

## A Systematic Literature Review of E-Leadership



Golden Mashiri, MSc<sup>1</sup>, Austin Mwange Ph.D<sup>2</sup>, Robbson Manda, MPA<sup>3</sup>, Dr. Joseph Chiseyengi Ph.D.<sup>4</sup>, Musonda Ashley Masase-Muza, MSc<sup>5</sup>, Nizah Mutambo, MSc<sup>6</sup>, John Bwalya, MSc<sup>7</sup>

<sup>1</sup>Doctorate in Business Administration Student, Department of Business Administration, School of Business, ZCAS University, Lusaka, Zambia

<sup>2</sup>Senior Lecturer, Department of Economics, School of Social Sciences, ZCAS University, Lusaka, Zambia

<sup>3-7</sup>Doctorate in Business Administration Student, Department of Business Administration, School of Business, ZCAS University

**ABSTRACT:** This study aimed to explore the field of electronic leadership. In order to appreciate the extent to which e-leadership was discussed, a thorough analyses on selected book chapters, papers, thesis and professional journals spanning across 2000 to 2020 was conducted. A widespread review of the literature found a total of 35 articles mainly on e-leadership, virtual leadership, leading virtual teams, school ICT leadership. Findings shows that thorough studies on e-leadership are scarce and additional studies in e-leadership need to be done in the digital era. Recently due to the swift variations in work atmospheres caused by the Covid-19 pandemic, leadership has shifted from face-to-face to virtual contexts.

**KEYWORDS:** E-Leadership, Leadership, Virtual Leadership, Electronic Leadership.

### INTRODUCTION

Avolio et al. (2000) originated the idea that advanced information technologies, identified as information technologies with advanced levels of basic features and properties of technologies while serving a complementary role to traditional technology—are allowing an innovative technique of working. Current scholars of e-leadership utters that the main objectives of leadership remain the same, but the current new electronic-leader should implement company goals and objectives by electronic means or on computer-mediated virtual squads that spans over large geographical area. The e-leader may on no occasion physically meet some of his followers, and to communicate with these followers' computer plays a vital role. New challenges had emerged for the new e-leader and these include the following:

- a. how to bridge the available physical geographical distance between leader and the followers
- b. how to effectively communicate with widespread virtual teams
- c. how to convey eagerness and motivate members by electronic means
- d. how to establish faith with followers who may never see the leader

Dasgupta (2011) deliberates that the new e-leader need to possess mandatory new skills to execute his jobs. Working and communicating effectively with teleworkers can be complex for leaders accustomed to a more traditional face-to-face communication technique. Besides the possible notable challenges, the virtual work arrangement is swiftly growing and increasing in popularity. The telework arrangement gives employee, environmental and employer benefits. After the world has been hit by covid 19 in the late 2019 an electronic environment has been established and this generally needs an electronic leader continuously. As a result, telework has recently confirmed valuable in a disaster and or crisis as numerous businesses were able to retain personnel employed throughout the COVID-19 epidemic beginning in 2020.

Chad, Craig, and Ying (2001) claimed that it is important that leaders establish stronger relations with virtual followers as they have substantial influence on the performance and gratification of virtual teams. They noted the positive and negative effects of social factors on overall results of teams. Social aspects like relations and trust are critical for the efficiency of virtual teams. Communication act as a vital tool which directly impacts the social dimensions of the virtual team.

### Effects of E-leadership

Currently the work atmosphere has been altered from face to face to virtual among the leader and the followers. The employee working styles are diversified and changed significantly. Leaders should control and manage their followers globally. Kurland and

## A Systematic Literature Review of E-Leadership

Egan (1999) posed an enquiry about the efficiency, trust building and workers management who are physically not available there.

### Why e-leadership is necessary?

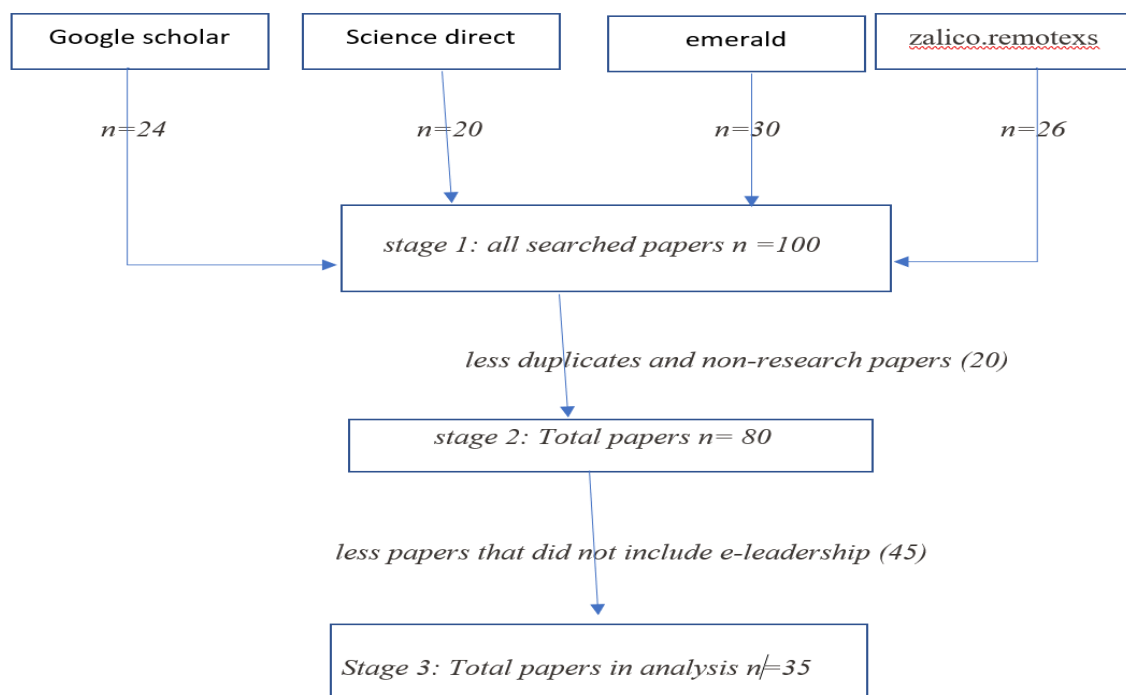
Following new trends, mainly, the technology developments, an exclusive style of leadership has emerged as adapting to the change in the circumstances in the corporate world; this variation called Virtual Organization (VO) that have been appeared in the 1990s. Such a paradigm, helps Multinational Corporation (MNC) to make use of several ICTs that encourage teamwork amongst team members.

Kurlan & Egan (1999) described three key leadership problems faced according to the dominant E-environment. When employees don't physically exist, then they sense isolation from their workplace. The authors of numerous scholarships trust that these challenges endorse new leadership skills in the type of e-leadership.

## I. METHODOLOGY

A systematic literature review summarizes prevailing evidence and detects gaps and directions for upcoming research. This article helps to presents existing literature on e-leadership. This researcher primarily utilized the following databases google scholar, science Direct, emerald and zalico.remotexs.co. The researcher selected these multidisciplinary databases as they index a wide range of peer-reviewed journals and conference proceedings in both management and information systems domain. The researcher used the following keywords and phrases on querying the databases: virtual leadership, e-leadership, tele leadership, electronic Leadership, leading through telecommunications, distant leadership, leading through ICT.

Figure 1. Research protocol



## II. DISCUSSION AND FINDINGS

The author in this section describes and discover the comparatively new leadership paradigm of e-leadership that has arisen in little more than a decade.

Authors recognized the following:

- what is common and what is different similar between the current e-leadership and the traditional types of leadership;
- what are the current new opportunities and problems;
- what is the mandatory new skills compulsory to the new generation of leaders; and
- how do current leadership concepts apply in this recent paradigm.

Avolio and Kahai (2003) deliberated in what way technology is changing leadership in many organizations, the author did so by defining e-leadership and thoroughly explaining how e-leadership influences leaders, teams, organizations and teams. The authors labelled e-leadership as not only an extension of traditional face to face leadership, but viewed it as a essential

## A Systematic Literature Review of E-Leadership

modification in the technique in which leaders and teams relate to each other within organizations. The authors too deliberated that some basics of leadership will continuously be the same and unchanged.

According to Avolio and Kahai (2003) With some practical observations emanating from their research on e-leadership. The imperative behind e-leadership was created by what the authors described as the “quiet revolution” that resulted in the “wiring of organizations so that many significant human interactions are now mediated by information technology.” Leadership is described as “a dynamic, robust system embedded within a larger organizational system.” He went on to explain that well-defined organizational structures delineate “the relationships expected among people who work in those organizations.” Information and Communication Technology (ICT) today is implemented in all organization structures electronically across time and space, where not only does the communication between leader and follower take place via information technology, but even “the collection and dissemination of information required to support organizational work” is discharged via the electronic media (Avolio & Kahai).

Today, leaders may lead entire projects from a distance and interact with followers or team members solely through virtual meetings thus use of information technology. E-leadership takes shape in the virtual context where teamwork and leader-follower interaction are mediated by ICTs, and e-leadership aims to create and distribute the organizational vision, glue corporations or individuals together, as well as direct and supervise the implementation of the plans. Like traditional face-to-face leadership, e-leadership too can be inspiring by communicating via e-mail or other electronic means their pride in the accomplishments of various teams, reinforced from time to time by stories shared electronically throughout the organization. The authors emphasized that they are “fairly confident that leadership mediated by information technology can exhibit exactly the same content and style as traditional face-to-face leadership.” Referring to how access to information and media has changes, the authors mentioned that followers today have access to the same information that leaders have, and this sets pressure on the leadership to be ready with all the latest facts to justify their position at any time.

Today a disgruntled employee can directly communicate their anguish to hundreds, if not thousands, of colleagues at the touch of a button. The authors advised e-leaders to balance the traditional with the new, to openly communicate their intent, and to fully use technology to reach-out others. Chen, Liou, Wang, and Chi (2007) focused on collaboration technology that enables web-based group dynamics and group decision support. The authors noted that companies are going global, especially true for companies partaking in the global supply chain. To become agile enterprises, these companies are setting up virtual teams to carry out short- and long-term projects. Chen et al. defined “collaboration” as activities that involve people engaged in various business processes (e.g., marketing, engineering, research, and development) working together by sharing information and making decisions. Distributed teams can carry out critical tasks only with suitable decision support technologies. The authors discussed the architecture and detailed design of a web-based application called Team Spirit. A series of empirical studies were reported to assess the effectiveness of Team Spirit in supporting distributed group problem solving when in-person facilitation is not possible. The results indicated that giving creative problem-solving training to Team Spirit participants had positive impacts on team performance.

Danowski (2010) examined technology required for online collaboration. Collaborative Innovation Networks (COINs) are typically defined using individuals as nodes. The different departments in organizations can be considered as forming COINs of interest. Danowski analyzed interdepartmental collaboration networks based on co-occurrence of department names in news stories, and demonstrated the utility of using the WORDij 3.0 tool to identify collaborative innovation networks of interest.

Viktor Wang (2017) The emergence of information and communication technologies have a great impact on organizations and subsequently their leaders. The virtual context in which many leaders now operate both provides opportunities and poses challenges. The virtual environment, demands that leaders develop some different practices but this is not to say that traditional leadership has no place in the new virtual environment. Rather, the traditional leadership theories and leadership styles studied previously conceptualized by researchers and scholars enhances electronic leadership (e-leadership). Rogers' facilitative leadership supports E-leadership. It is important to realize that leadership theories are not ideologies that must be followed to the letter but rather that leadership theories can be applied in part or in whole. The existing leadership theories of e-leadership, focus on the impact of technologies on leadership practice, and raise dialogue around e-leadership challenges, and key e-leadership skills. The field of organizational behavior defines leadership as “the ability to influence a group toward the achievement of goals” (Capella, 2005, p. 294). Leadership styles have been well studied and researched.

Early leadership studies were developed using traditional, co-located work arrangements in mind. Later studies expanded to include traditional project team environments. In the current business environment, though, non-traditional virtual work arrangements are becoming more popular. Virtual project teams are increasing in business today and will continue to become more common in the future (Martins, Gilson, & Maynard, 2004). Managing non-traditional work involving virtual teams is becoming an obligation in the current business environment. The type of leadership e-managers must exhibit for efficacious

## A Systematic Literature Review of E-Leadership

virtual team management must be different from traditional project team management (Konradt & Hoch, 2007). Managing human resources in organization and successful virtual project management needs understanding appropriate leadership styles for virtual teams and transition towards new leadership style. Emerging e-leadership roles and management concepts for virtual teams include multiple leadership models, and their application is an important part of our changing virtual organizational behavior.

Colfax, Santos and Diego (2009) explored that virtual teams are a necessity in today 's global, and increasingly even in regional businesses, when operations and employees with special talents are unwilling to relocate. Traditionally key employees—experts with technical skills or senior managers who were urgently needed to head up operations in a foreign location—were relocated along with company expansion and change. The roles and needs of global operations in the new “green era” are changing this traditional paradigm.

The recent global economic changes, leaders and thinkers are confronted with the need for an essential business transformation. It is imperative to develop a virtual management style that takes advantage of the available technologies and minimizes forced face-to-face environments. This needs to adopt and expand virtual leadership, as well as virtual communication, challenges the conventional ways of doing business. They are need to develop a new virtual organizational management paradigm because of virtual teams. It necessitates regular training of managers and team members, establishment of trust, and fully embracing delegation and constant inclusive communication among all team members.

**TAB 1.0 Summary**

Year	Author	Title	Research Objectives
2015	Sylvain Leduc Laure Guilbert	Impact of ICTs on leadership practices	Field research carried out within a civil army corps responsible for the security of people and property
2022	Katherine C. Cotter	Developing Global Leader	Generate and test a theory of the development of global leader
2018	Siew Pei Oh Yan Piaw Chua	An explorative review of E-Leadership studies	Explore the field of educational leadership and educational technology innovations.
2014	BJAvolio, JJ Sosik, SS Kahai,	E-leadership: Re-examining transformations in leadership source and transmission	How e-leadership has evolved
2003	WF Cascio S Shurygailo	E-leadership and virtual teams.	How technology makes it possible to build far-flung networks of organizational contributors
2012	A Trivedi D Desai	E-leadership	Use of the term e-leadership
2004	SL Jarvenpaa, DE Leidner	Communication and trust in global virtual teams	Behaviours that might facilitate trust in global virtual teams
2005	Peggy M. Beranek, Ben Martz	Making virtual teams more effective	Testing training methods to improve communications among virtual team members.
2012	Viktor Wang	E-Leadership in the New Century	Leaders are required to lead followers by using totally different approaches
2000	Avolio, Kahai, and Dodge	E-leadership: Implications for theory, research, and practice	What constitutes e-leadership in organizations.
2000	J Lipnack, J Stamps	Virtual teams: The new way to work	Virtual teams will become the accepted way to work
2010	KM Kerfoot	Listening to see: The key to virtual leadership	Traditional leadership is becoming rarer while distance or virtual leadership is more common
2004	Banerjee Chau	An evaluative framework for analysing e-government convergence capability in developing countries	Providing constituents with government information and services
2001	Chad, Craig, and Ying	A model to develop effective virtual teams	factors that impact on the effectiveness of virtual teams

## A Systematic Literature Review of E-Leadership

### III. CONCLUSION

The leadership goals remain the same but a new implementation approach has arisen. The current approach of e-leadership now focuses on the use of computers for communication between leader and followers to achieve the company objectives. The new pattern offers lots of opportunities and some notable challenges. Opportunities include: (a) the opportunity to use global talent, the recruiter is not limited to a small area; (b) the capability to instantaneously interconnect and communicate one-on-one with potentially lots of employees across the globe (c) better client relationship and satisfaction through provision of 24x7 service by “follow the sun” method and cost cutting. While on the other hand challenges likely to face by e-leader are: (a) issues with effective communicating through the electronic medium; (b) issues with trust building trust between a leader and follower who have never seen each other (c) issues with virtual members mentoring (d) problem with controlling and monitoring social loitering. E-leadership mainly centres on the need to lead physically and geographically separated teams, commonly known as virtual teams. The idea of virtual teams can be observed from various diverse viewpoints, such as communication, structure, extent of virtuality, multi-cultural and moral issues. Lastly, some fresher high-tech innovations are emerging in backing the e-leadership drive. From the findings and literature availed there does not seem to be any serious discrepancy between researchers on e-leadership; save for some notable working disparities in study attention. Summarily there is consensus that e-leadership is a new field and as a result more research should be done.

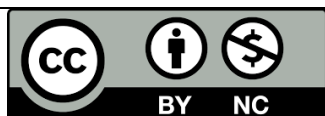
### IV. RECOMMENDATIONS

Below are the recommendations by the researcher;

- a) It is strongly recommended that stakeholders need to conduct training conferences of cutting-edge technological devices for enhancing e-leaders efficacy and performance.
- b) It is recommended that leaders and subordinates make fair use of technology under their domain due to cyber-crime activities.
- c) The study recommend that e-leaders promote the idea of cooperative learning through advance technological tools

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