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An in-depth case study on the role of industrial design in a business-to-business company



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ABSTRACT

In this paper, we investigate how managers perceive the roles of industrial design, based on their experiences with designers in two product development projects in a business-to-business environment. The study demonstrates that designers can make contributions that surpass the design of physical products, and that influence the effective implementation of product development processes. Our findings extend the limited literature on the role of industrial design in industrial markets, and are of value for managers looking to strengthen their product development processes.

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Introduction

A number of studies indicate that industrial design performs a variety of roles in companies, and that these roles are relevant to other functional areas such as marketing (Kotler and Rath, 1984), engineering (Persson, 2005), sales (Roy, 1990) and production (Trueman and Jobber, 1998). However, while companies benefit from industrial design in several ways, the roles that industrial designers play are not fixed (Dumas and Whitfield, 1989; Walsh, 1996; Topalian, 1986). In fact, company surveys indicate that industrial designers are contracted for a variety of reasons (e.g., Nielsén, 2008). For example, while a marketing manager may be concerned with product differentiation and may hire designers to support his/her department in these areas, an R&D manager may be more concerned with

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aspects such as technical feasibility. Thus, managers can have different views on what industrial design brings to a company. Yet, to our knowledge, no study has explored what roles different managers recognize for industrial design within business-to-business companies.

Identifying the variety of roles that industrial design can fulfill in companies is pivotal in supporting the strategic utilization of design in companies.

The management literature on design points to several problem areas in the relationship between managers and designers. As found for new product development in general (e.g., Kleinsmann et al., 2010), the communication between industrial designers and managers has long been reported as problematic (Gorb, 1986). Managers reportedly find the language and ideas used by designers unrealistic (Dumas and Whitfield, 1989). Similar problems have also been found for other professionals. Persson (2005) for instance found that although engineering design and industrial design are highly interrelated (e.g., both disciplines influence the outputs of the other), professionals from both fields usually work in separate settings and often fail to have rich communication with one and another. Effective cooperation is therefore often hindered, and companies sometimes miss out on important contributions of industrial design (e.g., Svengren, 1995). Consequently, understanding what industrial designers do and, perhaps more importantly, how different professionals perceive the contribution of industrial design should help managers to more effectively integrate industrial design with other disciplines. This should also help to create new opportunities for business-to-business companies who want to profit from industrial design more strategically.

In this paper, we report on an exploratory study on how managers of different functional areas perceive the role that industrial design fulfills in their company. While the varied roles of industrial design for business-to-consumer companies have been studied in detail, the roles of design in business-to-business companies are less well understood (for exceptions see Cooper and Kleinschmidt, 1987; Yamamoto and Lambert, 1994; Moody, 1980). Based on an in-depth case study of a multinational, high-tech, business-to-business company, we describe how managers perceive the role of the company's industrial design department, based on their experiences with design in two new product development projects.

The study shows that the perceived role of industrial design varies significantly for different managers within the company. The perceived roles concern both the shaping of the characteristics of new products and the support industrial designers can provide to other professionals in new product development projects. Moreover, we find distinct differences between managers of different functional backgrounds who recognize different roles for industrial design.

We thus contribute to the emerging management literature on the strategic management of design by listing a number of different roles for industrial design of relevance for companies in industrial markets. In particular, by investigating a company with a leading track record in design in its industry, we have been able to list those human capacities and contributions that investments in industrial design can create. We thus support managers in business-to-business companies in understanding the varied viewpoints that can exist within a company about what industrial design can do and deliver. Through these contributions, we answer to calls for a more systematic analysis on the strategic utilization of industrial design in industry (Swan and Luchs, 2011).

The evolving field of industrial design

The roles of industrial design in companies have broadened over time. From their initial role as commercial artists (or stylists) shaping the look and feel of products (e.g., Gartman, 1994), designers are nowadays also playing a role in a number of other areas, granting the profession an ever broader function within companies. In response to this, scholars have tried to capture the different functions of design; producing a growing body of competing definitions outlining a larger and larger role for industrial design (e.g., Buchanan and Margolin, 1995; Kotler and Rath, 1984; Lorenz, 1990). Consequently, the borders between what is meant by design, product development and innovation have become increasingly blurred over the years (Marxt and Hacklin, 2005), resulting in no universally accepted definitions of industrial design (Gemser and Leenders, 2001; Luchs and Swan, 2011). For this reason, our ambition is not to provide an exhaustive list of the different roles of industrial designers.

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