

Sustainability and digitalisation: Using Means-End Chain Theory to determine the key elements of the digital maturity model for research and development organisations with the aspect of sustainability

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ABSTRACT

Organisations are under pressure to digitally transform and become more sustainable. Thus, the convergence of digitalisation and sustainability is inevitable. There are several Digital Maturity models that help companies to develop their digital roadmaps, however, none of them have been developed for Research and Development (R&D) organisations. Additionally, none of these models include the dimension of sustainability. In this paper the authors used the Means-End Chain method to determine which are the key dimensions of the digital maturity model tailored for R&D, as well as to investigate the link between digital transformation and sustainability. The results show that although technologies are important, they cannot successfully transform the organisation on their own. They must be supported by people and culture change. The results also highlighted that sustainability is high on the agenda and cannot be ignored when progressing towards the higher level of Digital Maturity. The findings may serve as a reference for any organisation that is building or revising its digitalisation or sustainability strategies. It highlights the important dimensions that should be considered and prioritised when preparing the transformation roadmap. These dimensions are tailored for R&D but can be a good indication for any other type of organisation.

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Trajnost in digitalizacija: Uporaba teorije verige sredstvo-cilj za določitev ključnih elementov modela digitalne zrelosti za raziskovalne in razvojne organizacije z vidika trajnosti

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POVZETEK

Organizacije so pod pritiskom, da digitalno preobrazijo in postanejo bolj trajnostne. Tako sta stekanje digitalizacije in trajnosti neizogibna. Obstaja več modelov digitalne zrelosti, ki podjetjem pomagajo razviti njihove digitalne načrte, vendar nobeden izmed njih ni bil razvit za organizacije, ki se ukvarjajo z raziskavami in razvojem (R&R). Poleg tega nobeden od obstoječih modelov ne vključuje razsežnosti trajnosti. V tem prispevku so avtorji uporabili metodo veriga sredstvo-cilj, da bi ugotovili, katere so ključne razsežnosti modela digitalne zrelosti, prilagojenega za raziskave in razvoj, ter raziskali povezavo med digitalno preobrazbo in trajnostjo. Rezultati kažejo, da čeprav so tehnologije pomembne, same ne morejo uspešno preoblikovati organizacije. Podpreti jih morajo ljudje in kulturne spremembe. Rezultati so tudi pokazali, da je trajnost pomembna in je ni mogoče prezreti pri napredovanju k višji stopnji digitalne zrelosti. Ugotovitve lahko služijo kot priporočilo za katero koli organizacijo, ki gradi ali revidira svoje strategije digitalizacije ali trajnosti. Rezultati poudarjajo pomembne razsežnosti, ki jih je treba upoštevati in jim dati prednost pri pripravi načrta preobrazbe. Omenjene razsežnosti so prilagojene za raziskave in razvoj, vendar so lahko dober kazalnik za katero koli drugo vrsto organizacije.

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Ključne besede:

Trajnost;
Digitalizacija;
Digitalna preobrazba;
Teorija verige sredstvo-cilj (MEC);
Raziskave in razvoj (R&R)

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