MHA-FPX5064 Assessment 4: Health Information System Cost-Benefit Analysis

Student Name

Program Name or Degree Name (e.g., Bachelor of Science in Psychology), University

COURSE XXX: Title of Course

Instructor Name

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Health Information System Cost-Benefit Analysis

The decisions entailing switching to a new Health Information System (HIM) or upgrading the current one to a system with more functionalities lie in the hands of healthcare administrators. Kaplan (2020) notes that healthcare administrators are expected to perform a cost-benefit analysis to identify the pros and cons of the decision in both the long term and avoid using too many resources in implementing a decision without improving the current functionality. This executive summary presents the components of the proposed system, gaps between current health information and future needs, costs and benefits of implementing the upgraded system, costs and benefits of not implementing the upgraded system, the impact of evolving business trends on system upgrade decisions, and an implementation recommendation based on the cost analysis.

According to Berdik et al. (2021), the components of a health information system include patient information, administrative information, operational information, and financial information systems. Each component stands for a system that helps in running the institution. The patient information component entails all records pertaining to the patient stored in electronic health records. The administrative system entails information that helps the staff to manage the workflow, shifts, and other administrative roles. On the other hand, the operational information system entails documentation that assists in running the institution's operations, including policies and communication. The financial systems track revenues, generate financial reports and statements, and help in other accounting/financial roles.

Considerable gaps exist between the current health information technology and future needs. Many healthcare institutions use outdated healthcare technology despite the current advancements due to high upgrading costs and resistance to change (Yaqob et al., 2021).

However, future healthcare needs such as increased elderly patient numbers, payment systems evolution and changes in provider roles may force care institutions to advance their technology. These future needs may have affected present system integration decisions, considering the new systems have to be flexible to adapt to future changes. For instance, current integration decisions have to incorporate wireless and server technology to make upgrading easier and suit future needs.

Valley City and Independent medical centers will incur some short-term and long-term costs while implementing the new villa health system. The short-term costs include workflow analysis, training, hardware, infrastructure and system upgrades, and implementation fees. The long-term costs include annual software licensing and ongoing support and maintenance costs. The benefits of implementing the upgraded system in the organization include increased patient service revenue and reduction in readmission rates, medical errors, medication tracking and billing errors, and patient safety issues. These benefits will be realized in the short and long term, with more benefits in the future as the institution adapts to the new system. Involving leadership decisions in costs and benefits analysis is crucial. The issues and objectives that should be considered in the analysis include the current financial state, data transfer and measures to prevent data loss during the upgrade, and the leaders' buy-in and support. Having actual financial figures provided by the financial department would improve the analysis.

Failure to implement the upgraded system may also have some costs and benefits. The organization will not have to continue using outdated technology, which limits patient service efficiency and may compromise patient safety. In addition, the organization may have to incur CMS penalties due to high readmission rates. However, not implementing the upgraded system will benefit the institution by avoiding data loss during the upgrade, which may lead to patient

privacy issues and loss of revenue. Another benefit is saving the financial costs needed to implement the upgraded system. A proper analysis of the feasibility of the project, based on the benefits and costs of not implementing the upgraded system, would improve the analysis.

Evolving business trends may impact the system upgrade decisions. For instance, healthcare business trends like artificial intelligence, telemedicine, and blockchain technology that are evolving at a high rate may need robust infrastructure. Therefore, the current system decisions must be flexible for updates and have high interoperability for integration into other systems in the future. In addition, research shows that system upgrades may increase the projected future costs in a cost-benefit analysis, thus potentially compromising the project's implementation (Wurcel et al., 2019).

Based on the cost-benefit analysis, the system upgrade is feasible for implementation. The total present value benefits exceed the total present value costs by $140,000. In addition, the future value costs will be $57,000 annually, which is manageable. The total benefit (present value) will have doubled by year 5. Therefore, the proposed system upgrade implementation is recommended.

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