SHOULD THE CITY OF PITTSBURGH AND ALLEGHENY COUNTY CONSOLIDATE THEIR INFORMATION TECHNOLOGY SERVICES?

Enrique Mu
School of Management
Carlow University
Pittsburgh, PA, USA
E-mail: muex@carlow.edu

Howard A. Stern
School of Management
Carlow University
Pittsburgh, PA, USA
E-mail: hastern@carlow.edu

ABSTRACT

Given the current difficult financial situation for the City of Pittsburgh; there has been extensive discussion about consolidating services to obtain savings due to economies of scale. However, although at first, the solution seems reasonable; there are also many valid opposing arguments. To analyze this situation in a more rational way, a Benefit/Cost /Opportunity/Risk (BOCR) analysis is being performed using the Analytic Network Process (ANP) methodology and SuperDecisions software for the analysis. At this moment the comparison judgments are being collected but the authors are confident that all the results will be available on time for the ISAHP2014 symposium presentation.

Keywords: IT Merge, IT City County Merge, IT City of Pittsburgh.

1. Introduction

Provide here the context for your study. What motivated you to do this work? What is your research question or overall goal with this study? Why is this important?

Like many American rustbelt cities, the City of Pittsburgh has experienced a significant loss of population. The concomitant reduction in tax revenue has dramatically impacted its operating budget. This lack of revenue has not only threatened the delivery of core services, such as police and fire protection, but has seriously impacted the necessary technology services required to maintain an efficient and effective technology infrastructure. As a result, Pittsburgh's computer services department should consider merging its existing IT resources and services with another government entity, the County of Allegheny. In addition to huge financial savings, an IT partnership would draw upon the expertise, financial and human resource capital of each organization. This collaboration would create an organization that could cater to the taxpayer needs of Pittsburgh and Allegheny County.

Unfortunately, there are numerous challenges and obstacles that need to be overcome before a marriage of IT services between the City of Pittsburgh and Allegheny County can take place: unions, pay scales and parity, residency requirements, physical location, oversight, standardization, disaster recovery, security, network management, purchasing, aging infrastructure, and budget creation. To tackle these challenges, a structured decision-making methodology must take place to identify the political, social, financial and technological concerns.

2. Literature Review

The discussion of merging IT services from the City and County governments is an important and current issue that has received attention in the press and the communities of practice although less so in the academic literature where only the most generic discussion of factors impacting successful mergers have taken place. For this reason, the key literature has been drawn from current professional magazines and newspaper. A list of relevant key literature (limited for reasons of the proposal to a handful) is included in the reference section.

3. Hypotheses/Objectives

This study is aimed at analyzing the decision of consolidating the information technology services corresponding to the City of Pittsburgh and Allegheny County. This decision has been source of heated discussions during the past months by city and state authorities.

4. Research Design/Methodology

For this purpose we will develop a BOCR ANP model. The criteria and pairwise comparison judgment source will be provided by Dr. Howard A. Stern, co-author, who has studied this problem during his recent professional work as CIO of the City of Pittsburgh, and who has also summarized the opinions of other city colleagues. Another

criteria and judgment source was provided by Dr. Enrique Mu, whose professional experience and academic training is in IT management and who has been a consultant for the City of Pittsburgh in previous decision engagements, having received a proclamation from the City as recognition of the quality of his services. An additional source of feedback was provided by 12 different MBA teams from the MBA 728 Decision Making for Leaders course who engaged, as part of their course fieldwork, in the discussion of this decision. The aggregation approach was that of consensus in terms of criteria development and comparison judgment among the experts consulted. Finally, an exhaustive literature review of articles about mergers of this type was done to ensure the face validity and comprehensiveness of the criteria developed for this decision analysis.

5. Data/Model Analysis

The model is being developed using an ANP BOCR analysis framework, using SuperDecisions. All the criteria have been identified due to the work that started in Spring 2014. The criteria and influence matrix were developed by the decision participants (Mu and Stern). Appendix 1 summarizes the criteria.

The data collection for the comparison judgments is still under development; however, the figures below show the model to be used (Figure 1) and the sub-networks developed for the Benefits, Costs, Opportunity and Risk of the IT City-County merge decision (Figure 2).

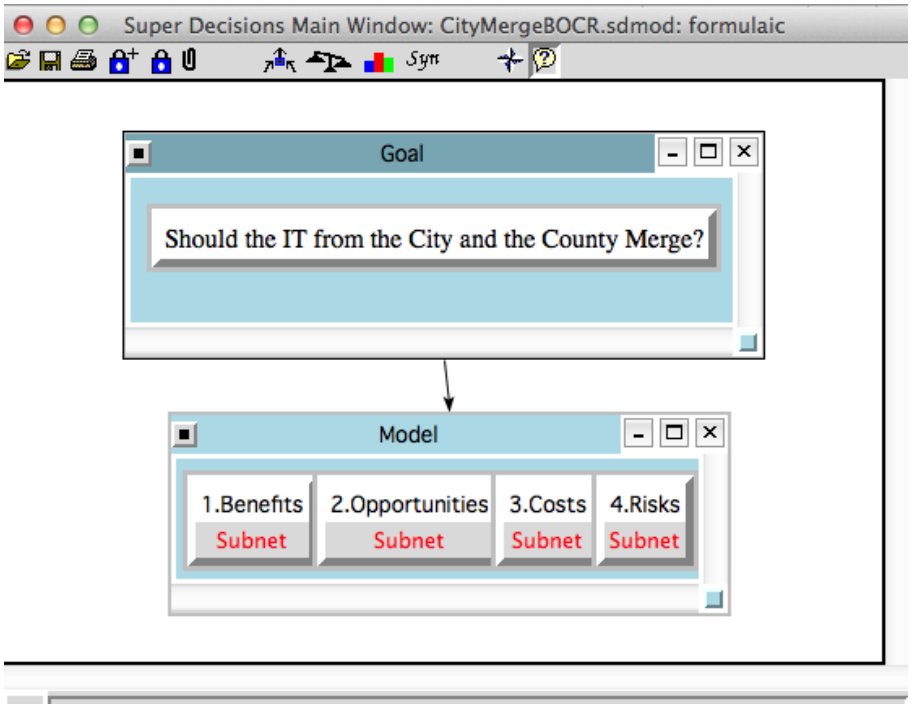

Figure 1 – BOCR Model being used for the IT City-County Merge Decision

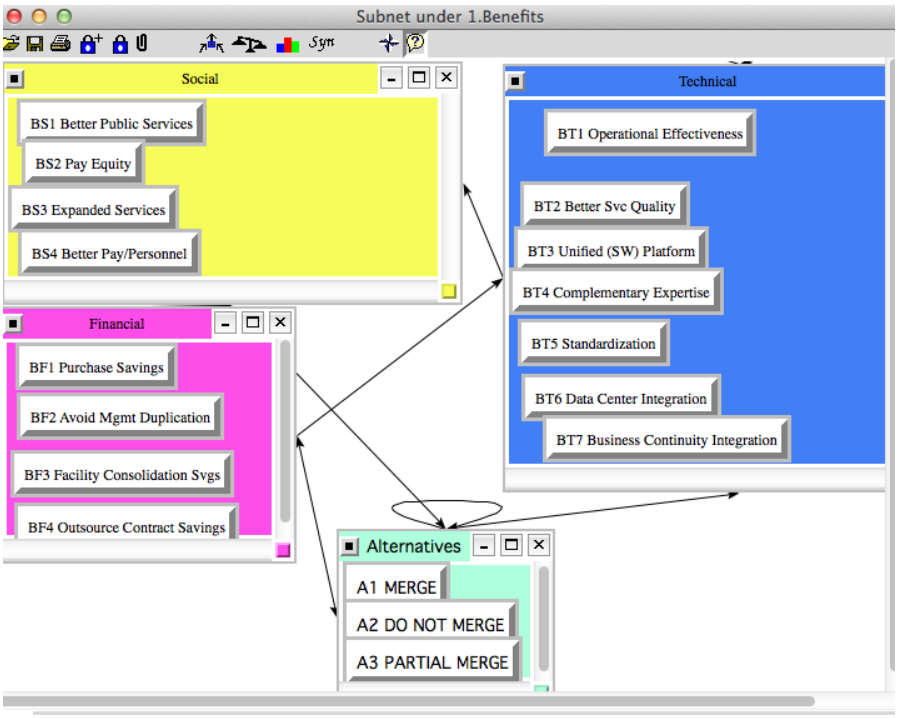

Figure 2 – Benefits Sub-Network for the IT City-County Merge Decision

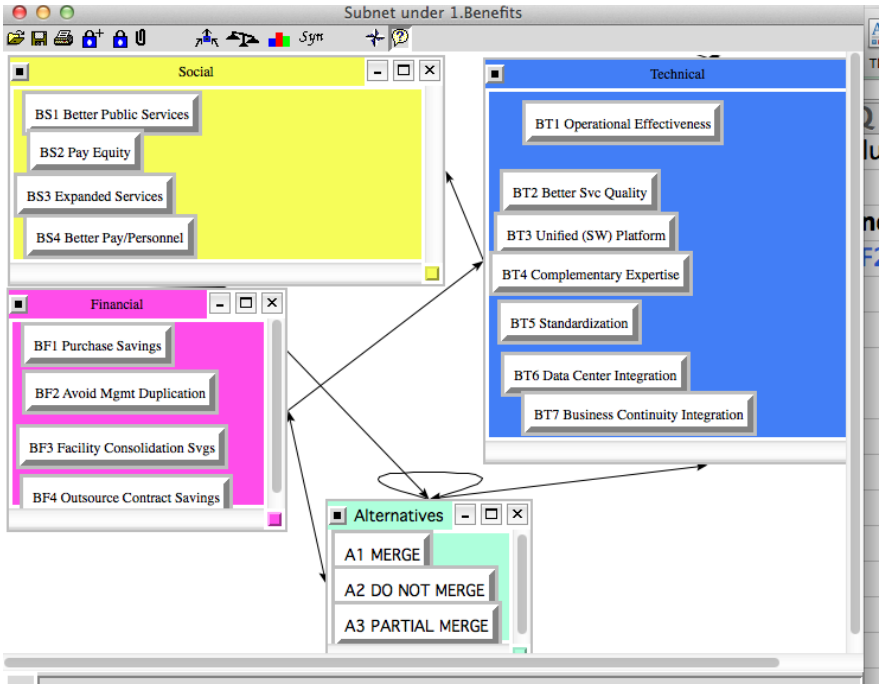

Figure 3 – Opportunity Sub-Network for the IT City-County Merge Decision

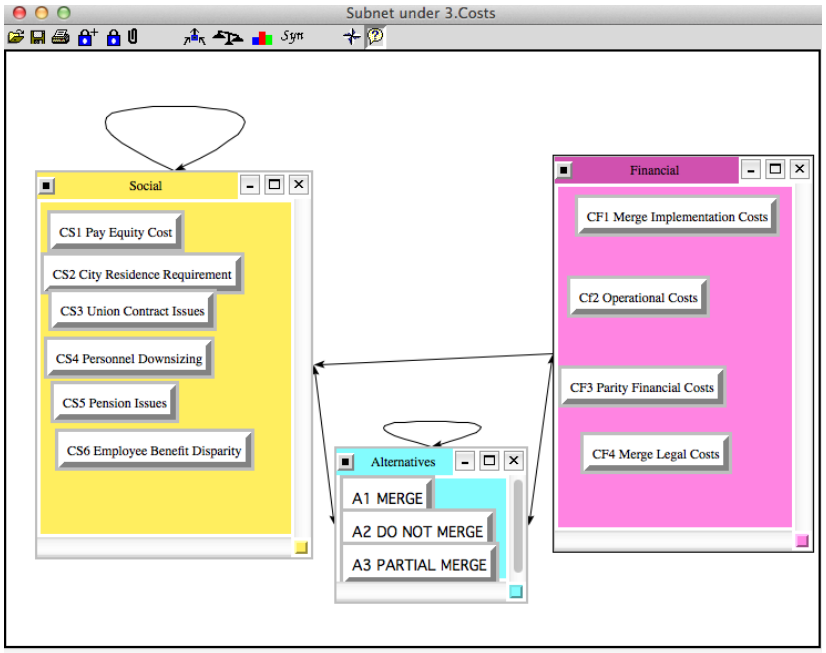

Figure 4 – Cost Sub-Network for the IT City-County Merge Decision

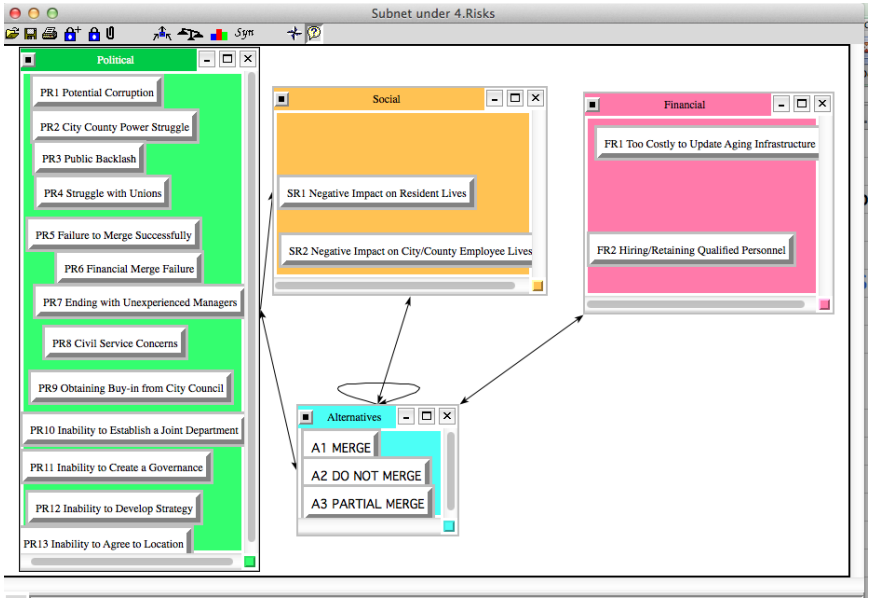

Figure 5 – Risk Sub-Network for the IT City-County Merge Decision

6. Limitations

At this time, the main limitation is that the study is still a work in progress. However, we are certain to fill in pending gaps, complete judgment data collection, synthesize and confirm findings by the time we present this work in the ISAHP 2014 symposium, as well as submitting the paper for publication.

7. Conclusions

As a conclusion from this study we recommend to the City and Allegheny County:

- Establish an authority / joint department
- Create a governance committee
- Engage universities and corporate partners
- Develop a unified strategic plan
- Obtain union and civil service approvals
- Determined a mutually agreed upon location
- Inventory all assets
- Compile list of contracts
- Hardware/software purchasing / economies of scale
- Create a unified budget
- Eliminate redundant job titles
- Achieve parity in salaries
- Shared infrastructure
- Combined data centers
- Shared disaster recovery / business continuity
- Developing an unified platform

From a practical point of view, we believe we have helped to identify the key factors to make this decision and the rationale behind our recommendation. This study will be officially presented to the proper authorities to request its use in the discussion of the merging decision.

From an academic point of view, the use of ANP models in the context of public administration decisions is still in incipient state and this study contributes to understand the consideration when using ANP to engage stakeholders in this type of decisions.

8. Key References

Gamrat, F., & Haulk, J. (2005). Merging governments: Lessons from Louisville, Indianapolis, and Philadelphia. *Allegheny Institute for Public Policy.* Retrieved from

http://heartland.org/sites/all/modules/custom/heartland_migration/files/pdfs/18001.pdf

Information Technology Working Group. (n.d.). Draft: Report of working group considering cooperation between city and county information technology departments. *City-County Summit.* Retrieved from http://www.alleghenycounty.us/council/InfoTechCCSReport.pdf

Lord, R. (2009). City, county to share financial software. *Pittsburgh Post-Gazette*. Retrieved from: http://www.post-gazette.com/stories/local/region/city-county-to-share-financial- software-369916/.

Mu, E. (2006). A unified framework for site selection and business forecasting using ANP. *Journal of Systems Science and Systems Engineering, 15(2)*, 178–188.

Saaty, T.L., & Peniwati, K. (2007). *Group decision-making: Drawing out and reconciling differences*. Pittsburgh, PA: RWS Publications.

Saaty, T.L., & Shang, J.S. (2007). Group decision-making: Head-count versus intensity of preference. *Socio-Economic Planning Sciences, 41*, 22–37.

Stern, H. (2013). *Opportunity for City of Pittsburgh & Allegheny County.* Guest Lecture presented at Carlow University.

9. Appendices

APPENDIX 1

BOCR Factors and Alternatives for the IT City-County Decision
(To be included in the Full Paper)