

GOVERNANCE OF INFORMATION TECHNOLOGY (IT)

Chapter 4

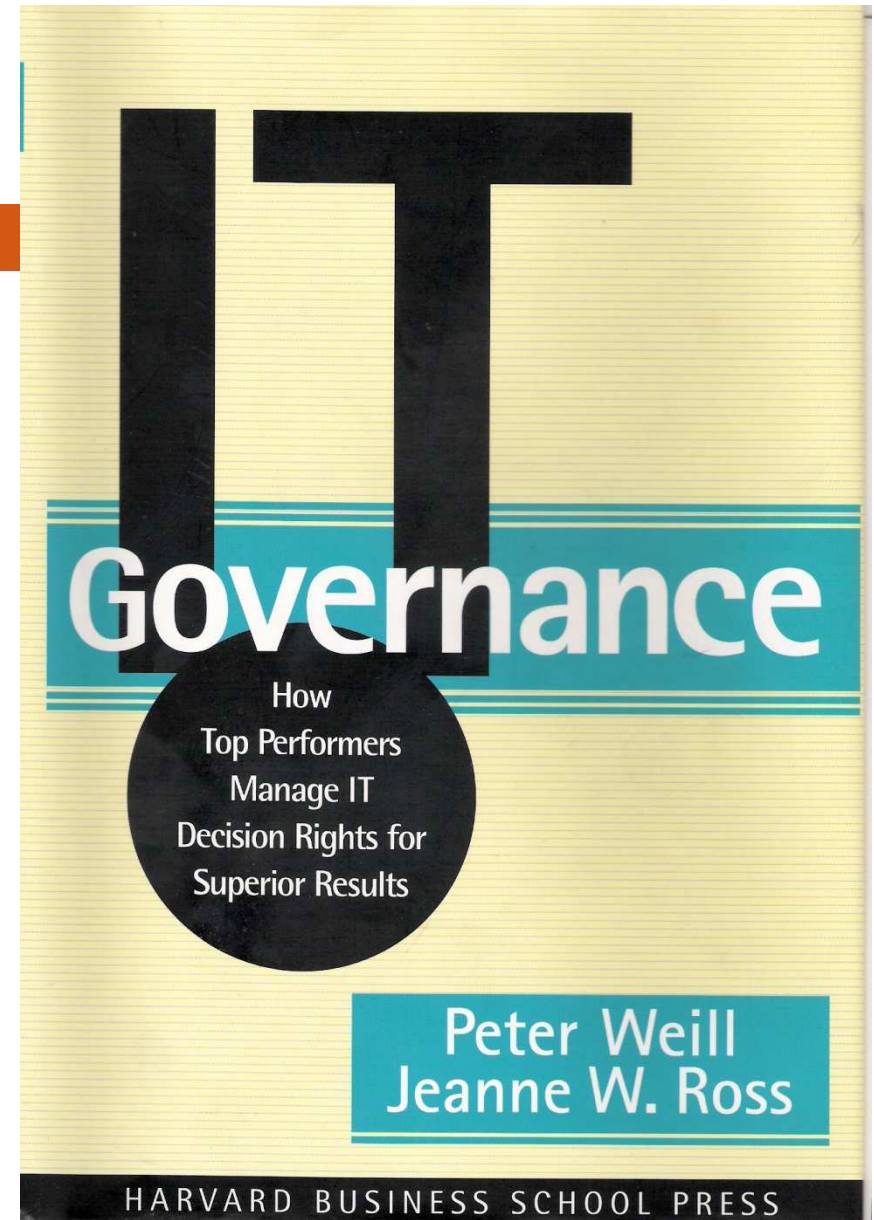
"The monarchy degenerates into tyranny, aristocracy into oligarchy and democracy in violence and anarchy." Polybius (200 A.C. – 118 A.C.)

Summary

1. Introduction. Governing IT.
2. Management vs. Governance.
3. Decision-making and ...
4. ... structures of governance of IT.
5. Starting a framework for IT governance in their company without standards.
6. Business strategy, performance and governance of IT.
7. Align IT: indicators of progress.
8. The role of the CIO: IT leadership.
9. The value of IT.
10. ISO 38500, a conceptual model: the six principles of the standard.
11. Adapting the conceptual model of governance to the reality of the company.
12. Example Apps to aid decision-making for CIOs
13. Example Application Portfolio Management
14. To govern public enterprises, The 4 "E's"

Basic Reference

- **IT Governance: How Top Performers Manage IT Decision Rights for Superior Results by Peter Weill, Jeanne Ross (2004)**





4. IT governance archetypes

- In this chapter we are going to see the archetypes that describe how companies make decisions about ICT and some case studies.
- We explore the issues:
 - Who should make decisions about IT governance?
 - How should make those decisions?



4. IT governance archetypes

- We use political archetypes: monarchy, feudal, federal, duopoly and anarchy) to describe the combinations of people who have rights or decision or information (inputs) to make decisions on IT
- One of these archetypes can be described as the company makes decisions on one or more of the five key IT decisions or to provide input to those who make those decisions.



FIGURE 3-1

IT Governance Archetypes

STYLE	WHO HAS DECISION OR INPUT RIGHTS?
Business Monarchy	A group of business executives or individual executives (CxOs). Includes committees of senior business executives (may include CIO). Excludes IT executives acting independently.
IT Monarchy	Individuals or groups of IT executives
Feudal	Business unit leaders, key process owners or their delegates
Federal	C-level executives and business groups (e.g., business units or processes); may also include IT executives as additional participants. Equivalent of the central and state governments working together.
IT Duopoly	IT executives and one other group (e.g., CxO or business unit or process leaders)
Anarchy	Each individual user

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FIGURE 3-2

Key Players in IT Governance Archetypes

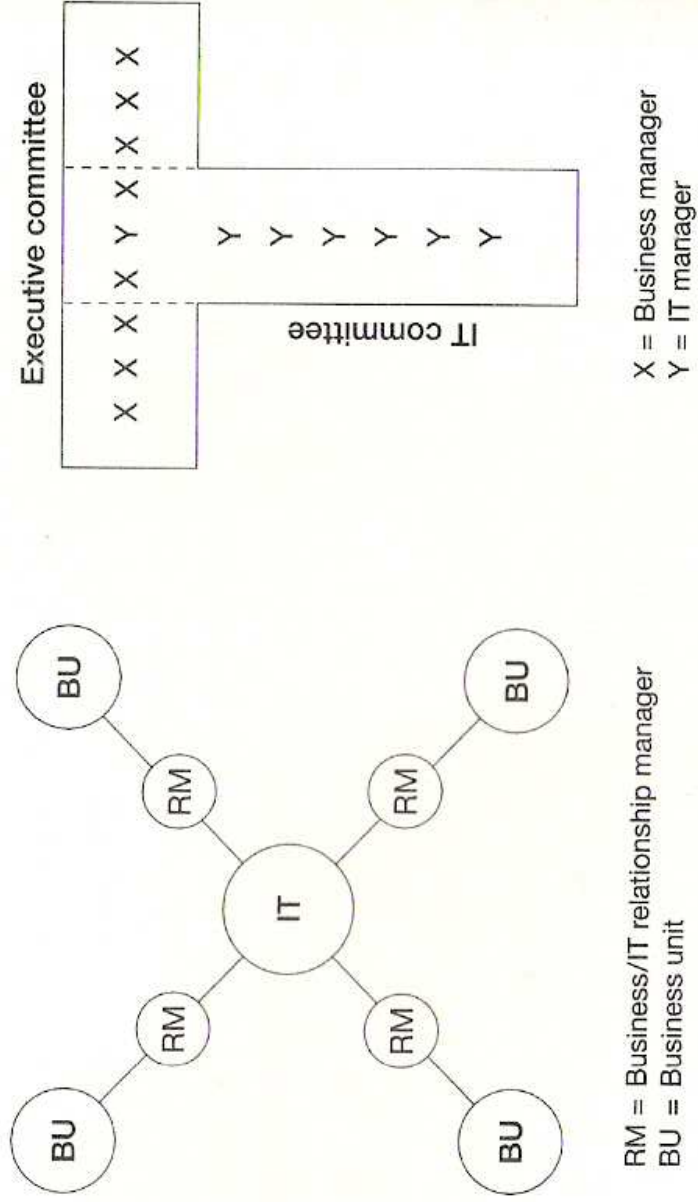
	C-level executives	Corporate IT and/or business unit IT	Business unit leaders or key business process owners
Business monarchy	✓		
IT monarchy		✓	
Feudal			✓
Federal	✓	✓	✓
	✓		✓
IT duopoly	✓	✓	
		✓	✓
Anarchy			

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FIGURE 3-3

Bicycle Wheel and T-Shaped IT Duopolies





4. IT governance archetypes

- Analysis of the different patterns (study of 256 large companies, average of 8% of investment on IT and at least 850 IT professionals):
 - Few companies or feudal rule in anarchy
 - Many companies assign responsibility for the decisions of architecture and infrastructure to IT specialists.
- There are many variations between companies depending on the following factors:



4. IT governance archetypes

1. Strategic and performance objectives :- The objectives of the company may be different, then they use different IT governance approaches
2. Organizational structure: - The companies design their governance to compensate its structural limitations (delay between the structure and the desired goals)
3. Governmental experience: - The learning curve designates the maturity of the companies in this field



4. IT governance archetypes

4. Size and diversity: - The complexity of global organizations provoke conflicts to achieve the desired behaviors
5. Industrial and regional differences: - The decision-making culture can vary in different parts of the world.

The change in governance frameworks does not reflect different IT effectiveness thereof, companies show great performance IT govern differently.

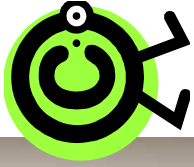


FIGURE 3-4

How Enterprises Govern

DECISION ARCHETYPE	IT Principles		IT Architecture		IT Infrastructure Strategies		Business Application Needs		IT Investment	
	Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decision
Business Monarchy	0	27	0	6	0	7	1	12	1	30
IT Monarchy	1	18	20	73	10	59	0	8	0	9
Feudal	0	3	0	0	1	2	1	18	0	3
Federal	83	14	46	4	59	6	81	30	93	27
Duopoly	15	36	34	15	30	23	17	27	6	30
Anarchy	0	0	0	1	0	1	0	3	0	1
No Data or Don't Know	1	2	0	1	0	2	0	2	0	0

Most common input pattern for all enterprises.
 Most common decision patterns for all enterprises.

The numbers in each cell are percentages of the 256 enterprises studied in twenty-three countries. The columns add to 100 percent.

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4. IT governance archetypes

- Case Study: DuPont
 - Manufacturer valued at \$ 25 KM in industries: food, personal care, construction, home electronics, appliances and transportation.
 - In 2002 it celebrated its bicentennial, has approx. 79K employees in 70 countries
 - It is organized in 6 platforms market is subdivided into strategic business units



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4. IT governance archetypes

- Case Study: DuPont
 - What is important for DuPont's financial strength for sustained growth by buying small companies with unique technology and know-how
 - Vision "One DuPont" because of its complex structure ("feudal" balanced decision with "federal" investment applications)
 - Because of its diversity, it relies heavily on IT professionals to determine business requirements and opportunities



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FIGURE 3-5

How DuPont Governs IT

GOVERNANCE ARCHETYPE	DECISION												
	IT Principles		IT Architecture		IT Infrastructure Strategies		Business Application Needs		IT Investment				
	Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decision			
Business Monarchy													
IT Monarchy			Arch. team	IT leaders	Comp. center	IT leaders							
Feudal													
Federal													
Duopoly			Senior execs. Corp. IT									Senior execs. Business leaders	Corp. IT Business leaders

Most common pattern for all firms.

Governance mechanisms:

Arch. team—Forty IT experts from across company
 Business leaders—Business unit leaders
 Business unit—Business and IT leaders in business units
 Comp. center—Global IT competency center representatives

Corp. IT—CIO and four direct reports
 IT leaders—Corporate IT and fifteen business CIOs
 Senior execs.—Senior Executive Team, including CIO

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4. IT governance archetypes

- Case Study: DBS Bank
 - It is a leading bank in Singapore with more than 4 million customers in Singapore, Thailand, Indonesia, Philippines and China (Hong Kong)
 - Its strategy is to grow to be a regional franchise acquiring banks
 - It is building a business platform technology, data definitions and common metrics.

4. IT governance archetypes

- Case Study: Bank DBS
 - Accountability and performance fall locally but the senior managers require synergies between banks
 - Vision "network of relationships", so that the center provides a consistent set of services according to local needs.
 - ICT investments are discriminated on three levels: up to a million \$ of Singapore (responsible for business units) of 1-5000000 (business managers and IT) and more than 5 million (corporate office).

FIGURE 3-6

How DBS Bank Governs IT

Governance Architecture	DECISION											
	IT Principles		IT Architecture		IT Infrastructure Strategies		Business Application Needs		IT Investment			
	Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decision		
Business Monarchy		Corp. office CIO									Project council Corp. office	
IT Monarchy			Arch. office		CIO IT leaders							
Feudal												
Federal							Business leaders Business process owners					
Duopoly	Business leaders IT leaders		Business leaders IT leaders						Business leaders IT leaders BT managers			

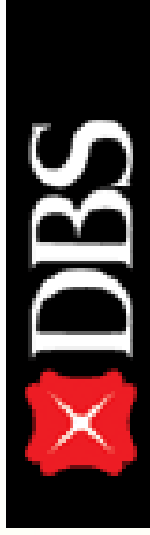
 Most common pattern for all firms.

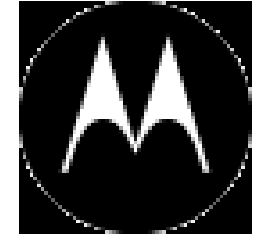
Governance mechanisms:

- Arch. office—Office of architecture
- Business leaders—Business leaders
- Business process owners—Business process owners
- BT managers—Business technology relationship managers

- CIO—CIO office and staff
- Corp. office—Corporate office (CEO, CIO, three business heads)
- IT leaders—IT leadership group
- Project council—Regional project councils

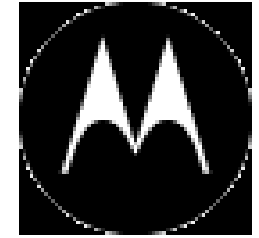
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4. IT governance archetypes

- Case study: Motorola
 - It was a global leader in providing integrated communications and embedded electronic
 - It was their 75th anniversary in 2003
 - It consists of five sectors: telecommunications equipment, software, services, semiconductors and integrated systems
 - In 2002 a turnover of more than 27km \$ be a leader in several markets



4. IT governance archetypes

- Case study: Motorola
 - Motorola's growth is influencing customers from continuous innovation in software and services
 - Because the IT market is very vulnerable to security risks, managers think that information security is critical for growth (availability, confidentiality and integrity) for both their operations and their products.
 - The security is reflected in its organizational structure, governance and processes



FIGURE 3-7

How Motorola Governs IT

GOVERNANCE ARCHETYPE	DECISION												
	IT Principles		IT Architecture		IT Infrastructure Strategies		Business Application Needs		IT Investment				
	Input	Decision	Input	Decision	Input	Decision	Input	Decision	Input	Decision			
Business Monarchy													
IT Monarchy				IT leaders Security leaders		IT leaders Security leaders							
Feudal													
Federal	Business leaders												
Duopoly		Mgmt. board IT leaders	CIO staff Sector IT		CIO staff Sector IT			Sector IT Business leaders					Mgmt. board IT leaders

Most common pattern for all firms.

Governance mechanisms:

- Business leaders—Business unit leaders within sectors
- CIO staff—CIO staff
- IT leaders—CIO's four direct reports, six sector CIOs

- Mgmt. board—Senior executive team, including CIO
- Security leaders—IT leadership and security staff
- Sector IT—Sector CIO staff



4. IT governance archetypes

- The comparison is the starting point for the design of governance of IT (IT governance benchmarking)
- The most useful to start is to ask: Can I explain the difference between our governance and the more common approach?
- Describe the differences is a good indicator of harmony between the governance of the company and the IT strategy of the company
- Not being able to describe the difference indicates to rethink the design of governance of IT in the company