Research Project – Design Document

Athabasca University

Enterprise Information Management

COMP602 F15

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Nov 29nd, 2015

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Introduction

This document outlines the research design for the COMP 602 Research Project – Data Analytics. The document will discuss the approach, technique and methodology used in developing the research paper. Additionally, where possible, justification of research design decisions will be included. This document is structured in the following sections.

(1) Research Objective

(2) Problem Statement and Research Questions

(3) Research Methodology

(4) Uniqueness and Novel of Research

(5) Validity and Limitations

(6) Research Management

Research Objective

Recall that primary goal of the research paper is "to research an aspect of enterprise information management that interests you in the context of the scenario" (Athabasca University, 2015a). The research paper with delve into Data Analytics and extend the docRM (CRM) scenario. The docRM scenario includes four over-archiving objectives and the research study will addresses each of those. Those objectives were also translated into a formal problem statement and research questions.

Problem Statement and Research Questions

To meet the identified project objectives, a problem statement and research questions have been formulated. It is felt these items will help describe 'why' this research is important.

Problem Statement

'Data analytical techniques can be used to improve member satisfaction with docRM'.

Research Questions

(1) Research Questions: What three Data Analytical techniques are most suited to the docRM platform with the goal of increasing member satisfaction?
(2) How can Data Analytics programs be scoped to match an organization's readiness?
(3) How can Data Analytical programs be implemented with minimal organization risk?
(4) What steps need to be taken when embarking on a Data Analytics initiative?
(5) Which tools/techniques are best suited to docRM's stated scenario?
(6) Can BI visualizations techniques combine multiple sources and add value in reporting BI related metrics?

Research Methodology

The research paper will use a qualitative meta-analysis incorporating a case study (i.e. the scenario). The methodology is meant to exhibit a "clear match between the problem being addressed and the methods used" (Athabasca University, 2015b). The meta-analysis is completed by undergoing a literature review. The literature review attempted to examine scenarios that matched one or more of the research questions. What was learned in the literature review was then applied to the formal discussion of the paper (which discussed strategies, approaches, techniques and tools). Finally, the discussion material and knowledge is applied to the specific docRM study (or case study).

The paper also incorporated the use of Action Learning sets. This allowed objective feedback from research peers to be incorporated. The process of writing a research paper is an iterative approach that requires continuous re-evaluations and adjustment. For example, the exact focus and problem statement of my paper changes numerous times. Action learning sets, an agile and iterative technique, assisted in the process of writing my paper.

Uniqueness and Novelty of Research

It is felt that this approach taken within this research study is unique in two respects. One, the study addresses an organizations maturity and abilities to take on a Data Analytics initiative. Most research indicated that this was a major reason analytics projects fail (59% unsuccessful, Hamel, n.d.), however few if any research articles suggest a systematic approach to closing that gap. Two, CRM platforms, to be fully leveraged, required analytics and reporting capabilities. The formal CRM definition (Rababah, Mohd, & Ibrahim, 2011) implies that CRM should be built with analytical not transactional needs in mind. This connection between CRM and analytics allows the research paper to close the remaining gap left in the docRM scenario.

Validity of Research

This study is a qualitative case study and thus has challenges with respect to research validity (construct and external) and generalizability. Cause/effect true experimental validity will not be attempted in this study. Validity can be somewhat mitigated by capturing and reporting on feedback from study stakeholders. Their comments could be included in the final study (agree/disagree). It is noted that validity limitations are a limit of this particular paper.

Additional limitations are related to change management, performance and privacy concerns. These items are fundamental to the successful of an analytics project; however they are not discussed in detail and are out of scope of the research paper.

Research Management

This section outlines the tools used to assist in citation and literature management, research

and presentation.   A more formal research study may include project timelines, feasibility, and

ethical components.

Table 1. Research Management Tools		
Area	Tool	Description
Citation Management	Mendeley Software	Download: https://www.mendeley.com/. This tool allows for uploading of citations as well as storage of PDF's.
Literature Review Tools	Mendeley Software,	Beyond citation management, Mendeley is used to store offline documents, favorites, status, folder organization, notes, etc.
Literature Sources	Online libraries, Public/Government websites.	CM Digital Library, IEEE Electronic Library, Wiley Online Library, Gale Computer Database, etc.). Additionally, the study will make use of public domains sources such as government and private sector websites as well as Google Scholar
Presentation Tools	Microsoft PowerPoint, Adobe PDF (portability)	To be used to present proposal and final study.

References

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Athabasca University. (2015b). COMP 602 The Project - Indicitive Grading Criteria.

Hamel, P. (n.d.). Why Do So Many BI Initiatives Fail? Retrieved November 18, 2015, from http://www.silvon.com/blog/bi-initiatives-fail/

Rababah, Khalid; Mohd, Haslina; Ibrahim, H. (2011). A Unified Definiton of CRM Towards the Successful Adoption and Implementation. *Academic Research International*, *1*(1), 245–262. http://doi.org/10.1007/s10699-010-9177-8