

Information Technology Managers and Critical Success Factors in Healthcare Organizations in Nordic countries

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Introduction

Many studies have attempted to identify the success factors for Health Information Technology (HIT) implementation. Unfortunately, such success factor lists are long and unwieldy, and it can be difficult to see which ones should have received more attention than others. Thus, there is a need to examine critical success factors (CSFs) that should be most attended to in the context of competing priorities. IT managers, through their experience, can know best which relevant factors have been crucial for successful implementation of the projects; therefore, it is imperative to understand the perceptions of IT managers regarding relative importance of success factors in HIT implementation. This research aims to reassess and synthesize CSFs influencing HIT implementation, focusing on the question: “What are the CSFs in HIT implementation from IT managers’ point of view?” We surveyed the IT managers in four Nordic countries (Denmark, Finland, Norway and Sweden) and discuss the preliminary results regarding IT manager background and the CSFs in this research-in-progress paper.

Materials and Methods

The questionnaire was based on a literature review, which identified and extracted 15 success factors for HIT implementation. The questionnaire was pilot-tested and revised into a total of 25 factors. The questionnaire was translated into Danish, Finnish, Norwegian and Swedish and sent to IT managers in healthcare organizations in these four Nordic countries. Since no comprehensive source of information was available on IT managers in the healthcare organizations of these Nordic countries, the list of research subjects was created manually. We used two methods to find the respondents. The first focus group comprises people who were found directly by the researchers. The second focus group was composed of contact persons in the target organizations who were asked to forward the questionnaire to IT managers in their hospitals. The survey duration was two months and a total of 94 responses were received which equals to a 30.42% response rate. Uniform criteria were used to screen all the respondents and a total of 91 respondents were included.

Results

The average age of the respondents is 50.42 years old and thus they had extensive experience in the field. The proportion of female IT managers overall was 36%; however, 92% of Norwegian IT managers were male. The most common education background of the respondents was technical and very few IT managers had the clinical background. Almost 60% of respondents had held management positions prior to becoming IT managers. Norway had the highest number of IT managers employed from inside the organization (67%) while Denmark had the highest number of external hires (64%). The survey resulted in a CSFs list which priorities the mean of the ranking made by IT managers in healthcare organizations of the four Nordic countries. The top ten CSFs were: (1) commitment and support of leaders, (2) system quality, (3) end-user participant, (4) information and service quality, (5) infrastructure, (6) department cooperation, (7) resources, (8) staff training, (9) co-development of the system and workflow, and (10) vendor co-operation.

Discussion

This research indicates that surveyed CSFs in Nordic countries are relevant to HIT implementation projects and can therefore be used as a checklist across countries. However, it also indicates that Nordic IT managers have certain differences in perceptions (Cronbach-alpha test indicates the data is reliable). For example, “openness of the organization to the change and innovation” was judged more important in Sweden, and “the role of incentives and regulation in promoting HIT” was seen as more important in Denmark compared with the other countries. While organizational type does not appear to play a role, these differences may result from subtle variations in the healthcare system or organizational features, for instance, and therefore, future research is needed to account for these contextual issues.

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