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Identifying Potentially Profitability Impact Areas of the Implementation of New Production Technology

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Abstract

The rapid development of technology diversifies supply. The diversification of supply makes the choice of supply increasingly difficult. One of the important selection criteria in business is the impact of the option on profitability. Other possible criteria include safety and durability, for example. Profitability has one advantage compared to other criteria; It enables the comparison of different aspects. Euros and percentages are equivalent units that can be used to compare for example apples, oranges, and bananas. The goal of the presented model is to provide support to businesses in their technology choices.

The goal of this paper is to describe a model that supports the analysis of the profitability impact of new technology. The model has been piloted through a survey targeting participants in the Level-Up project.

An organization is needed to facilitate people's cooperation. The organizational structure defines the key framework of the organization. It describes the relationships among people in the organization and defines members' tasks, responsibilities, job roles, and communication networks. The organizational structure divides the organization into smaller parts based on some criteria. Typical criteria include functions (sales, R&D, and production) and product categories. In the model presented in this paper, the division has been done by activities. Activities are divided into main and support activities.

Working on the Level-Up project and utilizing the model have strengthened the understanding that the benefits of digitization come primarily from support functions. Profitability calculation is excluded from this paper and is not presented.

Keywords: impact of technology, OEE, organizational structure, profitability