

*SPECIAL ISSUE:
TEACHING CASES*

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Teaching Case

Closing the Deal Amidst Falling Customer Satisfaction

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Abstract

The board of Fiserv (an investment management company) has already decided to close the business no matter what. Agile Financials has agreed to buyout Fiserv and retain part of the Fiserv staff if the purchase deal closes. However, if too many of Fiserv's clients left with their accounts or if the customer satisfaction index (CSI) continued to fall, the sale of Fiserv to Agile Financials would break apart. Should the deal break apart, everyone at Fiserv would be out of a job and clients would be left high and dry. Could a new CRM system be the answer to retain clients and raise customer satisfaction during the interim period as the buyout deal closes? This case places the reader in the shoes of the Fiserv's CIO, Mark Bennett, who has to decide and justify, if a new CRM system is necessary to address falling customer satisfaction. After this decision, the next challenge is to implement the CRM (or any alternative system) to help Fiserv retain the maximum number of its clients and achieve the stipulated level of customer satisfaction as the acquisition is completed. Business process reengineering and employee training are crucial when companies implement new mission critical enterprise systems like CRM. If the implementation forces a third order of change, then major challenges could be faced. Fiserv's resources are very limited before the acquisition deal is completed and it might be better in the short term to limit the project scope to a first order change.

Keywords: IT Infrastructure, Change Management, Project Management, Merger and Acquisition, Customer Relationship Management

1. INTRODUCTION

Mark Bennett, CIO of Fiserv ISS, relived the conversation in his mind again. Mr. Rogers, the president of Fiserv ISS, had just informed him that the company had been sold. This information had not been announced yet so Mark was not able to tell anyone of this development. Being a publicly traded company, this information was of top secret. Mr. Rogers informed Mark that the deal had been in process for several years and the terms had finally been agreed upon. It was important that the clients of Fiserv continued to receive the same level of care and were satisfied with the service that they received and when surveyed with the Customer Satisfaction Index, continued to give 9s and 10s. Unfortunately, customer satisfaction had been slipping and was

now at a 7 out of 10. Many clients had threatened to leave and few had left. On top of that employees had been leaving to pursue other opportunities and the company was short staffed. Now that the company had been sold, hiring replacements seemed less likely. Mr. Rogers told Mark, the impending deal could take up to a year to close and hinged on the retention and improved satisfaction of their current clients. The lower the satisfaction of the clients, the lower the price tag for the sale (See Table 1).

The situation was dire. If too many of the investment management company's clients left with their accounts or if the customer satisfaction index (CSI) continued to fall, the sale would break apart. The parent company, Fiserv, had decided to close the business no matter what. They felt

that Fiserv ISS was going to start costing more money than it was worth. The purchasing company, Agile Financials had reviewed the business practices and decided to keep part of the staff on after the deal had closed. Should the deal break apart, everyone would be out of a job. The realization washed over Mark. He was being charged with finding a way to bring customer satisfaction up without using a large amount of funds. If he failed, the deal would break apart, those clients that stayed would be left without a custodian and everyone he worked with would be out of a job.

CSI Score	Fiserv Company Valuation
10-9	\$600,000,000
8-7	\$475,000,000
6	\$350,000,000
5 and under	Deal is broken

Table 1: Relationship between Customer Satisfaction and Valuation

2. BACKGROUND INFORMATION

Fiserv ISS had started in 2001 with the merger of four small trust companies. Each trust company offered different services and products, but all were focused on low cost custodian fees while providing high and specialized client service for those investing in the financial markets. The four companies that were brought together were Datalynx, specializing in individual advisor clientele, Trustlynx specializing in 401k third party administration accounts, Lincoln Trust and Resources Trust both focusing on retail client accounts.

IT Infrastructure Issues at Fiserv

While each of these four trust companies had brought their own specific software that helped to service their specific group of accounts, the goal was always to get all the different departments on one software system. However, even after seven years, the different departments were still on their own specific systems. All four different departments shared several common financial management functions such as nonstandard assets, stock clearing and compliance. To make the system cohesive to the processes/functions that interacted with all departments, a software developer had used the middleware Microsoft Access to allow data exchange between the four disparate systems. Users could create queries in Access to pull data from each needed system without having to go into each individual actual database.

Microsoft Access, while not a perfect system, was integrated in everyday use and several financial processes at Fiserv ISS. Each different department at Fiserv ISS needed to use Access in one way or another. Access inked the necessary rows and columns stored in Xcel spreadsheets in individual departments and allowed the creation of consolidated views across the four trust companies. It was also used to synchronize asset values and ownership. The Access database was used by most team members several times a day and for multiple reasons. Some of the reasons were to view data from outside of their department, while other reasons were to upload and organize client account statements as their accounts were brought into trust management. As Fiserv ISS continued to grow, the largest growth continued to be in Datalynx and Trustlynx. Unfortunately, those were the systems that were most dependent on the Access databases. They were also the departments that were most dependent on nonstandard assets, stock clearing and compliance. To make the situation more complicated, they were the departments that Agile Financials was interested in acquiring and whose customer satisfaction would make or break the sale of Fiserv.

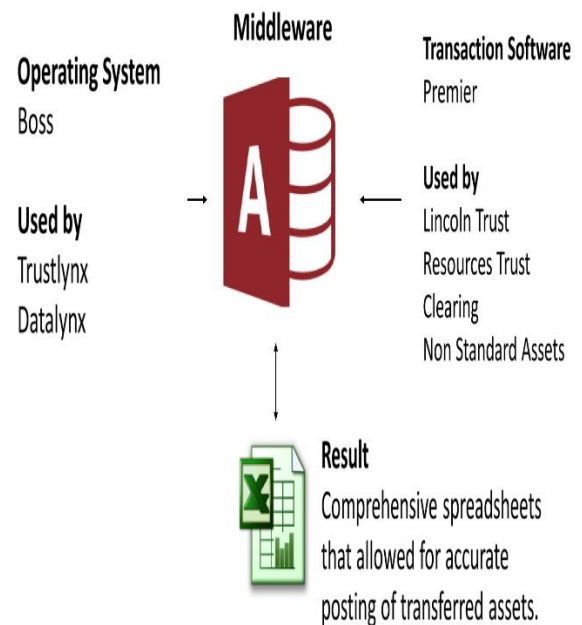


Figure 1: Fiserv IT Infrastructure

3. CURRENT SITUATION

Mark Bennett needed to assess the situation first hand and decided to start by calling a few clients from both Trustlynx and Datalynx to see if he could find out why their customer satisfaction had dipped. He called several clients of those two departments and found that the complaints were always some variation of delayed processing. One client he called, named Ron Gage, was on the Datalynx platform and expressed serious concerns over the Information systems platform: *"My business is growing at an incredible pace. I work with a lot of nonstandard assets. A non-standard asset is one that cannot be accurately and fairly valued and cannot be sold or transferred at a non-detrimental value within 30 days. In times past, I knew that transferring these assets would not be a problem. I was confident that the asset would be booked into the account as soon as it had changed ownership. It would have monthly price updates as Fiserv ISS received statements. Now I am seeing assets booked two to three weeks after they have transferred into your company. The asset prices are rarely updated and clients are complaining that their statements do not reflect the asset values that I am showing on my website."*

Ron Gage continued to describe his frustrations with the Datalynx client support team, *"I have to make multiple calls and each time describe my requests from scratch. Then the wait, the endless wait as the issue is verified and assigned and worked internally in your team."*

Mark Bennett began to consider this and talked to the Customer Account Relationship Manager in charge of Datalynx. The relationship manager, Dan Donnelly: *"Listen, I am doing the best I can. I follow up with the nonstandard asset department every other day. Every time I call down there I get someone unfamiliar with the account I am talking about. They have no way to track my request history and I have to explain the whole situation again and again. I now have a formatted email that I am sending to the department each week, but I get no response. I can't do it myself. I have escalated it to management. They ask me to forward all my communications with the nonstandard asset department and after a few weeks after the asset is transferred, it gets booked."*

Dan Donnelly continued: *"My time is always wasted getting status updates instead of trying to get new trust accounts. I want to get out of being the middle man and allow my clients to directly*

create the request, track and follow-up with the non standard assets team."

Mark moved on to the final piece in the puzzle, the nonstandard asset team. When asked about the problem, the manager Lisa Walk was quick to the defense. *"I have lost five people this year. I cannot hire anyone else. I have temps working for me and while they can book the assets, I am the only one that knows how to use the Access database. I have email upon email from the temps asking me to run the reports on Access. The assets are not always there the first time I check and I need to follow up again and again. I am trying to create calendar reminders to follow up on these assets a few days later, but I forget. Then I am working on the new emails that have not transferred and I should create reminders but I forget. It is a vicious cycle."*

Mark had an idea. He asked Lisa, *"Would it help if you had a program that listed your daily tasks and assigned priorities based on the importance of the originating clients, so that you could either decide to complete or snooze the task in favor of other more important tasks?"*

"Greatly!" Lisa replied. *"If only it had a way to access the system or at the very least Microsoft Access"*.

"You're in luck", thought Mark. The answer became clear to Mark. He needed to get the company on a Customer Relationship Management system (CRM) to help with the tasks that were building up. CRM is a management approach that seeks to create, develop, and enhance relationships with carefully targeted customers to maximize customer value and corporate profitability. However, Mark knew that implementing an Enterprise system (ES) of that magnitude needed careful analysis and planning of organizational impacts. Although companies can spend a large amount of their IT budgets on ES projects, a significant proportion of ES projects do not succeed (Nguyen and Mutum, 2012).

4. CRM PLATFORM ALTERNATIVES

Mark needed to decide which CRM system he would pursue and how much would he have to spend. In years past, Fiserv ISS would have worked on building their own system. This took years to get done and unlike in years past, Mark did not have the time or resources to do so. He knew that he was going to have to buy an off the shelf product. Confident that he had found the answer Mark began to look around for different CRM products. Because Agile Financials was

buying the business, his first thought was to consider what they used for a CRM. They used the giant of the CRM world - Salesforce. Salesforce was by far the CRM that Mark had heard the most about. It had a variety of offerings that could help with the management of tasks. Mark had seen Agile Financial's version of Salesforce and knew that in addition to monitoring tasks, Salesforce also had the ability to monitor the client's satisfaction index score on a weekly basis. This would help to monitor the clients that were dissatisfied and make sure that special attention was paid to them to improve their scores. In addition to this, Agile Financials confirmed that they would help with the setup, implementation and training of Fiserv employees. If the fields were identical to how Salesforce looked at Agile Financials, porting the data into Agile Financial's Salesforce implementation would be much easier and would be a cost saver to them and in training the employees that were to be hired on Salesforce now, they would be saving time once the transition occurred in a years time.

However, Salesforce was expensive. The cost ranged anywhere between \$300-500 a month per user per month. With all the features, he needed the best enterprise package which was the most likely came in at \$325 a month for each user. Quickly doing some math of \$325 times the 45 users he needed to give access to he was looking at a price tag of \$14625.00 a month with a full price tag of \$175,500 to be paid before the merger was complete. Mark saw that different programs could also be used with Salesforce. He looked to find if Microsoft Access was one of them and but couldn't find it on the Salesforce website. Calling Salesforce, the representative for the company responded, *"Who still uses Access? That seems like a terrible way to run a business."*

Mark did not feel confident in that answer at all. Mark knew that even with the implementation of the new CRM system, he would not be able to retire the Access database. Drawing upon the extant published CRM literature, Mark found many organizational factors, technical factors and economic factors that would impact how successfully he could integrate the CRM system with his existing systems. Mark would need to perform impact analysis to evaluate the ripple effects of the proposed change and identify the organizational stakeholders (both internal and external) who might be impacted by the new system (Nguyen and Mutum, 2012). This list of stakeholders needed to be built analyzing the dependencies of the component(s) involved in the Fiserv client management processes. Mark knew that the dependency model would also help

document the changes that would be faced by his staff in performing their client management tasks. In many cases, the changes would affect running instances of long-running business processes by modifying the workflow of his client support agents. Mark realized that he would need to estimate the magnitude of the change and, possibly, the effort required for its implementation and the potential cost for the organization. A change that is very complex to implement because, for instance, it requires complex ad hoc modification of the CRM source code, should be accommodated only if its impact is sufficiently large in size. Would this rule out the selection of Salesforce? Without the ability to integrate the Fiserv Access Database with the new CRM, it would take many hours for Fiserv and Agile Financials to input the client's data and historical information. Also, he would have to wait until the merger was announced before he could receive help from their computer engineers, which would put the burden of transitioning to the new CRM on Fiserv's limited IT resources.

Trying to compile a more comprehensive list Mark turned to research another CRM. The next CRM that he looked into was Microsoft Dynamics. They covered 6% of the market for CRMs but were growing quickly. Fiserv ISS used Microsoft products exclusively. Mark was confident that Microsoft Access, which much of the company was dependent on, would be more easily integrated with this Dynamics system. With his prior research Mark knew that customers often communicated with their Fiserv ISS representatives by email. Fiserv ISS used Outlook and this would allow for the integration of those emails with the Dynamics CRM system. Part of the other issue with the Fiserv ISS system was the way that client information was stored in the Access database. It was the responsibility of each relationship manager to update their individual advisor or third party administrator information. The records in the database were outdated and often wrong, Mark learned that contact information in Dynamics was imported directly from Outlook. This would ensure that these records could be updated more frequently. Finally he thought of Lisa with her Access database dilemma. Tasks could be created and completed directly on the CRM. This was a huge benefit for the different departments. He was confident that the process would be more automated. He would be able to get the Dynamics CRM up and running much quicker than the Salesforce CRM. Researching further he found Microsoft Dynamics was cheaper for the package that Mark needed at only \$165.00 per person per month. Coming in at \$7425 a month, for a total

of \$89,100. The Dynamics CRM program had a lot of benefits and seemed like a better deal.

However, in doing research Mark found out that Microsoft Dynamics was set up as an “on premise” software that required dedicated storage. The Dynamics product was not as highly rated as Salesforce and complaints said that some features of the Dynamic software did not live up to what was offered before implementations. Another complaint about Dynamics CRM is that it is set up for dynamic sales operations. With smaller companies, the system does not work as well. Microsoft has suggested that if this is the case before Dynamics can be used that a predefined process should be created. That would take longer for Mark and may not translate well when the business is taken over later by Agile Financials. The longer that this process reengineering takes to implement, the longer things fall through the cracks and the angrier the clients would become. Unlike with Salesforce, Mark could not rely on Agile Financials to help train the staff. In fact, Agile Financials had scoffed at the idea of using Dynamics. Mark knew he would be unable to take the training on by himself. He would need to hire a company to come in and help with set up and training. Those companies charged close to \$200 an hour. Mark was not sure how many hours the total time would take but he figured it would take at least 80 hours for the build out and the training sessions. That would cost around \$16,000. This brings the total cost of this product to \$105,100. This would cut down on his savings from Salesforce.

The last CRM that Mark looked at was Infor. Infor CRM had many of the same characteristics that the other two products offered but at a fraction of the cost. Like Salesforce, Infor was cloud based. However, like Salesforce it started online and did not have some of the downside that Dynamics had in reviews. It could integrate with Microsoft outlook. Infor has great analytical tools that would track and monitor KPIs (Key Performance Indicators) like customer satisfaction and clear ways to assign tasks to different departments to make sure items are taken care of. All of the reviews Mark could find were positive. He had a hard time finding a negative opinion. Mark realized that this may be because the product was so great that users fell in love with it once they started using it, but it may also be that the market share was so small for Infor that the clients that used it were clients that had researched it and felt that it would be the perfect fit for their company. The cost was \$55 per user per month. That would be \$2475 per month for a

total of \$29,700. This was a number that would look great when presenting the need for a CRM to the Fiserv board.

Like other cloud based products, there were downsides to Infor (Marston, Li, Bandyopadhyay, Zhang and Ghalsasi, 2011). They included difficulties with formatting tasks. Tasks created had to be associated with an account. That would be difficult if you were trying to check the purchase availability of a certain product. Making changes to a client profile can get complicated and may not be able to be completed by the end users and searching for situations on the system can be complicated. Mark realized that among the three CRM systems, he would need the most help with implementing this one. The available companies that can help with the implementation and training of Infor is a much smaller pool than for Microsoft Dynamics. These rates usually ran close to \$250 an hour and would be even greater for the relationship managers using it so training would need to be more in depth and would most likely take longer. Mark thought that would make the needed hours for a company to help implement the new CRM creep up to around 150 hour at a cost of \$37,500. That would bring the total cost of training and the Infor CRM program to \$67,200.

Comparing CRM Platforms

Mark could not believe it. Each of the three CRM systems had benefits and drawbacks that differentiated each other (Table 2).

CRM System	Cost per User (45)	Design & Training Effort	Notes
Salesforce	\$325	Covered by Agile Financials	Compatible Tong term
Dynamics	\$165	80 hrs @ \$200/hr	Premise Storage in Access
Infor	\$55	150 hrs @ \$250/hr	Cloud based

Table 2: CRM System Comparisons

Salesforce was going to create a lot of work for Mark and he needed the help of Agile Financials. The Dynamics platform seemed a good short term fit, but he would not get any help from Agile Financials with Dynamics and this would create significant rework after the merger was completed. The CRM was desperately needed to help complete tasks during this one year transition period. Any delay in rollout would affect customer satisfaction even more. Microsoft

Dynamics would be the easiest for the data to be imported but Agile Financials was not happy about using Dynamics instead of the program they were used to (Nolan and McFarlan, 2005). On top of that the learning curve would require outside help to come in and train the staff. It would require staff to be away from the phone and may decrease the level of customer service that clients depended on. Finally, Infor would be the cheapest. Only by a few thousand dollars but for Fiserv's board, every penny may count. The learning curve and implementation cost were higher for the Infor product, but it seemed to have only positive reviews. Mark had not asked Agile Financials of their opinion but was fairly certain that a decision to use Dynamics would not be met with praise. Mark had a lot of factors to consider for his decision, but had very little time to do so. He hoped he could choose the CRM that would have the most success for Fiserv in its final days. *"We need to thrive and not just survive in this interim period"*, Mark thought.

5. SYSTEMS CHANGE MANAGEMENT

In addition to the technology selection, the organization dimensions are very important for capturing the complexity of CRM implementations (Pozza, Goetz and Sahut, 2018). When companies need to adopt a new mission critical enterprise system like CRM, they need to identify and speak with numerous stakeholders to not only discern pricing, but to determine what can and cannot be done within the established systems implementation plan (Wagner and Piccoli, 2007). Stakeholders will come up with ideas about what options they need in the CRM system to be able to accomplish their plans and business processes. The CRM implementation team needs to figure out how best to manage these stakeholder's needs and try and make sure the software allows for it. Procedures for certain business process transactions can vary from company to company based on what the software programs allows for, so no two transactions can look the same. This is certainly the case here where transactions that once required manual/paper based processes, must now be done as paperless. Fiserv was using a Microsoft Access database software that was fairly generic, but got the job done. It was also a slow and manual program that was primarily setup to allow data transfer between lines of business. Most of the bugs had been worked out, but Mark knew that trying to convert older data onto any new system platform was going to take time. On average it took a "typical" company just over a year to finalize their conversion plan, and the timeline they had was at most 6 months for a

complete conversion over to the new CRM platform (Davenport, 1998). Mark felt confident this was possible only if a phased approach was used and client data for more the profitable and important clients converted first. They figured they would eventually be able to convert a certain number of clients every week. Since the firm held well over 500 clients this means that some "waves" would be bigger than others. They would also have to prioritize so that the more "sensitive" clients, ones with more assets and financial transactional demands would convert first therefore giving more time for the other clients to convert. This also allows them to find bugs and make adjustments as needed.

Fiserv also had to worry about training phone representatives on the new platform. This included the call center staff that handled customer service. Mark knew that this is where a lot of trouble was going to originate during the system change. Many seasoned veteran reps were reluctant to switch, while others knew the inevitability of a system switch and could almost predict what the biggest complaints from plan participants was going to be. *"These participants are so used to the things offered before, a lot of them are going to be more then confused, they are going to be upset."* was one complaint heard in different variations. But some of the representatives were taking more optimistic approaches, addressing certain things that the new software is capable of that the previous one couldn't do before.

Orders of Change Management

Assessing the orders of change revolve around impacts caused to the basic structure of the company (O'Hara, Watson and Kavan, 1999). A first order change leverages a new software to maintain the basic structure and culture of a company. An example of this would be changing out an account management system, which utilizes paper or electronic interface, to a fully digital environment which utilizes and leverages Network or Cloud storage. This change does not inherently require users to change the way they do work, but does require them to change how they interface with the work. It is realistic that a user could maintain most of the same way of doing business.

However, a second order change incorporates a more disruptive effect to the company. This sort of change requires users to not only change the "how" of their work behavior but also the more immediate "why". One example of a second order change would be automation and online book sales. Previously the skillset for book- sellers was

to be knowledgeable of where and what a book was. But with an automation of that scale, the sales person becomes not only a sales individual, whose knowledge of the book or location is useful, but further they have to become a facilitator of the new system to the customer as their knowledge of the product is not so important as their ability to find and access the data about the product. In this way their job description goes from "retail sales" to "retail sales and facilitator".

Finally a third order change incorporates the most disruptive behaviors to affect a company's structure. The nature of this change is that employees and the company both alter their viewpoint. An example of third order change is Kodak and their change from a one-dimensional producer of film to a digital producer of film and content. In the "old" version of Kodak they produced film, which was used by multiple media houses for various formats of media - film, B&W, color, art, practical. At no point however did Kodak engage in the content on anything other than a method to provide it to the end-user/customer. During its relatively failed attempt to make a third order change from paper to digital there were growing pains and rejection - many employees saw little need of a "soul-less" digital media and fought the change, while those who embraced the cutting edge considered these people Luddites.

6. CONCLUSIONS

Mark realized that if the appropriate order of change was not recognized, planned and addressed during the CRM system implementation, problems would quickly mount as the client data conversions kicked in. Finally there was a big discrepancy between what service representatives had recorded on paper forms and was not recorded in the Access database. Employees and customers started to report issues with accounts being shown on their reports but the asset prices were not updated online. After reviewing a few client dashboard results, Mark noticed some key items missing from the reports. This was just the beginning of the customer complaints. There was no consistency for clients and how they were handled across the four smaller companies. The content team, which is responsible for the data integrity online, had price discrepancies that caused major clients to get upset and claim that Fiserv had violated contract agreements. There were now four disjoint trust companies with their own nuanced processes instead of the omni-channel accounts model that Fiserv and Agile Financials were trying to achieve.

7. CASE STUDY QUESTIONS

While the decision to implement a CRM may seem simple, Mark knew that there would be issues when the new software allowed things that his current system doesn't support and vice versa (Hammer, 2004). Compromise is going to be needed from multiple stakeholders for this project to happen. And in some cases, things are going to change in business processes and these changes need to happen very quickly to keep the Fiserv-Agile Financials deal moving forward and closing. Mark is going to be tested on what his company's software is capable of.

After analyzing the situation posed in the case study, answer the following questions.

1. List the major problems facing Fiserv.
2. Was Fiserv being realistic in attempting to implement a new CRM system rather than incremental changes to their existing systems to fix customer service in the short term?
3. What additional benefits would a CRM System have over some other less expensive ways of using IT to fix the customer service problems?
4. If a CRM product is chosen, which one would you chose and why?
5. What order change would be required to implement the CRM system?
6. What order change would be required if an incremental approach was used (from Question #2)
7. As the CIO, Mark Bennett, how would you approach the Fiserv board to ask for funding for the CRM system implementation?

8. REFERENCES

- Comuzzi, M. and Parhizkar, M. (2017). A Methodology for Enterprise Systems post-implementation change management. *Industrial Management & Data Systems*, 117(10), 2241-2262.
- Davenport, T.H. (1998). Putting the Enterprise into Enterprise Systems. *Harvard Business Review*, July/August, 121-131.
- Hammer, M. (2004). Deep Change: How operational innovation can transform your company. *Harvard Business Review*, April, 84-93.
- Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J. and Ghalsasi, A. (2011). Cloud Computing:

- The business perspective. *Decision Support Systems*, 51(1), 176-189.
- Nolan, R. & McFarlan, F.W. (2005). Information Technology and the Board of Directors. *Harvard Business Review*, 83(10), 9-24.
- Nguyen, B. and Mutum, D.S. (2012). A review of customer relationship management: successes, advances, pitfalls and futures. *Business Process Management Journal* 18(3), 400-419.
- O'Hara, M.T., Watson, R.T., & Kavan, C.B. (1999). Managing the three levels of change. *Information Systems Management Journal*, 16(3), 63-70.
- Pozza, I.D., Goetz, O. and Sahut, J.M. (2018). Implementation effects in the relationship between CRM and its Performance. *Journal of Business Research* 89(8), 391-403.
- Thakur, R. & Workman, L. (2016). Customer portfolio management (CPM) for improved customer relationship management (CRM): Are your customers platinum, gold, silver, or bronze? *Journal of Business Research* 69(3), 4095-4102.
- Wagner, E. & Piccoli, G. (2007). A call to engagement: Moving beyond user involvement in order to achieve successful information systems design. *Communications of the ACM*, 50(12), 51-55.

Editor Notes: Teaching Notes are available for this case, please contact the author directly.