Chapter 7
Posthuman Economies and Industrial Revolution 5.0:
Metamorphosing Techno-Economic Development, Luxury Industry, and Shared Economy

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ABSTRACT

The Industrial Revolution 5.0 introduces an era where advanced technologies like AI blur the boundaries between humans and machines. The concept of "Posthuman Economies" explores how automation and human-machine symbiosis are reshaping labor and socioeconomic structures, challenging traditional economic models. While these technologies can drive growth, they also risk increasing inequalities, crucial for promoting inclusion and sustainability. Ethical concerns, such as the consequences of automated decision-making, highlight the need to preserve human values in a tech-driven economy. The luxury industry exemplifies this shift, embracing advanced manufacturing technologies like 3D printing and AI to revolutionize production and personalization aligning with posthuman values of sustainability. This leads to new business models that challenge traditional notions of scarcity and

DOI: 10.4018/979-8-3693-8402-2.ch007

value in the sharing economy. Understanding Posthuman Economies is essential for guiding informed decision-making that ensures technological advancements contribute to equitable and sustainable growth.

I. INTRODUCTION

A. Background and Significance of Industrial Revolution 5.0

Industry 5.0, or the Fifth Industrial Revolution, is an emerging phase of industrialization where humans collaborate synergistically with advanced technology and AI-powered robots and IoT ecosystems to augment and optimize ecosystem workplace operations. This paradigm, still in its formative stages, holds significant promise for future business landscapes, indicating its potential relevance and transformative impact. Diverging from the trajectory of Industry 4.0, which primarily emphasized the integration of heightened automation within industrial systems to amplify production yields, Industry 5.0 represents a transformative metamorphosis towards a more human-centric approach and is marked by an emphasis on human agency, heightened adaptability, and an enhanced commitment to sustainability. It brings together various technologies, bridging the physical, digital, and biological domains, by rendering the boundaries between them increasingly porous, and thus espousing a harmonious, holistic, and interconnected framework.

Morteza Ghobakhloo et. al. (2023) shed light on the ongoing discourse surrounding Industry 4.0 and its evolutionary successor, Industry 5.0, by focusing on the liminality. They say that Industry 4.0, while unintentionally promoting some micro-societal values like resource efficiency and workplace safety, lacks a systematic emphasis on social and environmental sustainability. This has led to negative impacts on social and human-centric values, including reduced workforce autonomy, income inequality, skill gap intensification, and significant job displacement. As a result, the socially disruptive effects of digital transformation in Industry 4.0 have driven a strong endorsement of the Industry 5.0 framework, particularly in Europe and Western economies.

Industry 5.0 carries significant significance as it reintegrates humanity into the equation, paving the way for a more promising future workplace and shifting the focus from mere shareholder value to the broader concept of stakeholder value. It is expected to create higher-value employment opportunities and restore human agency by returning the responsibility of design to capable human hands. Importantly, Industry 5.0 is not a distant prospect but rather an imminent reality poised to shape our collective future.