

Research Objectives In The Process of Manufacturing SME Transformation*

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Abstract

Small and medium-sized enterprises (SMEs) in Europe face increasing pressure from technological, economic, and environmental shifts, necessitating significant transformation. This study is motivated by the critical need to bridge the gap between academic research objectives and practical tools supporting manufacturing SMEs' future readiness, particularly within the "SME Ready for the Future" (SMERF) project. Existing literature lacks a comprehensive analysis of how current methodologies and tools align with defined academic objectives across key transformation areas, hindering integrated support mechanisms. This research addresses this void by examining the interconnections between established research goals and the efficacy of practical tools in assessing SME transformation. A structured three-stage methodology was employed: (1) defining transformation areas (Digital Manufacturing, Open Innovation & Sharing Economy, Green/Circular Economy & Sustainability) and associated research objectives, (2) assessing existing tools and methodologies, and (3) analysing interconnections between tools and research objectives. Results indicate that selected tools (maturity models, self-assessments, qualitative methods) effectively assess SME awareness, adoption, implementation, and barriers across all transformation areas. These tools consistently integrate organisational culture and mindset and often identify strategies, business models, enablers, and external factors. This comprehensive assessment supports the development of a transformation support tool tailored to SMEs, reinforcing their role as drivers of Europe's industrial resilience and sustainability.

Keywords: SME transformation, research objectives, methodologies and tools.