

## **Strategic Considerations for the Implementation of a New Customer Relationship Management System in Higher Education**

**Dr. Kathleen Houlihan**

Assistant Professor, Marketing and MIS  
Wilkes University  
84 W South St, Wilkes-Barre, PA 18701, USA.

### **Abstract**

*Implementation of a campus wide customer relationship management (CRM) system is necessary to improve the process and reporting of prospective student information. Integration of three separate databases will be required and the implementation will impact five major university departments 1. Undergraduate Admissions, 2. Graduate Studies, 3. Graduate Education, 4. Marketing and 5. Student Services. Furthermore this integration process and implementation will impact the current university contract and IT service agent, who handles the information technology services. The scope of this paper is to present the two systems being considered for CRM implementation. The two systems being considered are Banner 8 and EMAS Pro 8.6. The implementation plan will also be set to ensure the university has board approval in time for the next fiscal year. The implementation plan will include end user training and integration onto the elected system*

### **CRM-Historical Perspective**

Currently prospective student data is kept in three database management systems on-campus. It has been determined that the integration of the three systems will allow access across campus impacting the student experience when dealing with any department who handles prospective students. Two of the three current CRM systems in use are being considered for integration by the other two systems. The one known variable is that whichever system is chosen by the university is going to require upgrades to the current system and it will be at an initial cost to the institution. An integrated CRM system is aligned with the strategic vision of the university. Cost and resource savings dictates merging the data from three systems into one integrated system. The University's Middles States report seeks the development of a lean, customer-focused support operation. This objective is one of the core strategic goals in the earliest iteration of *Vision 2010*, and it remains a part of the current University's strategic plan. Because the university is looking for cost saving opportunities it does make sense to outsource to only one company for CRM management. Therefore the integrated CRM system is aligned with the strategic vision of the university.

Graduate Studies compiles prospect information in Banner -baseline banner. The Graduate Studies CRM system is created in Banner is a SunGard product. SunGard is contracted for IT services and for all major IT software and hardware products and services. The baseline Banner product is what the entire university uses for registration, grading, financial aid, human resources, budget planning and now prospect management (only in Graduate Studies). For this reason it makes sense to move to the upgraded CRM system that SunGard offers because it will fully integrate the entire system. This Enrollment Management banner product also has functionality that will be usable for alumni services in the near future. An internal study conducted as a part of the analysis of the new student service center revealed "Banner is underutilized as a tool that faculty, staff, and students could use to greater advantage." The initial problem with the current SunGard contract is that the University does not own the rights to the CRM module for Banner 8 and therefore Graduate Studies only has the functionality of baseline banner in operation (n.d. 2010, SunGard). This out of the box form of Banner 8 is very antiquated and not user friendly in the CRM modules. For this reason data entry is entered haphazardly and reporting on this data is questionable at best. Another issue with banner is that it is the contention of the university that SunGard chooses to make every product available al a cart rather than bundling services as part of existing contracts to make the operation run more smoothly and therefore it ends up costing the university more money in the long run to operate and to conduct business with SunGard (n.d. 2010, SunGard).

The Graduate Education department handles the recruitment function for their students and utilizes Filemaker as their CRM. This system has over 20,000 records and will need to be integrated into the system that is selected as the prospect management system. It is at end of life and is not being considered as a university wide CRM system. The undergraduate office uses EMAS and this system needs to be upgraded to EMAS Pro which has portability features and several end user upgrades that will enhance the current recruitment process of undergraduate students (n.d. 2010, EMAS). EMAS Pro has the same functionality as the upgraded Banner 8 but it is less expensive to upgrade and maintain. The cost quoted in the contract for implementation is approximately \$80,000 less than implementation of the Banner 8 CRM product over five years. EMAS has been employed by the undergraduate office for more than 13 years. The undergraduate admissions department finds EMAS to be straightforward for the end-user and the reporting features are functional and considerably more accurate than graduate studies' data collected in Banner 8.

Both Banner 8 and EMAS Pro 8.6 fulfill basic end user requirements and allow communications, prospect monitoring, program customization, and portable access in the field with minimal IT support (n.d, 2010, SunGard & n.d., 2010, EMAS). However EMAS has the benefit of not allowing duplicate identification numbers in the Banner system once the student is accepted, the information will be converted to baseline banner for registration. A bridge will be necessary if EMAS is chosen to migrate the information between the two systems at an additional cost for the program to be written and implemented (n.d, 2010, EMAS). Even with the added bridge cost EMAS is significantly less expensive. EMAS also has the extra security of not being directly attached to the university mainframe, prospective information will be housed on separate servers to allow a greater level of security to university records.

Banner 8 also has advanced reporting features including a dashboard of where the institution sits in relation to current goals set by the institution and greater functionality in Graduate Studies (n.d., 2010, Banner). The enrollment targets vs. actual enrollment would be visible by the President with the click of a mouse. Graduate Studies already has the application checklist updated in baseline Banner and the process is already fully integrated with the online application process. Furthermore live data is accessible from the main system because information is typed directly into the main system allowing accurate reporting in real time.

The university recently went through a major restructuring that included the development of a One-Stop student services center (SSC). The process was very traumatic to the internal operation however after three years the system has improved because of the integrated IT features. "In implementing the new SSC functions, process improvement theory influenced practices and structures to increase efficiency and effectiveness—in effect, to do more with less". The integrated CRM system will have similar difficulties however from the SSC example comes the knowledge to include all interested parties from the beginning of the discussion.

The CRM committee is made up of representatives from marketing, undergraduate admissions, graduate admissions, graduate education, and technology support. The group operates with one vice-president, one dean, five directors, and one executive director so the recommendation that will eventually need to be made to the board will not come as a surprise because many of these individuals interact and even represent part of decision-making body of the university.

### ***Benchmarking CRM***

According to Wu (2010) when implementing a new CRM it is important to consider the possibility that budget cuts will occur before the system can be integrated. In this case it is important to have a contingency plan in place, but because this project will save the university over time, the CRM initiative group is creating a report to highlight the potential for increased revenue once the integrated CRM system is available. Because Banner and EMAS both need to be upgraded anyway as part of the regular maintenance plans there already cost associated with the upgrades to both systems. It makes sense to only upgrade one system, to the latest version of the selected choice. Furthermore, the University is operating with a balance budget so there is no reason the recommendation to the board should not be accepted.

A second factor according to Wu (2010) that needs to be address is the need for transformational leaders to be available to assist with the change process. In this case there are several champions of the integrated system; continuing to use Banner for CRM. The new CRM (EMAS) will not only help the recruiters who will now have portable access to their data files, but it will help marketing track the campaigns more efficiently, and senior level management will be able to view reports about the admissions process with the click of the mouse.

Wu’s (2010) final recommendation is to assess the need for the implementation of new system before it is put into place. The University has been operating without an integrated system and therefore it can continue to do so but because of the scheduled maintenance upgrades that are required, it makes sense to have to only have to outsource to one company.

**Privacy and Security in CRM**

In this technological era it is most important to ensure the safety of student data. For this reason it is important to consider using a separate system for prospect management. Aïmeur et al has a system called the ALAMBIC which “...splits customer data between the merchant and a semi-trusted third party, so that neither can derive sensitive information from their share alone” (2008, p. 307). This security feature maybe highlight a benefit is using EMAS Pro as the front end system to ensure the safety of student data. If EMAS Pro is used on the internet and then the data is bridged into banner, then the student information maybe more secure.

When data tampering happens it is important to know first that it occurred and then to find out what information was obtained to maintain data integrity and hopefully determine who tampered with the data. Pavlou, & Snodgrass (2008) discuss options for this through forensic analysis. As part of the maintenance plans, the University should consider safety first and select the system that will keep student information safe and secure.

**Risk Identification and Assessment**

Risk Identification		Risk Assessment						
Risk Impact Category	Risk Description	Probability			Impact			Impact Description
		L	M	H	L	M	H	
<i>Strategic Risk</i>								
Risk of doing vs. not doing	If not done, enrollment will decrease			X			X	Budget cuts will be required
<i>Technical Risk</i>								
Complexity	The interaction of Banner & other applications is complex. A character set conversion adds to the technical risk.		X				X	Impact could be difficulty in interfacing to other applications.
<i>Project/Organization Risk</i>								
Lack of support	Insufficient client time available to test thoroughly	X					X	Could delay the go-live out of the available window
Resource constraints	Insufficient DBAs & other staff in ITS to handle all projects under way		X				X	If some projects previously started are delayed, then the timing of when people need to do their part of the work on the projects may collide, adding up to more work in a day/week than staff time available.
Prerequisites	This project could be dependent on the completion of milestones within other projects			X	X			This project can be delayed if necessary milestones are not met.
<i>External Risk</i>								
Security	The prospective students will have access to internal university operations		X				X	A high level security breach

**Reasons against Implementation**

The perception by the university is that having a new integrated CRM system will increase efficiencies, but this is not necessarily the case according to Adams (2004) who studied the banking industries integration to a CRM system. When the system is set up for electronic communications for marketing purposes it is important to segment the market appropriately (Adams, 2004). The right questions have to be asked of individuals to be able to select populations for targeting communications. The CRM system itself is not going to create these linkages. Abbott et al (2001, July) question the assumption that having a new database to track customers will mean clean usable data will emerge, however they found that most businesses do not have a fully implemented CRM strategy.

This is an important consideration for the University because it is known that the data is not clean because training is lacking on the proper process. The full strategy is not realized at this juncture. Implementation of the new system is only going to exacerbate this issue.

Abbott et al (2001) completed additional research on how data clean up is more important than the software used and companies are not spending money in this area for data clean up. The University just hired a temporary employee to complete data clean up on three years' worth of admissions files, more than 16, 000 records. The problem is training is needed for the current staff to ensure the data is entered correctly the first time and furthermore exception reports need to be built to keep the data clean over time. It may make sense to train all end users on the system and have additional technological support available for questions during the implementation phase of the project.

Reid & Catterall (2005) go on to support these data clean up and maintenance issues saying that most of the issues are not learned until the project is underway and then the budget constraints prevent the project from being completed. This is a major concern for this project, but because of staffing shortages related to budget cuts all individuals are asked to do the work of three. Therefore it will be difficult to impress on the organization that additional hires are needed.

### ***Recommendations and Implementation of CRM System***

In any implementation plan it is important to create a timeline for how the project will be completed. Below are the project milestones that will be required for the CRM implementation plan at the University.

#### **Project Milestones**

<b>Milestone</b>	<b>Start Date</b>	<b>Completion Date</b>
Project Started		January 5
Project Scope	January 5	March 15
CRM Selected	March 15	April 15
Installation of NEW CRM	June 6	June 14
Bridge built for Graduate/Undergraduate	June 14	June 25
Migration of Records	June 25	June 30
Execute System Testing	June 30	July 9
User Training	July 9	July 30
Verify Operational Readiness	July 30	August 6
Complete Production Migration	August 6	August 12
Project Closeout	August 12	September 3

In summary, it is important to ensure the product selected, has the services required by each department. Banner 8 and EMAS Pro both have the required end user functionality. The Banner 8 system has two major benefits, the drill through dashboard and the integration with the rest of the university systems (n.d. 2010, Banner). EMAS Pro also has a great track record with the university and the cost to the University for Upgrade is significantly less (n.d., 2010, EMAS). Whichever system is selected data integrity has to be ensured or at least attempted and end user training is going to be required. A university decision is required and negotiations are occurring with each vendor with the desire for implementation of the winning business plan will be presented to the board of directors before of the end of the fiscal year.

## **References**

- Abbott, J., Stone, M., Buttle, F. (July, 2001). Integrating customer data into customer relationship management strategy: An empirical study. *Journal of Database Marketing*. 8(4), 289-300.
- Abbott, J., Stone, M., Buttle, F. (September, 2001) Customer relationship management in practice: A qualitative study. *Journal of Database Marketing*. 9 (1), 24-34.
- Adams, J. The great divide. (May, 2004). *Bank Technology News*. 17(5), 32-33.
- Aïmeur, E., Brassard, G., Fernandez, J., Mani Onana, F. (October, 2008) Alambic: a privacy-preserving recommender system for electronic commerce. *International Journal of Information Security*. 7(5), 307-334.
- Bono, S., Rubin, A., Stubblefield, A., & Green, A. (June 2006). Security through legality. *Communications of the ACM*, 49 (6), 36-43.
- n.d. (2010). SunGard Higher Education. Retrieved from <http://www.sungardhe.com/Products/Subcategory.aspx?id=800&LangType=1033>
- n. d. (2010) EMAS Pro. Retrieved from [http://www.emaspro.com/docs/EMAS\\_Recruitment\\_Pro\\_overview.pdf](http://www.emaspro.com/docs/EMAS_Recruitment_Pro_overview.pdf)
- Jukic, B., & Jukic, N. (2010, Winter). Information system planning and decision making framework: A case study. *Information Systems Management*, 27 (1), 61-71.
- Pavlou, K. E., & Snodgrass, R.T. (2008, November). Forensic analysis of database tampering. *ACM Transaction on Database Systems*, 33(4), 30-47.
- Reid, A., & Catterall, M. (July, 2005) Invisible data quality issues in a CRM implementation. *Journal of Database Marketing & Customer Strategy Management*. 12 (4), 305-314.
- Wu, Y.T. (2010, Winter). Applying the strategic approach to assess customer relationship management. *International Journal of Organizational Innovation*, 2(3), 186-205.