

ENTERPRISE INFORMATION TECHNOLOGY – OPERATIONS EFFICIENCY

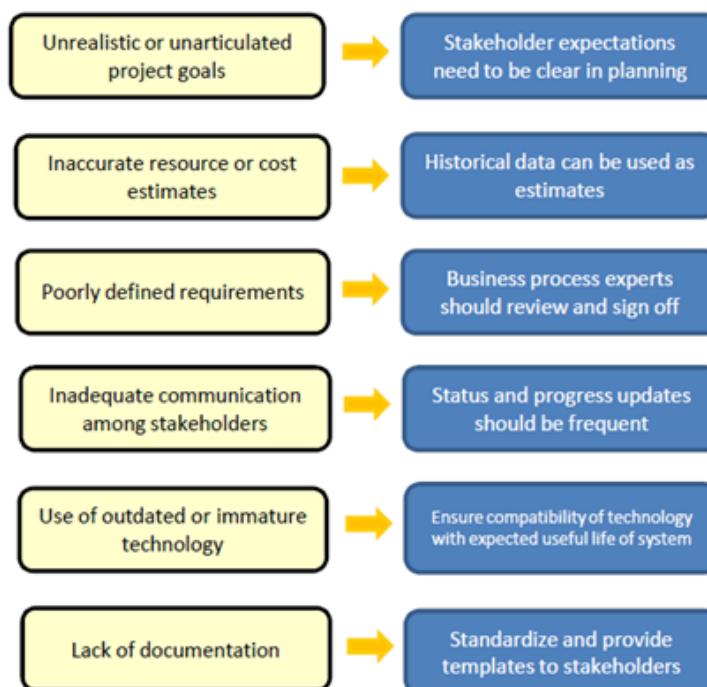
Leveraging Technology for Productivity

Technology can be a double-edged sword, if not employed strategically.

Increasing Technology Integration with Business

Technological advances in computer intelligence and memory has allowed for improvements in streamlining and automating tasks while increasing the output volumes and accuracy levels in all types of business environments. Technology has come to play a vital role in the operation of all organizations, however, along with the increased use of technology there are also a variety of risks that needs to be scrutinized. By planning ahead to develop the best possible solution to mitigate technology risks, the company will increase competitiveness, productivity, efficiency and save costs in the long run.

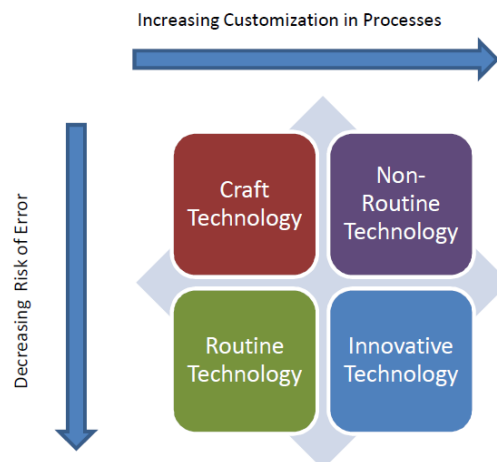
Common Risks and Mitigation Strategies



Types of Technology (Perrow's Matrix)

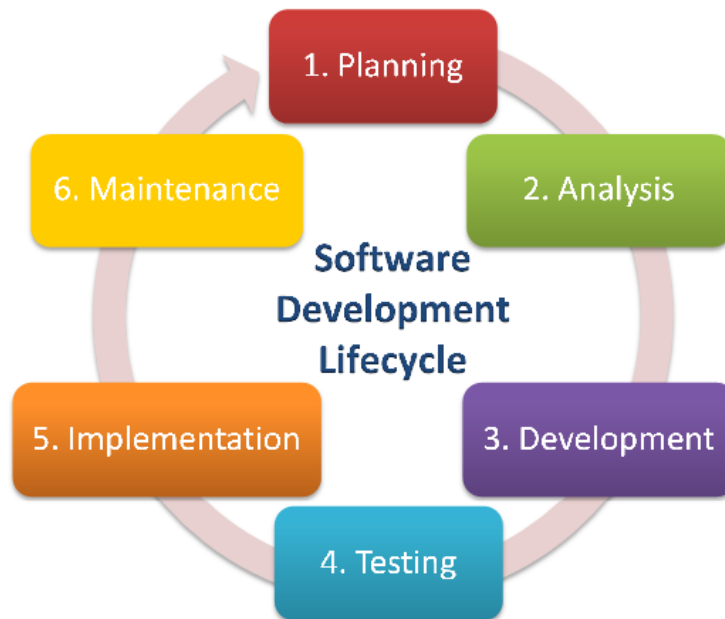
Analyzing customization of processes and risk of error will yield a thorough understanding of how an application should be developed. Technology solutions can be categorized into the following types which affect the approach that should be used to develop these tools:

1. Craft Technology – these tools are used with fairly standard inputs and outputs for a process that may be high prone to error or require special skills to correct the error common in specialized industries. The craft nature of this technology means it almost certainly should be developed internally.
2. Routine Technology – these tools are for operations that are fairly standardized and the risk of error is low or can be easily corrected. This type of technology replaces cross functional general tasks or cross industry generic areas such that purchasing from a vendor would probably provide a sophisticated and cost effective solution.
3. Non-Routine Technology – these tools deal with high customization with varying inputs and outputs desired from the process and are high risk of error. These types of projects are the most complex and generally should be developed internally with detailed project planning and collaboration with business partners
4. Innovative Technology – these tools deal with high variations in inputs and outputs, but unlike Non-Routine technologies this group has low risk of error mostly because these are to deal with processes that are new and considered experimental



The Software Development Lifecycle

Regardless of the complexity of the business problem that the technology is to solve, the same methodologies and thoroughness should be followed in the development process also known as the Software Development Lifecycle. Each organization will adopt this model and modify the component steps to suit their business needs, but it is important to not allow deadlines or commercial pressures to lead to 'cutting corners' by neglecting any of these key steps.



Conclusion

Organizations are striving to pursue alignment of technology with corporate goals which is a daunting task given the many potential risks that exist. Artificial intelligence is impressive, but it is limited by the human intelligence that has designed and developed it which indicates the importance of the preparatory planning and management an organization must conduct to ensure the most beneficial solution is undertaken. The reward of leveraging technology at the right level is to enable the organization to act on strategic choices and progress towards future visions. ✨