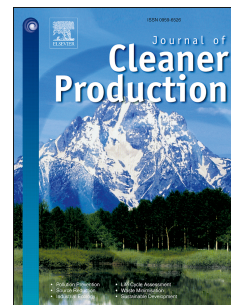


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Eco-design practices with a focus on quantitative environmental targets: An exploratory content analysis within ICT sector

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Eco-design practices with a focus on quantitative environmental targets: an exploratory content analysis within ICT sector

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ABSTRACT

Circular economy ambitions demand considering lifecycle of products within product development. From the perspective of the circular economy, environmental considerations should, for example, increasingly entail product's use phase not only to increase product's energy-efficiency, but also to prolong the time in use. This paper investigates how these considerations are addressed within information and communications technology (ICT) sector. Drawing from previous research in constructing the hypotheses, it is examined how companies report about their quantitative environmental targets for products, and what topical areas are in focus for their environmentally conscious practices related to products' reuse. Then, relationships with these published quantitative targets and environmental performance are assessed. Content analysis method is used to derive data from 43 sustainability reports. Our results suggest that being mature enough to publish quantitative environmental targets for products is positively associated with lifecycle thinking, considering the durability of products, and remanufacture. This exploratory study reveals among others, that although published, quantitative environmental targets for products are not yet dominantly present; they are positively associated with environmental performance measures. This includes capability to report quantitatively on flows of reclaimed products, and positions in external ranking. But, we also highlight the need for more discussion around reuse alternatives that are not commonly published among companies in this sample. The paper concludes by discussing the applicability of this research method.

Highlights

- This paper explores use of content analysis in assessing eco-design practices
- ICT sector's readiness for selected circular economy practices is evaluated
- Quantitative environmental targets for products are not yet dominantly published
- Lifecycle and durability thinking are linked with quantitative environmental targets

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