Leadership Systems Model: An Integration Of People, Process, And Behaviors In A Dynamic And Evolving Environment

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ABSTRACT

Defining, observing, and measuring leadership skills, styles and approaches are far from being a new effort. Although research has provided much information regarding leadership, the classical leadership theories and models, processes, and behavioral views must be further integrated in order to provide a richer and wider view of leadership. Furthermore, organizations are not static; they are constantly changing and evolving over time. The purpose of this paper is to provide a conceptual model integrating these views using a systems level theory to understand the aggregate nature of leadership.

KEYWORDS: Leadership Systems Model, Behavior, Organizations, Systems

INTRODUCTION

he motivation for this article is focused around three fundamental questions regarding leadership. Can we as scholars or practitioners ever really determine which particular style or approach to leadership works under all or even specific situations or conditions? Secondly, has past and present research efforts merely observed and measured pieces of a much bigger and more complex entity and if so what is that entity? Finally, is there a need to merge classical leadership, behavioral views, and system processes in order to develop a more accurate definition, description, and measurement of leadership for future generations? Balda and Mora (2011) quantified the leadership needs of the millennial generation as:

"Current research offers a complex perspective on the main characteristics of Millennials (or Gen-Ys, as they are also called) as a generation in which knowledge is acquired, shared, and created as an extension of the primacy of relationships and networks and embedded in the connections that information technology provides. Aspects of the servant-leadership model provide a context from which to examine the construction of workplace practice (action) and purpose (meaning) among members of the Millennial generation. However, theories developed in previous generations are not automatically applicable and require critical examination and adaptation if they are to offer an understanding of means for motivating and influencing Millennials toward more broadly defined goals and aspirations in multigenerational workplaces. After a review of recent literature, we conclude that future organizational paradigms will have to develop a multigenerational collaborative culture. With this in mind, we discuss how service leadership contributes to these new networked and collaborative organizations to help Millennials flourish and prepare them for leadership positions as well" (Balda & Mora, 2011).

In the past, leaders faced many issues that focused primarily on leadership, administration, and governance. Through an examination of leadership transitions, initiatives, and issues, the goal is to develop a greater appreciation of the complexity of various situations involving authority and the limits thereof and the range of knowledge, skills, and expertise needed by effective leaders in the future (White, 2012).

The keystone of this paper is to propose a systems theory approach to the dynamic and evolving discipline of leadership and the tools employed to evaluate leadership traits and skills. Various environmental and social forces have triggered interest in both research and practices of responsible leadership (Pless & Maak, 2011). Although there have been similar attempts in the past to provide a more robust and comprehensive leadership model, the systems theory approach that includes the integration of people, process and behaviors in the context of a dynamic and evolving environment needs to be revisited.

LEADERSHIP THEORIES AND MODELS

There are many definitions of leadership. For this discussion, leadership is defined as "the blending of vision, values, and contribution to society, turning ideas into reality through others that share the same vision" (Burian, Maffei, Burian & Pieffer, 2014). Given this definition of leadership the next question is how do we construct a more comprehensive view of leadership? There are many theories that can be employed to assess a leader and their leadership skills. Table 1 provides a brief list of the many leadership theories and models.

Table 1 - Abbreviated Table of Leadership Theories and Models

Primary Theme	Pioneer(s)
Personality characteristics	Carlyle, Cowley, Galton
Leader actions and behavior	Blake & Mouton, Lewin, Tannenbaum & Schmidt
Style depends on situation	Fiedler, Morgan,
	Hersey & Blanchard
Leveraging power to accomplish goals or tasks	French & Raven
Inspirational an motivational	Weber
Values based approach	Brown & Trevino, Bandura
Integrity and transparency	Avolio
Compliance through rewards and punishment	Weber, Bass
Inspire followers to change expectations	Burns, Bass
Enriching the lives of individuals	Liden, Greenleaf
Study of systems and systems thinking	Bertalaffy, and Kast & Rosensweig
	Personality characteristics Leader actions and behavior Style depends on situation Leveraging power to accomplish goals or tasks Inspirational an motivational Values based approach Integrity and transparency Compliance through rewards and punishment Inspire followers to change expectations Enriching the lives of individuals

(Malos, 2012)

One method to study leadership is from the situational perspective. Certain familiar concepts about leaders and leadership styles are retained, most notably the idea that effective leadership requires a combination of appropriate task and relationship behavior. Adding to the leadership perspective is that effective leadership is treated not just as a personal style or trait but also as a style or trait that is or could be contingent on the situation. For this paper the focal lens has been opened to include an emphasis on the behavior the leader displays in order to define effective leadership as what the leader does and when (Northouse, 2013).

Another view includes the perspective of Hersey and Blanchard's Situational Leadership Model® and Fiedler's Contingency Theory. Both situational models focus on matching the most effective leadership style or traits to the on-hand situation. The models do not evaluate the same leadership styles or traits. For example the Hersey and Blanchard's model, the leader must diagnose and match the readiness level of the followers to complete a particular task. Conversely, for Fiedler's Contingency Theory model, the leader must diagnose and match a variety of factors, including leader-member relations, the nature of the task, and power positions. The two approaches also differ in their assumptions about the flexibility of an effective leader (Northouse, 2013).

Another example is The Leader-Member Exchange (LMX) Theory; LMX is a constitutive approach to understanding leadership. LMX Theory is based on the concept of ideal leaders and their followers will build a contract that will guide the leader-follower relationship. The relationship will be guided by the understanding that the leader and the follower enter the contract negotiations with resources that each will offer as elements of the contract. The LMX contract is based on either a low quality or a high-quality exchange of resources type of relationship. The leader can give followers such resources as information, rewards, influence, power, opportunity, and concern. In turn, followers can give leaders such resources as loyalty, support, and information, and can take on "expanded role responsibilities" (Northouse, 2013; Chan et al. 2012).

MEASUREMENT TOOLS AND INSTRUMENTS

Leadership Tools

Many tools and instruments can be used to measure various leadership traits, behaviors, and leader personality types. These tools can be categorized as either as Leadership or Personality. Each of the tools or instruments analyzes or assesses the traits of a leader while some tools assess just the leader while other tools assess and analyze the leader and follower relationship. No one tool or model accounts for all factors. Table 2 lists a few of the more widely used tools that measure various leadership styles, skills, and dimensions.

Table 2 – Leadership Tools and Instruments Summary

Multifactor Leadership Questionnaire (MLQ)
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Servant Leader Survey (SLS)

Transformational Leadership Questionnaire (TLQ)

Development Leadership Questionnaire (DLQ)

Bass (1989) developed the Multifactor Leadership Questionnaire (MLQ) to measure transformational, transactional, and laissez-faire leadership traits and styles. The original Bass MLQ has four transformational dimensions (charisma, inspiration, individual consideration, and intellectual stimulation), three transactional dimensions (contingent reinforcement or reward, types of management-by-exception active and passive), and laissez-faire dimension (Hartog et al.1997).

The Servant Leadership Survey (SLS) was developed as a multidimensional tool to measure and evaluate the servant leader. With the introduction of a newer instrument, the Servant Leadership Survey will focus on the leader-follower relationship measured from the perspective of the follower. The survey's aim was that it should (1) cover the essential aspects of servant leadership, (2) be easy to apply, and (3) be psychometrically valid and reliable (van Dierendonck & Nuijten, 2011; Paris & Peachey, 2013).

The Transformational Leadership Questionnaire (TLQ) assesses and tests the style and competencies of a leader based on a comparative analysis to other leaders. Transformational leadership occurs when leaders "broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and the mission of the group and when they stir their employees to look beyond their own self-interest for the good of the group" (Transformational Leadership Questionnaire website). Transformational leadership has been demonstrated to affect organizational performance, and is positively linked with long-term market share and customer satisfaction, generates higher commitment from employees, reduces employee stress, and enhances employee job satisfaction and well-being (Transformational Leadership Questionnaire website).

The Development Leadership Questionnaire (DLQ) model was designed to introduce refinements to the transformational leadership model. The Developmental Leadership Questionnaire was constructed to measure important parts of the transformational leadership model. The DLQ is based on a theoretical model of leadership, all items can be traced back to specific facets, factors, and dimensions and DLQ items primarily describe behaviors rather than leader traits or behavioral intentions (Larsson, 2006).

Personality Tools

Some of the more commonly employed personality tools include the DiSC, Myers-Briggs Type Indicator (MBTI), Emotional Intelligence (EQ), and the Keirsey Temperament Sorter (KTS-II).

DiSC is a personal assessment tool used to improve work productivity, teamwork, and communication. The DiSC acronym stands for D (Dominance), i (Influence), S (Steadiness), and C (Conscientiousness). DiSC is nonjudgmental and helps people discuss their behavioral differences. The DiSC tool program will produce a detailed report about the leader's individual personality and behavior (DiSC website). DiSC is focused on being simple to understand, the DiSC report has four categories of personality behavior (Dominance, Influence, Steadiness, & Conscientiousness). DiSC is employed at the individual leader and team levels to generate discussion and overall improvement of skills and knowledge of the leader (DiSC website).

One of the personality tools employed is the Myers-Briggs Type Indicator (MBTI) test that assists individuals in seeing how their traits, skills, behaviors, and environment shaped them. Most people tend to test as one personality type early in their lives and remain that type throughout life. The MBTI is a type of personality measurement tool that is built upon the premise that most people have their personalities well established at an early age (Myers-Briggs Type Indicator website).

Emotional Intelligence can be defined as the ability to identify, use, understand, and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict. EQ influences many different aspects of daily life, such as the way an individual behaves and the way they might interact with others (EQ website).

If an individual has high emotional intelligence they are able to recognize their own emotional state and the emotional states of others, and engage with people in a way that draws them to the individual or leader. The leader can use this understanding of emotions to relate better to other people, form healthier relationships, achieve greater success at work, and lead a more fulfilling life. EQ consists of four primary attributes: self-awareness; self-management; social awareness; and relationship management (EQ website). The focus of EQ is to improve work performance, physical well-being, mental well-being, and personal and work relationships.

Another of the personality tools is the Keirsey Temperament Sorter. The (KTS-II) is a 70 question personality instrument that will help the individual define their personality type by categorizing the person to one of four temperaments (Artisan, Guardian, Rational, & Idealist), which can then be further subdivided into four character types. The individual is provided the opportunity to be categorized into one of 16 possible temperament types.

The Keirsey Temperament Sorter (KTS-II) can then further sort the four dichotomous preferences pairings that can reveal to the leader more about their character and temperament type (Keirsey website).

Table 3 – Personality Tools and Instruments Summary

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DiSC	
Myers-Briggs Type Indicator (MBTI)	
Emotional Intelligence (EQ)	
Keirsey Temperament Sorter (KTS-II)	

Although these tools have specific application, each tool only provides a narrow band or glimpse of information. What is needed is a measurement tool that analyses the entire leader to provide a more robust view of the leader and their leadership skills and traits. It is envisioned the leadership systems model would not only measure the classical leadership and behavior aspects of a leader but more importantly the internal and external enablers and constraints as well as decision process(es) employed to produce an action, decision or result.

THEORETICAL UNDERPINNINGS

The proposed Leadership Systems Model (LSM) is grounded in established Systems, Behavioral, Leadership, and Decision-Making Theories. The concept is to construct a model that integrates and provides a more comprehensive view of leadership, the leader, and their skills and traits. An argument can be made to the effect that the proposed model can provide rich and detailed information about the leadership traits of the leader and as to how the various theories can fit together to form a more complete picture of the leader. A drawback to this approach can be that the LSM may not be able to view the leader as a whole person.

From a theoretical perspective, this paper wanted to move past implicit leadership theories (ILTs) which are defined by Schyns et al. (2011) as lay images of leadership, which are individually and socially determined. The

paper will review and briefly discuss how teaching implicit leadership theories contributes to developing leaders and leaderships by raising self and social awareness for the contexts in which leadership takes place.

MODEL ASSUMPTIONS

The Leadership Systems Model has four constructs that will define the models breadth and depth. The first assumption is that the concept of this model is in fact feasible and that the classical leadership theories and models, processes, and behavioral views can indeed be integrated to form a broader and more robust view of Leadership.

The proposed model does not necessarily assume there is an appointed or anointed leader by title or position. The second assumption is that within the organization anyone can demonstrate leadership skills and behavior. Moreover, individuals who are leaders in one situation may not be leaders in another (Stogdill, 1948).

The third assumption is that a measurement instrument or suite of instruments can be determined in order to gather both quantitative and qualitative information.

The final assumption is the model can be validated using some reasonable qualitative or quantitative approach. This could entail modifying a systems validation methodology.

LEADERSHIP SYSTEMS MODEL (LSM)

For many years, leaders and followers at all levels have believed the myth that individualistic achievements would get the best results (Kouzes, 1999). The reality is the leader needs the team or followers as much as the followers or teams need the leader. The new age of leadership for the millennials will be on the transformation of leadership through theory, action, and application (Norton & Palazzolo, 2012). The concept of responsible leadership has garnered increased attention in recent years. Indeed, irresponsibility on the part of organizational leaders does appear to represent an area of growing concern to the greater public (Waldham, 2011).

Structure

The proposed leadership systems model is constructed on systems theory as a baseline, with the addition or inclusion of the behavioral enablers and controls, and decision-making and analysis functional elements. The proposed model contains a representative sample of the enablers and constraints of individual and group elements that are processed in order to arrive at a decision, action, or result.

Inputs

Inputs are defined as any internally or externally initiated stimuli. These inputs could be self-generated by either an individual or a group. For example, the inputs could be customer requirements or even normal operations activities and events within an organization requiring a response or action.

Individual and Group

Organizations are comprised of individuals and groups assembled to produce a product or service, solve a problem, and operate and maintain the enterprise. For this model, the individual could be the leader or merely an individual contributor. The group could also form the leadership body of the organization. The model has been left open-ended in this sense to allow a leader to emerge as an individual or group as well as being pre-defined by the organization.

Internal and External Enablers and Constraints

Enablers and constraints consist of both internal and external elements that serve as a knowledge base, parameters, and boundaries for decision-making. These elements are perhaps one of the most important aspects of

the model. Furthermore, both internal and external enablers and constraints can be viewed as the database from which information is drawn and applied to the decision process in order to produce a decision, action, or result.

Process

Process is perhaps one of the more complex components of the model since it could range from a rudimentary decision-making process to a more complex approach such as probabilistic, heuristic, or possibly an advanced cognitive process. The process function also includes the interactions and interfaces between individuals and groups within the organization. This function is viewed as the aggregator of the entire model.

Outputs

The outputs function contains the decisions, actions, or results from the model's execution. This function is perhaps the most visible since the impact can be observed and evaluated for effect, success, or failure. In many business organizations, a great deal of emphasis is placed on the collection of metrics and the supporting information and events. In fact, individual and group appraisals and performance is measured based on this information.

Feedback

The feedback loop provides the path for metric and supporting information to be fed back into the model for further evaluation by individuals or groups. The metric information can be stored in the internal and external enablers and constraints to be used as a basis for future decisions and outputs.

The scholarly concept for this model could entail:

- responding to a customer requirement (input stimuli, externally generated);
- a predefined leader within the organization interfacing with a group of individuals or a group to develop a response (individual and group);
- both the leader and group determining the best approach by drawing from the internal and external enablers and constraints (enablers and constraints);
- finally, the decision process (simple decision process) activated and a determination made as to the best or optimum solution for the customer (decision, action or result).

This not only provides an end-to-end approach, more importantly would allow for observation and measurement at each functional element of the model thus providing greater insight as to the leader's ability and action within the organization in a dynamic environment. It can be implied that not every decision is simple as provided in this example; however, the model can be configured to manipulate variables at many different points within the model. In other words, some functions could be held constant and others varied to some level of fidelity in order to exercise the dynamic nature of environments. Figure 1 provides a functional view of the leadership systems model.

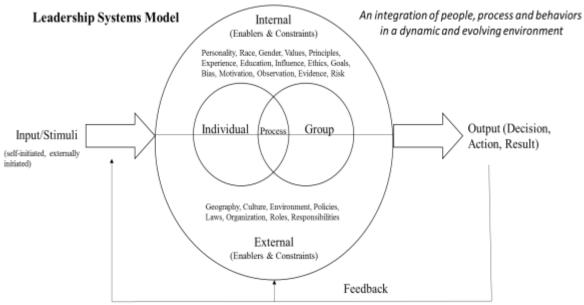


Figure 1. – Leadership Systems Model (LSM)

LEADERSHIP SYSTEMS MODEL APPLICATION

It is envisioned that if a researcher were able to construct the Leadership Systems Model, it would have farreaching application in business environments. A model that provides a robust view or insight into the end-to-end aspects of leadership would be an invaluable tool to help determine leadership behavior, decision-making abilities, greater understanding of the enablers and constraints on individuals and groups, and the results and impacts of leader actions.

CONCLUSIONS

At a very high level of observation, it appears that taking a systems approach to modeling leadership seems feasible and logical. It seems apparent there is a need for a comprehensive view of leadership that integrates the classical and behavioral views of leadership to include the integration of a systems model theory and associated processes. The business environment of today is extremely dynamic and constantly evolving. In fact, a decision that is made in one instance or period may become a less favorable decision in another period. As organizations or groups and the supporting interfaces between them become more complex in a global environment, it becomes apparent that a new or more holistic approach is needed to more accurately examine and determine the person, the processes, the environment, and the behavior of leadership. In fact, it is imperative researchers collaborate on the research efforts of various leadership and management, behavior and systems disciplines in order to realize a rich comprehensive approach to understanding how all of the pieces fit and interact (Leonard et al. 2013). As the millennials of the world transition into leadership roles, the importance of a systematic approach to leadership will be required and more of an imperative.

RECOMMENDATIONS FOR FURTHER OR FUTURE RESEARCH

This research paper has proposed a comprehensive way to view leadership. Research is the start of analysis and assessment and as with any scholarly activity, a number of key concepts or theories may require further research and discussion. The first might be to determine the feasibility of a comprehensive leadership systems model. The second is the development of a tool or suites of tools that can be used to identify a comprehensive view of leadership. Third, the interfaces between the functional elements of the model need to be further defined including the processes of decision-making and interactions between the individual and the group. Finally, further determination of the key enablers and constraints in the context of this proposed model is needed.

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REFERENCES

- 1. Balda, J. B., & Mora, F. (2011). Adapting leadership theory and practice for the networked, millennial generation. Journal of Leadership Studies, 5(3), 13-24. doi:10.1002/jls.20229
- Burian, Philip E., Maffei, Francis R., Burian, Pamela S. & Pieffer, Mark. (2014). "Principles Driven 2. Leadership: Thoughts, Observations and Conceptual Model" published in the International Journal of Management & Information Systems, Volume 18, Number 1.
- 3. Chan, S., & Mak, W. (2012). Benevolent leadership and follower performance: The mediating role of leader-member exchange (LMX). Asia Pacific Journal of Management, 29(2), 285-301. doi:10.1007/s10490-011-9275-3
- Dierendonck, D., & Nuijten, I. (2011). The servant leadership survey: Development and validation of a 4. multidimensional measure. Journal of Business & Psychology, 26(3), 249-267. doi:10.1007/s10869-010-
- DiSC website https://www.discprofile.com/what-is-disc/overview 5.
- Emotional Intelligence (EQ) website 6. http://www.helpguide.org/mental/eq5_raising_emotional_intelligence.htm Hartog, D. N. D., Van Muijen, J. J., & Koopman, P. L. (1997). Transactional versus transformational leadership: An analysis of the MLQ. Journal of Occupational & Organizational Psychology, 70(1), 19-34. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=9705285824
- 7. Keirsey Temperament Sorter website, http://www.keirsey.com/aboutkts2.aspx

- 8. Kouzes, J. M. (1999). Getting to the heart of leadership. *Journal for Quality & Participation*, 22(5), 64. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=2261581
- 9. Larsson, G. (2006). The developmental leadership questionnaire (DLQ): Some psychometric properties. *Scandinavian Journal of Psychology*, 47(4), 253-262. doi:10.1111/j.1467-9450.2006.00515.x
- 10. Leonard, H. S, Lewis, R., Freedman, A., & Passmore, J. (2013) The Wiley-Blackwell Handbook of the Psychology of Leadership, Change, and Organizational Development. Wiley-Blackwell, John Wiley & Sons, Ltd
- 11. MALOŞ, R. (2012). The most important leadership theories. *Annals of Eftimie Murgu University Resita, Fascicle II, Economic Studies*, , 413-420. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=92535234
- 12. Myers-Briggs Type Indicator (MBTI) website: http://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/
- 13. Northouse, P. G. (2013). Leadership: Theory and Practice (6th ed.). Thousand Oaks, CA: Sage.
- 14. Norton, L., & Palazzolo, L. (2012). *Integral leadership in action 2012, evolving leadership for an awakening world: Transforming leadership through theory, action and application* Russ Volckmann, LeadCoach. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=82055504
- 15. Parris, D., & Peachey, J. (2013). A systematic literature review of servant leadership theory in organizational contexts Springer Science & Business Media B.V. doi:10.1007/s10551-012-1322-6
- 16. Pless, N., & Maak, T. (2011). Responsible leadership: Pathways to the future. *Journal of Business Ethics*, 98, 3-13. doi:10.1007/s10551-011-1114-4
- 17. SCHYNS, B., KIEFER, T., KERSCHREITER, R., & TYMON, A. (2011). Teaching implicit leadership theories to develop leaders and leadership: How and why it can make a difference. *Academy of Management Learning & Education, 10*(3), 397-408. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=67074182&site=bsi-live
- 18. Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. Journal of Psychology, 25, 35–71.
- 19. Transformational Leadership Questionnaire (TLQ) website, http://www.myskillsprofile.com/tests/tlq
- Waldman, D. (2011). Moving forward with the concept of responsible leadership: Three caveats to guide theory and research. *Journal of Business Ethics*, 98, 75-83. doi:10.1007/s10551-011-1021-8
- 21. White, D. D. (2012). *Leadership: Lessons from history* Russ Volckmann, LeadCoach. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=77553822&site=bsi-live

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