

Example of boeing e-enabled advantage case study

[Business](#), [Company](#)



Background of Boeing Company

The current paper related to the study of Boeing Company which was founded in 1916 by William Boeing. Boeing was first planned a Company manufacturing small seaplanes. The Company served the government of New Zealand. Boeing planes were used for mail delivery and training pilots. Currently, Boeing is one of the largest US plane manufacturers competing with Airbus. Boeing gained popularity during the World War I for the first time when the US government ordered a large quantity of seaplanes. In 1954 the Company entered commercial aviation market. In 1985 the Company had become successful due to huge sales. Starting from 1992 Boeing employed approximately 150, 000 of people earning 1. 55 billion dollars. It dominated in the market till the middle of 90's due to the military and space contracts. However, in 1997 Boeing faced the problems related economic slowdown caused by the Gulf War and increasing competition in the market. Also, the Company failed to meet delivery schedules in time causing production delays which resulted in a loss of \$178 reported in 1998 (Applegate, Valacich, Vatz and Schneider 2).

Problem Statement

In 1994 the market started to mature and the Company needed to revitalize it. It was obvious that the Company needed to develop a new strategy aiming to improve its e-enabled environment because Boeing major customers - airline companies - failed to cope with its new onboard LAN and server. The Company was depended on commercial aviation market which was highly cyclical. A transformation from manufacturing commercial

jetliners was needed. The management of the Company felt the necessity to diversify its business geographically. Also, the Company attempted to cut the costs using lean manufacturing. Boeing lacked the labor and parts to approximately double its planned production (Applegate, Valacich, Vatz and Schneider 13).

Analysis of Problem

Boeing operated in a highly competitive environment. The market is influenced by two major competitors: Boeing and Airbus. The industry was characterized by low threat of substitutes. A passenger airplane could be substituted by a car, a train, a ship, private jet or a helicopter. Bargaining power of suppliers was low because the Company could negotiate the price due to the economy on scales. For example, Boeing had more than 10, 000 suppliers in 66 countries. Bargaining power of customers was low because Boeing had been a leading manufacturer in aviation industry for many years. Threat of new entrants was low because a significant amount of investment was needed to launch a new line of production of commercial airplane. The Company possessed the following strengths: it succeeded to gather detailed information about its customers, it had large scale integrations systems, and it had a healthy business with innovative products and services. The weaknesses of the Company were as follows: a history of production delays and the need to retrofit existing fleet.

Alternative Solutions

Shift to e-enabled opportunity was a pivotal moment in the Company history. There were several opportunities for Boeing taking into account the situation

that occurred, namely: acquisition that would allow the Company to become stronger, implementation of IT excellence program, and implementation of operational excellence program. Implementation of lean manufacturing was an alternative which supposed to better manage manufacturing process. However, the Company failed to implement this approach since lean manufacturing principles did not match Boeing culture. Boeing Company management chose to launch e-enabled environment - on-board LAN and server. This path was suggested to help the Company to develop more integrated network thus shifting to the strategy that was opposite to that used before.

Criteria for Evaluation of Alternatives

When evaluating alternatives managers usually use quantitative and qualitative factors. Quantitative factors can be measured numerically while qualitative factors are intangible by their nature. Quantitative and qualitative factors are interconnected. For example, if quality of labor force is poor, even an excellent plan of production is useless (Applegate, Austin and Soule 363). For analysis of alternatives two techniques can be used, namely: marginal analysis and cost effectiveness analysis. The purpose of the marginal analysis is to compare additional costs of the project with additional revenues that could be potentially derived from implementation certain excellence techniques. If the additional costs are greater than the revenues, then the project should be declined. Cost effectiveness analysis is an improvement of the marginal analysis. According to this technique an

alternative which provides maximum benefits and minimum costs are selected (Applegate, Austin and Soule 451).

Evaluation of Alternatives

Despite of many advantages offered by acquisitions including new market share expansion, elimination of competition, cost saving, and capital increase, they also have many disadvantages. For example, merge can be met with resistance from the employees' side, panic, and loss of enthusiasm for work. All these factors may negatively impact profitability of the company.

Among the three alternatives that were considered there were acquisition opportunity, IT excellence program and operational excellence program. Operations management approach called lean manufacturing was implemented in the Company, but it did not bring needed results. Thus, operational excellence was possible only in marriage with IT excellence. Thus, e-enabled tools were supposed to help in the situation. E-enabled tools included Maintenance Performance Toolbox (MPT), Electronic Log Book (ELB), Airplane Health Management (AHM), and Electronic Flight Bag (EFB). Thus, a new strategy was developed in order to use technology to integrate information from passenger services, flight operators, and maintenance services (Applegate, Valacich, Vatz and Schneider 22).

Recommendations

Implementation of Boeing e-enabled advantage was beneficial from several perspectives. First, operational excellence supported by innovative IT system can be significantly improved due to the refinement of supply chain. Second,

the system allows monitor the need for repairing. Route data of any airplane is managed in a way so the optimum route is planned. Also, crew management includes checking schedules with opportunity to reschedule hotels and transportation even if a crew is onboard. Thus, Boeing succeeds to create high costs for its customers aiming to switch to the services of other companies developing a significant competitive advantage. Third, a new IT system helped manage risks related war and terrorism issues, and shortage of strategic supplies. E-enabled advantage directly deals with the supply chain of Integrated Material Management (IMM) and helps monitor the turnover of the parts of airplanes due to Airplane Health Management (AHM).

Implementation Plan

First, a consultative selling approach should be implemented to develop partnership relationships with the customers. This step would require a compiling a business plan which would fit the requirements of the operating environment. Second, the Company needs to emphasize on communicating the value of e-enabled advantage to the customers. Third, Boeing should system integration of a large scale in order to equip its products with e-enabled IT capabilities. However, there is a threat that customers may perceive Boeing as a service provider. This is the reason why Boeing should differentiate between the airplanes manufacturing and service provision.

Works Cited

Applegate, Lynda M., Valacich, Joseph S., Vatz Mara E., and Schneider Christoph. " Boeing's e-Enabled Advantage." Harvard Business School (2006): 1-34. Print.

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Applegate, Lynda M., Austin, Robert, and Soule, Deborah. Corporate Information Strategy and Management: Text and Cases. 8th ed. New York: McGraw Hill/Irwin, 2008. Print.