Boeing Case Analysis Essay, Research Paper

On December 1996, the Boeing Company purchased McDonnell Douglas for a premium of 21% over the price of its stock. This move gave Boeing the opportunity to increase its value by transferring its knowledge across business units, both commercial and defense aircraft. But in the two years after the merger, Boeing?s stock lost one third of its value due to increased inefficiencies and costs associated with the merger. Would this merger really add value to Boeing or would the costs outweigh the benefits gained.

The Aerospace Industry

Commercial Aircraft

The commercial aircraft industry had experienced a significant change during the deregulation of domestic airlines in 1978. The deregulation resulted in an increase in air travel, intense airfare competition among carriers, the entry of low-cost and low-capacity airlines. This increased competition shifted the focus of aircraft manufacturing from performance to low cost and from service to price.

Other significant characteristics of the commercial aircraft industry are:

? High barriers to entry: These were due to the very high and increasing costs of product development, the need to establish long learning curves and achieve economies of scale, no guarantee that the company would ever break even. This meant that a company had to wait for at least a decade to reach break-even point, and hope that the technology would not be obsolete by that time. Economic failure was the norm instead of the exception in the aircraft industry.

? Deep cyclical movements between booms and busts

? Subcontracting: Grown in importance as aircraft components became more and more complex. This was seen as way of sharing the risk associated with a project, where the most efficient subcontractors would win bids to provide part of the assembly to a larger contractor.

? Risk taking is rewarded: Although very large investments had to be made to develop unproven technologies, these were rewarded by capturing market share quickly and becoming the most profitable aircraft models.

? Production around families of planes: To reduce manufacturing costs and increase an aircraft?s future lifespan with affordable fuselage changes.

? Product Development: Had been the preferred growth strategy by manufacturing companies. Developing a new family of planes was necessary to secure future market share.

? General Agreement on Tariffs and Trade: Limited the amount of government subsidies available to both Boeing and Airbus.

? Airbus Industrie: A consortium of four countries pooling their resources together. Boeing/McDD and Airbus created a duopoly in the industry, characterized by intense competition to increase or protect market share.

Defense and Space

The US government was by far the largest single customer for non-commercial aerospace products and services. This meant that all sales were strongly determined by political considerations. Foreign military sales were determined by foreign policy, while domestic sales were determined by Congress? debates on the budget. This created a favorable environment because there were neither excessive risks nor volatile changes in market demand. Contracts with the military spanned many years and were paid under a ?cost reimbursement? plan starting in the early 1990?s.

On the other hand, the shrinking defense budget led to large-scale mergers and acquisitions among defense contractors and a growing consolidation in the industry. This left only four remaining defense conglomerates, Lockheed Martin, Boeing-McDD, Raytheon and Northrop Grumman. The defense budget stabilized in 1997 at about $250 billion and was expected to increase moderately between 1998 and 2003.

Because contracts for the military and NASA were extremely technically demanding in many fields, all manufacturers were intertwined in a web of subcontracting. Although a single contractor would win a bid to assemble and deliver the final product, a majority of the components would be subcontracted to competitors. A subcontractor could also be the technological leader in the assembly of any one component and thus manufacture a large portion of the total without winning the primary contract.

Post-Merger Internal Analysis

With the acquisition of McDonnell Douglas, Boeing became the world?s largest producer of military and commercial aircraft and the second largest supplier to the US Department of Defense. This was a very related diversification strategy, since both industries have many engineering, technology and manufacturing commonalities. This merger had two major benefits;

1) Knowledge transfer: between military and commercial divisions. Experience in the commercial division would give Boeing the cost discipline necessary to win government contracts, while technical knowledge in military aircraft could be transferred over to develop better commercial aircraft. This knowledge transfer had historically played a key role in giving Boeing technological leadership as it employed its knowledge from the defense industry into developing jet commercial aircraft, and achieving market leadership. Even the competition acknowledged knowledge transfer to be an enormous advantage.

2) Risk Pooling: The merger was also supposed to lessen the effects of the deep business cycles associated with commercial aircraft. Increasing the % of revenues derived from the defense industry, subject to long-term contracts and lower volatility would help in weathering deep recessions in the commercial aircraft industry.

But Boeing also experienced some problems. As its revenues increased by over 60% immediately after the merger, the company suddenly had to take on many new responsibilities. In the process, management committed a major blunder by focusing almost exclusively on expanding its military business, at the expense of overlooking many problems in the commercial aircraft group. As a result, Boeing ran into many problems. It quickly failed to control costs, mounting assembly line problems and delayed materials orders. These put Boeing at a disadvantage against Airbus, which had developed lean-production systems, and forced Boeing to drastically cut prices to protect market share. In the process, Boeing gave up its technological leadership and any competitive advantage it had created.

Boeing?s turnaround strategy was based on;

1) Reorganization of Boeing?s two major product groups. All products and services were grouped into separate, autonomous divisions with carefully drawn boundaries and responsible for their own financial performance. This reorganization is effective in eliminating bureaucratic costs associated with managing resource-sharing across many business units.

2) Replacement of the executive responsible for running the company?s commercial airplane division

3) Introduction of radical cost-cutting measures: such as downsizing, introducing a new computerized system to reduce inventory costs, building a flexible, integrated production-management system that would link its separate computer system, and reducing the number of special features it introduced into a variety of aircraft models.

4) Hiring of a new chief financial officer from outside the company: Her plan consisted of obtaining more accurate cost data and providing it to line managers in a timely manner, determining the risks of undertaking large projects in a more methodical way, discontinue unprofitable projects, and to increase Boeing?s reliance on the outsourcing of aircraft components, systems and equipment.

This turnaround plan addressed many important issues but had two main problems. First of all, the decision to lay off 30-50 thousand workers and replace their output by subcontracting did not improve profit margins in the commercial aircraft group. Margins remained at a dismal 1-3%, compared to a steady 8% in the defense aircraft group. This could be to higher costs of components from contractors. On the other hand, subcontracting does have the benefit of lowering the amount of risk associated with large investments in specialized assets that would be rendered almost useless in a deep recessionary cycle. Subcontracting also remains a very important issue because Boeing recently had to grant their labor unions very generous contracts in order to avoid costly strikes. A major point of these contracts diminish the company?s ability to decide which jobs to cut and subcontract. This lack of flexibility could hinder Boeing?s performance in a recession, as its labor costs cannot be adjusted downward.

A second problem with the turnaround plan is its inability to address Boeing?s loss of technological leadership to Airbus Industrie, a differentiating factor that had given Boeing a strong competitive advantage throughout its history. Boeing had acquired its technological leadership from its research and development investments, striving to develop new and unproven technologies. But it has recently changed to a more conservative attitude, perhaps in an effort to lower risks. Its plans to abandon development of a new supersonic commercial jet, and reducing R&D expenditures from $1.9 billion to $1.5 billion in the next few years show a lack of vision and commitment to innovation. This could be the factor that permanently relinquishes technological leadership to Airbus.

Recommendations

1) Subcontract as much of the component assembly as possible, within the limits of union contracts. Subcontracting should be done for all those components whose technologies are not crucial to Boeing?s product differentiation, i.e. standardized products and services. Subcontracting should be done as long-term relationships in order to provide greater value added in the production chain. Boeing should stress a commitment to purchasing from its subcontractors, at a price that offer value to both parties, as long as several criteria such as product quality, delivery and flexibility are met. These long-term relationships will create greater value to Boeing, compared to bidding contracts, due to the long and pronounced business cycles since there are usually considerable investments by the subcontractor into specialized assets.

2) Increase R&D spending to regain technological leadership. Although Boeing commercial aircraft group will benefit from R&D spent in the defense group, it should at least match its pre-merger commitments to R&D because regaining technological leadership is more expensive than maintaining it.

3) Embark on new, riskier projects that will revolutionize the commercial aircraft industry, such as its aborted supersonic commercial jet. Besides sparking new demand and creating a new market, this project would also be a competitive weapon against Airbus?s entry into the jumbo jet market.

4) Although Boeing?s next CEO should be someone who has been created within the organization, the company should still strive to have more directors from the outside. The CEO should be and engineer who has grown to best understand the industry. Directors brought in from other companies and industries will give Boeing the proper business discipline by bringing in new ideas and break groupthink.

Bibliography

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