E-Leadership: The Emerging New Leadership for the Virtual Organization

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Abstract

The digitization of information is fundamentally changing the way we work and create value. Now significant human interactions are mediated through information technology. Consequently, new organizational form and new work environment is shaping up asking for reconstruction of the concept of leadership. The new organizational form is called virtual organizations, new work environment is known as E-environment and the emerging leadership pattern is labeled as E-leadership. The distinguishing feature of E-leadership is the new interface between leader and his followers. The traditional face to face interaction is being replaced with one mediated by information technology. The global leadership traits considered necessary for traditional leaders are equally applicable to e-Leaders. What distinguish e-Leaders are the skills, attitudes, knowledge and their professional and personal experiences. Moreover e-Leaders are neither "technology guru" nor "business wizards". They know technology, its effective use and the business direction of the organization.

Introduction

Leadership patterns are beginning to reflect transition from industrial to post-industrial society. The new society variously called information society, knowledge society or digital society is marked by rapid and far reaching changes in digitalization of information and communication technology. In the industrial economy, power and information were filtered through hierarchical structures and formal authority; in the networked economy power and information are informal and hyperlinked

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(Pulley. 2000). The digitization of information is fundamentally changing how we work, how we organize work, and how we create value (Brown, Duguid, 2000). In the realm of organizations a quiet revolution has been taking place around the world. Now significant human interactions are mediated through information technology. Consequently, new organizational form and new work environment is shaping up asking for reconstruction of the concept of leadership. The new organizational form is called networked or virtual organizations, new work environment is termed as E-environment and the emerging leadership is labeled as E-leadership or Electronic leadership (Bruce J. Avolio, Surinder S. Kahai ,2003).

Conceptual Framework

Extensive literature review suggests that the concept of E- leadership is the logical outcome of E-work environment brought about by the developments in the information technology and its integration in organizational processes. This is shown in Fig. 1 as a conceptual frame work. According to this framework the use of information technology over the years has been altering the way organizations are conducting their business. As a result new organizational form - virtual organization / networked organization - has emerged. Accordingly, the interface between leader and followers has changed. Now they stay in contact with each other interacting through E-technologies (telephone, overnight express mail, fax machines, and groupware tools such as e-mail, bulletin boards, chat and video-conferencing etc). This is an E-environment that was not available to the traditional leader and his followers. The new work environment necessitates new leadership competencies, known as E-leadership. The conceptual framework is further explained in the subsequent discussion.

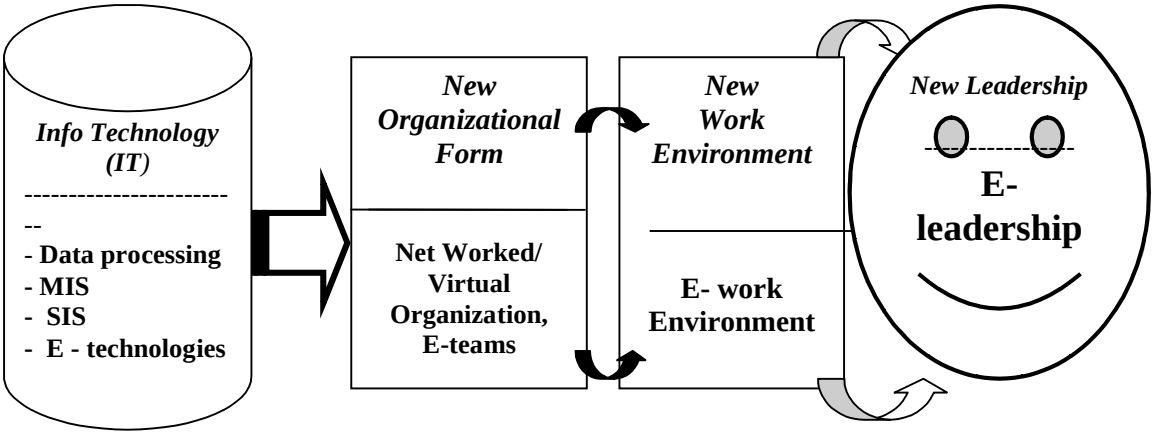

Figure 1: Conceptual Framework of Emerging E-leadership for E-work Environment

Integration of Information Technology in Organization

According to one approach the evolution of information technology in organization has passed through four stages (Tassabehji, Wallace & Cornelius, 2007). These stages are summarized in Fig. 2 on the next page. Drawing on Anthony (1965) and Nolan (1973), Ward and Peppard (2002) identified the first stage as the era of 'data processing'. The Data Processing stage began with the advent of computers. The objective of computer induction, say Tassabehji et al.(2007), was data automation and exception reporting. Computers facilitated data collection, storage and retrieval at a speed unknown before. However, operation was fragmented, limited by the hardware. Both the information and the system were removed from the end users (Tassabehji et al., 2007).

The use of computers for management information system in the next stage was a major breakthrough. It started when the technology developed further from the mainframe era to the micro-processor era. The use of information technology throughout the organization increased and network became possible. Operation became more distributed and processing power of computers enhanced significantly. In this era the use of information technology helped in decision making. This era started in the seventies and remained throughout eighties (Tassabehji et al., 2007).

Further developments in networks and computers in the eighties proved powerful and their integration in the business organizations helped them to use information technology as strategic resource for creating and sustaining competitive advantage (Venkatraman & Zaheer, 1990). Information Technology, they believed, technology created competitive advantage in four ways - through changing industry boundaries, business definition and redefinition, influencing the competitive mechanism, and the creation of new business opportunities.

"The emergence of E- technology is reliant upon the integration of management information systems and its associated data, legacy hardware and software, and more recent internet based components."(Tassabehji etal., 2007). For the successful management and exploitation of e-technology, it is therefore, crucial that organizations are able to integrate disparate hardware and software components (Lee, 2003). Such integration of e-technologies can be internal, exclusively within the organization, or external, linking to the systems of stake holders within the supply chain, outsourcers and shared data (Themisto cleous, 2004). The distinguishing feature of the e-

technology era is the emergence of E-environment which has been transforming the role of traditional leadership into E-leadership.

E-environment is the result of developments in e-technologies and their applications in organizational work environment. In this environment new opportunities arise from the increasing sources of data captured by alternative and different technologies and the wealth of information these can yield (Tassabehji et al., 07). For example, e-technology integration leads to the creation of internal and external databases, some terabytes in magnitude which is accommodated in data warehouses within the e-environment. Consequently, the e-environment provides the organization with full visibility across the value chain and more internal visibility and control. Bill Gates (1999) presents the idea of an organization becoming digital nervous systems, providing well-integrated flow of information to the right part of the organization at the right time. He further asserts that it consists of the digital processes that enable a company to perceive a threat to its environment, to sense competitor challenge and customer needs and organize timely response. With the creation and continuous development of the e-environment, organizations will inevitably increase further in complexity. This will lead to organization whose business process are predominantly driven by e-commercial activities and 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 This organizational form is a virtual organization.

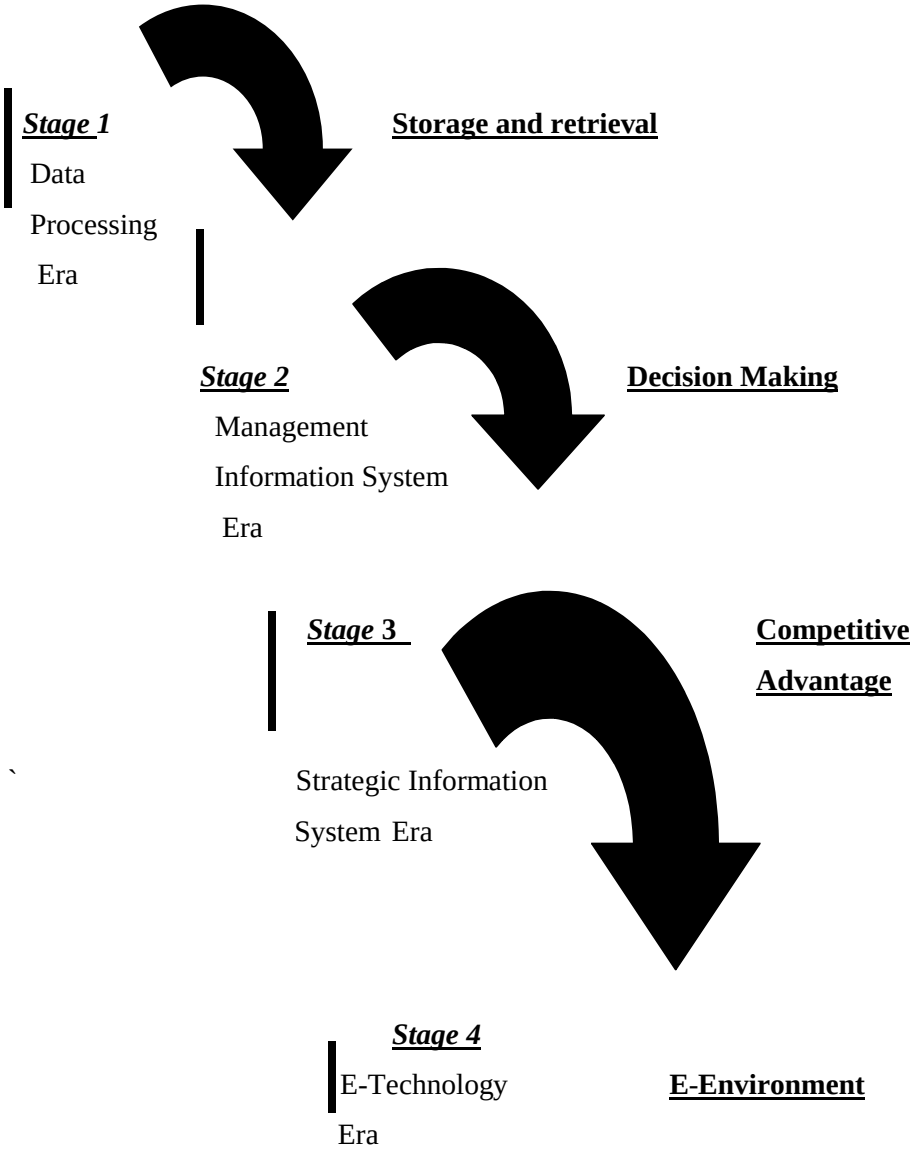

Figure 2: Evolution of IT in Organization

What is E- leadership?

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 now e-leadership started to be part of this revolution.

E-leadership (Electronic leadership) takes place in the context of e-environment in which the work is mediated by information technology particularly the internet (Hani, 2001). In such a context not only communication between followers and leader takes place through information technology but the collection and dissemination of information also takes place through the same mediator (Avolio et al., 03). Thus, the basic role and the responsibilities of the leader do not change; the only thing that changes is how the leader can communicate with his/her people effectively while they are not at the same office building with their leader. Moreover, the E-leader need not be a "tech guru"; he should understand the new technology. He needs to know how to use it effectively to meet the employee's needs and build relationship, trust and perception. (Hani, 2001)

There are timeless, universal characteristics of leadership that remain important in the E-environment also such as passionate commitment, focus and discipline, charisma, and other features identified by observers of leadership over the ages. These co-exist in a different mix with E- factors. Moreover, there is no global E-leadership model that applies every where. The new leadership will vary somewhat from country to country, culture to culture, and sector to sector. It is more visible in economically advanced societies and in organizations where the use of information Technology has entered the advanced stage.

Need for E-Leadership

Kurlan & Egan (1999) identified three main leadership challenges posed by the E-environment. These are professional isolation of workers, distance monitoring and perceptions about distributive justice when employees are not physically present. The authors believe that these challenges ask for new leadership competencies associated with E-leadership.

The new work environment has four sets of changes with far reaching consequences for the emergence of e-leadership (Avolio et al., 2003). First, Access to information and Media has changed. Followers can now access the same information that leaders had exclusive access to in the past, often before the leader. This has put pressure on leaders to be prepared to justify their decisions more quickly. Furthermore, there are so many channels through which information flows today that leaders can no longer control "releasing" the most important information. While releasing information, leaders need to be prepared in the event that it has already been disseminated before. Today, if an employee is not satisfied with a manager's action, the employee can take action that was not easily possible earlier. For instance, with the touch of a button, the employee can contact the top management team, send an angry message to an entire workforce, or, as in one case, contact the editor of a local news show with a story about the incident. Support groups and networks emerge almost spontaneously today, enabling groups to organize a challenge to powerful leaders, who in the past could keep such individuals separated and disorganized. Partly because employees today have greater access to information and media and partly because they are close to customers, this evolution has enabled faster and effective

responses to changing customer needs and requirements (Avolio et al., 2003).

The second, big difference that the e-environment has created is the greater workforce connectivity. The interconnectedness of the world offers a tremendous opportunity for organizations as they seek ways to respond to rapid shifts in customer demands and increasing globalization of markets (Avolio et al., 2003). Organizations oftentimes respond by linking people across different time zones, cultures, and even competing organizations to complete projects or to provide support within very short time periods. In such organization, an employee can pose a question to a global workforce and expect attention twenty hours, seven days a week. Today's leaders are expected to lead in this global maze of interconnections that across various time zones, national boundaries and cultures. In virtual teams, which consist of members from different time zones, nations, and cultures, the picture may be complicated by the sharing of leadership at different points in the team's life cycle, depending on what the team has to accomplish and deliver. Literally from moment to moment, team members of a virtual team may move between being a leader and a follower (Avolio et al., 2003).

The third significant difference is that it is now easier to reach and touch others**.** The CEO of a large global consulting group can contact his top country managers by e-mail on an almost daily basis and discusses with them how he views a broad range of immediate and long-term issues. He can frequently share his musings with them about particularly industry trends that might affect their business. In other exchanges, which he generally distributes to everyone in the company, he can provide global recognition for a team's exemplary performance. He can cite specific examples of excellence and demonstrates his pride in

being associated with those individuals. With the touch of a button, he can have contact with everyone around the world in so many countries. On the other hand there are also times when he unknowingly uses analogies that do not resonate very well in other cultures (Avolio et al., 2003).

The last group of challenges according to the authors is that communication in the e-environment is more indelible than before**.** Drawn by the convenience of e-mail, a leader may memorialize remarks that he or she would normally make only in a private conversation behind closed doors, by sending them over e-mail to others. The above examples suggest that leaders and followers need to adapt to this new "nervous system" being configured within and across organizations. The nervous system offers leaders tremendous power to reach out and touch everyone in an organization. Obviously, what comes with this power to reach out and touch everyone is need to be aware of potential downsides of the new nervous system and to use the power afforded by it wisely. Rumors can quickly spread like viruses through organizations, just like positive news. Conflicts can escalate rapidly when people argue with each other without having to stare each other in the eye. A charismatic e-leader may have far greater opportunity than ever before to lure unsuspecting followers into cults and clans that do no good, except for the leader (Avolio et al., 2003).

Kazlowski (2002) asserts that the key characteristics of virtual teams (e-environment) that have E-leadership implications are: the spatial distance between team members that restricts face-to-face communication and the resulting use of technological communication to connect team members. Each of these characteristics says Kazlowski impedes the two primary leadership functions, performance management

and team development. The ability of leaders to monitor team member performance and to implement solutions to work problems is severely restricted by the lack of face-to-face contact within these teams. It is also difficult for virtual team leaders to perform typical monitoring, coaching, and developmental functions. How do leaders of virtual teams monitor team member performance and progress toward task accomplishment? How do the leaders of virtual teams develop and monitor team members? (Kazlowski, 2002)

Importance of E-Leadership

Today information technology particularly the internet has emerged as the source of competitive advantage which no business organization can ignore except at a very high cost (Clemmer, 1999). The more people worked off-site, the more they relied on e-mail to communicate to people on-site. In addition, research has demonstrated that electronic mail is more effective in increasing the range, amount, and velocity of information and communication of unequivocal information (Nancy B. Kurland, Terri D. Egan, 1999), whereas face-to-face communication is more effective in situations where levels of ambiguity and uncertainty are high, and in socially sensitive and intellectually difficult interactions (Nohria ,Eccles, 1992).

The Manager's primary reluctance about telecommuting rests on concerns of control (Nancy B. Kurland,Terri D. Egan 1999). They question, "How do you measure productivity, build trust, and manage people who are physically out of sight" (Mason, 1993; Nancy B. Kurland, Terri D. Egan, 1999). Because telecommuters are physically out of sight, supervisors need to rely on measures other than physical observation to control and monitor performance. The solution for many organizations may be to resort to output controls and assign

telecommuters projects whose outcomes are easily measured (Olson 1982) (Hamblin 1995) (Nancy B. Kurland ,Terri D. Egan ,1999). Leadership plays an important role in the successful deployment of technology in some organization. Information technology adaptation involves the acquisition and usage of new IT or new features of existing IT, the disuse of IT, and the modified usage of existing features in existing IT. Leaders can act to influence these behaviors. It follows that leader influence on technology adaptation theoretically provides a lever for managing cooperation through the manipulation of the information technology defined transitional space (Dominic Thomas, Robert Bostrom, 2008).

The interface between leader and followers has changed significantly. Leaders are now conducting many of processes of leadership largely through electronic channels. Indeed, given the rapidity of growth in organizations and their global reach, " in the near future, e-leadership will be the routine rather than the exception in our thinking about what constitutes organizational leadership" (Zaccaro, Bader, 2003). Therefore, it is very important for the business organizations to have e-leadership that can adapt to the challenge of creating and working in the new work environment. Trust factor can be improved in the teams with the help of technology adaptation. Information and communication technology usage failures can have a domino effect that erodes team productivity. Virtual team leaders can affect improved outcomes by managing adaptation of their teams' information and communication technologies, as we found in the context of leaders achieving higher trust and cooperation through technology adaptation management (Dominic Thomas, Robert Bostrom, 2008).

The growing infusion of e-business technologies in and between organizations, and the 'e-wakening' from the dot.com rage, has made executives recognize that getting IT right this time will not be about technology, but about developing and deploying appropriate leadership capabilities for governing IT effectively. NCR regained prosperity when new leadership provided the impetus for a required transformation whose nature was clear to all whose vision was not clouded by commitments to an earlier order of things. Because it possessed strong capabilities in the new technologies plus strengths in sales and distribution that could serve well, with some adaptation, to bring new products to old customers, the organization was able to move rapidly in the new directions. (Richard S. Rosenbloom, 2000)**.**

Key Competencies for E Leadership

Grenier and Metes (1995) list six skills that e-leader must have to excel in the virtual workplace. First, he should understand the relationship between the use of the information and the enabling technology. Second, he should be familiar with the technologies and techniques that are central to establishing and maintaining the flow of the information during virtual operation. Third, he knows how and when to replace traditional work processes with virtual ones. Fourth, he should be able to calculate the value of e technologies. Fifth, he can recognize and encourage creativity and technological innovation. The sixth competence in the E-leader is to experiment with ideas that he should not be hesitant in experimenting new ideas and their implementation.

Dwelling upon the core competencies for e-leadership (Susan Annunzio, 2001) identifies seven such competencies. These are: Communicating with followers, managing information resources, communicating with stake holders outside the organization, facilitating

discussion, active listening, empowering and lastly delegating. Kissler (2001) puts forward an array of competencies that successful e-leaders have to take to position their organization for success. These are: organizational mind share (quick and efficient use of information), future print (creation and sharing of future direction), organizational alignment (in respect of leadership, workforce, structure, and process, with an overall strategy and vision), proximity management, creative tension, sense of urgency, development of people and leading by values. Avolio et al. (2003) suggest that e-leaders should balance the traditional with the new, communicate their intent, use technology to reach out and touch others, and use technology to deal with greater workforce diversity. Fisk (2002) asserts that the essence of E-leadership is transformational. As such e-leaders are visionary, engaging, fusing, and collaborating.

No matter how technologies are changing, people need to feel that they are an important part of the organization and to be recognized as such. They still need to believe that what they are doing makes a difference. E-leaders must help them by articulating and communicating not only where an organization is going but also how to get there. Susan (2001) enlists a number of qualities that e-leader needs to acquire to develop a successful work environment. These qualities include honesty, responsiveness, vigilance, willingness to learn and relearn sense of adventure and Vision.

The e-leaders do not 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 translate their vision into reality. Yoo and Alavi (2004) assert that 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 is not absolutely required. What is

required is to identify support group, 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. The authors believe that some of the e-leaders already have a technical professional background that elevated them to the leadership position. The advantages of such a leader are to avoid over-spending in technology, from what and when to buy new equipments to the maintenance of the existing equipments. Moreover, they know how to take full advantages and invest wisely in technology, so that they do not over-spend 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.

Concluding Remarks

Organizations take a long time to exploit the full potentials of information technology. Generally it took organizations four stages to fully exploit the real potentials of information technology. During the last one decade or so information technology has been revolutionized by the advent of internet and its support technologies. These technologies have been instrumental in creating virtual organization and, thus paving the way for e-leadership. It must be noted that the successive four stages of evolution in information technology and their integration in organization did not replace the earlier stages. Rather they co-existed, of course, in a different mix. Moreover, all organizations have not been able to cross over all four stages. Different organizations operate at different levels depending on their capability to assimilate these technologies. The reasons for lagging behind are both technological and managerial.

The latest innovations in information technology particularly internet and e-commerce is transforming the way organization have been working. Consequently, new organizational form, new work environment and new leadership form are shaping up. The new organizational form is virtual organization, new work environment is E-environment and the new leadership form is e-leadership. The distinguishing feature of the concept of E-Leadership is the new interface between leader and his followers. The interface between leader and followers has changed significantly. Leaders are now conducting many of processes of leadership largely through electronic channels.

E-leadership takes place in the context of e-environment in which the work is mediated by information technology particularly the internet. In such a context not only communication between followers and leader takes place through information technology but the collection and dissemination of information also takes place through the same mediator. Thus, the basic role and the responsibilities of the leader do not change; the only thing that change is how the leader can communicate with his/her people effectively while they are not at the same office building with their leader. There are few caveats about E-leadership. There is no global model of E-leadership that applies every where in all contexts. Different organizations around the globe are at different levels of assimilation of e-technologies and their business utilization, therefore, global model is impossible.

Global leadership traits established for traditional leaders are equally applicable to e-leaders. What distinguish E-leaders are the skills, attitudes, knowledge and their professional and personal experiences. E-leaders are neither “technology guru” not “business wizards”. They know technology, its effective use and business direction of the organization.

1We are passing through an epoch in which the industrial age is being replaced by the information age. Countries like Pakistan could not keep pace with the industrial countries in the last age. The information age is more efficient and much more challenging. Bridging this gap and keeping pace requires sea changes in how organizations work here. One must realize that economic war of a nation in future will be won or lost by its business organizations. Therefore, organizations in Pakistan are pitched in a competition which they cannot afford to lose. Information technology being great force multiplier provides ample space for exploitation.

This exploration has identified many new fertile areas for research. To begin with theoretical research is needed to explore the impact of e-leadership on leadership literature. E leadership skills are easily cultivatable; therefore, the pendulum of emphasis seems to swing in favors of 'behavior theories, as compared to 'trait theories'. The comparative literature on 'charismatic', 'transformational' and 'transactional leadership' needs to be reviewed in view of e- environment in which the physical interaction among leaders and their leaders is missing. Case studies of organizations like NCR etc that are pioneer in e-leadership would provide rewarding research. Equally alluring area is to explore why e-work environment is not emerging in majority of business organizations and what can be done to this end. E-leader is not a mere concept it is a great agent as well. Efforts are needed to cultivate its possibilities in local context. The study also leads to recommend the review of management and business curriculum in Pakistani universities. Today's' MBA students are future e-leaders. They need to be trained to lead in the new work environment.

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