

iridium case study essay sample

Finance



Iridium is a famous case in which Motorola and other well known companies invested about \$5 billion in a satellite venture that would enable a person to use his cell phone around the world. The investment included more than \$2.2 billion in debt. Soon after operations began, the company declared bankruptcy and its assets were ultimately sold for only \$25 million, leaving the lenders with a total loss. It is obvious that projections made by the company and endorsed by the most prestigious banks on Wall Street were comical leading to massive losses for banks, debt investors and equity investors. It is also clear that the company made some mistakes in marketing such as not having sufficient phones available after a major advertising campaign. The questions I would like you to address in this case are what was underneath the crazy assumptions and financial projections made by these highly respected financial institutions and how could the banks and other institutions make the loans.

Step 1: Skim over the Case Write-ups

Because the case was such a dramatic failure, a number of case studies have been written on the case. For background, I have attached three case studies written on the case (one from Harvard, one from Northwestern and one from Thunderbird) as well as financial documents published by the company. You do not have to read everything in detail, but just skim through the readings three cases to get a general idea what the case is about (I think it is easy reading).

Step 2: Mechanical Modelling Issues

I have used data from the case studies and actual financial statements to create a “base case” financial model in the attached file name “Iridium

Case Study Exercise.” In preparing the case, the first step (after reviewing the three readings) is to fill in the blanks for various items in the model. The idea behind doing this is so that you understand the mechanics of the model and see some of the complications of a more realistic model than the ones we completed in class. To do this, fill in the grey areas of the sheet: Compute the number of subscribers that were supposed to be realized from business travelers through multiplying the travelers by the penetration.

Compute the total revenues from minutes of usage realized by Iridium in the base case. Compute the cost per hour experienced by users in the base case. Compute the total working capital and change in working capital Compute the Debt Balance for Senior Debt B (See how it was done for Senior Debt A). Compute the Aggregate Senior Debt Balance

Compute the Default and Repayment of Default on Subordinated Debt (you can look at the senior debt to see how it works) Fill in the balance sheet and create a verification test Fill in the debt outstanding at the end of the model on the dashboard above the sheet Fill in the average cost incurred per hour for the first five years on the dashboard.

Step 3: Risk Analysis

After completing some of the mechanical steps of the model, I would like you to do some sensitivity analysis, break-even analysis and scenario analysis. Make a graph that shows the amount of senior debt outstanding as a function of penetration sensitivity and the price sensitivity. The title of the graph should show the number of subscribers in 2002 and the total cost per

hour for the subscribers as well as the sensitivity factors for the penetration and the total cost incurred by retail consumers.

Use a data table and the sensitivity factor on the penetration rate to compute the minimum number of subscribers required to break-even from the standpoint of senior debt. Pretend that a downside case involving a maximum penetration for business travelers was 5% and that the maximum effective price results in a charge of \$50/hour. If the satellite life were extended to 14 years and the Motorola contract were cut in half, could this more realistic scenario have worked and allowed the debt to be re-paid. (When the company was sold for \$25 million, the contract was dramatically reduced and the new company is using a 14 year satellite life.)

Step 4: Project Viability

The ultimate test is whether the technology is cost effective, despite all of the talk about marketing. The phones were obviously bulky and there were service problems because the phones were difficult to use in buildings. Despite all of this, if the price was low enough, the system may theoretically be viable. Since most of the costs were fixed, if the price was low enough to encourage much higher usage, maybe the technology would have been viable. I would like you evaluate the cost structure of the model through doing the following: Run a case with much lower prices – down to \$. 25 per minute on a retail basis (do this by adjusting the sensitivity factor for retail rates). Then increase the usage and compute the amount of usage required to break-even.

What is the problem with this scenario in terms of the capacity of the satellite system.

Step 5: General Discussion about Mistakes Made by Bankers

In the final part of the case I would like you to think about the underlying mistakes made by lenders in making more than \$2 billion of loans. Please do not simply say that projections of the number of subscribers and the price realized by the company were absurd –we all know that now. Address the question of whether an untested marketing plan on a new product with high prices is bankable under any circumstances. Discuss issues like: In general, can you make loans to companies when there is no operating history; General problems with accepting work of marketing consultants without testing the analysis on an independent basis; For example, not trying out the phone;

For example computing the cost of use per hour and evaluating how many people would really make such an expenditure; Focusing on the cost of the technology and effective rates paid on a retail basis rather than financial projections; What would have happened to the project if the banks would not have made loans Is creation of a financial model a good idea so that one can see all of the explicit and implicit assumptions that are made What is the most important statistic in the model.