# Enterprise Risk Assessment, Measurement, & Management for Information Professionals

## Case Analysis Worksheet: Microsoft Case (in Barton, Shenkir & Walker 2002)

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| **STUDENT NAME: William Chen** | **CASE NAME: Microsoft** |

This worksheet follows the ERM Process model used in IST 425 and IST 625. The cases we study, however, present information throughout the chapter. If you try to answer questions as you read the case the first time, you will miss many of the important facts presented later in the case and may have problems presenting your information in an insightful manner. In responding to questions, do not just quote or copy, but synthesize. Reference specific facts, including page numbers.

Remember, read the case three times. The first time you read the case, focus on the story and make not of the types of information provided. The second time you read the case, work to fill in the worksheet (keep track of page numbers for particularly relevant information). The third time you check over the case, look for other information to elaborate or support your responses.

1. **This case addresses a very large organization in the high tech sector with both common and different risks from our other cases. What are some of the unique terminology or organizational aspects that were new to you?**

I understood most terminologies, but one term that was new to me is “white paper.” I later learned that a white paper is a report that informs a group about an issue to help readers make a decision. Something that I found interesting (and new to me) was how Microsoft divides its business. They have a business application group, consumer group, developer group, and a platforms group. Another new thing to me is Microsoft's systems, such as IRMA (Internal Risk Management Application), Gibraltar, and DNS (Digital nervous system).

1. **After reading the case, what do you feel are the *most important facts about* the company’s industry, business, markets, founding or other history that influenced the firm’s RISK culture? Which of these do you feel are the most important in sharing their risk culture?**

One of the most important things about how Microsoft operates is forming and managing its risks before forming a risk management group. Microsoft had risk management in the Treasury Department during the 1990s but formed a risk management group in 1997. The company could function without having a risk management group because they didn’t need one at the time (or at least according to them). When stakeholders ask them questions such as how much risk Microsoft is taking, Microsoft has to clarify the question because the question could mean many things. However, when they moved into an ERM structure, they did many calculations, such as the VAR calculation, to respond to that question. I think one of the most important things in their risk culture is communication. They mentioned that Microsoft has financial data readily available to its employees, and they also have many people who look at risks in the many projects Microsoft has.

1. **Why did Microsoft feel they needed to make a change to an Enterprise Risk Management view of risk? Who championed the change initiative to ERM? Do you feel that they would have been more or less successful if they had done it differently?**

Before the ERM structure, Microsoft didn’t know how to answer how much risk they were taking. They were asked that question many times and were likely tired of getting clarification, so they created risk measurement strategies. They also had many departments, and it was challenging not to have a risk team to manage the business risks. Especially since it was likely Bill Gates taking on most of those risk decisions. I think it was Bill Gates that initiated the change to ERM. Depending on how they would’ve done it differently, I think Microsoft would be less successful. Thinking back on the Chase Manhattan case and how they structure their ERM, if Microsoft changed their structure to that, it would be more difficult because of the many markets Microsoft is involved in. For example, they’re involved in the technology sector but also the traveling industry. Having multiple risk committees in each industry would be more complex if Microsoft was like Chase because of the possible lack of resources (such as qualified employees) and who they would report to.

1. **How did Microsoft structure their ERM? (Describe the structure as centralized, decentralized or hybrid.) Why do you think Microsoft structured their ERM the way they did? For example, why not have a Chief Risk Office (CRO)? As part of moving to an enterprise approach to risk management, did they radically change their approach or build on their past approaches? Is there anything that you feel is particularly effective about their structure, given their type or size of organization?**

Microsoft’s ERM structure is centralized because all of the decisions come from the c-suite level. At the beginning of the case, it said that Bill Gates was essentially the CRO because he’s the one that takes the risks of the company’s products and market. Microsoft decided not to have a risk management committee because it was impractical. They structured their ERM this way so everyone in the higher management could be aware of Microsoft's risks. Additionally, the risk management group provides insight into each of the business units/departments, such as finance and business risks. A lot of information is also shared among the company through the intranet. According to the case, Bill Gates says that companies should stop protecting financial data, and employees should be taught how to analyze and act on the data. Microsoft built on their previous risk management approach by how they tackle risks. They involve everyone in looking at risks and data, but only the people higher up make the decisions. Given the size and business of Microsoft, I think having people involved in the many projects and business divisions is a good idea. Having someone specializing in risks and reporting those risks to receive feedback is good because it shows that the company cares about making the job easier and more streamlined.

1. **What were two of the company’s biggest challenges or strengths in making the transition from their old approach to dealing with risk to the new focus on Enterprise-wide Risk Management? Why were these challenges or strengths for their firm? Do you think every company would face these same challenges? Do you think Microsoft’s strengths were unique to them? Why or Why not?**

One of the biggest challenges in the transition was being able to manage business risks as well as financial risks. Microsoft could measure financial risks using the VAR calculation (along with the systems they created). These various systems allow Microsoft to look at how the systems measure risk similarly and differently. If they determine a pattern or similarities among the systems, they can prioritize those risks and find ways to mitigate them as much as possible. However, business risks usually involve employees, and it's hard to measure employee performance with risks. They can minimize risks to their infrastructure (such as having backup servers in case of an earthquake), but if an employee doesn’t speak about a risk they encounter in a project, it would be harder to mitigate the risk results. I think Microsoft is very strong in managing financial risks. As mentioned earlier, Microsoft created systems to measure financial risks and simulated risks. These systems put Microsoft ahead of the possible financial risks if an event were to happen. This allows Microsoft to adjust how they operate in case of an event such as an earthquake (which would cause damage to infrastructure and loss of service). Continuous service is vital to Microsoft, so they utilized different management strategies to keep stockholders’ content (keeping a relative stock price). These are challenges for Microsoft because it’s hard to keep all employees involved and engaged with risk management. I think many companies face similar risks, and the business risk is like the operational risk with Chase. It was hard for Chase to “control” their employees, and they were susceptible to human error. The way Microsoft handles financial risks is unique to them because they built various systems to measure financial risks. If they used a general VAR calculation, then it wouldn’t be a unique strength.

1. **Using the Risk/Measurement/Management table below, identify five risks and align with one or two risk measurement metrics and with the at least one management approaches (e.g. consider different techniques they used to mitigate, transfer, or share a risk. Be specific.).**

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| Risk (definition and example) | Measurement Strategies | Management Strategies |
| Financial risk – people not using Microsoft’s products | Determine how many users stop using a product such as Windows and the financial implications of this. | Gibraltar – perform VAR analysis on how many users can stop using Microsoft products before experiencing significant financial impacts. |
| Business risk – entering a new business field | Measure the financial risks using Gibraltar and restructure leadership styles | Get the required certifications (if required) and look at the potential losses with entering a new market |
| Business risk – weather risks to infrastructure | Scenario analysis – examine previous weather risks and look at the damages caused to infrastructure | Scenario analysis – analyze different scenarios to quantify how the recovery costs and property damage.  Create disaster recovery plans that allow Microsoft to continue their business without interruptions |
| Market risk – stock prices drop, causing financial losses | Gibraltar – do VAR calculations to estimate market risks and potential losses. | Use the VAR calculations to hedge for minimal exposure to market risks. |
| Business risk – getting left behind in the market | Compare the company to other organizations and what progress they make. | “prepare to replace yourself.” Enter new emerging markets and get a head start and “try and create a monopoly” or a way to make Microsoft stand out from its competitors.  Use Gibraltar to see what processes are behind and ways to catch up. |
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1. **Microsoft uses some unique “risk financing” approaches as part of managing their risks. Describe two.**

Microsoft created Gibraltar, the treasury information system. Gibraltar allows Microsoft to measure the market and financial risks by running VAR calculations among multiple systems. There are also systems to check the numbers that the other systems generated (cross-checking data and finding a pattern). Microsoft also does stress testing on events such as outlier events. For example, if the currency were to depreciate in a country like Russia, what impacts would it have on Microsoft? Microsoft has investments scattered throughout the world, and looking at previous data can help mitigate the risks they encounter. When doing a scenario analysis for earthquakes, Microsoft would analyze what happened in an earthquake that occurred (Kobe Steel in Japan). This allows Microsoft to be prepared for such events to happen and quickly act on the circumstances when it does happen.

1. **How does Microsoft explain their contingency planning methods or disaster recovery strategies as part of their overall ERM approach?**

Microsoft explains their strategies by stressing how important communication, VAR calculations, and scenario analysis are. Throughout the entire case, it’s stressed that Microsoft makes sure everything and everybody is involved with risks. They talk about how the CFO is updated weekly with risks in that week, assigning people to listen to and resolve risk conflicts in projects, and communicating risk among all employees. They involve everyone in the organization but make their decisions with the c-suite committee. Microsoft uses Gibraltar, stress testing, scenario analysis, intranet, and face-to-face time.

1. **What does the company feel are the main benefits of ERM for their firm? Do you agree?**

The Gibraltar, intranet, and scenario analysis are the main benefits of ERM for Microsoft. I agree with this because Gibraltar analyzes financial risks, and it’s a complex system that cross-checks across multiple systems to ensure the data match up. These systems are in place to essentially check each other, like our judicial system. Another benefit is the intranet because it involves Microsoft’s employees, and having them involved means they can partake in measuring and managing risks. Making them more involved allows Microsoft to make their process a little more streamlined to remove a risk or inconvenience altogether. The last benefit is the scenario analysis because it will enable Microsoft to prepare for future disasters based on previous accidents other companies or countries experienced. It gives them a good idea of how to handle certain situations.

1. **What surprised you most about this case? Why? Be SPECIFIC.**

The thing that surprised me most about this case is Gibraltar. I was surprised to learn that Microsoft created multiple systems to run financial calculations. This was surprising because we’re taught VAR calculations and a general formula most companies use. Still, Microsoft went out of its way to build multiple VAR systems that work slightly differently but generate the same outcome. This reduces the likelihood of a wrong calculation because the data is different, but the result is the same.

1. **What do you think is the *most important lesson*(s) to be learned from this firm’s experiences with Enterprise Risk Management?**

The most important lesson I learned is to communicate with each other, no matter the level of the employee. Having people involved from higher-ups shows the lower-level employees that management cares about them and is willing to listen to their problems. This makes work more enjoyable, and they’re more likely to receive feedback on stuff they request. For example, I tell someone about something that I think could be a problem. They resolved my issue, and I have positive thoughts because they did something about my problem. Another lesson I learned is to not focus on the smaller picture. The case mentioned that when Microsoft was analyzing the outcomes of earthquakes, Microsoft wasn’t worried about their buildings because insurance would cover most of that stuff. They were more focused on the data and the contents of the buildings. Focusing on keeping the organization running if something goes wrong is more important than something that can be fixed in months with money.