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Abstract

The aim of this study has been the investigation of the effect of ICT on sustainable development in the geographic area of Iran using sustainability indices. After defining and providing a brief description of the areas of sustainable development and ICT, and identifying the indicators in order to measure them, the popular models in these two areas were introduced in this study. Reviewing the previous studies on this issue has been followed. The proposed conceptual model in order to investigate the interaction of these two areas were considered with regard to the sustainability indices which have been derived from valid international sources, theoretical studies, and expert advices in these two areas. Using quantitative methods and a refined structured questionnaire, this model calculated weight and the effect of each of the categories, and finally the analytical framework was presented. The heuristic and the librarian methods were employed to identify the problem, and to investigate the former information and records respectively in this study. Finally, the main factors to explain and design the basic model were identified through interviews with experts. The quantitative method was used for the verification

and validation of the model. According to the presented model, the degree and the effect of ICT dimensions on sustainability indicators were identified. In general, it can be concluded that ICT development will promote most indicators of sustainability. For each indicator alone the degree of effect has been identified.

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Index Terms

Computer Science

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Keywords

Measurement Model, ICT, Sustainable Development, Index, Sustainability