

INNOVATION: THE HARD CHOICES

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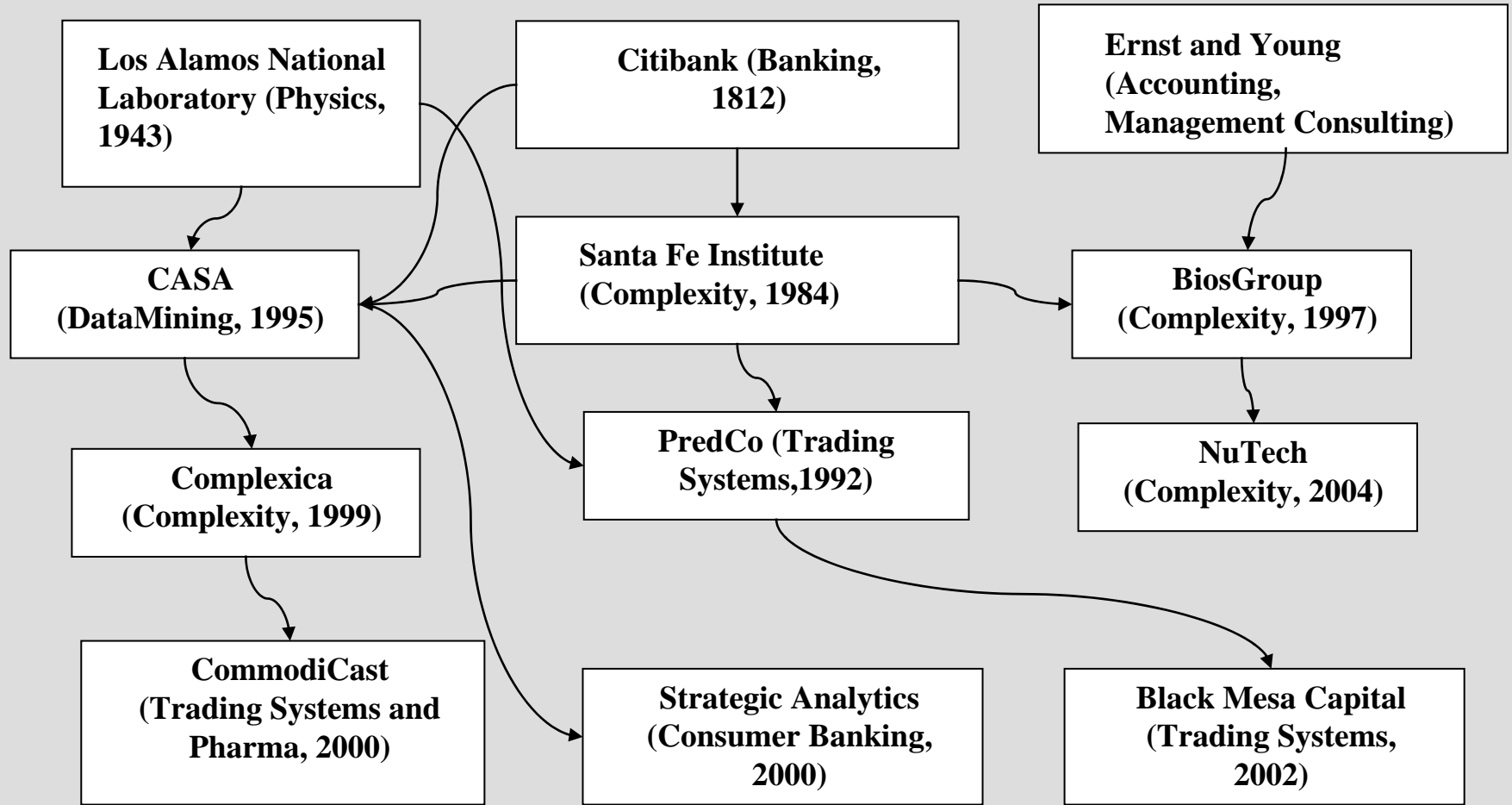
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What are we going to talk about?

- The relationship between technical innovation and marketing innovation
- Technical innovation
 - Incremental
 - Radical
- Marketing innovation
 - Sustaining
 - Disruptive
- Innovation must continually fight against the opposing force of “commoditization.”
- We point out that the innovation/commoditization process is dynamic and there is no fixed point for the system. A successful company is one that can “surf” the innovation/commoditization wave.



New Mexico Entrepreneurial Environment: (A simplified illustration of one branch)

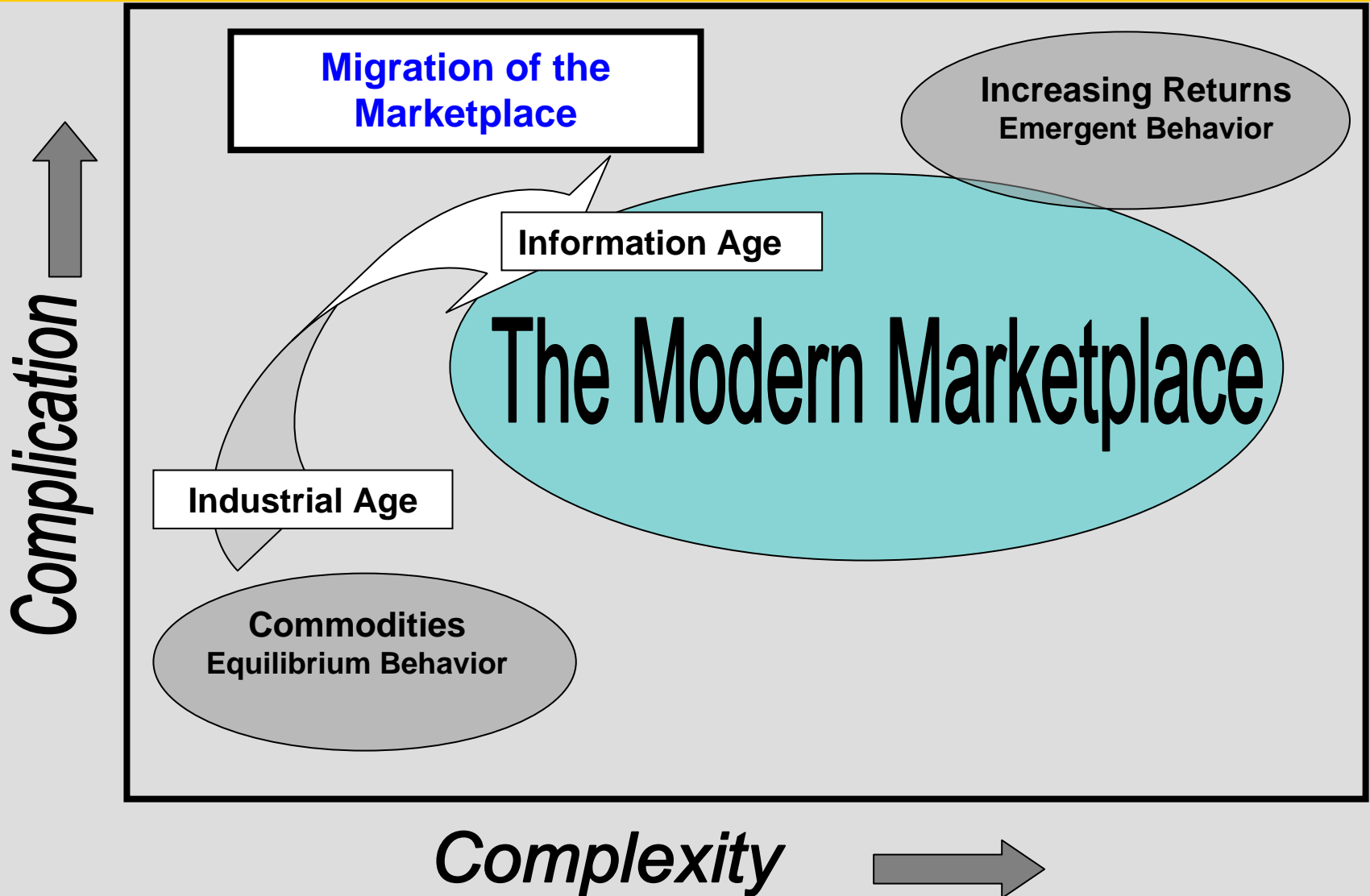


What are the management headaches in the business world?



- **COMPLICATION** - The large **NUMBER OF THINGS** that need to be managed.
 - products,
 - divisions,
 - suppliers,
 - distributors,
 - interest rates.
- **COMPLEXITY** - The sometimes surprising consequences of the **INTERACTIONS AMONG THINGS**.
 - mergers,
 - divestitures,
 - emerging markets,
 - hit movies.

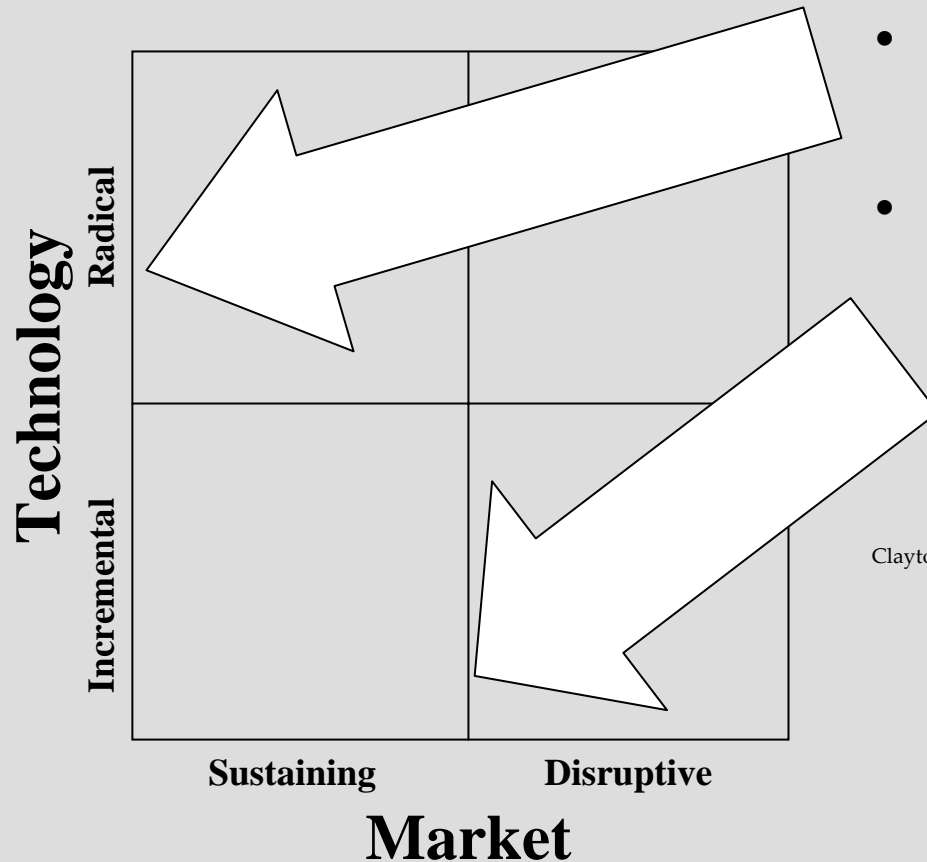
The business challenge: The struggle with commoditization



Two types of business innovation

- **TECHNOLOGICAL** - The creation of new things.
 - Electronic watches,
 - compact discs
 - Computers
- **MARKET** - The emergence or creation of demand for new things.
 - The emergence of the demand for Japanese cars.
- **HYBRID** – A combination of technological and market innovation
 - iPod

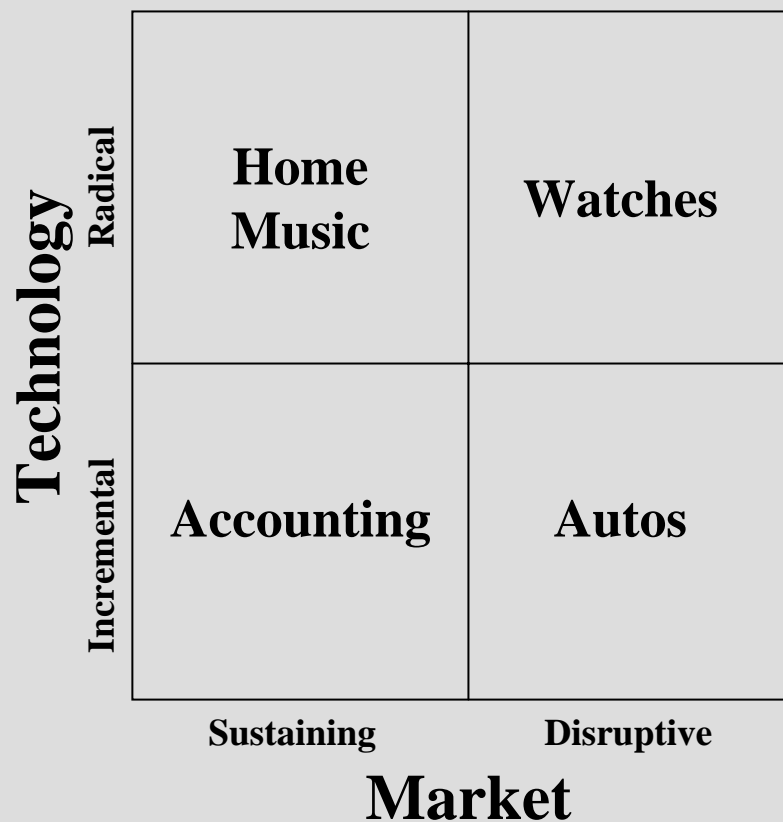
Interaction of technological and marketing innovation



- Technology can change
 - incrementally
 - radically
- The innovation can
 - service the needs of the existing customer base (sustaining)
 - cause the existing customer base to switch technologies
 - (disruptive)

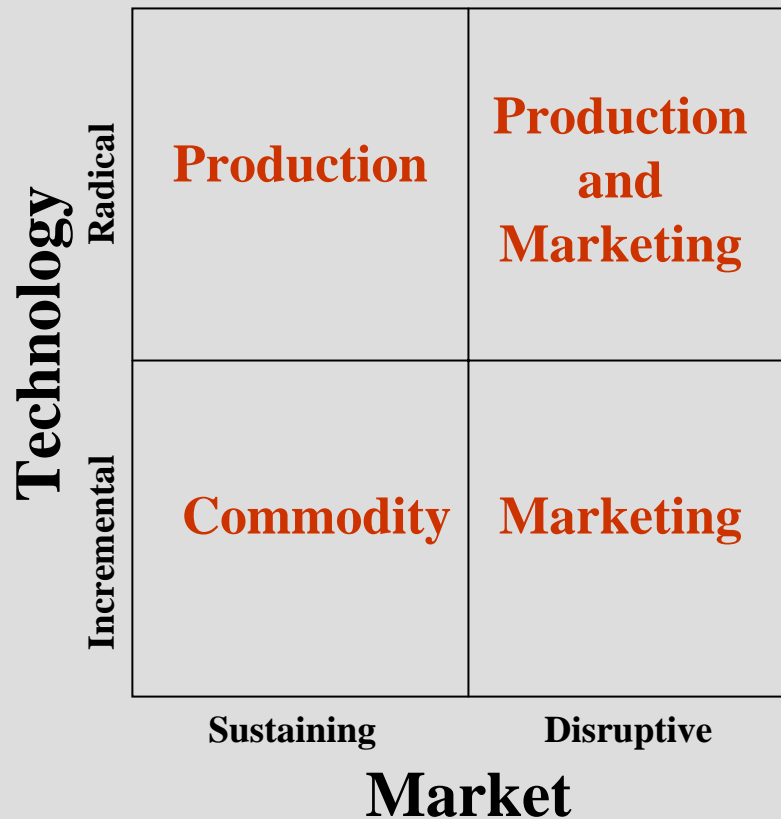
Clayton M. Christensen, *The Innovator's Dilemma*, (Harvard Business School Press, 1997)

Examples



- Radical/Disruptive
 - Watches - Mechanical vs. Electronic
- Incremental/Disruptive
 - Autos - American vs. Japanese
- Radical/Sustaining
 - Home Music - Compact Discs vs. LP
- Incremental/Sustaining
 - Accounting

Innovation generates risks. There is no safe place!



- Radical/Disruptive
 - Radical change in production,
 - radical change in marketing required
- Incremental/Disruptive
 - Radical change in marketing required
- Radical/Sustaining
 - Radical change in production required
- Incremental/Sustaining
 - Low margins

Barriers to entry

Technology	Radical	High Capitalization	Low Capitalization
	Incremental	High Capitalization	High Capitalization
		Sustaining	Disruptive

Market

- Radical/Disruptive
 - Low Capitalization
- Incremental/Disruptive
 - High Capitalization
- Radical/Sustaining
 - High Capitalization
- Incremental/Sustaining
 - High Capitalization

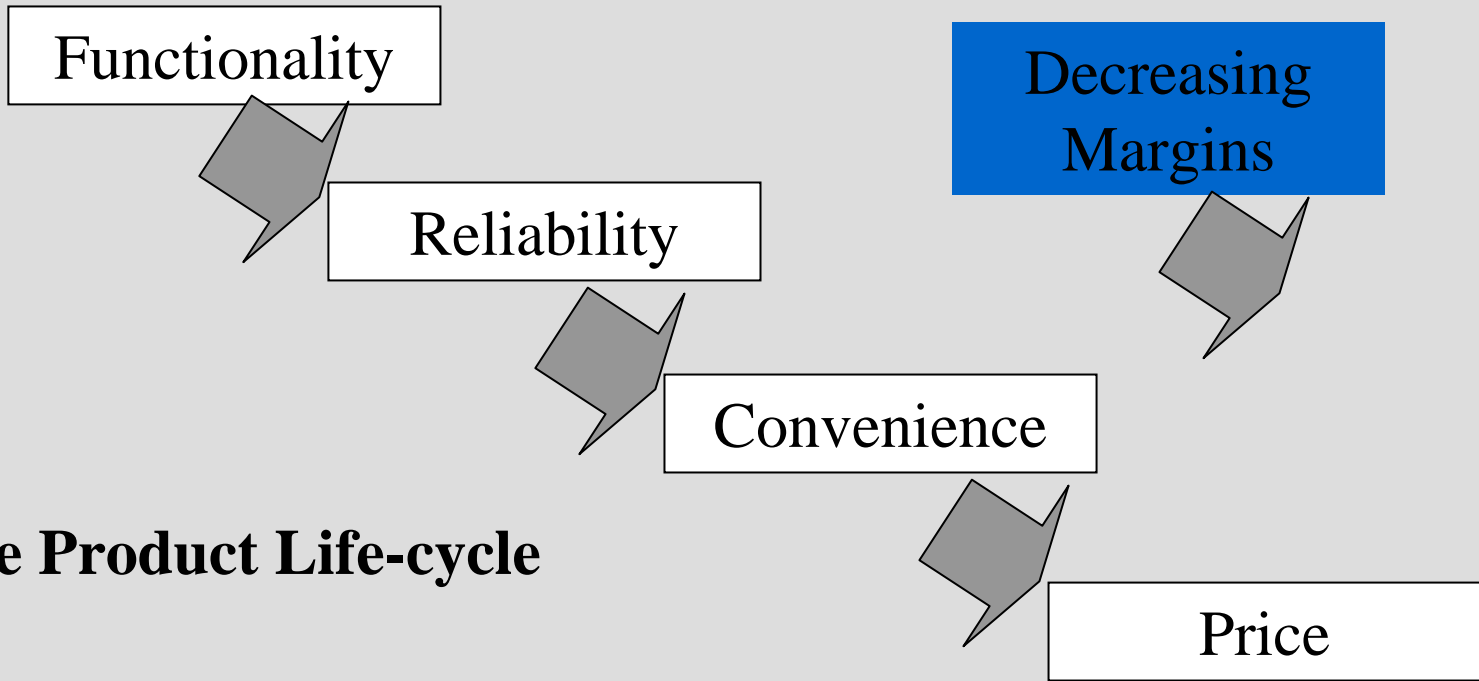
Rewards

Technology	Radical	High Margins	Higher Margins
	Incremental	Short-Term Stability	High Margins
		Sustaining	Disruptive

Market

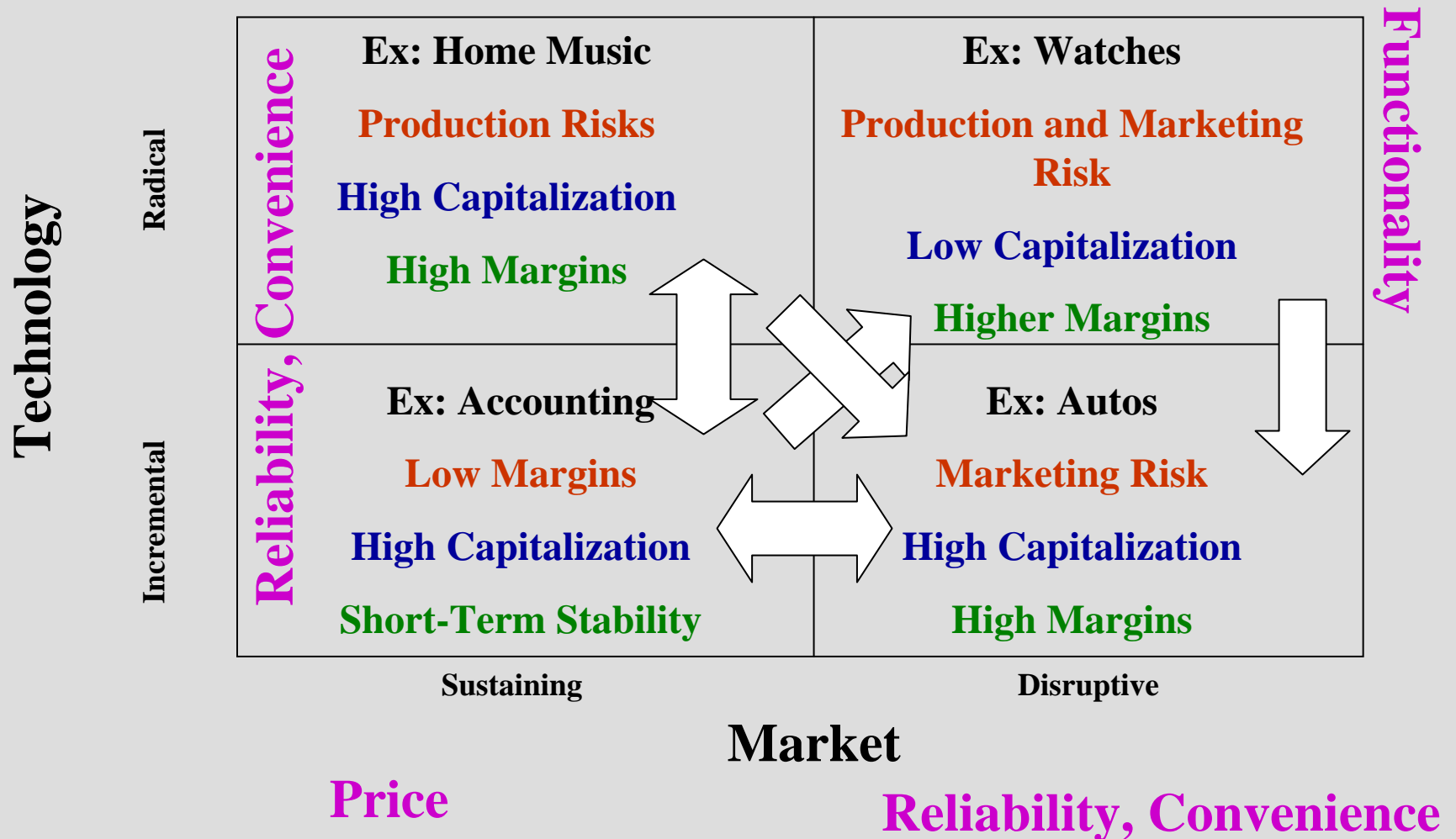
- Radical/Disruptive
 - Highest Margins
- Incremental/Disruptive
 - High Margins
- Radical/Sustaining
 - High Margins
- Incremental/Sustaining
 - Short-Term Stability

The flip side of innovation is commoditization.

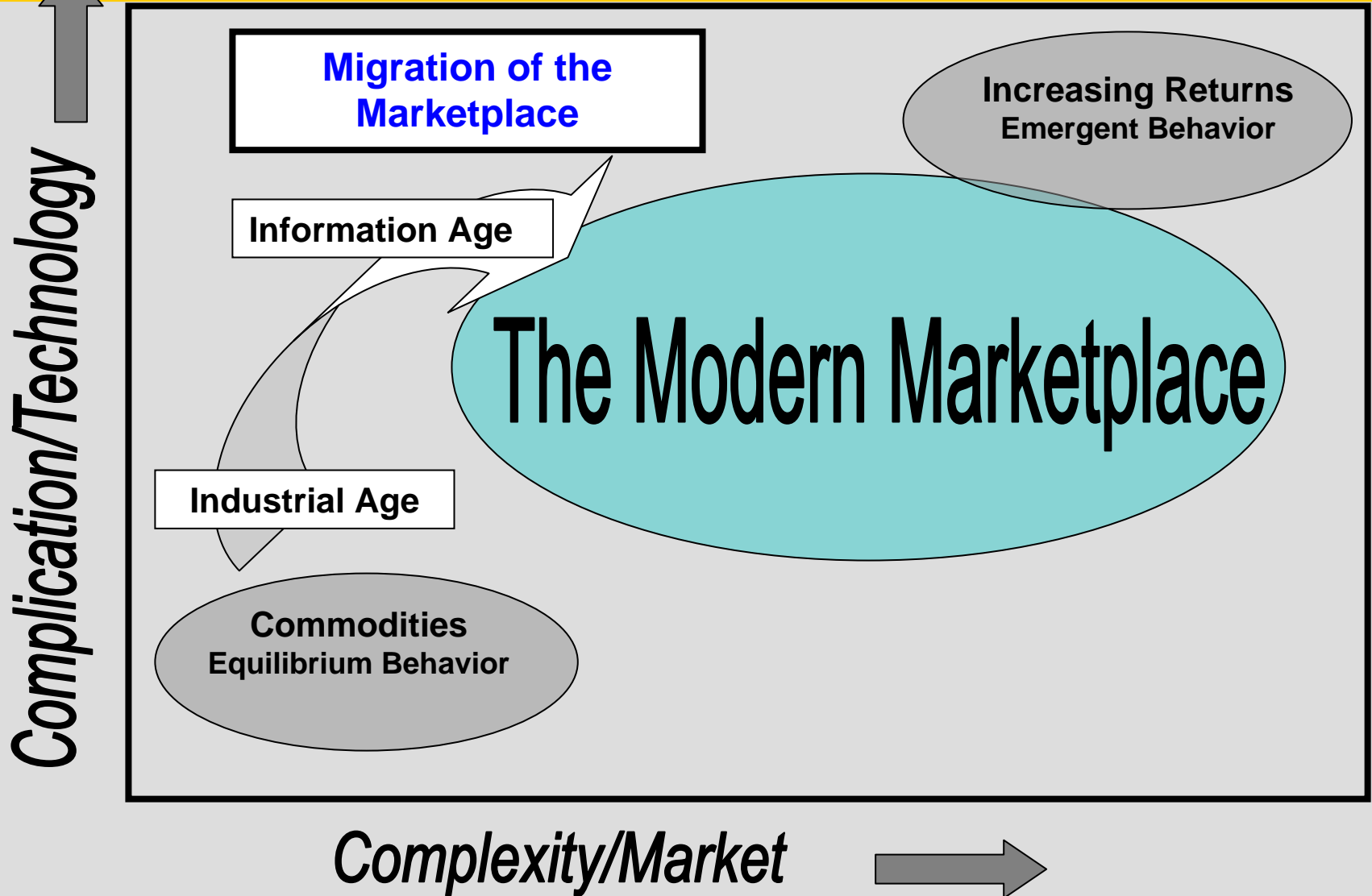


The Product Life-cycle

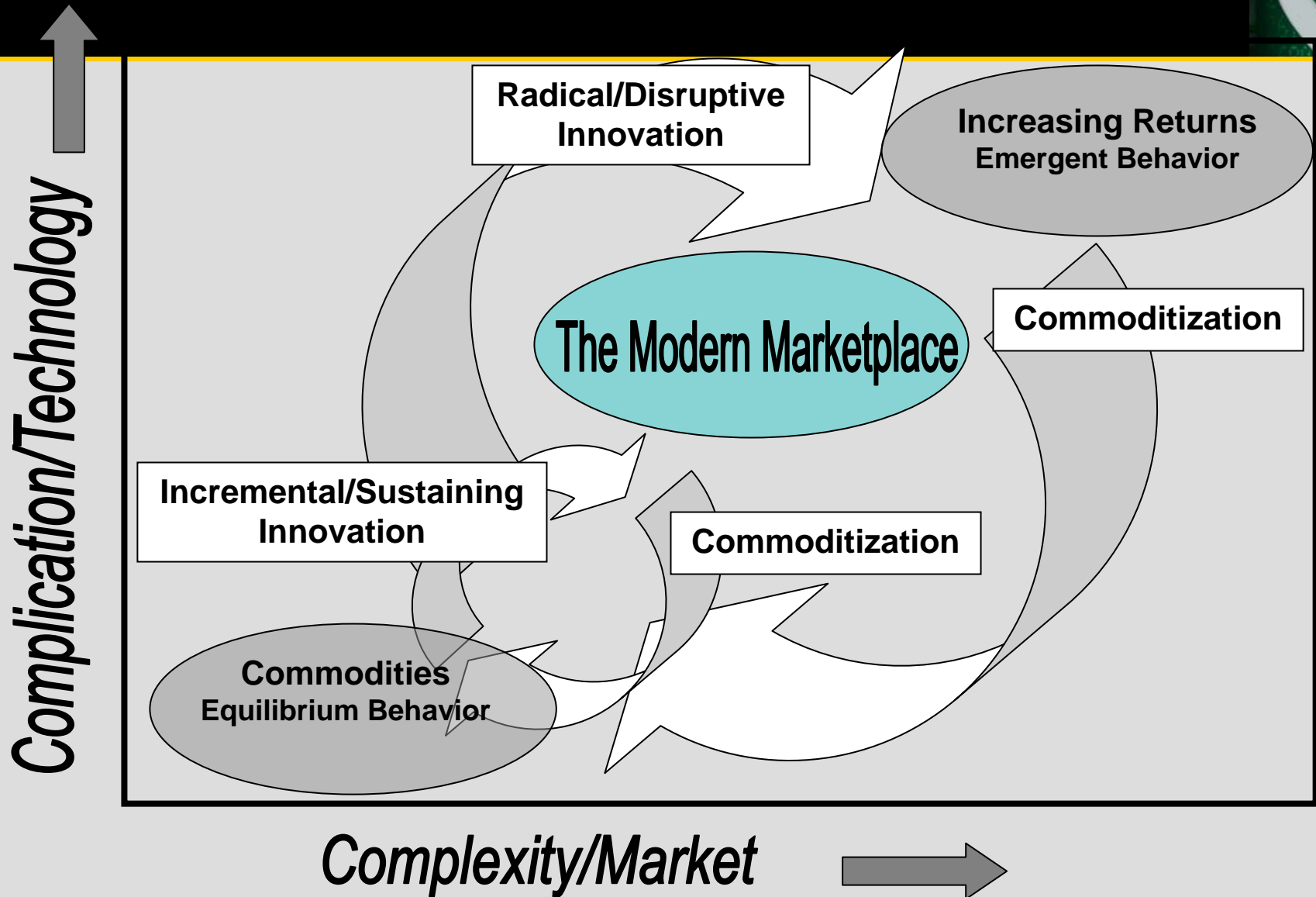
To survive a company must ride the Innovation/Commoditization wave.



Return to our original Complication/Complexity picture.



Desire for profits drives innovation.
Customers and competitors drive commoditization.



Summary

- **Complication/Complexity** - The large number of things vs. how they interact
- **Innovation** - four innovation possibilities
 - Technology (a type of complication)
 - Incremental - improves existing technology
 - Radical - creates new technology
 - Market (a type of complexity)
 - Sustaining - preserves market
 - Disruptive - creates new market
- **Commoditization** - the flip side of innovation
 - Functionality
 - Reliability
 - Convenience
 - Price
- **Innovation cessation leads to commoditization death - always keep moving**
- **Business simulation can support radical innovation.**
 - Tactical
 - Strategic
- **Radical/Disruptive innovation requires a partnership between innovator and client.**