

#### CHAPTER 2

# CRITICAL SUCCESS FACTORS FOR IT PROJECTS

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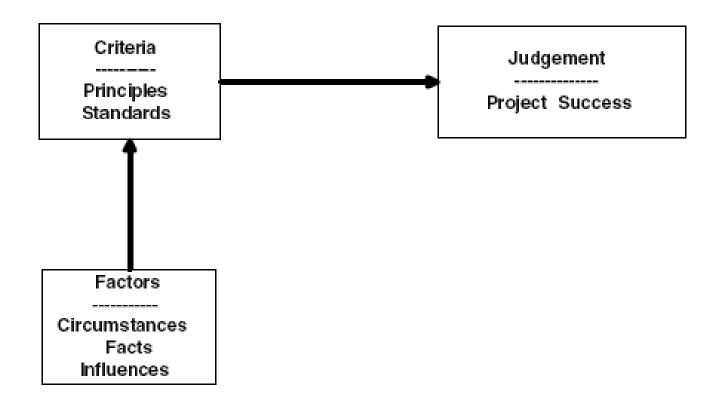


Lim and Mohamed defined two perspectives, the macro perspective, which involves all the stakeholders, and the micro perspective, which involves only the construction parties such as the developer and contractor(s). The macro perspective is relevant for all phases of a project from conceptualization, through construction, and then operation. The micro perspective is most relevant for the construction phase.



- The criteria are "a principle or standard by which anything is or can be judged"; factors are "any circumstance, fact, or influence which contributes to a result".
- Factors for the completion criteria would typically include financial variables, process variables, resource variables (cost, availability, skill, motivation, etc.), management variables (project manager skill, line management support, etc.), and risk variables (weather, economy, technology, etc.). Factors for the satisfaction criteria would be those things that drive the satisfaction of the stakeholders.





# IT PROJECT SUCCESS

Completion Criteria

> Scope Time

> > Cost

Satisfaction

Criteria

Utility Operation Quality Overall IT Project

Success

#### **SOFTWARE RISKS**

-'Jones" studied software risks in different IT environments and identified major issues and related metrics. For example, MIS software problems were "creeping" requirements (80%), excessive schedule pressure (65%), low quality (60%), cost overruns (55%), and inadequate configuration control (50%).



- User involvement
- Executive management support
- Clear business objectives
- Experienced project manager
- Minimal scope and requirements
- Iterative and agile process
- Skilled personnel
- Formal methodology
- Financial management
- Standard tools and infrastructure



- Ability to Perform
- Commitment to Perform
- Methodology: Involves the selection of specific IT software engineering processes (requirements analysis, systems analysis, design, development, documentation, testing, etc.) and how these processes will be organized, utilized, and integrated both amongst themselves and with the project management processes.
- Verification: Involves "built-in" quality or "defect prevention" and concerns the quality of the development processes, thus answering the question, "Have we built the product right?" Formally, verification is proof of compliance with requirements, specifications, and standards. Verification processes usually result in exception (bug) reports where compliance is not achieved.



- Technology: Involves the proper selection of applicable technology for use both in the product and in the process of building the product. It covers architecture, platform, language, tools, and supporting technology selection as well as issues of each including the maturity, stability, and support thereof.
- Project Management: Addresses the use of proper project management skills and knowledge in dealing with planning, schedule, cost, scope, risk, human resources, and stakeholders; this is what the Project Management Institute (PMI) calls "knowledge areas." Also included herein are the capabilities and experience of the project manager.

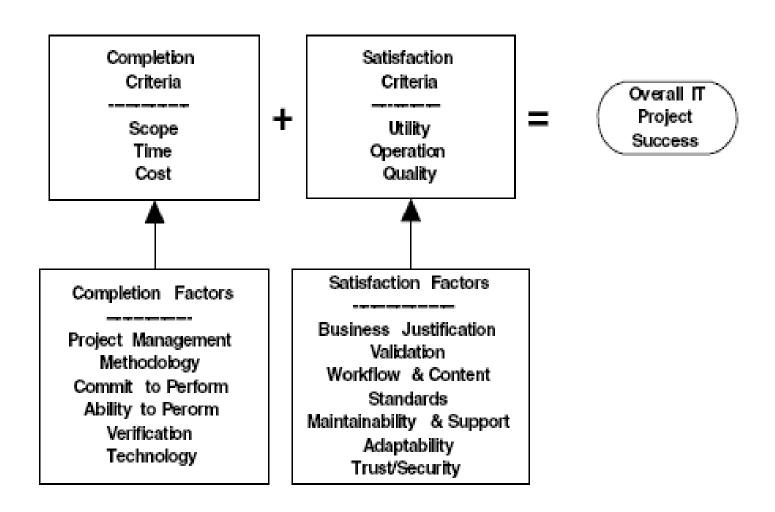


- Business Justification
- Validation
- Standards: Relate to compliance with applicable industry, corporate, and user (customer) standards in regard to both external (i.e. user interface) and internal issues (i.e. coding standards).
- Maintainability and Support
- Adaptability
- Trust and Security: Relates to both the security built into the product and to the security of the process for building the product

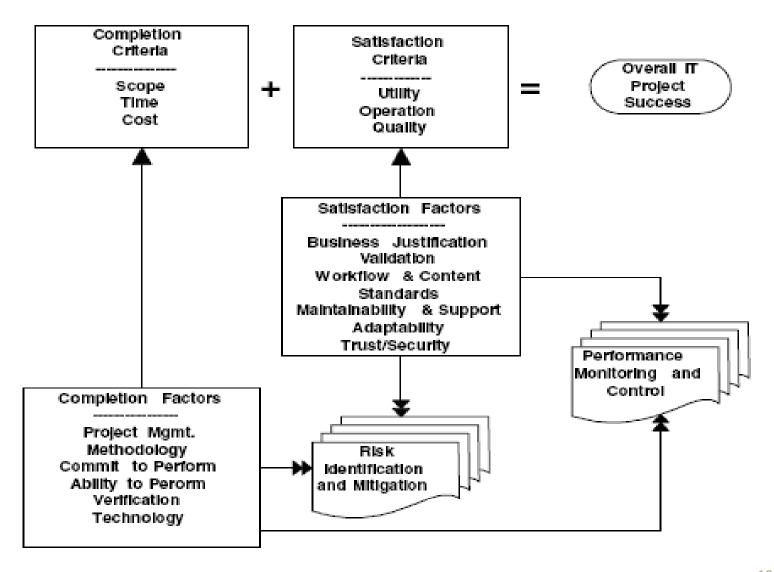


- the most effective method of modern strategic management is the Balanced Scorecard Method (BSC), which divides strategic metrics into four perspectives: financial, process, learning and growth, and the customer's perspective.
- -our completion criteria map to the BSC financial and process perspectives; and our satisfaction criteria map to the BSC learning, growth, and satisfaction perspectives.

## CRITICAL IT SUCCESS FACTORS



#### Success factors and performance/risk management



### Risk framework and success factors

Risk Source Framework											
	Potential Hazards										
	Internal						External				
Threats to:	Product	Process	People	Organization	Other		Product	Process	People	Organization	Other
Completion Factors											
Project Management											
Methodology											
Commitment to Perform											
Ability to Perform											
Verification											
Technology											
Satisfaction Factors											
Business Justification											
Validation											
Workflow & Contents											
Standards											
Maintainability & Support											
Adaptability											
Trust/Security											