Improving Strategic Alignment via Performance Dashboards:  
A Case Study – AACSB Accreditation at Missouri S&T

Researcher: Ivy Miller (irmvxf@mst.edu)  
Research Advisor: Dr. Bih-Ru Lea (leabi@mst.edu)  
Business and Information Technology  
Missouri University of Science and Technology, Rolla, MO 6540

Abstract

The purpose of this research project is to determine if a performance dashboard could be an effective tool to improve strategic alignment and business processes in an educational environment, tested through the construction and deployment of a dashboard in support of Missouri University of Science and Technology’s application for AACSB accreditation.

To this end, a performance dashboard was created and deployed, and stakeholders from multiple user groups were asked for their feedback both informally during the development process and formally via a survey once the first draft was complete. Feedback from the informal sessions helped guide the evolution of the dashboard into its current form, and the final survey has been used to validate the effectiveness of this dashboard. Key points from the formal results included the following:

Responses were overwhelmingly positive in every category, indicating that users felt that the dashboard improved communication of performance measures and goals, and they fount it both effective and easy to learn and use.

Reflections

In my discipline, research is based on a thorough understanding of factors that potentially affect the project and, in this case, the alignment of Missouri S&T’s strategic plan with the AACSB standards, which created the foundation for a strong set of key performance indicators (KPIs) to guide the research scope and direction. As with most user-facing disciplines, Information Technology requires feedback from users throughout the project lifecycle to validate its success or failure. Processes and procedures are documented throughout the project and recorded chronologically, along with literature review of related research, as well as the final results and potential future research opportunities.

During this project, I explored many new database resources offered by Missouri S&T such as Scopus and Business Source Premier on the library “databases and e-resources” website as well as the search options available on Google Scholar. With experience I gained proficiency with creating more effective search criteria to narrow the results. Additionally, with the guidance of my advisor, Dr. Lea, I used several survey and statistical analysis programs to manipulate raw data into useful results. This was particularly interesting since I learned about similar programs and techniques in statistics class, but this project allowed me to see those methods used in a real-world scenario.

This project highlighted the need for a variety of skills and understanding of concepts in the creation of a successful product. For example, an understanding of business concepts helped in the strategic alignment and KPI development phase, an understanding of the technical aspects was needed for building the Excel platform and associated objects in SAP Business Objects Xcelsius, and a good understanding of the elements of aesthetically pleasing and balanced design helped ensure that the interface was user-friendly and effective. This project also confirmed the concept that any user-facing project is greatly enhanced by the inclusion of user-feedback.
throughout the design process, in addition to the implementation phase because users of even the most simple-sounding design may have widely varied expectations for a project. Feedback helps ensure that the project is heading in the right direction, into something that will benefit the users as opposed to only meeting the designer’s potentially skewed concept of what the users want.

Informal feedback gathered at intervals during the design process proved invaluable in shaping the final product. I learned to interpret non-technical user feedback into technical requirements that could be implemented in the project. Additionally, as mentioned in question two, I learned how to use statistical software to provide raw results, and then I drew conclusions based on those results. Once I learned the proper format, it was a surprisingly simple task to calculate, draw conclusions, and visualize the results in an easy-to-understand format.