Innovation Management as a Driver for Changing Work Styles

9.1 Introduction to Innovation Management

“Innovation” comes from the Latin word “innovare” and stands for renewal or reform. From an economic point of view, innovation is something complex and new that brings economic benefits for an organization or for the company. Innovation management includes elements such as ideas, inventions and diffusions (Müller-Prothmann & Dörr, 2019). Innovations include the generation of ideas and the constant validation and review of these ideas as part of a structured innovation process (Nelke, 2016). Innovation Management comprises three levels, as shown in Fig. 9.1. In addition to the operational level, the working level, there are the strategic and normative levels (Stibbe, 2019). Innovations are decided on the normative and strategic level and put into practice on the operative level (Helmold & Samara, 2019).

Terms that are often used in connection with innovation are ideas, collections of ideas and inventions. An invention or invention must be differentiated to the extent that it has not yet been exploited and used as a creative achievement of a new problem solution compared to innovation. It is the same with the idea, which is a creative thought of something new. In all cases, “new” can always be seen relatively. It can be new for this situation, the company or the world. In particular new developments such as New Work, Industry 4.0 or increasing globalization have an important impact on innovations and innovation management (Granig, Hartlieb, & Heiden, 2018). Of central importance are the collection of ideas, the selection and the decision which ideas are implemented. This process must be managed by the higher management (Helmold & Samara, 2019).
Management is a term that is used constantly in companies. It stands for the management of a task and for the coordination of activities in order to achieve a defined purpose and goals. Accordingly, innovation management is the structured promotion of innovations in companies and includes tasks in the planning, organization, management and control of these innovations. Innovation management deals with all measures to favour innovations in organizations and to generate benefits, for example:

− New products and services to conquer new markets
− Improved products and services to stand out from the competition
− Improvement of internal processes in order to strengthen the company
− Innovations to from the inside or to save costs
− Development of new business models to use new sources of income
− New Work Styles that enable Employees to achieve a better performance

9.2 Technical Relevance and Attractivity

Innovations are usually complex undertakings with a high expenditure of technology, use of resources and therefore usually cause very high costs and investments. It is therefore imperative that the company management sustainably evaluate every innovation with regard to its prospect of success, and this with regard to strategic relevance, technology expenditure, benefits and resource intensity. Ideas and possible innovations always require a strategic and resource-based review (Pfeiffer, Metze, Schneider, & Amler, 1991; Pfeiffer & Weiß, 1995). Figure 9.2 shows the relationship between strategy and resource use.
### 9.3 Strategic Relevance of Innovation Management

The strategic relevance and attractiveness of the innovation is the sum of all technical and economic advantages that can be gained by exploiting the strategic development opportunities in a technology area. The technology attractiveness depends on the one hand on the technology properties (potential side) and on the other hand on the requirements of (future) users (demand side).

The two sizes of the technology portfolio, technology attractiveness and resource strength, each represent a (highly) aggregated evaluation result in relation to deeper individual factors. Experts envisage the following things to check and determine technology attractiveness (Helmold & Samara, 2019):

- Further development potential: To what extent is a technical further development and thus performance increases and/or cost reductions possible?
- Range of application: How can the number of possible areas of application of the technology and the quantities per area of application be assessed?
- Compatibility: What negative or positive effects can be expected in user and surrounding systems (innovation obstacles, drivers)?

### 9.4 Resource Intensity

The strength of the resources expresses the extent to which the assessed company has the prerequisites in comparison to its potential competitors to make the considered technological alternative successful, i.e. H. in a timely manner and in the form of marketable products. In other words, it is a measure of a company’s technical and economic strength or weakness in relation to a technology relative to its
competitors. Experts in tourism propose the following three indicators to determine the strength of resources (Helmold & Samara, 2019):

- Technical-qualitative degree of mastery: How is our technology-specific know-how to be assessed in relation to the competition, is there a lead or lag in development?
- Potentials: To what extent are financial, human and material resources available to exploit the existing further development potential of the technology?
- (Re) action speed: How quickly can the evaluating company exploit the further development potential of the technology compared to the competition?

### 9.5 Future Potential of Innovations

In addition to the studies described above with regard to strategic relevance and use of resources, innovations must be subjected to a future prognosis in which the future prospects of success are evaluated. Scenario analyses can be used to forecast the development of the user side (Pfeiffer et al., 1991). Pfeiffer and his coauthors also emphasize the great importance of a higher-level system and environment perspective that extends beyond individual technologies. On the one hand, this means that technical peripheral systems are included in the analysis (e.g. the establishment of a methanol or hydrogen supply infrastructure required for the implementation of fuel cell drives for cars). On the other hand, non-technical framework conditions are also decisive for the technology assessment (e.g. the possible tightening of exhaust gas legislation). In the context of the identification of innovations, the necessary resources and strategic relevance are still relatively low. In this phase, ideas are collected, evaluated and selected. In the next step, the strategically relevant ideas must be tested (Fig. 9.2: Experiment). This testing usually takes place through experiments. However, observations, workshops, panels or analysis groups can also be used. With the selection of strategically important innovations, the use of resources in companies automatically increases. Primary materials have to be bought, the products have to be mass-produced and marketing towards customers requires proactive marketing. This phase of the investment involves a very high expenditure of resources and thus financial resources (equity or debt). After the investment phase, optimization begins so that fewer resources are required. The optimization takes place through standardization, unification, volume effects or technical innovations. In the last step, if it turns out that the innovation no longer has any strategic relevance, all activities are eliminated and shut down (Helmold & Samara, 2019).

### 9.6 Fields and Tasks of Innovation Management in New Work

Innovation management forms two key pillars. On the one hand, innovation management includes the creation of suitable and structured framework conditions so that ideas arise everywhere in the company and are implemented into successful
innovations. It is very much about organizational development activities. And sec-
ondly, the actual innovation, the active search, development and implementation of
ideas. This requires creativity and appropriate project management, for example.
Innovation management is very versatile and multifaceted. The fields of action of
innovation management include the following elements:
  – Future management: Identification of trends and future opportunities and risks
  – Development of the innovation strategy and planning of the innovation activities,
    for example with an innovation roadmap
  – Organization and distribution of roles in innovation management, such as
decision-making structures and process ownership
  – Idea management for finding, developing and evaluating ideas
  – Innovation process for transforming an idea into a successful innovation: con-
    cept development, business plan, solution development, prototypes, implementa-
tion and marketing
  – Creating an innovation culture that promotes innovation
  – Portfolio management and innovation controlling (e.g. innovation indicators) to
    control innovation activities
  – Dealing with patents and property rights
  – Open innovation and innovation networks to use external innovation sources and
    resources.
  – Management of change (change management) in the course of innovation
    projects

Figure 9.3 depicts innovations in the area of New Work. Agile leadership is the
craft of creating the right context for self-organization. An environment where agile
teams work together, learn from each other, get quick feedback from users, and

Fig. 9.3 Innovation elements in new work. (Source: Author’s Source)
focus on quality and continuous learning. Another innovation is virtual and network organizations, in which teams collaborate across countries, time zones and languages. Innovations are also visible in the areas of flexible time models or flexible pay models. Finally, New Work triggered innovations of virtual team working tools, design thinking and new office concepts.

9.7 Case Study: Digital Innovation in a Bakery in Tokyo

Figure 9.4 shows an example of New Work in a bakery store in Tokyo. The device helps customers and employees to focus on relevant activities, rather than non-adding value processes. The customer can place the selected goods on the scanning device. A camera is identifying the goods purchased and showing the price. The customers can pay easily with cash or credit card. The device helps employees to focus their activities on giving advice to customers rather than payment execution. Additionally, the process improved the transaction time significantly. No waiting time anymore for customers. Thus, an innovation helped to create more added value to customers.

Fig. 9.4 New work innovation in a bakery in Tokyo. (Source: Author’s Source)
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