than externals. Public accountants as the risky job, often feel depressed with their job, therefore, employee turnovers intentions at Public Accountant Firms were commonly happen.

**Hypothesis 3a** stated that the positive relationship between job satisfaction and OC is stronger for internals than for externals. Measurement results for internals LOC showed that t value was positive 1.45 while external positive 2.16 higher than 1.303 with total sample 40. Relationship between OC and TI is stronger for internals than externals and hypothesis 3a Supported. **Hypothesis 4a** stated that the positive relationship between POS and job satisfaction is stronger for internals than externals than for internals. Measurement results for internals LOC showed that t value was positive 2.99 while LOC external positive 3.75 higher than 1.303 with total sample 40. Relationship between OC and TI is stronger for internals than externals and hypothesis 4a supported. The findings of this study were generally consistent with those of previous research (Susskind et.al, 2000; Mannheim et.al, 1997) in identifying links between POS and TI. This study was supported the previous research done by Chou Kang Chiu, Chieh Peng Lin, Yuan Hiu Tsai & Cing Yun Hsiao (2005). All paths are significant for both internals and externals since the previous literature has confirmed this theory to be solid. The awareness of an organization in term of concerning employees’ POS, paying attention to and facilitating employee development activities could be used as another strategy to reduce employee turnover.
Hypothesis 5a stated the positive relationship between POS and OC is stronger for externals than for internals. Measurement results for internals LOC showed that t value was positive 1.72 while LOC external positive 2.58 higher than 1.303 with total sample 40. Relationship between OC and TI is stronger for internals than externals and hypothesis 5a was supported. The awareness of an organization in term of concerning employees’ POS, paying attention to and facilitating employee development activities could be used as another strategy to reduce employee turnover. Enhancing psychological well-being at the work place will improve employee perceptions of organizational supports. Development activities that groom an individual for further advancement, job delegation, and empowerment will improve the individual’s perceptions of POS. The Hypotheses 1a-5a Resume shown on table 5

Model Fit Measurement Results

A model was fit if covariant matrix of the model was equal to covariant model of data (observed). According to LISREL measurement result each indicators result in fit model measurement shown as follows: for chi-square and p value of internals LOC were 0.15 with 1degree of freedom. The Chi-square probability was not significant which was 0.07, this indicated that model was fit, while for externals LOC chi-square value was 0.19 with 1 degree of freedom. Chi-square probability was not significant which was 0.66, this indicated that model was fit. X²/df, which were goodness of fit indicators as the comparison between chi-square value and degree of freedom. In this case for internals LOC model was 0.15/1 = 0.15, while for externals LOC model was 0.19/1 = 019. This result was lower than fit model cut-off suggested by Carmines and
Melver (1981), which were 2. Therefore, controlling model complexities (which was compared with degrees of freedom), the model was not fit. The result of those two model measurement was shown on table 6.

**Limitation of the Study**

A mismatch between personality characteristics and organization parameters under a steady organizational contingency could lead to breakdowns in operational effectiveness despite the implementation of an optimal organization design system. Pervin (1968) stated that performance and satisfaction tend to be high when a match exists between individual and organizational characteristics. Pervin then described a best fit or match between these organizational characteristics and the personality of individual. Moreover, a lack of fit results in decreased performance, dissatisfaction, and low OC. In addition, some researches have noted numerous similar finding related to the benefits of a good match between the individual and his or her job. For example, O’Reilly (1997) stated that outcomes of a match between the personality characteristics required for achievement and need for security and the degree of challenge offered by the job tasks. Analytical results of this investigation supported such numerous related to the match between individual and organizational characteristics, even more satisfaction and commitment were higher for individuals who had achieved personality-job congruence. Downey, Hellriegel, and Slocum (1975) concluded that job satisfaction was “a function of the interaction between the personality characteristics of the individual and perceived environment (organizational support)”. On the other hand a good match...
between the individual and the organization was important in predicting commitment, job satisfaction, and TI.

According to the analytical results of this investigation support the conjecture that LOC is an important moderator concerning organizational behavior. LOC was able to identify the employees’ difference behaviors in both internals and externals, which influence job satisfaction, organization commitment and perceived organizational support and TI. The findings indicated that employees differ, as do differences in turnover process. Therefore, employees could be given a standard battery of psychological and aptitude test, which could include measure of LOC, Job satisfaction, and OC. Specifically, whenever externals are found to have low POS, managers should consult them and try to prioritize their needs as noted in H4a and H5a, where POS influences both job satisfaction and OC more strongly externals and internals. Based on this analysis when they perceive low organizational support, externals tend to expend low effort on their job, and their commitment to organization declines. On the other word, externals are prone to view themselves as power low to control they day-to-day life, attributing outcomes to outside variables such as company policies and personal relationships among colleagues in the organization. Externals seldom have confidence concerning the business events they are dealing with, as the result it will influence employees’ job satisfaction and organization commitment, which will reduce employee turnover. Another implication of the finding is that specific training program can be designed to improve POS and reduce TI. The externals believe whatever they have no effect on organization’s outcome.

The first limitation of this research is the possibility of a common method bias in this study because all the variables were measured using the same methods and the
test result indicates that a more complex and potentially useful model regarding the fitness between the individual and the organization may be considered to design effective organizational design system. Another limitation of this research is that this study might have treated some in fairly simplistic terms. For example, instrument is a multidimensional construct, but this study examined only affective instrument. The second limitation of this research was the limitation of respondents, which was analyzed were 103 respondents. This may cause inappropriate result, meanwhile the sample consisted only of the public accountants in Java, which might be not quite larger that were overlooked.

Future Research

This research sought to demonstrate the influence of LOC using a causal model of TI. In the future work, longitudinal analysis might provide a complementary understanding of the influence of LOC change on TI and OC. In addition, the model could be expanded to other related factors, such as job stress or job ambiguity. It would be better for the future research to enlarge the respondents of research and the analysis system used, even more the future research should

The findings of this study were generally consistent with those of previous research (Susskind et.al, 2000; Mannheim et.al, 1997) in identifying links between POS and TI. This study was supported the previous research done by Chiu et al (2005). This study has conducted another test for the same structural model based on different personality traits in this study we used Barnett & Lanier (1995) to measure LOC in term of identifying the stronger influence between internals and externals.

Corresponding the comments of Mannheim et.al (1997) and Blau (1987), this study confirms that the overall fit of data to the model supports the notion that the
relationship of job satisfaction to TI and OC is significant and that the influence of both relationships is stronger for internals than externals (H2, H2a, H3 and H3a are supported). In accordance with the studies of Susskind et al. (2000) and the comments of Blau (1987), the influences of POS on job satisfaction and OC are both stronger for externals than internals (H4, H4a, H5, and H5a are supported). According to the test result, the influence of OC and TI is also supported (H1 is supported; H1a is supported.

This study used LOC as a moderator of model comparison. The findings have clear and straightforward implications for Public Accountant Firms in term of retaining employees, organizational support should be strengthened so as to boost employee POS, job satisfaction and OC, and thus reduce TI. There are also a variety of organizational activities such as job content assessment, personality counseling and organizational style learning. Some organizations may have such activities in place but they are not aware of employee development program, which is one of the ways to create employee’s job satisfaction.

The importance of cross-personality research lies in defining relationships between variables that are sensitive to LOC, since it is an important personality trait for describing individual differences and predicting behavioral in organizational settings. According to some evidence exist that LOC individuals’ differences influence the perception and construction of key environmental through different lenses. LOC has been related in numerous experiments with cognitive activities like attention and alertness, and information search and assimilation, specifically in reviewing the findings on cognitive capacities of internals versus external. LOC constructs as it is indicative of a basic striving of internals to actively engage in seeking relevant cues in worker’s environments to determine and make sense out of their positions and to guide or adapt
their behavior accordingly. Differences in LOC are the cause of these different perceptions. Under the moderating effect of LOC, all the hypotheses are supported by the related literature and the empirical result presented here. According to the data analysis, the relationship was found to be stronger for internals than externals, a finding that is consistent with previous experiment result (Chou Kang Chiu, Chieh Peng Lin, Yuan Hiu Tsai & Cing Yun Hsiao, 2005). Similar finding regarding LOC from previous studies seem attributable to the same dynamic reaction patterns may be modified and a more active response set learned through specific training programs.

According to H2a and H3a, the influence of job satisfaction on TI and OC is stronger for internals than for externals. Therefore, public accountants should consider prioritizing the needs of internals whenever those internals express low job satisfaction. Ignoring their satisfaction may cause internals to react by quitting. Consequently, consulting with employees and listening to their constructive suggestions can help retained good employees and avoid turnover. Specifically, this finding suggest that serious problems may exist in an organization when both internals and externals have low OC. High turnover may occur due to high TI originally influenced by low OC. The best response in this situation may be to examine whether the organizational offers inadequate support to its employees.

Other recommendations include enhancing psychological well-being in the workplace so as to improve employee perceptions of organizational support. The higher they perceive organizational support the lower TI happened. Providing positive feedback on employee performance can also increase employee job satisfaction and OC, consequently reduce TI. The awareness of an organization in term of concerning employees’ POS, paying attention to and facilitating employee development activities
could be used as another strategy to reduce employee turnover. Public accountants as the risky job, often feel depressed with their job, therefore, employee turnovers intentions at Public Accountant Firms were commonly happen, this research give new implication to reduce employee TI in Public Accountant Firms. The recommendations are enhancing psychological well-being at the work place so as to improve employee perceptions of organizational supports. Development activities that groom an individual for further advancement, job delegation, and empowerment will improve the individual’s perceptions of POS.

To sum up, the findings reported here have important implications for human resource development in service-based firms, specifically in public accounting firms. The public accountants should alter their strategies to achieve high OC and reduce TI, by giving highly POS and job satisfaction. The organization must be aware of the moderating effect of individual characteristics on the relationships between job attributes and employees’ behavioral attitudes, which is reflect in LOC both internals and externals.

**Limitation and Future Research**

A mismatch between personality characteristics and organization parameters under a steady organizational contingency could lead to breakdowns in operational effectiveness despite the implementation of an optimal organization design system. Pervin (1968) stated that performance and satisfaction tend to be high when a match exists between individual and organizational characteristics. Pervin then described a best fit or match between these organizational characteristics and the personality of individual. Moreover, a lack of fit results in decreased performance, dissatisfaction, and low OC. In addition, some researches have noted numerous similar finding related to
the benefits of a good match between the individual and his or her job. For example, O’Reilly (1997) stated that outcomes of a match between the personality characteristics required for achievement and need for security and the degree of challenge offered by the job tasks. Analytical results of this investigation supported such numerous related to the match between individual and organizational characteristics, even more satisfaction and commitment were higher for individuals who had achieved personality-job congruence. Downey, Hellriegel, and Slocum (1975) concluded that job satisfaction was “a function of the interaction between the personality characteristics of the individual and perceived environment (organizational support)”. On the other hand a good match between the individual and the organization was important in predicting commitment, job satisfaction, and TI.

Based on the analytical results of this investigation support the conjecture that LOC is an important moderator concerning organizational behavior. LOC was able to identify the employees’ difference behaviors in both internals and externals, which influence job satisfaction, organization commitment and perceived organizational support and TI. The findings indicated that employees differ, as do differences in turnover process. Therefore, employees could be given a standard battery of psychological and aptitude test, which could include measure of LOC, Job satisfaction, and OC. Specifically, whenever externals are found to have low POS, managers should consult them and try to prioritize their needs as noted in H4a and H5a, where POS influences both job satisfaction and OC more strongly externals and internals. Based on this analysis when they perceive low organizational support, externals tend to expend low effort on their job, and their commitment to organization declines. On the other word, externals are prone to view themselves as power low to control they day-to-day
life, attributing outcomes to outside variables such as company policies and personal relationships among colleagues in the organization. Externals seldom have confidence concerning the business events they are dealing with, as the result it will influence employees’ job satisfaction and organization commitment which will reduce employee turnover. Another implication of the finding is that specific training program can be designed to improve POS and reduce TI. The externals believe whatever they have no effect on organization’s outcome.

The first limitation of this research is the possibility of a common method bias in this study because all the variables were measured using the same methods and the test result indicates that a more complex and potentially useful model regarding the fitness between the individual and the organization may be considered to design effective organizational design system. The second limitation is that the sample consisted only of the public accountants in Java which might be not quite larger that were overlooked. Another limitation of this research is that this study might have treated some in fairly simplistic terms. For example, instrument is a multidimensional construct, but this study examined only affective instrument.

This research sought to demonstrate the influence of LOC using a causal model of TI. In the future work, longitudinal analysis might provide a complementary understanding of the influence of LOC change on TI and OC. In addition, the model could be expanded to other related factors, such as job stress or job ambiguity. It would be better for the future research to enlarge the object of research and the analysis system used.
References


Nour Hossein, and Parker, J. Robert. (1966), the effect of organizational commitment on the relation between budgeting participation and budgetary slack. *Behavioral Research in Accounting, 18*, 75


Figure 1. Research Framework

Table 1. Sample Characteristics (N=103)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Internals (48)</th>
<th>Externals (55)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male 30 (63%)</td>
<td>23 (42%)</td>
</tr>
<tr>
<td></td>
<td>Female 18 (38%)</td>
<td>32 (58%)</td>
</tr>
<tr>
<td>Education</td>
<td>S1 22 (46%)</td>
<td>27 (49%)</td>
</tr>
<tr>
<td></td>
<td>S2 26 (54%)</td>
<td>28 (51%)</td>
</tr>
<tr>
<td>Position</td>
<td>Staff 12 (25%)</td>
<td>25 (45%)</td>
</tr>
<tr>
<td></td>
<td>Senior 23 (48%)</td>
<td>12 (22%)</td>
</tr>
<tr>
<td></td>
<td>Manager 13 (27%)</td>
<td>18 (33%)</td>
</tr>
</tbody>
</table>

Table 2: Descriptive Statistical Variables

<table>
<thead>
<tr>
<th>VARIABEL</th>
<th>THEORITICAL RANGE</th>
<th>ACTUAL RANGE</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>4-20</td>
<td>5-19</td>
<td>13.0874</td>
<td>3.69978</td>
</tr>
<tr>
<td>Perceived Organizational Support</td>
<td>4-20</td>
<td>5-18</td>
<td>10.5631</td>
<td>3.64522</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>4-20</td>
<td>6-19</td>
<td>12.6019</td>
<td>3.79716</td>
</tr>
<tr>
<td>Instrument</td>
<td>5-25</td>
<td>6-20</td>
<td>12.8544</td>
<td>4.06421</td>
</tr>
</tbody>
</table>
Table 3: Reliability and Confirmatory Factor Analysis Result

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Measurement Result of Alpha Cronbach</th>
<th>VARIABLE INDICATOR</th>
<th>Measurement Result of Confirmatory Factor Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internals</td>
<td>Externals</td>
<td>Internals</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.743</td>
<td>0.723</td>
<td>X1,X2,X3,X4</td>
</tr>
<tr>
<td>Perceived</td>
<td>0.7749</td>
<td>0.7452</td>
<td>X5,X6,X7,X8</td>
</tr>
<tr>
<td>Organizational</td>
<td>0.8807</td>
<td>0.7923</td>
<td>X9,X10,11,12</td>
</tr>
<tr>
<td>Turnover Intentions</td>
<td>0.7084</td>
<td>0.7623</td>
<td>X13,X14,X15,X16,X17</td>
</tr>
</tbody>
</table>

Table 4: Hypotheses Resume

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>t</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: TI ≤ OC</td>
<td>-1.827</td>
<td>H1 Supported</td>
</tr>
<tr>
<td>H2: OC ≤ JS</td>
<td>1.77</td>
<td>H2 Supported</td>
</tr>
<tr>
<td>H3: TI ≤ JS</td>
<td>4.19</td>
<td>H3 Supported</td>
</tr>
<tr>
<td>H4: JS ≤ POS</td>
<td>2.18</td>
<td>H4 Supported</td>
</tr>
<tr>
<td>H5: OC ≤ POS</td>
<td>2.73</td>
<td>H5 Supported</td>
</tr>
</tbody>
</table>

Table 5. t Test table of Differences

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Internals</th>
<th>Externals</th>
<th>Influence</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>t</td>
<td>(I versus E)</td>
<td></td>
</tr>
<tr>
<td>H1a: TI ≤ OC</td>
<td>-1.65</td>
<td>-1.57</td>
<td>[I] &gt; [E]</td>
<td>H1a Supported</td>
</tr>
<tr>
<td>H2a: TI ≤ JS</td>
<td>-1.99</td>
<td>-1.85</td>
<td>[I] &gt; [E]</td>
<td>H2a Supported</td>
</tr>
<tr>
<td>H3a: OC ≤ JS</td>
<td>1.45</td>
<td>2.16</td>
<td>I &gt; E</td>
<td>H3a Supported</td>
</tr>
<tr>
<td>H4a: JS ≤ POS</td>
<td>2.99</td>
<td>3.75</td>
<td>I &lt; E</td>
<td>H4a Supported</td>
</tr>
<tr>
<td>H5a: OC ≤ POS</td>
<td>1.72</td>
<td>2.58</td>
<td>I &lt; E</td>
<td>H5a Supported</td>
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</tbody>
</table>

Table 6. Goodness-of-Fit Indexes

<table>
<thead>
<tr>
<th>Locus of Control</th>
<th>Measurement model</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>P</td>
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<tr>
<td>Internals</td>
<td>0.70</td>
</tr>
<tr>
<td>External</td>
<td>0.66</td>
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</table>
The following lines were read from file D:\SNA Makassar\Leni\LISREL SEMUA LOC.spj:

Raw Data from file 'D:\SNA Makassar\LOC EKTERNAL 103.psf'

Relationships
TI = JS OC
JS = POS
OC = JS POS

Path Diagram
End of Problem

Sample Size = 103

TOTAL LOC

Covariance Matrix

<table>
<thead>
<tr>
<th></th>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS</td>
<td>13.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>-5.31</td>
<td>14.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>1.97</td>
<td>0.45</td>
<td>16.52</td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>2.86</td>
<td>0.59</td>
<td>4.18</td>
<td>13.29</td>
</tr>
</tbody>
</table>

TOTAL LOC

Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

Structural Equations

JS = 0.32*POS, Errorvar. = 13.07, $R^2 = 0.045$
(0.099) (1.84)
2.18 7.11

TI = -0.40*JS - 0.37*OC, Errorvar. = 12.27, $R^2 = 0.15$
(0.095) (0.087) (1.73)
-4.19 1.82 7.11
OC = 0.28*JS + 0.30*POS, Errorvar.= 15.11, R² = 0.085
(0.11) (0.11) (2.13)
1.77 2.73 7.11

Reduced Form Equations
JS = 0.22*POS, Errorvar.= 13.07, R² = 0.045
(0.099) 2.18
TI = - 0.26*POS, Errorvar.= 14.37, R² = 0.0036
(0.051) -1.23
OC = 0.31*POS, Errorvar.= 15.20, R² = 0.080
(0.11) 2.96

Variances of Independent Variables

POS
--------
13.29
(1.87)
7.11

Covariance Matrix of Latent Variables

<table>
<thead>
<tr>
<th></th>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS</td>
<td>13.69</td>
<td>-5.31</td>
<td>1.97</td>
<td>2.86</td>
</tr>
<tr>
<td>TI</td>
<td>-5.31</td>
<td>14.42</td>
<td>0.45</td>
<td>-0.83</td>
</tr>
<tr>
<td>OC</td>
<td>1.97</td>
<td>0.45</td>
<td>16.52</td>
<td>4.18</td>
</tr>
<tr>
<td>POS</td>
<td>2.86</td>
<td>-0.83</td>
<td>4.18</td>
<td>13.29</td>
</tr>
</tbody>
</table>

Goodness of Fit Statistics

Degrees of Freedom = 1
Minimum Fit Function Chi-Square = 0.59 (P = 0.44)
Normal Theory Weighted Least Squares Chi-Square = 0.59 (P = 0.44)
Estimated Non-centrality Parameter (NCP) = 0.0
90 Percent Confidence Interval for NCP = (0.0 ; 5.79)

Minimum Fit Function Value = 0.0058
Population Discrepancy Function Value (F0) = 0.0
90 Percent Confidence Interval for F0 = (0.0 ; 0.057)
Root Mean Square Error of Approximation (RMSEA) = 0.0
90 Percent Confidence Interval for RMSEA = (0.0 ; 0.24)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.50

Expected Cross-Validation Index (ECVI) = 0.19
90 Percent Confidence Interval for ECVI = (0.19 ; 0.25)
ECVI for Saturated Model = 0.20
ECVI for Independence Model = 0.37

Chi-Square for Independence Model with 6 Degrees of Freedom = 29.13
Independence AIC = 37.13
Model AIC = 18.59
Saturated AIC = 20.00
Independence CAIC = 51.67
Model CAIC = 51.30
Saturated CAIC = 56.35

Normed Fit Index (NFI) = 0.98
Non-Normed Fit Index (NNFI) = 1.11
Parsimony Normed Fit Index (PNFI) = 0.16
Comparative Fit Index (CFI) = 1.00
Incremental Fit Index (IFI) = 1.01
Relative Fit Index (RFI) = 0.88

Critical N (CN) = 1142.59

Root Mean Square Residual (RMR) = 0.29
Standardized RMR = 0.021
Goodness of Fit Index (GFI) = 1.00
Adjusted Goodness of Fit Index (AGFI) = 0.97
Parsimony Goodness of Fit Index (PGFI) = 0.100

Time used: 0.040 Seconds

Chi-Square=0.59, df=1, P-value=0.44199, RMSEA=0.000

TIME: 22:19

L I S R E L 8.54

BY

Karl G. Jöreskog & Dag Sörbom

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The following lines were read from file D:\SNA Makassar\Leni\LISREL 2.spj:

LISREL 2
Raw Data from file 'D:\SNA Makassar\Leni\LISREL 2.psf'
Relationships
TI = JS OC  
JS = POS  
OC = JS POS  

Path Diagram  
End of Problem  

Sample Size = 48  

LISREL 2  

Covariance Matrix  

<table>
<thead>
<tr>
<th></th>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS</td>
<td>11.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>-1.71</td>
<td>14.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>2.44</td>
<td>2.09</td>
<td>15.75</td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>9.41</td>
<td>-0.45</td>
<td>4.38</td>
<td>14.66</td>
</tr>
</tbody>
</table>

LISREL 2  
Number of Iterations = 0  

LISREL Estimates (Maximum Likelihood)  

Structural Equations  

JS = 0.34*POS, Errorvar. = 5.68, R² = 0.52  
(0.092) (1.18)  
1.72 4.80  

TI = -0.38*JS - 0.26*OC, Errorvar. = 13.76, R² = 0.045  
(0.16) (0.14) (2.87)  
-1.99 -1.65 4.80  

OC = 0.32*JS + 0.34*POS, Errorvar. = 14.42, R² = 0.085  
(0.23) (0.21) (3.01)  
1.45 1.72 4.80  

Reduced Form Equations  

JS = 0.34*POS, Errorvar. = 5.68, R² = 0.52  
(0.092)  
1.99  

TI = -0.37*POS, Errorvar. = 14.33, R² = 0.0046  
(0.11)  
-1.82  

OC = 0.30*POS, Errorvar. = 14.45, R² = 0.083  
(0.15)  
2.04  

Variances of Independent Variables  

<table>
<thead>
<tr>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.66</td>
</tr>
<tr>
<td>(3.06)</td>
</tr>
<tr>
<td>4.80</td>
</tr>
</tbody>
</table>
Covariance Matrix of Latent Variables

<table>
<thead>
<tr>
<th></th>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS</td>
<td>11.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>-1.71</td>
<td>14.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>2.44</td>
<td>2.09</td>
<td>15.75</td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>9.41</td>
<td>-0.98</td>
<td>4.38</td>
<td>14.66</td>
</tr>
</tbody>
</table>

Goodness of Fit Statistics

Degrees of Freedom = 1
Minimum Fit Function Chi-Square = 0.15 (P = 0.70)
Normal Theory Weighted Least Squares Chi-Square = 0.15 (P = 0.70)
Estimated Non-centrality Parameter (NCP) = 0.0
90 Percent Confidence Interval for NCP = (0.0 ; 3.74)

Minimum Fit Function Value = 0.0031
Population Discrepancy Function Value (FO) = 0.0
90 Percent Confidence Interval for FO = (0.0 ; 0.081)
Root Mean Square Error of Approximation (RMSEA) = 0.0
90 Percent Confidence Interval for RMSEA = (0.0 ; 0.29)
P-Value for Test of Close Fit (RMSEA < 0.05) = 0.72

Expected Cross-Validation Index (ECVI) = 0.41
90 Percent Confidence Interval for ECVI = (0.41 ; 0.49)
ECVI for Saturated Model = 0.43
ECVI for Independence Model = 0.86

Chi-Square for Independence Model with 6 Degrees of Freedom = 31.40
Independence AIC = 39.40
Model AIC = 18.15
Saturated AIC = 20.00
Independence CAIC = 50.89
Model CAIC = 43.99
Saturated CAIC = 48.71

Normed Fit Index (NFI) = 1.00
Non-Normed Fit Index (NNFI) = 1.20
Parsimony Normed Fit Index (PNFI) = 0.17
Comparative Fit Index (CFI) = 1.00
Incremental Fit Index (IFI) = 1.03
Relative Fit Index (RFI) = 0.97

Critical N (CN) = 2145.21

Root Mean Square Residual (RMR) = 0.17
Standardized RMR = 0.012
Goodness of Fit Index (GFI) = 1.00
Adjusted Goodness of Fit Index (AGFI) = 0.98
 Parsimony Goodness of Fit Index (PGFI) = 0.100

Time used:  0.030 Seconds
The following lines were read from file D:\SNA Makassar\Leni\LISREL 1.spj:

lisrel1
Raw Data from file 'D:\SNA Makassar\Leni\LISREL 1.psf'
Relationships

TI = JS OC
JS = POS
OC = JS POS

Path Diagram

End of Problem

Sample Size =  55

lisrel1

Covariance Matrix

<table>
<thead>
<tr>
<th></th>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS</td>
<td>9.91</td>
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<td></td>
</tr>
<tr>
<td>TI</td>
<td>-4.41</td>
<td>11.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OC</td>
<td>2.37</td>
<td>-1.52</td>
<td>17.38</td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>-2.59</td>
<td>0.42</td>
<td>4.06</td>
<td>12.33</td>
</tr>
</tbody>
</table>

lisrel1

Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

Structural Equations
$$JS = 0.31 \times POS, \text{ Errorvar.} = 9.37', R^2 = 0.055$$
$$2.58$$

$$TI = -0.34 \times JS - 0.32 \times OC, \text{ Errorvar.} = 9.76', R^2 = 0.17$$
$$-1.85$$

$$OC = 0.34 \times JS + 0.40 \times POS, \text{ Errorvar.} = 14.94', R^2 = 0.14$$
$$2.16$$

Reduced Form Equations

$$JS = 0.31 \times POS, \text{ Errorvar.} = 9.37', R^2 = 0.055$$
$$2.58$$

$$TI = 0.083 \times POS, \text{ Errorvar.} = 11.65', R^2 = 0.0072$$
$$1.14$$

$$OC = 0.40 \times POS, \text{ Errorvar.} = 16.05', R^2 = 0.077$$
$$2.58$$

Variance of Independent Variables

<table>
<thead>
<tr>
<th>POS</th>
<th>--------------</th>
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</thead>
<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>(2.39)</td>
<td></td>
</tr>
<tr>
<td>5.15</td>
<td></td>
</tr>
</tbody>
</table>

Covariance Matrix of Latent Variables

<table>
<thead>
<tr>
<th>JS</th>
<th>TI</th>
<th>OC</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.91</td>
<td>11.73</td>
<td>2.37</td>
<td>2.59</td>
</tr>
<tr>
<td>-4.41</td>
<td>1.02</td>
<td>-1.52</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Goodness of Fit Statistics

- Degrees of Freedom = 1
- Minimum Fit Function Chi-Square = 0.19 (P = 0.66)
- Normal Theory Weighted Least Squares Chi-Square = 0.19 (P = 0.66)
- Estimated Non-centrality Parameter (NCP) = 0.0
- 90 Percent Confidence Interval for NCP = (0.0 ; 4.07)
- Minimum Fit Function Value = 0.0036
- Population Discrepancy Function Value (F0) = 0.0
- 90 Percent Confidence Interval for F0 = (0.0 ; 0.077)
- Root Mean Square Error of Approximation (RMSEA) = 0.0
- 90 Percent Confidence Interval for RMSEA = (0.0 ; 0.28)
- P-Value for Test of Close Fit (RMSEA < 0.05) = 0.68
- Expected Cross-Validation Index (ECVI) = 0.36
- 90 Percent Confidence Interval for ECVI = (0.36 ; 0.44)
- ECVI for Saturated Model = 0.38
- ECVI for Independence Model = 0.50

Chi-Square for Independence Model with 6 Degrees of Freedom = 18.58
- Independence AIC = 26.58
Model AIC = 18.19  
Saturated AIC = 20.00  
Independence CAIC = 38.61  
Model CAIC = 45.26  
Saturated CAIC = 50.07  

Normed Fit Index (NFI) = 0.99  
Non-Normed Fit Index (NNFI) = 1.39  
 Parsimony Normed Fit Index (PNFI) = 0.16  
 Comparative Fit Index (CFI) = 1.00  
 Incremental Fit Index (IFI) = 1.05  
 Relative Fit Index (RFI) = 0.94  

Critical N (CN) = 1863.54

Root Mean Square Residual (RMR) = 0.19  
Standardized RMR = 0.016  
Goodness of Fit Index (GFI) = 1.00  
Adjusted Goodness of Fit Index (AGFI) = 0.98  
Parsimony Goodness of Fit Index (PGFI) = 0.100

Time used: 0.020 Seconds

Chi-square=0.19, df=1, p-value=0.66124, RMSEA=0.000