IMPACT OF DIGITALIZATION IN RESHAPING LEADERSHIP SKILL SET

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Abstract:-

To be a leader in the digital world is to be open to all possibilities. We live in a time of unparalleled change, and to lead a team to be continually innovative requires leaders who are not constrained by what they're used to or what might have been the way they've worked previously. Research in the combined field of digitalization and leadership however still remain scarce. As executives are tasked with the leading of digital transformation, this study aims to understand how digitalization affects top management leadership. To achieve this, the study takes a two-folded approach by (a) outlining six characteristics of digitalization and (b) analyzing how these characteristics affect three contemporary forms of leadership: autocratic, transformative and participative leadership. Through a broad literature survey and 15 in-depth interviews with executives and organizational leaders, the study found that the six identified characteristics of digitalization all affected the three forms of contemporary leadership. The different characteristics did not only change how the leaders practiced each of their leadership styles, but also how their leadership manifested itself through the use of various digital tools, methods and processes in order to enhance and empower their leadership.

Key Words :- Digitalisation, leadership, participative, authentric, transformative top management

INTRODUCTION

Digitalization, as we call it today, is sweeping across every aspect of our daily lives in all possible ways. It is digital technology that is making tasks faster and more accurate. The impact of digital technologies is prevalent in every spectrum of our lives and consequently the current era is also termed as the "digital age". The process of digitalization started some five decades back with the advent of computing technologies and digital electronics.

Today digitalization can be seen as a tool of transformation which extends beyond our lifestyle to the way we transact, interact and conduct business. Across all sectors, be this communication, media, healthcare, retail and manufacturing, we are increasingly seeing the use of digital technology.When viewing the concept of digitalization and digital transformation from the perspective of leadership scholars, it becomes apparent that there is a missing link between the two research

fields of leadership studies and digitalization.

Digitalization has not been a strong area of focus. Leadership scholars have instead identified leadership theories and styles such as autocratic, transformational and participative leadership, that explain leadership practices in complex and changing organizations. These changing organizations are often similar to the ones researched by scholars of digitalization, only from a different perspective of leadership. With the above described situation, the research gap becomes apparent: as research in digitalization is remaining towards leadership and management studies while leadership scholars are studying leadership practices within contemporary, complex and changing organizations, often without the component of digitalization the research of this study will be conducted in the intersection of these two areas. This however entails a two-folded objective and task for this paper: as digitalization does

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not as of today have a unilateral definition or description within the scientific community, this paper will need to outline a set of characteristics of digitalization, that can be used as an analytical framework, in order to analyze how digitalization effects contemporary leadership practices such as autocratic, transformational and participative leadership.

The research question of this paper therefore narrowed down to "how digitalization effects top management leadership". The first task described was operationalised and achieved through an iterative process of a broad literature survey and 15 in-depth interviews with top management executives and organizational leaders. This resulted in the identification of six characteristics of digitalization, which were then used for the second task of analyzing how digitalization effected there leadership styles. The study found that the six characteristics could be found in all three forms of leadership. The characteristics did not only change how they practiced each of the types of leadership, but also how their leadership manifested itself through the use of various digital tools, methods and processes in order to empower their leadership styles.

The two-folded knowledge contribution of this study was first a rudimentary, but initial analytical framework of the six characteristics of digitalization. This framework can be used by future scholars of digital leadership, change management and organizational leadership, in order to better understand the effects of digitalization. The second is in regards to further understanding of contemporary leadership in changing and complex organizations, and how digitalization plays a large role in the shaping and guiding of future organizations. Hopefully, this paper will shed light on this much discussed, but scarcely studied research area, while also bringing more clarity to the definition, effects and scope of digitalization and digital transformation.

Literature survey

As the aim of this paper is to identify the characteristics of digitalization, and analyze how these characteristics effects top management leadership, the literature review mirrored this structure. First, a literature survey was done to summarizes relevant and existing literature on digitalization, digital transformation and leading digital change. Secondly, three forms of leadership were reviewed in order to broaden the understanding of contemporary leadership practices. Due to accelerated technological development such as introduction of the first digital computer or launch of the 'World Wide Web' in the 1990s, the debate regarding the effects of digitalization and digital transformation has once again re-emerged in general business reviews and among contemporary business scholars Described wave, or long economic wave that not only change our production processes and possibilities, but also our way of being. The terms digitalization and digital transformation are often understood as overall encapsulating expressions to describe the larger technically induced changes occurring in society. This however, is also often mistaken for terms such as, mechanization, automatisation, industrialization, and robotisation Digitalization is also commonly used as an interchangeable term for "Digitization" but for the clarity of this paper however, only digitalization will be utilized. Digitalization, is furthermore described as the conversion of analogue information into binary number of either 0 or 1

The ISD analyzed digital transformation through five interrelated perspectives and key trends:

Strategic trends: disruptive changes in the business climate have inevitably led to

networks, communities and as well as financial markets to change and engage in major transformation.

Societal and ethical trends: current relations within societies will differ as they are evolving and adapting to the continued development of IT - shifting future norms of conduct.

Technological trends: as informational artifacts have become commonplace within the digital and physical sphere, rapid development within IT and innovation technology have become crucial elements to consider.

Regulatory trends: as new standards and regulation emerge; considerable preparation is needed to ensure that the transition towards new regulatory structures is set in place.

Leading Digital Change

Now diving in to the scarce intersection between leadership studies and digitalization, as described above, digital transformation involves the reshaping of the very context and structure of organizations. This has strong implications on leadership practice and theory in regards to leader's abilities, capabilities and how they implement this change in "Leading Digital" concludes that digital masters – companies with significantly higher drivers of performance and productivity, are rare. Most companies fail to become digital masters, and those who succeed do so by their ability to lead this digital transformation and change. Two important areas are highlighted in order to succeed with one's digital transformation: Leadership capabilities and the operationalisation and implementation of digital transformation.

Leadership capabilities necessary for success is described as the ability to (1) create a transformative digital vision, (2) energize employees by engagement, (3) focus on the digital governance (4) building technological leadership. The first two are rather self-explanatory in the sense that they are previously acknowledged leadership practices.

Digital governance however is the process of steering a company's digital activities towards the strategic vision, while building technological leadership entails the enabling and merging of IT leaders with the present business conduct
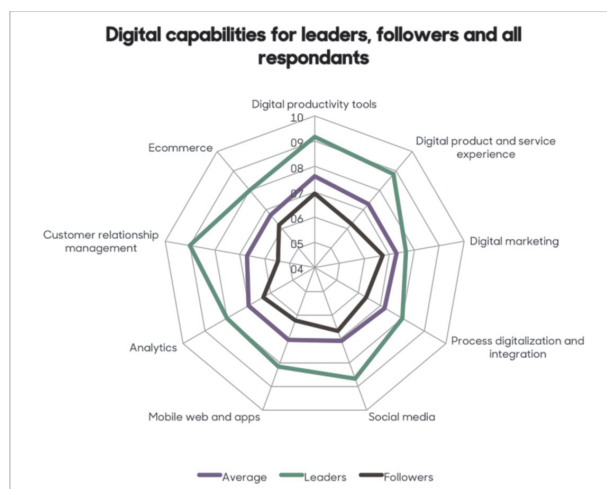
Autocratic Leadership

Autocratic leadership, also known as authoritarian **leadership**, is a **leadership** style characterized by individual control over all decisions and little input from group members. **Autocratic leaders** typically make choices based on their ideas and judgments and rarely accept advice from followers.

Transformational leadership

Transformational leadership has just as values-based leadership, identified four distinct features that transformational leaders have: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.

Participative Leadership

Participative leadership is a managerial style that invites input from employees on all company decisions. The staff is given pertinent information regarding company issues, and a majority vote determines the course of action the company will take.

Digital capabilities for leaders, followers and all respondants

Theoretical framework

As described above in the section of "digitalisation and digital transformation" as well as "leading digital change", the transformative effects of digitalization can be viewed from several different aspects and perspectives, with a wide array of complex features ascribed to the phenomenon. To better understand this occurrence, the broader literature survey was conducted to outline the main and common features of the phenomenon, in order to create a framework of analysis. After the completion of the survey, six main features and reoccurring themes could be found as common characteristics of digitalization. Each is here described, before they are used to analyze how digitalization effects top management leadership.

Six characteristics of Digitalization

 Interrelatedness The Interconnection and integration of businesses, communication and social interaction as well as organizations has greatly increased due to digitalization.

 Profusion of information in short intervals: Shorter timeframes for decision-making increased speed of information real-time organizational management and increased forms of interaction are results of diminished time lag and abundance of information for example smart phones, tablets and social media, requiring "powerful business analytics to make sense of the information and take full advantage of it", The access and abundance of information was for example, to analyse the global volumes of trade for digital goods, highlighting how innovations in telecom, Voice over IP and TV are interlinked and aided by digitalization

 Increased transparency and complexity. In the face of increased organisational complexity further transparency is needed in order to manage organisational transformation

Hierarchy deduction and dissolvent of individual barriers

As organizations become more fluid changes in the organizational hierarchy structure follows for instance, introduces the notion of "reverse-mentoring programs" enabling top management and senior executives to learn from the younger generations, by diverging from formal and professional barriers as well corporate positions in the company

Helping in decision and maintaining integrity: Digitalization enables faster decision-making processes from strategic decisions in the corporate boardroom to consumer purchase decisions.. With the above four characteristics, digitalization also effects personal integrity, as mutual trust for example is becoming a significant factor when selecting business partners

Civilizing effect. As digitalization reshapes the five key domains of customers, competition, data, innovation and value it also enables humans to easier interact, communicate and interlink through virtual platforms and tools, in a more autocratic and intuitive way.

Objective of the study

(1) To Study how digitalization affects top management leadership

(2) To identify the characteristics of digitalization

(3) To analyze how these characteristics effect top management leadership

(4) To study the humanizing effects of digitalization on different leadership styles

Research design

As the research paper sought to answer "how digitalization effects top management leadership", through identifying the characteristics of digitalization, and analyzing how these characteristics effects top management leadership, a research design to serve this aim was chosen. Through the literature survey, the six characteristics of digitalization were identified, bringing the study to the task of confirming and analyzing the effects of these characteristics on the three chosen forms of leadership: autocratic, transformative and participative leadership. The purpose of the study was therefore to deepen the understanding of how digitalization affects leadership and top management of organizations.

Method

In order to discuss and understand the effects of the six characteristics of digitalization on three top management leadership styles, it was concluded that the best course of action was to base the research on *qualitative research methods*. As the foundation of the six characteristics of digitalization was identified and set through the literature survey, it was however in need of further scrutiny and confirmation. The researcher considered a quantitative approach in regards to observational and survey research, but concluded that in order to arrive in a deeper understanding of what digitalization is and its effects on leadership, the critically *reflective approach of in-depth interviews was more suited for the study. This approach allowed for greater exploration and deeper insight directly from the leaders regarding their perspective on digitalization and its effects on themselves and their leadershi*p. As the purpose of this study was not only to identify the characteristics, but also to confirm and analyze its effects on top management leadership, qualitative interviews were conducted.

Interview process

15 semi-structured interviews with top managers and executives of selected organization, henceforth called "leaders", were conducted for this study. The first section discussed digitalization and digital transformation, the second their leadership styles and third the intersection between these

Findings and analysis

As the aim of the paper was to identify the characteristics of digitalization, and analyze how these characteristics effect top management leadership, a broad literature review was conducted and resulted in the identification of six characteristics of digitalization. These characteristics were however in need of further testing and confirmation through empirical data, to explore their relevance on the leadership for managing complex and changing organizations

The first part of this section will therefore present and discuss the 15 leader's understanding of digitalization and what they regarded as fundamental characteristics of digitalization. With this concluded, *the second part* continues with the analysis of how these characteristics effected each of the three forms of leadership. *The third and final part* highlights other findings regarding leadership, derived from the empirical data.

Understanding digitalization and digital transformation

All the interviewees were unanimous in the notion that digitalization and digital transformation fundamentally affected their leadership, their organizations and themselves. Interestingly enough however, was that few could clearly pinpoint how and why in the beginning of the interviews. Even when asking them to explain what they meant by digitalization, few could derive at a direct and concise conclusion of the term.

Leadership in the digital age

With the identification of the six characteristics of digitalization concluded, the second part finally treads back and discusses the research question: "how digitalization effects top management leadership". The analysis was conducted on three forms of leadership for managing complex and changing. All 15 leaders described during the interviews these three forms as part of their leadership practices. These practices were however deemed as somewhat obvious traits for most contemporary leaders, and each subsequent feature had for the most part been internalized by the leaders. I will therefore add the six characteristics of digitalization upon each model, to see if and how they have effected these three leadership practices.

Participative leadership

We can understand participative leadership through four distinct features of a leader: Integrity, Trust, Listening and Respect for the follower. From the interviews, it was extrapolated that 13 of the interviewees could be segmented as carrying the feature of "Integrity", 11 carrying the feature of "Trust", 13 the feature of "Listening" and 12 carrying the feature of "Respect of the follower". Therefore we can conclude that most of interviewees were participative leaders With this concluded we can then move on and analyze the four segments with the six characteristics of digitalization.

Transformational leadership

Transformational leadership has just as values-based leadership, identified four distinct features that transformational leaders have: idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Through the 13 interviewees, all four aspects of transformational leadership were clearly represented in each of the leader's styles.

Autocratic leadership

This third and final leadership form was the strongest form of leadership displayed by all leaders. Both in descriptions and statements, many felt as autocratic leaders and advocated its self-assessing style to their followers.

The flipside of digitalization

Although the six characteristics brought forward the above interesting findings in it, what could be further argued was that the characteristics of digitalization also brought forward dualistic and contradictory perspectives from a leadership standpoint. For instance, not only did digitalization have humanizing effects from a leadership point of view, but it also had *de-humanizing effects* through the increased use of digital communication, emailing and messaging. As face-to-face communication, physical meetings and the emotional connection between the leaders and employees were diminishing due to more objectifying forms of communication and decision-making processes such as the employee-surveys and big data analysis, digitalization had generated increased *disconnectedness* rather than interconnectedness in terms of trust, individual consideration, and motivation. The increased complexity and transparency for example also challenges the question of personal and employee integrity. As social media illuminates one's personal life, for co-workers and leaders alike, the border of work-life balance shifts, blurring the lines between what was regarded as private information and one's persona as an employee. Finally in regards to decision-making, digitalization also had *paralyzing effects* due to the shorter time span and large number of data now available, leading managers to make decisions on "gut-feeling" rather than balanced processing. This above illustrates the dual nature of digitalization, both as an enabling and disabling aspect of leadership.

Conclusion and limitations

Digitalization according to several researchers is having a fundamental effect on

businesses, societies and individuals alike. Considered a prime challenge for the leadership and top management of contemporary, complex and changing organizations research in the intersection of leadership and digitalization however remains scarce. This study aimed to discuss and describe "how digitalization effects top management leadership".

What was identified and confirmed through the literature survey and 15 in-depth interviews were six characteristics of digitalization .These six were then applied on each of the three forms of leadership, in order to analyze its effects on each leadership form. The result was that the effects of digitalization could plentifully be found in each leadership form. Also, the effects of digitalization had been internalized by the leaders and utilized to enhance each of the leadership forms. Digitalization had therefore fundamentally changed how the leaders practiced their leadership and how each sub-feature manifested itself in its application.

Furthermore, In the face of digitalization, the leaders developed other vital and complementary perspectives on leadership in this digital age. Virtual leadership was a cornerstone of how the leaders executed and applied these three forms of leadership. Through digital tools, methods and practices, the leaders enhanced their virtual presence, applying and practicing their leadership on the virtual plane. The knowledge contribution of this study is two folded: the six characteristics of digitalization have brought forward a deeper understanding of what constitutes as digitalization, what attributes can be described to the phenomenon and how it affects leadership. This allows future researchers to apply this analytical framework on adjacent fields of digital transformation, to further complement and understand its effects. The second contribution is the development within the intersection of leadership studies and digitalization. Through the aspect of leadership, this paper has opened up for future studies in value-based, transformational and autocratic leadership. As digitalization affects an abundance of adjacent fields, future research recommendations will be left to the discretion of the reader. A scarce field is now further populated with this study of digitalization, but will require immense and further research before adequately being able to draw generalizing conclusions.

The limitations of this study follow from the nature of the study. Other than the general limitations of a qualitative, semi-structured interview-based scholarly paper, within a less developed research field, as well as the interviewee's biases towards their understanding and interpretation of digitalization and leadership, most of the arguments in this paper are in need of further grounding in relevant theory. The description and definition of digitalization and its characteristics is also contingent on the researcher's limited, restricted and prior knowledge and bias towards the literature in order to identify the characteristics of digitalization. The qualitative nature of the study also removes the aspect of generalization of the study, and 15 interviews are far too few in order to significantly and truly confirm the aspects of digitalization found throughout the study. Digitalization and digital transformation is discussed and researched for a reason: as individuals, businesses and societies are fundamentally changing, the highly complex situation of leading through this digital change is therefore placed on leaders of organizations: tasked to lead in a state of constant change, into an unknown digitalized future.

REFERENCES:-

- Avolio, B.J., Gardner, W.L., Walumbwa, F.O., Luthans, F., May, D.R., (2004). *Unlocking the mask: a look at the process by which authentic leaders impact follower attitudes and behaviors*. The Leadership Quarterly. 15, 801–823.
- BarNir, A., Gallaugher, J.M., Auger, P., (2003). *Business process digitization, strategy, and the impact of firm age and size: the case of the magazine publishing industry.* Journal of Business Venturing. 18, 789–814.
- Bass, B.M., (1985). *Leadership and performance beyond expectations*. Free Press, New
- York⬚: London.
- Bass, B.M., Avolio, B.J., (1994). *Improving Organizational Effectiveness Through Transformational Leadership*. Sage Publications.
- Conner, D., (1993). *Managing at the speed of change: how resilient managers succeed and prosper where others fail,* 1st ed. Villard Books, New York.
- Copeland, M.K., (2014). *The emerging significance of values based leadership: a literature review*. International Journal of Leadership Studies. Vol 8, 105-135.
- Coyle, K., (2006). *Mass digitization of books*. The Journal of Academic Librarianship. 32, 641–645.
- Dean, C., (2009). *RIMER Managing Successful Change.* Australia: Uniforte Pty Ltd
- Howell, J.M., Avolio, B.J., (1993). *Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance*. Journal of Applied Psychology. 78, 891–902.
- Iansiti, M., Levien, R., (2004a). *Strategy as Ecology*. Harvard Business Press.
- Iansiti, M., Levien, R., (2004b). *The Keystone Advantage: What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability*. Harvard Business Press.
- Sheninger, E., (2014). *Digital Leadership: Changing Paradigms for Changing Times*. Corwin Press.
- Tapscott, D., (1996). *The digital economy: promise and peril in the age of networked intelligence*. McGraw-Hill, New York, NY.
- Tropp, H. S., (1993), "*Stibitz, George Robert*," in Anthony Ralston and Edwin D. Reilly, eds., Encyclopedia of Computer Science, Third Edition (New York: van Nostrand Rheinhold, 1993), pp. 1284–1286.