Why Has It Been So Hard to Define Competitive Advantage?

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In his recent essay, Lieberman (2021) concludes, first, that there are several different definitions of the concept of “competitive advantage” in the field of strategic management; second, that these different definitions can generate different conclusions with regard to whether or not particular firms do or do not have a competitive advantage; and, third, that the concept of competitive advantage should thus be largely abandoned in favor of efforts to develop empirical measures of superior firm performance.

This response suggests that the observation that there are several definitions of the concept of competitive advantage is both empirically correct—and not at all surprising. It also suggests that the observation that different definitions of this concept will often generate different conclusions about whether or not a firm has a competitive advantage is trivially true. Finally, it suggests that Lieberman’s “solution” to the problem of competitive advantage—to develop empirical measures of firm performance—will end up facing exactly the same challenges that efforts to develop a definition of competitive advantage have faced. While Lieberman (2021) has effectively identified these problems with regard to defining competitive advantage, he ignores them with regard to empirical definitions of superior performance and thus, in the end, provides no real guidance for how the field of strategic management should evolve going forward.

In the face of these conclusions, this essay asks why has it been, and continues to be, so difficult to define competitive advantage and superior firm performance in the field of strategic management? The answer to this question suggested here is that the field of strategic management has imported certain concepts from economics—including the idea of industry, the firm, and firm performance—that may not altogether be consistent with strategic management’s emphasis on understanding why some economic agents outperform others. Adopting alternative conceptions of these components of the competitive process may make it easier to resolve the definitional issues raised by Lieberman (2021).

The History of the Concept of Competitive Advantage

In his effort to show the limitations of current definitions of competitive advantage, Lieberman (2021) fails to appreciate the history of this concept, and how we—as a field—got to where we are. In so doing, Lieberman (2021) implicitly assumes that those that have developed prior definitions of competitive advantage were unaware of the limitations of their definitions. This was certainly not the case.

Competitive Advantage and the History of Teaching in Strategic Management

The concept of competitive advantage emerged before the 1980s, before the introduction of economic logic into the field of strategic management (Porter, 1979; 1980), to facilitate teaching. Indeed, strategic management had a well-established history of case-based teaching where the concept of competitive advantage was very important, long before economic logic was applied to research in this field.

Within the context of teaching, many of the definitional problems associated with the concept of competitive advantage cited by Lieberman (2021) were simply not relevant. Strategic management teachers did not try to compare the relative performance of a large sample of firms, but typically examined the implications of the strategic choices made by smaller numbers of directly competing firms—e.g., Walmart versus Kmart; Crown, Cork, and Seal versus Continental Can; Southwest Airlines versus United Airlines. With these more direct comparisons, teachers could focus on understanding why these firms, seemingly operating in the same segment, were performing so differently.

Of course, Walmart versus K-Mart was the quintessential example of a well-defined strategic management teaching problem. For all intents and purposes, Walmart and K-Mart sold about the same mix of products to about the same customers. They both emphasized selling branded products at low prices. And yet, Walmart went on to become one of the largest firms in the world, and Kmart went out of business. Of course, over the years, we have come to understand important differences between Walmart and Kmart, even though they operated in the same segment of the economy. For example, Walmart's distribution and logistics operations enabled it to outperform Kmart. That said, we probably still do not fully understand why Kmart was unable to improve its operations by imitating Walmart.

Those of us that continue to teach strategic management with the case method still use the concept of competitive advantage in this way—to compare the performance of Coke and Pepsi; the performance of Airborne Express and UPS/FedEx; the performance of Ducati and BMW. By carefully choosing firms to compare, we are able to avoid many of the definitional problems with the concept of competitive advantage identified by Lieberman (2021). Indeed, while he does not say so explicitly, one suspects that when Lieberman (2021) allows for the possibility that the concept of competitive advantage will continue to have some utility in the field of strategic management going forward, what he is really saying is that it will continue to have utility in teaching.

Introducing Economic Logic to the Field of Strategic Management

Of course, the field of strategic management was radically transformed by Michael Porter's (1979; 1980) introduction of structure-conduct-and performance economic logic. This was quickly followed by the application of transactions cost (Williamson, 1975), agency (Jensen and Meckling, 1976), evolutionary (Nelson and Winter, 1982), and efficiency rents (Demsetz, 1973) theories into the field of strategic management (Barney and Ouchi, 1986). While, from a teaching point of view, it was still possible to use the concept of competitive advantage in the same way as had been done for many decades, these economic theories seemed to require a more systematic, more careful definition of competitive advantage. What was especially needed was a definition of competitive advantage that could be applied in developing empirical measures of superior firm performance in large samples of firms—not just the small sample case comparisons that dominated teaching.

In this context, it seemed to make sense to search for more rigorous definitions of competitive advantage in the field of economics. And, economists had plenty of options, both conceptually and empirically. And so, our search as a field began.

Of course, most of the early empirical work in strategic management (e.g., Hoskisson, Hitt, Johnson, Moesel, 1993) adopted accounting measures of firm performance and concluded that a firm with a high ROI (or ROA or ROS) had a competitive advantage over a firm with a low ROI (or ROA or ROS)—although the limitations of accounting measures of performance soon became evident (Fisher and McGowan, 1983). So, while never entirely abandoning accounting measures of performance, strategic management scholars continued to search for alternatives, mostly among economic research.

This search led to some of the definitions of competitive advantage identified by Lieberman—comparing a firm's economic performance to its cost of capital (cf., Copeland, Koller, and Murrin, 1995), comparing a firm's economic performance to the marginal performing firm in its industry (Peteraf and Barney, 2003), comparing a firm's economic performance to the average firm in its industry (Besanko, Dranove, and Shanley, 2000: 389), and so forth.

As noted, none of those who suggested these definitions of competitive advantage thought that they were without limitations. Some of these limitations were obvious. For example, comparing a firm's economic performance to its cost of capital depends on calculating a firm's cost of capital, something that could be done using a flawed Capital Asset Pricing Model (Sharpe, 1964) but only for publicly traded firms. Comparing a firm's economic performance to a marginal performing firm in an industry depended on identifying an industry—an empirically ambiguous concept at best—and defining what "marginal performing" meant in a particular context. Moreover, all these definitions—including comparing a firm's performance to an industry average—required measuring a firm's "economic performance," something that could only be approximated by adjusting a firm's accounting numbers (cf., Copeland et al, 1995), but only for publicly traded firms.

While all these definitions and measures of competitive advantage were limited in some important ways, they did try to bring some rigorous economic logic to what, previously, had been a concept only defined for teaching purposes— not for research purposes. And, as will be shown shortly, the search for more rigorous definitions of competitive advantage also revealed ambiguities about some of the key concepts that the field of strategic management "borrowed" from economics.

Of course, it is not surprising in a field as young as strategic management, that the search for definitions and measures of key terms would be characterized by multiple competing alternatives, all with some strengths and weaknesses. After all, as a field, we began this journey roughly around 1980. Fields like economics, that have a much longer history, are still struggling to define critical concepts—like barriers to entry (Demsetz, 1982). Thus, that we have not settled on a single all-encompassing definition of the concept of competitive advantage is not really unusual in the history of the development of a field of research.

Of course, none of this means we should not continue this effort. Even if we never develop such definitions, the effort to do so will clearly teach us much about our current assumptions about the field, and whether or not those assumptions—mostly taken from economics—are actually fruitful. More on this later.

Different Definitions of Competitive Advantage Generate Different Results

Given this history of the concept of competitive advantage, Lieberman (2021) does a very good job of showing how different definitions of this concept can generate very different conclusions regarding whether or not firms have a competitive advantage. Of course, this is a reasonably obvious observation. If one compares the economic performance of firms in an industry to a marginal (breakeven) industry performer (cf. Peteraf & Barney, 2003), more firms will be defined as having a competitive advantage than comparing the economic performance of firms in an industry to an average performer (cf. Besanko, Dranove, and Shanley, 2000: 389) or comparing to firms that are able to outperform all of their competitors (Barney, 1991; 2019). This is, after all, arithmetic.

Further, while most definitions of competitive advantage consider the firm's competition to be the set of firms producing similar products or in the same industry, other perspectives point out that seemingly unrelated products can affect buyer willingness to pay (Stuart, 2016) and should be considered when assessing whether or not a firm has a competitive advantage. Other "non-competitors" such as potential entrants (Baumol, Panzar, and Willig, 1983; Barney, 1991) or failed/defunct competitors help delineate the extent or limits of a competitive advantage for monopolists, first-movers, and even for firms in more competitive markets. Definitions of competitive advantage that take a larger ecosystem view of competition (a firm's competitor's competitor, potential competitors, or vanquished competitors) will certainly give different results in assessing a firm's ability to generate competitive advantage compared to those definitions tied to the traditional comparison of firms with "similar" products.

Relatedly, definitions of competitive advantage can be ex ante or ex post (Barney and Mackey, 2018). Ex ante definitions focus on the resources and capabilities a firm possesses that enables it to generate superior profits (e.g. "a firm's competitive advantage is its source of superior performance."). Ex post definitions of competitive advantage make the term competitive advantage virtually synonymous with superior performance, that is, a firm has a competitive advantage when it has superior performance. When using an ex post definition, it is reasonable to say things like "a firm's unique resources and capabilities enable it to generate a competitive advantage." Due to difficulties with value capture, firms with resource-level ex ante competitive advantages do not always generate superior performance. As such, whether competitive advantage is defined ex ante or ex post will certainly impact the conclusions we can draw about which firms are generating competitive advantage and why they are doing so.

Clearly, Lieberman (2021) does the field a great service in pointing out the range of definitions of competitive advantage used and calling attention to the importance of being clear about what definition of competitive advantage one is using, especially in large sample empirical work. Given this, the observation that different definitions of a concept could lead to different empirical conclusions regarding who does and who does not have a competitive advantage is not surprising.

The Path Forward for Strategic Management

Based on the observation that there are multiple ways of defining the concept of competitive advantage—an empirically correct statement—and based on the observation that different definitions will generate different empirical conclusions about which firms enjoy a competitive advantage—a self-evident result of arithmetic—Lieberman (2021) concludes that it's time to "relegate" the concept of competitive advantage to a less prominent role in the field, and instead, to search for empirical measures of superior firm performance.

While acknowledging that he does not do a complete review of different empirical measures of superior firm performance, Lieberman (2021) does discuss enough of them to suggest that the search for this "holy grail" empirical measure of firm performance is likely to face all the same issues as did the search for the "holy grail" definition of competitive advantage. Postrel (2018) also seems to think that empirically defining "superior performance" will be simpler than defining "competitive advantage,"[1] but consider some of the challenges to such a definitional effort.

First, to define "superior performance," there must be agreement about the basis of comparison—"superior" to what—a marginal firm in an industry, an average firm in that industry, to any other firm in an industry? And before answering this question, there must be agreement about what the relevant industry is. Are Walmart and Aldi in the same industry, different segments in the same industry, or in different industries? Also, what is the right unit of analysis for evaluating performance—the product level (Stuart, 2016), the transaction level (Williamson, 1975), or the level of a firm? Of course, to answer this question, there must be

[1] This is the case even though Postrel's (2018) approach to empirically defining superior performance is anything but simple.

agreement about what constitutes a firm—a non-trivial exercise in a world where economic value seems more and more to be generated by ecosystems that may not exclusively include firms (Adner, Oxley, and Silverman, 2013).

These are all legitimate questions that deserve great study and consideration. They are only raised here to suggest that Lieberman's (2021) conclusion that the field of strategic management should relegate the concept of competitive advantage to less importance and, instead, focus on empirical definitions of superior firm performance, does not address the fundamental issues raised by the challenges he has identified as being associated with defining competitive advantage. Rather, Lieberman's (2021) essay only "kicks the can" further down the logical chain of analysis, assuming that these fundamental problems that have bedeviled the definition of competitive advantage since the early 1980's will somehow be less problematic in developing empirical measures of superior firm performance. Frankly, this seems unlikely.

Indeed, one could well imagine an essay, written—say—fifteen years from now, that argues that there are too many different empirical measures of superior firm performance in the field of strategic management, that different measures generate different results—which will be arithmetically correct—and that it is time to relegate the concept of superior performance to a less important place in the field, and instead, to focus on defining or measuring something new. It would be ironic if this hypothetical essay called for the return of competitive advantage to a central place in the field of strategic management.

So, Why Is It So Difficult to Define these Concepts?

It has clearly been the case that defining the concept of competitive advantage—except in a teaching context—has been very difficult. It also seems likely that efforts to develop a single, rigorous, all-encompassing empirical measure of superior firm performance will be equally difficult, and that, indeed, it will suffer many of the same challenges that have faced those trying to define competitive advantage. Why is this the case?

One explanation may be that while the field of economics has enriched the study of strategic management dramatically, in "importing" economic logic into strategic management, we may have brought over certain concepts that are actually not helpful in defining both competitive advantage and superior performance. As long as strategic management scholars continue to build theories and empirical research on concepts that are not amenable to the definition of competitive advantage and superior performance, we will continue to find it difficult to define these terms. Consider the following examples.

The Concept of Industry

The concept of industry is, of course, very important in the field of economics. Indeed, many policy implications of economics have to do with the structure and operation of industries—are they concentrated, are they competitive, and what implications do these industry attributes have for social welfare? Of course, sometimes the definition of an industry can be empirically ambiguous, and the conceptual definition of an industry as "a nexus of cross-price elasticities of demand" can be very abstract. Postrel (2018) acknowledges these difficulties in defining an industry, and calls, instead, for the analysis of firm performance in the context of "canonical market segments"—a concept that may be related to Porter's (1980) idea of strategic groups. However, even given these limitations, industry is still important in the field of economics.

This concept has also been imported into strategic management. Indeed, Porter's (1980) original contribution was the analysis of industry structure and its implications for firm strategies. Moreover, most empirical papers in strategy include industry controls, and most definitions of competitive advantage and superior performance, as shown by Lieberman (2021), rely on the notion of an industry in that they in some way compare the performance of a particular firm with a firm or firms in the same industry.

However, the idea of an industry, with well-defined borders that could, in principle, be defended by barriers to entry seems almost medieval compared to the nature of competition in much of the modern economy (Cattani, Sands, Porac, and Greenberg, 2018). At best, industry boundaries are constantly changing and porous. An economic actor may think of some other actor as being “outside their industry” one day, only to discover this actor competing directly with them the next. Think Kroger versus Amazon, or Spotify versus Apple. The idea of industries as objective phenomena with clear identifiable boundaries seems almost laughable in a modern context.

Moreover, competition does not just take place in the product markets around which most definitions of industry revolve. Competition unfolds between firms in a variety of different markets. For example, firms in semiconductor manufacturing do not compete just with other semiconductor manufacturers in the product market, they compete with other high technology firms for engineering talent, with firms in the entertainment industry for marketing talent, with large diversified firms for general management talent, and with start-ups for entrepreneurial talent. In what way does it make sense for strategic management scholarship—scholarship that recognizes that superior performance, however defined, can stem from advantages obtained in markets besides product markets (Barney, 1986)—to focus on industries defined solely on the basis of competition in product markets?

None of this suggests that competition in product markets is unimportant, only that it is not the only important thing. What this does suggest is that the notion of competition within the field of strategic management could be substantially enhanced if we moved away from industries, as they have traditionally been defined in economics, and began to fully accept the idea that competition is constantly evolving across multiple factor and product markets simultaneously. Certainly, such a conception of competition, as opposed to industry, would have a profound impact on any definitions of competitive advantage or empirical measures of superior performance that might be developed going forward.

The Concept of a Firm

The concept of the firm is also central in the field of economics. And yet, much like the concept of an industry, consensus about the definition of what constitutes a firm has remained elusive. Is a firm a particular way of organizing the flow and use of information? Is it a mechanism for monitoring the performance of different economic agents? Is a firm an incentive structure, or a special kind of labor market, or an authority structure, or a nexus of contracts? All of these different ways of defining firms have received considerable attention in the field of economics, and each has its strengths and weaknesses (Homstrom and Tirole, 1989).

Within the field of strategic management, the most dominant definition of what constitutes a firm is probably a definition taken from the transactions cost theory of Williamson (1975; 1985). The idea of a firm in this theory is of a set of economic exchanges where, instead of using prices and competition to manage an exchange, "hierarchical governance" and "managerial fiat" are used. These forms of governance are required to protect parties to an exchange from the threat of opportunism that is created by "transaction specific investment." Firms in this world have well-defined boundaries that separate those within a firm from those outside a firm. And only within these well-defined boundaries, protected from opportunism by hierarchical governance and managerial fiat, will individuals be willing to make the transaction specific investments required to create economic value.

Unfortunately, modern firms do not have many of these attributes.

For example, there is little reason to believe that "hierarchical governance" actually eliminates the threat of opportunism in an exchange. Instead, replacing "market governance" with "hierarchical governance" simply changes the terms through which debates take place about how an economic exchange will unfold. For example, in an exchange governed through markets, economic actors argue about prices and how to coordinate their business strategies; in an exchange governed through hierarchy, economic actors argue about transfer prices and how to coordinate business strategies across different functions and business units. The words may change, but the fundamental issues that plague these exchanges seem largely unchanged by the introduction of "hierarchical governance" into an exchange (Hart, 1995).

Moreover, managers seem to exercise much less "fiat" in modern corporations than is imagined by the firm strategic management has imported from economics. Certainly, "bosses" can organize work schedules and make assignments, but implementing these decisions generally requires the agreement of a firm's employees. Actors who do not believe that their "boss" is exercising fiat in a way that is consistent with their interests—however those are defined—may simply choose to disobey a boss's edicts or leave the firm.[2] Even the ultimate act of managerial fiat—firing an employee—has become more and more complicated—so complicated that it is a viable option in only the most extreme settings as when an employee engages in fraud, steals from the firm, engages in sexual abuse, unambiguously demonstrates the inability to do the

[2] A situation many bosses have experienced in the "great resignation" of 2020 and 2021.

required work, and so forth. But, for day to day interactions, "managerial fiat" feels more like negotiation and discussion than it does telling people what to do.

Firm boundaries are increasingly porous. Distinguishing between those "inside" and "outside" a firm has become progressively more difficult. For example, in what sense is the copy machine repair person--who is on-site every day making sure that an organization is able to operate efficiently, who knows everyone by their first name, and who is invited to company parties—not "inside" an organization's boundary? In a post-COVID world where people never go into an office, what is the difference between a contract worker and an employee? Obviously, the question of organizational boundaries is an important issue for tax authorities around the world, but from the point of view of the theory in the field of strategic management, what makes some people "outside" an organization and the other "inside" is not altogether obvious. [3]

Some would argue that those "inside" the firm can make firm-specific investments in a firm, while those "outside" the firm are less likely to make such investments (Williamson, 1975). But, recent work on ecosystems (Adner, Oxley, and Silverman, 2013) and network organizations (Hansen, 2002) clearly shows that traditional "outsiders" can make the same kinds of firm-specific investments as "insiders," and thus that this approach to defining a firm boundary is deeply limited within the context of strategic management.

Perhaps what the field of strategic management needs is to abandon the "firm"—as traditionally defined in transactions cost economics—as our unit of analysis, and start examining networks of relationships among independent economic actors whose co-specific investments

[3] It's not obvious to many tax authorities either. For example, the Internal Revenue Service in the United States lists 20 separate factors that can be used to determine if an individual is an employee or an independent contractor (see IRS Form SS-8 "Determination of Employee Work Status for Purpose of Federal Employment Taxes and Income Tax Withholding). However, the IRS acknowledges that which of these 20 factors will be most important in determining an individual's status as an employee or independent contractor can vary from situation to situation.

can generate economic value greater than what would otherwise be the case (Barney, 2018). Thus, instead of searching for a "theory of the firm," perhaps the field of strategic management should be searching for a "theory of cooperative economic value creation."[4] This would obviously have an important impact on definitions of competitive advantage and superior "firm" performance.

The Concept of Firm Performance

If the traditional concept of "the firm" actually does not fit well in the field of strategic management, then it follows that the concept of "firm performance" will also not fit well. Over and above the issues associated with measuring firm performance, there are important conceptual issues as well.

For example, if, instead of using the traditional definition of the firm, strategic management adopted the alternative suggested here, it could very well be the case that a network of co-specialized actors could generate significant economic value, but that one of the nodes in this network could appropriate little or none of this economic value (Coff, 1999). If this node is a traditional "firm," then it could be part of a network that generates significant economic value, but not appropriate much of that value itself. Traditional strategic management scholarship might easily conclude that this "firm" had no "competitive advantage" nor "superior performance"—however those terms are defined. But such a conclusion badly misrepresents the important value creation role that this "firm" might actually play as part of this collective co-specialized network.

Conclusion

[4] This conception of the firm is, perhaps, closest to the "nexus of contracts" definition of the firm rather than the conception of the firm in transactions cost economics. See Holmstrom and Tirole (1985).

Thus, while acknowledging that there are multiple definitions of competitive advantage in the field of strategic management, and while acknowledging the fairly obvious point that these different definitions often lead to different conclusions about whether a firm does or does not enjoy a competitive advantage, ultimately Lieberman's (2021) analysis fails to address the most fundamental issue that his essay implicitly raises: Why has it been so difficult to define this concept in the field of strategic management? Lieberman's (2021) solution—to sideline competitive advantage in favor of empirical measures of superior firm performance—turns out to be no solution at all. All it does is to force later scholars to confront the same problems in defining superior performance as prior scholars faced in defining competitive advantage.

The central contribution of this response is that "kicking the conceptual can" down to another generation of strategic management scholars may not be all that helpful. Rather, in understanding why it has been difficult to define these terms—both competitive advantage and superior performance--this essay argues that we may have created problems for our field because we have uncritically adopted certain concepts from economics that are deeply problematic for those trying to understand "why some economic actors outperform others." Three of these concepts—industries, firms, and firm performance—are briefly examined here. While these concepts have all been fruitful in the field of economics, they may actually have hampered the ability of the field of strategic management in defining some of its key concepts, including competitive advantage and superior performance.

If taken seriously, this essay will be profoundly disturbing to many strategic management scholars who have built their careers by adopting these and related concepts from economics. We can imagine some responding to this essay by throwing their hands in the air, and exclaiming aloud "If we abandon the concepts of industry, firm, and firm performance, the entire structure of the field of strategic management would have to be redone."[5] Such a response would suggest that this reader understood the implications of our analysis.

Of course, this essay makes no claim that it unpacks all of the theoretical and empirical implications of abandoning the concepts of industry, firm, and firm performance as cornerstones from economics transferred into strategic management. Indeed, no one essay is likely to be able to do this. This will require the work of many scholars over many years since it would involve nothing less than remaking the entire field of strategic management.

That said, we are coming up on 30 years since Rumelt, Schendel, and Teece (1994) tried to identify the central research questions in the field of strategic management. The questions they identified unquestioningly took as primitive concepts for the field of strategic management "industry," "firm," and "firm performance." It is true that these concepts have served the field of strategic management well, but it may be time reconsider these and related concepts as central building blocks for the field of strategic management.

Indeed, what may be most important about debates about competitive advantage and superior firm performance may not be the debates, per se, but the fact that these debates may suggest the need to alter some key definitions and assumptions in the field of strategic management going forward. The next book on "fundamental questions in the field of strategic management" may need to deal with the logical implications of abandoning concepts uncritically adopted from economics and replacing them with concepts more consistent with the effort to understand why some economic actors outperform other economic actors. As suggested here, one possible path forward in this research agenda would be to shift attention from studying

[5] One reviewer commented that changing the focus from industry, firm and firm performance would not only separate strategic management from economics but would also lead us to abandon other social science fields including law and sociology. We whole heartedly agree.

industries and firms with well-defined boundaries—which are becoming less and less common—to studying how networks among actors can facilitate the kinds of co-specialization that can create economic value (Barney, 2018). Understanding how these networks of actors form, evolve, and distribute the value they create is likely to generate a whole new list of fundamental research questions in the field of strategic management.

References

Adner, R., Oxley, J., & Silverman, B. 2013. Collaboration and competition in business ecosystems. Advances in Strategic Management, 31: 9–18.

Barney, JB. 1991. Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120.

Barney, JB. 2019. Keeping Competitive Advantage In. Unpublished manuscript.

Barney, JB. 2018. Why resource-based theory's model of profit appropriation must incorporate a stakeholder perspective. Strategic Management Journal, 39(13): 3305-3325.

Barney, J.B., & Mackey, A. 2018. Monopoly Profits, Efficiency Profits, and Teaching Strategic Management. Academy of Management Learning & Education, 17(3): 359-373.

Barney, J.B., & Ouchi, W.G. 1986. Organizational Economics. Jossey-Bass.

Baumol, W. J., Panzar, J. C., & Willig, R. D. 1983. Contestable markets: An uprising in the theory of industry structure: Reply. The American Economic Review, 73(3), 491-496.

Besanko D., Dranove D., & Shanley, M. 2000. Economics of Strategy. 2nd Ed. John Wiley & Sons, New York.

Cattani, G., Sands, D., Porac, J.; & Greenberg, J. 2018. Competitive sensemaking in value creation and capture. Strategy Science, 3(4): 555 – 682.

Coff, R.W. 1999. When Competitive Advantage Doesn't Lead to Performance: The Resource-Based View and Stakeholder Bargaining Power. Organization Science, 10(2):119-133.

Copeland, T., Koller, T., & Murrin, J. 1995. Valuation: Measuring and Managing the Value of Companies. 2nd Ed. John Wiley & Sons, New York.

Demsetz, H. 1973 Industry structure, market rivalry, and public policy. The Journal of Law and Economics 16 (1), 1-9.

Demsetz, H. 1982. Barriers to Entry. The American Economic Review, 72(1): 47-57.

Fisher, F., & McGowan, J.J.. 1983. On the misuse of accounting rates of return to infer monopoly profits. American Economic Review 73(3) 82–97.

Hansen, M. (2002). Knowledge networks: Explaining effective knowledge sharing in multi-unit companies. Organization Science, 13(3), 232–248.

Hart, O. 1995. Firms, Contracts, and Financial Structure. NY: Clarenden Press.

Holmstrom, B. and Tirole, J. 1989. The theory of the firm. In R. Schmalensee and R. Willig (eds.), Handbook of Industrial Organization, Volume 1. Princeton: Princeton, Chapter 2, pg. 63 – 133.

Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Moesel, D. D. 1993. Construct validity of an objective (entropy) categorical measure of diversification strategy. Strategic Management Journal, 14(3), 215-235.

Jensen, M. C., & Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4): 305-360.

Lieberman, M. 2021. Is Competitive Advantage *Intellectually* Sustainable? Strategic Management Review, 2 (1): 29-46.

Nelson, R. R., & Winter, S. G. 1982. The Schumpeterian tradeoff revisited. The American Economic Review, 72(1): 114-132.

Peteraf, M. A., & Barney, J. B. 2003. Unraveling the resource-based tangle. Managerial and Decision Economics, 24(4): 309-323.

Porter, M. E. 1979. The structure within industries and companies' performance. The Review of Economics and Statistics, 61(2): 214-227.

Porter, M.E. 1980. Competitive Strategy. The Free Press, New York.

Postrel S. 2018. Transaction surplus superiority in canonical market segments: Using the profit map to guide positioning and investment choices across price-rivalry regimes. Strategic Management Journal, 39(6): 1573-1602.

Rumelt, R.P., Schendel, D., & Teece, D.J. 1994. Fundamental Issues in Strategy: A Research Agenda. Harvard Business Review Press, Cambridge: MA.

Sharpe, W.F. 1964. Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk. The Journal of Finance, 19: 425-442.

Stuart, H.W. 2016. Value Gaps and Profitability. Strategy Science 1(1):56-70.

Williamson, O.E. 1975. Markets and hierarchies: analysis and antitrust implications: A study in the economics of internal organization.