Management Criteria for Effective Innovation

Overview/Introduction

The Determinants of Success
- The Determinants of Success
  - Technology and Business Context
- Balancing Old and New Constraints
  - What fundamental technical constraints limiting the prior art are lifted?
  - What new technical constraints are inherent in the new art?
  - How favorable is relief of the former weighted against the stringencies of the latter?

Forecasting Future Innovation

Conclusion

Overview

- Since World War II
  - Innovation has been norm
  - Rapid technology-based innovations
  - Crucial source of prosperity
  - The panacea for all business solution
- Lessons Learned from well-documented innovations (1978)
  - Transistors in consumer electronics
  - Jet engine in subsonic jet transport
  - Two immature innovations: the Supersonic transport Computerized Automobiles

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The Determinants of Success

Putting Innovations in Context
- Is the end product enhanced by additional technology and components required to make use of innovation?
- Is the inventive concept itself diluted or enhanced by the embodiment required?
- Does the additional embodiment offer opportunities for further inventive enhancement?

A Balance Sheet on Financing Business Operations
- What previously emplaced business operations are displaced or weakened by the new innovations?
- What new business operations are needed or wisely provided to support the new innovation?
- How favorable is cessation of the former practices weighted against provision of the latter?

What Will Sell and What Won’t
- Does the product incorporating the new technology provide enhanced effectiveness in the marketplace serving the final user?
- Does the operation reduce the cost of delivering the product or services?
- Does latent demand expansion or price elasticity expansion determine the characteristics of the new markets?

Putting the Determinants to the Test of History
- The Japanese Portable Radio Game
- Auto Radios and TV: Who Needs Transistors?
- Summing a Transistorized Balance
- The Battle of the Turbines
Forecasting Future Innovation

- Automotive Microprocessors: Everything Up
- The Fundamental Problem of Super Sonic Transport

Conclusion