**Risk Assessment and Mitigation**  
Risk 1- Operational Risk

* Search engine optimization risk. Google changes its search engine algorithms and the website traffic drops by 50 percent overnight.
* *Hosting risk.* The website hosting company suffers a series of failures and stores are offline for hours.

Mitigation

* If you are heavily dependent on Google’s organic search traffic for your sales, make sure you understand which keywords convert and set up AdWords advertising campaigns that utilize those keywords and landing pages. In the event you are affected by an algorithm change, you can quickly turn on pay-per-click campaigns to remain visible to those searching on your keywords.

Risk 2- Technology Risk

* Negligent errors or omissions in software design
* Internet service provider (ISP) server crashes
* Risk due to excessive ISP outages or poor performance
* Risk of improperly integrating e-commerce system with internal databases
* Inability of customer or supplier computers to handle graphical downloads

Mitigation

* Poor configuration of system and poor encrypted transmission are few factors that let others access your confidential business data illegally. People must also be careful to choose strong passwords.
* Design the UI (front end) keeping in mind the importance of back end development.
* Select databases which are flexible with development.
* All individual components developed must be done with the mindset of full integration.

Risk 3- Information Risk

* After unauthorized access to a web site, online information about employees or customers is stolen, damaged or released without authorization
* Information that has been changed or inserted in transmission is processed leading to erroneous results

Mitigation

* Using the SSL/TLS security protocol is a must to ensure all information exchanged between a shopper and an online store is encrypted and, hence, can’t be read by a hacker.

Risk 4- Business Risk

* Lack of maintenance on existing web pages
* Changes in supplier relationships re: data access, data ownership, distribution strategy, and marketing tactics
* Products out-of-stock due to poor communication with operations
* dealing in illegal products and a lack of a proper return policy
* Inability to manage cycle time for developing, presenting, and processing web-based products
* Improperly integrating e-commerce systems with internal operational processes

Mitigation

* Need things to reassure online shoppers that you have a proper return policy and will replace their product if it’s in any way defective or is the wrong size or color.
* Don’t deal in products that are illegal or use schemes to delude your customers.

Risk 5 – Security risk

* Unauthorized access to a web site
* Infecting a web site with computer viruses
* Denial of service attack

Mitigation

* Use fundamental crypto building blocks that include encryption using symmetric and asymmetric-based key systems.
* There are also block and stream ciphers, MAC implementations, hash functions and symmetric cipher-based functions.

Risk 6 - Delivery Risk

* Decision delays impact project schedule

Mitigation

* Make a flexible schedule with sufficient time duration between tasks.
* Establish guidelines for decision turnaround time.
* Identify tasks that will be exceeded and assign personnel to complete the task.