

Class 13 - Design II - Longitudinal

Agenda

- Longitudinal designs: what, why, when, how (30 minutes)
- Application paper discussion (30 minutes)
- *Break*
- Replication presentation (Group 14-16-18-20; 40 minutes)
- General discussion (15 minutes)

Longitudinal designs

Longitudinal designs
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Applications
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General Discussion
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Preparation for next class
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What is a longitudinal design?

Longitudinal designs
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Applications
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General Discussion
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Preparation for next class
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Why are longitudinal designs useful?

When are longitudinal designs feasible?

How can you design a longitudinal study?

A basic setup: Panel data estimation

Longitudinal designs
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Applications
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General Discussion
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Preparation for next class
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Applications

Application readings

Let's level-set people's familiarity with these pieces.

- Certo, S. T., Withers, M. C., & Semadeni, M. 2017. A tale of two effects: Using longitudinal data to compare within- and between-firm effects. *Strategic Management Journal*, 38(7), 1536-1556.
- Firm Repertoires and Performance: The Influence of Complementarity and Competition (working paper)

Certo Withers and Semadeni (2017)

- What was this paper about?
- What were the findings?
- What was the method?
- What makes sense? What was confusing?

Strategic Management Journal
Strat. Mgmt. J., 38, 1536–1556 (2017)
Published online EarlyView 25 October 2016 in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/smj.2546
Received 21 November 2015; Final revision received 18 August 2016



Research summary: We investigate the theoretical and empirical implications of longitudinal data in strategy research. Theoretically, longitudinal data allow strategy researchers to distinguish between relationships among constructs within versus between firms. Empirically, longitudinal data contain information about two types of relationships: within- and between-firm. We describe how the hybrid approach, a technique used in other disciplines, distinguishes within- and between-firm effects. We demonstrate how the hybrid approach can measure both within- and between-firm effects simultaneously. We illustrate the advantages of the hybrid approach. Based on our theory and reexamination, we offer a series of recommendations for researchers using longitudinal data to test theoretical perspectives.

Managerial summary: Strategy research examines the sources of variation over time: what is occurring within the firm (e.g., Do firms differentially increase or decrease their investing in R&D over time) and what is occurring between firms (e.g., Do firms investing more in R&D outperform firms investing less in R&D?). These two sources may be similar or different in both direction and magnitude, and when significant differences exist in either direction or magnitude, researchers must carefully consider the implications of these differences to their theoretical rationale and statistical power. Our findings highlight the benefits of using the hybrid approach and estimate two types of variance, providing scholars the ability to expand both the theoretical and empirical contributions of their research. This distinction is important to how research informs managerial decision making. Copyright © 2016 John Wiley & Sons, Ltd.

INTRODUCTION

Since the early 2000s, strategy scholars have increasingly relied on longitudinal data to test theorized relationships. In 2004, approximately 15 percent of articles published in *SMJ* involved longitudinal data. By 2014, more than half of articles published in *SMJ* involved longitudinal

data. During that period, researchers used longitudinal data to test a variety of topics, including sustainability strategies (e.g., Bansal, 2005), firm reputation (e.g., Busedo *et al.*, 2006), merger waves (e.g., Halebian *et al.*, 2012), strategic alliances (e.g., Koka and Prescott, 2008), downsizing (e.g., Love and Nohria, 2005), and CEO compensation (e.g., Bodolia and Spraggon, 2009).

Despite this remarkable increase, strategy researchers have not fully capitalized on the fact that longitudinal data are multilevel in nature. Longitudinal data include two types of variance: within-unit (e.g., within-firm, within-person,

Keywords: research methods; theory testing; longitudinal data; theory development; hybrid approach

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Fox Simsek and Souder (working paper)

- What was this paper about?
- What were the findings?
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Firm Repertoires and Performance: The Influence of Complementarity and Competition**ABSTRACT**

Two perspectives exist on how firms should choose the set of actions, collectively known as a competitive repertoire, intended to generate superior returns. One is a position-based approach that emphasizes consistency and fit between capabilities and external demands. The other perspective argues such positions can be easily imitated, necessitating repertoires with higher complexity to keep competitors off-balance while also enabling higher performance through increased adaptability. This paper helps untangle whether and when repertoire complexity and consistency are beneficial for firm performance by examining their influence across varying levels of competitive intensity – a key determinant which heretofore has been under examined. Based on an examination of financial performance, we find that the optimum level of consistency decreases as competitor activity increases, while the performance enhancing effects of complexity manifest to a greater extent at high levels of competitor activity.

Keywords:

Competitive repertoires; temporary advantage; firm performance; sustainable competitive

Break



COFFEE BREAK

Replication Presentation

Replication: Firm Repertoires and Performance: The Influence of Complementarity and Competition (working paper)

General Discussion

Longitudinal designs
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Applications
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General Discussion
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Preparation for next class
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Preparation for next class

Final papers due

Final papers are due by May 3 - I look forward to reading them.

Thank you for a great class!

Longitudinal designs
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Applications
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General Discussion
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Preparation for next class
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References