BUSINESS PROCESS RE-ENGINEERING

of the

EMERGENCY TREATMENT UNIT

at

THE COLOMBO SOUTH TEACHING HOSPITAL

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MASTER OF BUSINESS ADMINISTRATION
IN
E-GOVERNANCE

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2009

BUSINESS PROCESS RE-ENGINEERING
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By
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The dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfilment of the requirement for the Degree of Master of Business Administration.

Department of Computer Science & Engineering
University of Moratuwa
2009

DECLARATION

"I certify that this thesis does not incorporate without acknowledgement, any material previously submitted for a degree or diploma, in any university, to the best of my knowledge and belief and it does not contain any material previously published, written or orally communicated by another person, or myself, except where due reference is made in the text. I also hereby give consent to my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations"

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To the best of my knowledge, the above particulars are correct.

…….
Supervisor
(Dr. Shahani Markus Weerawarana)

ABSTRACT

With the emergence of information and communication technology (ICT), health care institutions too, commenced incorporating new technologies, aimed at efficient delivery of health services. Initiatives of this nature, categorized as 'e-health', have become an important activity area, resulting in many advanced total software solutions, for health care institutions worldwide. Unfortunately the acquisition costs of such solutions are too high, for developing countries such as Sri Lanka, and they continue to be challenged, in trying to overcome this financial barrier. Furthermore, most such solutions are not tailored for the specific needs of health care institutions in developing countries, which themselves, have evolved towards providing affordable health care, with highly limited resources in challenging environments. In response, developing countries could consider adopting alternate approaches to achieve the efficiency goals of e-health, by first, systematically studying and identifying the unique features associated with the hospital sectors in these countries and then, by providing innovative e-health solutions that would specifically address the challenges and issues common to health care systems in developing countries.

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The objective of this research was to find a practical methodology to systematically study a Sri Lankan health care institution with the view of re-engineering the related processes by utilizing the same limited resources in an efficient and effective manner. A clinical unit – the Emergency Treatment Unit (ETU) of the Colombo South Teaching Hospital - which is one of the largest teaching hospitals in Sri Lanka, was chosen as the sample space to test the theories generated by this research.

Following an extensive study to identify the essential processes required for the functioning of the ETU, the researchers formulated a well-structured and iteratively applicable framework to re-engineer the processes in Sri Lankan health care institutions. The proposed framework, defines a methodology to perform a detailed analysis of the existing workflows, in a clinical unit and to then re-engineer, those process-level as well as policy-level workflows. Since every clinical unit of hospitals in Sri Lanka carry out more or less the same functions in different contexts, the fundamental concepts in the

framework that were derived by re-engineering the processes of the ETU at the Colombo South Teaching Hospital in Sri Lanka, could be systematically extended to other clinical units, as well as to other hospitals, as a ripple effect with minimal customization.

The proposed framework can be executed with minimal resources. Furthermore, since the framework was conceptualized and designed with several built-in iterations and feedback loops, the final e-health solutions are likely to be more accurate, more timely, more cost-effective and more relevant to the local contexts than existing software solutions that are in use worldwide. Thus, this proposed framework maybe helpful for other developing countries with similar health care sector limitations to achieve their e-health goals without undue delay and cost.

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Thank you.

Karunatilaka M.N.

MBA/e-gov/08/10204

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ABBREVIATIONS

BPR	Business Process Re-engineering
ETU	Emergency Treatment Unit
DC	Death Certificate
CSTH	Colombo South Teaching Hospital
ECG	Electro Cardiogram
IT	Information Technology
EHR	Electronic Health Records

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