

Abstract

The healthcare sector needs to be more efficient and effective due to several factors such as demographic change, nursing shortage and high financial pressure. The use of information technology (IT) in healthcare is attributed to generate high potential to withstand the challenges in the future. With the introduction of IT systems there are also fears coming along. Fears concerning data security and financial burden when purchasing IT systems.

Term definitions for quality, efficiency and productivity have to be made if you want be able to talk about efficiency and effectiveness in healthcare. In addition, to get an overview it is important knowing how to measure quality, efficiency and effectiveness in healthcare. It should be mentioned that there are difficulties to measure quality and there is no uniform opinion in the literature.

In this present work the research methodology used is the meta-analysis which includes 47 studies that have been published since the year 2000. The theoretical framework contains the transaction cost theory and the resource-based view. The measuring methods of efficiency and effectiveness in the healthcare sector and the indicators of an increase in efficiency and effectiveness should be demonstrated.

The results have shown that the measuring methods used in the studies represent qualitative methods, a multi-level analysis, comparisons and quantitative methods. The qualitative method is used e.g. in form of interviews which were conducted with patients and doctors. The comparisons are divided into direct comparisons where two groups are analysed in parallel and before-and-after-comparisons. In addition, the studies demonstrate a wide variety of indicators to increase efficiency and effectiveness through information technology, especially software. The indicators to increase efficiency are divided into financial benefits, time savings and the increase in the degree of completeness of documentation in healthcare. The indicators to increase effectiveness are divided into the positive perception of patients, doctors and stakeholders, improved readability and completeness of the documentation, increased patient safety, improved data security, reducing the mortality rate and improve communication. Likewise, inefficiencies have been detected which are directly related to the IT systems and they may not be forgotten. These inefficiencies include financial and time losses.