Chapter 1
Project Initiation for Telemedicine Services

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ABSTRACT

This study investigates project initiation for telemedicine, a technology innovation in healthcare organizations that manifests both intra- and inter-organizational collaboration. Moving from a telemedicine project to a sustainable telemedicine service line can be a challenge for many organizations (LeRouge, Tulu, & Forducey, 2010). Project definition (a.k.a., initiation) sets the strategic vision for a project and has been categorized as the most important stage in a project (C. Gray & Larson, 2008) and a key element for project success (Stah-Le Cardinal & Marle, 2006). Although project management best practices have been applied in many domains, there are few studies that link published best practices to the telemedicine domain. This study first presents a model, resulting from a review of project management literature that specifies the recommended components project definition. Using this model as a foundation, the authors explore how project definition is deployed in the telemedicine domain, using the instantiation of telestroke projects for this study. The authors base their findings on a multi-case qualitative data set, with each case representing a distinct telemedicine business model. Findings from this study explicate how the telestroke project initiation process is collaboratively managed and how this process impacts the overall success of the telemedicine programs through the lens of the five distinct telemedicine business models. Specifically, this study contributes insights on key elements of project initiation in the telemedicine context as well as the effects of the varying business models (focusing on commonalities and differences).

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INTRODUCTION

Health Information Technology (HIT) is one area where governments and healthcare organizations continue to spend money with the hopes of improved outcomes and reduced costs. Taken alone, a project characterized as information technology (IT), healthcare, or inter-organizational, would likely be classified as a complex project. When these characteristics are aggregated under one project, we have a formidable challenge, particularly when the project goal is to produce a sustainable service or work flow. It was reported in the literature that 91% of HIT projects fail (Maxfield 2007). These HIT projects affect not only those employed in the healthcare industry, but also the majority of citizens that seek healthcare for themselves or loved ones.

Various business best practices, such as LEAN and project management tenants promoted by the Project Management Book of Knowledge (PMBOK) are increasingly being applied to the healthcare context to support the success of change efforts. Research in applying and adapting these best practices grounding in other domains is still in the early stages in the healthcare sector (Chiocchio et al., 2012; LeRouge et al., 2010), though the value of project management best practices for the healthcare sector is increasing in recognition (Deutsch, Georg Duftschmid, & Dorda, 2010; Gertner et al., 2010). Telemedicine service lines are among these complex HIT projects. The start or expansion of a telemedicine service line is intrinsically collaborative as it requires both intra- (IT, administration, clinical) and inter- (hospital A, hospital B) collaboration efforts coming together to provide distance-based medical care using telecommunications technology. In addition, these initiatives operate within a complex legal, policy, and standards environment that can impose constraints as well as ambiguities. Different components, some inside the organization and others in the external environment, need to be orchestrated from the beginning of the telemedicine project to avoid issues in implementation and to provide a foundation for a service line that is sustainable beyond the project end date (where project activities are moved into standard operational process). The recommended first stage in any project is the initiation, also called project definition or conceptualization. This stage (or process group as referenced by the Project Management Institute) has been categorized as the most crucial step in the project (J. Knutson, 1999) and a key element for project success (Merla., 2009). Project definition moves organizations from strategy to execution.

The project management discipline provides best practices and guidelines for project initiation. Although project management tenants are applicable for different fields, the telemedicine field includes few studies that link project management concepts to the application of programs. Further investigation is necessary to determine the need for contextualization and adaptation of these tenants to best suit and benefit the healthcare sector. Telemedicine initiatives may be short-lived, if they are not built on a strong strategic foundation (LeRouge et al., 2010), which starts with project initiation activities and decisions. Unfortunately, little is known about the underlying nature of project initiation in telemedicine projects.

Moreover, it is not enough to understand key project initiation components; organizations also need to align these components to their business models to enhance contextualizing and application. A business model tells the story about how an organization will leverage a generic value chain and structure its operations so as to generate sustainable margins (Magretta, 2002). The business model (or story) associated with telemedicine projects consists of variations on the same underlying theme of delivering more efficient and effective healthcare (Strauss & Corbin, 1990). Understanding the type of business model employed (e.g., formal health network, alliance of health organizations, outsource service) is important