

Doctoral thesis in Cluster F “Knowledge-based Management”:

Ein Managementmodell zur Unterstützung der frühen Phasen der Produktentwicklung im multikulturellen Kontext – Diversität in der Produktentwicklung

Steffen Ehrenmann

Abstract:

Increasingly decentralized development activities and the shift of value creation in innovation activities towards application-related areas are current challenges for companies. Due to internationalization of research and development, the ability of companies to generate innovation in a culturally diverse cooperation is getting more and more important. The early stages of product development play a key role, as there are the greatest opportunities to influence the value, developing time and costs of future products. Therefore the early stages represent the groundwork for the later development success.

The objective of this thesis was to develop a management model which supports the activities within the early phases of product development in a multicultural context. This objective included several goals: Presentation of general benefits of diversity related to product development activities. Concretization of the relationship between national culture and capabilities needed for activities in the early stages of product development. Identify potential benefits of cultural diversity in the early stages of product development. Depiction of challenges associated with cultural differences in cross-cultural cooperation.

In practice there is still little attention to cultural differences and its influence on the early phases of product development. This leads to cultural conflicts reducing performance of the new research facilities or cross-cultural collaboration. Additionally, the innovation potential of persons involved in research and development will not fully be tapped.

In order to tap the benefits of diversity and to overcome the challenges of a culturally diverse composition, a holistic management model was developed. This management model considers task-oriented aspects, human-oriented measures and conditions and furthermore takes cultural aspects into considerations and development of recommendations for action. The management model allows to consider the early stages holistically and to make statements about developing measures for action according to the perspectives of the management model.

The present work shows that cultural differences have a relevant influence on the success of product development activities in the early stages of product development. By applying the developed management model to Indo-German development collaboration, this research contributed to a better understanding of cultural diversity and made a valuable contribution to the awareness of stakeholders regarding cultural differences. The application of the management model showed that the model is adequate to support the early phases of product development in a multicultural context. The recommendations developed in the different perspectives of this management model can make a valuable contribution in this context.