A View on Personnel Leadership in Digitalization

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Abstract. On base of case studies from a research project in digitalization, this article is seeking for challenges and success factors in personnel leadership. It turned out that existing knowledge is still common but digitalization speed-ups effects by hygiene factors and motivators.

Introduction and Context

The questions of an optimum of the relationship between employee and organization through a suitable personnel leadership accompanied the research for generations. From this topic, research questions emerged as to how personal leadership in Industry 4.0 will be shaped and which changes need to be dealt with. As part of the research project "Healthy Work in Pioneering Industries"[1], which focuses on case studies in the area of digitalization and Industry 4.0, the research team of the University of Applied Sciences Jena investigates aspects of introducing and applying technological and economic innovations in companies. The results of this work will be presented in a case study archive. The research project is carried out in interdisciplinary collaboration with researchers from the fields of work psychology, occupational medicine and social sciences. The results

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are based on company visits, observations and guided interviews. This article focuses on different personnel leadership models in the context of digitalization.

Knowledge in Personnel Leadership

Personnel leadership seeks to optimize relationships between employees and their companies, but [Argyris, 1957; Argyris, 1966; Herzberg, Mausner, & Snyderman, 1999] state that this is not achievable. The aim of the company is to achieve an optimal operating condition (maximum profit with a minimum risk). The constant pursuit of newness, tension and self-realization is inherent in human. A form of personnel leadership addressed in numerous research projects is autocratic or authoritarian or directive leadership. Employees have a passive, dependent and subordinate role. All decisions are made by the supervisor. Fixed rules determine everything. There is competition for supervisor approval. This leads to apathy, frustration, disinterest, mistakes and illnesses. Measuring and controlling this type of work can be done very quickly and easily based on the specifications. The management realizes these problems and returns them to the employees. It assumes that employees need to be changed and then introduces stronger controls / restrictions. The company becomes even more deadlocked and losing the ability to adapt quickly to change. All this leads to an eternal cycle: Pressure from above creates unproductivity from below, so new pressure comes from above.

The most important factor in the company is the human. An employee is creative, the most flexible element in production, has experience and can make decisions. For example, employees usually have more experience in their field than their supervisor (Herzberg et al., 1999; Stocker, Brandl, Michalczuk, & Rosenberger, 2014). Another direction of personnel leadership that puts more emphasis on employees is employee-centered leadership (democratic, participative or collaborative) (Argyris, 1957). This is also recommended in the Fraunhofer Study on Production Work of the Future - Industry 4.0 (Ganschar et al., 2013). There are also leaders who are responsible. However, the employees have the opportunity to define the way in which the tasks are carried out and divided up (Argyris, 1957).

Maslow (1970) sorts the needs of the employees starting from those most important to him as follows: 1. Physical, 2. Safety, 3. Social, 4. Self-esteem and 5. Self-actualization needs. Argyris (1966) sees the physical and security needs that are largely fulfilled in an industrial society as nothing more than the most significant ones. One of the most important needs for him and Herzberg et al. (1999) is the need for self- actualization. Herzberg et al. (1999) is based on two factors that can influence the work attitude, the hygiene factors and the motivators.

This participatory leadership led to greater cohesion within the groups, increased productivity, motivation and job satisfaction. It also reduced the

occurrence of frustration, aggression and the degree of dependency on supervisor. This form of leadership has been used only in small groups so far. It is not possible to involve all levels of such an institution. Centralized administration is still needed for this (Argyris, 1957; Herzberg et al., 1999).

From the future, Argyris (1966) expects employees' work tasks to be extended to meaningful segment sizes so that they can once again see meaning in their work. So far, there were few possibilities for the use of motivators because the work areas for this cut too small and too monotonous (Herzberg et al., 1999). The pyramid structure of many companies' management will continue to exist, according to Argyris (1966), but together with other structures.

Employee-centered leadership is also used in the new agile methods. As part of this, the team should openly look for new challenges and discuss appropriate measures for them (Goevert, Gökdemir, Peitz, & Lindemann, 2017).

Reports from the Case Studies

For the case studies in the field of digitalization within the framework of this project, both forms of personnel leadership were found. The case study at an Internet retailer uses both forms. In the warehouse area there is an autocratic leadership. Chaotic storage and a large number of items was difficult to handle for the employees. Everything is specified by the IT-system using a handheld. The work is monotonous and is under constant time pressure. The employees were interviewed at the beginning of the development and implementation process, but their suggestions were not implemented. The employees have mentors, team leaders and department heads about them. They are dependent on the supervisors, are constantly under control and can only passively carry out their work. There are regular losses of items in the warehouse. The employees are disinterested after a certain time in the enterprise and not so efficient.

The software development department has an employee-centered leadership. These employees work in agile teams using a ticketing system. Within the framework of certain targets set by the supervisor, they work on their own responsibility. There is a flat hierarchy. The way in which they divide or implement a task is up to them. Their team spirit is good. They work under trusted working hours and home office is also possible. They are open to all ways of self-actualization. They are satisfied with their working conditions.

In another case study in the aviation industry there is also an agile department in a conservative company, the IT-department. This was previously directed from above. At that time, it was only service-oriented and operated only the existing facilities. The new structuring means that it is no longer "everything directed from above", but interactive. Software development projects are now being carried out in complete self-development. The agile methods Kanban and Scrum are used. The introduction of innovations now takes place in small iterative steps with high

accuracy of fit and continuous adaptation to the requirements. The IT teams manage their projects independently and have full decision-making rights. The head of IT empowers employees to do things and solve obstacles themselves. They have a common goal. He ensures that the employees understand the goal and know what direction they want together. It is therefore also an employee-centered leadership. The IT department took the completely agile way.

First Findings and Summary

Digitalization speed-ups processes in enterprises. The risk that the motivation of employees does not speed-up in a similar way is high, especially in cases where work areas cut too small and too monotonous. Agile approaches are promising but they cannot easily be applied in large growing organization. The pyramid structure of the administration exists in conservatively grown company. But as Argyris (1966) has already mentioned, another structure is the agile business department with collaborative leadership. Pyramid and agile structure have a special purpose in the business.

In digitalization or in Industry 4.0, the same personnel leadership methods were used in the case studies as in the works of Argyris (1957; 1966) or Herzberg et al. (1999), with always the same problems.

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