Additive manufacturing in the manufacturing industry – use, developments, & potentials

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Industry 4.0 is epitomized by several emerging technology breakthroughs and represent new ways in which technology becomes embedded within products, services, industries and societies in general. The evidence of dramatic changes caused by some of the constituent technologies of i4.0 such as additive manufacturing (AM) has already been illustrated through numerous business cases. Based on this many authors suggest that entire industries will be disrupted by AM. Many observers have argued that AM will offer numerous opportunities for existing firms and provide a basis for a new generation of start-up firms. The specifics of these opportunities and concrete potentials may be highly dependent on the specific industrial setting. However, empirical research into the details of this still very sparse. To address this gap in literature a survey has been conducted on Danish manufacturing firms. The survey tracked in which domain – prototyping, production support, or finished products – AM is currently used. Our research shows, a primary use of AM in prototyping and product development processes as well as a broad use in production support – grippers, fixtures, tools etc. Our research indicates that ownership coupled with multi-domain use of AM is a key driver to both business development in general and development of new products and services. The research indicates this potential of AM is not dependent on size of the firm implementing the technology.

Recent Publications:


Biography

Martin Hannibal is Head of Research in International Business & Entrepreneurship at the Department of Marketing & Management, SDU. His research is focused on knowledge intensive start-ups and additive manufacturing. He is actively involved in international research networks focused on these topics (Academy of International Business). He has published in various high ranking and topic specific peer-reviewed outlets such as International Business Review, Journal of International Marketing, Entrepreneurship & Regional Development, and Journal of International Entrepreneurship. He has been involved in several projects involving industrial partners and has a wide experience in disseminating and discussing research with relevant industrial partners.

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