Content Analysis: A Primer

Dr. Rhonda Reger

August 2009

A Content Analysis of the Content Analysis Literature in Organization Studies:
Research Themes, Data Sources, and Methodological Refinements

Vincent J. Duriau
Rhonda K. Reger
and Michael D. Pfarrer

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Agenda

1. Review the principles and the advantages of content analysis

2. Assess how the methodology has been applied in management literature

3. Provide two mini-examples

Content Analysis Defined

- "Any methodological measurement applied to text (or other symbolic materials) for social science purposes" (Shapiro & Markoff, 1997, p. 14)

- A class of methods at the intersection of the qualitative and quantitative traditions

Assumptions of Content Analysis

- Central to the value of content analysis as a research methodology is the recognition of the importance of language in human cognition

- The analysis of texts lets the researcher understand other people's cognitive schemas

- The change in the use of words reflects at least a change in attention, if not in cognitive schema

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Advantages of Content Analysis

- Promising for rigorous exploration of many important but difficult-to-study issues
- Replicable methodology to access deep individual or collective structures such as values, intentions, attitudes, and cognitions
- Analytical flexibility:
  - manifest content (surface level; word counts)
  - latent content (deeper meaning; interpretation)
  - Inductive or deductive research
  - Can be combined with quantitative analysis
- Appropriate for longitudinal research designs
- Can be nonintrusive; does not suffer from researcher demand bias
- Multiple sources of data

98 articles: 1980 to October 2005 Content or Text Analysis

- *Academy of Management Journal*
- *Academy of Management Review*
- *Academy of Management Executive*
- *Administrative Science Quarterly*
- *California Management Review*
- *Harvard Business Review,*
- *Journal of Applied Psychology*
- *Journal of International Business Studies*
- *Journal of Management*
- *Journal of Organizational Behavior*
- *Organization Behavior and Human Decision Processes*
- *Organizational Research Methods*
- *Organization Science*
- *Sloan Management Review*
- *Strategic Management Journal*
- *+ references in these articles*

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25 Years of Management Content Analysis
Data Sources

- Annual reports
- Mission statements
- Proxy statements
- Other publicly available documents
- Internal company documents
- Trade magazines
- Scholarly journals

- Business cases
- Computerized databases
- Open-ended questions in surveys
- Transcribed videotapes
- Interviews
- Other field data
- Measurement items

Research Themes
by Academy Division

- 39 business policy and strategy
- 15 managerial and organizational cognition
- 14 research methods
- 11 organizational behavior
- 6   human resources
- 6   social issues management
- 3   technology management
- 2   international management
- 2   organizational theory

Topical Examples

- Strategic groups (Osborne, Stubbart, & Ramaprasad, 2001)
- Impression management (Arndt & Bigelow, 2000)
- Downsizing (Palmer, Kabanoff, & Dunford, 1997)
- Negative organizational outcomes (Abrahamson & Park, 1994)
- Corporate crises (Marcus & Goodman, 1991)
- Corporate reputation (Fombrun & Shanley, 1990)
- Strategy reformulation (Huff, 1982)
- CEO succession (Osborn, Jauch, Martin, & Glueck, 1981)
- Concerns of the business community (Myers & Kessler, 1980)
- Corporate risk-taking behavior (Bowman,1982, 1984)
- Joint ventures and strategic alliances (Fiol, 1989, 1990)
- Many more

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Table 1

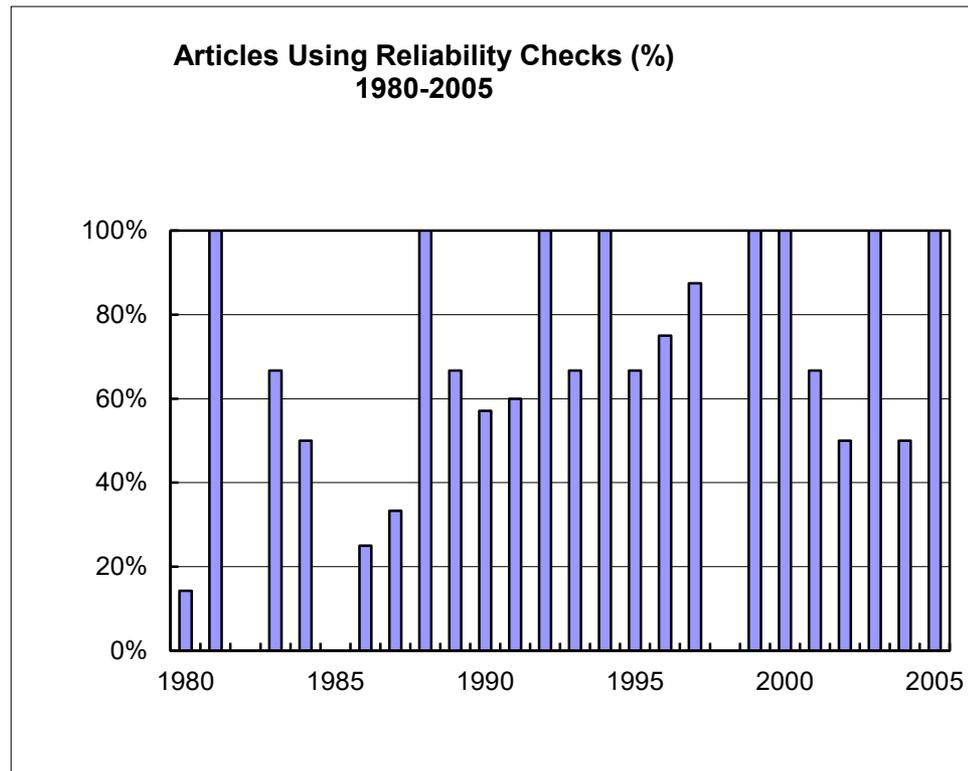| Authors	Date	Field	Research Theme	Data Sources	Longitudinal	Focus	Features	Design	Interpretation	Methods	Test	CATA
Mishina, Pollock, & Porac	2004	BPS	Growth logics	PD, PS	0	1	AD	1	1	3	1	0
Ferrier	2001	BPS	Competitive aggressiveness	CD	1	2	FC, AD	1	1	3	1	1
Lee, Smith, Grimm, & Schomburg	2000	BPS	New product introduction	CD	1	1	FC	1	1	3	1	1
Ferrier, Smith, & Grimm	1999	BPS	Leaders and challengers	CD	1	2	FC, AD	1	1	3	1	1
Young, Smith, & Grimm	1996	BPS	Competitive activity	CD	1	2	FC	1	1	3	0	1
Miller & Chen	1996	BPS	Competitive repertoire	TM	1	0	FC, AD	1	1	3	1	0
Hambrick, Cho & Chen	1996	BPS	Competitive moves	TM	1	2	FC, AD	1	1	3	1	0
Chen & Hambrick	1995	BPS	Competitive behavior	TM	0	2	FC, AD	1	1	3	0	0
Schomburg, Grimm, & Smith	1994	BPS	New product rivalry	CD	0	2	FC	1	1	3	1	1
Miller & Chen	1994	BPS	Competitive inertia	TM	1	2	FC, AD	1	1	3	1	0
Chen & MacMillan	1992	BPS	Competitive responses	TM	0	2	FC	1	1	3	1	0
Chen, Smith, & Grimm	1992	BPS	Competitive responses	TM	0	2	FC	1	1	3	1	0
Smith, Grimm, Gannon, & Chen	1991	BPS	Competitive responses	TM	0	1	FC	1	1	3	1	0
Birnbaum-More & Weiss	1990	BPS	Basis of competition	IN	1	2	FC	0	1	3	0	1
Clapham & Schwenk	1991	BPS	Managerial attributions	AR	0	2	FC	2	1	3	1	0
Salancik & Meindl	1984	BPS	Managerial attributions	AR	0	2	FC	1	1	3	1	0
Bettman & Weitz	1983	BPS	Managerial attributions	AR	1	2	FC	1	1	3	1	0
Staw, McKechnie, & Puffer	1983	BPS	Managerial attributions	AR	0	0	FC	1	1	3	1	0
David	1989	BPS	Mission statements	MS	0	2	FC	2	1	3	1	0
Pearce & David	1987	BPS	Mission statements	MS	0	2	FC	1	1	3	1	0
Cochran & David	1986	BPS	Mission statements	MS	0	2	FC	1	1	0	1	0
McConnell, Haslem, & Gibson	1986	BPS	Corporate disclosures	AR	0	2	FC	1	1	3	0	1
Bühner & Möller	1985	BPS	Corporate disclosures	AR	1	1	FC	1	1	3	0	0
Ingram & Frazier	1983	BPS	Corporate disclosures	AR	1	0	FC	2	1	3	0	1
Bowman	1984	BPS	Corporate strategy and risk	AR	1	0	FC	1	1	0	0	0
Bowman	1982	BPS	Risk seeking behavior	AR	0	0	FC	1	0	3	0	0
Fiol	1990	BPS	Strategic alliances	AR	0	0	FC	1	0	0	0	0
Fiol	1989	BPS	Joint ventures	AR	1	0	QA	1	1	0	1	0
Dirsmith & Covaleski	1983	BPS	Environmental fit	BC	0	1	FC	1	1	3	0	0
Jauch, Osborn, & Glueck	1980	BPS	Environment-strategy fit	BC	0	1	FC	1	2	3	1	0
Osbone, Stubbart, & Ramaprasad	2001	BPS	Strategic groups	AR	1	1	FC, QA	2	0	1	1	1
Arndt & Bigelow	2000	BPS	Impression management	AR	0	0	QA	0	1	0	1	0
Palmer, Kabanoff, & Dunford	1997	BPS	Downsizing	AR	1	0	FC	0	1	3	1	1
Abrahamson & Park	1994	BPS	Organizational outcomes	AR	0	2	FC	1	1	3	1	1
Marcus & Goodman	1991	BPS	Corporate crises	TM	0	0	FC	1	1	3	1	0
Fombrun & Shanley	1990	BPS	Reputation	TM	0	0	FC	1	0	3	1	0
Huff	1982	BPS	Strategy reformulation	TM	1	0	QA	0	1	2	0	0
Osborn, Jauch, Martin, & Glueck	1981	BPS	CEO succession	TM	0	2	FC	1	0	3	1	0
Myers & Kessler	1980	BPS	Concerns of businessmen	PD	0	0	QA	0		0	0	0
Gephart	1997	MOC	Sensemaking	PD	0	0	FC, AD, QA	0	0	2	1	1
Gephart	1993	MOC	Sensemaking	PD, ID, TM, IN, FD	0	0	FC, QA	0	0	2	1	1
Gioia & Chittipeddi	1991	MOC	Sensemaking	IN, ID	1	0	QA	0	1	2	0	0
Huff & Schwenk	1990	MOC	Sensemaking	TM	0	2	FC	1	0	3	1	0

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| Authors	Date	Field	Research Theme	Data Sources	Longitudinal	Focus	Features	Design	Interpretation	Methods	Test	CATA
Gephart	1984	MOC	Sensemaking	BC	0	2	QA	0	1	0	0	1
Kabanoff & Holt	1996	MOC	Organizational values	AR, MS, ID	1	0	FC	1	1	3	1	1
Kabanoff, Waldersee, & Cohen	1995	MOC	Organizational values	AR, MS, ID	0	0	FC, AD	1	1	2	1	1
Sussman, Ricchio, & Belohlav	1983	MOC	Corporate values	PD	1	0	FC	2	1	0	1	0
Abrahamson & Hambrick	1997	MOC	Managerial attention	AR	0	0	AD	1	1	3	1	1
D'Aveni & MacMillan	1990	MOC	Managerial attention	AR	1	2	FC	1	1	3	1	0
Fiol	1995	MOC	Categorization	AR, ID	1	0	FC	2	1	3	0	0
Carley	1997	MOC	Team mental models	OQ	0	0	FC, AD	2	1	0	1	1
Simons	1993	MOC	Cognitive maps	TV	1	0	FC	1	0	3	1	0
Barr, Stimpert, & Huff	1992	MOC	Cognitive change	AR	1	0	AD	1	0	0	1	0
Narayanan & Fahey	1990	MOC	Managerial causal maps	AR, TM	1	0	FC, AD	0	0	0	1	0
Boyd, Gove, & Hitt	2005	RM	Construct measures	SJ	1	1	FC, QA	1	1	2	1	0
Bergh & Fairbank	2002	RM	Measuring change	IN	0	1	QA	1	2	1	1	0
Scandura & Williams	2000	RM	Research methods	SJ	1	1	FC, AD	1	1	3	1	0
Mowday	1997	RM	Management research	SJ	1	1	FC	1	1	0	0	0
Berg & Holbein	1997	RM	Longitudinal analysis	SJ	1	1	FC	1	1	2	1	0
Bergh	1995	RM	Repeated measures	SJ	0	1	FC	1	0	2	0	0
Bartunek, Bobko, Venkatraman	1993	RM	Research methods	SJ	0	1	QA	0	1	1	0	0
Podsakoff & Dalton	1987	RM	Research methodology	SJ	0	2	FC	1	1	0	0	0
Flanagan & Dipboye	1981	RM	Research settings	SJ	0	1	FC	1	1	0	1	0
Daft	1980	RM	Organization analysis	SJ	1	0	FC	0	1	0	0	0
Reeve & Smith	2001	RM	Job involvement	MI	0	0	FC	1	1	1	0	0
Kellog & Chase	1995	RM	Customer contact	ID	0	0	FC	1	1	1	1	0
Mossholder, Setton, Harris, & Armenakis	1995	RM	Emotions	OQ	0	0	FC	1	1	3	1	1
Ellis	1989	RM	Differential item functioning	MI	0	0	QA	2	1	2	0	0
Bligh, Kohles, & Meindl	2004	OB	Language of leadership	PD	0	1	AD, FC	1	2	0	0	1
Farh, Zhong & Organ	2004	OB	OCBs in China	OQ	0	0	AD, QA	0	2	2	0	0
Hodson	2004	OB	Organizational trust	PD	0	1	AD, QA	1	1	0	1	1
Ahuja & Galvin	2003	OB	Virtual groups	ID, IN	0	0	FC, QA	1	1	2	1	0
Drusakat & Wheeler	2003	OB	Self-managed teams	IN, OQ, TV	0	1	FC, QA	0	2	0	1	0
Bateman, O'Neill, & Kenworthy-U'Ren	2002	OB	TMT goals	IN	0	1	QA	1	2	1	1	0
Schneider, Wheeler, & Cox	1992	OB	Service climate	IN	0	2	FC	2	2	1	1	0
Chen & Meindl	1991	OB	Leadership	TM	1	0	FC	0	1	2	0	0
Dewe & Guest	1990	OB	Stress	OQ	0	0	FC	2	1	1	0	0
Barley, Meyer, & Gash	1988	OB	Organizational culture	SJ, TM	1	1	FC	2	1	3	1	0
Machungwa & Schmitt	1983	OB	Cross-cultural motivation	IN	0	2	FC	2	1	1	1	0
Frazier, Ingram, & MackTennyson	1984	SIM	Accounting disclosures	AR	0	2	FC	2		3	1	1
Freedman & Jaggi	1982	SIM	Pollution disclosures	AR	0	1	FC, AD	1	1	3	0	0
Wiseman	1982	SIM	Environmental disclosures	AR, PD	0	1	FC, AD	1	1	3	0	0
Ingram & Frazier	1980	SIM	Corporate disclosures	AR	0	0	FC	1	1	3	0	0
Anderson & Frankle	1980	SIM	Social disclosures	AR	0	1	FC	1	1	3	0	0
White & Montgomery	1980	SIM	Codes of conduct	ID	0	2	FC	0		0	0	0
Wade, Porac, & Pollock	1997	HR	Executive pay	PS	0	0	FC	1	1	3	1	1
Zajac & Westphal	1995	HR	CEO compensation	PS	1	0	FC	1	1	3	1	0
Thomson, Gentner, & Jeffrey	2000	HR	Training	OQ	0	0	FC	1	1	3	1	0

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Number of Articles Per Year
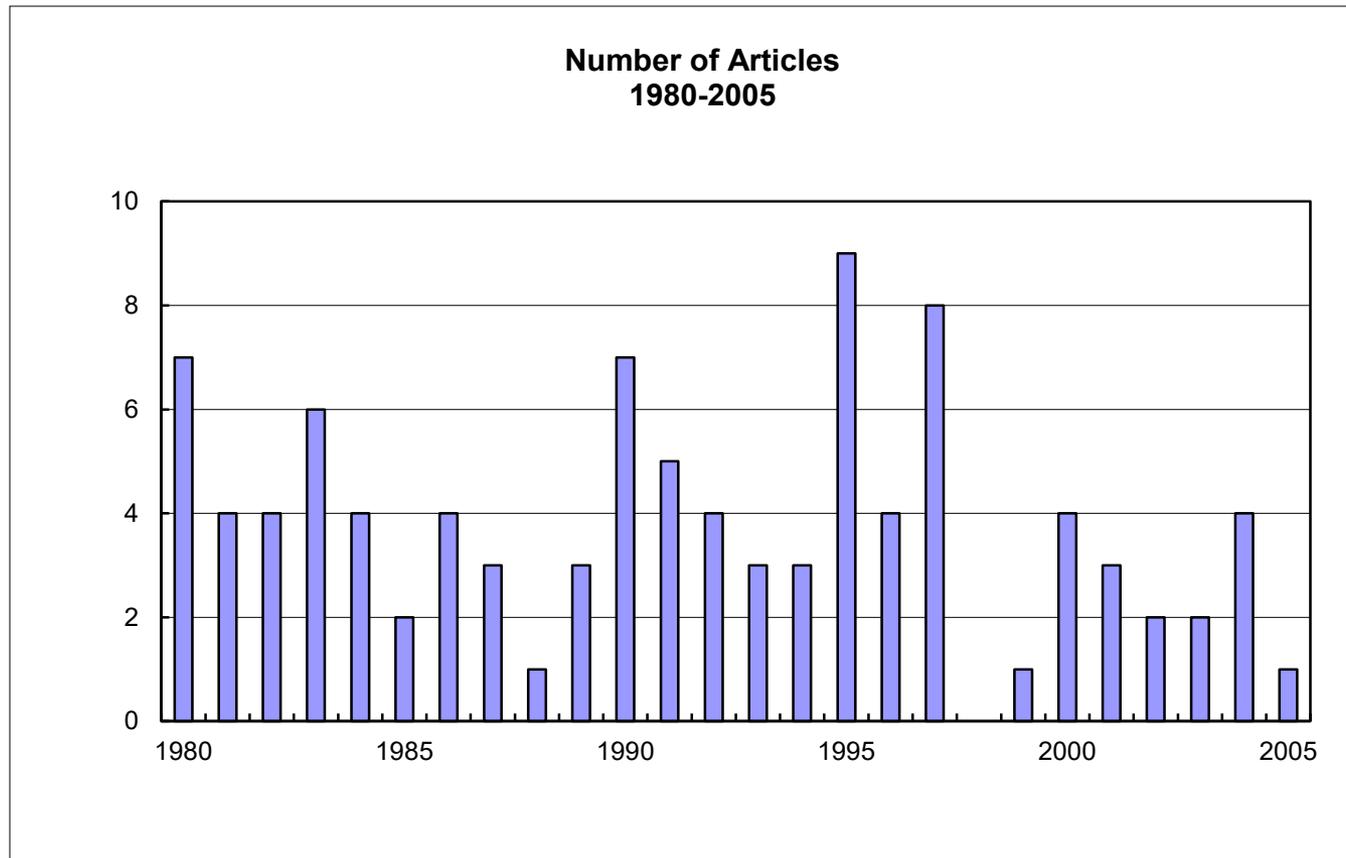
Percentage of Research With Reliability Checks

Articles Using Reliability Checks (%)
1980-2005

Percentage of Research Using CATA
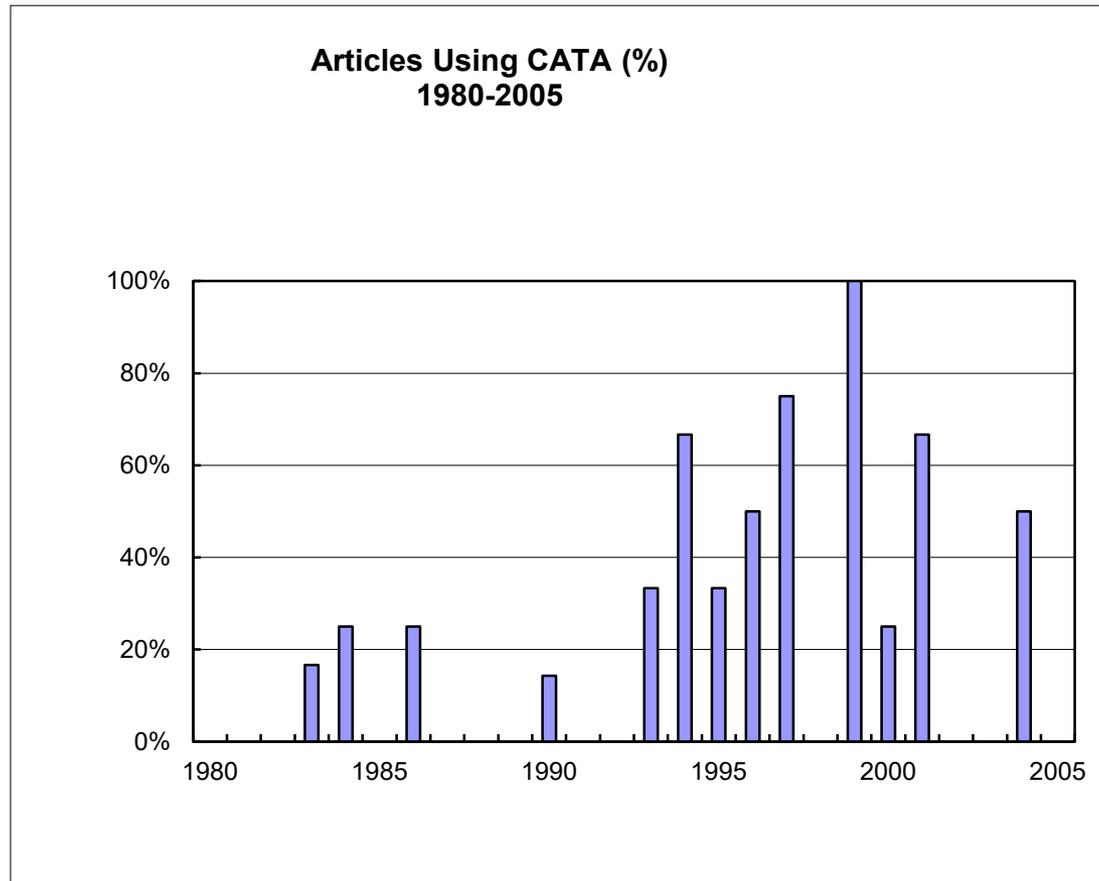
THOUGHT LEADERSHIP ON BUSINESS AND SOCIAL ISSUES
Kiyatkin, Reger, Baum
Data and Methods

- Sample: Web sites, 4 clicks from home page
  - 25 US News and World Report 2008 Best Business Schools
  - 24 of the Top 25 2008 Fortune 500
- Data Collection:
  - Word list for 8 categories (approximately 120 words):
  - Financial purpose, corporate citizenship, transparency, the environment, equal opportunity, family benefits, workplace safety, health, and philanthropic efforts
  - Controls for website size, density, purpose and user interactivity

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THOUGHT LEADERSHIP ON BUSINESS AND SOCIAL ISSUES
Kiyatkin, Reger, Baum
Results

- Corporations pay more attention to all categories of social issues

- Corporations are more likely to frame social issues as integral to the purpose of business, not a means to financial performance

- Business schools are more likely to frame attention to social issues at enlightened self-interest, or as a way to maximize shareholder's equity or firm profitability

Steps in Coding Text
The Weber Protocol (Weber, 1990)

1. Definition of the recording units (e.g., word, phrase, sentence, paragraph).
2. Definition of the coding categories.
3. Test of coding on a sample of text.
4. Assessment of the accuracy and reliability of the sample coding.
5. Revision of the coding rules.
6. Return to Step 3 until sufficient reliability is achieved.
7. Coding of all the text.
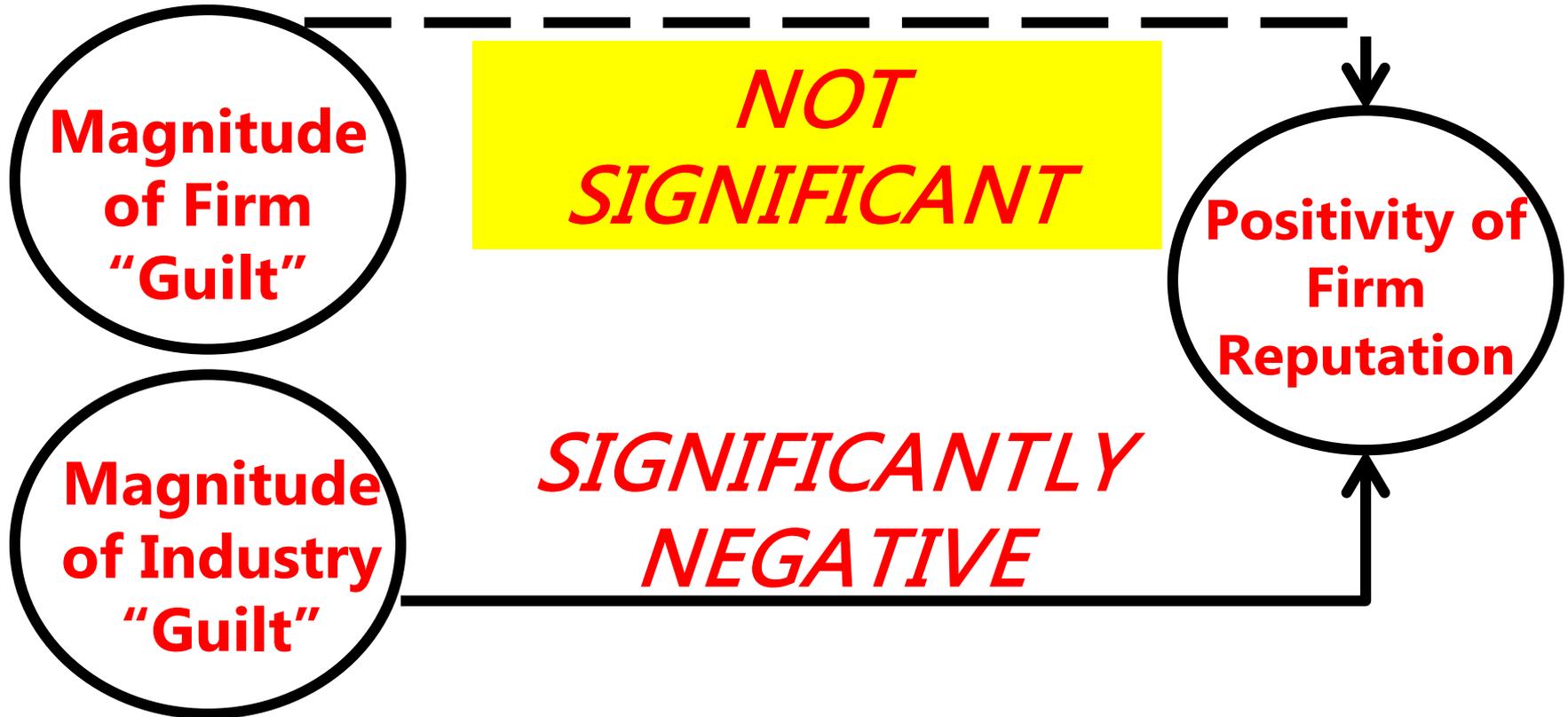8. Assess the achieved reliability or accuracy.

Reputational Dynamics: Guilt by Association
Zavyalova, Pfarrer, Reger, Shapiro
Data and Methods

- *Time period:* **10 years, 1997 to 2007**
- *Sample:* **45 toy firms (CPSC, Hoover's, SIC, firm websites); 1,935 firm-quarters, panel data**
- *Guilt:* **78,846,675 toys recalled (CPSC)**

- *Actions:* **3,846 actions (Business Wire, PR Newswire)**
  - Structured content analysis method widely used in competitive dynamics literature (Basdeo et al., 2006; Ferrier et al., 1998; Smith et al., 1991)
- *Reputation:* **32,482 articles and web blogs (Lexis-Nexis)**
  - Linguistic Inquiry and Word Count (LIWC) software
  - Rate of positive or negative emotion words in a given text (Deephouse, 2000; Pollock & Rindova 2003, House & Wooders, 2006, Tetlock, Saar-Tsechansky & Macskassy, 2008)

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Preliminary Findings

Magnitude of Firm "Guilt"

Magnitude of Industry "Guilt"

Positivity of Firm Reputation

NOT SIGNIFICANT

SIGNIFICANTLY NEGATIVE

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Conclusions

- Words Count!

- Content analysis methods are only limited by the imagination of the researcher