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## Industrial Marketing Management



# Critical meta-analysis of servitization research: Constructing a model-narrative to reveal paradigmatic assumptions

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## ABSTRACT

The literature on servitization in the manufacturing context has grown rapidly. This study is the first systematic analysis of the paradigmatic assumptions of servitization research. Considering scientific research as a rhetorical activity, this study introduces the methodological approach to industrial marketing management research. This systematic review identifies both stylistic and structural aspects characterizing servitization research. The current review is based on a representative sample of 55 articles covering marketing, management, operations, innovation, and entrepreneurship research. The review discovered four paradigmatic assumptions that guide servitization research: 1) alignment to the Western narrative of constant development; 2) realist ontology; 3) positivist epistemology; and 4) managerialism. Following these findings, the study develops alternative directions for servitization research to challenge these paradigmatic dominances. The refined method of the model-narrative has the potential to generate insightful future research in the field of industrial marketing management. As an effective approach to analyzing research streams systematically, it facilitates critical meta-level reflection on servitization and could be widely applied beyond that topic.

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## 1. Introduction

The transition of industrial companies towards increasingly service-dominant business models has been on the research agenda of industrial marketing since the late 1980s. During the past decade, this research stream has grown from a niche topic into a broad cross-disciplinary research area as service-based strategies and business models have become increasingly common in different industries (Turunen, 2013). The term servitization, taken from the article by Vandermerwe and Rada (1988), has become an accepted label for this stream of research. Servitization studies typically either take the implementation view and consider the manufacturer's process of becoming an increasingly service focused business (e.g. Brax, 2005; Oliva & Kallenberg, 2003; Salonen, 2011), or analyze the different strategic options through the new types of offerings (e.g., integrated solutions) and roles (systems integrators) enabled by the service approach (Davies, Brady, & Hobday, 2007; Mathieu, 2001; Wise & Baumgartner, 1999). This study concentrates on the underlying paradigmatic assumptions that have developed within servitization research and influenced the progress of the field.

While some literature reviews of servitization have been conducted, they have rarely employed a critically oriented research approach.

Existing meta-analyses summarize the empirical research on servitization and concentrate on research themes, agendas, and methodologies, concepts, and managerial or technical expertise (Antonacopoulou & Konstantinou, 2008; Baines, Lightfoot, Benedettini, & Kay, 2009; Beuren, Gomes Ferreira, & Cauchick Miguel, 2013; Gebauer, Ren, Valtakoski, & Reynoso, 2012; Grubic, 2014; Lightfoot, Baines, & Smart, 2013; Ostrom et al., 2010; Reim, Sjödin, Parida, & Persson, 2014; Tukker & Tischner, 2006; Velamuri, Neyer, & Möslin, 2011). These previous reviews have not examined the *paradigmatic assumptions* of servitization research, although such discussion has emerged on related topics such as general service research and definitions (e.g. Araujo & Spring, 2006; Lovelock & Gummesson, 2004; Tronvoll, Brown, Gremler, & Edvardsson, 2011; Vargo & Lusch, 2008) and industrial networks (Peters, Pressey, Vanharanta, & Johnston, 2013).

Only a few recent studies have recognized the need to increase awareness of the basic assumptions underlying servitization research (Finne, Brax, & Holmström, 2013; Kowalkowski, Windahl, Kindström, & Gebauer, 2015; Kowalkowski, Witell, & Gustafsson, 2013; Spring & Araujo, 2013). For instance, Finne et al. (2013) identified patterns of reversed servitization, and the study by Antonacopoulou and Konstantinou (2008) presented an analysis of the governing assumptions of the New Service Model. More recently, the study by Kowalkowski et al. (2015) utilized the problematization method introduced by Alvesson and Sandberg (2011) to analyze the assumptions of the service transition concept. Kowalkowski et al. (2015, p. 67) also

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encouraged scholars “not to uncritically accept the usual assumptions and blind spots in the discipline”. While starting the critical analysis of servitization related concepts these studies neither extensively discuss the paradigmatic assumptions behind servitization research nor suggest paradigmatic extensions. As a relatively new stream of research (as exemplified by the rapid increase in the amount of published research within the last ten years), a reflective meta-analysis of servitization literature is both necessary and timely (Turunen, 2013, p. 7). Therefore, to address this research gap, the present study investigates: *What paradigmatic assumptions guide servitization research?*

This critical study contributes in three main areas. First, it is the first systematic review on the paradigmatic assumptions of servitization research, targeting the underlying basic assumptions in servitization studies. Second, by doing so, it identifies areas for paradigmatic extensions and alternative research topics for servitization researchers. Third, it introduces a new methodological concept, the *model-narrative*, for use in conducting critical reviews, which, in general, could be useful for industrial marketing scholars.

### 1.1. Overview

In this study, we define the concept of *paradigmatic assumption* based on the writings of Burrell and Morgan (1979), Deetz (1996), Silverman (2010), and Alvesson and Sandberg (2011) as an underlying, meta-theoretical framework of acquiring, structuring and justifying the knowledge in the study field. These paradigmatic assumptions essentially guide the research settings and construct the objects of study in a given field and are discursive elements underpinning the production of scientific research (Bazerman, 1988; Deetz, 1996; Myers, 1990). A crucial part of this discursive production is “the role of rhetoric in the construction of knowledge claims and justification of research practices” (Shepherd & Challenger, 2013, p. 227). Following this definition, we consider scientific writing to be a discursive and rhetorical activity connected to a certain meta-theoretical framework.

Within the meta-theoretical framework, researchers use various *rhetorical strategies* to promote acceptance of their ideas and findings, to secure interest in their work and to align with what is considered current, popular or acceptable in the field. Influenced by their (often implicit) assumptions about the different actors involved in the publishing process, authors make choices in positioning and justifying their constructions (Welch, Plakoyiannaki, Piekkari, & Paavilainen-Mäntymäki, 2013, p. 246). Rhetorical performance is a fundamental element of knowledge creation in a discipline (Gross, Harmon, & Reidy, 2002; Latour, 1987; Prelli, 1989). The use of language in scholarly research is explicitly or implicitly dialogical: texts must gain acceptance and legitimation in the dialogical relationship between authors and their target audience. Hence, authors must convince readers if they are to win the readers' acceptance (Bazerman, 1988; de Waard, 2010; Gross et al., 2002).

This study employs the concept of the *narrative* (Bazerman, 1988; Latour & Woolgar, 1986; Rouse, 1990) to examine the rhetorical aspects of servitization research. The study outlines the methodological concept of the *model-narrative* based on prior approaches considering scientific texts as narratives. This methodological concept is used to analyze how rhetorical issues are codified in one of the core products of academic research: the journal article, which has become “the canonical form for communicating original scientific results” (Gross et al., 2002, p. 4). This approach allows industrial marketing scholars to identify dominant paradigmatic assumptions and, by deconstructing them, enables servitization research to move towards “alternative paradigmatic directions” (Tronvoll et al., 2011, p. 562) in the industrial context.

This analytical journey is structured as follows. First, the methodological concept of the *model-narrative* is explained. Second, the selection methods employed to obtain a representative sample of servitization research articles are explained, and the narrative analysis producing the meta-synthesis is outlined. Next, the *model-narrative*

concept is utilized to structure and communicate the meta-level storyline systematically produced from this literature set. This *model-narrative* has three main parts that echo the different roles of the beginning, middle, and concluding sections in research articles. The article concludes with critical observations of prior research on servitization and proposes alternative orientations for future research.

## 2. The model-narrative in the rhetorical analysis of research

In the field of marketing, narratives are typically used as a way to structure empirical data obtained through interviews (e.g. Borghini, Carù, & Cova, 2010; Edvardsson, Holmlund, & Strandvik, 2008). Such narratives reflect the assumptions of the subjects studied (i.e., the interviewed individuals). In addition, Gadde (2014) performed a literature review and communicated the evolution of a research area in the form of a meta-level historical narrative. Narratives are also distinguished as a focal theme in the research agenda of the Industrial Marketing and Purchasing or IMP Group (Lowe & Hwang, 2012).

Alternative forms of narrative analysis can be used to reveal the assumptions made in research communities. This analysis of “the art of persuasion” in scientific texts (Suddaby & Greenwood, 2005, p. 39) has been most vigorous in the fields of the history and philosophy of science (Kuhn, 1962), the sociology of knowledge (Ben-David, 1981; Collins, 1983; Latour & Woolgar, 1986) and linguistics (Bazerman, 1988; Gross, 1990; Myers, 1990). Although meta-analyses (Möller, 2013), narratives (Araujo & Easton, 2012; Borghini et al., 2010; Makkonen, Aarikka-Stenroos, & Olkkonen, 2012) and the rhetoric of science has been discussed to some extent, industrial marketing and management scholars have not systematically applied the narrative approach to study the rhetorical aspect of the study field.

One stream of rhetorical research considers how researchers reconstruct scientific texts into *narratives* (Bazerman, 1988; Knorr-Cetina, 1981; Latour, 1987; Rhodes & Brown, 2005). Perhaps the most basic definition of a narrative refers to a temporal model composed of the three phases of 1) equilibrium, 2) disruption and 3) new equilibrium; this chain of events corresponds to the beginning, middle, and end of a story (Jahn, 2005; Todorov, 1969). The intrinsic chronological structure of research makes the narrative a central creative component of scientific articles (Holmes, 1989). It creates commonality among scholars and offers a shared foundation on which to base rhetorical analysis (Gross et al., 2002).

The main traditions in research treating scientific texts as narratives are structuralism and post-structuralism. The *structuralist* tradition identifies structural parallels between scientific texts and other narratives like myths, fairy tales, theological accounts, or classic tales of heroes (de Waard, 2010; MacCormac, 1976; Verene, 1993). The rhetorical, persuasive aspect of the scientific text is connected to the idea of the narrative creating a tension between temporal events or characters following classic story structures (Dahlstrom, 2010; Gooding, 1990; Sheehan & Rode, 1999). To illustrate, de Waard (2010) constructs a method for comparing scientific articles and fairy tales and finds that both consist of a setting, a theme, and episodes. The *post-structuralist* tradition analyzes how scientific knowledge is narrated in different academic fields in order to make it accepted, powerful, and legitimate (Knorr-Cetina, 1981; Latour, 1987). These studies consider the discursive and persuasive contents and the rhetorical forces in scientific narratives.

Our methodological concept, the *model-narrative*, combines these two traditions based on the notions of Feldman, Sköldbberg, Brown, and Homer (2004), and of Riessman (2005) and Czarniawska (2011). The studies argue that 1) these traditions are not exclusive, but complementary and 2) they offer an applicable base for narrative analysis. Therefore, the structure of our concept of *model-narrative* is inherited from the structuralist tradition that comprises three elements: 1) the preliminary narrative, 2) the main narrative and 3) the concluding narrative. In the preliminary narrative, a scientific text begins with a

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