Digital Transformation: A Literature Review and Guidelines for Future Research

João Reis^{1(⋈)}, Marlene Amorim², Nuno Melão³, and Patrícia Matos⁴

Department of Military Science and Technologies, and CISD&CINAMIL, Military Academy, Lisbon, Portugal

reis.joao@ua.pt

² Department of Economics, Management and Industrial Engineering and Tourism, and GOVCOPP, Aveiro University, Aveiro, Portugal

mamorim@ua.pt

³ Department of Management and CI&DETS, School of Technology and Management of Viseu, Polytechnic Institute of Viseu, Viseu, Portugal nmelao@estgv.ipv.pt

Abstract. The aim of this paper is to provide insights regarding the state of the art of Digital Transformation, and to propose avenues for future research. Using a systematic literature review of 206 peer-reviewed articles, this paper provides an overview of the literature. Among other things, the findings indicate that managers should adapt their business strategy to a new digital reality. This mainly results in the adaptation of processes and operations management. Scholars, for the other side, are also facing challenges, as prior research may not have identified all the opportunities and challenges of Digital Transformation. Furthermore, while the Digital Transformation has expanded to all sectors of activity there are some areas with more prospects of being developed in the future than others.

Keywords: Digital Transformation · Business strategy · Processes Operations · Systematic literature review

1 Introduction

With the rise of new digital technologies, e.g., social networks, mobile, big data, etc., firms in virtually all industries domains are conducting multiple initiatives to explore and exploit their benefits [1, 2]. This frequently involves transformations of key business operations and affects products and processes, as well as organizational structures, as companies need to establish management practices to govern these complex transformations [3]. Thus, the society as a whole is facing a fast and radical change due to the maturation of digital technologies and their ubiquitous penetration of all markets [4]. To add to the increased demand from customers, companies are facing ever tougher competition due to globalization [5] and putting pressure to go digital before others do, seeking to survive and attain competitive advantages [6]. Hence, in

⁴ Higher Institute of Social and Political Sciences, and CISD, Lisbon, Portugal psmatos@tvi.pt