Example Essay on “What is Risk?”

Risk is uncertainty. In any process, procedure or system, a lack of certainty results in instability, variation or even failure. As these are undesirable outcomes, steps must be taken to reduce uncertainty, which commensurately reduces risk.

For example, the automotive industry relies on a supply chain that has materials and parts produced throughout the world. The price of raw materials, labor conditions, government status, transportation costs, capacity, maintenance, weather, etc are all uncertainties that can affect the global supply chain. If a ship coming from Asia containing engine manifolds is delayed by both weather and a strike at the Port of Los Angeles, production of vehicles at an assembly factory could come to a halt until those parts are released. A mitigation in this case would be if the automotive manufacturer has enough engine manifolds (or any other critical piece) stocked locally to allow for a buffer in the event of predictable and unpredictable delays. This buffer reduces uncertainty associated with the supply chain and thus reduces risk of failing to produce cars, the actual driver of profit for a manufacturer.

Another example is in food imports. While locally produced food is the easiest to control (& thus reduce uncertainty), capacity is rarely large enough to satisfy demand. By importing produce from Mexico, the US derives multiple benefits, including: lower prices, more volume of goods and a supply chain that is not dependent on unpredictable sea transport. Uncertainty in this case comes from differing standards in food safety, transportation regulations and vehicle maintenance. A shipment of contaminated foods would be a complete waste, but equally so if a transport breaks down and is unable to complete delivery causing spoilage. A potential mitigation is to increase the rate of transport where smaller batches are sent more frequently, such that a loss of one shipment is relatively minor.

Risk and uncertainty are certainly coupled together, but critics may also argue that certainty is associated with risk as well. Just because your entire supply chain may be predictable and regular, a production system could experience failure through poor communications with customers or a change in fashion trends. Risk could be associated with both certainty and uncertainty; as there is no such thing as complete certainty, however, the main premise that risk is uncertainty remains true. Critics make the mistake of assuming that certainty itself lacks uncertainty!

Every field has risks associated with it and every one of those risks is based on foreseeable and unforeseeable variables. Those variables represent uncertainty. While we can craft mitigation strategies, the mitigations themselves while reducing uncertainty in some areas, introduce uncertainty in others. The key is finding the right balance such that the end result is least affected by variability. The formula is pretty simple: Decreased risk comes from predictable steps. Predictable steps come from mitigating variability. Variability is uncertainty. Therefore, risk is uncertainty.