

INVESTIGATION INTO COMPANY-SPECIFIC DESIGN STRUCTURES TO RAISE DESIGN AWARENESS.

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This paper focuses on design processes and the constituting structures within medium-sized and large scale companies. Intensive literature review, several cooperation projects and expert interviews revealed that there is a strong need for organisations to better understand the role of design for the success of development and production processes. Mentality differences as well as a missing knowledge in the field of design management competency could be identified as key factors for sustainable improvement.

INTRODUCTION

In recent years different authors have focused on describing a paradigm shift which can be observed in modern societies – the continuously growing orientation towards design (Ettenberg 2002, McKenna 2002, Seybold et al. 2001, Zuboff & Maxmin 2002). Changing lifestyles, customer empowerment, social movements (Imhof & Gaetano 2006, Braun-Thürmann 2005), as well as market mechanisms (e.g. increased variety of products offered, technical similarities, shortened product life cycles) can be seen as the major reasons for this trend (Normann & Ramirez 1998, Wikström 1996, Piller 2004). Moreover, empirical research shows that investments in design pay off. Over

a period of three years Roy and Potter analyzed the effect of increased investments into design within 221 small and medium-sized businesses. They can satisfactorily show that there is a strong correlation between investments into design and the companies' success in terms of operating financial figures as well as in terms of pre-economic values such as customer satisfaction and positive word-of-mouth recommendations (Roy & Potter 1993:191). Taking all this together, it is evident that managing design, especially in the early phase of the product development process is the key to companies' sustainable development.

Being aware that the success of product design is due to different influencing factors, this research work focuses on elaborating upon 'design management competency' and 'design communication'. These items can not be analyzed in isolation, therefore the research aims were set on following issues:

- Influence of corporate environment on corporate action and behavior
- The design process in general
- Design competency as constituting element of design activity
- Interface-Communication in design process and its fundamental condition
- Integrated Corporate Communication in Product-language and Marketing Communication as well as Corporate Culture

PROBLEM DEFINITION

The identified problem is two-folded. In this paper it is stated that not only communication gaps are obvious factors for failed product development processes, but in fact mentality gaps were found to be seen as origin for these communication gaps and therefore are the actual reasons for failures. On the other hand most of the investigated companies have understood design and design management as relevant factors, but do not fully understand the influencing factors for design management competency, which can be regarded as a precondition for a continuous improvement in the respective field.

The afore-mentioned findings emphasize ‘design competency’ as an integral part of a company’s overall business success, not having a clear understanding of what it is, not knowing the influencing factors and impacts. Furthermore, it is evident that companies are searching – within global markets and increasing technical product similarities – for ways to differentiate and succeed in the long run. This leads to the increased necessity to manage competitive advantages and product positioning.

COMMUNICATION OR MENTALITY GAP?

Literature about product development frequently mentions that communication gaps between the different parties, which are involved in the innovation process, are a main reason for inefficiencies respectively for complete failures (a.o. Chesbrough 2003, Cooper 1993, Hippel 2005). This supposition is confirmed largely by findings in the field of communication science (a.o. Bruhn 2006, Cantin 1999, Köhne 2004, Schwab & Zowislo 2002). These publications focus mainly on the communication structures between teams, the analysis of internal and external communication processes as well as the usage of media (a.o. Bentele et al. 1996, Kirsch & Knyphausen 1993, Szyska 1996, Voswinkel 2001, Cauers 2005).

Support to the stated hypothesis is given by a recent study conducted among 76 Swiss major enterprises, which was aimed to compare the integration level of the corporate communication efforts with the company’s reputation within the public opinion (Lackus 2005, Vonwil & Lackus 2006). The items for analyzing communication aspects were supplemented by questions addressing the mentality dimension.

Altogether the study generated a huge database of 47.100 variables. It was found that the top-managers’ statements regarding their role within the company, the company’s role within the society, the competency of so called “communication leaders” as well as the perception of the corporate mission statement etc. differed significantly, which can be traced back to the different mentalities of the interviewees.

DESIGN MANAGEMENT COMPETENCY

The term ‘competency’ originates from the Latin word ‘competentia’, which translates into ‘competition’ (Haller & Allenspach, 1995:197). Competency itself is therefore strongly associated with a companies ‘core competency’ (see Prahalad & Hamel 1990) to succeed in competitive markets. The characterization of competency is strongly related to the respective scientific field.

A well known definition for competency originates from the Management literature. Here ‘professional competency’, ‘method competency’, ‘social competency’ and ‘system competency’ can be – in many cases though not clearly – distinguished (Hopfenbeck 1997).

Turning to ‘design competency’ holistic definitions are rare. Neither ‘design’, nor ‘design competency’ are clearly defined. Following Kern & Kern (2005) designers and other creative staff focuses too strongly on experiential issues. Considering their appraisal, the process knowledge and its integration will be of prime importance (Kern & Kern 2005:83). They distinguished design competencies into ‘core competencies’ and ‘complementary competencies’. Figure 1 below characterizes the ideality. It has to be taken into account that it is necessary for designers to decide for a complementary field and to specialize in it.

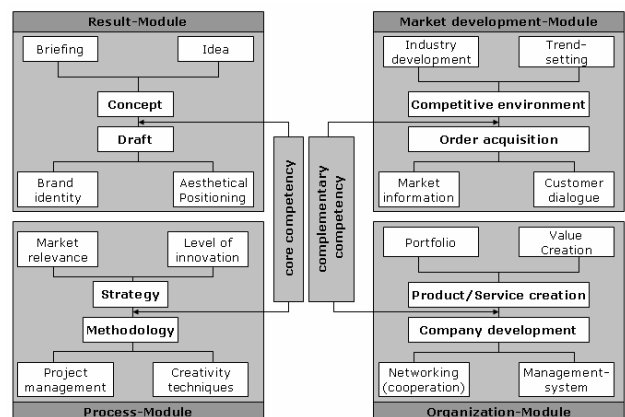


Figure 1: Creative competence double with all elements
Source: Kern & Kern (2005:79), translated by the author

As a matter of fact the above illustrated model was never empirically proven. Furthermore no generally accepted 'design management competency' model was found.

RESEARCH DESIGN AND METHODOLOGY

Based on these literature findings a consecutive study is currently being conducted in medium-sized and large scale enterprises. It aims at analyzing the influence of mentality issues on the success of product development processes with special consideration of the design management processes. Furthermore this qualitative pre-study will enable a better understanding of the influencing factors for 'design management competency' by interviewing design managers, product managers, marketers and general managers. The intention is the development of a 'Structural Equation Model' (SEM) for the latent construct of 'design management competency'.

In this first exploration step it's planned to conduct qualitative interviews with managers within 20 companies. In each company at least the head of design as well as the general manager are interviewed. So far nine managers of the companies BMW (automotive), Fischer (ski equipment), MetaDesign (design consulting), Rodenstock (eyeglass frames), Stabilo (writing utensils) and Sedus (furniture) were interviewed. The interviews were transliterated and analysed with the "NVivo 7" Software package for qualitative content analyses (Früh 1998, Mayring & Gläser-Zikuda 2005, West 2001).

It has already become obvious that suboptimal design management processes do not result primarily from missing information- and communication channels. Mentality gaps seem to be responsible for defensive territorial gestures among involved people and departments, the conflict among professions, defiance of other professions (especially among 'creative' and 'rational' disciplines), lack of willingness or ability to make decisions, missing coordination between design, technology, marketing, etc. as well as inconsistent understanding of the company's corporate strategy and corporate philosophy.

This part of our research project also gives evidence for an elaboration upon the definition of the construct, its influencing factors and will lead to a better understanding of the latent construct of 'design

management competency' by the development of a SEM. Following Homburg & Giering (1996), SEMs can be defined as the formulation of the construct dimensions, whereas the constitutive development of the measuring instrument is described as operationalization. A theoretical construct is "(...) an abstract entity which represents the 'true', nonobservable state or nature of a phenomena" (Bagozzi & Fornell 1982:24). This thesis will follow the process to develop SEMs suggested by Homburg and Giering (1996). Following their process proposal, this work will specifically address the following issues:

1. Formulation of a fundamental understanding of the 'design management competency' construct and development of initial indicators
2. Pre-Tests for improvement and reductions of the number of indicators
3. Development of a measurement model (SEM) for 'design management competency'
4. Validation of the developed model (cross-over validation)
5. Deduction of Marketing implications

The concept is currently the first stage of the above mentioned process.

INTENDED KNOWLEDGE GAINS

The findings are expected to make a contribution to the disciplines of communication science and social science. Moreover it is intended to give concrete recommendations for the corporate recruiting and team building process.

It is also intended to create an understanding of the influencing factors of 'organizational design competency' and their strength. This will help to identify gaps in 'design management competency performance' and the model will help to develop 'tools' to improve companies' respective competency.

OUTLOOK

After finishing the exploration phase, depth interviews with experts from industry and academia as well as a large-scale quantitative analysis are planned. The results are also intended to validate and operationalize the initial version of the model.

ACKNOWLEDGMENT

We thank all participating companies and FFG/FHPlus (Österreichische Forschungsförderungsgesellschaft) for their support.

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