DETERMINING HOW INFORMATION TECHNOLOGY

IS CHANGING THE ROLE OF LEADERSHIP IN

VIRTUAL ORGANIZATION

By

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ABSTRACT

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The information revolution has changed how people conduct business in many different ways. The Internet technology became the new channel of business that is, less expensive and complex for both, businesses and consumers. Most companies can start their businesses on the Internet with low cost and still deliver the same product or service. Customers have more choices and convenient in buying new product for a competitive price.

Virtual organization is the name of this type of company that conducts their business on the Internet. With employees working in distant locations. That creates a huge challenge to the leaders in these organizations, since they have to make the employees more unified, energized, working in teams and understand the vision of their organization. To implement the leadership skills over the virtual organization, leaders

have to know how to use the technology that will enable them to deliver their leadership skills. E-leader (electronic leader) became the new style of leadership that will shape the virtual organization to thrive in this electronic economy.

The purpose of this study is to determine how information technology is changing the role of leadership in the virtual organization. The study will define the virtual organization, and leadership. Then explore different strategies that the new leader can use to be an effective in the virtual organization.

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Acknowledgment

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Chapter 1

Introduction

<u>Background</u>

The changes that have taken place in the last couple of years have revolutionized the way we do business around the world today. Internet technology is changing our lives and alters many of the business strategies and models. Becoming part of the World Wide Web is a must for every company to compete in the new economy. Technology now is so affordable that thousands of businesses are establishing themselves on the web each year, setting up virtual shops without ever worrying about renting or buying store in different location. This is what is commonly known as the virtual organization, where the employees work at different locations for one company, and they communicate through e-mails, web conference or any other electronic media. This kind of company became the new standard of all business models; companies now to implement new technology to market their products or services. This opens the door for many entrepreneurs who are creative and talented to start up their business at minimum cost with part-time workers.

"Today every business is an e-business, and whether you are selling golf outings over the Internet or manufacturing the carts, there is no escaping the fact that every aspect of the organizational design is profoundly affected by the new rules of the electronic economy. What many people and organizations overlook, however, is the degree to which these new rules are requiring a fundamentally different style of leadership" (Hargrove, 2000,p. 17). It doesn't matter what kind of company or product that one is trying to market and compete with in the new information age, the electronic economy is a big factor that can greatly affect the success of any organization. One of the important

business models that has been altered and become challenging to redefine is the leadership and how they can adopt to this change.

The role and responsibilities of the leaders did not change; the only thing that changed is how the leader can communicate with their people effectively while they are not at the same office building with their leader. The skills of the leader to bring a healthy interdependent work environment, that encourages everyone to work as one team, became the biggest challenge for every leader, since they are not working at one site together.

A new type of leader is not what the virtual organization need, what they need is a leader that can understand the new technology, but not necessary "tech guru". They also need to know how to use it effectively to meet the employee's needs and build relationship, trust and team perception.

Problem Statement

The problem of this study is to determine how information technology is changing the role of leadership in virtual organization.

Purpose of the Study

The purpose of the study is to define virtual organization and leadership, then identify leader strategies that can be effective on the virtual organization.

Objective of the Study

This study will accomplish the following objectives:

1. Define the virtual organization.

2. Define leadership.

3. Identify leadership strategies that are effective on the virtual organization.

4. Identify how to use the technology of the virtual organization to be an effective leader.

Need Statement

Today, the Internet has become the core business approach for every institution, and competition become more intensive. It is very important for any organization to have leadership that can adapt to that change. The leader is a people person, who needs to communicate with their employees to pull them together in one team and makes them feel that someone is caring for them (Clemmer, 1999, p.9). This will help employees to build trust, loyalty, and responsibility among themselves and their leader. With the new form of organization "Virtual Organization" employees are working in different locations using the Internet and they communicate through phone, e-mail, private chat, and web conference. Virtual organization has become very popular and is something that every organization needs to implement. In this new form of organization, leaders no longer can have the face-to-face interaction with their workers, so a new approach to leadership should be considered on how leaders can communicate with their workers and how they can use the technology effectively to be a better leader in the new economy.

Definitions

- **Leadership:** Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own leadership potential. ("Leadership Development Center")

- **E-Leadership:** Electronic leadership is a new style of businesses leadership designed specifically to guide virtual organization as they retool their businesses to compete in the eWorld. (Annunzio, 2001 p. 10)

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- **Manager:** Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers. (The Occupational Information Network (O*NET))

- **Virtual organization:** an organization whose members are geographically apart, usually working by computer email and groupware while appearing to others in the form of a website to be a single, unified organization with a real physical location. (www.Whatis.com)

Research Limitations

- **Limited resource information**
  - The e-leadership is relatively new topic, and there are a limited number of resources that studied in detailed.

- **Different argument about the topic**
  - There are several arguments about the definition and the role of the e-leader.

- **Limited to specific regions**
  - US and Europe are the only places that had began to tackle this subject of e-leadership

- **Time constraints**
  - Since the e-leadership is a new topic, several books and articles are publishing at the time of this study.

Chapter 2

Review of Literature

This chapter is devoted to define the concept of the virtual organization and how business can take advantage of this new form of organization. The leadership concept and principles will be defined and how a leader can be distinguished from manager. Finally, the new concept of the new leadership (Electronic leader) will be explored.

<u>Virtual Organization</u>

"A virtual organization or company is one whose members are geographically apart, usually working by computer email and groupware while appearing to others in the form of a website to be a single, unified organization with a real physical location" (www.Whatis.com 1997, June 15). Virtual organization started attracting businesses, because it is a cost effective and it doesn't require building stores in different locations, people can do most of the business through the Internet from different location that can deliver their products or services to their consumers.

One example of the virtual organizations is Dell Computer Corporation, where you can place your order through the Internet and process the payment as will. Then your PC will be delivered right to your door without leaving your home. That kind of business became more and more attractive to both the consumers and the suppliers. For the consumers it is more convenient, because that's time saving, and for the suppliers to save them the money that they will spend on renting stores in different locations, and paying sales persons.

Virtual organizations are seen as the emerging standard in most of the business models. With the Internet technology continuing to expand and advance, most of the

existing and new organizations are seeing a lot of opportunities and wealth in this new economy.

Davidow and Malone (1992) provided the example of American Airlines' Sabre Reservation System. Sabre is the leading provider of technology for the travel industry. It enhances airline operations such as: pricing, crew management, flight operations, and planning and scheduling. Sabre also provides service for the airline called "Seamless Airport Check-In" that gives travelers the ability to securely check in for flights when and where it's most convenient for them, using wireless and voice authentication technology. Passengers receive bar-coded boarding passes via their wireless devices, which are readable at the gate. Sabre makes money for American airline by providing more information about its customers to members and by giving customers faster response and more choices. This is a core competency that American airline can use to enter profitable partnerships with other airlines. (pp. 45-48)

In the virtual organization the opportunity to partner with other organization has become more reachable and beneficial to competitors, suppliers, and consumers. For example, Gateway Incorporation, partner with UPS (United Parcel Service), has customers order from their website and a copy of the order is sent electronically to the UPS. Then the product will delivered to the customer in a few days. Another example would be the supermarket businesses, like Wal-Mart, can joint venture with one of the delivery service companies and one of the network technical companies that can help them in providing online store, so the customer can order right from home.

According to the study done by Scott M. Preston (1998): " In virtual organization, the work needed to meet a given goal is divided between various other entities based on the perceived competencies of the other partner involved. By integrating their

complementary core competencies, virtual organizations can obtain the benefits of interdependence, reduced overhead, increased profits, greater commitment from members and customers, and increased array of opportunities for future collaborations."

However, working in virtual organization will not be the same as working in one physical location, where everyone can communicate face-to-face, and workers see and feel that they are working together, and part of one organization. While in virtual organization, people are working in different location and it is very challenging to make them feel that they are working as one team sharing single goal and vision. It will be the leader role to bridge this gap, and look for ways to convert their skills by using the new technologies to communicate with their workers.

Leadership

Leadership is important in our society. For example the President of the United States, the Chief Executive Officer of a company, a teacher in a school and the student who is president of an organization are all leaders. According to Warren Bennis "Leadership is a function of knowing yourself, having a vision that is well communicated, building trust among colleagues and taking an effective action to realize your own leadership potential". ("Leadership Development Center") It is very important for any leader no matter what position they are in, to have a vision that everyone in the organization understand and believe to be achievable. Communication is the key to any leader to be successful, so any worker can feel more comfortable to talk to their leader. By building communication between leaders and followers, it will build trust among each other and themselves so they can make decision in their job with more confidence. According to John Gardner (1990) "Leadership is the process of persuasion and example

by which an individual (or leadership team) induces a group to take action that is in accord with the leader's purpose or the shared purposes of all." (p. 1)

Stogdill (1974) identified six categories of personal factors associated with leadership: capacity, achievement, responsibility, participation, status, and situation. And he believes that leaders don't become leaders by traits or combination of traits. "A person does not become a leader by virtue of the possession of some combination of traits" (Stogdill, p. 64).

Hencley (1973) researched leadership theories and noted that, "the situation approach maintains that leadership is determined not so much by the characters of the individuals as by the requirements of social situation" (p. 38). According to this research, a person could be a follower or a leader depending upon circumstances.

According to Méndez-Morse, (1999), to determine what makes leaders effective; one should look at their behavior. Their behaviors can be categorized in two common dimensions: *initiating structures* (concern for organizational tasks) and *consideration* (concern for individuals and interpersonal relations). Initiating structures include activities such as planning, organizing, and defining the tasks and work of people: how work gets done in an organization. Consideration addresses the social, emotional needs of individuals, their recognition, work satisfaction and self-esteem influencing their performance. Speculation about which dimension, initiating structures or consideration, was more important for various situations led to the assessment of leaders' skills along these two dimensions.

Among the assessment instruments developed to measure leadership skills, the Leader Behavior Description Questionnaire (LBDQ) has been the most used instrument. Halpin (1966) stated that one of the major findings resulting from the LBDQ data was

"effective leadership behavior tends to be closely associated with high performance on both dimensions" (p. 97). In summary, the situation approach to leadership supported the argument that effective leaders are able to address both the tasks and human aspects of their organizations.

Leadership style is how the leaders behave when they are trying to influence the performance of someone else. Leadership style can be classified into four basic styles: Directing, Coaching, Supportive, and Delegating. Given how these are quite different from each other, but each style is considered to be a combination of directive and supportive behaviors (Blanchard, 1985, p. 30).

Directing leadership is one-way communication, in that the leader just gives orders and specific instructions on how, when and where to do something to his subordinates and then monitor them closely (Blanchard, 1985, p. 31). The leader primarily makes most of the decisions; moreover, the leader does not give his subordinates the opportunity to voice their opinions. This style is characterized by a high task orientation and low relational behavior (Wren, 1995, p. 209). This style is appropriate when decision has to be made quickly; in addition it is better with enthusiastic beginners as well (Blanchard, 1985, p. 36).

Supporting leadership is two-way communication in that the leader acts as a facilitator for his workers. The leader does not give direct orders, on the contrary the leader helps his employees to reach their own solution by asking them questions relevant to the problem which will give them some ideas that enable them to solve the problem (Blanchard, 1985, p. 30-32). The leader supports the ideas of his employees and listens to their suggestions, builds up their confidence and motivation (Hesselbein, Goldsmith,

and beckhrad, 1996 p. 178). This style is best for experienced people who like to be listened and supported (Blanchard, 1985 p. 32).

Coaching Leadership is high on direction and support. It works best with new inexperienced hired employees to build up their skills (Wren, 1995, p. 209). In this style, the leader praises and encourages his employees and involves them in decision-making as well (Blanchard, Zigarmi, Zigarmi, 1985 p. 57). Decisions are primarily made by the leader and with dialogue and explanation (Nanus, 1992, p. 150).

Delegating leadership is characterized by a low task orientation and low relational behavior. This style works well with people who are self-oriented achievers (Blanchard, 1985 p. 42). Leaders operating in this style end to turn over responsibility for decisions and implementation, moreover, decisions are primarily made by the followers (Bredin, 1996 p. 164)

Principles of Leadership

There are many principles that every leader should possess to be an effective leader. Rosen (1998, pp. 234-235) found that there are eight principles of leadership:

1. **Vision:** leaders see the whole picture and articulate that broad perspective with others. By doing that, leaders create a common purpose that mobilizes people and coordinates their efforts to make the vision reality.

2. **Trust:** without trust, a leader will have a hard time communicating with people. However, having trust can bind people together, and make them more comfortable and more responsible.

3. **Participation:** makes the organization more active, energetic, and inspiring. Leaders have to participate on deferent levels in the organization.

4. **Learning:** leaders must understand themselves. They have to know their strengths and when and how to use them, and their weaknesses and how to avoid them. Leaders should also know how to adapt to new circumstances and technologies.

5. **Diversity:** successful leader knows the power of diversity and position of prejudice. They understand their own biases, and they actively cultivate an appreciation of the positive aspects of people's differences.

6. **Creativity:** in a world where smart solutions outpace excessive work creativity is crucial. Leaders should pay close attention to people's talents, learning on their strengths and managing around their weaknesses.

7. **Integrity:** a leader must stand for something. As a public citizen and private person, he/ she knows what is important in life and acts by deep-seated principles.

8. **Community:** it is a mutual commitment, and it inspires the highest performance. Leaders have to stress the organization's responsibility to the surrounding society.
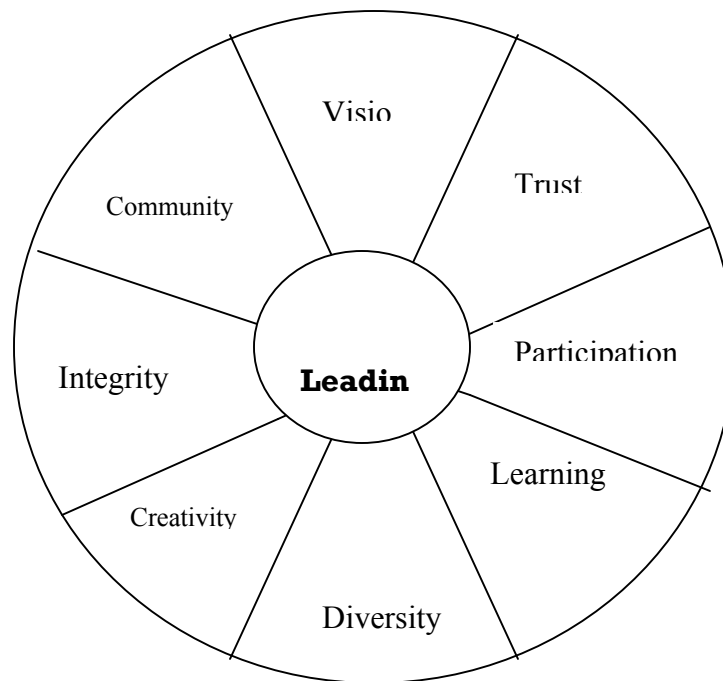
Figure 2-1. The Eight Leadership Principles (Rosen, p. 235)

These eight principles are the most important components to effectively leading people, but not a lot of leaders fully attain them, but the good leaders strive for them. Having the vision is the first and most critical to any organization, so it's the leader duty to create a vision that everyone can understand and to believe it is attainable and realistic. It is also important that the leaders have trust in the people whom they work with to make them more comfortable and responsible for their actions. Leaders participation with their workers at different levels inspires the latter and makes them feel that they are part of the organization. By participating with worker, leaders can also learn more about the strengths and weaknesses of their workers.

Leader Vs Manager

The differences between manager and leader noted by Nanus (1992, pp. 10-11), can be found in Table 2-1.

Manager	Leader
Administer	Innovates
Copy	Original
Focus on system and structure	Focus on people
Relies on control	Inspires trust
Has short range view	Has a long-range perspective
Ask how and when	Ask what and why
His eye always on the bottom line	His eye on the horizon
Imitates	Originates
Accept status quo	Challenge it
Classic good solider	His own person
Does things right	Does the right things

Table 2-1. Leader Vs Manager. (Nanus, 1992, pp. 10-11)

"Managers are people who do things right and leaders are people who do the right things" (Bennis & Nanus, 1985 p. 21). Burns describes managers as transactor and whereas leaders transformers (1978 p.15). The skills of a manager facilitate the work of an organization because they ensure that what is done is in according with the organization's rules and regulations. The skills of a leader ensure that the work of the organization is what it needs to be. Leaders facilitate the identification of organizational goals. They initiate the development of a vision of what their organization is about. "Management controls, arranges, does things right; leadership unleashes energy, sets the vision so we do the right thing" (Bennis & Nanus, 1985 p. 21).

"Both management and leadership skills are needed at the organizational, team, and personal levels. Trying to run an organization with only leadership or management is like trying to cut a page with half a pair of scissors. Leadership and management are a matched set; are both needed to be effective" (Clemmer, 1999, p.9). It is very important to have a complete working system within the organization to function in any kind of business. There are two important factors that make the system work efficiently and that is, the people who will perform the job and the tools that they need to use. Having these two factors does not assure a successful organization. People need to be motivated, empowered, energized and valued, and that's where the leader began to have an important role.

The management is important in developing the latest tools and techniques to help their workers performance. According to Clemmer (1999), "Systems and processes (management) for example, are critical to success. You and your organization can be using the latest technologies and be highly focused on customers and those serving them (leadership), but if the methods and approaches you're using to structure and organize your work are weak, your performance will suffer badly. People in your organization can be empowered, energized, and enlightened; but if your systems, processes, and technologies don't enable them to perform well, they won't. Developing the discipline and using the most effective tools and techniques of personal and organization systems and processes is a critical element of high performance." (p. 9).

Clemmer (1999) also made the following distinctions between management and leadership.

Management	Leadership
Systems, processes, and technology	People - context and culture
Goals, standards, and measurements	Preferred future, principles, and purpose
Control	Commitment
Strategic planning	Strategic opportunism
A way of doing	A way of being
Directing	Serving
Responding and reacting	Initiating and originating
Continuous improvement of what Is	Innovative breakthroughs to what could be

Table 2.2. Management and Leadership.

It's very difficult to find a manager and leader in one person. The tasks and the roles of leaders are different from those of managers, as their perspective and skills, their measures of success, and their functions in an organization. However, some people elevated to leadership positions only after successful managerial careers.

E-Leadership

As life advances and advances, and as everything becomes computerized, and as the Internet started to occupy an enormous role in the business and industry, leaders should change their emphasis and attitudes to take a full advantage of the Internet. Today most of the business became an e-business, and every aspect of the organization is greatly affected by the new rules of the electronic economy. The Internet has connected the

world countries together and made the world a small country that is easily to maneuver and communicate. Presently many companies are internet-based companies in that it does not have an identity on the ground but it functions and sells their products or services online.

The electronic companies can be exemplified in selling phone cards through the Internet regardless the shopper's place. A shopper can place an international order and receive her or his order no matter where their home is. On the basis that many companies in different areas of the world can be unified through the Internet. However, these companies would not function properly if the backbone of the operation was missing, which is the leadership and management.

Electronic leadership (e-Leadership) has evolved upon the expanded use of the Internet in various aspects and sectors. E-Leadership is a new style of businesses leadership that was developed from the growing reliance on doing business over the Internet. "Electronic Leadership (E-Leadership) means shaking up your corporation culture and fostering an attitude of speed and flexibility in order to facilitate the internal transformation to an environment for the new economy" (Annunzio, 2001, P.12). E-Leader role did not change, but their interaction with workers has changed a lot, since most of their workers work in different locations.

The letter E became common after the Internet revolution began; electronic mail (e-mail) was the first word to have the E placed before it. Then e-business, e-commerce, e-book, e-seminars, etc. and e-leadership started to be part of this revolution. One of the important roles of the e-leader in the virtual organization is to use the technology available to help them better understand and communicate with different level in the organizations. And that will also help them to see different opportunities, and how

they can translate their vision into reality. (Grenier and Metes 1995) listed six skills that leader must have to exceed in the virtual workplace:

1- Understand the relationship between the use of the information and the enabling technology. This includes obvious areas such as processing and information network, but it also includes technical intensive activities such as computer aided work process simulation; audio-, video-, and computer conferencing; distance learning; and other techniques and applications that are available.

2- Become familiar with the technologies and techniques that are central to establishing and maintaining the flow of the information during virtual operation like: e-mail, electronic conferencing, accessing private and public database networks. That will help the leaders to communicate with other workers and became more comfortable using the new technologies.

3- Know how and when to replace traditional work processes with virtual ones. Technologists will provide the detailed designs, but leaders should visualize electronic rather than manual processes. These skills can come from experience, supplemented through directed exercise and simulations.

4- Know how to calculate the value of electronic support systems and identify and validate metrics that are meaningful to management, technologists, and the workers who compile them.

5- Recognize and encourage creativity and technological innovation. Virtual operations generate good ideas about possible applications of technology. Leaders need to be constantly alert to these and be willing to experiment with ideas that appear to have merit.

6- Be technology teacher, coach, and motivators. Leader must insist that all players adapt to the protocols that are designed into the project. Therefore they must support continuous learning, and be willing and assure its availability throughout the project (p. 109).

Becoming an e-Leader doesn't change their role and responsibility. People still have morals and values that every leader should take it in consideration. No matter how technologies are changing, people need to feel that they are an important part of the organization and to be recognized. They still need to believe that what they are doing makes a difference. Leaders must help them by articulate and communicate not only where an organization is going but also how to get there (Annunzio 2001, pp. 27-31). Found there are still list of qualities those e-Leader needs to acquire to develop a successful work environment.

Honesty. Honesty is the first distinguishing characteristic of successful e-Leaders. Being an honest e-Leader will affect the working environment in different manner. Well-mannered e-Leader should instill mutual trust and confidence and create a culture that fosters high standards of ethics. In the end, people follow leaders; therefore, e-Leaders should be a role model to their employees and an example in everything they do. Prosperous virtual organization needs honest e-Leaders, who can share their weaknesses and are prepared to be real and can admit their mistakes and try to correct them (Annunzio 2001, p. 27).

Responsiveness. An e-Leader needs to reflect his carefully constructed environment. E-Leader should be outgoing, flexible, and freely open to the constructive opinions of the employees. E-Leader should not be arrogant and self-centered on the

contrary one should let his employees to voice up and take a comprehensive decision (Annunzio 2001, p. 28).

Vigilance. Continued success means being vigilant in keeping everyone on their toes. E-Leaders should not stay in their offices; rather they should spend most of their time with the workers and conducting regular meetings with top managers to keep things going smoothly and in the right direction. E-Leaders should make sure that they are aware of everything going on in their organization and they should make the employees feel connected and loyal to their work (Annunzio 2001, p. 28).

Willingness to learn – and relearn. E-Leaders should be open, flexible, and outgoing not arrogant and stubborn. E-Leaders should not presume that they know everything the best; rather they should learn new skills and acquire new information to stay on top. They should make them self-open to every new single experience they might learn from it so they can keep up with the cutting edge knowledge (Annunzio 2001, p. 29).

Sense of adventure. As life is rapidly growing in a fast pace, e-Leaders should share an ability to live in the world of speed and enjoy it. They should be creative and think innovatively. E-Leaders should be quick decision makers and have a wisdom and gumption. They have to know how to draw the fine line between quality and execution (Annunzio 2001, p. 30).

Vision. Great leaders throughout history have had a clear vision of the future and have been able to share that with their followers. Visionary leaders are essential for the success of their organizations. E-Leaders should be always think and plan ahead of time and bring always more constructive ideas for the developing of their organization. They

should also communicate their vision throughout the organization so that everyone is clear on where is the organization is headed (Annunzio 2001, p. 31).

Displaying these qualities over the virtual organization is a challenge for the e-Leader. Using the technology that will enable them to communicate effectively and create a healthy environment where everyone would feel the unity of the organization.

Conclusion

Success in the new economy depends on having an organization that is fast and flexible to change. The growing advance in technology demand faster decision-making and increased globalization and competition. It also increased customer demand and expectations, and they have more choices than ever before. In respond to that change, many organizations began to relay on virtual teams, that work at different locations, sometime in different countries, and different cultures, or they might be in different organizations. Communication between the team is mostly through the Internet in the form of e-mail, online chatting, or some electronic media. That creates great challenges for the leader on how to support the team perception, build trust, energize, and communicate her or his vision to them, and that's demand the leader to be more knowledgeable about the technologies that they need to become and e-leader in the new economy.

According to Hoenig (Lose the "E", 2000) "Product development, executive decisions, company life cycles and technology penetration are all happening faster than ever. Massive deals are completed in weeks or days rather than months. Leaders today must be more decisive and more comfortable with rapid, iterative modes of action. More complexity is needed to make things simple. The level of technical sophistication embedded in most businesses has increased significantly. Leaders today must be more

technically savvy and more adept at leading technical workforces with higher levels of specialized knowledge than ever before." The other critical factor that e-leader should be aware is the culture diversity in the work place, and created from more women and young workers in the workplace to globalization.

Leaders need to be more aware of the changes and developments in their industry and other industries as well, wither in technology, politics, health, education, agriculture, or any other factors that can affect their business. At the meantime, the development in new technologies is the main focus for every organization, profit and nonprofit, in order for them to compete in the new economy. The information revolution and the Internet technology brought a new type of organization that is the virtual organization. These type of organizations has one location which is the Internet, in form of a website, and has an employees work in different locations. The leader who will handle such an organization, has to know how this type of organization function, and to use the appropriate tool of technology to enable them display their leadership skills.

Chapter 3

Methodology

<u>Introduction</u>

      The purpose of this study was to examine and explain the concept of leadership in virtual organizations. This study concentrated on identifying the new concept of leadership and its role in leading people in the virtual organization to success. This study also stated the feasible application of e-Leadership (Electronic leadership).

      In this chapter, definitions and descriptions of the methodology approach was explained as well as procedures of data collection that was used to review and analyze the existing body of knowledge in electronic leadership.

<u>Research Design</u>

      The purpose of this study was to examine the effect of the virtual organization on leadership role, characteristics, and leaders reactions toward those changes. Books, journals, previous research, online articles and search engines, which included: www.google.com, EBSCO, ProQuest and Wilson Web, were used to collect information. The Mete-analysis method was used to analyze these different resources. According to Arindam Basu "Meta-analysis is essentially synthesis of available literature about a topic. Ideally, synthesis of randomized trials to arrive at a single summary" (<u>How to conduct a meta-analysis</u>). When conduct a mete-analysis on a new topic that has some debates, the reader will have the synthesis of more than one research combined in one study. Falchikov and Goldfish noted " Meta analysis allows the evidence from different studies to be combined so that individual studies become data points in large population of studies" (2000, p. 290)

The first step in this study was writing an outline for the information needed to be addressed, collecting the information according to the outline, validation of the information collected, and finally, writing the research.

The problem statement of this study is to determine how information technology is changing the role of leadership in the virtual organization. To do that, both leadership and virtual organization have to be defined and described to have a clear of understanding of how they are related. It is also important to redefine leadership according to the virtual organization, which is the e-leadership (electronic leadership).

The research is divided into three interrelated themes: virtual organization, leadership, and e-leadership. The first part of this study aimed to define and explain how the virtual organization structured with some examples to illustrate this new model of business. Then, the definition of leadership was stated along with the concept from different authors. Styles of leadership and principles then were presented to further describe what separates a leader from a non-leader. The differences between leader and manager were put in the form of tables to make the distinctions clear and understood

After explaining and defining the concepts of leadership and virtual organization, the electronic leadership is explained with its new characteristics.

Chapter 4

Findings

<u>Introduction</u>

"The e-leader: An executive-level position that brings business savvy to the company's Internet initiatives. In short, the e-leader is someone who can map a route into the new economy" TechRepublic ("Winning strategies for CIOs and the new e-business leadership," 2000). The electronic leader is the person who can lead the virtual organization by creating a strategic vision and identify the people who can execute this vision into reality. The e-leader doesn't have to be an expert in the new technology. But they have to be more comfortable with the changes and development of the new tools that they can use to enable them to practice their leadership.

To guide the company in the new era, e-leader has to be at least familiar enough with the technology in order to avoid anxiety that cause by continues changes and development in technologies. TechRepublic ("Winning strategies for CIOs and the new e-business leadership," 2000) noted about the e-leader that "Ideally the person who is going to head it up has some affinity for the Web, for the Internet, for the technology, They don't have to be a technologists, but they have to be comfortable with the technology." To lead the virtual organization over the Internet, one shouldn't focus on technology and overlook their core business approach. The focus should always be how to develop products or provide a service that the customer wants, so the focus should be on the end user.

It is very competitive to find an ideal e-leader that can transform their leadership qualities to apply it in virtual workplace, and that caused from the fact that this is a new

business approach. Several people from different area of expertise who saw the opportunities of the new Internet business began to become an e-leader. According to At Kearney executive search survey (Sept 2000), these people come from science/technology (41%), finance/business (26%), marketing (24%), post-graduate studies (6%), unknown (3%).
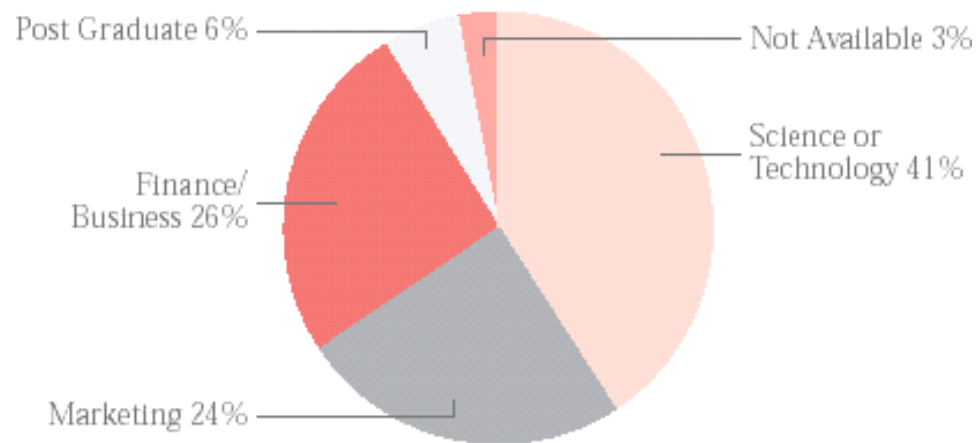

Table 4-1. E-leader Qualifications

<u>E-leader Characteristics</u>

Many of the e-leaders are coming from science, business, or marketing and most likely to having a technology background. Most of whom they became successful have similar strategies, Don MacRae (2001) explain six of them that every e-leader must have to succeed in the new economy, they are:

- **Create the future rather than a better status quo:** build a long-term future goal that everyone in the organization agreed to be possible to accomplish.

- **Create a "teachable vision.":** encourage people to participate in drawing a vision that is believed to be achievable and that will make your organization stay on the top of its industry.

- **Follow a strategy your customers set, not you:** know what the customers needs and listen to their comments, from there the strategy can be driven to meet the customer satisfaction.

- **Foster a collaborative culture:** create an interdependent work environment that encourages the team collaboration from different levels in the organization.

- **Think globally:** technology allow many businesses to access the global competitions through the Internet, therefore e-leader should take this opportunity to focus to a wide verity of customers, suppliers and partners.

- **Thrive on information:** e-leader can track information closely and quickly to adjust their strategy. Information like, sales, customer satisfaction score, employee turnover, delivery rate and so on.

The role and responsibilities of the e-leader in the virtual organization becoming more challenging and demanding global thinking strategies, becoming comfortable with the technologies, which can help the e-leader in forecast the changes in the environment and make a quick responds to meet these changes. Almost every business can operate in global level in the electronic economy that is will connected through cyberspace.

The Internet technology enabled many organizations to be more focused on products and services in which they can deliver to their consumers. And that by merging two or more organizations together to form a partnership to share their full strength. Martin noted, "By forming a partnership the corporation can replace its less-than-competent areas. This is increasing essential for world-class competition. Today's network, video conferencing, and computerized tools make possible agile but tightly coupled linkages between corporations. Agile webs corporations are starting to become a

vital part of the cybercorp world and will fundamentally change future commerce" (1996 p. 17).

The e-leaders don't have to be either a technology nor business management expert, but they ought to know how technology works and can see where the business is heading to help them achieve their vision into reality. Mills noted " The E-leader guides a nontraditional firm to success in the new economy. He or she may be expert in the new technology, but that isn't absolutely required. What is required is to identify who are and support them, even stepping out of their way if necessary-to let newer people point the direction of the company or to recognize who among longer-service employees have an organizational framework (positions and culture) in which the new can displace the old. This is the core of e-leadership"(2001, p. v).

Some of the e-leaders are already a technical professional background that elevated to the leadership position. The advantages of such a leader are to avoid over-spend in technology, from what and when to buy new equipments to the maintenance of the existing equipments. Moreover, they know how to take a full advantages and invest wisely in technology, so that they don't over-spent in it. This is not to say that the e-leader has to be a technical expert, but the nature of the Internet business necessitate the e-leader in any executive positions to be more vigilant on technologies and the changes that can effect their industry. TechRepublic, recognized the e-leader position as " An executive-level position that brings business savvy to the company's Internet initiatives. In short, the e-leader is someone who can map a route into the new economy" ("Winning strategies for CIOs and the new e-business leadership," 2000). It is important for the e-leader to realize the vital role for every business especially the information system (IT), since the business shifted to the electronic commerce and this channel became one of the

most popular, convenience and competitive in the new economy. And the e-leader has to work very closely with the IT staff and support them, as will as other department.

According to Dr. David Johnson at the University of Wisconsin-Stout, for any business to be successful, it has to have three fundamental business priorities, which are, profit, customer satisfactions and interdependent work environment (Personal communication, 2000). Working in team that will collaborate with each other, generate a successful productive work environment. In the traditional organization, people communicate face-to-face with each other, which will help them to work together closely and know each other better. One of the factors that make the teamwork successful is to trust each other. Also one of the leaders tasks to build trust among the team members. Relationship is one of the most important components to build trust, encourage them and keep them inform of their contribution. Hesselbein et. al. (996) noted that " the three major challenges CEOs will face have little to do with managing the enterprise's tangible assets and everything to do with monitoring the quality of: Leadership, the work force, and relationships" (p. 17). In the face-to-face environment, people can see who comes to the meeting and who doesn't, who usually leaves early and who stays late. Body signs and expression, tell whether the team likes to work with each other or not.

Moving from the traditional organization to the virtual organization bring a new challenges to the leader and the team as well, most importantly is how to build trust in a team that don't see each other, their main channel of communications are through electronic media. According to Dr. Gundry, (2000), "Leaders who need their remote team members to trust each other have to work very hard to build communication amongst them. This can be done through team building, face-to-face or online, or through the interactions that accompany work. Often a team-wide online learning course is a good

way to start a virtual team communicating amongst themselves. Either way, the amount of communication correlates positively with the opportunity calibrate others and thus to build trust".

It is very difficult to work with a team that has never met. Dr. Gundry advised that the team should meet at least one time before any major project, so they can feel more close and comfortable with each other. The more communication they have, the better they know and trust each other.

Using the new technology of the Internet effectively can help many organizations to speed up their projects time with minimum cost, increase their production level and make it easier for them to customize their products to different customer. The Internet also opens the channel for several organizations to associate locally and internationally to collaborate their products and services. This helped both, the consumers to have new products with minimum cost, and the organization to focus on the research and development new products.

Chapter 5

Conclusions and Recommendation

Leadership in the virtual organization was the focus of this study. Thus, both leadership and virtual organization were defined. The virtual organization-based leadership (electronic leadership) was explained. Books, journals, previous research, online articles and search engines, such as, www.google.com, EBSCO, ProQuest and Wilson Web, were used to collect information. A Mete-analysis method was used to analyze these different resources.

Conclusions

The objectives of this study were to define the virtual organization, which is created from the Internet technology. The company's website is the only location that people from around the globe can have access to that site. The people who work for this type of organization are scattered in many locations, yet working for the one company, and that is the big challenge for the new leaders who will shape the future for these organizations. The second objective was to define leadership and how this concept has been altered by the virtual organization. The leader role has been shifted from traditional to virtual communication, that led to a new type of leadership; which is the e-leadership (Electronic leadership).

The third and the fourth objectives were to identify the strategies for the e-leader on their role to be an effective leader on the virtual organization, and how to take a full advantage of the new technology. Some important strategies are to be familiar with the technology to communicate better with their employees, identify how new technology will benefit the company, and have a clear vision for the future.

Recommendation

The study of the virtual organization became more popular by the emergent of the Internet and the growing number of its users. Many businesses began to take their place in the Internet market. The awareness of how the virtual organization work becomes less complex and more convenient for both the businesses and consumers.

To make the new system of the virtual organization works successfully, e-leaders have to apply their leadership qualities to suit the new system. The major concern is the lack of communication among virtual employees, which makes them feel less unified, and more separated, in view of the fact that they work at diverse locations. Consequently, the e-leader has to possess both the technical and leadership competencies needed to keep the employees well communicated, functioning and updated as if they were in the same building.

An e-leader acts as the change agent that will connect the virtual workplace using the proper technology tools, and that requires both the knowledge and awareness of the available assets to utilize rapidly changing technology. Conducting regular training classes and seminars will help the employees to know how the overall virtual system of their business works together. These workshops should not be more than a weeklong and at least once every three to six months. The e-leader should remind employees about the corporate goal and vision, and her/his appreciation to their effort and contribution to the company. Solutions to different problems if any can also be discussed and tackled. In addition Constructive ideas, visions, suggestions can be brought up.

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