Individual Assignment: Innovation Plan

Name

Course

Instructor

Date

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A technology roadmap defines the short-term and long-term goals of a certain technology solution that helps in attaining the goals. It helps in determining the set of needs and the technologies that would help in meeting the needs. It also acts as a mechanism for forecasting technological developments in a certain industry. Finally, it helps in provides a framework for planning and coordinating technology developments. A technology roadmap is developed in a systematic manner, which comprises of three phases. These include the preliminary phase, development of the roadmap, and follow-up activities phase. Each of these phases is characterised by different activities. The preliminary phase involves satisfying the essential conditions, providing leadership and sponsorship, and defining the scope and boundaries of the technology roadmap. The development phases involves identifying the product that the roadmap would focus on, determining the critical system requirements and their relevant targets, determining technology drivers and their targets, identifying the major technology areas, determining the technology alternatives and the timelines of the alternatives, recommending the technology alternative that should be implemented, and developing the technology roadmap report. Follow-up phase involves the development of a plan on how to use and technology and periodical review and update since the needs of various parties in the technology roadmap and technologies are bound to evolve with time. The above three phases were used in the development of a technological roadmap for United Airlines, the largest low cost airline in the U.S. The technology roadmap would help in defining the technology needs of the company and how to meet the needs.

United Airlines acknowledges the importance of technology in its competitiveness. The airline uses several technological tools to solve its solutions. For instance, the airline’s pilots use

the electronic flight bag instead of papers to undertake their in-flight operations. Use of the electronic flight bag has helped in reducing the weight of luggage that pilots have to carry in-flight. This has helped in reducing the fuel costs. United Airlines recently launched a new tech operations centre at Houston's George Bush Intercontinental Airport. The project, which is expected to be completed in 2018, will cost $162 million. It would provide technical services to support the airline's worldwide operations. It would support more aircraft than ever enabling the aircraft to return to serving customers quicker. In light of the technological changes in the airline industry, it is vital for United Airlines to ensure that it is quick to adopt the technologies failure to which it may lose its competitive edge. Therefore, it is vital for the airline to develop a technology roadmap that would detail how it intends to implement different technological tools to meet its vision of making every flight a positive experience to customers.

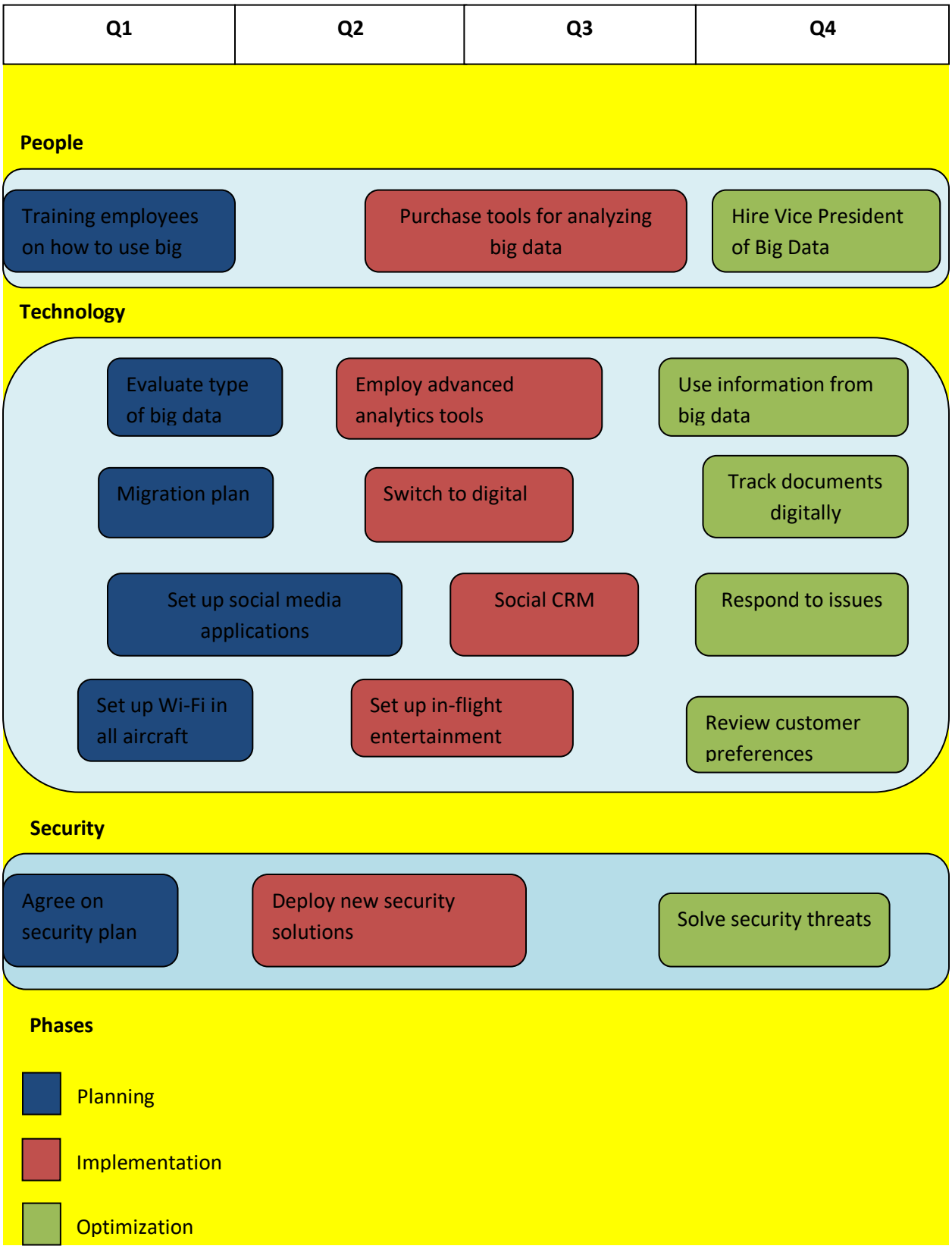
Q1
Q2
Q3
Q4
People
Training employees on how to use big
Purchase tools for analyzing big data
Hire Vice President of Big Data
Technology
Evaluate type of big data
Employ advanced analytics tools
Use information from big data
Migration plan
Switch to digital
Track documents digitally
Set up social media applications
Social CRM
Respond to issues
Set up Wi-Fi in all aircraft
Set up in-flight entertainment
Review customer preferences
Security
Agree on security plan
Deploy new security solutions
Solve security threats
Phases
Planning
Implementation
Optimization

Figure 1: Technology roadmap of United Airlines for Fiscal year 2017

Figure 1 details the technology roadmap of United Airlines for the fiscal year 2017. The company intends to use big data and other technological solutions to improve its competitiveness. Big data promises to be the most disruptive technology in the airline industry. The company intends to use bog data to various elements in its operations, which include pricing, business development, and customer loyalty programs. Big data would provide the company with more information making it easy to make data-driven decisions and tackle solve that respond to changing operating conditions in real time (Akerkar, 2013, 7). United Airlines intends to hire the first Vice President of Big Data. The Vice President of big data would be tasked with the responsibility of use data science to address business problems facing United Airlines. Use of data science would enable the vice president pick the right problems whose solution would deliver the most value to United Airlines. United Airlines would use advanced analytics to convert the mountains of data into actionable intelligence.

United Airlines also intends to use social media to improve its competitiveness. Therefore, it would use social media for customer relationship management. Nevertheless, use of social media in customer relationship management would pose certain threats to the company. It would be vital for the company to formulate strategies on how to handle complaints from customers before they spiral out of control (Wensveen, 2016, 312).

United Airlines also intends to adopt electronic formats in tracking documents and customer luggage. Switching to electronic format would help in improving the efficiency of the company. It would also reduce operating costs as it would reduce the need to set up kiosks in airports for check ins. Customers would use the electronic means to check in and track their luggage.

Despite the fact that United Airlines is a low cost carrier, it should provide in-flight entertainment as customers may spend hours while travelling to their destination. United Airlines intends to use Wi-Fi to provide in-flight entertainment. The company would encourage customers to carry their portable electronic devices, which would receive internet connectivity through Wi-Fi that would be on the aircraft. The airline would create a mobile application that would provide customers with security procedures through their mobile devices. This will reduce the need to purchase expensive in-flight entertainment systems (Taneja, 2016, 63).

Cybersecurity is one of the major issues in the contemporary world. Therefore, it is vital for United Airlines to develop a security plan to ensure that the data it collects from its customers is not compromised. Leakage of the data may make the airline loose its competitive edge if the data is acquired by its competitors.

It is vital for United Airlines to use technological tools to determine how it may reduce its operational costs. Big data would provide the airline with insights on size of customer luggage, which would help the company develop campaigns that encourage customers to carry less luggage. Wi-Fi connection would also reduce the need to install heavy in-flight entertainment systems as customers would only have to carry their mobile devices. This would help in reducing fuel costs, which is one of the major operational costs of most airlines.

The assumptions of the technological roadmap are that the company would have funds to implement the initiatives and that customers would be willing to share data with the company.

Reference List

Akerkar, R. 2013, *Big data computing*. Boca Raton, FL: CRC Press.

Taneja, N.K., 2016, *Airline Industry: Poised for Disruptive Innovation?*. London: Routledge.

Wensveen, J.G. 2016, *Air transportation: A management perspective*. London: Routledge.