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Week 5 Application: Billing System Upgrade and Data Integrity

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The HudsonBanc billing system upgrade had the potential to bring in large amounts of revenue and performance upgrades without drastically changing how the company operated as a whole (Satzinger, Jackson, & Burd, 2012, p. 439). However, due to mismanagement of the system upgrade the whole process was botched. Their project planning and upgrade procedures are a great example of how not to do a system change over.

Starting at the data conversion level, the project management staff, not to mention the business intelligence staff, should have recognized the problems to be faced down the road. At the start of the implementation phase ten percent of the data was copied to the new system in a 1:1 ratio, meaning no data integrity checks were done to ensure that the new system could actually handle the data types implemented in the old system. Continuing along the same lines, the entire database was then copied to the new system without proper testing. With all the data now present, this lack of data checking proved itself when the system failed to recognize transaction types, leading to an unacceptable level of data integrity faults which resulted in lost revenue.

However, this was just the beginning. The faulty data bled into other parts of the system causing major faults well beyond acceptable tolerances. With all the data now present, “the system was unable to handle the greatly increased volume of transactions” (Satzinger, Jackson, & Burd, 2012, p. 439). This is a direct link back to the data integrity flaws as the system was originally checked with only ten percent of the customer dataset. Failure to handle the increased data flow lead to an overall system slowdown, bill payments being delayed, and of course the transaction types still being unaccounted for causing mayhem with report output. Due to this, customers were actually being charged for not paying their bills, even though they had.

The federal and state government finally had to step in on this mess and call foul on what HudsonBanc were doing. In order to account for the backlogs, the incorrect data being reported, and the increased customer complaint calls, key staff was reassigned to help manage triage, when they should have been working on solving the issue at hand. To help stem the tide of false output, all transactions were immediately swapped to manual processing which only lead to further time delays and lost revenue due to staffing reassignments and phone installations for customer complaint calls. The government officials forced the company to allow customers to spread payments for bills over three months, as well. This of course meant that those customers who truly did miss their payments would fall through the cracks leading to further lost revenue.

Overall, the entire system upgrade was a botched plan from go. As mentioned, the project management team and the business intelligence team should have realized that the data would not transfer directly across, if for no other reason, than the age of the data itself. A full data integrity checklist should have been completed at the start of the implementation phase to ensure that the data would be valid in the new system. As for the system being unable to handle the increased transaction load, at least 90% of the data should have been transferred to the new system and all subsystems tested. This goes especially for the printing subsystem, which caused a further three month delay. Finally, the move to have the system go live as soon as possible should have been countered with the understanding that such a system upgrade is a lot more complicated than simply flipping a switch.

Reference

Satzinger, J. W., Jackson, R. B., & Burd, S. D. (2012). *Systems Analysis and Design in a Changing World* (6th ed.). Boston: Cengage Learning.