RECYCLING AND CIRCULAR ECONOMY: PROJECT MANAGEMENT BEST PRACTICES FROM EUROPEAN WHISKY INDUSTRY

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ABSTRACT

Drawing on case studies from 18 countries, the paper explores how project management methodologies are applied in European whisky industry to implement and optimize recycling initiatives, focusing on key processes such as glass bottle return schemes, advanced waste sorting technologies, and material reuse strategies. Critical project management insights include the importance of stakeholder engagement across production, sustainability, and regulatory teams, and continuous application of lean management principles to streamline recycling workflows and minimize waste. Agile project management is highlighted as a key enabler, allowing distilleries to adapt quickly to environmental regulations and evolving market demands. Distilleries with agile project management frameworks were able to rapidly integrate compostable packaging, shared ownership models, and renewable energy solutions. Furthermore, resource allocation and risk management play essential roles in ensuring efficient recycling operations, particularly in managing supply chains for reusable materials. This paper addresses a gap in whisky sector studies by providing a focused analysis of recycling through a project management lens, a topic that remains underexplored in this industry. By analyzing how newer distilleries, unburdened by legacy systems, lead in implementing circular economy practices, the paper offers practical insights for both academics and industry practitioners looking to integrate sustainability into their operations. These best practices offer a blueprint for the broader adoption of circular economy principles in resource-intensive industries, highlighting the whisky industry's role as a pioneer in sustainable production.

Keywords: circular economy, recycling, project management, agile, whisky industry

INTRODUCTION

Over the years, industries worldwide have increasingly been under compulsion to depart from traditional business models and adopting the principles of a circular economy [1]. Within this context, the European whisky industry faces significant environmental challenges as a resource-intensive sector. From ingredients sourcing and distilling to packaging and shipping, this industry uses up a lot of water, energy, and raw materials [2]. Whisky makers are currently facing an increasing regulatory and consumer pressure to embrace sustainable methods that minimize waste and reduce their ecological footprint. Consequently, they have implemented circular economy principles such as reusing and recycling by-products to help mitigate this environmental impact while aligning with global sustainability goals [3], [4]. Project management methodologies, particularly agile and lean approaches, have become instrumental in introducing and scaling these sustainability initiatives effectively. Research highlights a significant benefit from