Discussion of Brown and Kimbrough (2010)

Prepared for the 2010 RAST Conference

Darren Roulstone

FISHER
COLLEGE OF BUSINESS

Overview of discussion

- Contribution
- Prior literature:
  - Earnings Synchronicity
  - The Resource-Based View of the firm versus the IO view of the firm
- Evidence from the strategy literature on the RBV and IO views
- Brown and Kimbrough (2010)
- What does the paper tell us?
- Suggestions/extensions

Contribution

- Focuses on an area (earnings synchronicity) that bridges the strategy and accounting literatures
- One of the first papers to explore earnings synchronicity as an outcome of investment and organizational choices
- Contributes to the literature on intangible assets

Earnings Synchronicity

- Long pedigree; beginning to be revisited!
  - Ball and Brown (1967)
  - Gong, Li, and Zhou (2009)
  - De Franco, Kothari, and Verdi (2009)
- What we are still investigating
  - Is Earnings Synchronicity a causal force or an outcome?
    - Outcome in Brown and Kimbrough
    - Motivated as a "**determinant** of several accounting and market phenomena."
  - Is it a good thing?
    - Differentiating strategies
    - Costs of being unique

Earnings Synchronicity

- Not much literature in accounting recently—but strategy literature has been investigating this issue for decades!
  - Two prominent views of the firm:
    - Resource-Based View = Firms matter!
    - Industrial Organization view = Industry matters!
  - Strategy literature has tested these views by examining the market, industry, and firm determinants of earnings

The Resource Based View of the firm

- Definition: Sustained competitive advantage comes from a firm's resources that are "**V**aluable, **R**are, **I**mperfectly Imitable, and **N**on substitutable"
- These resources are "bundles of **tangible and intangible assets**, including a firm's management skills, its organizational processes and routines, and **the information and knowledge it controls**." (Barney 1991)

The Resource Based View of the firm

- Note: intangible assets are a (potentially very small) subset of what the literature calls resources.
- Other resources: plant and equipment, geographic location, training and intelligence of managers and workers, formal reporting structures and information relations among groups within the firm
  - Can we control for these “other resources” in our tests? Do we need to?
    - Potentially a correlated omitted variables issue

RBV versus IO model

- Contrast RBV with IO view that…
  - Firms within an industry are essentially identical in terms of strategies and resources
  - Any differences in resources across firms will be short-lived because resources are mobile and can be acquired by competitors
    - Key element of tension in Brown and Kimbrough (2010)!
    - However: what is unique about intangible assets? Strict IO view says every resource can be appropriated, not just intangibles
    - Authors motivate with unique properties of intangible assets but little comparison to other specific resources

(Indirect) Evidence on models of competitive advantage:

- Schmalensee (1985):
  - Decomposes ROA
  - Firms don’t matter much
  - Firm earnings largely driven by their industry
- Rumelt (1991):
  - Follows up on Schmalensee (1985) with more data
  - Separates out stable and transient effects
  - Stable firm effects far more important than stable industry effects; “Business-units differ from one another within industries a great deal more than industries differ from one another.”

(Indirect) Evidence on models of competitive advantage:

- McGahan and Porter (2002):
  - Also decomposes variance in ROA (but with a much broader sample than prior papers)
  - The "capstone" paper in this literature
  - Industry matters but, "…business-specific effects, which arise from competitive positioning and other factors, have a **large** influence on performance…business-specific effects **are more important** than any other type of effect."

(Indirect) Evidence on models of competitive advantage:

- Problem with this literature: unable to say much about drivers of performance at the firm-level
  - i.e., How unique is a given firm and what resources drive that uniqueness?
  - This is where Brown and Kimbrough steps in
    - Estimates firm "uniqueness" in earnings
    - Relates that uniqueness to a particular class of resources: intangible assets recognized in the financial reporting system

Brown and Kimbrough (2010)

- Firm uniqueness equals earnings non-synchronicity
- Regress earnings non-synchronicity on intangibles (Goodwill, Non-goodwill intangibles, R&D capital) and control variables (not necessarily other resources)
- Key findings:
  - Intangibles positively associated with unique earnings
  - R&D association strengthened by legal protections

Brown and Kimbrough (2010)

- Tension in the paper:
  - Intangibles are among the resources in the RBV, thus, intangibles increase earnings non-synchronicity

  Or

  - Intangibles get appropriated by competitors (IO view) and thus, decrease earnings non-synchronicity
- Is there tension?
  - Can intangibles be appropriated so easily? It's tough to appropriate a target already acquired by someone else (more on this later!)
  - Would managers invest in assets that make them more common?
- Is it a two-sided hypothesis?
  - If intangibles get appropriated they could increase commonality; but do they get appropriated more than non-intangibles like PP&E, inventory, financial investments?
  - The null in Brown and Kimbrough appears to require that intangibles are more easily appropriated than other resources
  - If there is a delay in appropriation, there will be a delay in synchronization—will the NONCOMMON measure reflect that delay?

Brown and Kimbrough (2010)

- How large is the effect of intangibles on earnings uniqueness?
  - R^2 in all models of earnings synchronicity is small (<=2.2%)
  - What is economic magnitude of the effect of intangibles on earnings synchronicity?
    - Important question as intangibles are a subset of the resources in the RBV
    - The question is whether they are an **important** subset!
  - What is incremental R^2 from intangibles?
  - Worry: M/B catches the "other" intangibles, resources etc… (and it has the correct sign); but even with it, R^2 is extremely low

Brown and Kimbrough (2010)

- Danger with market/industry models of earnings (or returns!)
  - Firm-specific effect is the part you can't explain
  - Could be firm-specific factors or noise
- Should we measure earnings uniqueness differently?
  - De Franco, Kothari, Verdi (2009)
  - Gong, Li, and Zhou (2009)
  - Ball, Sadka, and Sadka (2009): significant **systematic** component in earnings

Brown and Kimbrough (2010)

- Are outliers an issue?
  - Mean of intangible intensity is twice the median
- Is the relation concave?
- Typical referee response: "If earnings uniqueness is such a good thing and intangibles create earnings uniqueness, why doesn't everyone have more intangibles?
  - Background question: Do we even know having unique earnings is such a good thing? (More on this later!)

Brown and Kimbrough (2010)

- Return non-synchronicity
  - Similar results except…
  - R&D increases earnings uniqueness, but decreases return uniqueness
    - Authors argue this is due to timing differences: return effects of intangibles synchronize faster than earnings effects and market anticipates that R&D will be appropriated by competitors
    - Is the market that good at incorporating the effects of firm i's R&D into both firm i's stock return and the stock return of all firms in firm i's industry?
    - (Note: This explanation implies that the null hypothesis is a bit of a strawman)
    - Check for timing effects (as in Barberis, Shleifer, and Wurgler 2005; Crawford, Roulstone, and So 2010)
      - Problem: not a lot of degrees of freedom in quarterly ROA regressions

Brown and Kimbrough (2010)

- Missing dimension: Time
  - Paper looks at cross-sectional variation in uniqueness related to intangible investment
    - Silent on when those investments are made
  - Markets are dynamic—the resource based view assumes firms create and deploy resources in response to changing market and industry conditions

Brown and Kimbrough (2010)

- First-mover advantage:
  - "…the acquisition capability of GE Capital is well known, and competitors can readily copy it…But what is far more difficult to duplicate is the resource base of **already** acquired companies and the related synergies among them that GE Capital has achieved and continues to build." (Eisenhardt and Martin 2000)
  - "…[firms'] ability to acquire and exploit some resources depends upon their place in time and space. Once this particular unique time in history passes, firms that do not have space-and time-dependent resources cannot obtain them, and thus, these resources are imperfectly imitable." (Barney 1991)

What does the paper tell us?

- Authors state that forecasting is the emphasis:
  - "Such insight is important in determining the appropriate weight to place on [firm, industry, and market] factors when forecasting a firm's earnings.
- However, forecasting largely absent from paper
  - Table 8 revisits the issue
- Forecasting is interesting but the strategy folks had bigger targets!
- Forecasting helps outsiders, but managers don't necessarily care about that

What does the paper tell us?

- Focus of RBV literature is on explaining "sustained competitive advantage"
  - Is earnings uniqueness evidence of a "sustained" competitive advantage?
  - Do you want to be different when everyone else is making money?
  - IO view is that you don't want to be unique!
    - "Align yourself with your industry"

What does the paper tell us?

- Intangibles increase “uniqueness” as measured by earnings
  - What if uniqueness makes you difficult to understand?
- De Franco, Kothari, and Verdi (2009):
  - Comparability increases analyst coverage and accuracy; decreases dispersion
- Litov, Moreton, and Zenger (2010):
  - Measure how different you are from your industry
  - Unique strategies are good! (Increase market value) but…
  - Unique strategies lower analyst coverage (it’s tough to follow unique firms) **and** this lowers market valuations

What does the paper tell us?

- 1999 Paine Webber analyst report on Monsanto:
- "Proper analysis of Monsanto requires expertise in three industries…Unfortunately, on Wall Street…these separate industries are analyzed individually because of the complexity of each…We can attest to the challenges of making this effort pay off…While we are willing to pay the price that will make the process work, it is a process not likely to be adopted by Wall Street on a widespread basis…
- **…Therefore, Monsanto will probably have to change its structure to be more properly analyzed and valued.**"

What does the paper tell us?

- Litov and Zenger (2010):
  - When unique firms make acquisitions, the market reacts negatively
- Evidence managers take steps to mitigate the negative effects of uniqueness
  - Gong, Li, and Zhou (2009):
    - Firms with unique earnings are more likely to issue (long-term) forecasts
    - Authors motivate this as managers counteracting information asymmetry arising from unique earnings
- Overall:
  - Pros and cons to being unique!
  - Managers evaluate the consequences of those pros and cons

What does the paper tell us?

- Authors conclude their results support resource-based view of the firm
- However, firms may invest in intangibles because *that is what firms in their industry do!*
  - i.e., you have intangibles because you have "aligned yourself with [an intangibles intensive] industry"
  - This could answer the "if intangibles are such a good thing, why doesn't everyone have more intangibles" question
  - Possible solutions:
    - Industry fixed effects (look within industries rather than between)
    - Litov, Moreton, Zenger (2010) measure how unique you are *relative to your industry*; could measure intangibles use relative to your industry
- If goal is to test RBV, intangibles should be firm, not industry, specific

Suggestions/Extensions

- Document the importance of intangibles
  - Accounting intangibles are a small subset of the possible resources in the RBV
  - Are they really the important subset or do they proxy for industry-wide effects on earnings?
    - Would be great to match them up against other firm resources!
    - This is difficult: there is a reason much of the strategy literature on RBV consists of case studies!
- Document the importance of uniqueness
  - Forecasting is one application, but maybe not the most important to managers
  - How is uniqueness part of a "sustained, competitive advantage"?

Conclusion

- Paper does a nice job of bringing together the strategy and accounting literatures
  - This is a big issue in strategy!
  - Need to be clearer on what the big issue is in accounting
- Still have a lot to learn
  - Models explain little of earnings uniqueness (but this is a logical start)
  - Do firms want to be unique?