

A Study of Leveraging Information To Drive Business Decisions

Customized Scorecard

A joint study conducted by faculty at



THIS DOCUMENT CONTAINS

- ▶ A comprehensive summary of the study's findings to date (April, 2005)
- ▶ Individual evaluation that compares your organization's use of information to other companies in the Fortune 1000 and the top 500 firms in Europe who participated in the survey

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Introduction to the Study

- ▶ In the normal course of business, companies collect volumes of information about their customers, their internal operations, and their supply chain partners. The potential to integrate and use this information to benefit specific projects and improve decision making is enormous.
- ▶ However, in our field work, we found that firms need to build an effective information infrastructure in order to overcome the barriers to successfully integrate information that exists within their companies.
- ▶ In this study we sought to systematically analyze:
 - What organizational processes are necessary to utilize customer information?
 - How companies can integrate information that already exists within the organization in an effective manner?

Northwestern University's Kellogg School of Management teamed with London Business School to identify Best Practices for Aligning Information, Technology and the Organization

Survey Methodology

- ▶ Surveyed Fortune 1000 firms and top 500 largest firms in Europe to identify enablers and barriers to information integration capabilities
- ▶ In these organizations, the surveys were directed to multiple business leaders.
- ▶ A separate survey on the use of information technology was also completed by most companies. This study is being published separately. Please feel free to contact us for a copy of the results.



Survey Content

- ▶ 154 questions broken down into several major categories
 - Information Infrastructure
 - Measures of organizational factors that contribute to a company's successful use of customer information in specific projects and in general
 - Assessing the benefits of utilizing customer information
 - ▶ For the specific project
 - ▶ For the firm in general
 - Assessing the antecedents to information gaps within the company

212 companies have responded to date

Sample of Survey Respondents Sorted Alphabetically

ABN AMRO	British Airways	Dupont	Banco Santander Totta	Oracle	Totta
Aetna	British American Tobacco	Eastman	Johnson & Johnson	Outokumpu	Trammell Crow
AIG	British Telecom	Eastman Chemical	Kmart	Philips	Tribune
Alaska Air	Brunswick Boat Group	Ebay Inc	Leggett & Platt	Pirelli	UBS
AM Greetings	Cable & Wireless	Ecolab	Lloyds	Pitney Bowes	Unilever
American Electric Power	Cadence Design Systems Inc	EDS	Lubrizol Corporation	PNC	Union Fenosa
Antula	Capital One	EFG Eurobank Ergasias SA	Lufthansa	Primedia	USG
Audi	Caremark Rx Inc	Emerson	Lyondell	RBC	VTS Services SA
Avaya	Carlisle SynTec Incorporated	Enel	Maersk Sealand	Renault	Walt Disney
Aventis	Chevron-Texaco	Equity Office Properties Trust	Marks and Spencer	Reuters	Wanadoo
AXA Financial	Cinergy Solutions	Exeloncorp	Mattel	Rockwell	Whitbread
Axarosenberg	Cisco Systems	Expeditors	McGraw Hill	Royal Bank of Scotland	Wiltel Communications
BAA	Comcast Corporation	Fedex	Me to U web	SBC	WNCO
Ball Corp	Constellation Energy Group	GasNatural	Mellon	Schneider Logistics	World Savings Bank
Banco Popular	Convergys	GE	Merck	Scottish Power PLC	Xerox
Bankinter	Coors	Graphic Package	Mettler-Toledo Thorton	Shepardson Stern Kaminsky	
Banta	Countrywide Financial Corporation	H. B. Fuller	Micron Technology Inc	Siemens	
Bear Stearns	CR Bard	Harley-Davidson	Microsoft	Solvay	
Bellsouth	Credit-Suisse	Henkel KgAA	Mindspring	SpectraLink	
Best Buy	Davita	Herman Miller Inc	Monsanto	Sun Microsystems	
Bishop Wisecarver Corp	Dean Foods	HP	Motorola	Swiss Com	
Bluewin	Deere & Company	HSBC	Zurich Financial	Syngenta	
BNP Paribas	Degussa	HTYW	N2	Taylor Woodrow	
Boots Entertainment	Delphi Corporation	Huntington	National City Corp	Telecom Italia	
Boyd Gaming Property	Delta	IBM	Nike	Telefonica Moviles Spain	
BP	Deutsche Bank	IMC	Nova Chemicals	TESCO	
BPB	Deutsche Telekom	Infineon	Novartis	Thales Group	
Briggs and Stratton	Diageo	JCPenney	Oil Dri	The BOC Group	
	DLH				

General Information Traits

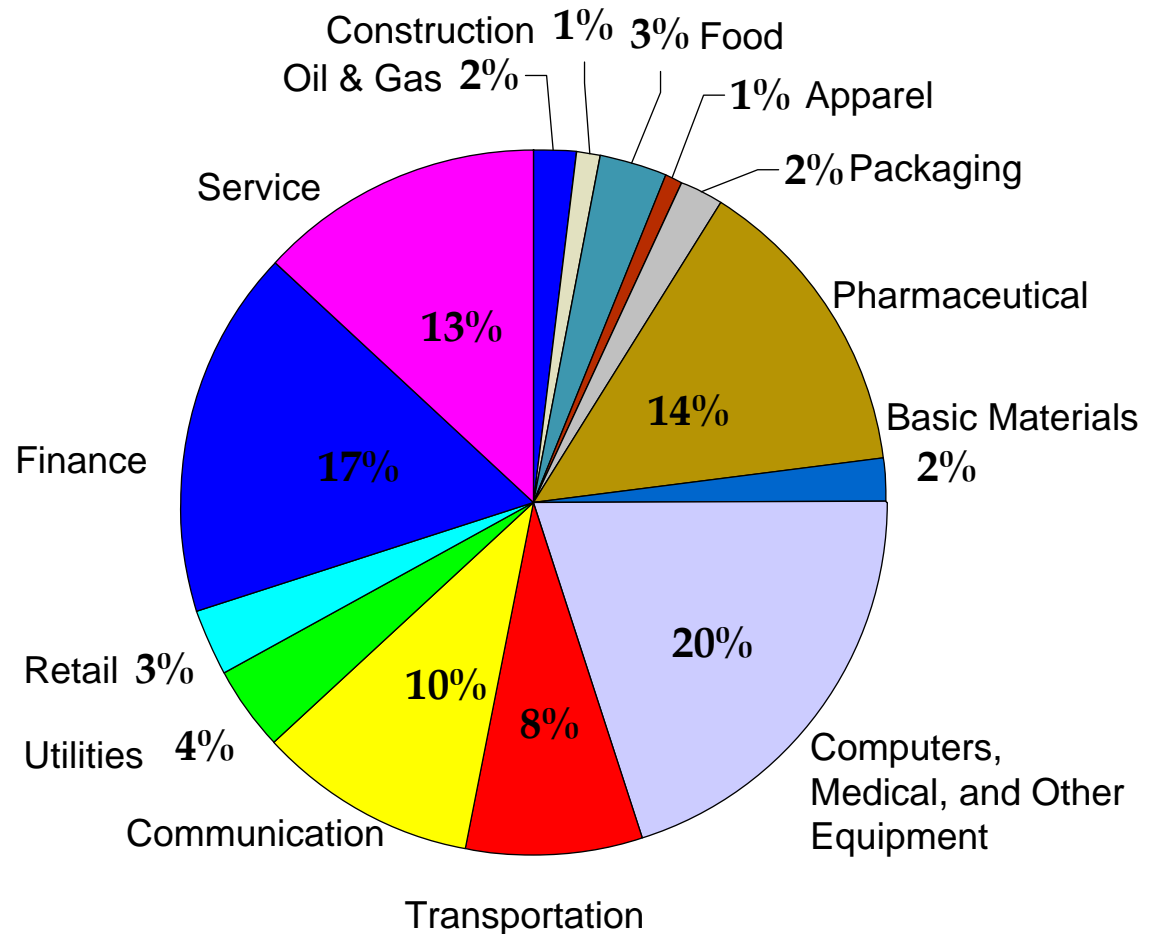
- ▶ Size and Growth of Information
- ▶ Return on investments in technology related to customer information

Sample Properties

▶ SAMPLE STATISTICS

- ▶ The average firm in the sample had 57,200 employees
- ▶ Average assets of firms in the sample for 2003 was \$7.9 Billion
- ▶ Average Return on Investment (ROI) for firms in the sample in 2003 was 18.34%

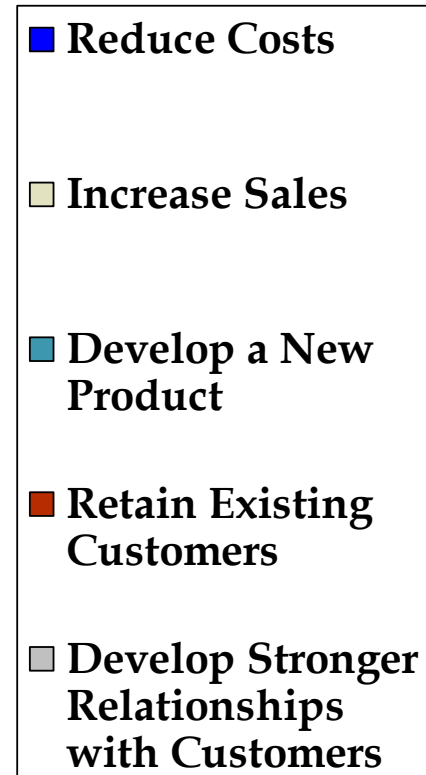
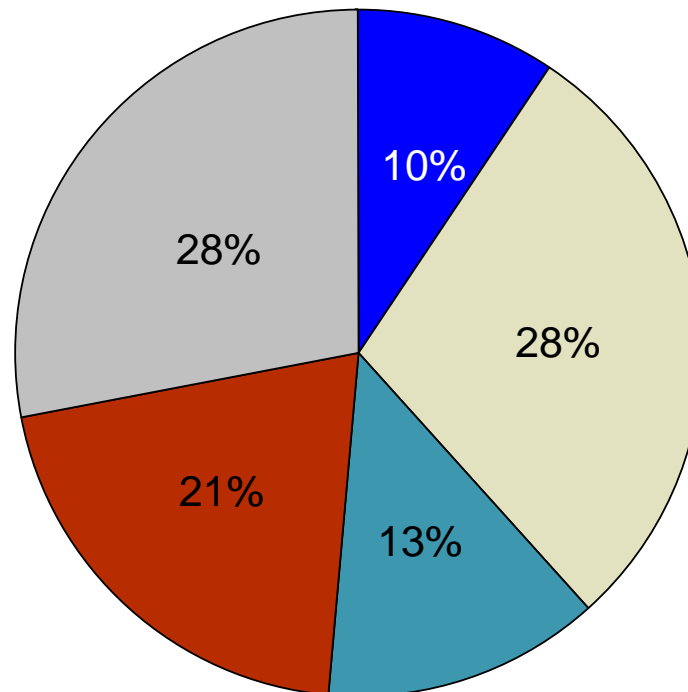
Industries Represented in the Survey:



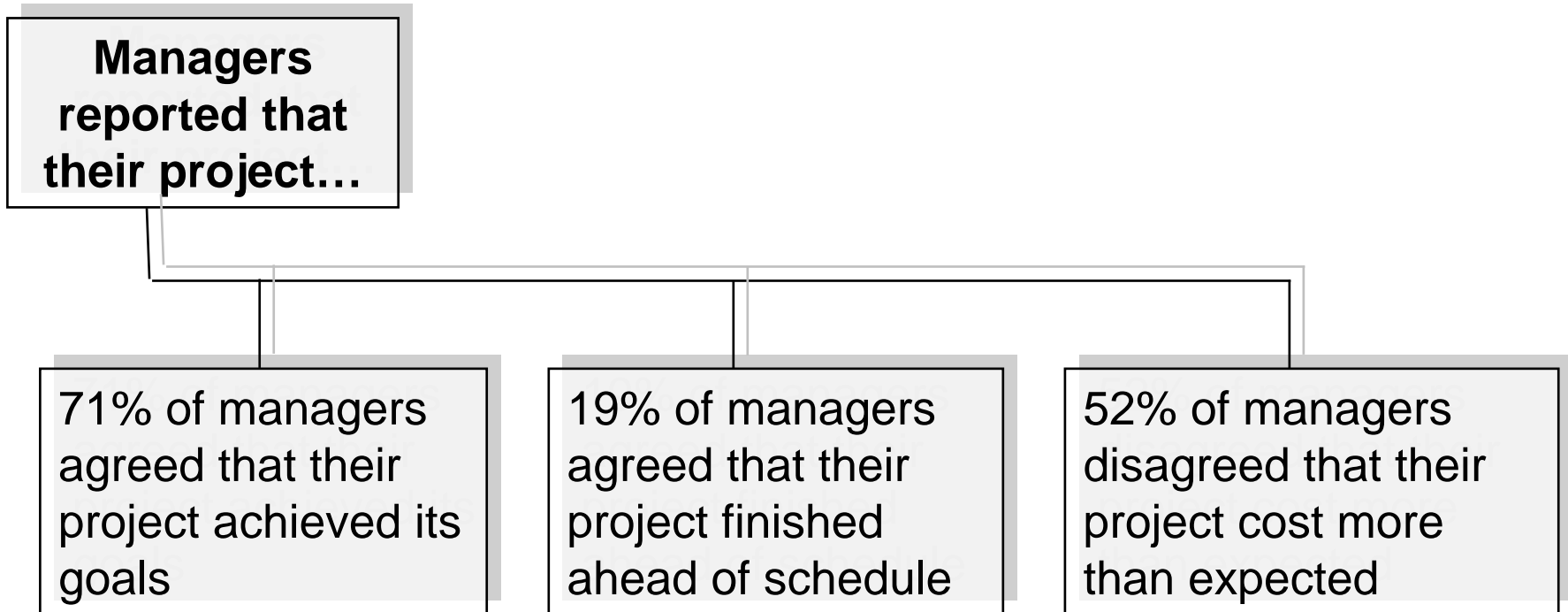
Project Characteristics

Each survey was completed for a specific project. Respondents were instructed to: think about a recent project that they had been involved in which customer information played an important role in achieving the goals of the project.

On average the projects reported in the survey were designed to:



Project Outcomes



Objectives of the Study

- ▶ We wanted to systematically investigate how organizations leverage existing information to benefit new projects
- ▶ We wanted to precisely identify what technological and organizational factors enable firms to utilize their extant information
- ▶ Thus, in this study we address the following specific questions:

–What are the organizational factors that influence the capacity of a firm for leveraging existing information?

–What is the relative importance of Information Technology as opposed to organizational factors in achieving successful information utilization?

We focus on the specific context of customer information – including information on customers' purchases, service records, preferences, communications and other interactions.

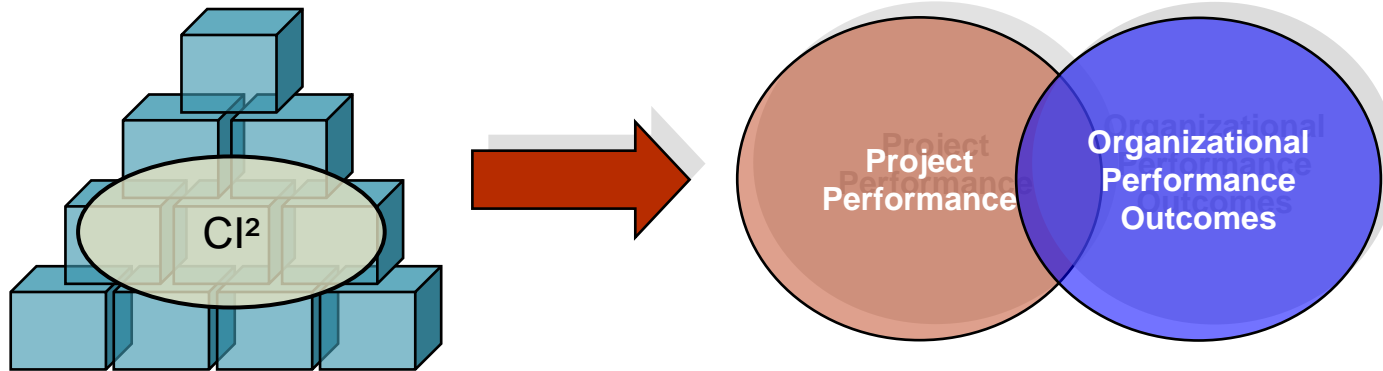
Survey Background and Methodology

The Focus of our Analysis: Customer Information Integration (CI²)

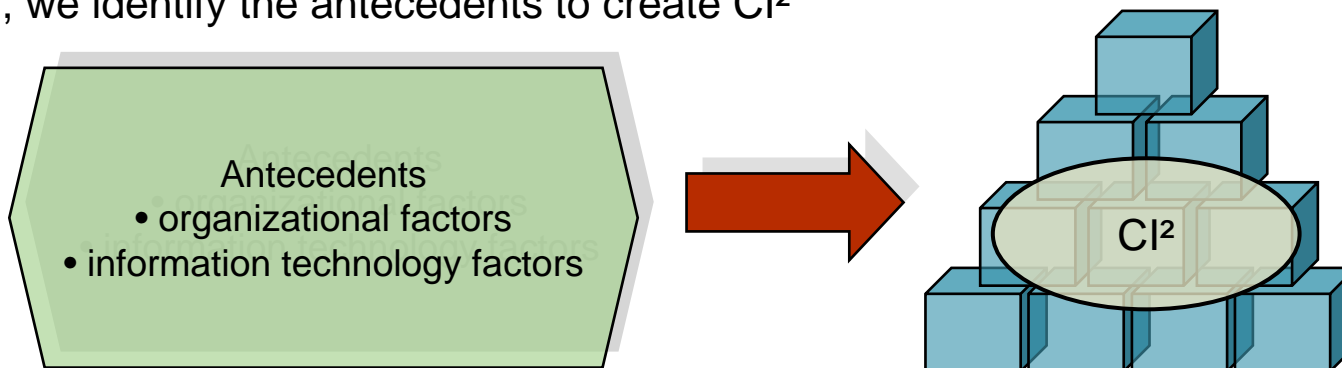
- ▶ **CI² is the capacity to successfully integrate information from different parts of the organization**
- ▶ **The antecedents of CI² include:**
 - **Information technologies**
 - **organizational factors, such as, structure and reporting relationships**
- ▶ **The consequences of CI² include:**
 - **Increased project level performance**
 - **Increase overall organizational performance**

Scorecard methodology – Two step analysis

- ▶ First, we demonstrate some of the benefits of Customer Information Integration (CI²)



- ▶ Second, we identify the antecedents to create CI²

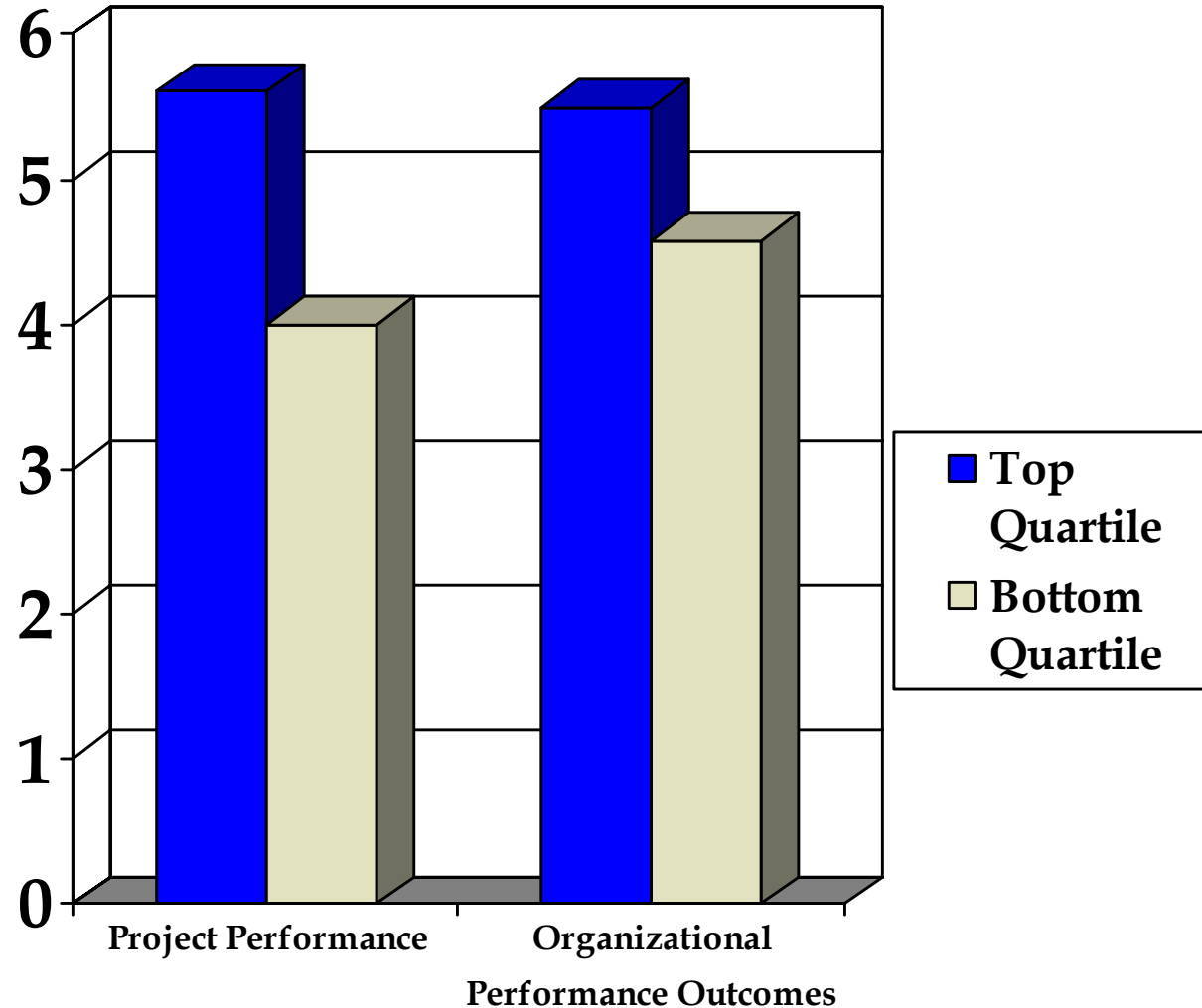


How Customer Information Integration (CI²) Creates Value

- ▶ Project Performance
- ▶ Organizational Performance Outcomes

Differences between firms with High and Low CI²

- ▶ Differences in CI² have significant performance consequences for firm's specific projects, and organizational performance outcomes.
- ▶ Firms in the top quartile of CI² have **23% better project performance** than those in the bottom quartile
- ▶ Firms in the top quartile of CI² have **14% better organizational performance outcomes** than those in the bottom quartile




The performance benefits of CI² include...



Project Performance

Project teams with CI² are able to incorporate customer information into their projects. This allows them to make more accurate decisions and incorporate customer preferences into new product plans.



Organizational Performance Outcomes

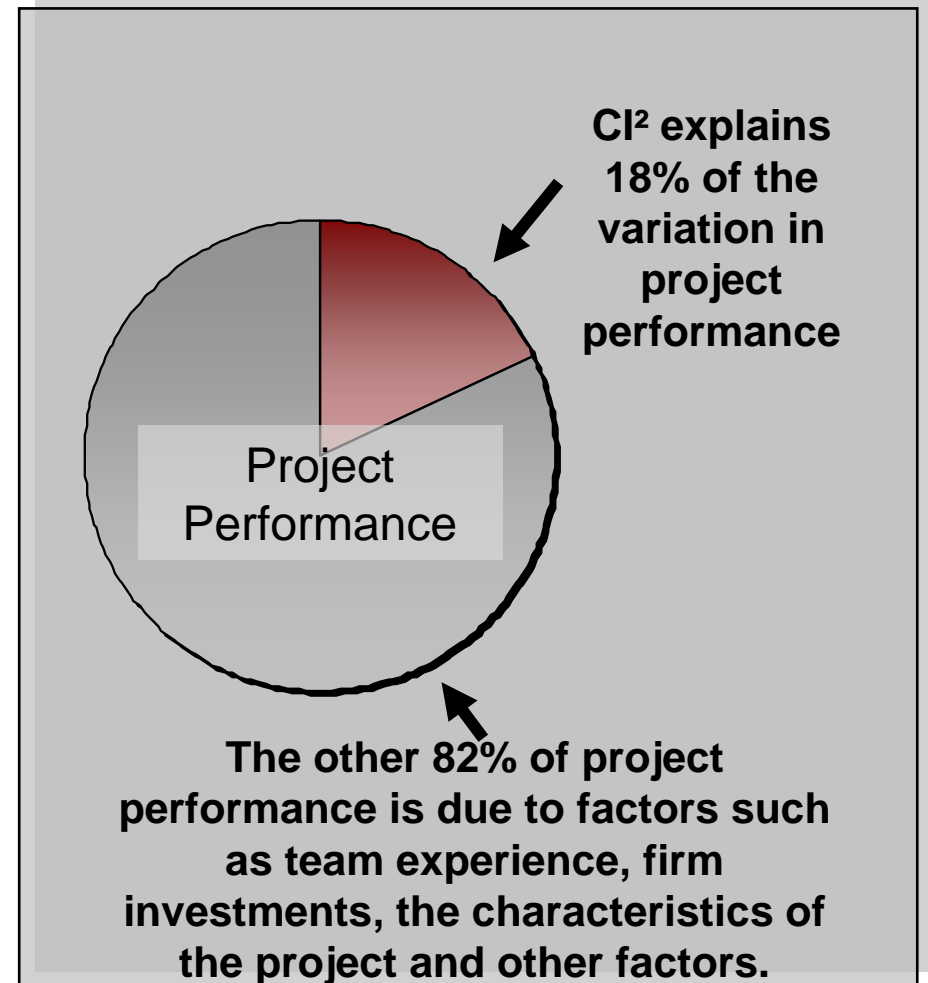
Firms with CI² are able to incorporate customer information into their organizations. This allows them to adjust strategies to fit a changing market and differentiate from competitors.

The performance benefits of CI² in detail...

Project Performance

Project Performance is a measure of a firm's ability to use information to increase the quality and efficiency of the project

- ▶ A 15% increase in a firms' CI² leads to a 43% increase in project performance

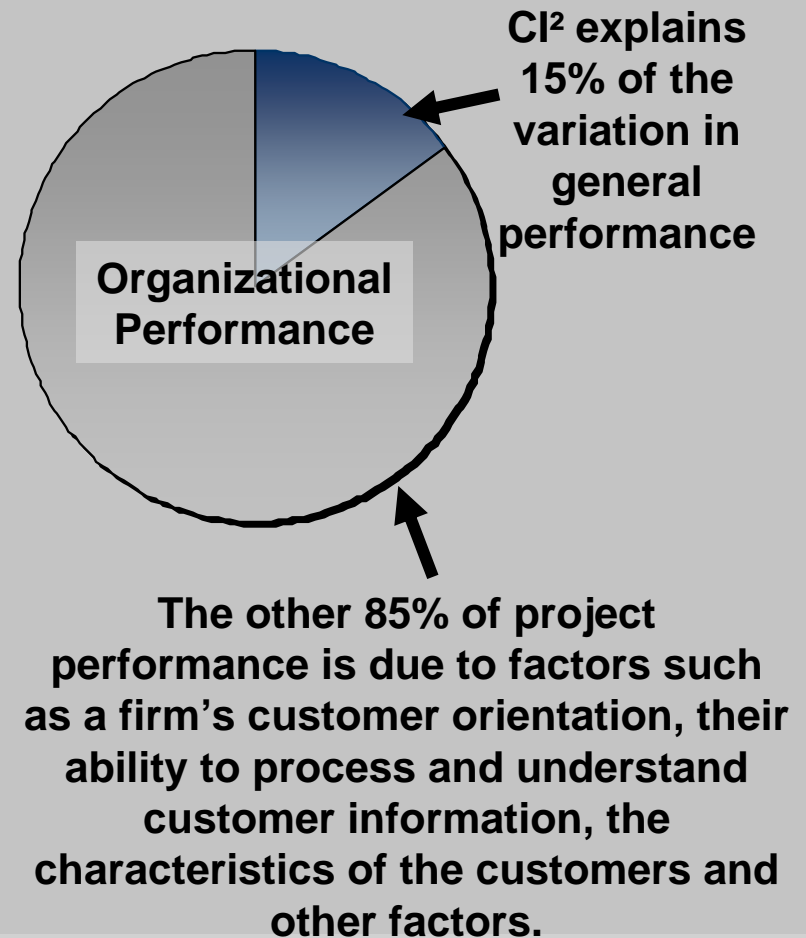


The performance benefits of CI² in detail...

Organizational Performance

Organizational Performance is a measure of a firm's ability to use customer information to recognize new opportunities, solve problems, introduce new products and product packages, and accurately analyze trends.

A 15% increase in a firms' CI² leads to a 25% increase in general performance

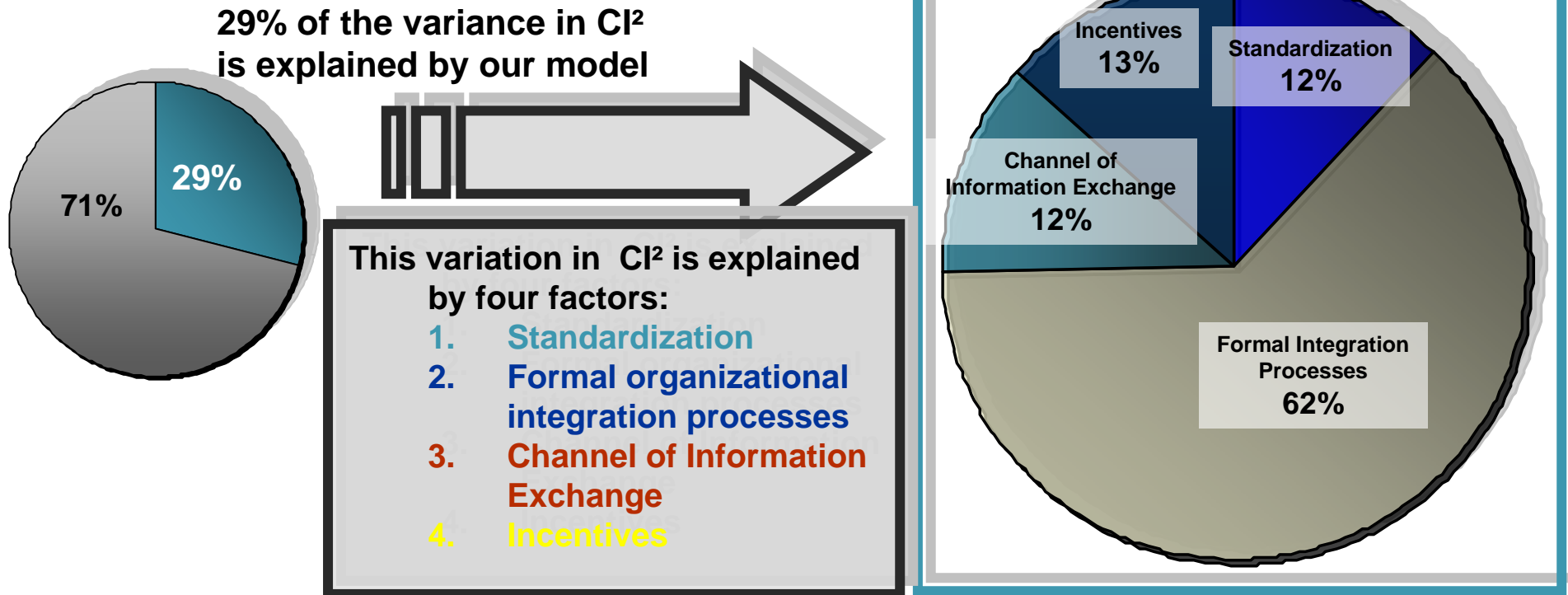


Customized Scorecard

- ▶ Customer Information Integration (CI²)
 - Standardization
 - Formal organizational integration processes
 - Channel of Information Exchange
 - Incentives
 - Personal Networks
 - Customization

Antecedents to Customer Information Integration (CI²)

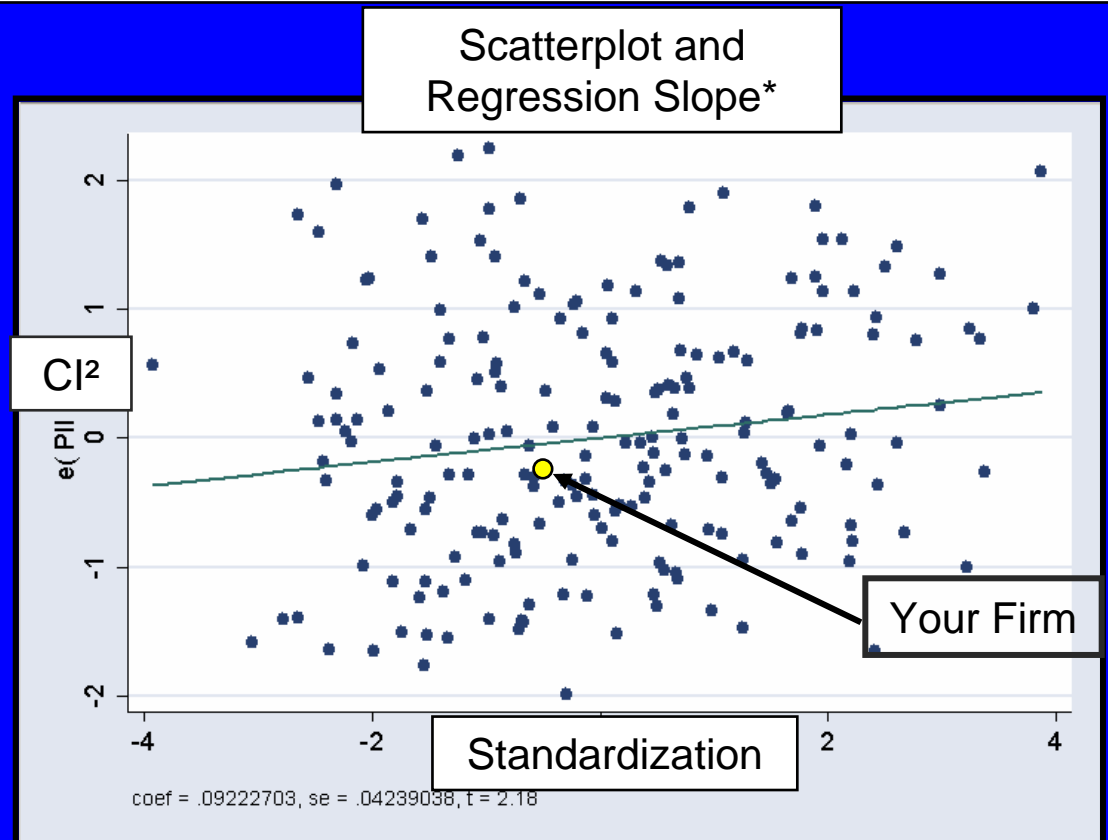
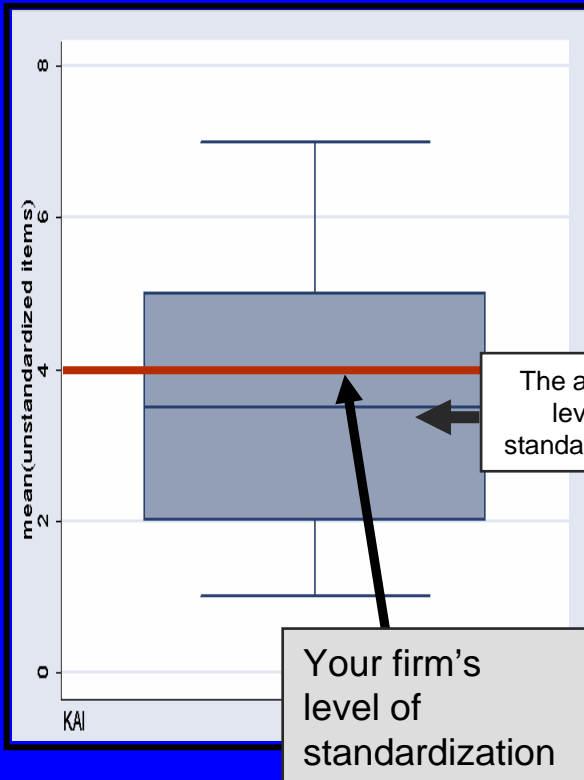
Where Does CI² Come From?



For more information on interpreting these results see pages 26 and 27

Standardization

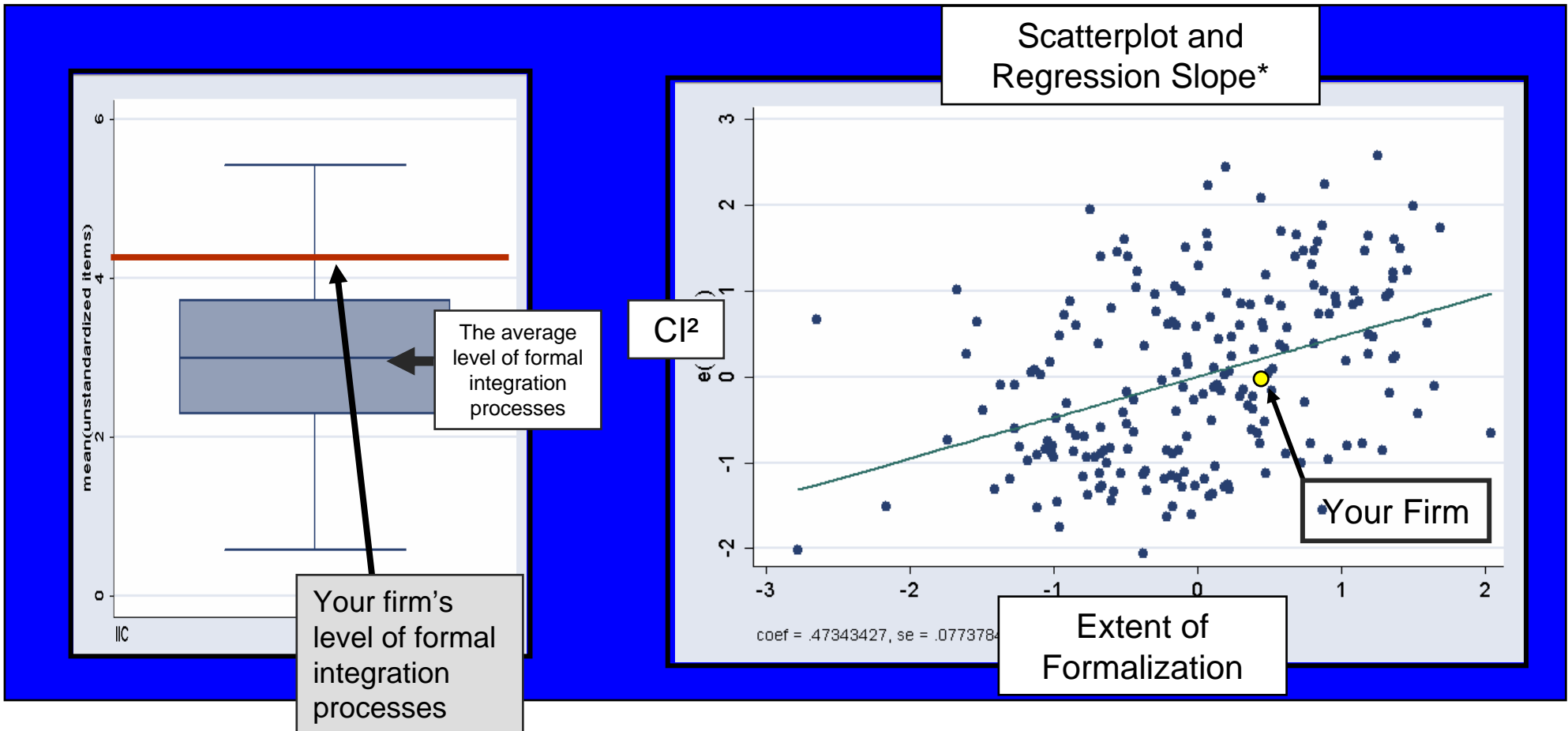
Standardization is a measure of the extent to which company-wide standards and common terminology of customer information exists within the firm.



For more information on interpreting these results see pages 26 and 27

Formal Integration Processes

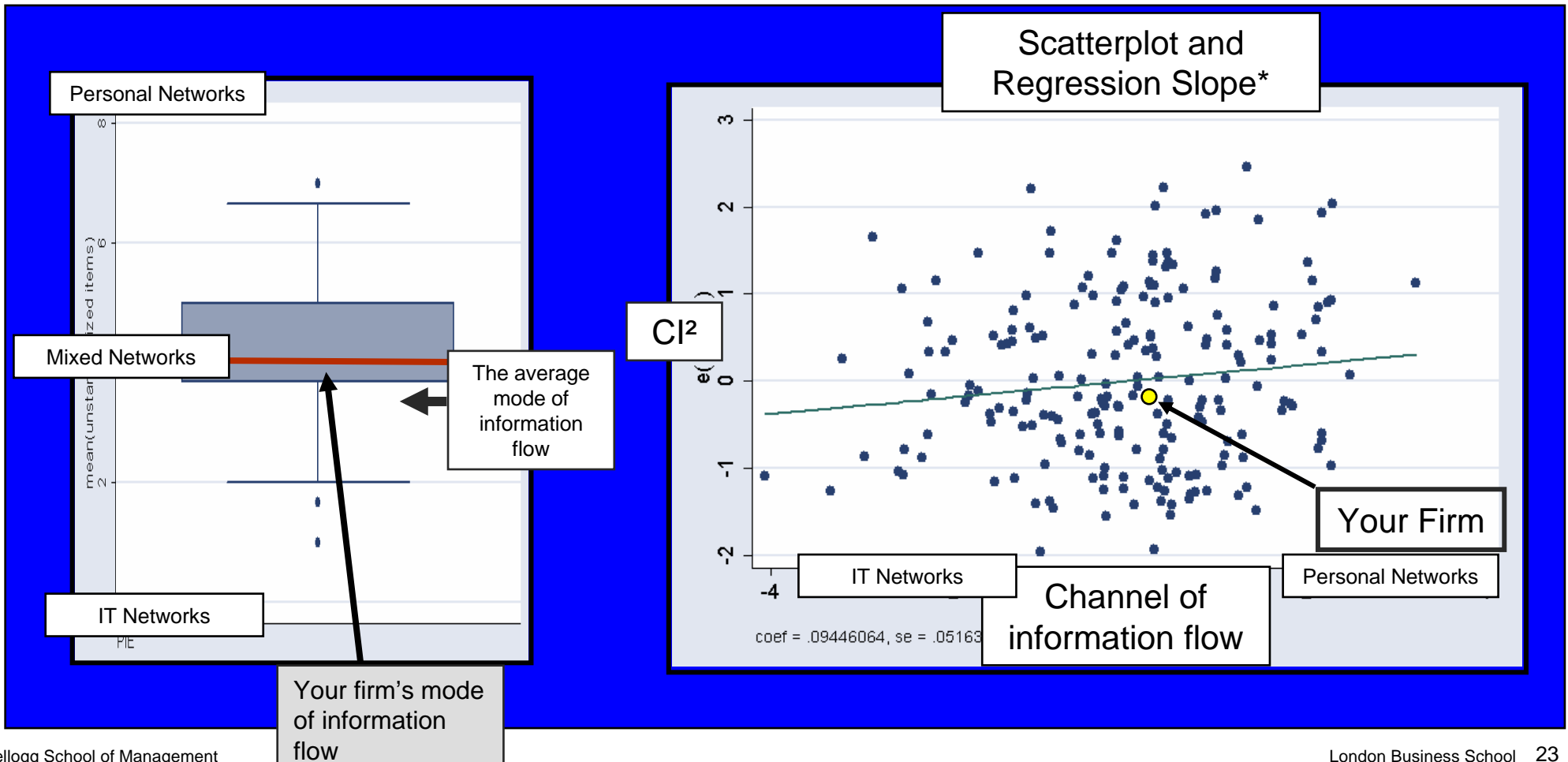
Formalization refers to the creation of standard operating procedures and processes aimed to help integrate information across the company.



For more information on interpreting these results see pages 26 and 27

Channel of Information Exchange

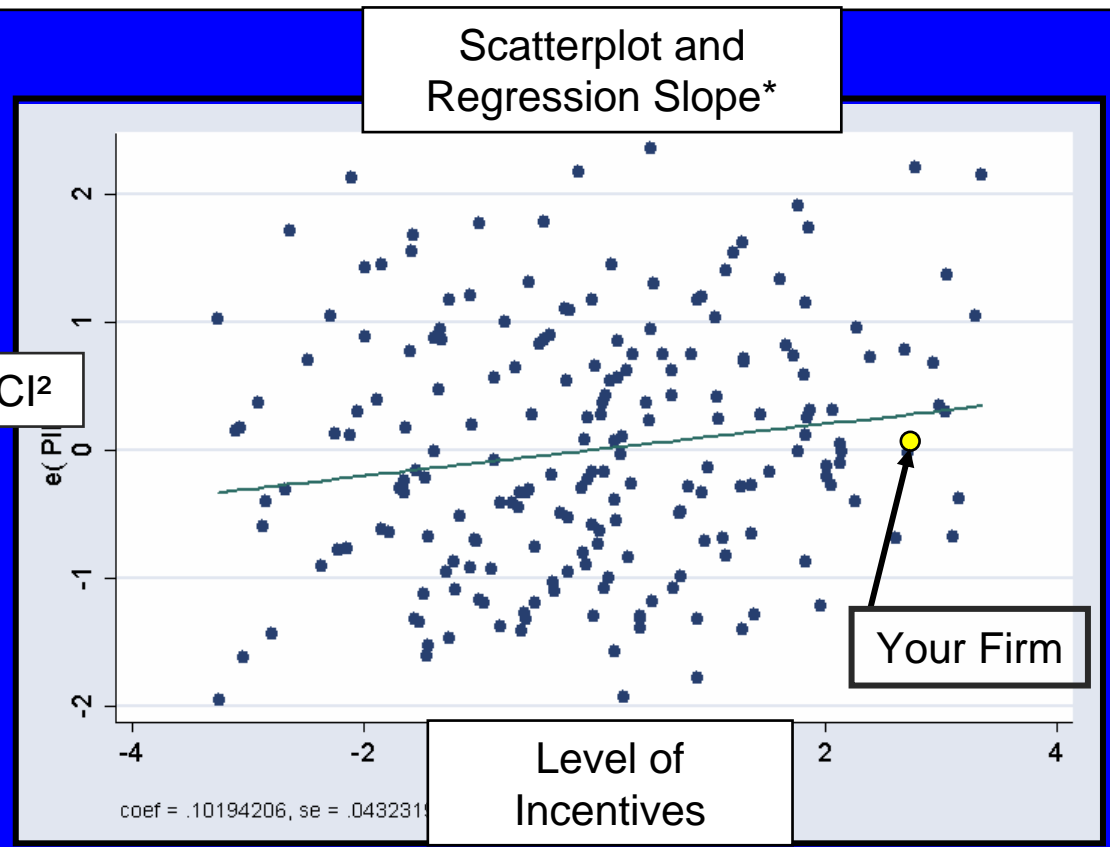
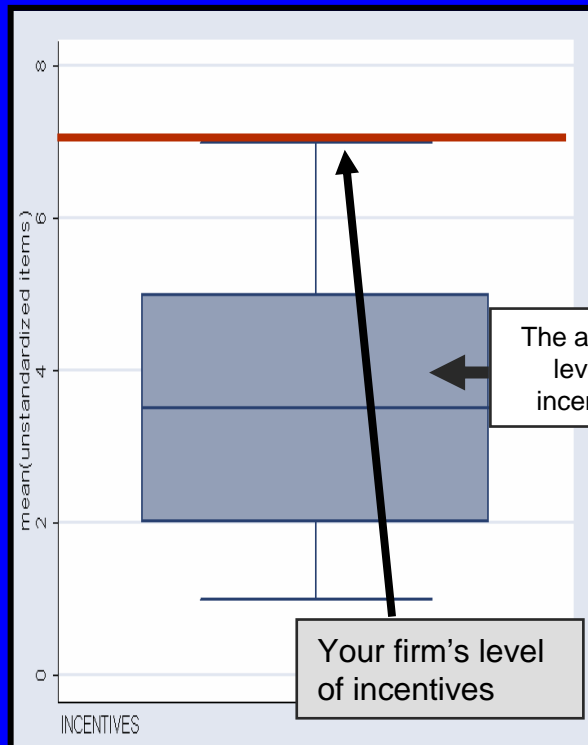
Channel of information exchange refers to the extent to which information flows between units in the organization by means of information technology or personal communication networks.



For more information on interpreting these results see pages 26 and 27

Incentives

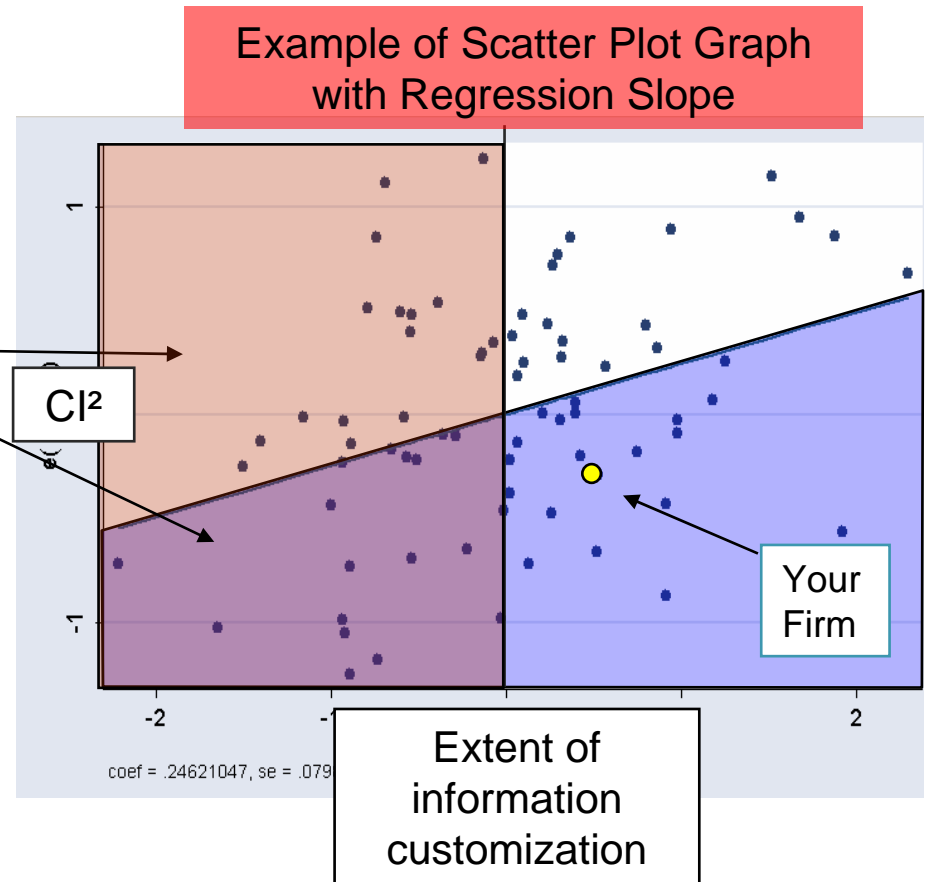
Incentives refers to the extent to which your firm provides incentives to capture and utilize customer information.



Diagnostic Toolkit

Interpreting your performance...

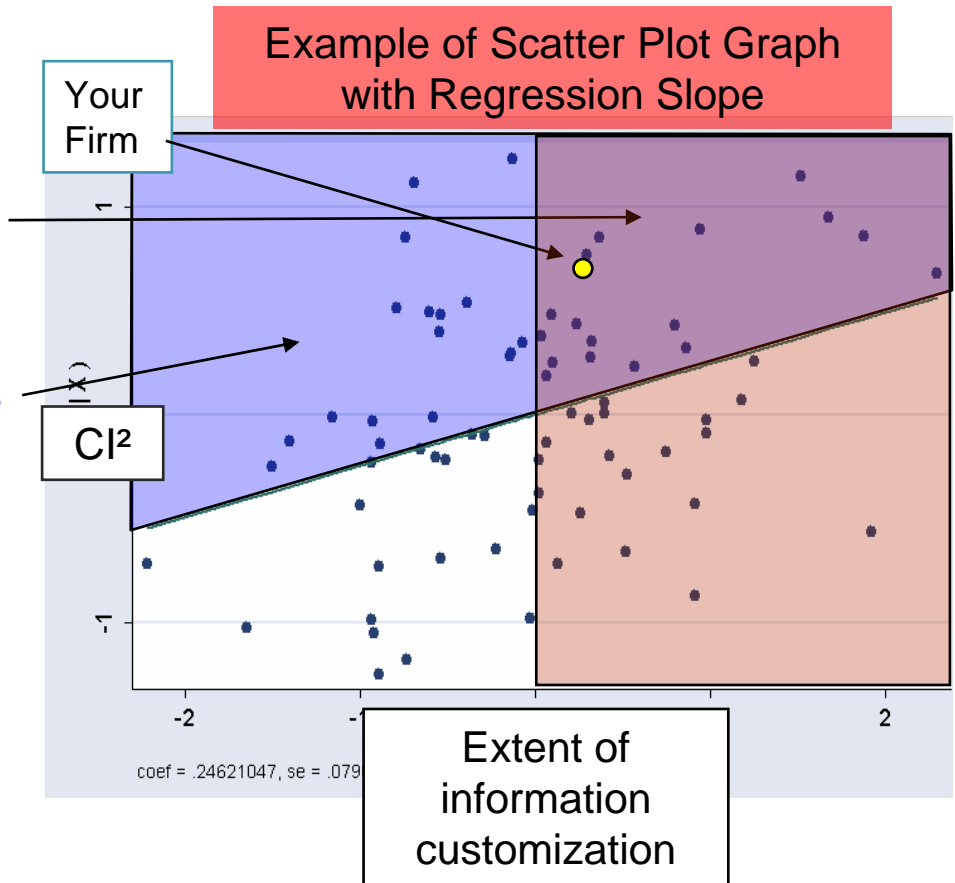
- ▶ What to do about it:
 - Organizational factors do matter and are important over and above investments in information technology.
 - If your company was to the **left of the mean**, then you have a lower level of the attribute than the average company.
 - If your company was **below the regression line** (in the blue shaded area below) then you are under-performing relative to other companies with the same level of the attribute.
 - To improve your performance on any dimension, consider the diagnostic questions on the following slides.



Interpreting your performance...

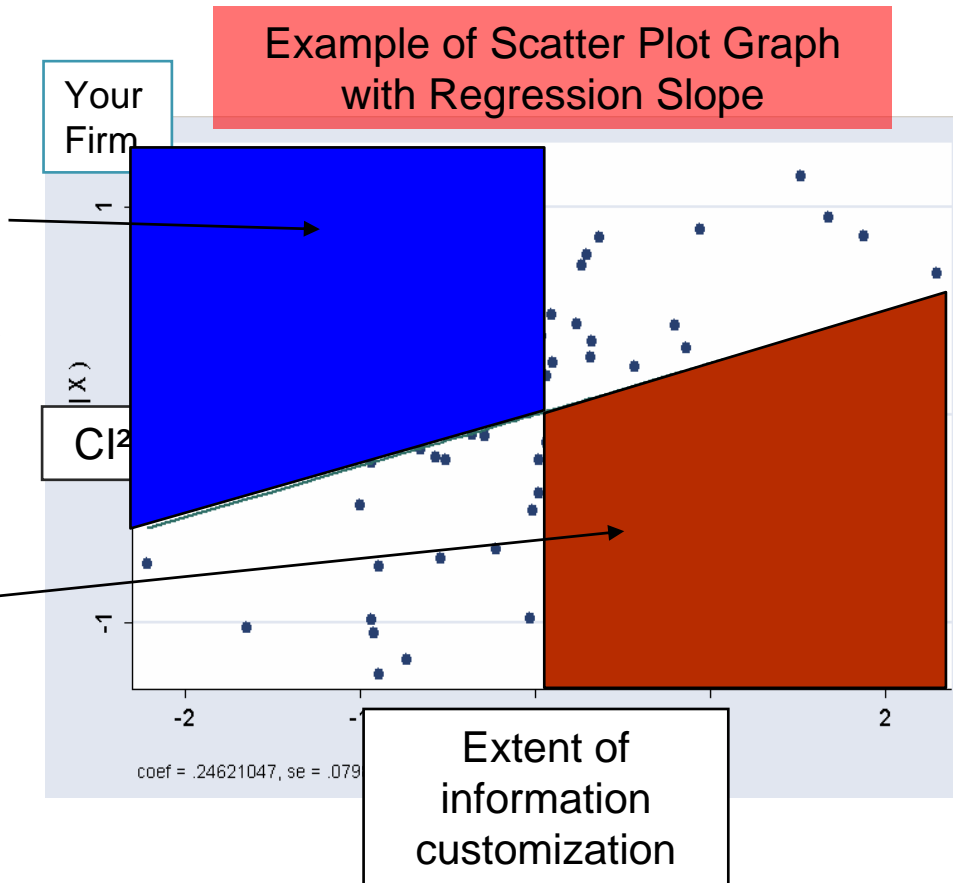
► What to do about it:

- If your company was to the **right of the mean**, then you have a higher level of the attribute than the average company.
- If your company was **above the regression line** (in the blue shaded area) then you are obtaining better information integration outcomes than other firms with same level of the attribute.
- Even with superior performance there is always room for improvement. To improve your performance on any dimension, consider the diagnostic questions on the following slides.



Interpreting your performance...

- ▶ The best and the worst place to be:
 - The Best:
 - ▶ If your company was to the **left of the mean and above the regression slope** (in the blue shaded area), then you are obtaining superior performance without investing heavily in the activity.
 - The Worst:
 - ▶ If your company was **below the regression line** (in the red shaded area) then you are investing more than most firms but are not obtaining better information integration outcomes than other firms with same level of investment.



Improving your performance: Standardization

Consider the following diagnostic questions concerning your organization:

- ▶ Have you invested in company wide standards? (For example, how is customer churn calculated? And, what is the definition of a loyal customer?)
- ▶ Does your company encourage the adoption and use of company wide standards? (For instance, a common standard to determine when is revenue from the customer recognized?)
- ▶ Are there standard procedures in place to guide and educate members of your organization in using customer information?

Improving your performance: Formal information integration

Consider the following diagnostic questions concerning your organization:

- ▶ Does the company have formal mechanisms in place to encourage information integration across the company?
- ▶ Is information integration supported by formal IT systems and organization processes, such as cross functional teams?
- ▶ Does your company invest in building and maintaining customer databases?
- ▶ Are employees formally required to repurpose information used in other areas in their business units?
- ▶ Do different functions have formal channels to access and analyze information?

Improving your performance: Building effective channels of communication

Consider the following diagnostic questions concerning your organization:

- ▶ Are employees dependent on personal networks to access resources they need to be successful?
- ▶ Is the company reliant on informal contacts to provide them with valuable information?
- ▶ Do employees spend more time building new internal contacts or learning new information technologies?
- ▶ Does information flow between divisions, geographies and functions primarily through personal networks or information technologies?

Improving your performance: Incentives

Consider the following diagnostic questions concerning your organization:

- ▶ Does our organization have a program to reward employees who use more information in their decision processes?
- ▶ Do we provide incentives to employees who codify best practices?
- ▶ Does our organization provide incentives to employees who utilize customer information?
- ▶ What is the nature of incentives that we provide?
- ▶ Are the incentives to use more information made explicit?
- ▶ Could we do more?