Organizational Structure Effect on Communication Efficiency for Management Information System Supported Organizations: A Delphi Study

Dr. Timothy M. Lewis

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Problem Statement

The general problem is modern organizational hierarchies in large corporations with mechanistic structures create a delay in the information flow that prevents knowledge workers from being successful (Wheatley & Kellner-Rogers, 1996).

The specific problem is modern hierarchal organizational structures decrease the communication speed and quality within the management information systems (MIS) subgroups responsible for orchestrating communication throughout the organization, which ultimately decreases overall organizational performance and effectiveness (Klovienė & Gimžauskienė, 2008)

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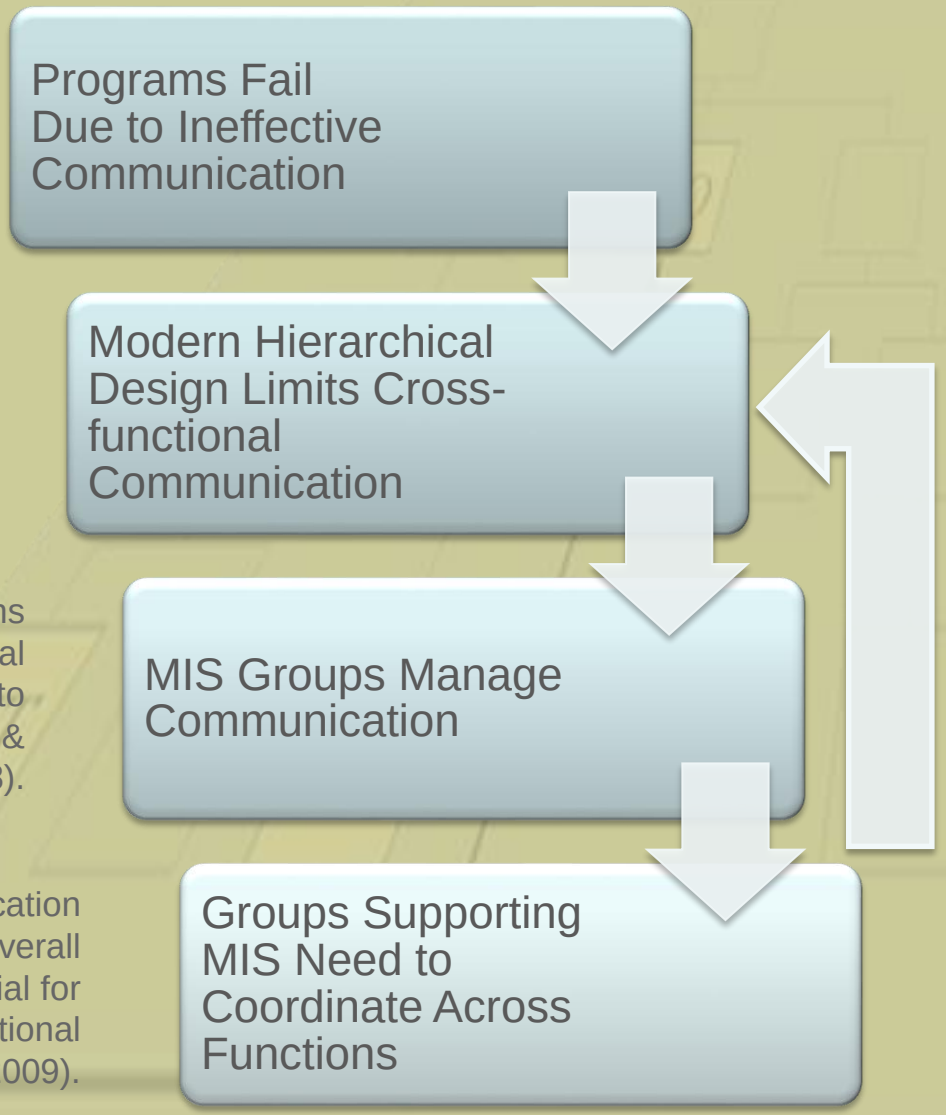
Support for Problem Statement

The industry statistic shows 60-82% of projects fail primarily due to the inability of leadership to manage change, scope and the worker efforts through communication boundaries across all levels of an organization (Morris, 2008).

Organizational leaders need to lead the diversity within organizations by not constraining the individuals via fixed distances of reporting through the organization and thereby limiting communication across the organization (Gibson et al., 2009).

To be responsive to rapid change, organizations implemented flexible functions like cross-functional teams and MIS sub-groups in order to adapt to internal and external influences (Zehir, Altindag, & Gunsel, 2008).

The need to be adaptable, advance communication through organizational design, and improve overall organizational performance identifies a potential for an alternate viewpoint to fit organizational communication requirements (Gibson, et al., 2009).



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Purpose Statement

The purpose of the qualitative Delphi study with supporting quantitative data was to examine and better understand the current effects and the limitations on communication in traditional hierarchal organizations with relation to groups applying, supporting, or creating management information systems (MIS) to identify potential organizational design alternatives.

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Significance of Study/Leadership

- Macro
  - Organizational Communication
- Micro
  - Organizational Design
- Benefit
  - Improved communication through new organizational design

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Research Questions

R1: How do leaders currently address the organizational design integration requirements of MIS throughout an organization to support communication?

R2: What organizational design might be more beneficial to exist within a traditional bureaucratic structure but provide the horizontal communication necessary for MIS effectiveness?

Current	Future
Support	Adapt

R3: How can leaders manage effectively and efficiently the communication of responsibility, accountability, and authority (RAA) for MIS across multiple organizational structures?

R4: How can a highly structured and formalized postmodern organization adapt to new theories of structural design to promote communication in groups supporting MIS?

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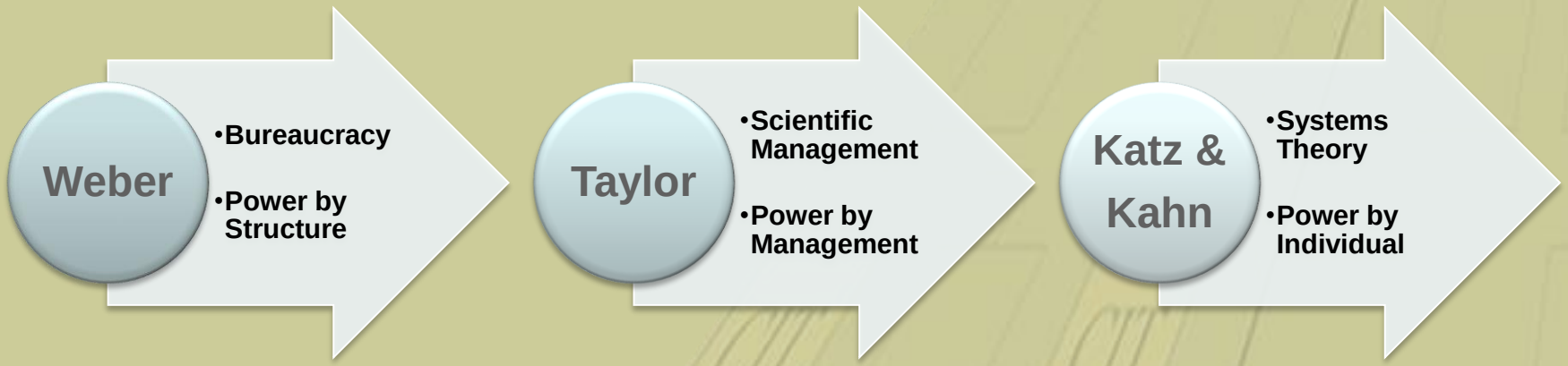
Theoretical Foundation

"Experience tends universally to show that the purely bureaucratic type of administrative organization–that is, the monocratic variety of bureaucracy–is, from a purely technical point of view, capable of attaining the highest degree of efficiency and is this sense formally the most rational known means of carrying out imperative control over human beings." (Weber, 1947, p. 337)

"In this sense, communication—the exchange of information and the transmission of meaning—is the very essence of a social system or an organization. The input of physical energy is dependent on information about it, and the input of human energy is made possible through communicative acts." (Katz & Kahn, 1978, p. 255)



"Taylor believed that the workers of his time had too much knowledge and therefore too much power. Getting that knowledge out of the worker's head into managers' was his overriding concern" (Hoopes, 2003, p. xxvi)

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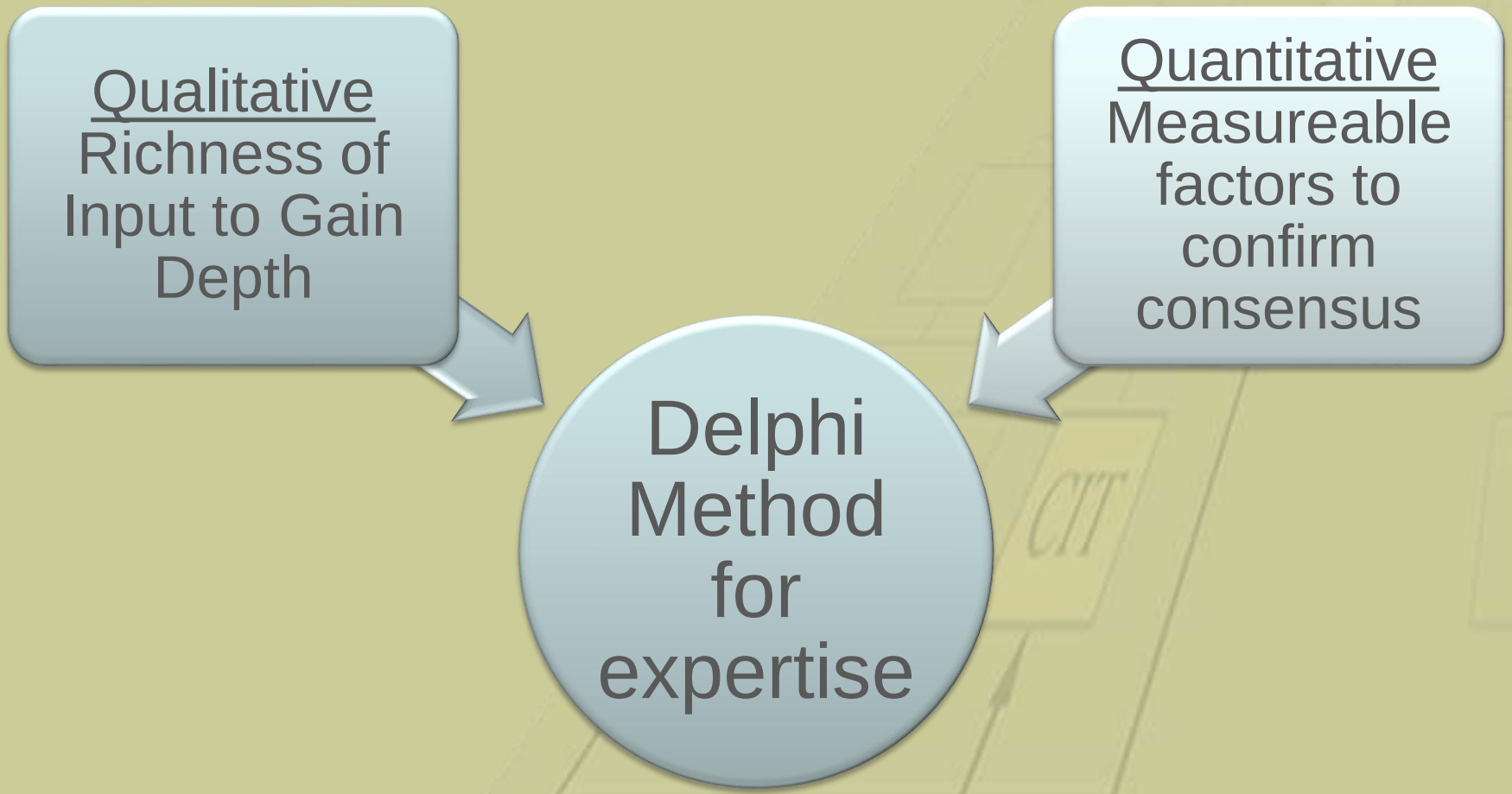
Methodology

Qualitative with supporting quantitative data



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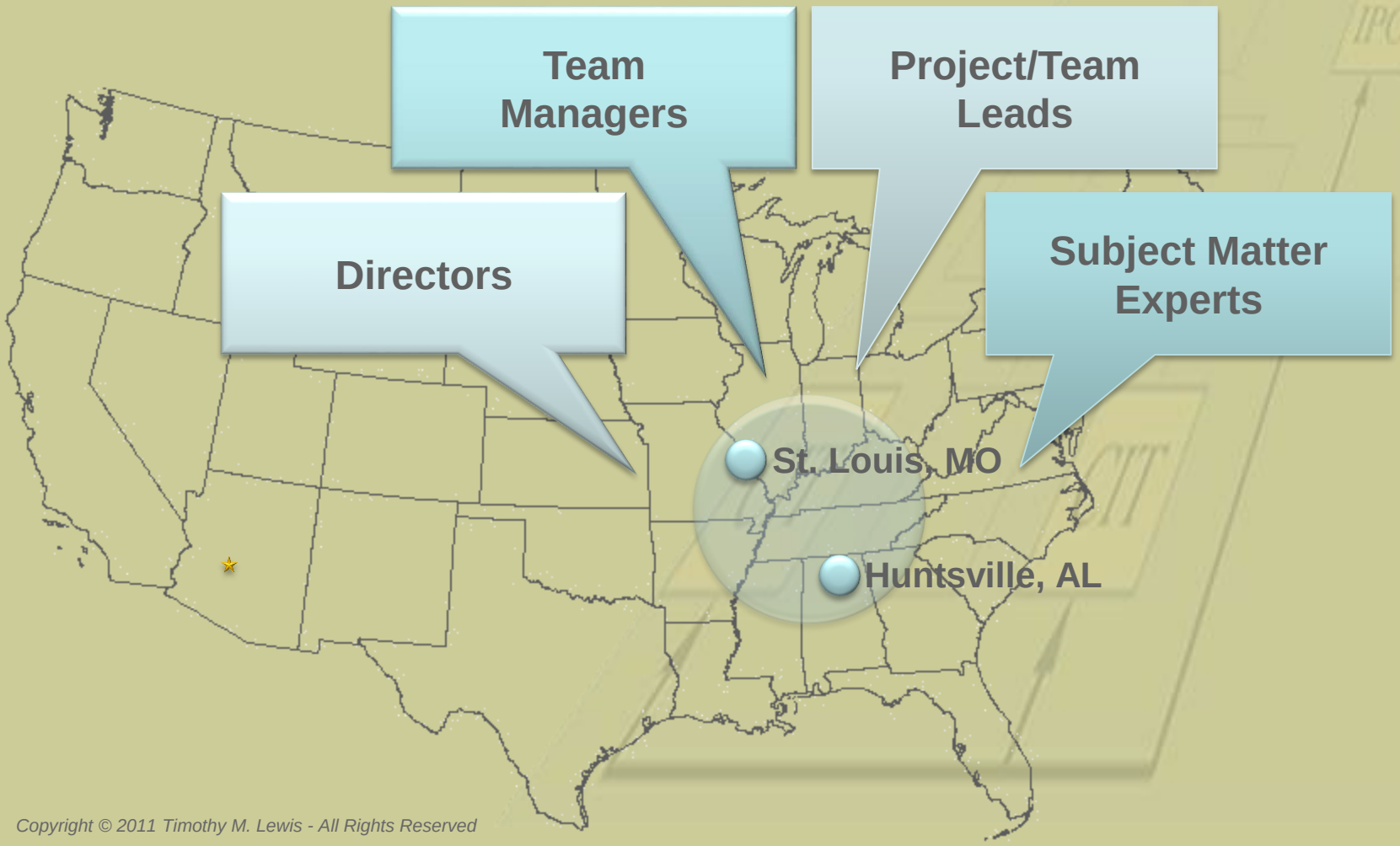
Population Under Investigation

Large Corporations in the Midwest region



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Data Collection

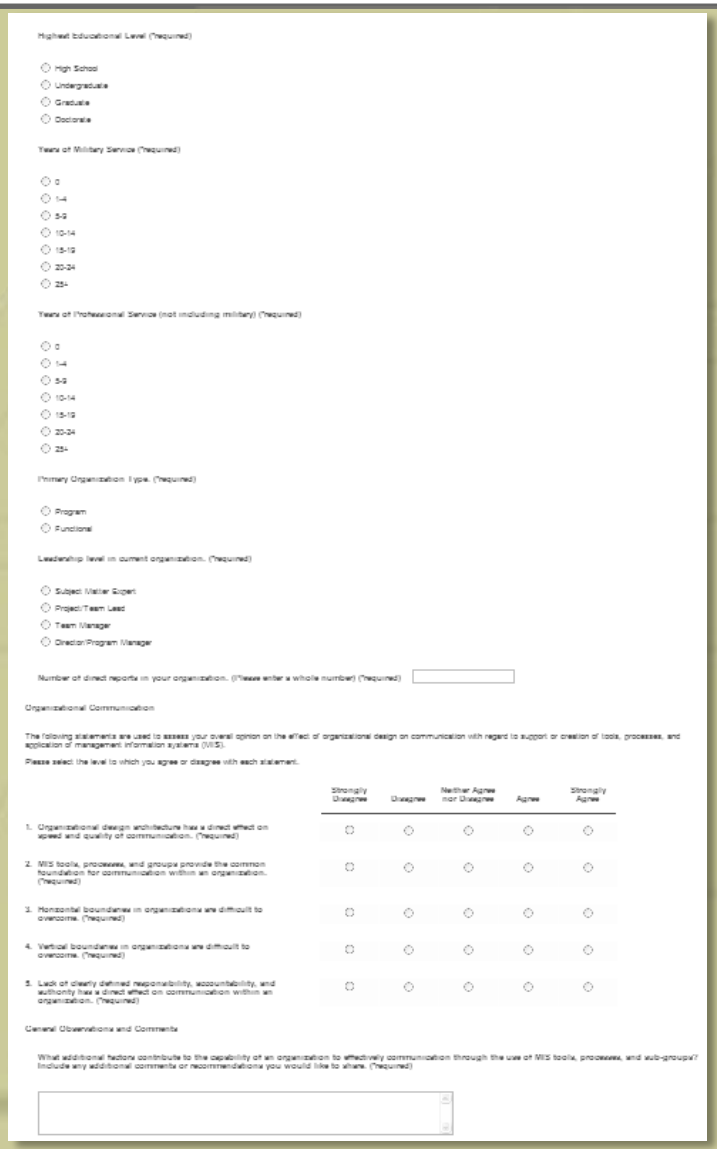
Expert Panel
- Instrument Test
- Instrument Validation

Informed Consent
- Required for participation

Round 1
- Demographics
- 5-Point-Likert Type Questions
- Open-ended Question

Round 2
- 5-Point-Likert Type Questions
- Open-ended Questions

Round 3
- 5-Point-Likert Type Questions
- Open-ended Question



Highest Educational Level (*required)

- High School
- Undergraduate
- Graduate
- Doctorate

Years of Military Service (*required)

- 0
- 1-4
- 5-9
- 10-14
- 15-19
- 20-24
- 25+

Years of Professional Service (not including military) (*required)

- 0
- 1-4
- 5-9
- 10-14
- 15-19
- 20-24
- 25+

Primary Organization Type. (*required)

- Program
- Functional

Leadership level in current organization. (*required)

- Subject Matter Expert
- Project/Team Lead
- Team Manager
- Director/Program Manager

Number of direct reports in your organization. (*Please enter a whole number) (*required)

Organizational Communication

The following statements are used to assess your overall opinion on the effect of organizational design on communication with regard to support or creation of tools, processes, and application of management information systems (MIS).

Please select the level to which you agree or disagree with each statement.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. Organizational design architecture has a direct effect on speed and quality of communication. (*required)					
2. MIS tools, processes, and groups provide the common foundation for communication within an organization. (*required)					
3. Horizontal boundaries in organizations are difficult to overcome. (*required)					
4. Vertical boundaries in organizations are difficult to overcome. (*required)					
5. Lack of clearly defined responsibility, accountability, and authority has a direct effect on communication within an organization. (*required)					

General Observations and Comments

What additional factors contribute to the capability of an organization to effectively communication through the use of MIS tools, processes, and sub-groups? Include any additional comments or recommendations you would like to share. (*required)

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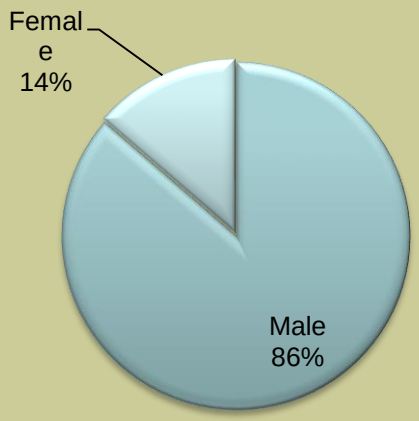
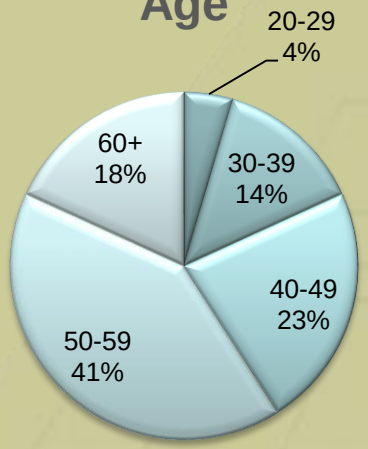
Personal Demographics

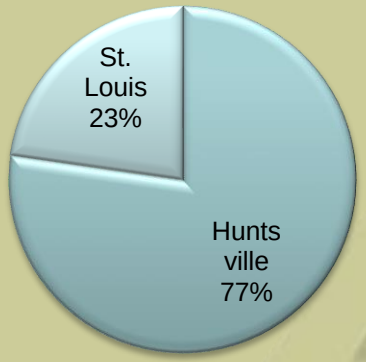
Gender



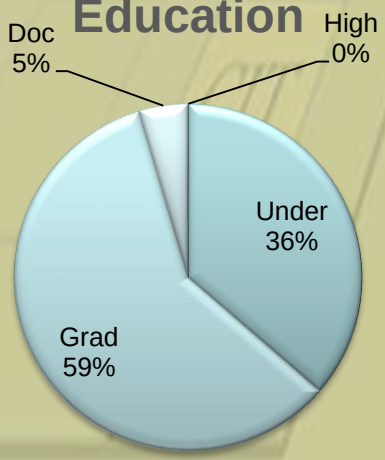
Age



Metro Area



Education



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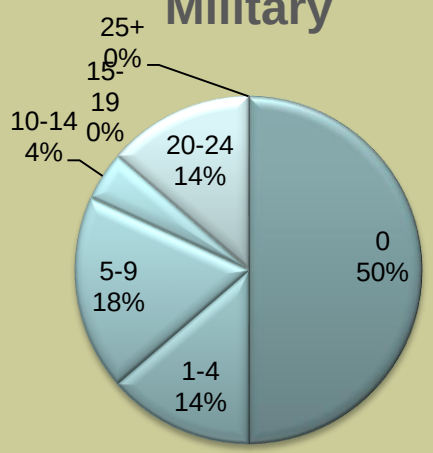
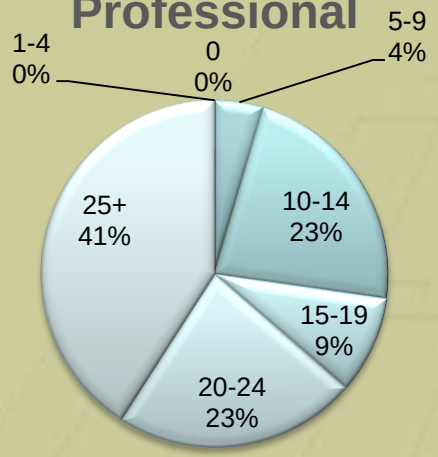
Professional Demographics

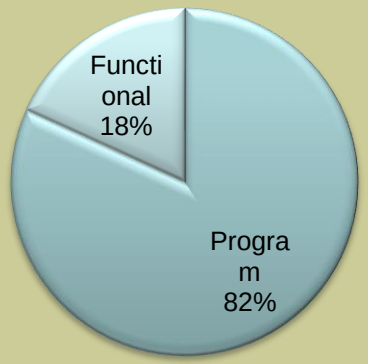
Military



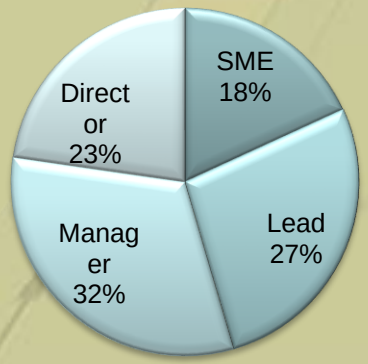
Professional



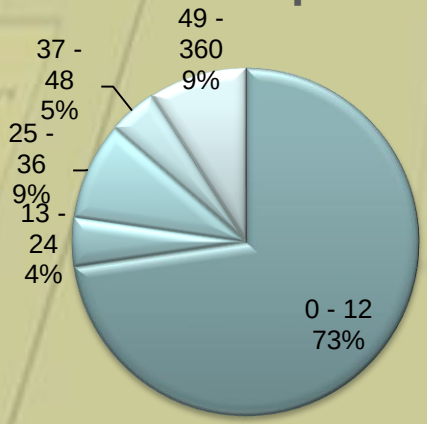
Org Type



Leadership



Direct Reports



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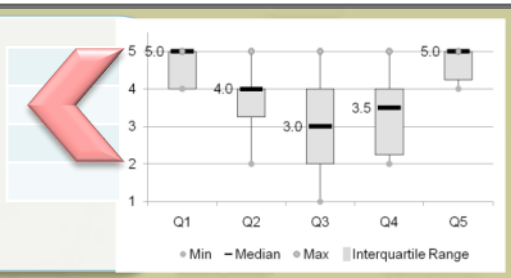
Chapter 4 Analysis Round 1

Round 1

- Q1: Design Has Impact On Communication
- Q2: MIS Is Common Communication Foundation
- Q3: Horizontal Boundaries Are Difficult
- Q4: Vertical Boundaries Are Difficult
- Q5: No RAA Impacts Communication



Note. Text in gray denotes consensus was achieved

Theme 1	Theme 2	Theme 3
Open Culture	Commonality/Resistance to Change	Required Proper Use of Effective MIS Tools.

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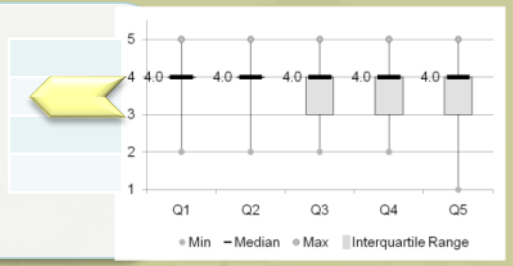
Chapter 4 Analysis Round 2

Round 2

- Q1: Vertical Boundaries Impede Common Practice
- Q2: Dissimilar Groups With No Common MIS
- Q3: Horizontal Overcome By Common MIS All Levels
- Q4: Horizontal Overcome By Common MIS All Teams
- Q5: Mandated MIS Is Necessary



Note. Text in gray denotes consensus was achieved

Question	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5
Common Theme	**Individuals given RAA to use MIS**	**Leadership setting the standard**	**Clear Communication Plan**	**Organizational Support**	**Collaboration of Tools and People with a Common MIS**
Sub-Themes Question A	RAA to use tools 53%	Leader/Manager support to reinforce 35%		Integration of functional and program 18%	Collaboration 24%
Sub-Themes Question B	RAA to use tools 41%		Comm Plan 18%		Collaboration of Tools a People 41%
Sub-Themes Question C	RAA across groups 53%		Comm Plan 6%		Collaboration of Tools and People 29%
Sub-Themes Question D		Lead by Example 53%		Obtain Organization Support 47%	
Sub-Themes Question E			Program Plan 76%		
Average	49%	44%	33%	32%	31%

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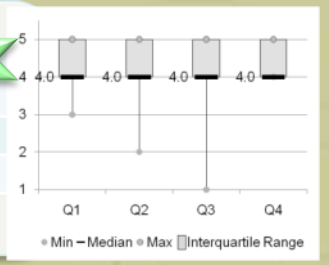
Chapter 4 Analysis Round 3

Round 3

- Q1: Leadership Support For Single MIS Team
- Q2: Centralized MIS To Coordinate Throughout Organization
- Q3: MIS Supported As The Single Authority For Implementat
- Q4: Demonstrated Success To Obtain Support



Centralized MIS teams are good to create commonality for both enterprise solutions and program unique solutions, but require periodic assessment to ensure the tools provided will continue to be the best support capability meeting the needs of the organization.

There is no “one size fits all” solution and the MIS must be adaptive to support the specific needs of the organization and predominately support the end-user for the solutions.

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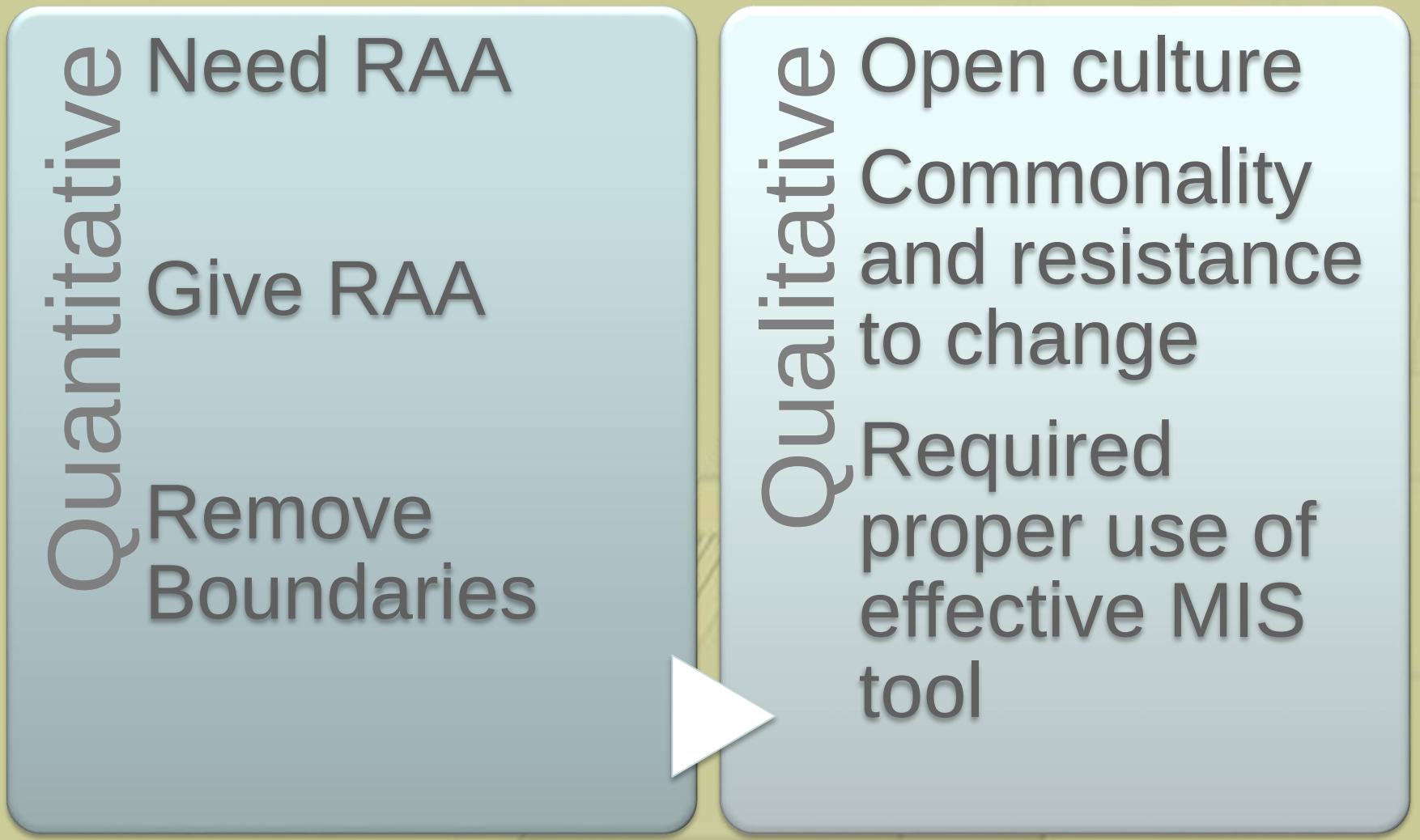
Chapter 5 Findings Round 1



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Chapter 5 Findings Round 2

Quantitative

- Boundaries impede
- Need common tools
- Mandated MIS

Qualitative

- Individuals given RAA
- Leadership setting standard
- Clear Communication Plan
- Organizational Support
- Collaboration with a common MIS

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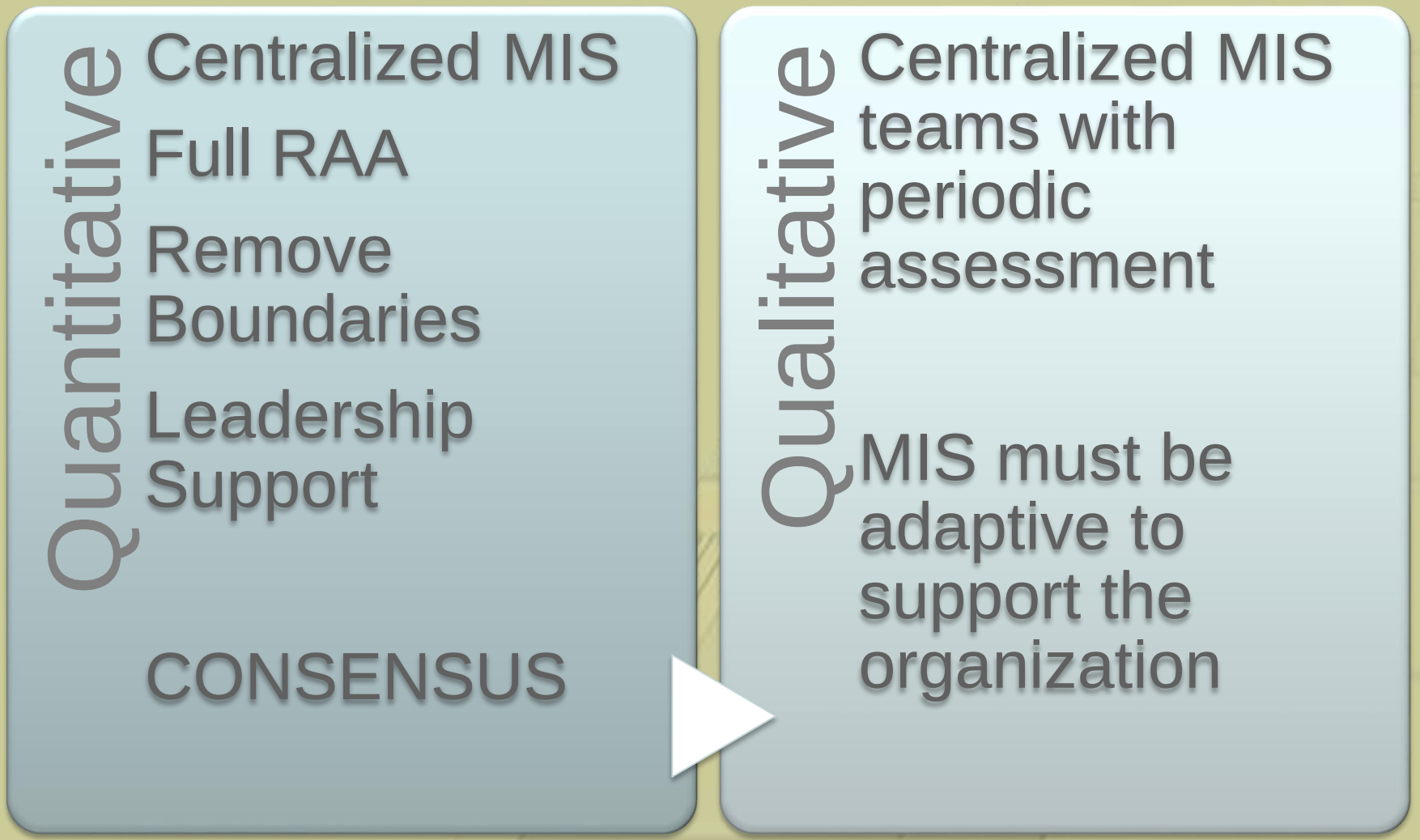
Chapter 5 Findings Round 3



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Chapter 5 Findings Summary

F1: Program and functional leadership must jointly support a single MIS Team to design a cross-integrated MIS to meet the needs of the organization by establishing clear accountability through a program plan to integrate the tools at all levels of the organization

F2: A centralized MIS team is needed to facilitate a closed-loop plan of tools, services, and people coordinated with leadership and the RAA to collaborate with users at the working level to integrate solutions horizontally and vertically throughout the organization.

RAA **Centralized**

Support **Demonstrate**

F3: Leadership from the highest levels to the working levels must support the MIS Team's mission as the single authority to implement the integrated solution plan to support all levels of the organization.

F4: MIS Teams need to demonstrate success and benefit of solutions through actual test cases within the organization that are actively adopted by leadership to set the example and thereby obtain willing support of all individuals throughout the organization

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Recommendations for Leaders

IPO Model

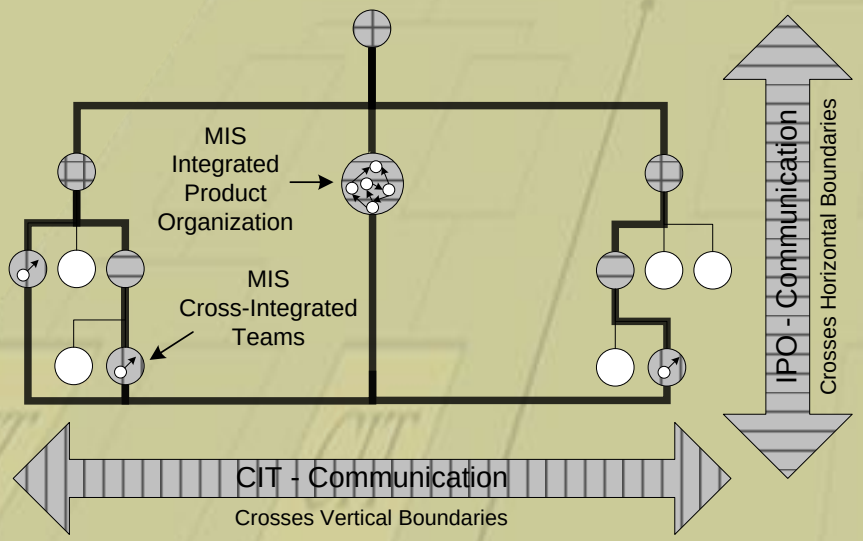
- Common Standard
- Horizontal Boundaries

CIT Model

- Sub-Team Presence
- Vertical Boundaries

IPO-CIT Model

- Clear RAA
- Communication Plan



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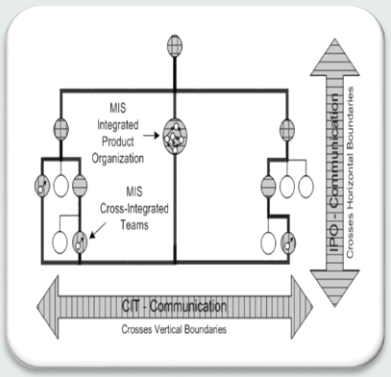
Recommendations for Future Research

Apply similar method to different organization types and functions

Follow-on analysis of separation between Agree and Strongly Agree

Perform a purely qualitative Delphi study with personal interviews



Apply the IPO-CIT Model to an existing organization

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Questions

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References

Gibson, C., Cooper, C., & Conger, J. (2009). Do you see what we see? The complex effects of perceptual distance between leaders and teams. *Journal of Applied Psychology, 94*(1), 62-76. DOI:10.1037/a0013073

Hoopes, J. (2003). False prophets: The gurus who created modern management and why their ideas are bad for business. Cambridge, MA: Perseus.

Katz, D., & Kahn, R. L. (1978). The social psychology of organizations (2nd ed.). New York, NY: John Wiley and Sons.

Klovienė, L., & Gimžauskienė, E. (2008). The role of institutional factors on changes of performance measurement system. *Economics & Management*, 49. Retrieved from http://www.wiley.com/bw/journal.asp?ref=1058-6407

Morris, R. (2008). Stop the insanity of failing projects. *Industrial Management, 50*(6), 20-24.

Weber, M. (1947). The theory of social and economic organizations (edited by Talcott Parsons). New York, NY: The Free Press.

Wheatley, M., & Kellner-Rogers, M. (1996). *A simpler way*. San Francisco, CA: Berrett-Koehler Publishers.

Zehir, C., Altindag, E., & Gunsel, A. (2008). The role of the performance measurement systems on business process reengineering: An empirical study of Turkish small and medium scaled manufacturing firms. *South East European Journal of Economics & Business (1840118X), 3*(2), 49-56. DOI:10.2478/v10033-008-0014-8

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