The Soft Side of Digitalization

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Digitalization has recently become one of the hottest buzzwords in management literature. A brief review of popular themes for special issues in the academic literature reveals that digitalization is an area that attracts more and more attention in the research community. Many scholars are puzzled by how these technology shifts affect their academic fields. The purpose of this paper is to shed some light on how young employees and students perceive how digitalization will affect some of the softer sides of the management fields.

Introduction

By consulting the Merriam-Webster dictionary, we are informed that digitalization is the process of converting something to digital form (Merriam Webster, 2019). According to the consultant firm Gartner, digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business (Gartner 2019). A broader perspective on the process of digitalization can be found in Parviainen et al. (2017): "*digital transformation is changes in ways of working, roles, and business offering caused by adoption of digital technologies in an organization, or the operation environment of the organization*". Digitalization affects most sides of business life. Prominent business leaders such as Rick Haythorwait (Chairman of Centrica and MasterCard) has underlined that context, trust, ethics, and purpose are essential aspects of how the process of digitalization influences leadership (Bolden & O'Regan, 2016). Wilson (2004) identifies four key structural changes reshaping leadership: "*Rapid and far reaching technological changes, especially the digitalization of information and communication technology, accelerated globalization. A shift towards knowledge as the central factor of production and more distributed and less hierarchical organization forms.*" In their review of leadership skills in the digital age, Balan & Cavendish (2017) grouped these skills into four areas: communication, dealing with change, learning and practical changes.

Several of the foregoing aspects are included in a research project named "The Human Side of Digitalization" at NTNU, campus Ålesund. The initial phase of this project was finished earlier this year (Mustafa et al. 2019). The project mainly focuses on three areas: digitalization and organizational structure, digitalization and leadership skills, and digitalization and work-life balance. In this paper, we draw on results from the first phase of this project.

Research design

The main idea in this project is to collect data from young people at an early stage in their careers and compare these to data from managers later in their careers. The project contains two studies. The first study consisted of a questionnaire which was given to 114 young

respondents, aged 20 to 35 years, with an average age of 30 years. The participants in this study all took part in focus group interviews after they had answered the questionnaire. The data from the focus groups were organized with 13 facilitators/moderators. The results from these focus groups were documented through extensive notes from the moderators and later analyzed. The second survey was undertaken amongst managers. We had 141 respondents with an average age of 51 and a span from 30 to 80 years. Constructs measured were digitalization, organizational structure, leader skills, employee competencies and work-life balance. These constructs correspond with themes discussed in the focus groups with the younger respondents. This mixed method gave the project group a rich data material, where qualitative data could be compared to quantitative data and some initial findings could be identified.

Results

The main results from the focus group interviews are indicated in the sections below.

Digitalization and organizational structure

Regarding digitalization and organizational structure, three questions were discussed. First, a question of how implementation of digital technology will affect the structures of future organizations. Second, a question of control and coordination, and third a question of how digitalization will affect the flow of information and competence transfer in a future organization.

A general impression from the respondents in the focus groups was that there will be fewer physical frames and less human interaction in future organizations. The respondents also indicated a more decentralized structure as one of the expected results of digitalization. The structures of future organizations should be flatter, and decisions should be made closer to the expertise and combined with shared management responsibilities. Increased knowledge sharing and new collaboration platforms were expected. The respondents further expected resilient structures that should nurture openness of tasks with flexibility and diversification.

Digitalization and leadership skills

Related to digitalization and leadership skills, two questions were asked: "What skills and qualifications do you think the leader should possess to benefit from a digital environment?" and "Do you think changes in the company's structure will require new skills among managers?" It was underlined by the respondents that a higher level of digital fluency will be required of leaders in the future. According to the respondents, the ability to use different programs and applications to capture, analyze and use complex data will become increasingly important, but so will developing virtual leadership skills be. Strong communication skills on relevant platforms were also highlighted by the respondents. The ability to handle demographic and cultural diversity as well as virtual teams were considered important for leaders in the digital era.

Digitalization and employee competences

When it came to how digitalization will affect employee competencies, the participants were asked questions regarding recruitment, new skills and qualities of future employees.

The respondents thought that the rapid technology development will have a large impact on the requirements for digital skills. It was considered important for the digital workforce to

develop a higher understanding and use of complex digital systems/devices to data entry, retrieval and interpretation. The respondents also assumed that skills such as being creative, adaptable, versatile and being able to switch between independent and team work would be important.

Digitalization and work-life balance

Two questions were asked regarding digitalization and work-life balance. The respondents thought that digitalization will increase the connectivity and that this could represent challenges to the balance between work and private life. The importance of clear boundaries between work and private life was underlined. The respondents discussed several ways of coping with this: better planning, better scheduling, closing email accounts during vacations and leisure activities and setting their own limits. It was also said that the management has a vital role in helping the employees setting clear boundaries. In a more network-oriented business life with virtual teams spanning several time zones, the coordination of time is essential.

Summary and conclusion

The findings of the initial stages of the project are very interesting. They give the voices of young employees and how they perceive the effect of digitalization on various aspects of business life. The results are partly in line with the four key factors identified by Wilson (2004). Far-reaching and fast technological changes require both employees and managers to be involved in continuous learning processes. The managers' ability to handle both geographical and cultural diversity are consequences of globalization and knowledge specialization. Less hierarchical and more temporal and network-based organizations will require new forms of leadership skills. The use of new and powerful communication platforms makes communication skills even more important for managers than previously. Another important finding is that the new technologies, as well as globalization, challenge the traditional boundaries between work life and private life. This is an important issue for leaders in the digital era to solve. These leaders do not only need to cope with the rapid technological changes, but must pay attention to the soft side of digitalization as well.

Limitations

We have in this paper focused on results from the focus groups where only young employees have participated. Analyzing the data from the questioners would nuance the preliminary findings. For a more complete picture, we should await the second phase of the project where the voices of the management generation can be heard. Comparing the two sets of focus group data with the two sets of questioners will put us in a situation where conclusions that are more detailed. The research of the differences between the groups is expected to give results that are highly relevant for academic institutions educating the next generation of leaders.

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