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# The Effect of CIO's Transformational Leadership on Empowerment and Leadership Performance: An Analysis Using Structural Equational Modeling\*

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## Abstract

This paper presents a cognitive model which describes the effect of a CIO's transformational leadership on empowerment and leadership performance. The empirical literature on transformational leadership and empowerment demonstrates strong effects on leadership performance, but the literature has been limited to inquiries dealing with one of these issues. However, there have been little articles that explain the relationships among them. This paper attempts to discover the relationship among transformational leadership, empowerment, and leadership performance using the structural equation modeling (SEM). The results of analysis are summarized as follows: 1) the CIO's transformational leadership is positively related to subordinate empowerment, 2) the CIO's transformational leadership is positively related to leadership performance, 3) the subordinate empowerment is positively related to leadership performance, and 4) transformational leadership has a direct positive effect on leadership performance and also an indirect positive effect on leadership performance by empowerment.

**Keywords:** CIO, transformational leadership, empowerment, structural equation modeling

## 1. Introduction

Much of research on the Information Systems (IS) executives, namely the CIO (Chief Information Officers), has focused on leadership role as not that of technician but that of management (Ives & Olson, 1981; Leitheiser, 1992; Stephens et al., 1992; Grover et al., 1993; Applegate & Elam, 1992). Although much research has focused on the CIO's role or position, leadership in an information systems department has not been fully addressed. This paper presents transformational leadership as the alternative to a CIO's leadership. The empirical literature on transformational leadership or empowerment demonstrates that these qualities have profound effects on leadership performance. However, those who have dealt with the issue have limited inquiry to a single equation. No other research than this has explained the process by which these effects are achieved, and the relationship among all the variables involved. A cognitive model is presented on the effect of a CIO's transformational leadership on empowerment and leadership performance. For this study, the structural equation modeling (SEM) technique was used. After addressing the importance and rationale of this study, the hypotheses to be tested and research methodology adopted are discussed in

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the ensuing chapters. Next, the data analysis is presented. Finally, the results are interpreted from a managerial perspective.

## **2. Importance of The Research**

Since Ives and Olson (1981) who called the role of IS leader as that of a manager, not a technician, substantial research about IS leadership has begun to emerge. For the first time, Synnott and Gruber (1981) used the term of CIO, which emphasizes the managerial role of IS executives. Rockart (1982) predicted that future IS executives would be required to have an in-depth understanding of the business to complement their technical knowledge. In the 1990's, profound research about the role of CIO was carried out. Leitheiser (1992) suggested that to meet the information processing needs of firms, MIS managers have to manage their human resources effectively. Subsequent research recommended that the CIO should be an executive rather than a functional manager (Stephens et al., 1992; Feeny et al., 1992), have the ability to bring a broad business perspective to the position (Applegate & Elam, 1992), and be in charge of the spokesman and liaison role (Grover et al., 1993). Most IS research about the CIO has focused on changing the role of the IS leader, but failed to state what kind of leadership is needed to achieve the higher performance. Today's changing business environment needs new approaches to CIO leadership. This paper suggests that the alternative to CIO leadership is the transformational leadership that Burns (1978) and Bass (1985) introduced. This study also analyzes the effect of the CIO's transformational leadership on empowerment and leadership performance is also discussed.

## **3. Hypotheses**

### ***3.1 Transformational Leadership and Empowerment***

Transformational leaders are assumed to produce performance beyond ordinary expectations as they transmit a sense of mission, stimulate learning experiences, and arouse new way of thinking (Bass, 1985). This view of leadership has become a central notion in the study of leadership (Bryman, 1992). Bass and Avolio (1996) proposed four dimensions of transformational leadership: charisma, inspirational motivation, intellectual stimulation, and individual consideration. Empowerment is defined as increasing intrinsic task motivation manifested in a set of four cognitions reflecting an individual's orientation to his or her work role: meaning, competence, self-determination, and impact (Thomas & Velthouse, 1990). The previous literature has examined the relationship between transformational leadership and empowerment. Charismatic leaders enhance self-esteem by expressing high expectations of their followers and confidence in the followers' ability to meet such expectations (Yukl, 1989; Eden, 1990). By doing so, they enhance followers' perceived competence. This is a strong source of motivation (Bandura, 1986). In presenting a vision, a transformational leader's behavior (Sashkin, 1988; Bennis & Nanus, 1985) creates the Pygmalion effect (Rosenthal & Jacobson, 1968), in which increased leader expectations regarding subordinate's achievement produces an improvement in performance (Bass, 1985). Transformational leadership also increases the meaningfulness of goals and their related actions by showing how the goals are consistent with the collective past and future and thus creates a sense of "evolving". This is central for self-consistency and a sense of meaningfulness (McHugh, 1968; Shamir et al., 1993). Based on a review of the literature, the following hypothesis was developed.

Hypothesis 1. A CIO's transformational leadership will be positively related to subordinate empowerment.

### ***3.2 Transformational Leadership and Leadership Performance***

A large body of research has accumulated that indicates positive relationships between

transformational leadership and performance. Transformational leaders motivate followers to perform at higher levels, to exert greater effort, and to show more commitment than other types of leaders (Bass & Avolio, 1997; Yammarino & Bass, 1990). Transformational leaders are higher among leaders on various outcome variables (Yammarino & Bass, 1990; Bycio et al., 1995; Bass, 1985; Bass et al., 1987; Avolio & Bass, 1987; Waldman et al., 1990). Howell & Frost (1989) showed that under charismatic leaders, followers overcame group productivity norms and showed higher task adjustment, task performance, and adaptability. Yammarino et al. (1993) demonstrated that transformational leadership in two military contexts was positively related to performance evaluations and potential. Hater and Bass (1988) reported a positive relationship between charisma and performance ratings at Federal Express. Howell and Avolio (1993) have found a positive relationship between a charismatic leader and business unit performance. Recently, Lowe et al. (1996) positively correlated ratings of charismatic leadership with both organizational measures of effectiveness and subordinate perceptions of effectiveness. Based on the literature, the following hypothesis was developed.

Hypothesis 2. A CIO's transformational leadership will be positively related to leadership performance.

### ***3.3 Empowerment and Leadership performance***

Thomas and Velthouse (1990) argued that empowerment increases concentration, initiative, and resiliency, and thus heightens managerial effectiveness. Empowered people see themselves as competent and able to influence their jobs and work environment in meaningful ways. They are more likely to proactively execute their job responsibilities, and hence are likely to be seen as effective (Spreitzer, 1995). Competence results in effort and persistence in challenging situations (Gecas 1989). "Meaning" provides high concentration of energy (Kanter 1983), high goal expectations (Ozer & Bandura, 1990), and high performance (Locke et al., 1984). Self-determination provokes in learning, interest in activity, and resilience in the face of adversity (Deci & Ryan 1985). Self-determination produces greater flexibility, creativity, initiative, resiliency, and self-regulation (Kanter, 1967; Salaneik, 1977). Impact is associated with an absence of withdrawal from difficult situations and high performance (Ashforth, 1990). Based on these reviews of the literature, the following hypothesis was developed.

Hypothesis 3. Empowerment will be positively related to leadership performance.

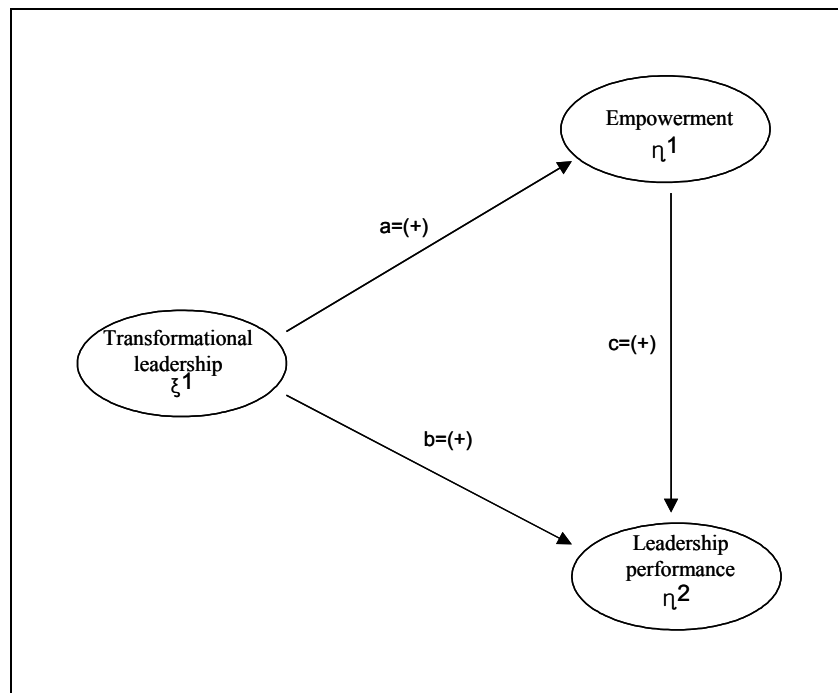
### ***3.4 The Causal Model***

According to previous research, transformational leadership has an effect on empowerment and leadership performance, and empowerment influences leadership performance. If transformational leadership, empowerment, and leadership performance are considered together, the following hypothesis can be developed.

Hypothesis 4. Transformational leadership will have a direct positive effect on leadership performance and also an indirect positive effect on leadership performance by empowerment

Hypothesis 4 can be expressed in summary form as shown in Figure 1. Each arrow expresses a linear hypothesis, with the lower case letters representing parameters to be estimated. The expected values of parameters are shown as +s.

**Figure 1. Causal Model**



## **4. Methodology**

### **4.1 Sample**

Data was obtained from a sample of information system force members reporting to a CIO. In order to collect data, we first identified the person in charge of CIO position in a number of ways. We searched the members of related-association (e.g., SIM Korea, CIO Forum, etc.) and then examined general business publications (e.g., CIO magazine, news papers, etc.). Finally we interviewed IS consultants and management search firms. Based on the availability of addresses, a total of 438 surveys were sent to subordinates of CIO's. Surveys with incomplete responses were eliminated, resulting in a total sample of 123 respondents (an approximately 28 percent return rate). The respondents' demographics revealed that representation from Manufacturing was 34 percent; from Information and Communication, 23 percent; from Financial Services, 16 percent; from Distribution, 4 percent; and others, 23 percent.

### **4.2 Measures**

To test the hypotheses of the research, the variables of transformational leadership, empowerment, and leadership performance were used. Table 1 presents brief definitions of these variables and their reliability of measurement.

Transformational leadership measurements. The most widely used measure of transformational leadership is the Multifactor Leadership Questionnaire (MLQ) developed by Bass which is composed of three categories of leadership factors: transformational leadership, transactional leadership, and non-transactional leadership. The MLQ revised by Bass and Avolio (1996) was used to measure subordinate perceptions of transformational leadership. This research is focused on the transformational leadership. Instead of using the full version, which includes three categories, five factors of transformational leadership were selected from the MLQ: idealized attributes, idealized behaviors, inspirational motivation, individual consideration, and intellectual stimulation. The questionnaires instructed the respondents to

judge how often their CIO displayed characteristics named in the questions, using a 5-point scale: frequently or always (4); fairly often (3); sometimes (2); once in a while (1); and not at all (0).

**Table 1. Data Collection Instruments and Reliabilities**

Variable	Measurement	Cronbach's Reliability Composite	Alpha of
Transformational Leadership	Idealized Attributes	Three five-point Likert items (i.e., CIO goes beyond their self-interests for the good of the group, displays a sense of power and competence, and reassures others that obstacles will be overcome.)	.8497
	Idealized Behaviors	Three five-point Likert items (i.e., CIO specifies the importance of having a strong sense of purpose, considers the moral and ethical consequences of decisions, and talks about their most important values and beliefs.)	.8147
	Inspirational Motivation	Four five-point Likert items (i.e., CIO talks optimistically about the future, talks enthusiastically about what needs to be accomplished, articulates a compelling vision of the future, and expresses confidence that goals will be achieved.)	.8489
	Intellectual Stimulation	Three five-point Likert items (i.e., CIO seeks differing perspectives when solving problems, encourage non-traditional thinking to deal with traditional problems, and gets others to look at problems from many different angles.)	.8206
	Individualized Consideration	Five five-point Likert items (i.e., CIO spends time teaching and coaching, treats others as individuals rather than just as members of the group, listens attentively to others' concerns, considers individuals as having different needs, abilities, and aspirations from other.)	.8227
Empowerment	Empowerment #1	Four five-point Likert items (i.e., The work I do is very important to me, and is meaningful to me (meaning). I am confident about my ability to do my job, and have mastered the skills necessary for my job (competence).)	.8206
	Empowerment #2	Five five-point Likert items (i.e., I have significant autonomy in determining how I do my job, and can decide on my own how to go about doing my work (self-determination). My impact on what happens in my department is large, I have a great deal of control over what happens in my department, and I have significant influence over what happens in my department (impact).)	.9006
Leadership Performance	Performance	Eight five-point Likert items (i.e., CIO is effective meeting others' job-related needs, effective in meeting organizational requirements, and leads a group that is effective (effectiveness). CIO uses methods of leadership that are satisfying, and works with others in a satisfactory way (satisfaction). CIO gets others to do more than they expected to do, heightens others' desire to succeed, and increases others' willingness to try harder (extra effort).)	.9489

**Table 2. Factor analysis**

	Component							
	1	2	3	4	5	6	7	8
idealized attribute #1							0.764	
idealized attribute #2							0.555	
idealized attribute #3							0.554	
idealized behavior #1					0.764			
idealized behavior #2					0.576			
idealized behavior #3					0.768			
inspirational motivation #1			0.757					
inspirational motivation #2			0.702					
inspirational motivation #3			0.591					

inspirational motivation #4		0.712							
intellectual stimulation #1								0.741	
intellectual stimulation #2								0.825	
intellectual stimulation #3								0.598	
individualized consideration #1		0.535							
individualized consideration #2		0.721							
individualized consideration #3		0.591							
individualized consideration #4		0.666							
individualized consideration #5		0.740							
meaning #1									0.540
meaning #2	0.516								0.618
competence #1									0.713
competence #1									0.753
self-determination #1	0.748								
self-determination #2	0.765								
impact #1	0.792								
impact #2	0.785								
impact #3	0.838								
effectiveness #1	0.735								
effectiveness #2	0.742								
effectiveness #3	0.796								
satisfaction #1	0.804								
satisfaction #2	0.820								
extra effort #1	0.700								
extra effort #2	0.693								
extra effort #3	0.762								
Rotation Sums of Squared Loadings	Eigen values	6.397	4.277	2.968	2.935	2.474	2.428	2.291	2.221
	Cumulative% of Variance	18.278	30.499	38.981	47.367	54.436	61.373	67.919	74.266

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 Rotation converged in 12 iterations.

**Empowerment Measurements.** A separate scale was used to measure empowerment, the four dimensions of empowerment being: meaning, competence, self-determination, and impact (Spreitzer, 1995). Each item was adapted from the previous research. The remaining items were taken directly from Tymon (1988). The competence items were adapted from Jones's (1986) self-efficacy scale, the self-determination items were adapted from Hackman and Oldham's (1980) autonomy scale, and the impact items were adapted from Ashforth's (1989) helplessness scale. Potential responses for each item ranged on a five-point Likert-type scale from 0 = "strongly disagree" to 4 = "strongly agree". Measurement of empowerment defined by Spreitzer (1995) was verified in terms of validity and reliability. However, as the result of factor analysis in this study, meaning and competence were grouped as a single factor, and self-determination and impact were classified together. We called the former empowerment #1 and latter empowerment #2. In the test of hypotheses, the newly classified two items were used.

**Leadership performance measurements.** Subordinate evaluations of the performance variables, namely, perceptions of leader effectiveness, satisfaction with leader, and extra effort were assessed using eight additional MLQ items developed by Bass and Avolio (1996). Questions were answered on a five-point Likert-type scale where 4 = "frequently or always" and 0 = "not at all." As the result of factor analysis, the performance variables were grouped in a single factor that was employed in the data analysis.

### 4.3 Test of Reliability and Construct Validity

The reliability of CIO's leadership, empowerment, and leadership performance was verified. Table 1 presents the reliability coefficients (Cronbach's alpha) associated with the measures employed in this study. According to Price and Mueller (1986), a standard coefficient alpha of 0.60 or higher is generally viewed as the acceptance level of a measure. All our reliability coefficients were acceptable, most of them in the 0.82-0.95 regions.

To measure construct validity, the factor analysis (principal components analysis) was conducted with varimax rotation. The eigenvalue greater than one rule was used as the criterion to extract the factors (Hair et al., 1987). Table 2 lists items and factor loadings from the exploratory factor analysis. Factor analysis resulted in eight factors explaining 74.3 percent of the overall variance. The factor analysis of responses about transformational leadership yielded the factors similar to the those by Bass and Avolio(1996), but it yielded a single factor about leadership performance. The four factors of empowerment developed by Spreizer (1995) were classified as two groups.

**Table 3. Pearson Product Moment Correlations for Observed Variables**

Variable (n=123)	X1	X2	X3	X4	X5	Y1	Y2	Y3	Mean	SD	No. of Items
Idealized attribute, X1	1								2.279	0.703	3
Idealized behavior, X2	0.596	1							2.081	0.652	3
Inspirational motivation, X3	0.607	0.586	1						2.238	0.627	4
Intellectual stimulation, X4	0.578	0.444	0.598	1					2.366	0.655	3
Individual consideration, X5	0.566	0.510	0.409	0.444	1				2.538	0.618	5
Empowerment #1, Y1	0.359	0.370	0.332	0.320	0.337	1			2.579	0.751	4
Empowerment #2, Y2	0.359	0.329	0.246	0.324	0.383	0.664	1		2.824	0.907	5
Leadership performance, Y3	0.660	0.591	0.575	0.584	0.616	0.478	0.458	1	3.008	0.846	8
ξ1=transformational leadership η1=empowerment η2=leadership performance ε, δ= errors in variables(i.e., measurement error) ζ=errors in equations λ, γ, β =parameters expressing linear relationships											

## 5. Data Analysis

Table 3 shows descriptive statistics (means, standard deviations) and intercorrelations for all variables used in the study. In order to test the research hypotheses, SPSS 9.0 and AMOS 4.0 structural equation modeling tools were used. A correlation matrix was used as input data and the method of estimation was maximum likelihood. The following results were found.

### 5.1 A CIO's transformational leadership will be positively related to subordinate empowerment(H1)

The t-value (=4.328) for a parameter estimate (=0.98) indicates that hypothesis 1 is significant at the 0.05 level. The test statistic ( $\chi^2=17.233$ ; d.f.=13; p=0.189) and the goodness-of-fit indices for the causal model (GFI (=0.962), AGFI (=0.918), and NFI (=0.952) are .90 or greater and RMR (=0.018) is .05 or less) demonstrate an acceptable fit. Thus, hypothesis 1 was accepted. According to previous literature, transformational leaders increase subordinate empowerment by articulating vision and mission or by presenting high expectation and self-confidence (Yukl, 1989; Eden, 1990; McHugh, 1968; Shamir et al., 1993; House, 1977; Bennis & Nanus, 1985). The results demonstrate that the results of the previous literature can be applied to an IS department.



## ***5.2 A CIO's transformational leadership will be positively related to leadership performance(H2)***

The t-value (=7.918) for a parameter estimate (=1.653) indicates that hypothesis 2 is significant at the 0.05 level. The test statistic ( $\chi^2=15.716$ ; d.f.=9;  $p=0.073$ ) and the goodness-of-fit indices for the causal model (GFI (=0.960), AGFI (=0.907), and NFI (=0.957) are .90 or greater and RMR (=0.015) is .05 or less) demonstrate an acceptable fit. Thus, hypothesis 2 was accepted. Based on the review of the literature, transformational leadership has an effect on leadership performance composed of extra effort, satisfaction with leader, and effectiveness of work unit (Chamir et al., 1993; Bass, 1985; Bass et al., 1987; Avolio & Bass, 1987; Waldman et al., 1987; Howell & Frost, 1989; Yammarino & Bass, 1990; House et al., 1991; Keller 1992). The result shows that the results of previous literature are similarly applicable to an IS department.

## ***5.3 Subordinate empowerment will be positively related to leadership performance(H3)***

The t-value (=5.704) for a parameter estimate (=0.672) indicates that hypothesis 3 is significant at the 0.05 level. However, the test statistic and the goodness-of-fit indices for the causal model did not demonstrate an acceptable fit, because the number of distinct sample moments (6) was equal to the number of distinct parameters to be estimated (6), resulting in a saturated model (degree of freedom 0). In order to supplement statistical verification, a regression was conducted. Here, the dependent variable was leadership performance and independent variables were empowerment #1 and empowerment #2. The result of analysis,  $R^2$  (= 0.462), adjusted  $R^2$  (=0.453), and F-value (=51.48;  $p=0.00$ ) indicated that hypothesis 3 was significant at the 0.05 level (standardized coefficients beta of empowerment #1=0.513,  $p=0.00$ ; standardized coefficients beta of empowerment #2=0.305,  $p=0.00$ ). According to previous research, empowerment produces greater flexibility, creativity, initiative, resiliency, and self-regulation. Thus it results in high concentration of energy, high goal expectations, and high performance (Thomas & Velthouse, 1990; Spreitzer, 1995; Gecas, 1989; Kanter, 1983; Locke et al., 1984; Bandura, 1977; Deci & Ryan, 1989; Shapira, 1989; Ashforth, 1990). This outcome demonstrates that the results of previous research are likewise applicable to an IS department.

## ***5.4 Transformational leadership will have a direct positive effect on leadership performance and also an indirect positive effect on leadership performance by empowerment(H4)***

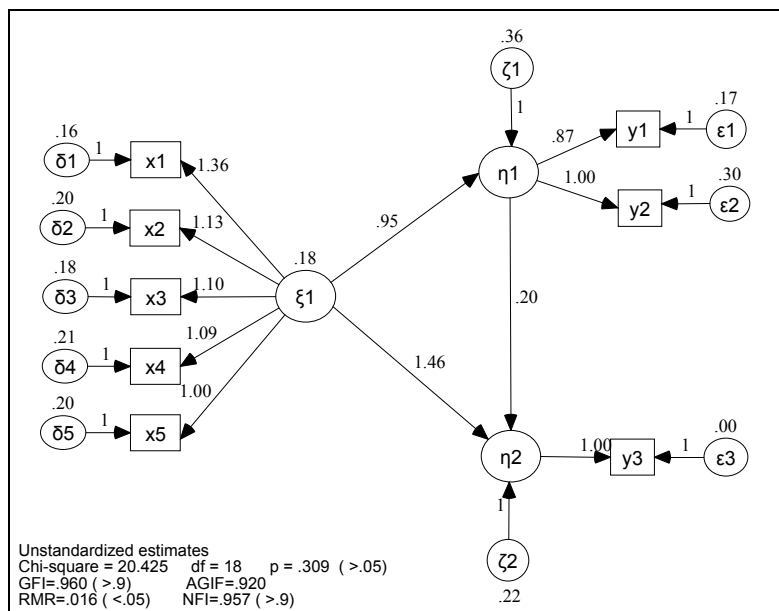
The results shown in figure 2 (a=0.955,  $t=4.571$ ; b=1.458,  $t=6.744$ ; c=0.200,  $t=2.038$ ) indicate that hypothesis 4 is significant at the 0.05 level (parameter a, b, and c refer to figure 1.). The test statistic for the causal model (i.e.,  $\chi^2=20.425$ ; d.f.=18;  $p=0.309$ ) demonstrates an acceptable fit. Thus, hypothesis 4 was accepted. The total effect of transformational leadership on leadership performance was 1.652, the direct effect was 1.48, and the indirect effect was 0.172. The direct effect of transformational leadership on empowerment was 0.94. The effects of transformational leadership on empowerment and leadership performance were positive, indicating that empowerment or leadership performance increased when transformational leadership increased. Because transformational leadership has not only a direct positive effect on leadership performance, but also an indirect positive effect on leadership performance by empowerment, it is important that a CIO should exert transformational leadership in an organization. However, we should consider that the squared multiple correlation (SMC) of transformational leadership, namely the determinant of empowerment was weak (0.309). Perhaps because this study did not consider the various variables of empowerment proposed by Thomas and Velthouse (1990); locus of control,

information, and rewards. Further research needs to be done on this point.

## 6. Results

This research took an initial step toward developing and validating a causal model of relationships among transformational leadership, empowerment, and leadership performance. This paper focused on the effects of transformational leadership on subordinates. In short, transformational leadership has a direct positive effect on leadership performance and that improved leadership activates subordinate empowerment, which in turn affects further performance. This empowerment has a positive effect on the behaviors and psychological states of subordinates. Based on the previous literature, the research hypotheses were developed. Data was obtained from a sample of IS workers reporting to a CIO. The measure, based on scales adapted from previous research, provides evidence for the reliability and the construct validity. The results of analysis are as follow:

**Figure 2. Causal Model for Testing the Relationships among Transformational Leadership, Empowerment, and Leadership Performance**



**Table 4. Maximum Likelihood Estimates for The Hypothesis 4**

Parameter	Unstandardized Solution	Standardized Solution
$\lambda_{y_1}$	.866(6.440) <sup>a</sup>	.833
$\lambda_{y_2}$	1.000*	.797
$\lambda_{y_3}$	1.000*	1.000
$\lambda_{x_1}$	1.363(7.923)	.816
$\lambda_{x_2}$	1.127(7.184)	.728
$\lambda_{x_3}$	1.097(7.260)	.737
$\lambda_{x_4}$	1.095(6.974)	.704
$\lambda_{x_5}$	1.000*	.681
$\beta_{21}$	.200(2.038)	.171
$\gamma_{11}$	.955(4.571)	.556
$\gamma_{21}$	1.458(6.744)	.726
$\psi_{11}$	.361(4.063)	
$\psi_{22}$	.219(5.952)	
$\phi_{11}$	.177(4.093)	
$\theta_{\delta_{11}}$	.165(5.875)	.165
$\theta_{\delta_{22}}$	.200(6.730)	.200
$\theta_{\delta_{33}}$	.180(6.672)	.180
$\theta_{\delta_{44}}$	.216(6.871)	.216
$\theta_{\delta_{55}}$	.204(6.982)	.204
$\theta_{\epsilon_{11}}$	.172(3.034)	.172
$\theta_{\epsilon_{22}}$	.300(3.765)	.300
$\theta_{\epsilon_{33}}$	.000*	.000*
$\theta_{\epsilon_{44}}$	20.425	20.425
$\theta_{\epsilon_{55}}$	18	18
$\theta_{\epsilon_{66}}$	.309	.309

<sup>a</sup> t-values of estimates in parentheses

\* parameter values fixed by scaling

First, CIO's transformational leadership is positively related to subordinate empowerment. Transformational leader in a CIO position increases subordinate empowerment by articulating vision and mission or presenting high expectation and self-confidence. Second, a CIO's transformational leadership is positively related to leadership performance. The transformational leadership has an effect on leadership performance composed of extra effort, satisfaction with the leadership, and effectiveness of the work unit. Third, subordinate empowerment is positively related to leadership performance. Empowerment produces greater flexibility, creativity, initiative, resiliency, and self-regulation. Thus it results in high concentration of energy, high goal expectations, and high performance. Finally, transformational leadership has a direct positive effect on leadership performance and also an indirect positive effect on leadership performance by empowerment. The effects of transformational leadership on empowerment and leadership performance are positive, indicating that empowerment or leadership performance increases when transformational leadership increases. Because transformational leadership has not only a direct positive effect on leadership performance, but also an indirect positive effect on leadership performance by empowerment, it is important that a CIO should exert transformational leadership in organization.

This research attempts to discover the relationships of transformational leadership, empowerment and leadership performance using structural equation modeling (SEM). The empirical research on transformational leadership or empowerment demonstrates that both of these have effects on leadership performance, but have dealt with limited inquiry into a single equation. None of the previous research explain the relationships among these variables. Empowerment is a tantalizing notion that seems to offer organizations the promise of more

focused, energetic, and creative work from employees. Locus of control, self-esteem, access to information, rewards etc. (Thomas & Velthous, 1990) have been suggested as factors affecting empowerment. This study reveals that transformational leadership is one of the factors influencing empowerment and provides a rationale for increasing empowerment of individuals, groups, or organizations. It is relevant to appointing, appraising, or fostering the CIO role in organization. Therefore, this study suggests that transformational leadership is advisable in appointing a CIO. Transformational leadership leads to success for a CIO. This research will be applicable to educate leadership to employees throughout an organization to achieve success.

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