

The Role of Non-Financial Measures in the Relationship between Servant Leadership and Organizational Effectiveness

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Abstract

This study aims seek to the role of non-financial measures in the relationship between servant leadership and organizational effectiveness. The result of analyzing is as follows. First, servant leadership did not directly affect organizational effectiveness. Second, servant leadership had a positive effect on the use of non-financial measures. Third, the use of non-financial measures had a positive effect on organizational effectiveness. Such results show that servant leadership has a positive effect on organizational effectiveness through the use of non-financial measures.

Keywords: Non-Financial Measures, Organizational Citizenship Behavior, Organizational Commitment, Organizational Effectiveness, Servant Leadership

1. Introduction

Unlike in the past, leaders can better achieve their organizational goals by recognizing intellectual workers as a colleague and partner rather than a subordinate¹. Fast changes in the social and economic environment require an open and ethical servant leadership to maximize opportunities and optimize resources². Servant leadership focuses on working for others and devoting oneself to meeting the needs of the employees, customers and community³. According to many preceding studies, servant leadership was shown to have a positive effect on organizational effectiveness⁴⁻⁶. Meanwhile, a lot of information is needed to reduce uncertainty in the environment and make a right decision. In order to properly implement corporate strategy, various performance measurement indicators must be included in the Performance Measurement System (PMS) linked to strategies. But when performance measurement is done at corporations, financial statements are traditionally used.

The short-term, past-oriented and one-dimensional aspect of financial statements prevent the use of various longer-term, future-oriented information⁷. Many companies include non-financial measures when establishing and implementing a PMS. This is because non-financial measures can provide longer-term information that is future-oriented and more comprehensive. Many preceding studies show that the use of non-financial measures contributes to improved organizational performance⁸⁻¹¹. Leadership can directly affect the behavior and attitude of employees but it is more likely that what the leader promotes affects the behavior and attitude of employees through certain institutions or processes. PMS is a tool to implement strategies and achieve organizational goals. Therefore what the leader promotes is fleshed out through the PMS. PMS that reflects the intention of the leader in detail affects the behavior and attitude of employees. But many preceding studies on servant leadership did not take into consideration PMS and mostly analyzed only the direct effects of servant leadership on

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organizational effectiveness. Therefore this study seeks to analyze the effect of how servant leadership linked with PMS.

2. Theoretical Background and Hypotheses

2.1 Servant Leadership and Organizational Effectiveness

Servant leadership refers to leadership based on respect for fellow human beings and in particular one's employees to provide them with opportunities to tap into their creativity and potential so that they can grow and create a true community¹². A servant leader communicates on a personal level to better understand his subordinates' capabilities, needs, goals and potential. Based on an understanding of the unique characteristics and interests of each individual, the leader helps his subordinate reach his goal. Servant leadership, unlike traditional leadership, uses modesty and an ethical exercise of power. Not only is there a true relationship between the leader and the employees, but the focus is on establishing a supportive environment for the employees¹³.

While there are various definitions of organizational effectiveness depending on the scholar, in general, it is seen as organizational performance or goals being met¹⁴. Categorized the evaluation criteria for organizational effectiveness into economic indicators and psychological indicators. Profitability, growth and revenues fall into economic indicators, while employees' satisfaction with one's job, work commitment and organizational citizenship behavior fall into psychological indicators. In this study, organizational commitment and organizational citizenship behavior are set as variables for organizational effectiveness, as they are most commonly used in preceding studies on leadership. Organizational commitment is the tendency of the member to wish to continuously work at the current organization, and refers to the identification with and involvement in a specific organization¹⁵. Components of organizational commitment include strong trust and attachment to the organization's goals and values, a willingness to devote oneself to the organization and the desire to remain as a member of the organization¹⁶. Organizational commitment can be categorized into affective commitment, continuance commitment and normative commitment¹⁷. Organizational citizen behavior refers to cooperative, constructive and voluntary behavior by the employees done without expecting

any formal compensation¹⁸. Organizational citizen behavior is more than the role expected of the organizational members from a viewpoint of their work tasks. Members voluntarily carry out such behavior for their colleagues and organization¹⁹.

A servant leader helps the members recognize the importance and meaning of their work so that they can have a sense of ownership and stay committed to the organization²⁰. A servant leader inspires members of the organization to devote themselves to the organization. A number of preceding studies show that servant leadership had a positive effect on organizational commitment^{4,6,21}. A servant leader presents himself as a role model to the employees so that they can imitate his behavior, and leads them to voluntarily act for the benefit of their colleagues and their organization in order to return the support they received from the leader¹⁹. Numerous preceding studies have shown that servant leadership positively affects organizational citizenship behavior^{5,6,19}. Based on these preceding studies, the following hypotheses were established.

Hypothesis 1: Servant leadership will have a positive effect on organizational effectiveness.

1-1 Servant leadership will have a positive effect on organizational commitment.

1-2 Servant leadership will have a positive effect on organizational citizenship behavior.

2.2 Servant Leadership and the Use of Non-Financial Measures

Corporations establish their goals according to their vision and prepare a PMS to aid in achieving the goals. PMS is an important tool for management and control, used to verify and evaluate whether the organizational members are behaving in accordance with pre-established goals. PMS is the official mechanism for collecting, processing and communicating information on the organization's activities²². Through the design and use of PMS, corporations motivate its members and attempt to harmonize individuals' goals with those of the organization. But the traditional performance evaluation indicator, the financial statements, tends to be short-term, past-oriented and one-dimensional, constraining their ability to play such a role^{7,23}. While traditional PMS focused on financial and historic information within the organization, contemporary PMS provides external, non-financial and future-oriented information²⁴. Therefore recently

corporations, in order to overcome such constraints of financial measures, tend to use non-financial measures in various forms for performance evaluation. Non-financial measures provide information on how the members' behaviors are linked with organizational goals and through which process they affect organizational goals. A servant leader is employee-oriented and focuses mostly on the services themselves and his subordinates²⁵. A servant leader devotes himself to ensuring that his subordinates grow into servant leaders themselves who are altruistic. Therefore, in order to provide opportunities to develop various capabilities in employees, he is expected to use various non-financial measures for performance evaluation. Servant leadership can be characterized with features such as foresight, development of people and community-building. Foresight refers to presenting a clear vision and goal to motivate members to behave in line with such goals. Development of people refers to helping employees grow through encouragement and care. Community-building refers to encouraging conversation and collaboration to form a community and establishing a system so that the meaning of tasks can be shared. Therefore a servant leader is expected to more commonly use non-financial measures that are linked to the vision and goals to help employees grow over the long-term and provide more information related to the task at hand.

A manager will design and use a PMS in accordance with his goals. This is because organizational members' behaviors change depending on which criteria are used for performance evaluation²⁶. Servant leadership aims at helping employees grow, and thus focuses on the needs of the employees²⁷. As such, a servant leader is expected to help his employees learn and grow over the long-term and promote improvement of the organization's internal processes in the meantime²⁸ showed that the interactive use of PMS was more common than initiating structure in Consideration Leadership, while in the study by²⁹, the interactive use of PMS was shown to have a positive correlation with the diversity of performance measures. Moreover, in the study by³⁰, servant leadership proved to have a positive effect on the use of non-financial measures. As such, the following hypotheses were established. Hypothesis 2: Servant leadership will have a positive effect on the use of non-financial measures.

2.3 Use of Non-Financial Measures and Organizational Effectiveness

The use of various performance evaluation measures including non-financial measures provide employees with information on which activities they need to focus on and guide employees towards the direction the organization wants. Increasing the number of evaluation items reduces the agency costs by providing diverse information and minimizes side effects. Organizational members are motivated to focus their activities on items that are evaluated, and the use of various performance evaluation measures can reduce the counterproductive effects of PMS³¹. ³²Showered that the use of non-financial measures has a positive effect on procedural justice and organizational commitment, while procedural justice and organizational commitment, in turn, had a positive effect on managerial performance. In the study by³³, strategic performance measurement systems were shown to have a positive effect on distributive justice and procedural justice, and procedural justice was shown to have a positive effect on organizational citizenship behavior. The study by³⁴ showed that comprehensive performance measurement systems had a positive effect on role clarity and psychological empowerment. There are also numerous studies that prove justice, role clarity and feedback on tasks are leading indicators of organizational commitment and organizational citizenship behavior. When non-financial measures are used for performance evaluation, more information is provided to the organization's members. This increased information helps the performance evaluation process to be perceived as more just, and members are better able to understand their roles. Enhanced fairness and role clarity will bring about increased organizational commitment and organizational citizenship behavior. Based on these preceding studies, the following hypotheses were established.

Hypothesis 3: The use of non-financial measures will have a positive effect on organizational effectiveness.

3-1 The use of non-financial measures will have a positive effect on organizational commitment.

3-2 The use of non-financial measures will have a positive effect on organizational citizenship behavior.

3. Study Design

3.1 Measurement of Variables

Servant leadership was measured in this study using the Servant Organizational Leadership Assessment (SOLA) developed by³⁵ and the tool developed by³⁵ after

adjustment. Total of 24 items were measured on a seven-point scale. tool originally developed by¹⁰. Five categories of value drivers were measured on a seven-point scale¹⁰. Organizational commitment was measured using a revised version of a questionnaire originally developed by¹⁶. Six categories were measured on a seven-point scale¹⁶. Organizational citizenship behavior was measured using seven categories with a revised version of the questionnaires originally developed by^{32,33}. All items were measured on 7-point Likert type scales.

3.2 Data Collection

A questionnaire was conducted on Korean Federation of Community Credit Cooperatives for the study. Managers of the Federation of Community Credit Cooperatives who were expected to have an overall understanding on PMS were selected as subjects. The questionnaire was sent to each branch via E-mail or Fax, with one copy allocated for one subject. A total of 88 questionnaires were returned.

4. Empirical Analysis

4.1 Descriptive Statistics

In terms of total assets, of the total of 88 sampled corporations, 13 firms (14.8%) had a total asset of less than 50 billion Korean won, 42 corporations (47.7%) had an asset between 50 billion and 100 billion Korean won, and 33 corporations (37.5%) had total assets worth more than 100 billion Korean won. In terms of the departments to which the subjects belonged, 46 subjects (52.3%) were from Overall Management, 18 subjects (20.5%) were from General Affairs, 11 subjects (12.5%) were from Loans, 9 subjects (10.2%) were from savings, and 4 subjects (4.5%) were from other departments. 51 of them (58%) had a title of Director, 14 (15.9%) were Manager/Vice Manager, and 23 of them (26.1%) were Assistant Manager. The technical statistics of measured variables are shown in Table 1.

4.2 Reliability and Validity Analysis

For reliability, the Cronbach's alpha coefficient was calculated. A value of 0.7 or more was considered as indicating satisfactory reliability. Since all coefficients of the variables were 0.7 or higher, the scales have a high internal consistency and factorial validity. In order to

Table 1. Descriptive statistics of observed variable

	Minimum Value	Maximum Value	Average	Standard Deviation
SL	1	7	4.84	1.340
NFM	1	7	5.31	1.039
OC	1	7	5.16	0.956
OCB	1	7	5.34	0.693

Note: SL = Servant Leadership, NFM = Non-Financial Measures, OC = Organizational Commitment, OCB = Organizational Citizenship Behavior

identify the factor structure and reduce items, a varimax rotation method with principal component analysis was used and only questions with a factor loading of 0.5 or higher were selected. Questions number 1 and 6 for the organizational citizenship behavior were deleted based on low factor loadings (<.50). As a result of principal component analysis, four factors were retained (eigenvalue>1). This is summarized in Table 2 and Table 3.

Table 2. Reliability analysis

Questionnaire category	Number of questions	Chronbach's α
Servant leadership	24	0.987
Use of non-financial measures	5	0.900
Organizational commitment	6	0.922
Organizational citizenship behavior	7	0.764

4.3 Measurement Model Analysis

To test the study hypothesis, SMART PLS (Partial Least Squares) was used for analysis. PLS was preferred over covariance-based techniques because of the following reasons: First, compared to the covariance-based approach such as LISREL and AMOS, PLS places much less restrictions on matters such as sample size and residual distributions to achieve sufficient statistical power. Second, it allows us to model latent variables and simultaneously assess both measurement and structural models³⁷. Thus, the interest in PLS has recently been increased among the researchers in management accounts³⁸. To assess convergent and discriminant validity of the measures, PLS was used for observing the correlations between items of the various scales.

The correlation coefficient between variables and the Average Variance Extracted (AVE) were calculated. The result is as shown in Table 4 and Table 5. Convergent validity refers to the degree to which multiple attempts to measure the same concept by maximally different methods are in agreement. If the factor loading has a value of 0.6 or higher, it is estimated that individual items have reliability³⁹. In the initial analysis, the factor loading for the number 7 category of organizational citizenship behavior was less than 0.5, and thus this item was removed for a second analysis. The result was a factor loading of higher than 0.6 for all variables, indicating that all measurement items have convergent validity. Discriminant validity examines the difference between constructs. When the two requirements presented⁴⁰ by ¹ then discriminant validity is satisfied. Table 4 shows that the factor loadings of each construct for all measurement items are greater than the cross loading value of other constructs. Moreover, Table 5 shows that the square value of the AVE value of the variables represented in the diagonal line is greater than all of the correlation coefficients with other variables. Therefore, this result suggests that discriminant validity is satisfied. Internal consistency was analyzed using Cronbach's alpha, composite reliability and AVE. It is considered that there is internal consistency when Cronbach's alpha and composite reliability are 0.7 or higher, and AVE value is 0.5 or higher⁴¹. As seen in Table 6, all variables used in this study model had an internal consistency value that was higher than each threshold, indicating a high level of internal consistency. Global of fit that reflects the characteristics of PLS is calculated by multiplying the mean value of the R^2 of all the endogenous variables by the mean value of communality. The square root of this value is the global of fit. If this value is 0.36 or higher, it is considered that the model has a high degree of model fit⁴². The global of fit of the PLS path model used in this study is 0.3828 as seen in Table 6 and thus has a very high model fit.

4.4 Hypotheses Testing using PLS Structural Model

The examination of the hypotheses in this study was carried out using the path coefficient of the PLS structural model.

The t value was calculated by generating repeated sub-sampling (of 500) through bootstrapping technique, which is a method to estimate measured values with normal distribution through sampling with replacement from the standard data. Bootstrapping is a method used to evaluate the significance of the path coefficient in the PLS path model⁴³. The result of PLS analysis is as shown in Table 7.

The results show that servant leadership did not have any significant effect on organizational commitment or organizational citizenship behavior. The result shows that servant leadership has a significantly positive effect on the use of non-financial measures. And the result shows that the use of non-financial measures has a significantly positive effect on organizational commitment and organizational citizenship behavior. Consequently, the results indicate that servant leadership does not have a direct effect on organizational effectiveness but what is promoted by the servant leader is reflected onto the design and usage of PMS, which in turn, improves organizational effectiveness

5. Conclusion

This study conducted an empirical analysis on servant leadership which has garnered much attention in the field of human resources management in recent years, and the use of non-financial measures which has been consistently emphasized in the field of managerial accounting, and how the two affect organizational effectiveness. The study results show that servant leadership, while not having a direct effect on organizational effectiveness, does affect organizational commitment and organizational citizenship behavior through the use of non-financial measures. This result suggests that in order for leadership to be effective, performance evaluation measures that reflect what the leader promotes are necessary.

Many preceding studies on managerial accounting have noted that the use of non-financial measures contribute to better responses to uncertainty in the environment, as well as to better implementation of organizational

¹First, the loading for the factor that has a theoretical relationship in the factor analysis must be greater than the loaded value of the factor that does not have a relationship. Second, the square root of the AVE for all variables must be greater than the correlation coefficient with other variables.

Table 3. Validity analysis

SL		NFM		Organizational Effectiveness		
					OC	OCB
SL1	.907	NFM1	.855	OC1	.790	.047
SL2	.908	NFM2	.915	OC2	.868	-.008
SL3	.866	NFM3	.787	OC3	.853	.120
SL4	.929	NFM4	.878	OC4	.858	.121
SL5	.852	NFM5	.795	OC5	.823	.221
SL6	.897			OC6	.869	.049
SL7	.827			OCB2	.136	.782
SL8	.904			OCB3	.094	.902
SL9	.870			OCB4	.170	.673
SL10	.915			OCB5	.083	.754
SL11	.918			OCB7	-.053	.563
SL12	.766					
SL13	.892					
SL14	.752					
SL15	.887					
SL16	.804					
SL17	.898					
SL18	.926					
SL19	.911					
SL20	.937					
SL21	.857					
SL22	.920					
SL23	.882					
SL24	.904					
Eigenvalue	18.658	Eigenvalue	3.593	Eigenvalue	4.341	2.846
% of Variance	77.740	% of Variance	71.862	% of Variance	39.466	39.466
Cumulative %	77.740	Cumulative %	71.862	Cumulative %	39.466	65.335

strategies and to improved organizational performance. However, there has been a lack of studies that linked the use of non-financial measures and leadership, or investigated how the use of non-financial measures may affect the behavior and attitude of employees. This study is meaningful in that it conducted an empirical analysis on the relationship between servant leadership and PMS, an area rarely studied in the past. However, factors other than servant leadership that may affect PMS were not taken into account in this study, and there may be an issue with how representative the subjects are, given that only one copy of the questionnaire was collected from

each department. Follow-up studies should address these limits and build on the results of this study to identify the effect that servant leadership, PMS, organizational commitment and organizational citizenship behavior may have on financial and operational performance of an organization.

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Table 4. Cross loading analysis in PLS

	SL	NFM	OC	OCB
SL1	0.9055	0.2848	0.1506	-0.0176
SL2	0.9073	0.2978	0.1333	0.0145
SL3	0.8644	0.2419	0.0804	-0.0320
SL4	0.9281	0.3170	0.1202	-0.0188
SL5	0.8470	0.1770	0.1801	-0.1510
SL6	0.8956	0.2123	0.1683	-0.0748
SL7	0.8254	0.2002	0.1825	-0.0571
SL8	0.9064	0.3568	0.2074	0.0621
SL9	0.8717	0.2923	0.1446	0.0245
SL10	0.9145	0.2859	0.2183	-0.0052
SL11	0.9191	0.2698	0.1587	-0.0590
SL12	0.7634	0.2154	0.1244	-0.0638
SL13	0.8946	0.3738	0.1874	0.0428
SL14	0.7568	0.2520	0.1700	0.0637
SL15	0.8909	0.3580	0.2165	0.0014
SL16	0.8053	0.2436	0.1811	0.0889
SL17	0.8978	0.2057	0.1938	0.0113
SL18	0.9281	0.3100	0.1821	0.0760
SL19	0.9125	0.2907	0.2415	0.0349
SL20	0.9393	0.3326	0.2403	0.0506
SL21	0.8519	0.2151	0.0954	-0.0514
SL22	0.9196	0.2938	0.1651	0.0057
SL23	0.8779	0.2228	0.1518	-0.0520
SL24	0.9017	0.2672	0.1749	0.0254
NFM1	0.3460	0.8641	0.4325	0.3682
NFM2	0.2774	0.9178	0.4377	0.3781
NFM3	0.2106	0.7797	0.2699	0.3852
NFM4	0.2539	0.8727	0.3378	0.4052
NFM5	0.2385	0.7956	0.3653	0.3507
OC1	0.2340	0.4196	0.8062	0.1611
OC2	0.2991	0.3026	0.8565	0.1103
OC3	0.1263	0.2845	0.8438	0.2428
OC4	0.1246	0.3726	0.8557	0.2489
OC5	0.1104	0.4615	0.8575	0.3121
OC6	0.1083	0.3391	0.8706	0.1698
OCB2	-0.1136	0.3680	0.2233	0.8202
OCB3	-0.0046	0.4096	0.1939	0.9138
OCB4	0.0641	0.2843	0.2307	0.6870
OCB5	0.1086	0.3530	0.1648	0.7795

Table 5. Discriminant validity

	SL	NFM	OC	OCB
SL	0.8815			
NFM	0.3168	0.8475		
OC	0.1969	0.4402	0.8486	
OCB	0.0034	0.4439	0.2493	0.8042

Note: The diagonal elements represent the square root of AVE.

Table 6. Overall reliability test

	AVE	Composite Reliability	R ²	Cronbach's alpha	Communality
SL	0.7771	0.9882		0.9874	0.7771
NFM	0.7184	0.9270	0.1004	0.9010	0.7184
OC	0.7202	0.9391	0.1975	0.9226	0.7202
OCB	0.6468	0.8788	0.2180	0.8159	0.6468
Global of Fit of suggested model				0.3508	

Table 6. Hypotheses test using PLS technique

	Path	Path Coefficient	t Value	Test Result
H1-1	SL → OC	0.0639	0.5390	Not Support
H1-2	SL → OCB	-0.1525	1.4026	Not Support
H2	SL → NFM	0.3168	3.9767**	Support
H3-1	NFM → OC	0.4922	5.3750**	Support
H3-2	NFM → OCB	0.4200	4.2060**	Support

Note: *p < 0.05, **p < 0.01.

7. References

- Drucker PF. Knowledge-worker productivity: The biggest challenge. *Calif Manag Rev.* 1999; 41(2):79–94.
- Wong PT. The challenge of open leadership. Position Paper for the Graduate Program in Counseling Psychology. Trinity Western University; 1997.
- Greenleaf RK. The servant as leader. NY: Paulist Press; 1970.
- Hampton R, Dubinsky AJ, Skinner SJ. A model of sales supervisor leadership behavior and retail salespeople's job-relates outcomes. *Journal of the Academy of Marketing.* 1986; 14:33–43.
- Ehrhart MG. Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Person Psychol.* 2004; 57:61–94.
- Liden RC, Wayne SJ, Zhao H, Henderson D. Servant leadership: Development of a multidimensional measure and multi-level assessment. *Leader Q.* 2008; 19:161–77.
- Kaplan RS, Norton DP. The balanced scorecard: Measures that drive performance. *Harv Bus Rev.* 1992; 70(1):71–9.
- Banker RD, Potter G, Srinivasan D. An empirical investigation of an incentive plan that includes non-financial performance measures. *Account Rev.* 2000; 75(1):65–92.
- Hoque Z, James W. Linking balanced scorecard measures to size and market factors: Impact on organizational performance. *J Manag Account Res.* 2000; 12(1):1–17.
- Ittner CD, Larcker DF, Randall T. Performance implications of strategic performance measures in financial services firms. *Account Org Soc.* 2003; 28(7):715–41.
- Van der Stede WA, Chow CW, Lin TW. Strategy, choice of performance measures, and performance. *Behav Res Account.* 2006; 18(1):185–205.
- Frick DM, Spears LC. On becoming a servant leader. San Francisco: John Wiley and Sons Inc; 1996.
- Wong PT, Davey D. Best practices in servant leadership. Paper presented at the Servant Leadership Research Round tables. Virginia Beach: Regent University; 2007.
- Dalton DR, Toder WD, Spendolini MJ, Fielding GJ, Porter LW. Organizational structure and performance: A critical review. *Acad Manag Rev.* 1980; 5:49–64.
- Porter LW, Steers RM, Mowday RT, Boulian PV. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *J Appl Psychol.* 1974; 59:603–9.
- Mowday RT, Steers RM, Porter LW. The measurement of organizational commitment. *J Vocat Behav.* 1979; 14(2):224–47.
- Meyer J, Allen N. A three-component conceptualization of organizational commitment. *Hum Resource Manag Rev.* 1991; 1(1):61–89.
- Organ DW. Organizational citizenship behavior: The Good Soldier Syndrome. Lexington, MA: Lexington Books; 1988.
- Smith CA, Organ DW, Near JP. Organizational citizenship behavior: Its nature and antecedents. *J Appl Psychol.* 1983; 68(4):653–63.
- Taylor-Gillham DJ. Images of servant leadership in education (Unpublished doctoral dissertation). Northern Arizona University; 1998.
- Jaramillo F, Grisaffe DB, Chonko LB, Roberts JA. Examining the impact of servant leadership on sales force performance. *Journal of Personal Selling and Sales Management.* 2009; 29:257–75.
- Horngren CT, Sundem GL, Stratton WO. Introduction to management accounting. Upper Saddle River, NJ: Prentice Hall; 2002.
- Fisher J. Use of nonfinancial performance measure. In: Young SM, editor. *Readings in Management Accounting.* Englewood Cliffs, NJ: Prentice Hall. 1995; 329–35.
- Atkinson AA, Banker RD, Kaplan RS, Young SM. *Management Accounting.* 3rd ed. Upper Saddle River, NJ: Prentice Hall; 2001.
- Stone AG, Russell RF, Patterson K. Transformational versus Servant Leadership: A differences in Leader Focus. *Leader Organ Dev J.* 2004; 25(4):349–61.
- Chenhall RH. Reliance on manufacturing performance measures, total quality management and organizational performance. *Manag Account Res.* 1997; 8(2):187–206.
- Graham JW. Servant leadership in organizations: Inspirational and moral. *Leader Q.* 1991; 2:105–19.
- Abernethy J, Bouwens, Vanlent L. Leadership and control system design. *Manag Account Res.* 2010; 21(1):2–16.
- Park KW, Kim YC. The effects of performance measurement system use and environmental uncertainty on performance measure diversity. *Korean Journal of Business Administration.* 2010; 23(5):2815–39.
- Leem TJ. The relationship between servant leadership and the diversity of performance measures. *Indian Journal of Science and Technology.* 2015; 8:254–60.

31. Lillis AM. Managing multiple dimensions of manufacturing performance: An exploratory study. *Account Org Soc.* 2002; 27(6):497–529.
32. Lau CM, Antony Moser. Behavioral effects of nonfinancial performance measures: The role of procedural fairness. *Behav Res Account.* 2008; 20(2):55–71.
33. Burney LL, Henle CC, Widener S. A path model examining the relation among strategic performance measurement system characteristics, organizational justice and in-role performance. *Account Org Soc.* 2009; 34:305–21.
34. Hall M. The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance. *Account Org Soc.* 2008; 33(2–3):141–63.
35. Laub J. Assessing the servant organization: Development of the servant organizational leadership assessment(OLA) model. *Dissertation Abstracts International.* 1999; 60(2):308A.
36. Dennis RS, Bocarnea M. Development of the servant leadership assessment instrument. *Leadership and Organization Development Journal.* 2005; 26(8):600–15.
37. Chin WW. The partial least squares approach to structural equation modeling. In: Marcoulides GA, editor. *Modern Methods for Business Research.* Mahway, NJ: Lawrence Erlbaum Associate. 1998; 295–336.
38. Chenhall RH. Integrative strategic performance measurement systems, strategic alignment of manufacturing, learning and strategic outcomes: An exploratory study. *Account Org Soc.* 2005; 30(5):395–422.
39. Yoo YJ, Alavi M. Media and group cohesion: Relative influences on social presence, task participation and group consensus. *MIS Quarterly.* 2001; 25(5):371–90.
40. Gefen D, Straub D. A practical guide to factorial validity using PLS-GRAPH: Tutorial and annotated example. *Comm Assoc Inform Syst.* 2005; 16(1):91–109.
41. Fornell CR, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *J Market Res.* 1981; 18(3):39–50.
42. Wetzels M, Odekerken G, Van Oppen C. Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly.* 2009; 33(1):177–95.
43. Tenenhaus M, Vinzi VE, Chatelin YM, Lauro C. PLS path modeling. *Comput Stat Data Anal.* 2005; 18(1):159–205.