Digital Transformation: How Strategic Advances in IT are Changing Every Business

2022

GIIM — Global Institute for IT Management

Managing Information Technology Resources
3rd Edition
HUMAN RESOURCES GOVERNANCE
VALUE METRICS PARTNERSHIP
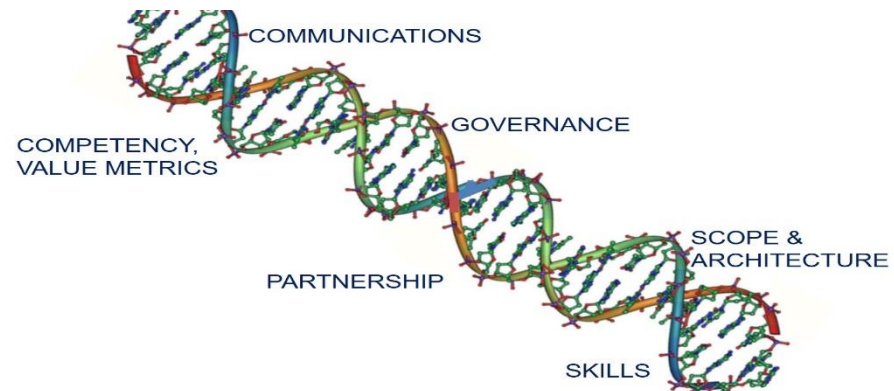TECHNOLOGY SCOPE COMMUNICATIONS
Jerry Luftman Ph.D.

Competing in the Information Age
SECOND EDITION
Align in the Sand
JERRY N. LUFTMAN

JERRY LUFTMAN Ph.D.

luftman@hotmail.com   www.globaliim.com   LinkedIn Group: Future Role of IT

Information Technology

Global IT TRENDS

Strategic Alignment Maturity

COMMUNICATIONS

GOVERNANCE

COMPETENCY, VALUE METRICS

SCOPE & ARCHITECTURE

PARTNERSHIP

SKILLS

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

STEVENS
INSTITUTE of TECHNOLOGY
THE INNOVATION UNIVERSITY
1870

IBM

NOVEMBER 2007

Nokia
ONE BILLION CUSTOMERS—
CAN ANYONE CATCH THE CELL PHONE KING?

iPhone 2007

5 LARGEST U.S. COMPANIES
(REVENUE $ MILLIONS)

	2000	2010	2020	2021	
1	GM $180	Walmart $405	Walmart $524	Walmart $559	1
2	Walmart $165	ExxonMobil $383	amazon $282	amazon $386	2
3	ExxonMobil $228	Chevron $198	ExxonMobil $265	Apple $274	3
4	Ford $162	GE $150	Apple $260	CVS $269	4
5	GE $130	Bank of America $134	CVS $257	United Healthcare $257	5
				ExxonMobil $182	10

https://fortune.com/fortune500

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Global Top 10
Revenues ($B)

FORTUNE
GLOBAL 500 · 30TH ANNIVERSARY
The World at a Crossroads

U.S. 27.8

19.8 China

SHARE OF FORTUNE GLOBAL 500 REVENUES BY HEADQUARTERS LOCATION
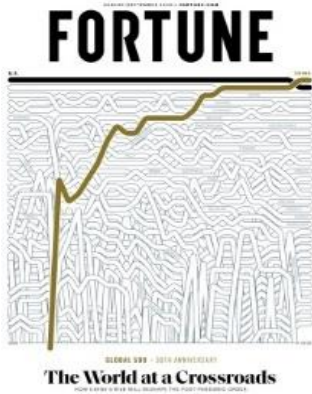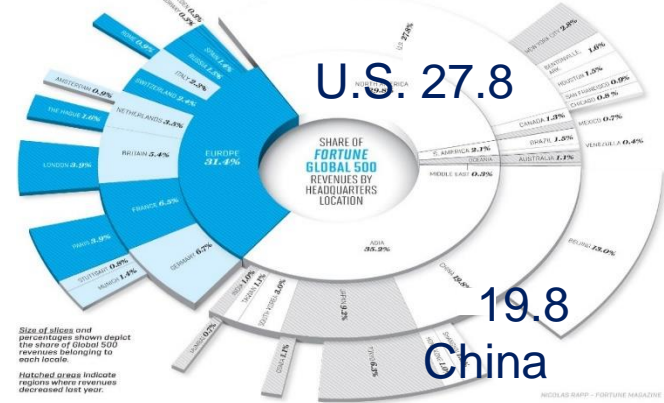
2021			2020		2010	
Walmart	559	1	Walmart		Walmart	1
State Grid (China Elect.)	387	2	Sinopec Group (China Petro)		Royal Dutch	2
Amazon	386	3	State Grid (China Elect.)		ExxonMobil	3
China National Petro	384	4	China National Petro		BP	4
Sinopec Group (China Petro)	284	5	Royal Dutch Shell		Toyota Motor	5
Apple	275	6	Saudi Aramco		Japan Post Holding	6
CVS	267	7	Volkswagen		China Petro	7
United Health	258	8	BP		State Grid (China Elect.)	8
Toyota Motor	257	9	Amazon		AXA	9
Volkswagen	254	10	Toyota Motor		China Nat. Petro	10

Fortune 500 CEO's

USED A.I. TO IMPROVE EFFICIENCY/ REDUCE COST **60%**

USED A.I. TO CREATE NEW PRODUCTS/ SERVICES **22%**

ALIGNMENT

- HR Skills
- Communications
- Partnership
- Value Metrics
- Governance
- Technology Scope

TECHNOLOGY

- Robotic Process Automation (Cognitive Computing, AI)
- IoT
- 3D Print
- BYOI
- Block Chain
- SMAC
- Security
- Legacy

ECO SYSTEM

- Revenue / Profit
- Natural Disasters & Disease/Virus
- Interdependent World
- Wars Security Terrorism
- Sourcing Models
- Regulation, Politics
- Economy

Information Technology

5 GLOBAL IT HEADLINES

1. **Intensifying Business Attention To digitalization:**
   - **Cost Reduction, Control, Collaborating, Innovating**
   - **Cloud, Security, & Data, & MOBILE**

2. **Top 3 management concerns unchanged over the last 3 years; Security, IT-Business Alignment, Data/Analytics**

3. **Budgets, Hiring, Salaries Increasing, but at a much lower rate**

4. **% of Budget 2014 - 2021 trend**
   - **> Cloud (10% - 20%)**
   - **< Employees (40% - 34%)**

5. **Talent challenges and shortages, coupled with the need to invest in technology infrastructure and capabilities to effectively engage remote employees, manage dispersed workforces and serve customers on their terms.**
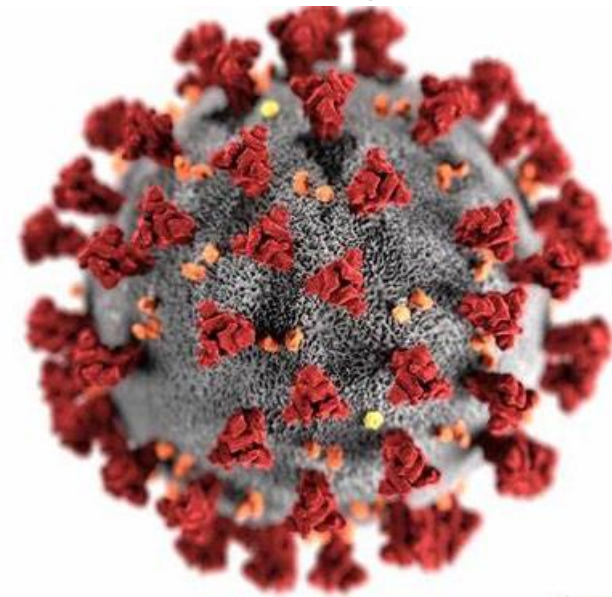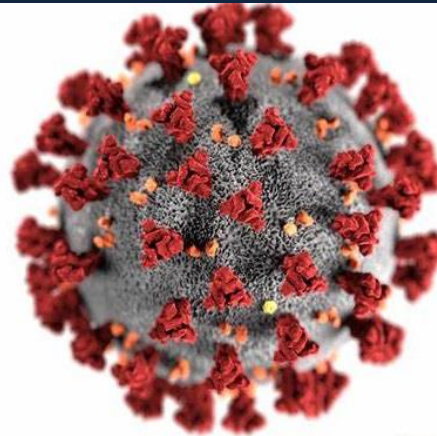
BIGGEST HEADLINE

IT IS RESHAPING GLOBAL MARKETS

WHILE RESHAPING ITSELF

AS IT BECOMES THE BUSINESS
IN THE MIDST OF A DIGITAL TRANSFORMATION!

State of IT Sourcing & Talent Management

Pervasive & persistent complaints from <u>IT leaders</u>:

➢ **their people do not have the right competencies**

➢ **they have job openings but cannot find people with the right skills**

OPEN ENDED QUESTIONS

➢ Name the biggest challenge they face, the CEOs mentioned "talent" more than anything else.

➢ Cybersecurity was also top of mind, with 86% saying it is "highly" or "moderately" relevant to their agenda. Cryptocurrency ranked at the bottom, with only 16% ranking it "highly" or "moderately" relevant.

THE TOP RISKS FOR 2022

1. Pandemic-related government policies and regulation impact business performance

2. Succession challenges, ability to attract and retain top talent

3. Pandemic-related market conditions reduce customer demand

4. Adoption of digital technologies requires significant efforts to upskill/reskill existing employees

5. Economic conditions, including inflationary pressures, constrain growth opportunities

THE CEO OUTLOOK

THE TOP RISKS THROUGH 2031

1. Adoption of digital technologies requires new skills or significant efforts to upskill/reskill existing employees

2. Succession challenges, ability to attract and retain top talent

3. Rapid speed of disruptive innovation outpaces our ability to compete

4. Substitute products or services arise that affect our business model

5. Economic conditions, including inflationary pressures, constrain growth

Protiviti and NC State University

WORK IS CHANGING

65%

of children entering school today will end up working in completely new jobs that don't yet exist.

85.2 M

Shortfall of skilled workers by 2030; most effected: financial services, manufacturing, & technology

6/10

Occupations have more than **30%** of activities that are automatable.

TOP 10 IT MANAGEMENT CONCERNS/ISSUES TO YOUR ORGANIZATION OVER THE PAST 10 YEARS

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Security/Privacy	1	1	1	1	2	2	6	9	8	7
Alignment of IT & Business	2	2	2	2	1	1	1	1	2	1
Data/Analytics Management	3	3	3	6						
Digital Transformation	4	4	7	10						
Compliance/Regulation	5	5	6	3	15					
IT Cost Reduction/Control	6	8	9	5	6	9	16	5	5	10
Business Continuity	7	16	12	18	11	15				
Bus. Cost Reduction/Control	8	10	10	4	5	5	4	3	1	4
Cloud/Cloud Computing	9	6	13	14						
IT/Business Agility	10	7	8	9	5	9	3	2	3	2

Innovative Use of IT was 9 last year

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Top 10 IT Investments Over the Last 10 Years

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Cloud Computing (SaaS, PaaS, IaaS)	**1**	2	3	4	4	4	4	2	2	3
Analytics/BI/Data Mining/Big Data	**2**	1	1	2	1	1	1	1	1	1
Security/Cybersecurity	**3**	3	2	1	3	7	8	16	15	28
Application/Software Development/Maint	**4**	4	4	3	2	3	2	5	4	
Customer Relationship Management (CRM)	**5**	5	6	6	5	5	6	3	5	5
Enterprise Resource Planning (ERP)	**6**	6	5	5	6	2	3	4	3	3
Legacy Apps: Replacing/Replatforming	**7**	7	9	9	10	9	15	16		
Collaboration Tools	**8**	16	18	20	15	13	21	12		
Data Center/Infrastructure	**9**	8	7	7	7	6	3			
Network/Telecommunications	**10**	11	8	8	8	8	9	8	12	

Legacy Apps (Maintain/Update/Consolidate) & Integration of Apps, Data, were 9 &10

GIIM
GLOBAL INSTITUTE FOR IT MANAGEMENT

IT BUDGET AS PERCENT OF REVENUE

SKILLS GAP

Required

Available
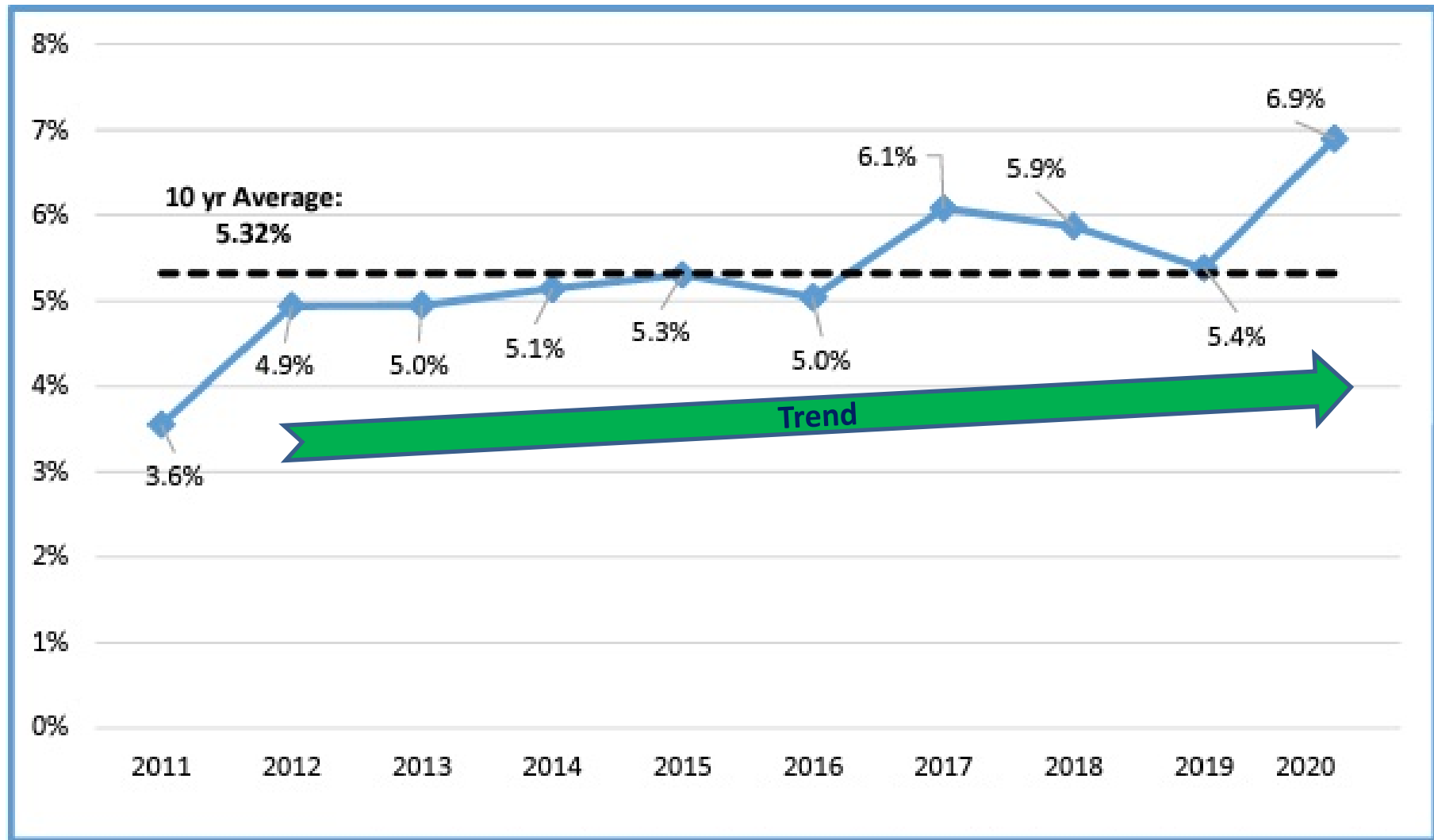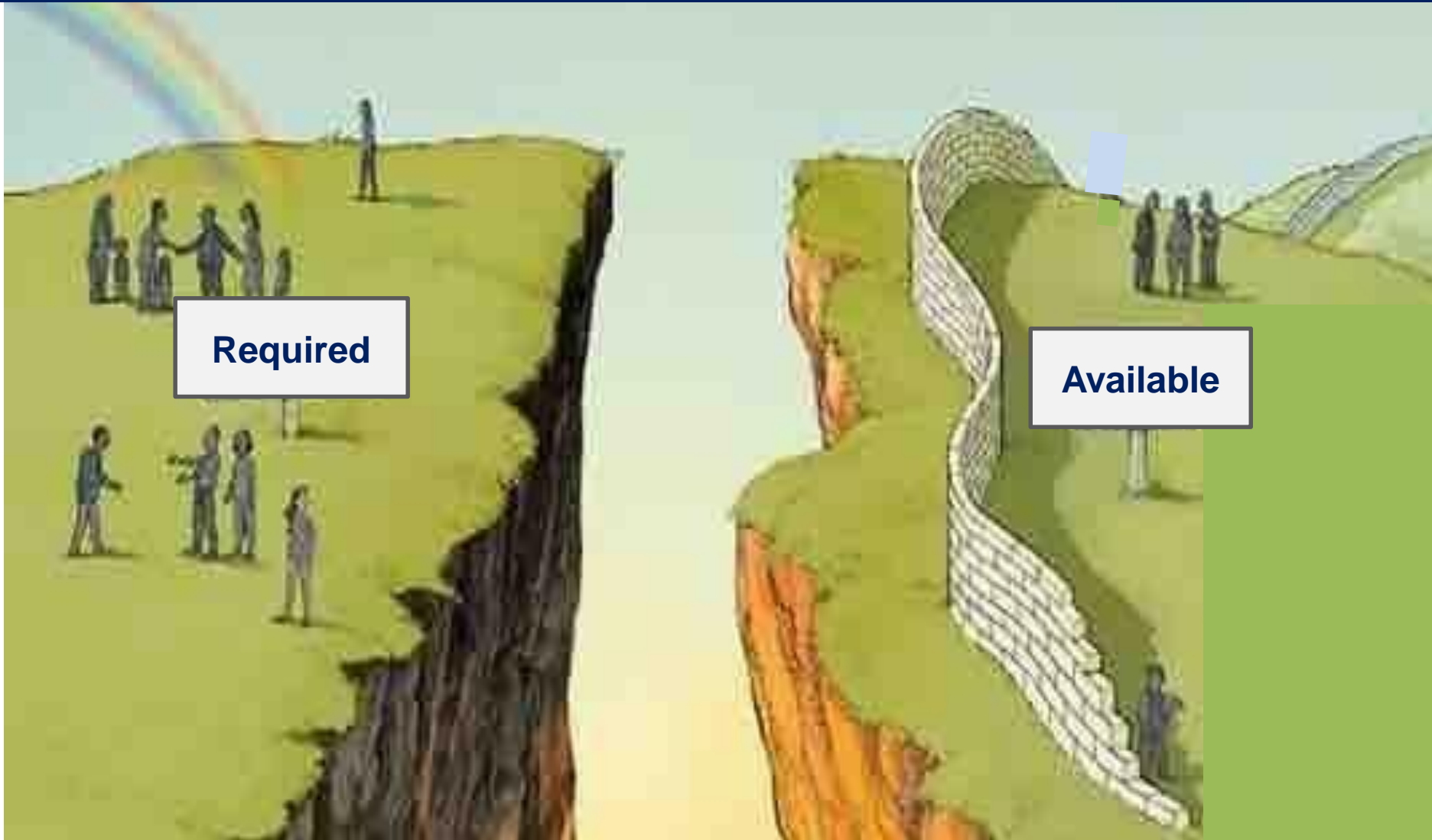
% IT BUDGET ALLOCATION FOR EDUCATION/TRAINING
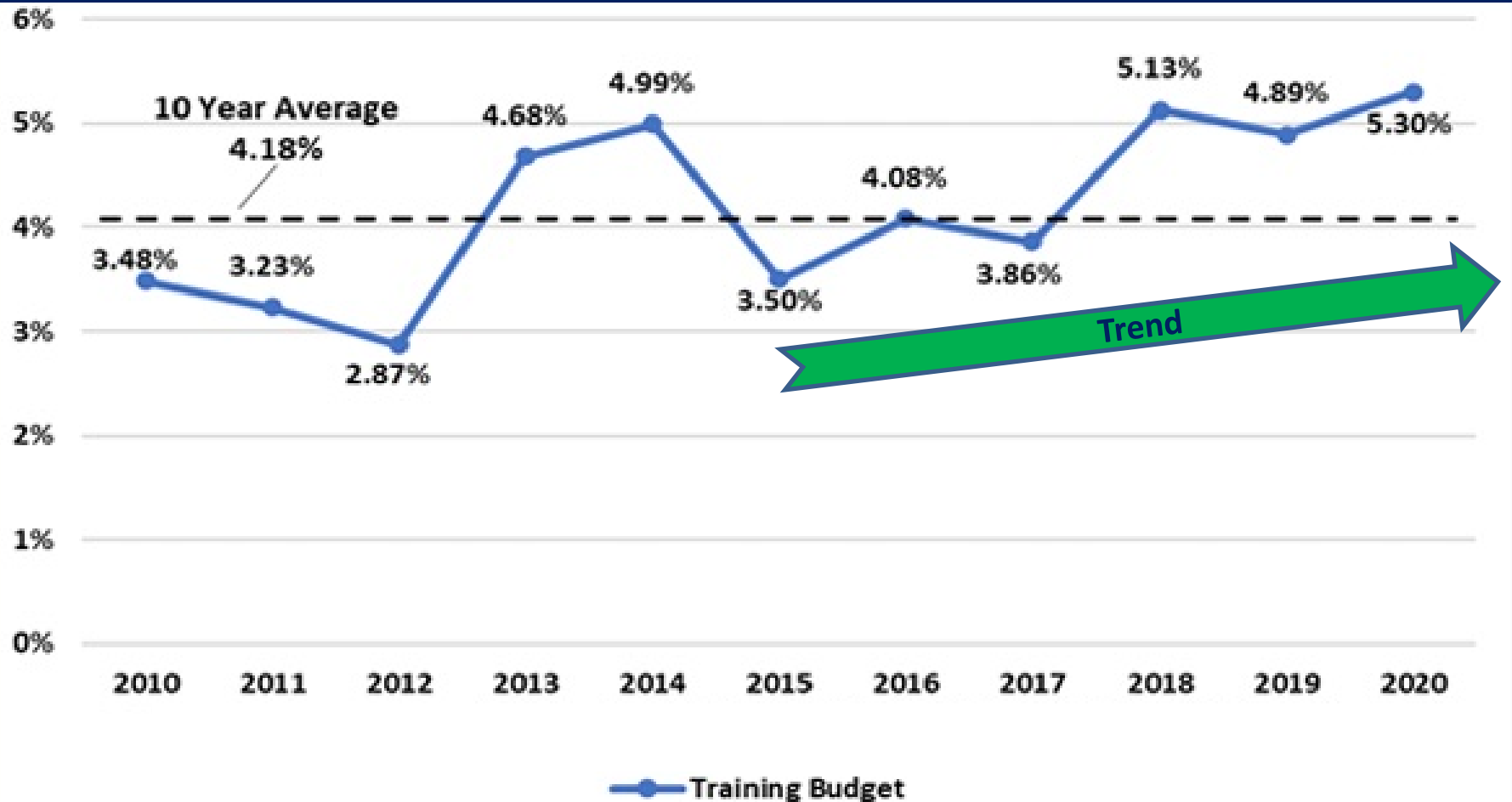
HYBRID SKILLS FOR THE 21st CENTURY

Broad General Skills

BUSINESS/MANAGEMENT
- Leadership
- Strategic Thinking
- Project Management
- Finance
- Industry

INTERPERSONAL
- Communications
- Teams/Relationships
- Adaptability
- Morals/Ethics

Deep Technical Skills
- SMAC
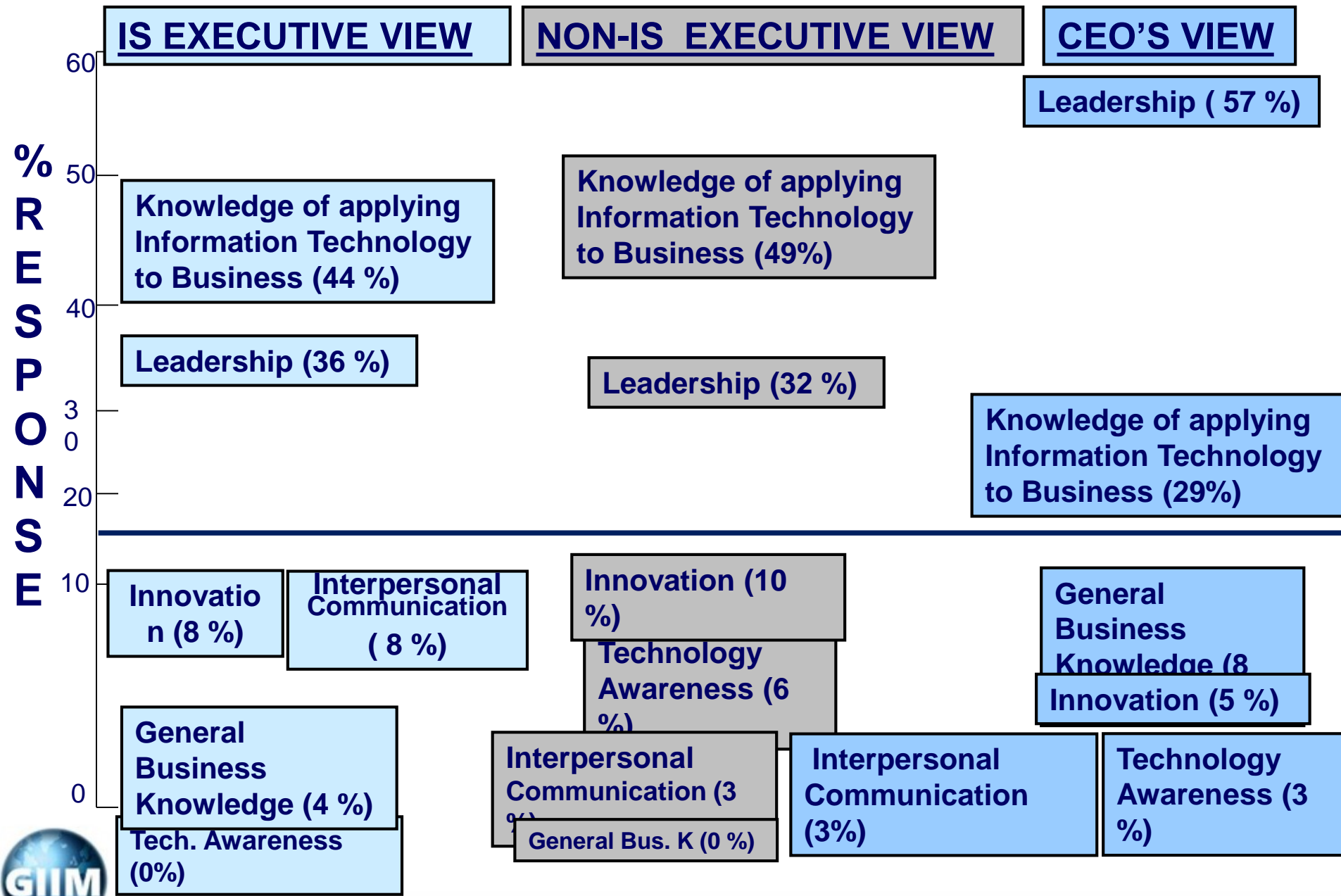- Security
- Data/IoT
- Programming
- SW Engineering
- IT Architecture
- -
- -

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Ref: GIIM, ACM, IBM, SIM, Gartner, EU Commission, PWC…

MOST IMPORTANT TECHNICAL SKILLS

Technical Skill or Capability	Percentage Selecting	
	Most Difficult to Find *(% Selecting)* **2018 Rank**	**Most Important to Organization** *(% Selecting)* **2018 Rank**
Security / Cybersecurity	1 *(46.6%) 1*	1 *(45.8%) 1*
Analytics / Business Intelligence / Big Data / Data Scientist	2 *(41.4%) 2*	2 *(37.4%) 2*
Architecture / Architect --- Application / Solution	3 *(22.8%) 5*	4 *(23.8%) 5*
Analyst --- Business	4 *(21.5%) 3*	3 *(34.8%) 3*
Functional Area Knowledge	5 *(20.6%) 4*	9 *(16.7%) 4*
Cloud	6 *(19.4%) 6*	6 *(18.8%) 8*
Architecture / Architect --- Data / Information	7 *(18.9%) 8*	7 *(18.1%) 10*
Software Development / Programming Languages [a]	8 *(17.3%)* a	5 *(20.7%)* a
Analyst --- Technical	9 *(17.2%) 13*	11 *(16.2%) 12*
Architecture / Architect --- Enterprise	10 *(16.7%) 9*	12 *(13.4%) 13*
IT Project Manager	12 *(12.1%) 12*	8 *(17.3%) 5*
ERP (Enterprise resource planning)	13 *(11.7%) 7*	10 *(16.3%) 5*

[a] New item consolidating Programmer / Development – Mobile, Programmer / Development – Web, and Programmer / Development – Other

n = most senior IT leader in 618 unique organizations

MOST IMPORTANT IT SOFT SKILLS

Soft Skill or Personal Attribute	Percentage Selecting	
	Most Difficult to Find *(% Selecting)* *2018 Rank*	**Most Important to Organization** *(% Selecting)* *2018 Rank*
Critical Thinking	1 (46.8%) 1	1 (42.3%) 1
Strategic Thinking / Planning	2 (41.1%) 2	2 (33.9%) 2
Leadership / Providing Leadership	3 (33.5%) 3	3 (32.3%) 4
Systems / Holistic Thinking	4 (29.3%) 5	6 (18.3%) 10
Emotional Intelligence / Empathy	5 (27.8%) 7	6 (16.4%) 12
Business Knowledge --- Industry Specific	6 (25.9%) 4	5 (27.3%) 5
Innovation / Innovative	7 (23.1%) 6	8 (21.6%) 8
Change Management (Organizational)	8 (20.9%) 7	8 (22.0%) 7
Problem Solving	9 (18.1%) 9	10 (23.5%) 6
Relationship Management	10 (16.5%) 14	15 (13.4%) 14
Collaboration with Others / Teamwork	11 (15.9%) 13	4 (32.4%) 3

WHAT IS THE NUMBER ONE QUALIFICATION FOR A CIO?

% RESPONSE

IS EXECUTIVE VIEW	NON-IS EXECUTIVE VIEW	CEO'S VIEW

CEO'S VIEW: Leadership (57 %)

IS EXECUTIVE VIEW: Knowledge of applying Information Technology to Business (44 %)

NON-IS EXECUTIVE VIEW: Knowledge of applying Information Technology to Business (49%)

IS EXECUTIVE VIEW: Leadership (36 %)

NON-IS EXECUTIVE VIEW: Leadership (32 %)

CEO'S VIEW: Knowledge of applying Information Technology to Business (29%)

IS EXECUTIVE VIEW: Innovation (8 %)

IS EXECUTIVE VIEW: Interpersonal Communication (8 %)

NON-IS EXECUTIVE VIEW: Innovation (10 %)

CEO'S VIEW: General Business Knowledge (8

NON-IS EXECUTIVE VIEW: Technology Awareness (6 %)

CEO'S VIEW: Innovation (5 %)

IS EXECUTIVE VIEW: General Business Knowledge (4 %)

NON-IS EXECUTIVE VIEW: Interpersonal Communication (3 %)

CEO'S VIEW: Interpersonal Communication (3%)

CEO'S VIEW: Technology Awareness (3 %)

IS EXECUTIVE VIEW: Tech. Awareness (0%)

NON-IS EXECUTIVE VIEW: General Bus. K (0 %)

Y-axis values: 60, 50, 40, 30, 20, 10, 0

THE MOST IMPORTANT IT MANAGEMENT SKILL FOR THE NON-IT EXECUTIVE

1. **CIO/CTO (& other IT executives) roles**
2. **Compliance/Regulations**
3. **Emerging Technologies**
4. **Governance (including value analytics)**
5. **HR, sourcing, & organization structure**
6. **Innovation**
7. **Project Management**
8. **Sponsor & champion(s) roles**
9. **Trends in leveraging IT**
10. **Vendor Management**

The most important IT management skill for the non-IT executive

1. Governance (including value analytics) 31%

2. Trends in leveraging IT   28%

3. CIO/CTO (& other IT executives) roles   20%

4. Sponsor & champion(s) roles   16%

5. HR, sourcing, & organization structure   5%

GIIM

GLOBAL INSTITUTE
FOR IT MANAGEMENT

WHO MAKES IT DECISIONS?
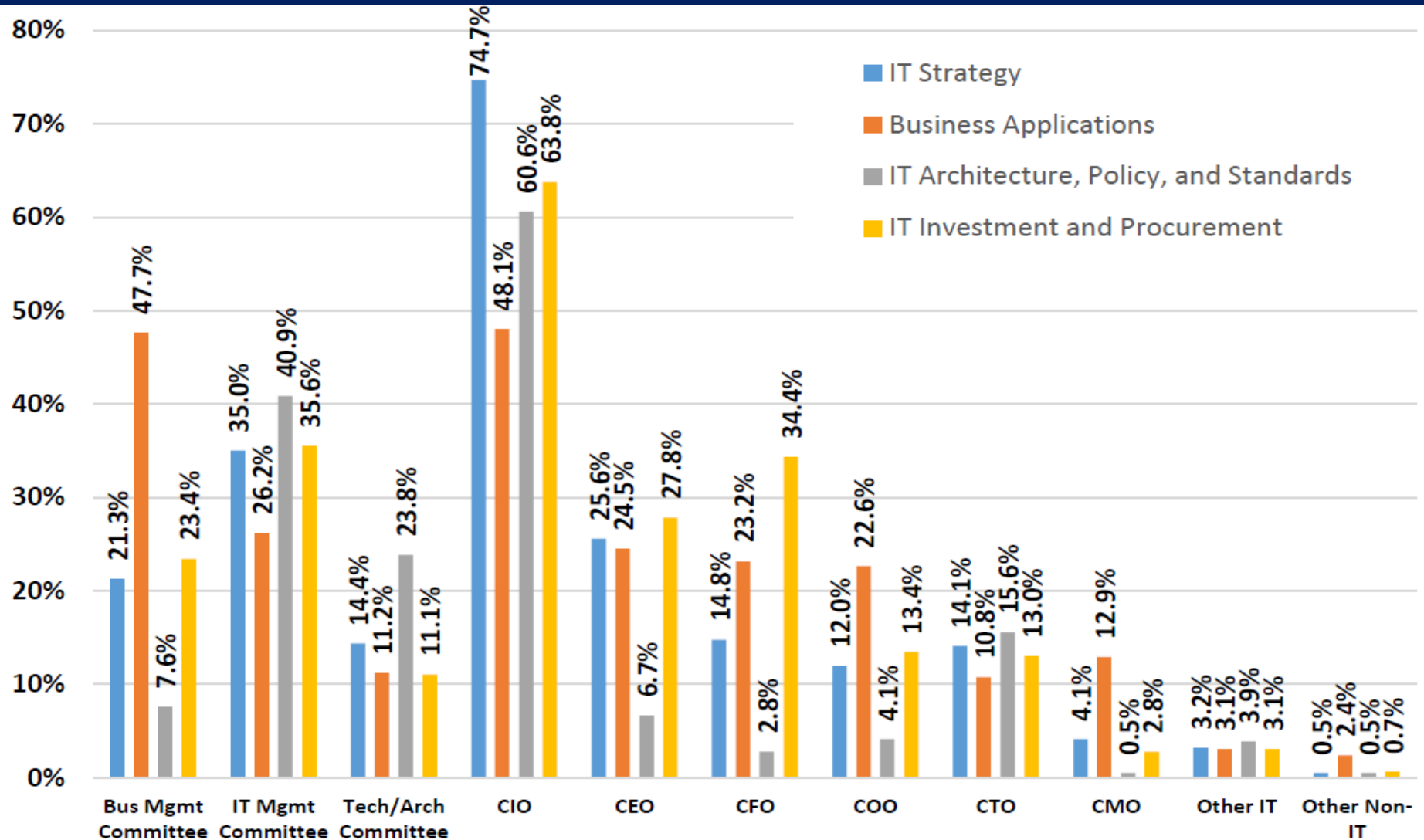
GIIMs HELPING HAND
BRIDGING ESSENTIAL SKILLS

GIIM

We make digital leaders

The Global Institute for IT Management

GIIM collaborates with its affiliates in delivering full degrees, certifications, postgraduate diplomas, and customized just-in-time workshops & seminars

35 4-course digital management certificates (over 150 courses) for IT and non-IT professionals

- **Programs focus on the digital transformation of IT & business**

- **Faculty & adherence to accreditation standards authenticates our brand**

CIO YEARS IN CURRENT POSITION

Copyright GIIM

THE CEO TENURE

2013   2014   2015   2016   2017   2018   2019   2020

Russell 3000   S&P 500

S&P 500: 26.2, 38.8, 28.6, 33.3, 31.4, 38.0, 35.2, 26.8

Russell 3000: 16.9*, 20.3, 19.0, 13.5

TO WHOM CIO OR EQUIVALENT REPORTS

Chart: "To whom CIO or equivalent reports" — line graph showing reporting percentages from 2011 to 2020.

This looks like a trend (green arrow)

CEO: 49.0% (2011), 43.0% (2012), 44.7% (2013), 44.2% (2014), 42.9% (2015), 46.3% (2016), 41.4% (2017), 45.9% (2018), 50.2% (2019), 46.7% (2020)

CFO: 32.0% (2011), 27.0% (2012), 27.1% (2013), 25.7% (2014), 29.0% (2015), 28.6% (2016), 28.1% (2017), 25.8% (2018), 24.9% (2019), 27.6% (2020)

COO/CAO: 12.0% (2011), 19.0% (2012), 14.4% (2013), 15.0% (2014), 16.8% (2015), 13.8% (2016), 19.0% (2017), 17.9% (2018), 14.0% (2019), 17.9% (2020)

Business Unit Executive: 5.0% (2011), 10.0% (2012), 9.2% (2013), 9.4% (2014), 4.8% (2015), 7.1% (2016), 5.6% (2017), 4.5% (2018), 6.1% (2019), 2.2% (2020)

Total Other: 2.0% (2011), 2.0% (2012), 4.6% (2013), 5.8% (2014), 5.5% (2015), 3.0% (2016), 5.1% (2017), 4.9% (2018), 4.1% (2019), 5.1% (2020)

Board/Board Member: 1.8% (2020)

Sample sizes: 2014 (n=284), 2015 (n=448), 2016 (n=417), 2017 (n=486), 2018 (n=426), 2019 (n=403), 2020 (n=274)

Legend: CEO, CFO, COO/CAO, Board/Board Member, Business Unit Executive, Total Other
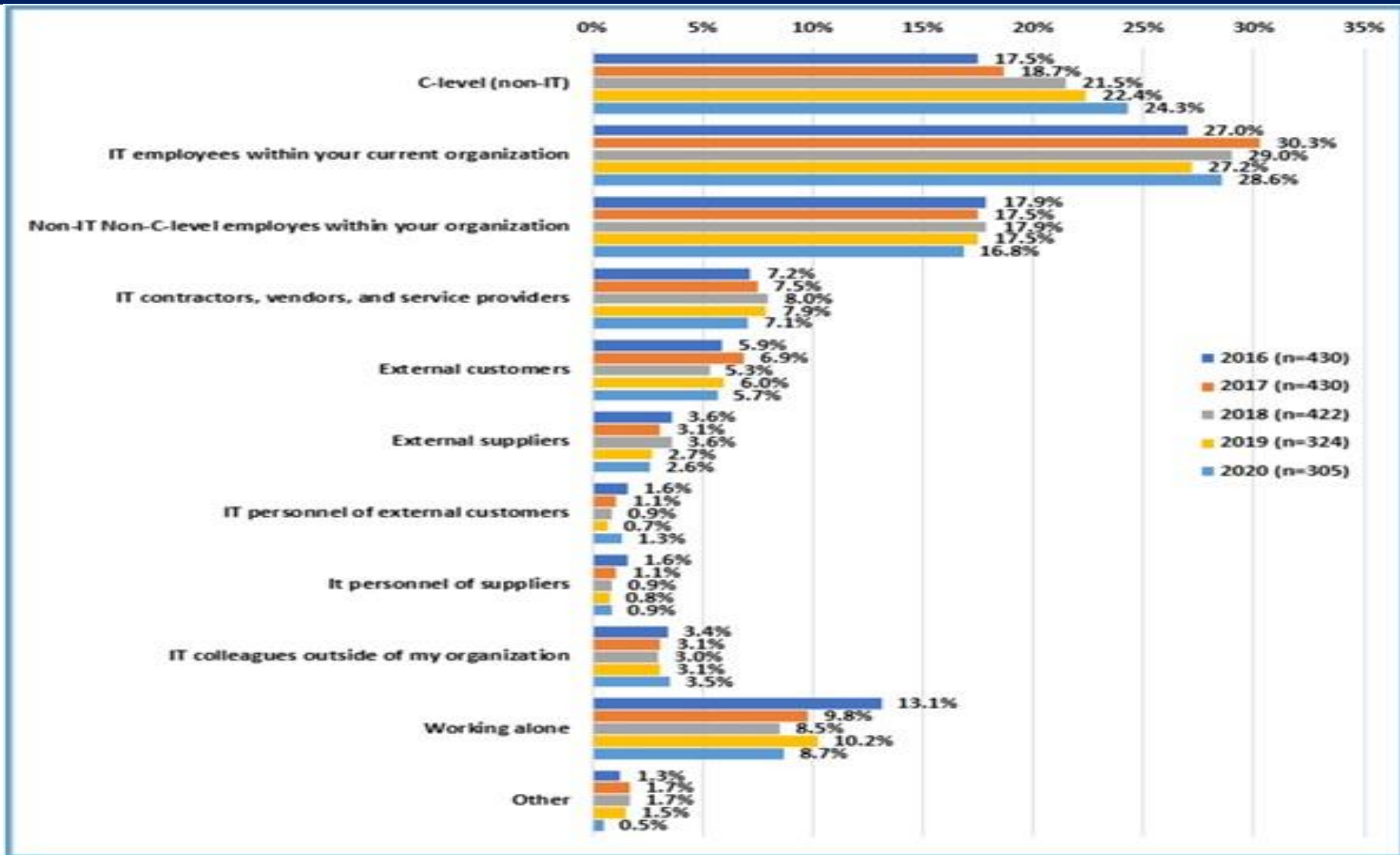
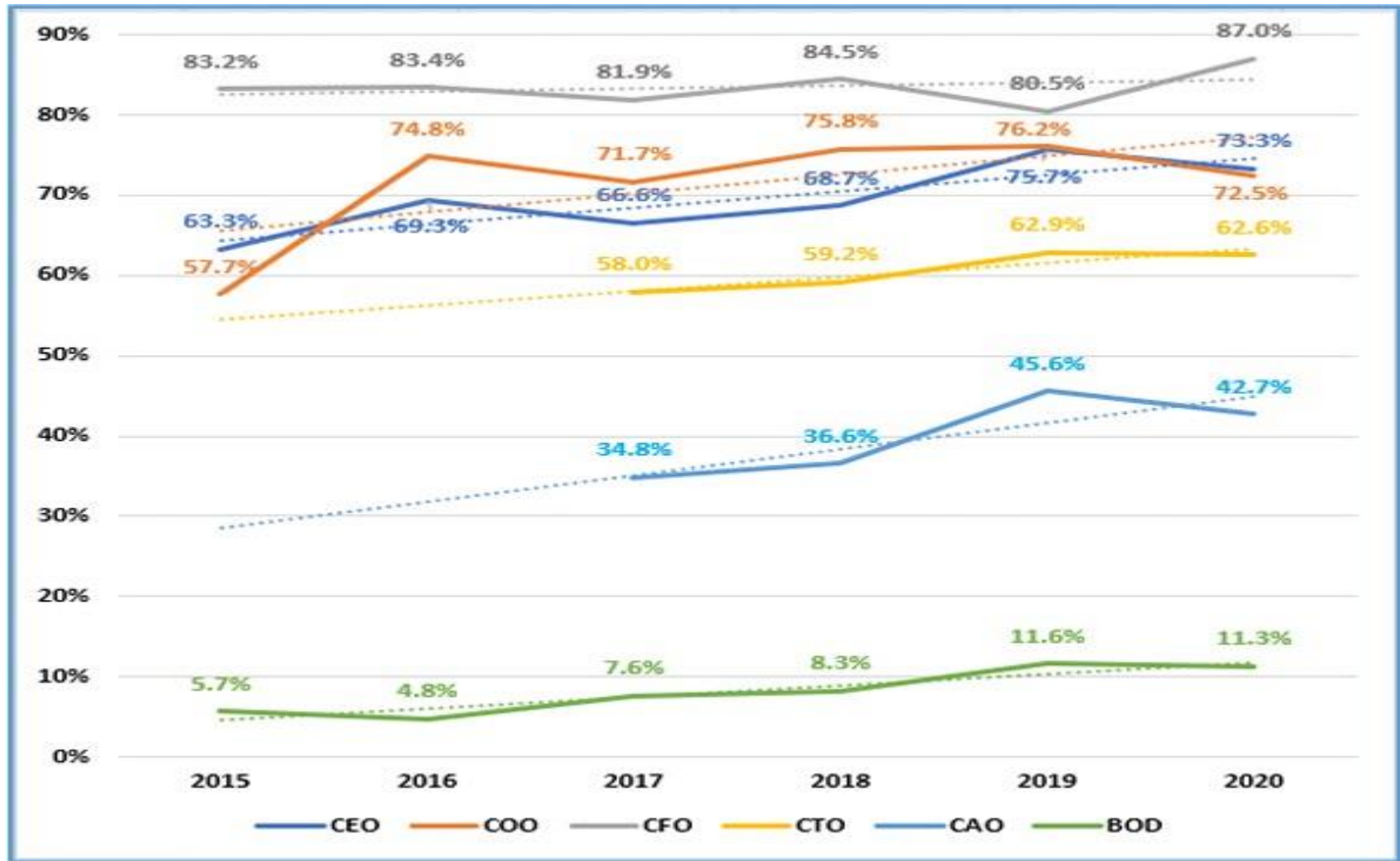# LAST POSITION BEFORE CIO OR EQUIVALENT
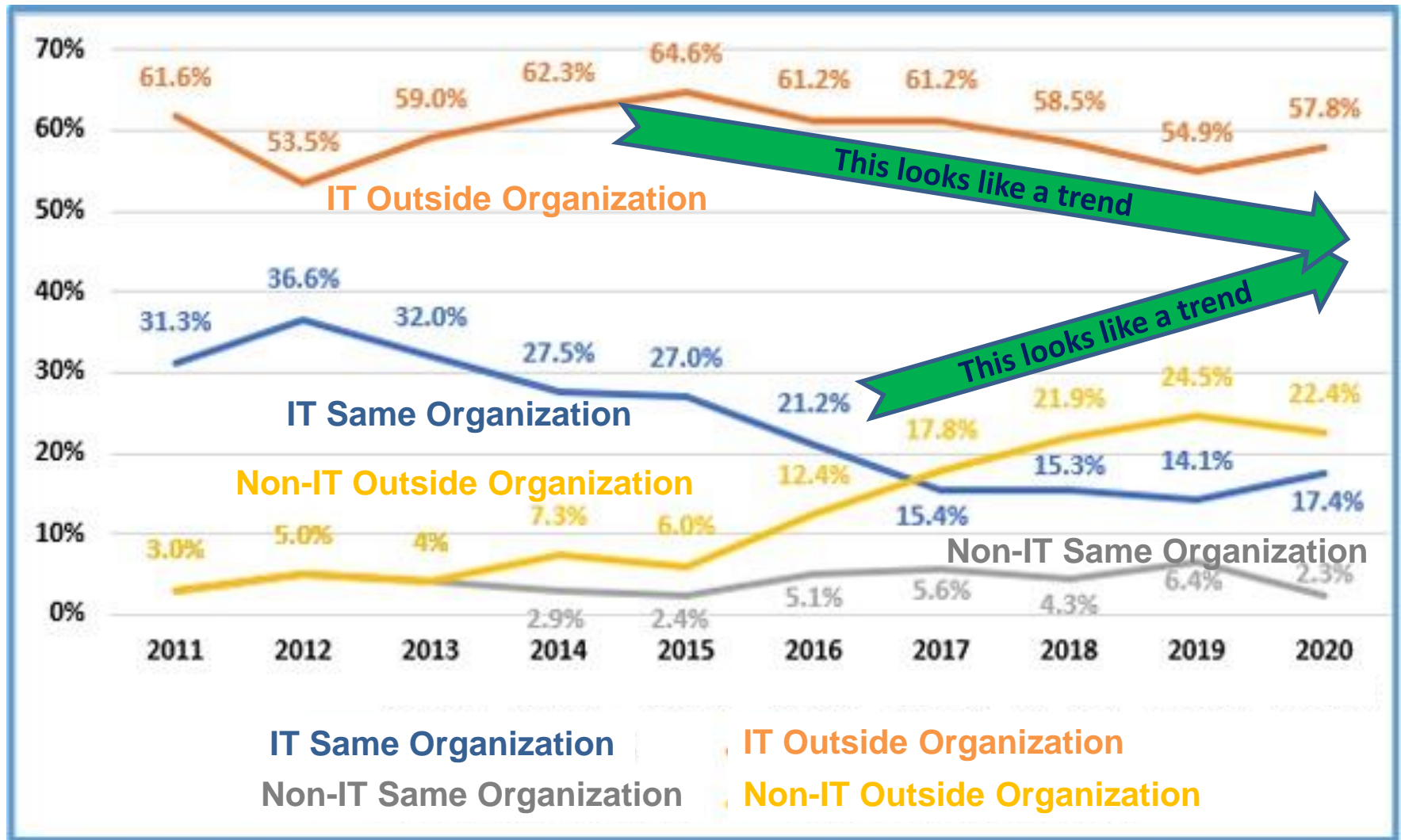
WITH WHOM DO CIOS SPEND THEIR TIME

CIOS SPEND THEIR TIME WITH C LEVELS

CIOS SPEND THEIR TIME

* Value for 2019 not measured
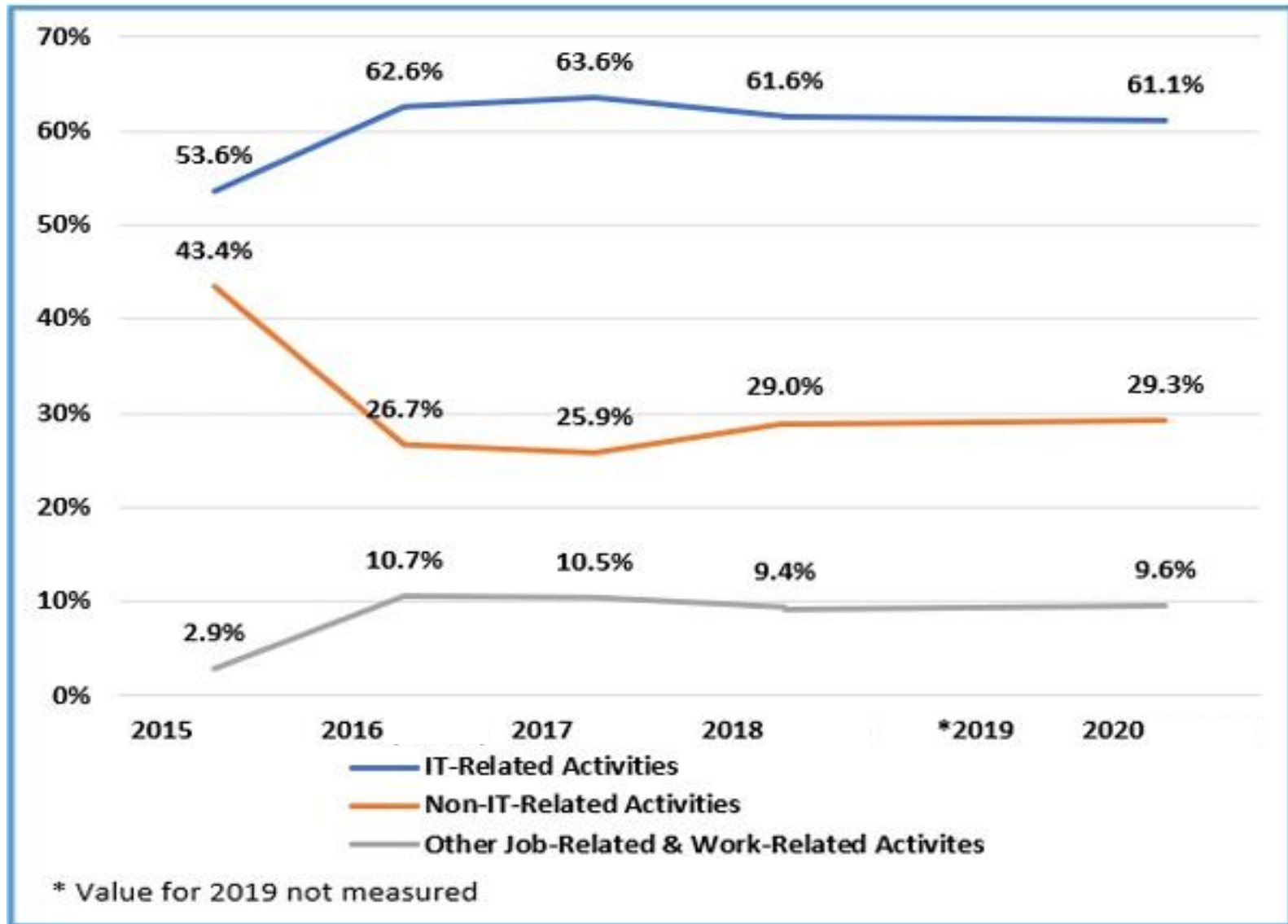
To Whom Does the CISO (or Equivalent) Report?

Position	% of Organizations		
	2018	2019	2020
CIO (Information)	62.3%	62.9%	57.5%
CEO/President	10.9%	12.1%	11.4%
CTO (Technology)	7.3%	9.0%	9.9%
Other	5.6%	4.3%	8.4%
COO (Operating)	5.6%	4.7%	6.6%
CFO/Treasurer/Finance	4.0%	2.0%	4.4%
Board/Board Member	0.3%	3.5%	1.8%
CLO (Legal)	2.3%	0.8%	
Internal Audit	1.0%	0.4%	
CCO (Compliance)	0.3%	0.0%	
CAO (Administrative)	0.3%	0.4%	

IT METRICS USED MOST

Availability / Up Time	1 (51.6%)	1 (41.1%)
Customer / User Satisfaction -Internal Users	2 (38.1%)	3 (23.0%)
Cost Control / Reduction -IT	3 (29.6%)	2 (29.9%)
Value of IT to the Business	4 (23.9%)	13 (9.0%)
Help Desk Performance	5 (23.6%)	4 (20.2%)
Cyber-security Related	5 (23.6%)	6 (17.8%)
Customer / User Satisfaction (External User)	7 (19.9%)	11 (10.5%)
Projects Delivered -on Time	8 (17.9%)	8 (17.3%)
IT Service Quality	9 (16.5%)	7 (17.6%)
Projects Delivered -on Budget	10 (13.9%)	9 (16.4%)
IT Budget Compliance	11 (12.8%)	17 (6.7%)
IT's Contribution to Strategy	12 (11.7%)	24 (3.6%)
Productivity Improvements (Business)	13 (11.5%)	21 (4.8%)
IT Spending -as % of Revenue	14 (11.4%)	20 (5.0%)
Cost Control / Reduction -Business	15 (9.1%)	16 (6.9%)
Innovative New Ideas	15 (9.1%)	22 (4.5%)
Improved Decision Making	17 (8.5%)	28 (2.1%)
Total Cost of Ownership	18 (7.7%)	12 (9.7%)
Productivity Improvement -IT	19 (7.4%)	14 (8.8%)
Increases in New Products or Services	20 (7.2%)	25 (3.1%)

ARE THESE WHAT SENIOR NON-IT EXECUTIVES FOCUS ON?

Organizations need leaders & managers to

➢ Identify what questions to focus on
➢ Understand the business issues
➢ Make judgment calls
➢ Align IT & business considerations

What happens to the role of the IT/business leader?

➢ Order Taker → Order Shaker…Future Focused
➢ Integration of technologies & security
  ✓ **S**ocial
  ✓ **M**obile
  ✓ **A**nalytics, Big Data, IoT
  ✓ **C**loud
  ✓ Legacy Systems
➢ Significant organization & governance considerations CIO vs CDO/CAO vs CISO vs CTO

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

BUSINESS LEADERS/EXECUTIVES EXCITED & PARANOID

How
↓
What
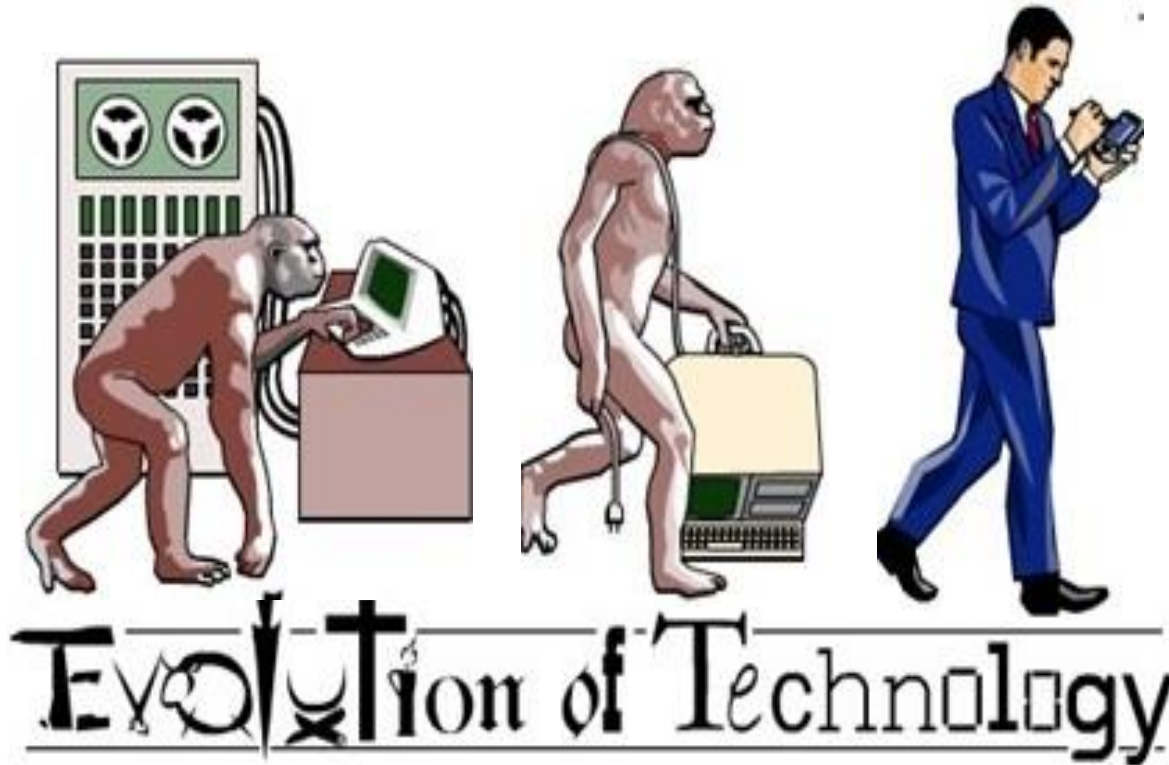
➤ Should/can organizations consider data, analytics, Robotics Process Automation, AI, cognitive computing, security, Blockchain, etc.,

▪ independently or

▪ **as an integrated technical and business strategy?**

➤ Where should the above technologies report in an organization?

➤ Are there different answers when first introducing a technology versus when scaling a technology?

➤ Change management, culture, organization, governance…ALIGNMENT

Managing change is an art, NOT a technology.

Transformation is inevitable, and meant to be difficult and likely discomforting, perhaps even painful. Preparation is essential.

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

WHY DISCUSS IT-BUSINESS STILL ALIGNMENT?

1. Consider their organizations are not misaligned

2. Too often considered just IT aligned <u>with</u> the business
3. Semantics: alignment vs integrate, harmony, link, fuse, affiliate, coalition, fit, match, meld, converge, IT is the business (IT-ification of business), interwoven, holism, empathy, partner, synchronization…
4. In search of mythical silver bullet
5. Focusing on infrastructure/architecture

6. How do you know if your alignment is "appropriate"?

7. Can we move from a <u>descriptive</u> vehicle to a <u>prescriptive</u> vehicle?

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Climbing the Strategic Alignment Pyramid

Business Strategy

IT Strategy

Level 5
Optimized Process

Level 4
Improved Process

Level 3
Established Process

Level 2
Committed Process

Level 1
Initial Process

Alignment Gap

GIIM

GLOBAL INSTITUTE FOR IT MANAGEMENT

COMMUNICATIONS

GOVERNANCE

COMPETENCY,
VALUE METRICS

SCOPE &
ARCHITECTURE

PARTNERSHIP

SKILLS
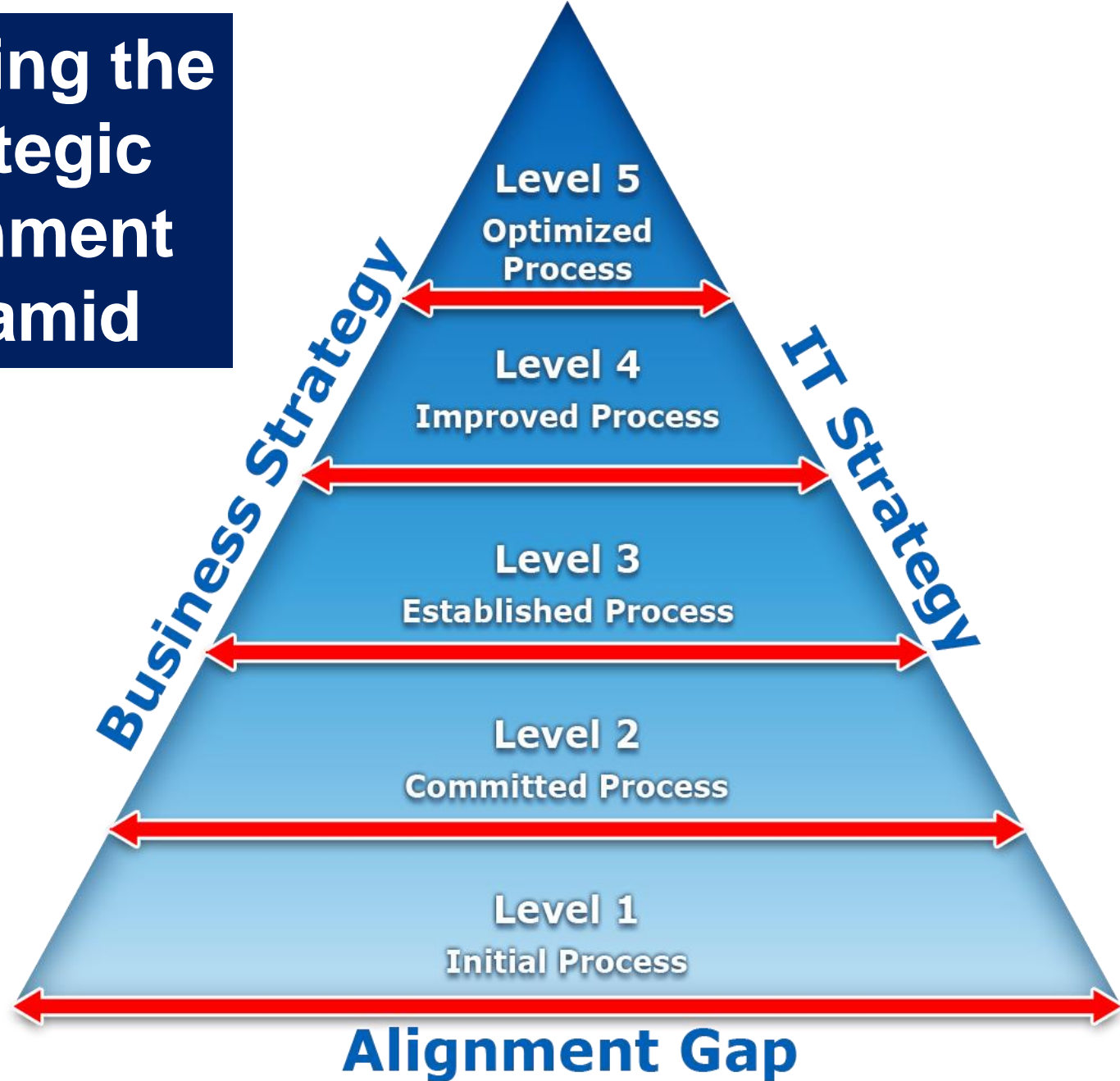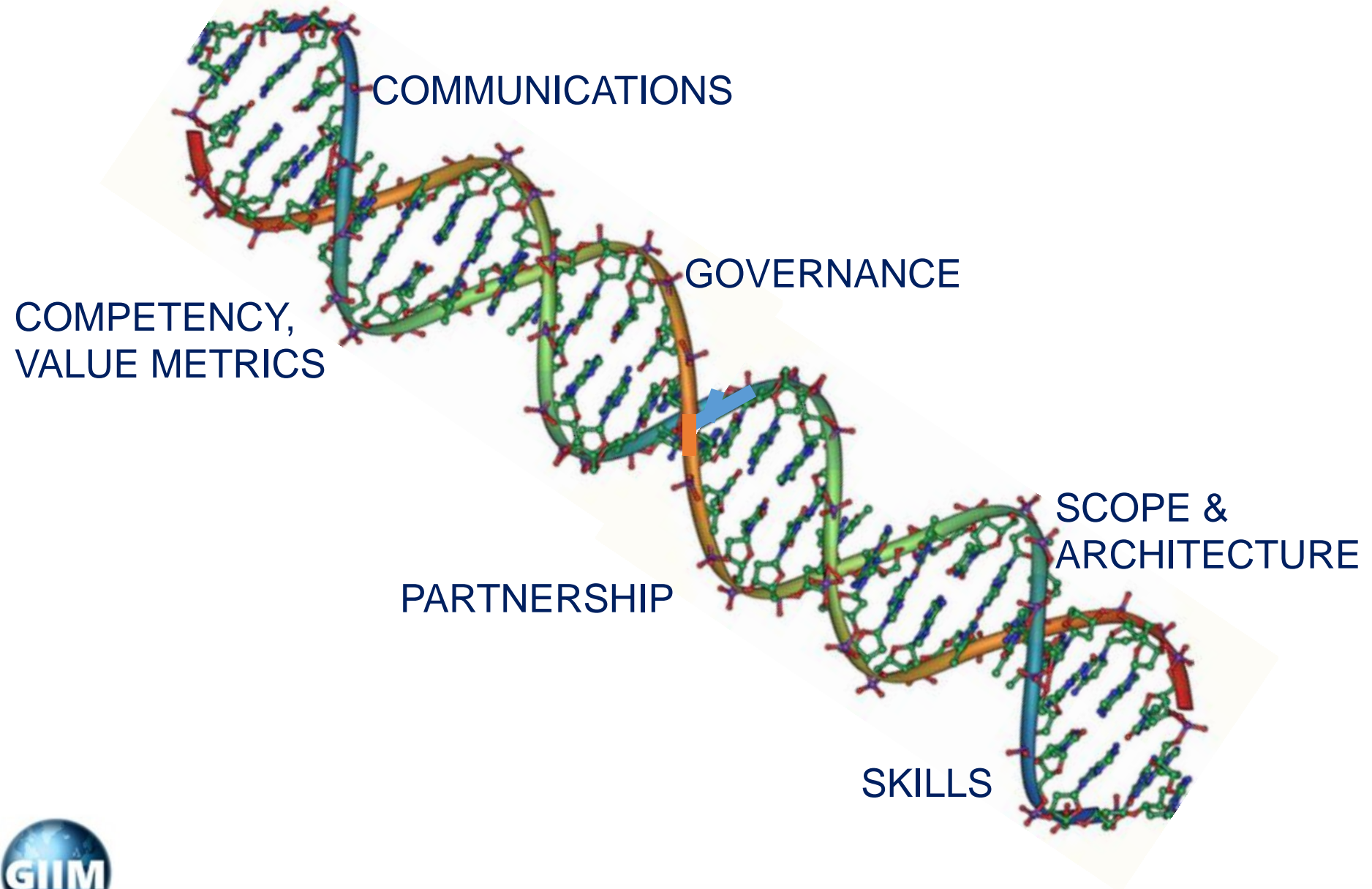
COMMUNICATIONS

- Understanding of Business by IT
- Understanding of IT by Business
- Inter/Intra organizational Learning/Education
- Protocol Rigidity
- Knowledge Sharing
- Liaison(s) effectiveness

COMPETENCY/VALUE MEASUREMENTS

- IT Metrics
- Business Metrics
- Balanced Metrics
- Service Level Agreements
- Benchmarking
- Formal Assessments/Reviews
- Continuous Improvement

GOVERNANCE

- Business Strategic Planning
- IT Strategic Planning
- Organization Structure
- Budgetary Control
- IT Investment Management
- Steering Committee(s)
- Prioritization Process

IT BUSINESS ALIGNMENT MATURITY CRITERIA

PARTNERSHIP

- Business Perception of IT Value
- Role of IT in Strategic Business Planning
- Shared Goals, Risk, Rewards/Penalties
- IT Program Management
- Relationship/Trust Style
- Business Sponsor/Champion

SCOPE & ARCHITECTURE

- Traditional, Enabler/Driver, External
- Standards Articulation
- Architectural Integration:
  - Functional Organization
  - Enterprise
  - Inter enterprise
- Architectural Transparency, Agility, Flexibility
- Manage Emerging Tech.

SKILLS

- Innovation, Entrepreneurship
- Cultural Locus of Power
- Management Style
- Change Readiness
- Career crossover; training/education
- Social, Political, Trusting Interpersonal Environment
- Hiring and retaining

GIIM

GLOBAL INSTITUTE
FOR IT MANAGEMENT

Strategic Alignment Maturity Summary

Level 5 • Optimizing process
- COMMUNICATIONS: Informal, pervasive
- COMPETENCY/VALUE: Extended to external partners
- GOVERNANCE: Integrated across the org & partners
- PARTNERSHIP: IT-business co-adaptive/improvisational
- SCOPE & ARCHITECTURE: Evolve with partners
- SKILLS: Education/careers/rewards across the organization

Level 4 • Improved/ managed process
- COMMUNICATIONS: Bonding, unified
- COMPETENCY/VALUE: Cost effective;Some partner value;Dashboard managed
- GOVERNANCE: Managed across the organization
- PARTNERSHIP: IT enables/drives business strategy
- SCOPE & ARCHITECTURE: Integrated with partners
- SKILLS: Shared risk & rewards

Level 3 • Established focused process
- COMMUNICATIONS: Good understanding; Emerging relaxed
- COMPETENCY/VALUE: Some cost effectiveness; Dashboard established
- GOVERNANCE: Relevant process across the organization
- PARTNERSHIP: IT seen as an asset; Process driver;Conflict seen as creative
- SCOPE & ARCHITECTURE: Integrated across the organization
- SKILLS: Emerging value service provider;Balanced tech & business hiring

Level 2 • Committed process
- COMMUNICATIONS: Limited business/IT understanding
- COMPETENCY/VALUE: Functional cost efficiency
- GOVERNANCE: Tactical at Functional level,occasional responsive
- PARTNERSHIP: IT emerging as an asset; Process enabler
- SCOPE & ARCHITECTURE: Transaction (e.g., ESS, DSS)
- SKILLS: Differs across functional organizations

Level 1 • Initial/Ad-Hoc process
- COMMUNICATIONS: Business/IT lack understanding
- COMPETENCY/VALUE: Some technical measurements
- GOVERNANCE: No formal process,cost center, reactive priorities
- PARTNERSHIP: Conflict; IT a cost of doing business
- SCOPE & ARCHITECTURE: Traditional (e.g., acctng, email)
- SKILLS: IT takes risk, little reward; Technical training

Value Measurements
- Customer & Provider Metrics (tech. & bus.) for services
- SLA & Management Process
- Benchmarks
- Formal Assessments & Improvement Reviews
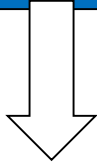
Governance
- Use of Joint Strategic, Tactical & Operational Committees
- Formal/Informal Mechanisms
- Prioritization Process
- Resource Allocation Process
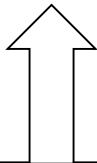- Statutory & Regulatory Requirements
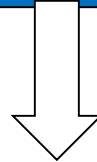
Partnership
- Role of Provider in Customer Strategy & Planning
- Shared Goals, Risks, Rewards/Penalties
- Mutual Trust
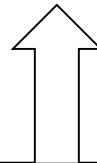- Formal & Informal Agreements
- Joint Sponsor & Champions
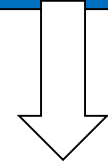
## CUSTOMER-PROVIDER ALIGNMENT MATURITY CRITERIA

Communications
- Customer Understanding of Provider
- Provider Understanding of Customer
- Organizational Learning & Knowledge Sharing
- Customer-Provider Liaison

Human Resources & Skills
- Technical & Business Skills of Customer & Provider
- Cultural Match
- Change Readiness
- Cross Training/Education
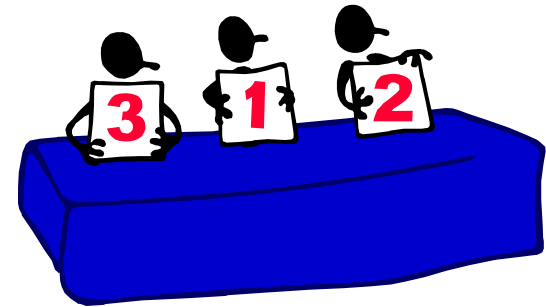- Hiring/Retaining; Skills Management & Portfolio
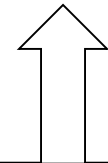
Scope & Architecture
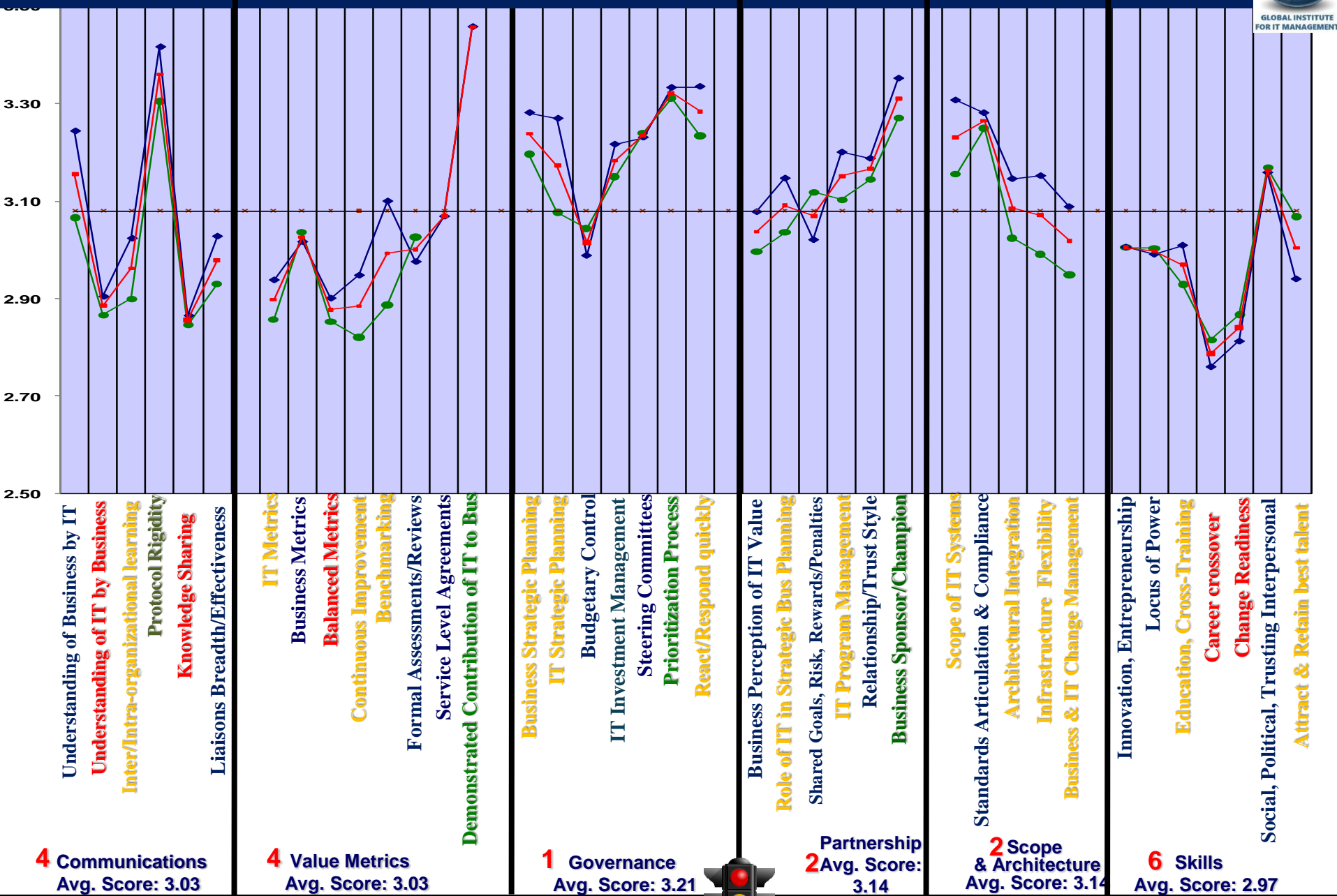- Architectural Agility, Transparency, Flexibility
- Standards Adherence
- Impact of Provider Services on Customer & its Partners

IT IS NOT JUST THE LEVEL OF MATURITY

➤ **Where is the organization strong/weak?**

➤ **Where is there disagreement?**

➤ **What are the implications?**

➤ **What can be done to improve the maturity level (prescriptive)?**

➤ **It opens the door to discuss alignment**

Overall SAM Assessment Maturity

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

4 Communications
Avg. Score: 3.03

4 Value Metrics
Avg. Score: 3.03

1 Governance
Avg. Score: 3.21

Partnership
2 Avg. Score: 3.14

2 Scope
& Architecture
Avg. Score: 3.14

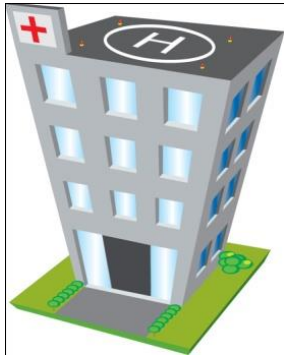**6** Skills
Avg. Score: 2.97

* Overall Alignment Average Score: 3.09

◆**IT** ●**BUS** ■**Average**

SAM Performance Framework
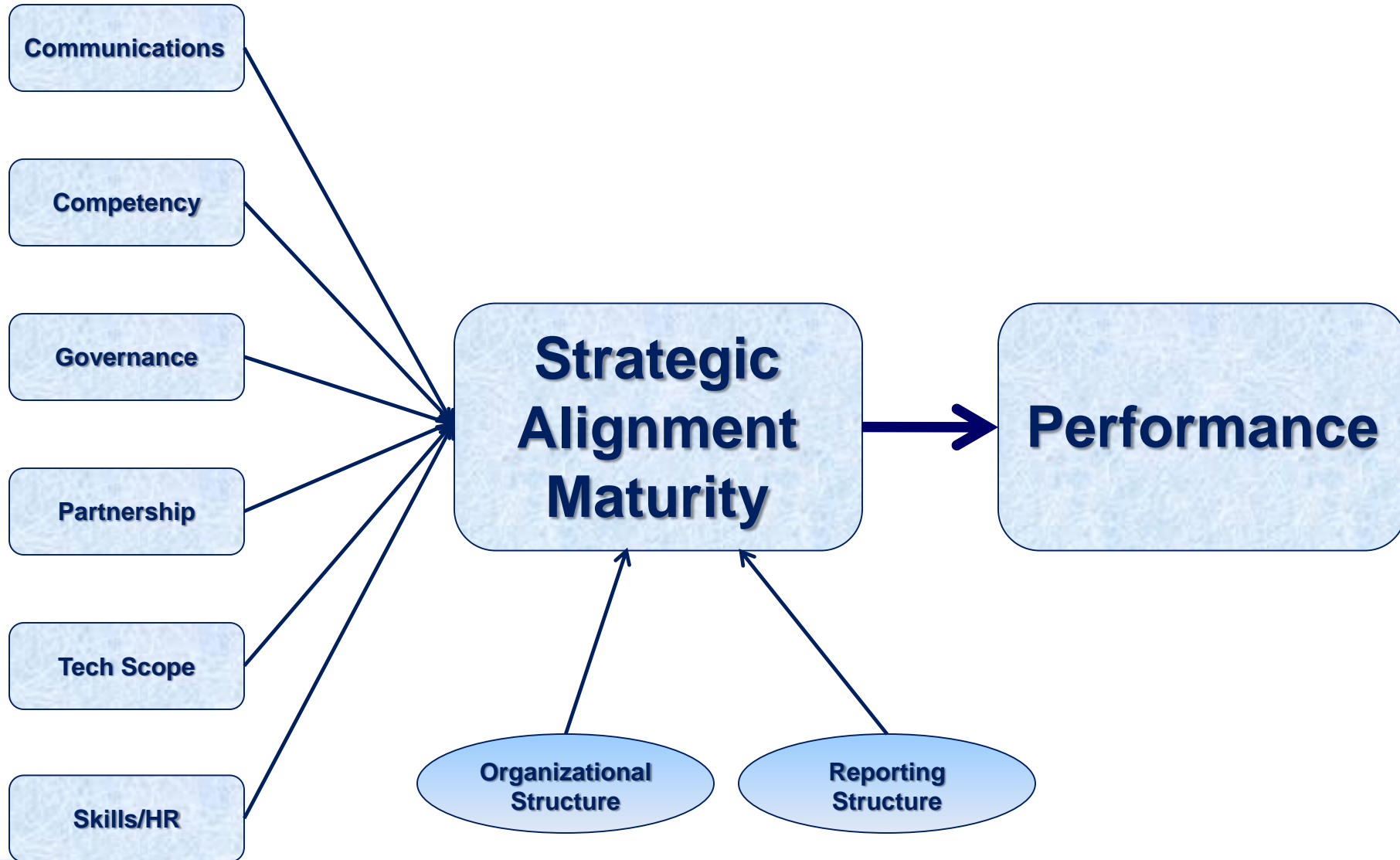
SAM Performance Framework

Communic.

Competency
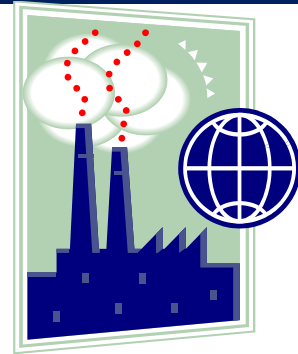
Governance

Partnership

Tech Scope

Skills/HR

Strategic Alignment Maturity → **Performance**

COBIT
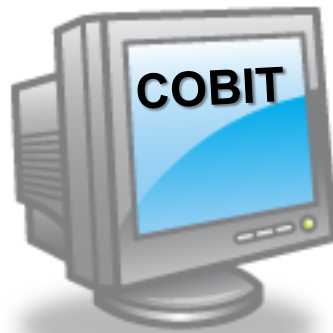
Outsourcing

Pharma Correlation between Strategic Alignment Maturity and Sales

Company Alias
- Company A
- Company B
- Company C
- Company D
- Company E
- Company F
- Company G
- Company H
- Company I

R Sq Linear = 0.243

Y-axis: IT+BL SAMA RANK
X-axis: 2004 Sales Rank

Nash
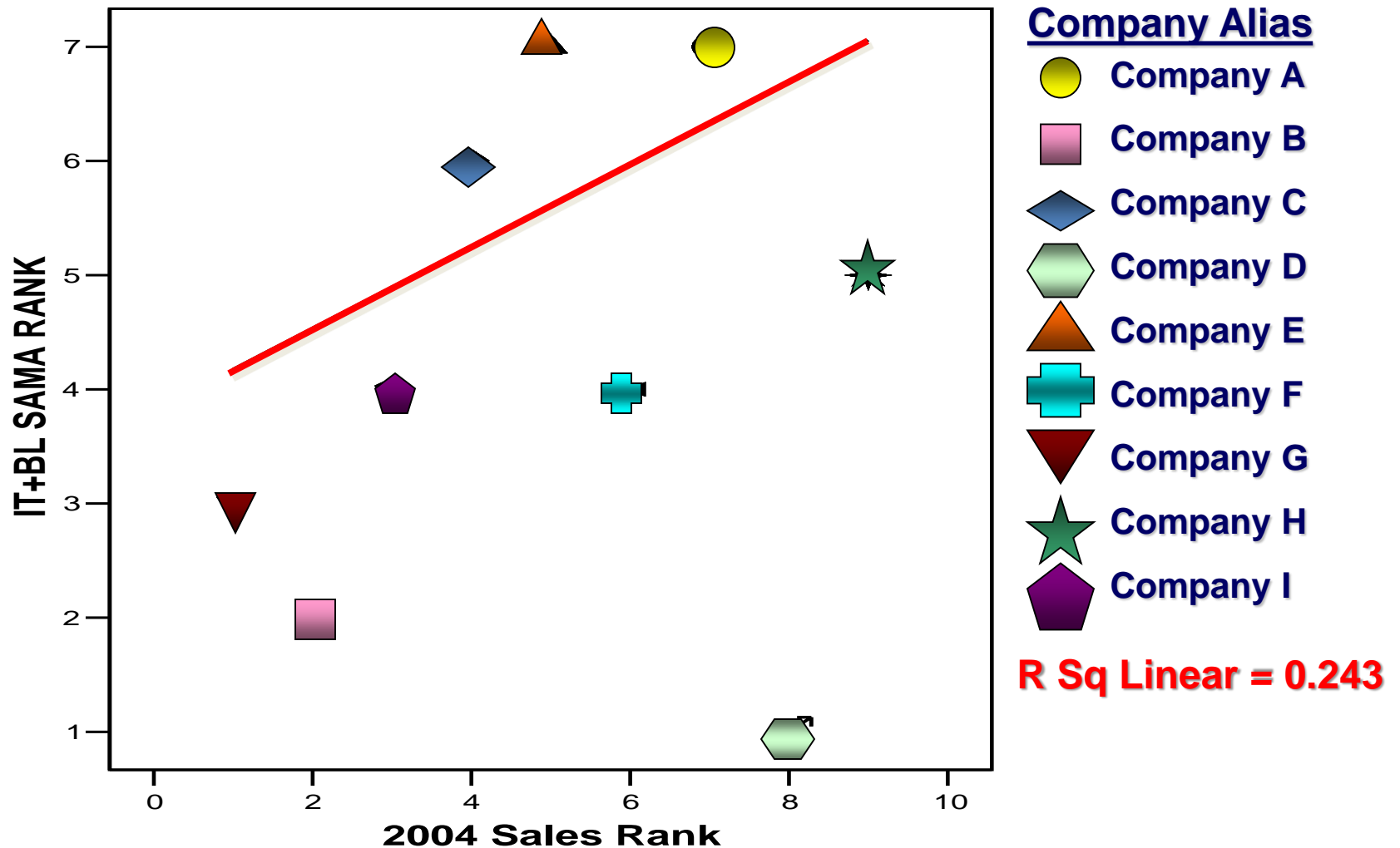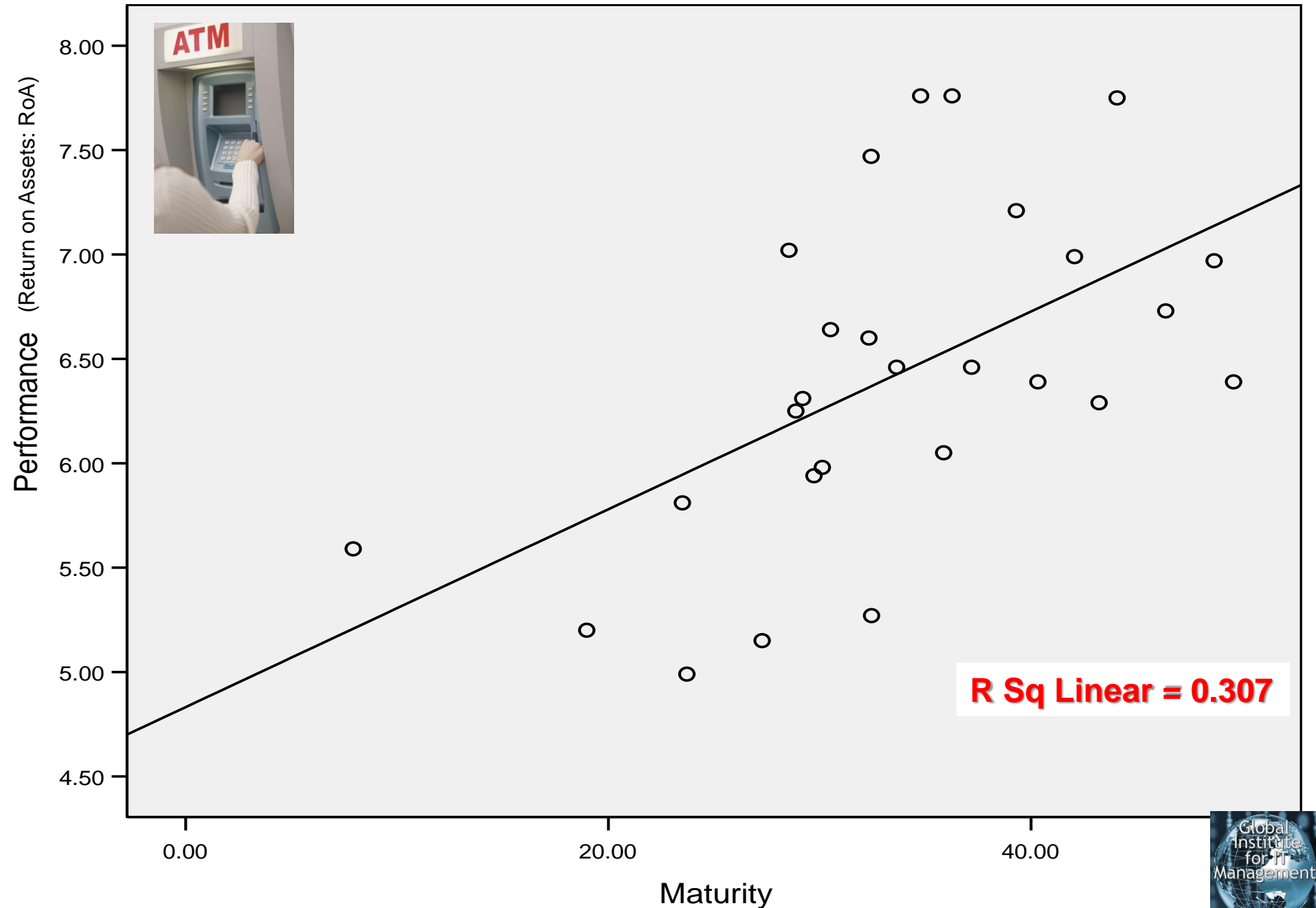
Financial Metric vs. SAM Level

O Observed
— Linear Regression

Financial Performance vs. SAM Level
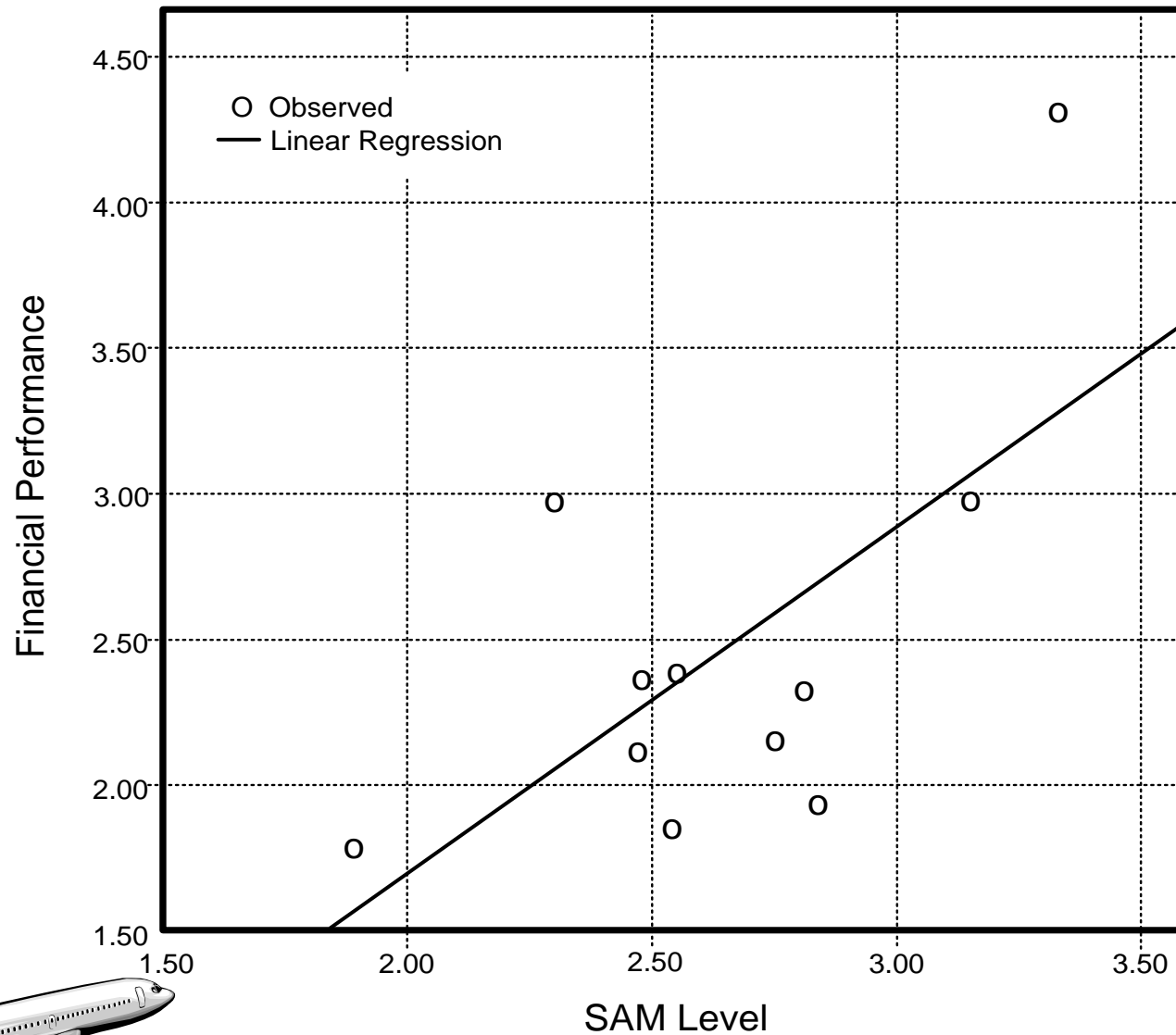
Correlation is significant at the 0.05 level (2 tailed)

Ryan

	R²
SAM	**.412**
COMM	.457
COMP	.487
GOV	.197
PART	.248
SCOPE	.285
SKILL	.306

		Fleet Size	Annual Revenue	Load Factor	Financial Performance	Operational Performance
SAM	Pearson Correlation - R^2	0.013	0.016	0.434	0.412	0.183
	Sig. (2-tailed) - p	0.734	0.712	0.027*	0.033*	.397
	N	11	11	11	11	6
COMM\	Pearson Correlation - R^2	0.008	0.003	0.097	0.457	0.014
	Sig. (2-tailed) - p	0.797	0.876	0.351	0.023*	.824
	N	11	11	11	11	6
COMP	Pearson Correlation - R^2	0.002	0.053	0.403	0.487	0.207
	Sig. (2-tailed) - p	0.893	0.496	0.036*	0.017*	.364
	N	11	11	11	11	6
GOV	Pearson Correlation - R^2	0.022	0.044	0.743	0.197	0.230
	Sig. (2-tailed) - p	0.663	0.538	0.001**	0.171	.335
	N	11	11	11	11	6
PART	Pearson Correlation - R^2	0.000	0.055	0.462	0.248	0.392
	Sig. (2-tailed) - p	0.972	0.487	0.021*	0.119	.184
	N	11	11	11	11	6
SCOPE	Pearson Correlation - R^2	0.032	0.024	0.590	0.283	0.165
	Sig. (2-tailed) - p	0.596	0.652	0.006**	0.092	.424
	N	11	11	11	11	6
SKILL	Pearson Correlation - R^2	0.031	0.010	0.060	0.306	0.206
	Sig. (2-tailed) - p	0.602	0.772	0.471	0.077	.366
	N	11	11	11	11	6

* Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level

Correlation Analysis of SAM Scores to Return on Investment (ROI) – Indian IT Service Firms

Shows significant positive correlation of .401 at the .01 level
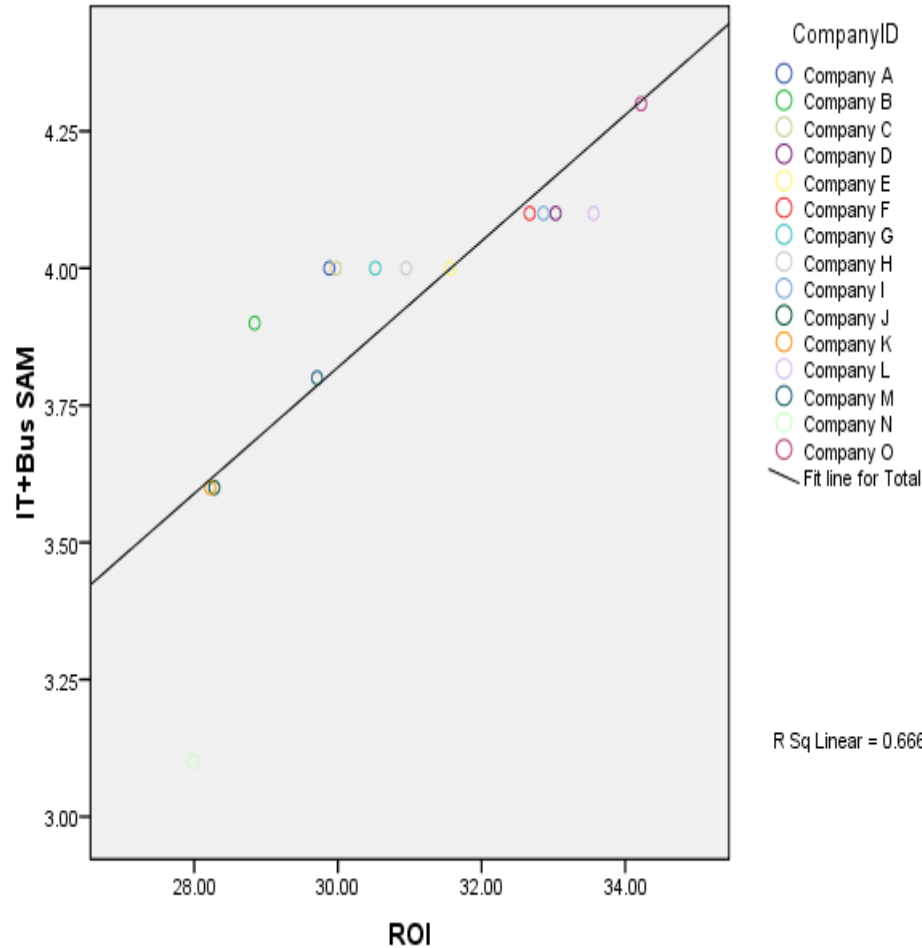
Correlations

			SAM Total	ROI
Kendall's tau_b	SAM Total	Correlation Coefficient	1.000	.401**
		Sig. (2-tailed)	.	.000
		N	90	90
	ROI	Correlation Coefficient	.401**	1.000
		Sig. (2-tailed)	.000	.
		N	90	90
Spearman's rho	SAM Total	Correlation Coefficient	1.000	.542**
		Sig. (2-tailed)	.	.000
		N	90	90
	ROI	Correlation Coefficient	.542**	1.000
		Sig. (2-tailed)	.000	.
		N	90	90

**. Correlation is significant at the .01 level (2-tailed).

ANOVA[b]

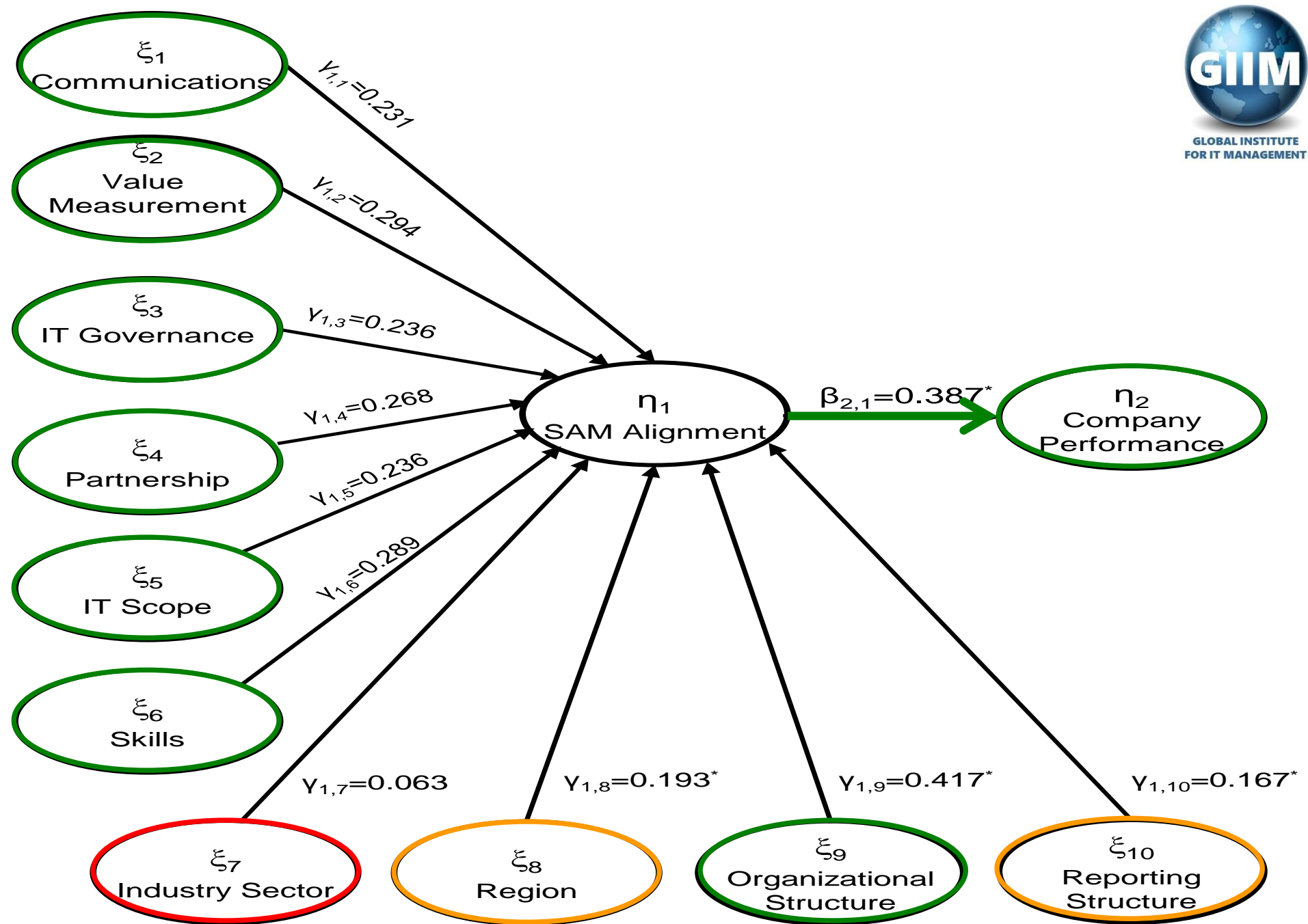| Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.995	1	106.995	37.017	.000[a]
	Residual	254.360	88	2.890		
	Total	361.356	89			

a. Predictors: (Constant), SAM Total

b. Dependent Variable: ROI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	19.901	1.803		11.037	.000
	SAM Total	2.787	.458	.544	6.084	.000

a. Dependent Variable: ROI

Kempaiah

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

ξ_1 Communications

ξ_2 Value Measurement

ξ_3 IT Governance

ξ_4 Partnership

ξ_5 IT Scope

ξ_6 Skills

ξ_7 Industry Sector

ξ_8 Region

ξ_9 Organizational Structure

ξ_{10} Reporting Structure

η_1 SAM Alignment

η_2 Company Performance

$\gamma_{1,1} = 0.231$

$\gamma_{1,2} = 0.294$

$\gamma_{1,3} = 0.236$

$\gamma_{1,4} = 0.268$

$\gamma_{1,5} = 0.236$

$\gamma_{1,6} = 0.289$

$\gamma_{1,7} = 0.063$

$\gamma_{1,8} = 0.193^*$

$\gamma_{1,9} = 0.417^*$

$\gamma_{1,10} = 0.167^*$

$\beta_{2,1} = 0.387^*$

*p<0.001

Balance Scorecard & Business-IT Alignment

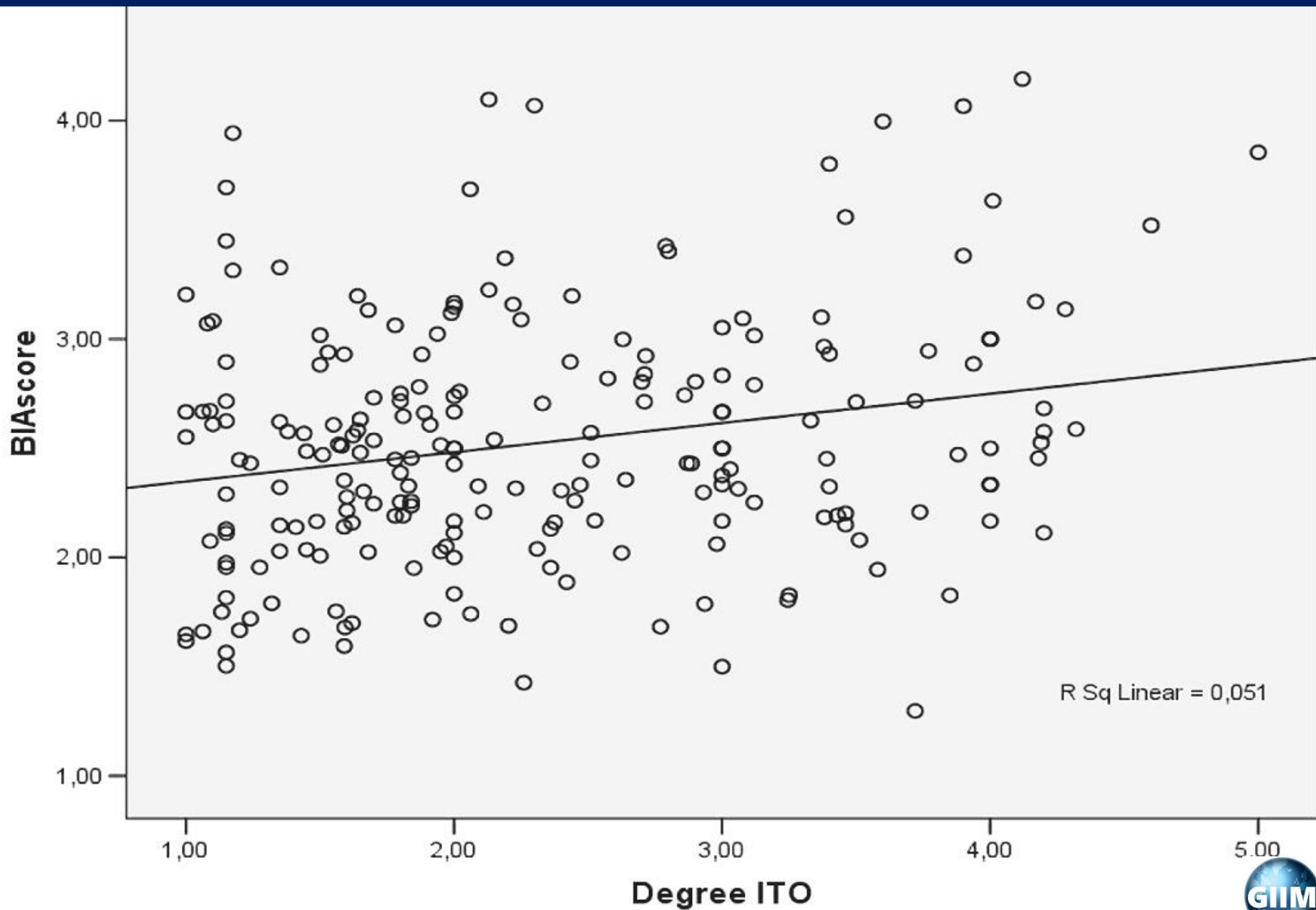# Cobit & Business-IT Alignment

n=113

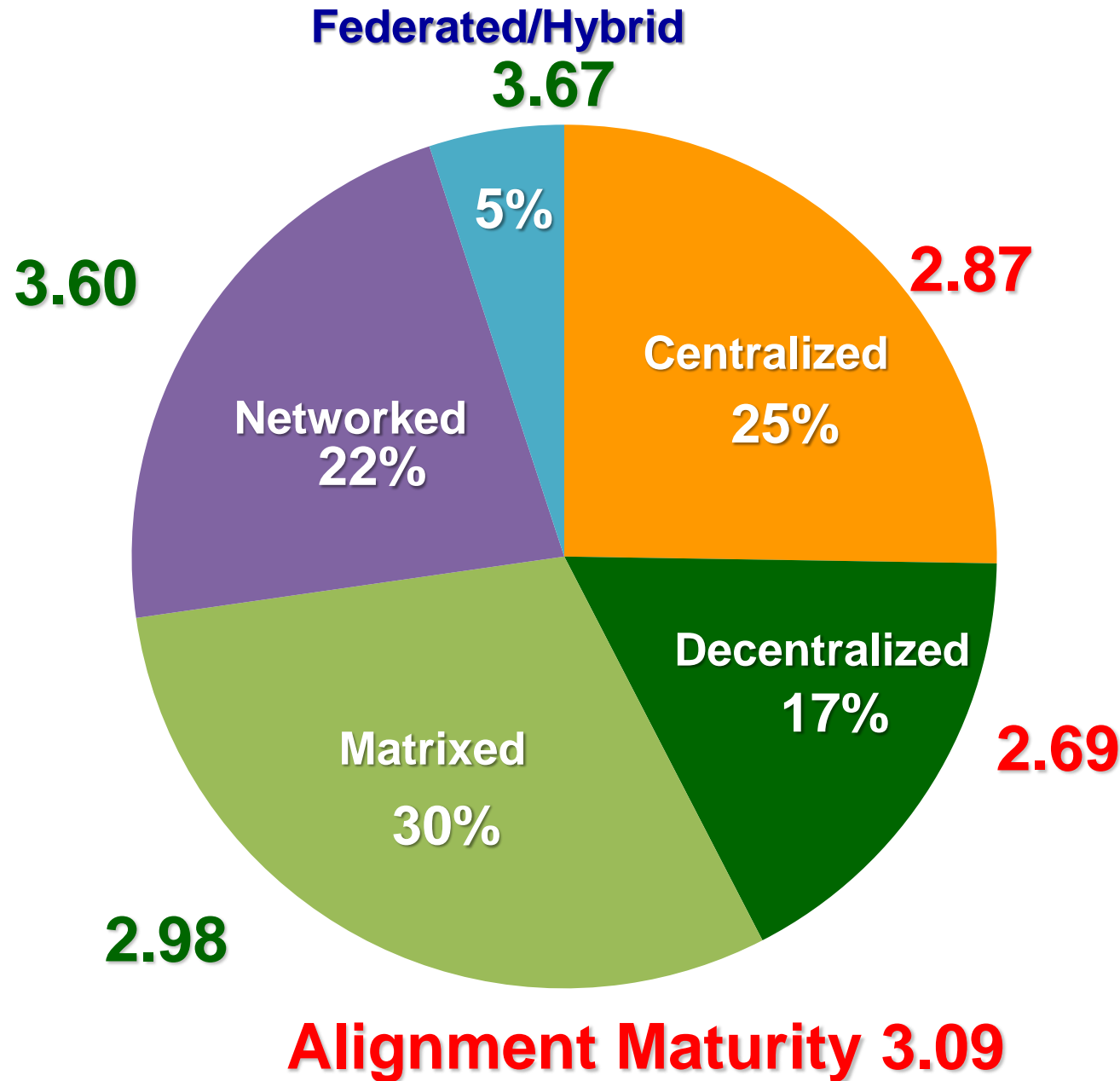Cobit Maturity Cluster Levels
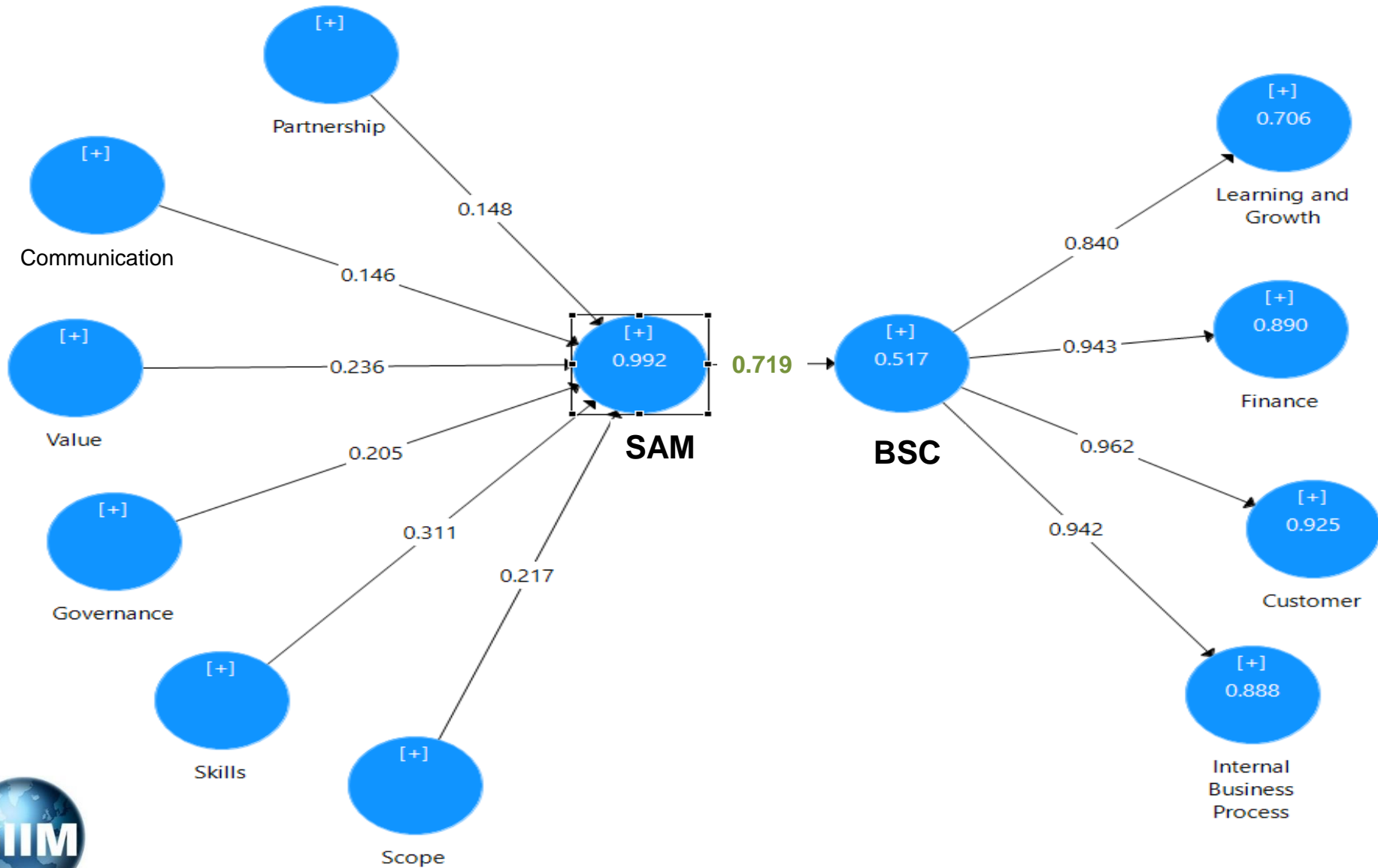
Business-IT Alignment
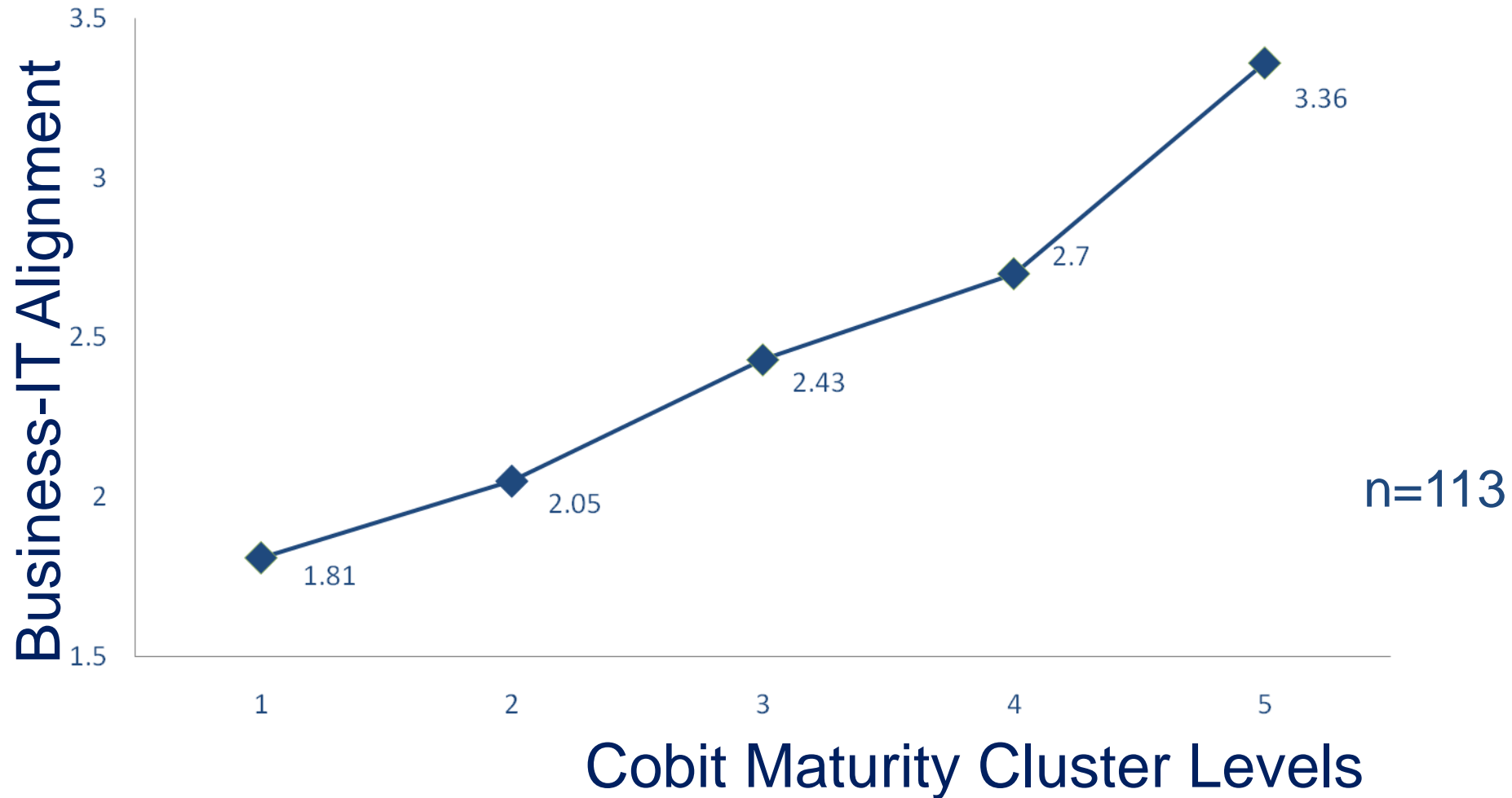
Ref: "IT Executives' Perception of CobiT: Satisfaction, Business-IT Alignment and Benefits" by Mauricio Marrone, Lukas Homann and Lutz M. Kolbe (Proceedings of the Sixteenth Americas Conference on Information Systems, Lima, Peru, August 12-15, 2010.)

GIIM
GLOBAL INSTITUTE FOR IT MANAGEMENT

Communication

Competency & Value

R Squared = .216*
w/Agile = .216*

R Squared = .087*
w/Agile = .088*

AGILE

R Squared = .010

Governance

R Squared = .035
w/Agile = .037

SAM

R Squared = .139*
Beta = .372

PERCEIVED IT PROJECT SUCCESS

w/Agile R Squared = .141*
Beta = .393

Partnership

R Squared = .099*
w/Agile = .100*

* = (p<.05)

Scope & Architecture

R Squared = .073*
w/Agile = .073

Perceived IT Project Success is a self-reported measure of success defined by project management professionals.

R Squared = .132*
w/Agile = .133*

Skills

ROBERT ROSSI

Outsourcing & Business-IT Alignment

R Sq Linear = 0,051

Ref: Barry Derksen

CIO Reporting Structure

3.01

COO
9 %

3.36

President, Chairman, CEO

Business Unit Exec

56 %

30 %

5 %

CFO

3.45

3.25
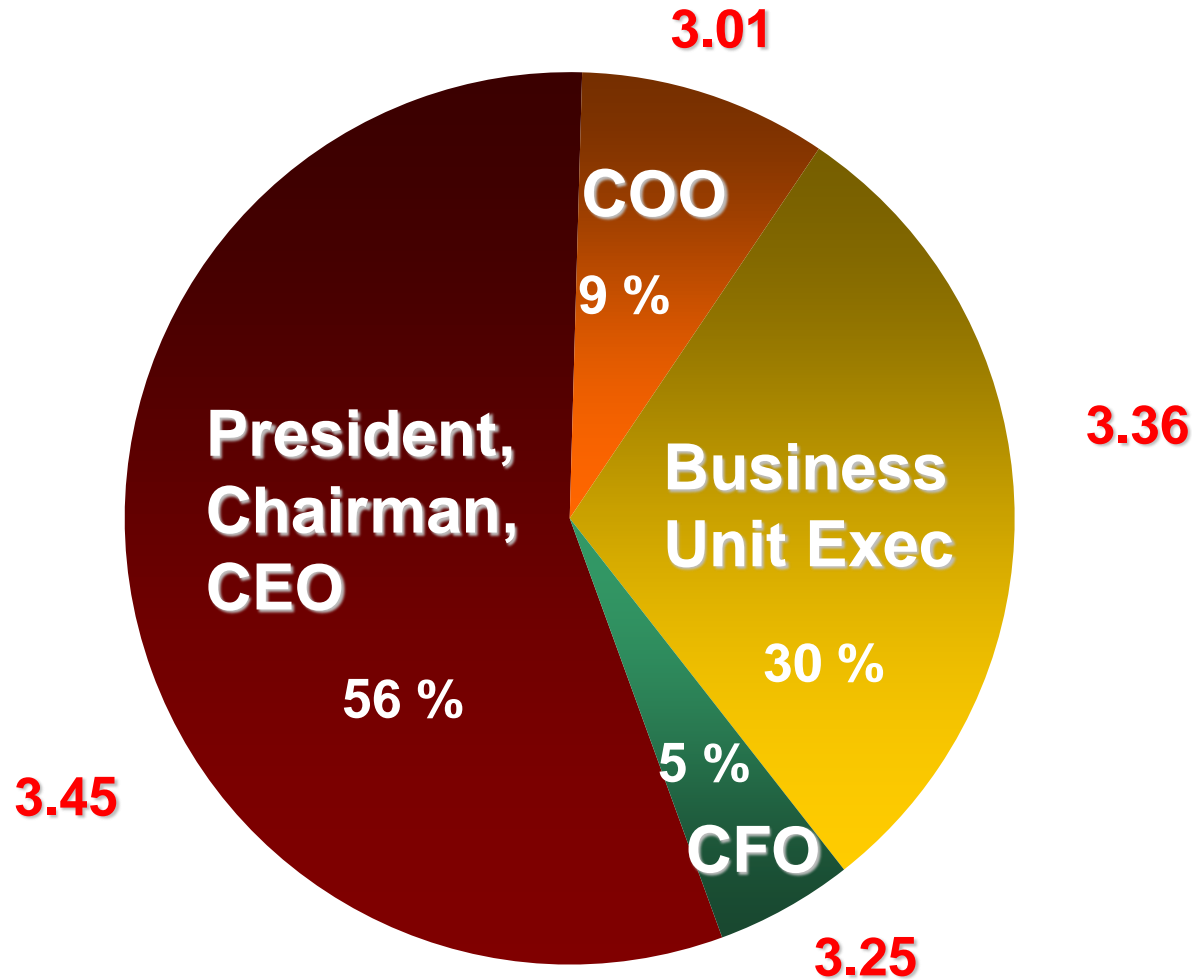
Alignment Maturity 3.09

Where should they report?

- CIO
- CTO
- Applications VP
- CISO
- CDO
- CAO

ALIGNING IT AND IT!

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Opens up the door to improve the relationship of IT & Business!

Service Provider

Innovator

STRATEGIC PARTNER

What's Needed

Co Adapt with Customers Clients

What's Possible

Transform the Business

How

Grow the Business (Front Office)

What

Run the Business (Back Office)

EVOLVING ROLE OF THE CIO

Enabler � Driver   of Revenue

Optimize IT, Supplier

IT Strategy ⊘

Strategy

IT Plan ⊘

Plan

GIIM
GLOBAL INSTITUTE
FOR IT MANAGEMENT

Digital Transformation: How Strategic Advances in IT are Changing Every Business

1. What are the strategic IT challenges that IT & non-IT executives must understand?

2. How can organizations prepare for the transformation being enabled/driven by IT

3. What are the emerging trends in the role of IT?

4. How can the pervasive/persistent alignment of business & IT be enriched?

✓ **https://www.globaliim.com/global-it-trends-researc**
✓ **https://www.globaliim.com/business-it-alignment**

The next move is yours