Effective Leadership in Higher Education Institutions through Information and Communication Technology

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Abstract - Leadership when effective can make the organization sustainable and help them move in the right direction making the organization move towards knowledge economy and economic power as well, even in diverse economic conditions. The performance of any organization can be improved by minimizing the variance observed at different levels, extending from strategic to operational, helping a manager to develop effective leadership traits using the benefits of information and communication technology (ICT). The competency, knowledge, experience and personal attributes can be developed in a given time frame through ICT developing the effective leadership helping achieve the goals of any organization by focusing on creating an environment that spans ICT devices. The higher education institution's (HEI) expanding technology horizons and new trends can help define the educational operating model to reach performance for customers and enable employee anywhere as a team and use digital technologies to deliver and continuously improve the business services anywhere for creating an automation journey across the organization where optimization and automation can create an effective leader.

Keywords - Leadership, Strategic, Operational, Competency, Knowledge, Experience, PersonalAttributes

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INTRODUCTION

In the context of leadership, directing and managing a project, group of people, or an entire organisation is referred to as a "leadership role." It is also a function and ability of the management to make sound decisions and inspire others to perform well maximizing efficiency to achieve organizational goals. A group's efforts can be influenced and motivated by the use of this tool. According to Jackson and Parry (2008), leadership is a process where leaders use their skills and knowledge to lead and bring a group of employees in the desired direction that is relevant to their organization's goals and objectives. It is critical for an organization's long-term viability to have strong leadership in order to meet the challenges of today's rapidly changing economic environment (Edwards, and Van Brabant, Cabeza Erikson, 2008). Effective leadership skills can help leaders to gain the trust of employees, making other tasks easier to operate because the employees trust their leaders. An important trait of effective leaders is that they communicate clearly with their employees and inspire them to work together to achieve the company's goals and objectives (Wasim, and Imran, 2010). A simple definition of leadership is the ability and willingness to take ownership of the organization combined with an intrinsic drive to do what is best for the organization. In order for leadership to exist, there must be both a leader and a follower. Leaders should pay attention as well as catch it. Even though they are commanding figures, the interaction between leaders and led is far more complicated than the simple command they each bring best in the other and technology can play a vital role here.

The new advancing and emerging trends and other cutting-edge technologies in higher education institutions (HEI) are transforming the way of education changing the meaning of education. The leaders of today need to inculcate the right skills to help organizations maintain a sense of competitiveness, in aspects of up skilling as well as initiating mentoring for the betterment of the teams. Institutions have to use computerized software services and with correct management on productivity, education and planning producing new knowledge economy, statistics and variations resulting into expanding horizons of HEI technologies. Technology has a powerful impact on every aspect of our lives. It has changed the way we communicate with each other, connecting our daily activities to our business endeavours. Technology can be a powerful tool in our quest to

become better leaders, regardless of whether we're dealing with strategic or operational issues. There is no question about it: technology is the driving force behind the new style of education. A leadership which embraces change, learning, communication and diversity could be successful. The most successful educational leaders at the worldwide level are those who understands just how much technology can aid them in managing knowledge people helping them build teams and keeping track of work across all networks of the globe. Connected devices, artificial intelligence, and safe cloud business solutions are the building blocks of the new business world. These enable teams to work together more efficiently than ever and empower companies to expand their reach towards competencies, knowledge, experience and personal attributes.

According to American society of quality, there are two main types of leadership in any organization, like, strategic leaders and operational leaders.

STRATEGIC LEADERSHIP

This refers to a manager's ability to articulate and communicate a strategic vision for the organisation or a portion of the organisation, as well as their ability to motivate and persuade others to adopt this vision. Strategic leadership can also be defined as utilizing strategy in the management of employees. In this case, leadership has a significant impact on strategy formulation and implementation. It can be described as a link between the organization's mission and its strategic management processes. It includes

- Defining an organization's overall vision and mission

- Developing strategies, systems, and structures to achieve the vision and mission

- Creating both technical and social systems that are effectively integrated and which address the needs of both customers and employees

In strategic management, leaders play a variety of roles, such as setting the stage for change, assembling the executive team by identifying the most important members of the company, dismantling the existing hierarchies, and developing the company's vision with the aid of a visionary process (Moesia, 2007). Syrett (2007) lists leadership roles for a successful strategy execution. The first role is to create focus and clarity in order to generate performance and achievements. The second role is to generate commitment and engagement by open communication, respect and collaboration. The third role is to allocate resources according to the strategy and into the right projects. The fourth role is creating the milestones of achievements so that the performance could be measured and the

development areas could be recognized. The fifth role is to encourage co-operative mindset by striving for excellence, by a sense of mutuality, by co-operational behavior, and by being part of a community. The final leadership role according to Syrett is to challenge the organization for peak performance, but not too much in order to avoid exceeding organization's carrying capacity. Then leadership creates an evaluation system that evaluates the strategy at every stage of the work within the organization. In addition, it helps to change the company's culture so that strategic management can be more easily implemented (Venohr, 2007).

OPERATIONAL LEADERSHIP

An operational leader is someone who sees how the individual elements of an organization fittogether and work to create the larger outcome. Systems and processes are at the forefront of their minds when they contemplate a problem

- A daily check on the efficiency of the organization's processes

- Monitoring performance

- Addressing constraints

- Ensuring that employees have the authority, knowledge, and skills they need to do their jobs

An operational leader has to be realistic, focus on quality and be efficient in supply chain management and to lead overall. An operational leader definition allows different people to have the same working understanding of a concept or measure.

Managers who aspire to be leaders must embrace technology in order to succeed. Technology has made it simple for leaders to motivate their employees while achieving organisational goals.

ROLE OF ICT IN HIGHER EDUCATION INSTITUTIONS

Use of ICT in education presents a unique opportunity to solve multitude of challenges quickly as well as at low rate. Here is an overview of advantages of an ICT:-

- **Motivating Factor:-**The internet can act as a motivating tool for many students. Technology enthrals young people. When it comes to the Internet, educators need to take advantage of this excitement and enthusiasm. For students who are already eager to learn, the internet offers a wealth of additional resources that aren't available

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in the classroom.

- **Fast communication:-** The internet allows people in different parts of the world to communicate quickly and easily. students from various states, countries, and continents can participate in joint projects.

- **Co-operative learning:-** There is a greater sense of community in the classroom when students work together online. LISTER V for our class will allow students to participate in class discussions via email, which is not possible within the classroom's four walls, as an example.

- **Locating Research materials:-** Apart from communication, research is what takes many people to the internet. There are many resources on the internet than the school library can provide.

- **Acquiring varied writing skills:-** If students are required to publish their work on the internet, they have to develop hypertext skills. These skills help students gain experience in non sequential writings.

ICT, especially the internet's role in the education sector, plays a significant role in the process of integrating technology into educational activities today. The education sector may be the best place to foresee and mitigate the negative effects of information and communications technology.

ICT role in higher education is solicited for improving quality, widening access and enhancing operational efficiency across all functions in higher education sector and to create new dynamics in higher education both at micro and macro levels.

The ICT curriculum offers a broad view of the nature of technology, how to use and apply various technologies, and the impact of ICT on one's own self and on society as a whole. Technology is about the ways things are done; the processes, tools and techniques that alter human activity. ICT is about the new ways in which people can communicate, inquire, make decisions and solve problems.

Quality of education and instruction is a major concern, particularly during the expansion and development of educational opportunities. There are numerous ways that ICT can improve education, including increasing student enthusiasm and commitment, facilitating the acquisition of basic skills, and enhancing teacher training.

Using ICTs correctly can encourage a shift to a learner-centered environment by enabling and bringing about transformation.

Students can be kept engaged in the learning process by using ICTs such as videos, television, and computer multi-media software, which combines sound with transcripts and multi-colored moving imagery to provide stimulating, thought-provoking, and reliable content. The use of online pedagogy within universities and management institutes is increasing. The introduction of the Wi-Fi system too has led to the growth of hi-tech education system, where accessibility and accountability of subject matter is made readily available to the students. The students can now study and comprehend the related information at their own convenient time.

IMPACT OF ICT ON HIGHER EDUCATION

Teachers and students can now use the Internet to help them avoid plagiarism and copyright violations when writing assignments. ICTs in education have the potential to enhance both the quality and the quantity of educational resources available. For this to happen however, they must be used appropriately.

- The increasing use of information and communication technologies (ICTs) has brought changes to teaching and learning at all levels of higher education systems (HES) leading to quality enhancements.

- The introduction of technology learning breaks the boundaries of universities and colleges, allowing students to learn at their own pace and in any location, at any time.

- The data can be accessed at any time and from any location by the learners.

- The change in professional practice in which teachers are now enabled to design to incorporate the more complex real world projects by using ICT tools and resources and develops new educational approaches

- In addition, it provides a new concept of learning environment in the institutions and enhances the quality of education in order to produce a high quality product.

- The last ten years, higher education has become increasingly important as India's government has come to appreciate education as a source of India's competitive advantage. The gap between demand and supply of higher education has necessitated the governments and institutions to formulate the policies for the better use of ICT. And, in order to bridge the gap, it is necessary to evolve the cooperation between the public and private sectors for the successful implementation

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of ICT in higher education.

- It is clear that the incorporation of ICT into universities has had a significant impact on the way students learn. A new pedagogical approach based on distance learning and a closer collaboration between different universities is possible, as well as paving the way for an unprecedented ability to disseminate information and spread knowledge. The rapidity with which new technologies have altered how people around the world live, work, and play has been profound.

ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

Data can be stored, manipulated, converted, protected, sent, and received via ICT using computer hardware, software, and telecommunications equipment (Olifer and Olifer, 2006).

Today business leaders face a different challenge. Many are faced with a new business world;one that is marred with digitalization, automation, and in recent times a pandemic induced shift in nature of work. For these, business leaders require the right skills to anticipate threats and lead their teams towards newer avenues of growth. CEOs and business leaders are under pressure to maintain strong performance while managing uncertainty and keeping employees safe and engaged due to the rise of hybrid work and a company's need to remain productive in the face of ongoing disruption. Today CEOs, C-suite leaders, and other senior executives respond to multiple stakeholders simultaneously. This poses multiple challenges to leaders who today handle a more complex, ambiguous, and challenging business world. AI, automation, and big data analytics had long set the stage for disruption in business, but it was the pandemic that set off the real fireworks. The company was forced to switch to remote work in the blink of an eye. It was necessary to switch to real-time digital systems in order to maintain high levels of productivity. For leaders, this new business world meant newer challenges to face andovercome. Businesses need to develop leadership talent translating the organization's vision into action from a strategic point of view. To be impactful in leading their companies in the new world of business, leaders today require the right mixture of skills and traits. Additionally, there is a role for information dissemination and communication. That gap can be bridged with the help of learning technology.

A custom-tailored learning platform can help leaders stay on top of their game. Leaders have benefited greatly from a robust learning platform in a variety of ways, including being nimble decision-makers and understanding the nuances of successfully engaging employees. It also helps business leaders who may not have the time or inclination to follow more traditional learning paths by making education more convenient and available online.

Personalization is another great advantage that digital learning tech brings to the table. Not all business leaders need the same training to become better at leading teams. Some require moresoft skills like empathy and creativity, two key skills in a hybrid work environment, while others might require to learn skills on the other end of the spectrum.

CEOs and business leaders have different time commitments and are often required to squeeze in learning new skills in a tight schedule. The ability of digital learning tech to allow for bite-sized, personalised and accessible learning programs designed chiefly to address key pitfalls in leadership structures makes it a good bet to build leaders for a new world of business.

Datafication, personalization, virtualization, augmentation and cornification are among the mega-shifts that are changing leadership styles at an unprecedented rate. One of the most difficult aspects of leadership is collaborating with others. Despite this, it is also one of the most satisfying. The leader and the team members should create a synergistic whole.

A leader who understands how to effectively work through ICT is able to create something magical and something greater for himself and for his team than what individuals working alone could have thought possible. ICT can help operational leaders improving measures that are essential for the health of any organization. It can help operation leaders delve further into operations to determine where problem areas might lie. For leaders that feel the need to maintain a close eye on certain operations, setting up ICT would be helpful for the periodic meetings with various managers and department heads for close monitoring without manifesting an overt presence among staff.

OBJECTIVE OF THE STUDY

The objective of the research paper is to explore and conceptualize the best practices for effective leadership through ICT for the parameters, such as, competencies, knowledge, experience and personal attributes for the strategic and operational leaders.

METHODOLOGY

The paradigm underlying this research study is for evolving practical implications of ICT for strategic and operational leaders. The methodology adopted is to use exploratory approach. Aliterature review of the past and contemporary research work along with qualitative study using psychometric scale assimilating the response of the strategic and

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operational leaders from the sample was done. An exploratory research consisting of depth interviews with leaders of Higher Education Institutions (HEI) was done in the Jharkhand state. For depth interviews, sample selection of 10 HEIs was done.

PARAMETERS FOR THE STUDYFOR STRATEGIC LEADER

- Competencies: to exhibit succinct and compelling communication, the ability to inspire and lead organization-wide change, entrepreneurship development, aggregate results for highperformance at all levels.

- Knowledge: a thorough understanding of their customers' and employees' needs and the competitive landscape, as well as the ability to drive key talent management functions such as compensation, training, and performance management and gap analysis.

- Experience: to gain experience in creating a corporate culture, cost control, and global or expert leadership involvements.

- Personal Attributes: inquisitiveness, imagination and innovation.

FOR OPERATIONAL LEADERS

- **Competencies:** to introduce and manage change, to develop strong internal partnerships across departments or work groups, and build strategic relationships with external clients to ensure loyalty and satisfaction.

- **Knowledge:** to demonstrate in-depth knowledge of the company's business model, financials, and competitive landscape. To develop understanding of the other business units' processes, products and procedures in all markets – domestic and international.

- **Experience:** to lead a business unit with profit/loss accountabilities, lead cross-functional teams, prepare business plans, and manage a significant function.

- **Personal Attributes:** to get feedback, flexibility, indicate growth and development, and pointout the acceptable risk-taking tasks.

DISCUSSION

The researcher consolidated the information received through the secondary research material. The researcher also undertook extensive field work by doing in-depth interviews of the leaders working at strategic and operational levels. The questionnaire for the parameters under consideration utilizing ICT is shown in Annexure I. The parameters were analyzed, identified and classified, based on the data collected through depth interviews involving individual interviews with "a small number of respondents" to explore their perspectives on the best practices for being an effective leader. Interviews have been described as one of the most widely employed data collection methods, especially within qualitative research (Alvesson 2003a, Silverman 2013, Bryman 2016). Gray (2018, p379) Interviewing is described as 'the most basic form of human activity, in which language is used between two human beings in the pursuit of cooperative inquiry'.

CONCLUSION

A strong correlation with the attributes is seen in case of both, strategic and operational with ICT. It is observed that leaders at strategic level showed interest in summarized data, also doing in-depth analysis of the same whereas, at operation level leaders are interested in day- to-day data.

Around 85 percent of executives who had used digital upskilling programs for the attributes mentioned reported increased productivity. The same report, however, notes that many remain to vary of adopting a learning platform. "A robust learning platform" can not only help companies' future-proof their employee skill needs but also ensure business leaders remain equipped to lead their companies effectively.

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