

Information System Canvas: Developing a consultancy tool to model Information System's Value

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Abstract

The aim of this study is to develop a new consultancy tool, based on a conceptual model, in order to depict the value of an organization's Information System (IS) not merely from the technology's but from a high-level perspective, in a succinct and concise manner. The main target of this tool is the IT consultancies which are focused on software quality assessment. More specifically, this assessment is associated with the software quality of an IS but it can also be focused on the development process of the software. Based on the results of this assessment and the potential risks that are identified from it, both technical improvements and managerial guidelines are given to the client. "Information Systems Modelling" is a notion that has received a lot of attention by the scientific community but there is a lack of models which can combine both the depiction of how efficiently the resources of an IS are used and how the value is captured from its usage. In other words, the notion of the sociotechnical systems, as it is broadly known according to Checkland, is not yet modelled in a concise manner. A wide variety of Business (e.g. Use-Case Model, Conceptual Model), Technical (e.g. State-Transition Diagrams, Data Flow Diagrams) and Hybrid (e.g.: Rational Unified Process) approaches exist, but there is an absence of an approach which can efficiently describe both technical and non-technical aspects of an IS.

In that context, we deem as a source of inspiration the well-known business tool "Business Model Canvas", as it was defined by Osterwalder, in order to develop the *Information System Canvas*, a consultancy tool which can provide a high-level view of an IS and indicates the value that is captured from its usage. Thus, we make a parallelism of the Information System with the Business Model and we try to depict the former as Osterwalder did with the latter. Methodologically, we were based on the Design Science paradigm and we followed an approach of defining new constructs (the eleven building blocks which make up the Information System Canvas) and models. We followed an iterative method of construction, by working on short lifecycles in order to evaluate the results at each phase. Aiming at testing the validity of the proposed tool, two pilot implementations took place within different enterprises in Greece which described their core Information Systems through an interview process and the value they gain from them. Both organizations are major leaders in the Greek market: the first enterprise belongs to the insurance sector while the second one comes from the banking sector. For the needs of these pilot implementations, the first scenario of the proposed two (considering the usage of the tool) was followed, which refers to an existing consultancy's client who is presented the populated canvases (instantiations of the model) and acquires a better view of the situation and the risks that exist on their IS. Based on the feedback obtained, the study concludes with directions for further validation considering the tool's added value.