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The Competence Management Tool (CMT) – A new instrument to manage competences in small and medium-sized manufacturing enterprises

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Abstract

Introduction

Small and medium-sized enterprises (SMEs) have to cope with globalization effects and technological change. Thus, strategic competence development is important, especially for low-skilled blue-collar workers who often do basic manufacturing tasks. However, only few available tools match the criteria which are important for personnel management in SMEs, as manageability, transparency of process, usability for different personnel development tasks and methodological rigor.

Method

Within the research project StraKosphere, we developed the Competence Management Tool (CMT), matching the requirements we derived from employee and management interviews, using an established tool. The CMT includes the measurement of professional, interpersonal, methodical and knowledge-based competences. Furthermore, add-ons for verbal skills and outside the job acquired skills (e.g. during hobbies and leisure) are available.

First, actual or future competence requirements for a job are defined and evaluated afterwards, concerning employees' actual competences. Individual and aggregated reporting is possible.

Value

Decision makers may use the instrument to manage the competences of their employees in a strategic, conceptually and methodologically well-grounded way. It satisfies SMEs' needs and is approachable for different target groups inside enterprises.

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1. Introduction

In times of globalization and dynamic technological changes, the strategic management of competences on all personnel levels becomes a highly relevant task for human resource management. Even the more simple jobs are included in this process [1]. In earlier times, simple jobs are characterized by rather easy to learn task requirements, which needed only short introduction cycles. Nowadays, the job requirements are rising even at simple job levels (e.g. concerning quality control and maintenance responsibilities), so that the job incumbents have to be systematically prepared for rising and diverse requirements. Companies especially need qualified personnel to handle upcoming requirements concerning flexibility and customer demands. According to these aspects, especially in SMEs there is a need for manageable instruments that are able to identify and describe the relevant competence requirements in different jobs within the company, to measure competences in a feasible way, to identify the development gaps between target and actual competences, to get an overview of entire competence and to derive effective steps to overcome the identified competence gaps [2].

Even though there is a variety of instrument developments concerning competence management and measurement [3], there are few instruments which fulfill the criteria of a scientifically sound and practice-oriented design. This especially applies to competence management approaches and instruments which are suitable for the analysis and diagnosis of requirements in production and low skilled work contexts [4]. Relevant approaches are rather characterized by a lack of theoretical foundation and methodological rigor, e.g. concerning an inadequate adaptation to the target group of analysis as well as deficits in transparency and manageability of the analytic and diagnostic procedures [2]. Most of these approaches are based on a matrix design which represents the competency facets in the rows and the competence values of individual workers in the columns of the matrix. But these represented competence facets not always are based on a generically or theoretically derived category system and the competence values for the individual worker are rather characterized qualitatively, not quantitatively, which limits a target-actual performance comparison.

In the following, a competence management tool is described which addresses these needs concerning special determining factors of competence management in SMEs and tries to address the mentioned conceptual deficiencies of such approaches [5].

2. Criteria for competence management instruments

To be practically helpful for the daily use in SMEs, a competence management instrument has to satisfy different criteria. Within the research project StraKosphere, we conducted consecutive workshops in four industrial enterprises to define those demands. The project StraKosphere (2014-2017) is funded by the German Federal Ministry of Education and Research and deals with strategic competence management in small and medium-sized manufacturing enterprises. Three scientific institutions and four SMEs mutually develop, sample and evaluate concepts and tools to manage employees' competences.

Participants in the StraKosphere workshops were representatives of general management, of production management and of personnel management. We also analyzed interviews we conducted with employees and management members from StraKosphere's enterprises and four more companies outside of the project. Derived from these workshops and interviews and driven by own conceptual considerations, we identified the following criteria as most important for competence management instruments in SMEs [2] [6].

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