SERVANT LEADERSHIP PREDICTORS OF TEAM EFFECTIVENESS: FINDINGS AND IMPLICATIONS

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ABSTRACT
Interest in the theory and practice of teams in organizations has grown dramatically in recent years as evidenced by studies such as LaFasto and Larson’s (2001) research with over 6,000 team members and leaders. While there have been explorations into what characterizes effective teams, very little has been done to demonstrate what leadership behaviors, both at the organizational level and at the individual leader level, are best able to explain the presence of effectiveness at the team level. In this paper, the authors present findings from a study of over 700 participants. These research participants were drawn from an international non-profit organization that is known for its use of team-based structures. Participants were asked to take three instruments: (a) The Organizational Leadership Assessment, (b) The Servant Leadership Assessment Instrument, and (c) The Team Effectiveness Questionnaire. The study was designed to examine the effect of servant leadership on team effectiveness, and specifically to identify the independent variables related to servant leadership that are best able to explain team effectiveness and then based upon this to propose a model for understanding servant leadership predictors of team effectiveness. By means of multiple regression analyses, the following model of independent variables was able to explain 39% of the variance in the effectiveness of teams: (a) servant leadership at the organizational level, (b) the servant leadership behavior of love at the individual leader level, (c) job satisfaction at the individual participant level, and (d) the servant leadership behavior of vision at the individual leader level. The model had a significance level of .000000. Based on these findings the authors conclude this paper with a discussion of the implications for organizational and team leadership.

INTRODUCTION
Interest in the theory and practice of teams has grown dramatically in recent years as evidenced by studies such as LaFasto and Larson’s (2001) research with over 6,000 team members and leaders. This emergence of teams may be traced, in part, back to societal shifts that occurred in the 1960’s and 1970’s. One student of the impact of these shifts on organizational life was Robert K. Greenleaf. Writing in the 1970’s, Greenleaf (1977) noted that in light of the revolution of expectation among young people, one who presides over a successful business “will need to evolve from being the chief into the builder of the team” (p. 85). It is arguable that such societal and organizational observations are even more relevant today as leaders seek to engage the question of how organizations will be led in the increasingly decentralized and team-based structures that are a growing mark of systems in the 21st century.
Some have argued that these shifts toward team-based structures are consistent with the shifts from Newtonian to Quantum paradigms. Addressing this point, Margaret Wheatley (1999) argues that “relationship is the key determiner of everything” (p. 11), and roots this argument in physical realities at the subatomic level. For instance, Wheatley notes that “subatomic particles come into form and are observed only as they are in relationship to something else. They do not exist as independent ‘things’” (p. 11). Based on this, Wheatley argues that relationships, and not lone individuals, are the basic organizing unit of life, and therefore, participation and cooperation are essential to survival in this world of interconnected and networked organizations.

Consistent with Wheatley’s (1999) observations, the shift toward the quantum world of thinking and organizing not only places an emphasis on relationships as the basic organizing unit, but also emphasizes (a) the whole over the part, (b) dynamic processes over static processes, (c) organizational networks over organizational hierarchies, and (d) systemic interconnectedness over linear progression and thought. The holistic focus on interconnectedness, relationship, and dynamic process in networked organizations naturally lends itself to the use of relationally-oriented organizational structures such as teams.

But these macro shifts in our societies and organizations lead to a critical leadership question: “What form of leadership will be most effective in our emerging world of team-based and networked systems?” This question provided the impetus for the research conducted in this study. Based on a review of the literature, this study was designed to (a) examine the relationship between servant leadership and the effectiveness of teams, and (b) identify a model for understanding servant leadership predictors of team effectiveness by means of multiple regression analyses. We turn now to a review of the literature surrounding servant leadership and teams, and will then present an overview of the methods and findings of the study.

LITERATURE REVIEW: SERVANT LEADERSHIP

Through his initial work on servant leadership, Greenleaf (1977) has provided a basis for the contemporary study of an emerging discipline within leadership studies. The key to Greenleaf’s conceptualization of servant leadership is his understanding of what characterizes the servant leader. In addressing the question, “Who is the servant-leader?” Greenleaf (1977) famously has argued that, “The servant-leader is servant first” (p. 27). For Greenleaf, the servant first, characterized by a natural feeling that one desires to serve is markedly different from what he terms as one who is leader first. While persons in the “leader first” model may utilize service at times for the purpose of realizing the visions and goals of the leader and the organization, the “servant first” model is focused on making “sure that other people’s highest priority needs are being served” (p. 27).

Building on this servant first notion of leadership, Laub (1999), Stone, Russell, and Patterson (2004), and Matteson and Irving (2005) all argue that the focus of the servant leader is on that which is best for their followers. On this point, Laub (2005) writes, “servant leadership is an understanding and practice of leadership that places the good of those led over the self-interest of the leader” (p. 160). It is this point that Stone, Russell, and Patterson identify as a key to understanding what differentiates servant leadership from transformational leadership. They argue that while transformational leadership tends to be focused on an organizational vision—what is best for the organization—servant leadership is focused foremost on that which is best for the followers. Matteson and Irving take this a step further by contrasting the focus, motivation, context, and outcomes of transformational, servant, and self-sacrificial approaches to leadership.

The work surrounding servant leadership from the early 1990s through 2003 focused on identifying themes that could help to operationalize the concept of servant leadership. Graham (1991) stressed the inspirational and moral dimensions. Buchen (1998) argued that self-identity, capacity for reciprocity,
relationship building, and preoccupation with the future were essential themes. Spears (1998) emphasized the dimensions of listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment, and community building. Farling et al. (1999) argued for the importance of vision, influence credibility, trust, and service. Laub (1999) put forward valuing people, developing people, building community, displaying authenticity, providing leadership, and sharing leadership. Russell (2001) argued for vision, credibility, trust, service, modeling, pioneering, appreciating others, and empowerment. Patterson (2003) presented the dimensions of agapáo love, humility, altruism, vision, trust, empowerment, and service as the essential dimensions of servant leadership. In this study, servant leadership has been studied on the basis of both Laub and Patterson’s servant leadership themes.

While these operational themes have been helpful for the study of servant leadership, recent developments of empirical measures for servant leadership have provided a platform for quantitative studies surrounding servant leadership. Among some of the instruments that have been developed to date—measures such as Laub (1999), Sendjaya (2003), Page and Wong (2000), Dennis (2004)—Laub’s (1999) Organizational Leadership Assessment (OLA) has been in recent years the dominate instrument used for measuring servant leadership at the organizational level as evidenced by works such as Drury (2004), Hebert (2004), Irving (2004, 2005), Laub (1999, 2003), and Ledbetter (2003). In this study, the two measures selected for measuring servant leadership were Laub’s OLA and Dennis’ Servant Leadership Assessment Instrument (SLAI). Further discussion on these instruments is provided in the discussion of methods.

LITERATURE REVIEW: TEAM EFFECTIVENESS

Evidence of team effectiveness abounds throughout human history from the Tower of Babel to the Great Wall of China to the cathedrals and castles of Europe. Unfortunately, the plans are not available to shed light on what contributed to the successful completion of these projects. There is, however, documentation of team effectiveness beginning in the 20th “century with the work of Elton Mayo [who] ‘uncovered the importance of teams’ (Parker, 1990, p. 16)” (Longbotham, 2000, p. 7) and pointed to the importance of fostering conditions conducive to developing effective teams. In the 1930’s, Kurt Lewin’s work focused on group dynamics as a means of developing effective teams. McGregor (1960) in his The Human Side of Enterprise initiated a change in the view toward employees, seeing them as more than just “a cog in the system.” It was the work of Blake and Mouton (1964), though, that first linked team effectiveness to leadership style and advocated a balance between a focus on production and a focus on people. Other writers in the 1960s (Dayal & Thomas, 1968; Walton, 1969) 1970s (Harrison, 1971), and 1980s (Dyer, 1987; Scholtes, 1988) contributed to the literature” (Longbotham, 2000, p. 10) related to team effectiveness.

In the 1980’s and 1990’s the number of teams exploded and became an important part of organizational life in the United States, taking many forms: high-performance teams, functional or cross-functional teams, permanent teams, and ad hoc teams. This explosion was due in part to the work of W. E. Deming (1986) and the publication of his book, Out of the Crisis, in which he recognized the importance of leadership in the effectiveness of teams, process improvement teams in particular. This view was reiterated by Scholtes (1988) who viewed leadership’s importance so strongly that he attributed any team failure to indifferent or uninvolved leadership. The literature identifies many factors that may contribute to team effectiveness. As key as some of these factors may be to team effectiveness, it is the:

role of the leader [that] is the toughest, most-important role for the team’s eventual success or failure . . . . It has been said that the role of the leader is “like giving a brain to the scarecrow, a heart to the tin man, and courage to the cowardly lion.” Teams with good leaders can accomplish results even when it appears that the deck is stacked against them. (Furman, 1995, p. 25)
“The team craze has subsided” (Kelleher, Myers, Reynard & Snee, 1998, p. 43) as organizations realize “that teams take a lot of hard work from the team and those leading the team” (Longbotham, 2000, p. 17). In spite of the advocation from Deming, Scholtes, and Furman that leadership of teams is important, not all teams have not been as effective as hoped. According to Hacker (1999), most of the team literature focuses on team-building, team dynamics, conflict resolution, decision-making, and other team technologies” (p. 61) as the means of producing effective teams (those having a positive impact on the bottom line) rather than on leadership. Harrington cl aimed as early as 1991 that the focus was on “the wrong part of the business” (p. x) – the production aspect which is only about ten percent of the value of the product in manufacturing and is totally absent in the service industry.

Many ideas have been bandied about with respect to team effectiveness. A recent Amazon.com search of popular press materials yielded 128 books on team effectiveness indicating that the use of teams is alive and well and there continues to be interest in an easy “how to” have an effective team. A search for team effectiveness in academic literature, however, yielded few empirical studies. Most of the articles were proposing conceptual models or had a very narrow focus. In recent years there has been an increasing focus on research with respect to teams. Natalie, Sora & Kayalipurapu (2004) identified mission, vision, and leadership as common themes in a qualitative study of 60 leaders of teams. Brenegan (2003) contended that knowing one’s team was a crucial factor in effective team leadership. Kuo (2004) studied transactional, transformational, and paternalistic leadership and found all three to be highly correlated with team effectiveness. This investigation of servant leadership and team effectiveness confirms and augments the findings linking leadership and team effectiveness.

STATEMENT OF THE PROBLEM & RESEARCH QUESTION
While Irving’s (2004) study broke new ground in that it was the first study to empirically examine the relationship between servant leadership and team effectiveness, several considerations of this study point to the need for further research. First, while the significant and substantially positive relationship was found in multiple sectors—nonprofit, church, and business—the findings indicated different degrees of the relationship when analyzed by sector. Among the nonprofit sector, the correlation coefficient was .547 ($p = .008$). Among the church sector, the correlation coefficient was .563 ($p = .000$). Among the business sector, the correlation coefficient was .758 ($p = .001$). Second, while the $N$ for the entire sample was 202, the $n$ values for the sectors were as follows: nonprofit ($n = 22$), church ($n = 165$), and business ($n = 15$). These values represented the following percentages of the total sample size: nonprofit (10.89%), church (81.68%), and business (7.43%). Third, only one measure of servant leadership was utilized in the study—the OLA—and thus the instrument only provided servant leadership data at the organizational level. Finally, while Irving’s study provided evidence of a relationship between servant leadership by means of correlation analysis, there was no presentation of regression analyses, and thus, a model for servant leadership predictors of team effectiveness could not be provided.

Though Irving’s (2004) study provides an important basis for future investigation, the limitations noted above demonstrate a sufficient void in the literature. This study was therefore designed to intentionally address this void by pursuing the following research question, “What are the servant leadership predictors of team effectiveness and may a model be proposed for understanding these predictors?” The next section addresses the instruments utilized to obtain the data necessary for answering this research question.

INSTRUMENTATION
Three instruments were utilized in this study. First, the OLA was utilized to measure servant leadership at the organizational level and is based on Laub’s (1999) conceptualization of servant leadership. The OLA also provides a measure of job satisfaction at the individual participant level. Second, the SLAI was
utilized to measure servant leadership at the individual level, and is based on Patterson’s (2003) conceptualization of servant leadership. Finally, the Team Effectiveness Questionnaire (TEQ) was utilized to measure team effectiveness at the team level, and is based on Larson and LaFasto’s (1989) conceptualization of the characteristics of effective teams.

As noted above, the OLA has become a dominate instrument in empirical servant leadership studies. Laub (1999) developed the OLA through a Delphi investigation and then subsequently put the instrument through a broader field test for reliability and found a Cronbach alpha coefficient of .98. In the Delphi process, 60 characteristics of servant leaders were identified and eventually clustered into six key areas: (a) valuing people, (b) developing people, (c) building community, (d) displaying authenticity, (e) providing leadership, and (f) sharing leadership. Among those who have utilized the OLA in research, Drury (2004) researched the relationship between servant leadership and organizational commitment and found, contrary to the theoretical literature, an inverse relationship that was statistically significant. Hebert (2004) examined the relationship of perceived servant leadership and job satisfaction from the follower’s perspective and found that there was a significant relationship between perceptions of servant leadership and overall and intrinsic job satisfaction. Ledbetter (2003) confirmed the reliability of the OLA among law enforcement agencies and found a Cronbach alpha coefficient of .9814. Irving’s (2004) study found a Cronbach alpha coefficient of .9807 for the OLA and further explored the relationship between the servant leadership and the characteristics of effective teams. In Irving’s (2004) study the correlation coefficient was .592 (two-tailed Pearson r correlation) with a significance value of .000, indicating that the relationship between the two constructs was both substantial and highly significant.

As noted, the SLAI was utilized to measure servant leadership at the individual leader level. The SLAI has the capacity of measuring five servant leadership variables at the individual leader level, and these five variables are five of the seven characteristics of servant leadership identified by Patterson (2003) in her model. The SLAI was found to have the following Cronbach alphas for the scales included in the instrument: (a) love = .94, (b) empowerment = .94, (c) vision = .89, and (d) humility = .92. The fifth scale in the SLAI is trust, but because the trust scale only has two items, a Cronbach alpha could not be calculated. Dennis included the trust scale in the SLAI, because the two items loaded together in two independent data collections.

The third instrument is the TEQ (LaFasto & Larson, 2001), which provides a collective measure of team effectiveness at the team level. This single-scale assessment of team effectiveness was developed based on Larson and LaFasto’s (1989) grounded theory work identifying the essential characteristics of effective teams. The TEQ has been found to have a Cronbach alpha of .85. With the three instruments utilized in this study, the following variables were available for data analysis (a) servant leadership at the organizational level (OLA); (b) job satisfaction at the individual participant level (OLA); (c) love (SLAI), (d) empowerment (SLAI), (e) vision (SLAI), (f) humility (SLAI), and (g) trust (SLAI) at the individual leader level; and (h) team effectiveness (TEQ) at the team level.

SAMPLE CHARACTERISTICS AND DATA COLLECTION
The study was conducted among a division of an international nonprofit organization. This was a US division of the organization, and included around 1,800 members. Because the organization and the US division in particular utilize team-based structures, this was an appropriate sample frame for the study. The research sample was collected from these 1,800 members in an open invitation by means of e-mail to each of the divisional members in order to provide equal opportunity for member participation, helping to insure a random sample, and to be consistent with the method of communication frequently utilized in the normal flow of information within the organization. The number of participants in the study was 740. Of the 740 participants, 719 participants provided complete data that could be included in the analyses; this number represented a response rate of 40.5%. The participants: (a) were 47% female and 52.2% male,
with .8% not reporting their gender; (b) were 6.9% top leadership, 23% management, and 69.2% workforce, with .9% not reporting their position; and (c) 1.2% had completed high school, 86.1% had completed bachelors studies, 11.6% had completed masters studies, and .7% had completed doctoral studies, with .4% not reporting the highest level of education completed. Participation in the study was both voluntary and anonymous for these participants.

Once participants received an e-mail invitation to participate in the study, they were invited to a URL containing a web-based format of the three instruments identified above—the OLA, the SLAI, and the TEQ. In addition to these instruments, basic demographic questions related to participant position level, gender, and educational level were included. Utilizing this web-based format allowed for an electronically-mediated collection of the research data. Due to the geographically dispersed nature of the organizational division throughout the US, members of the sample frame were accustomed to using web-based resources. The instrument was available to the sample frame for a period of 2 weeks. Within this 2-week period, the minimum sample size was obtained.

DATA ANALYSES AND FINDINGS

The ideal way to study the impact of servant leadership on team effectiveness would have been a designed experiment that controlled everything except the servant leadership behaviors being tested (Box & Draper, 1987, p. 15). The reality of the organizational world is that gaining permission to experiment with teams would be unlikely. The next best option is to bring empirical tools to a specific organizational setting as was done in this study.

The goal in the data analysis was to find the combination of servant leadership at the organizational level (from the OLA), individual servant leadership behaviors (the five scales of the SLAI), job satisfaction (a scale within the OLA), and demographic information (gender, position, and education) that best explained team effectiveness. This was accomplished by means of multiple regression analyses providing a model that was able to explain 39% of the variance in the effectiveness of teams. The independent variables included in the model were: (a) servant leadership at the organizational level, (b) job satisfaction at the individual participant level, (c) the servant leadership behavior of love at the individual leader level, and (d) the servant leadership behavior of vision at the individual leader level. The ANOVA table is provided below (See Table 1).

Table 1
Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F-Ratio</th>
<th>Prob. Level</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1</td>
<td>7533.236</td>
<td>7533.236</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
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<td>56.3463</td>
<td>14.08658</td>
<td>114.2042</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

The probability level (.000000) demonstrates a very strong predictive model. It expresses the probability that these results could have happened “by chance” if there were no relationship between team effectiveness and the four independent variables in the regression model.

Another way to look at the regression results is to consider the individual hypothesis tests for whether or not the coefficients are significantly different from zero. For each of the four hypothesis tests all yielded results significant at the .0001 level indicating the strength of each of the independent variables in contributing to the explanation of team effectiveness. Table 2 provides an overview of this.
Table 2
*Regression Equation Section*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Regression Coefficient</th>
<th>T-Value (Ho: B=0)</th>
<th>Prob. Level</th>
<th>Decision (5%)</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>OLA_MEAN</td>
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<td>8.3012</td>
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</tr>
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<td>JS_MEAN</td>
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<td>0.000069</td>
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</tr>
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</tr>
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<td>3.9051</td>
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<td>Reject Ho</td>
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<tr>
<td>R-Squared</td>
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</tr>
</tbody>
</table>

A discussion of the relevant servant leadership findings follows.

**SERVANT LEADERSHIP PREDICTORS OF TEAM EFFECTIVENESS: A MODEL**

The regression algorithm chooses the combination of independent variables which best explain the dependent variable. It is noteworthy that three of the four are related to servant leadership. The most important servant leadership contributor is servant leadership at the organizational level followed by the servant leader behavior of love at the individual level and the servant leader behavior of vision at the individual level. These findings, particularly in light of the inclusion of three servant leadership variables in the model, provide further confirmation for the important connection between leadership and team effectiveness, and further point to the value of relationally oriented leadership practices—such as servant leadership—in the networked and team-based systems in many of today’s organizations.

**RECOMMENDATIONS FOR FUTURE RESEARCH**

The present study provides a basis for several directions of future research. First, while the present study was conducted in a nonprofit organization and provided a model of servant leadership predictors of team effectiveness, it would be helpful to study whether this is confirmed in other organizations and other sectors. Examples of other sectors that would be useful to study are: (a) business, (b) education, (c) military, and (d) government. Second, while multiple measures for servant leadership were utilized in this study, and these measures provided data from multiple levels, the present line of research could benefit greatly from the inclusion of other servant leadership measures and team effectiveness and job satisfaction measures. Would, for instance, the inclusion of other variables at the individual leader level contribute to a stronger model in explaining servant leadership predictors of team effectiveness. Utilizing a range of instruments for these constructs would help to establish the findings from a diversity of perspectives on servant leadership, team effectiveness, and job satisfaction.

Third, since servant leadership, transformational leadership, and transactional leadership have all been linked to team effectiveness, it would be helpful to have these constructs measured in the same study to provide a comparison as to which leadership approach would have the strongest impact on team effectiveness. Finally, while a model for the servant leadership predictors of team effectiveness is provided here, this study did not explore the qualitatively-oriented question of why this predictive linking of servant leadership and team effectiveness exists. Such qualitatively-oriented research could be better positioned to address the dynamics at work that make a servant leadership approach within organizations especially effective in team-based contexts. While not exhaustive, these recommendations provide a basis for future research in this pathway of servant leadership studies.
SUMMARY
In light of the ongoing interest in the theory and practice of teams, the findings in this present study are useful to researchers and practitioners alike. Because servant leadership has been identified in this study as a significant predictor of team effectiveness, those who are engaged in the practice of teams within organizations are advised to better understand servant leadership for the sake of increasing effectiveness. By means of multiple regression analyses, the following model of independent variables was able to explain 39% of the variance in the effectiveness of teams: (a) servant leadership at the organizational level, (b) the servant leadership behavior of love at the individual leader level, (c) job satisfaction at the individual participant level, and (d) the servant leadership behavior of vision at the individual leader level. The .000000 significance level provides a model in which students of servant leadership and team effectiveness can have a high level of confidence. We trust that these findings will encourage increased exploration into the positive effects of servant leadership on team effectiveness, as well as a robust application of servant leadership in contemporary organizational settings.
REFERENCES


