**Abstracts of Published Papers**

**Heather Berry**

 My research fits into five broad themes: 1.) Performance Effects from Geographic Expansion; 2.) Resource Allocation Decisions by Multinational Corporations; 3.) Conceptualizing Cross-National Distance and Multinational Firm Scope; 4.) Global Integration and Innovation within MNCs and 5.) Global Sourcing and Its Impact. Below are abstracts from each of my papers that have been published within each of these streams.

1. **First Research Stream: Performance Effects from Geographic Expansion**

Berry, H,. 2006. Shareholder Valuation of Foreign Investment and Expansion, *Strategic Management Journal*, 27: 1123-1140

Abstract: This study analyzes when different foreign investment location choices are value creating for firms at different stages of international expansion. I argue that because direct investment in developing countries is riskier than in advanced countries, shareholders may not value a firm’s investments in developing countries until that firm has experience from previous international investments and capabilities to better manage and hedge the higher levels of risk and uncertainty. Using a panel of 191 US manufacturing firms and their foreign investments over a 20-year period (1981-2000), the empirical results show that firm investments in advanced and developing countries are valued differently by shareholders, depending on the firm’s prior international expansion, the firm’s capabilities and experiences, and the knowledge intensity of the firm’s industry. These results highlight the importance of considering firm location decisions, prior experiences and resources when analyzing shareholder valuation of the foreign investment choices of firms at different stages of international expansion.

Berry, H. and M. Sakakibara, 2008, Resource Accumulation and Overseas Expansion by Japanese Multinationals *Journal of Economic Behavior and Organization* 65(2): 277-302

*Abstract*: In this paper, we examine the motivation for and outcome from a firm’s multinational expansion strategy by analyzing two issues: first, the relationship between a firm’s intangible assets and its investment abroad, and second, the evolution of the value of multinationality to shareholders as a firm’s level of international activity and foreign experience changes. Overall, our results show that while it is typical for the Japanese firms in our sample to accumulate intangible assets prior to investing in foreign markets, these firms need experience in foreign markets before a return on this investment will be realized.

Berry, H., 2015, Knowledge Inheritance in Global Industries: The Impact of Parent Firm Knowledge on the Performance of Foreign Subsidiaries, *Academy of Management Journal* 58(5): 1438-58.

*Abstract*: In this paper, I analyze the impact of inherited parent firm knowledge on the performance of foreign subsidiaries, contingent on the relative importance of technological innovation in the foreign versus home country of the MNC. I consider transfers of both technological and managerial parent firm knowledge, exploring both the main and interactive effects of these transfers on the performance of foreign subsidiaries. The empirical results from a comprehensive panel of US MNCs and their worldwide operations using both fixed effects and system GMM models show that transfer of parent firm technological knowledge positively impacts the performance of subsidiaries when home country innovation dominates foreign innovation. When foreign innovation dominates, the results show that the combination of managerial knowledge transfer and local investments in R&D significantly boosts subsidiary performance, suggesting that parent firm managerial knowledge is useful in highly competitive foreign locations. Overall, this paper extends the knowledge management literature by analyzing when transfers of parent firm technological and managerial knowledge boosts the performance of foreign subsidiaries in increasingly globally competitive industries.

Berry, H. and A. Kaul, 2016. Replicating the Multinationality-Performance

Relationship: Is There an S-Curve? *Strategic Management Journal*. 37(11): 2275-90

*Abstract*: We revisit the empirical relationship between multinationality and performance by attempting to replicate the widely cited S-shape relationship reported in Lu and Beamish (2004). Using a longitudinal and comprehensive database on the population of US MNCs from 1989 to 2007, we find no evidence of an S-shaped relationship; nor do we see a moderating effect of intangible assets. Although our results do show a marginally significant U-shaped association between multinationality and performance for a subsample of manufacturing firms, this relationship disappears once we account for the endogeneity of multinationality. Our study contributes to empirical research on the multinationality-performance relationship, highlighting the need for caution in generalizing results across countries and the importance of controlling for the endogeneity of multinationality when assessing its effect on performance.

Berry, H., and A. Kaul, Disaggregating Multinationality: An Empirical Examination of Global Value Creation, under second review.

*Abstract*: In this study, we take a multidimensional approach to examining the relationship between a firm’s multinational activities and its financial performance, using Ghemawat’s AAA Framework to distinguish between the different strategies firms pursue when going abroad. Using detailed longitudinal data from a comprehensive sample of US multinational corporations, we empirically examine when aggregation, adaptation, and arbitrage activities are pursued by US MNCs and how these activities relate to firm profits. We find that each of these three activities is predicted by different factors, and that less than ten percent of the firms in our sample pursue higher levels of all three activities simultaneously. We also find that US MNCs grow increasingly profitable as they increase aggregation activities, with some evidence of a positive association between arbitrage and firm profits within firms as well. In addition, the combination of higher levels of aggregation, adaptation and arbitrage activities is associated with higher profits. Our study highlights the need to take the heterogeneity of strategies MNCs pursue into account when assessing the relationship between multinationality and performance while also providing one of the first large-scale quantitative examinations of Ghemawat’s three approaches to global value creation.

1. **Second Research Stream: Resource Allocation Decisions by Multinational Corporations**

Berry, H., 2006. Leaders, Laggards and the Pursuit of Foreign Knowledge, Strategic Management Journal, 27: 151-168.

Also printed in: Berry, Heather, 2003. Leaders, Laggards and the Pursuit of Foreign Knowledge, Academy of Management Best Paper Proceedings.

Abstract: This paper analyzes how firms in different technological and market share positions use foreign R&D to augment their technological capabilities. Technology transfer issues and absorptive capacity arguments are examined to analyze the different technological capabilities of leading and lagging firms. In addition, a new strategic rationale (in terms of non-dominant market share firms) that has not been considered in prior studies analyzing knowledge-seeking FDI is offered. From a panel dataset which includes information on all foreign R&D investments made by publicly traded Japanese manufacturing firms (from 1974 to 1994), I show that Japanese firms investing in foreign R&D tend to be the non-dominant market share firms, but also the technologically leading firms across fairly diverse industries. By considering both the technological and market share positions of firms, this study reveals important characteristics that influence when firms use foreign R&D as part of a strategy to augment their technological capabilities.

Berry, H, Why Do Firms Divest? 2010. *Organization Science*, 21(2): 380-396.

*Abstract:* In this paper, I examine how lower-cost production and new market opportunities influence the divestment decisions of firms. I argue that lower-cost production and new market opportunities in foreign markets can provide a better use of existing firm resources and posit that these opportunities are likely to influence firm divestment of home country operations. The empirical results from a panel of 190 US firms over a twenty year period (1981-2000) show that lower-cost production and new market opportunities influence the divestment decisions of firms. However, the results also reveal several interesting moderating influences on the hypothesized trade-offs and differences across the growth strategies of firms in low and high R&D intensive industries. By considering how and when investment in lower-cost production and new market opportunities impacts firm divestment decisions, this study examines divestment not only as a choice managers make when dealing with poor or struggling operations, but also as a response to better opportunities for firm resources in other markets. By focusing on the trade-offs managers make across product and geographic markets, this paper examines the role divestment can play in firm growth and expansion strategies.

Berry, H, 2013. When Do Firms Divest Foreign Operations? *Organization Science* 21(2): 380-96

*Abstract:* Extant literature on divestment has repeatedly found that firms are likely to divest their poorly performing operations. In this paper, I consider how product market relatedness and geographic market differences in growth, policy stability and exchange rate volatility can moderate the negative relationship between performance and divestment. Results from a comprehensive panel of US MNCs reveal that conventional arguments about poor performance hold for both related and unrelated firm operations in countries characterized by low growth, policy stability and exchange rate stability. However, the results also show that there are significant differences across the divestment decisions of firms for their related and unrelated foreign operations in countries characterized by high growth, policy instability and exchange rate volatility. Though poor performance has been called the most significant predictor of divestment, this paper considers how interactions across multi-level factors influence the divestment decisions of firms and reveals how US MNCs respond to both product and geographic market characteristics when making divestment decisions for their foreign operations.

Berry, H., 2017. Managing Valuable Knowledge in Weak IP Protection Countries, *Journal of International Business Studies* 48: 787-807.

*Abstract:* Although knowledge assets provide multinational corporations with competitive advantages in foreign markets, it can be difficult for firms to protect their knowledge in foreign countries – especially countries with weak intellectual property (IP) protection.  Building on and extending the knowledge management, institutional theory and expatriate literatures, this paper explores whether home country expatriates can substitute for weak IP protection and drive an increase in more and more valuable knowledge transfers to foreign operations located in weak IP protection countries. Because of their ties to headquarter, knowledge of parent firm assets, priorities and routines, and activities in local operations, I argue that home country expatriates can transform the local operation to offer higher protection for parent firm knowledge in weak IP countries in ways that local managers cannot. The results from a comprehensive panel of US multinationals suggest that home country expatriates can substitute for weak IP protection, but that this effect is contingent on the manufacturing and knowledge capabilities of foreign operations for higher value parent firm knowledge transfers. Overall, this paper extends our understanding of the global management and protection of knowledge by MNCs by exploring how organizational practices can buffer country-level institutional deficiencies for firm knowledge.

Alcacer, J., Berry, H., and W. Chung, 2005. Increasing Exploration: Evidence from International Expansion, *Academy of Management Best Paper Proceedings* (authors are listed alphabetically).

*Abstract:* While firms balance exploitation and exploration to maximize profits, specifics of how firms pursue this balance are scarce. We focus on how firms increase their exploration after obtaining greater capabilities and experience via sequential international expansion. Using Japanese manufacturing firms’ investment into the US, we find that more experience and experience in locations thick with indigenous R&D activity leads firms to pursue greater exploration by adding their own R&D activity. Interestingly, the influence of location is differential; while firms that are more technically advanced are unaffected, less technically advanced firms tend to add their own R&D activity after gaining experience in locations with high indigenous R&D activity. The results suggest that technically lagging firms may leverage host country technical activity to strategically catch up with their more technically advanced competitors.

Berry, H., Leaders, Laggards and Reverse Knowledge Transfers, first R&R requested.

Extending arguments from the knowledge management and international business literatures, this paper examines both the competitive position of a firm in its home industry and the relative position of the home industry-country to the global technology frontier to explore how different needs for and openness to foreign-generated knowledge influence reverse knowledge transfer decisions in MNCs. I argue that laggard firms from leading technology industry-countries and leader firms from lagging technology industry-countries are more likely to view foreign markets as opportunities to enhance their skills, capabilities and knowledge domains than leader firms from leading technology industry-countries. I argue that this will result in significantly more reverse knowledge transfers of foreign innovations back to the home country of these firms. Conditional on doing foreign innovation, empirical results from a comprehensive panel of US multinationals and their worldwide innovations show support for these arguments. Overall, this paper contributes to our understanding of global innovation and knowledge management by examining how the competitive position of a firm and its home industry-country impacts the reverse knowledge transfer decisions of MNCs and arguing that long-established biases against foreign knowledge may be more easily overcome by firms in a non-dominant local or global technology position.

1. **Third Research Steam: Conceptualizing Multinational Firm Scope and Cross National Distance**

Berry, H., Guillen, M and Zhou, N. 2010. An Institutional Approach to Cross-National Distance, *Journal of International Business Studies* 41(9): 1460-80.

*Abstract*: Cross-national distance is a key concept in the field of management. Previous research has conceptualized and measured cross-national differences mostly in terms of dyadic cultural distance and used the Euclidean approach to measuring it. In contrast, our goal is to disaggregate the construct of distance by proposing a set of multidimensional measures, including economic, financial, political, administrative, cultural, demographic, knowledge, and global connectedness as well as geographic distance. We ground our analysis and choice of empirical dimensions on institutional theories of national business, governance, and innovation systems. In order to overcome the limitations of the Euclidean approach, we calculate dyadic distances using the Mahalanobis method, which is scale-invariant and takes into consideration the variance-covariance matrix. We empirically analyze four different foreign expansion choices of US companies to illustrate the importance of disaggregating the distance construct and the usefulness of our distance calculations, which we make freely available to managers and scholars.

Berry, H., M. Guillen and A. Hendi, 2014, Is there Convergence Across Countries? A Spatial Approach. *Journal of International Business Studies* 45(4): 387-404

*Abstract:* We analyze convergence across countries over the last half century as a result of globalizing forces. Drawing on theories of modernization, dependency, the world-system, political trade blocs, and the world-society, we consider economic, demographic, knowledge, financial, and political dimensions of convergence. Using a new methodology, we calculate the minimum volume ellipsoid encompassing different groupings of countries, finding that during the 1960-2009 period, countries have not evolved significantly closer or similar to one another, although groups of countries based on their core-periphery status or membership in trade blocs exhibit increasing internal convergence and divergence between one another.

Berry, H., 2017. The International Configurations of US Multinational Corporations, in Alcacer, J., B. Kogut, B. Yeung and C. Thomas (eds), Advances in Strategic Management: Geography, Location and Strategy, Volume 36. Springer (New York, NY), pp 9-48.

*Abstract*: This paper explores how key insights from highly cited and well-used frameworks that describe the strategies and structures of MNCs are reflected in the international configurations of US MNCs. After reviewing existing frameworks that highlight different MNC choices regarding the integration, responsiveness and dispersion of firm value chain activities, I perform a cluster analysis on a comprehensive and confidential database that covers the population of US MNCs. The results reveal five configurations which both support the importance of key insights from existing frameworks while at the same time highlighting underexplored configuration characteristics like the low levels of integration in US MNCs, the global sourcing arrangements for accessing foreign inputs and distribution, different approaches to regional expansion, and the limited geographic expansion of US MNCs pursuing product diversification. I argue that these underexplored characteristics suggest directions for future research to better reflect the international configuration choices of MNCs.

Bals, L., Berry, H., Hartmann, E. and G. Rattich, 2013. *What Do We Know About Going Global Early: Liabilities of Foreignness and Early Internationalizing Firms* in Devinney, T., T. Pedersen and L Tihanyi (eds) Advances in International Management Volume 26, Springer, pp. 397-433 (authors listed alphabetically)

*Abstract*: In this chapter, we embrace the recent phenomenon of early internationalizing firms with the goal of understanding these firms in light of decades of research on multinational firms, which has long stressed liabilities of foreignness. It is often implicitly assumed that the only way to reduce liabilities of foreignness is by doing business in foreign markets and learning about the local business environment. However, in this chapter, we focus on several distinctive antecedent firm characteristics that have been shown to facilitate early international expansion by firms, but which are not commonly considered in the international business literature. We perform a systematic review of the literature on early internationalizing firms (following David and Han, 2004), based on the seminal work of Oviatt and McDougall (1994) to guide our analysis of early internationalizing firms and to identify important ways in which these firms differ from multinational firms. We argue that long-standing arguments about the impact of liabilities of foreignness on firm foreign expansion apply to newly internationalizing firms, but that these liabilities are reduced by the experiences and knowledge of the founders and top managers in these firms acquired prior to the inception of these firms.

1. **Fourth Research Stream: Integration and Innovation within MNCs:**

Berry, H., 2014, Global Integration and Innovation: Multi-Country Knowledge Generation within MNCs, *Strategic Management Journal* 35(6): 869-890

*Abstract:* This paper examines both conditions that can enable collaborative and combinative knowledge generation within MNCs and benefits that firms can achieve from these types of innovations. I posit that more basic relationships that have been established through manufacturing integration can enable multi-country collaborative innovations and that these innovations will bring together diverse knowledge that is likely to be used in subsequent innovations within firms. Empirical analysis of a panel that includes comprehensive and confidential data on the worldwide operations of US MNCs and their worldwide patents reveal robust support for these arguments. Overall, this paper broadens extant research on knowledge generation within MNCs by exploring both antecedents of and benefits from multi-country collaborative innovations.

Berry, H., 2016. The Global Family Patents of Multinational Corporations. (Best Paper) *Proceedings of the 76th Annual Meeting of the Academy of Management*. Online ISSN: 2151-6561

*Abstract* (from full paper): Building on insights from the knowledge management and multimarket competition literatures, this paper explores how competitor scope of activities influences the timing and extent of international patenting by MNCs. Using a newly created panel of US MNCs and their worldwide operations that I have merged with the Derwent global family patent data, I identify three mutually exclusive types of global family patents based on when (or whether) firm knowledge is patented globally, including: single-country patents, foreign equivalent family patents and born global family patents. Using these categories, I then explore how the actions of different types of multimarket competitors elicit different competitive responses by MNCs in terms of the timing and scope of international patenting through family patents. Comparisons across the three patent categories support my arguments and show differences in how home and foreign competitors influence the international patenting strategies of MNCs. The results further reveal that the family patents with the quickest and most extensive international scope (born global family patents) are significantly less valuable than the other two patent types.

Berry, H., 2018. The Influence of Knowledge Networks on Incremental and Radical Innovation Outcomes in Foreign Operations. *Organization Science* 29(5): 855-72.

*Abstract*: Although extant literature has long argued that firm embeddedness within knowledge networks increases innovation, we know much less about how interactions across multiple knowledge networks jointly influence learning and innovation outcomes within firms. This paper contributes to our understanding of global innovation in multinational corporations (MNCs) by exploring how competing tensions across parent, host and third-country MNC knowledge networks in terms of knowledge domain diversity and dominance, organizational bias and knowledge relevance perceptions influence innovation outcomes. Empirical results from a comprehensive panel of US MNCs reveal different “preferred” combinations of high and low embeddedness across parent, host and third-country MNC knowledge networks for incremental versus radical innovation outcomes, reflecting how competing tensions across knowledge networks can limit or enhance knowledge search for diverse knowledge and influence innovation outcomes in the foreign operations of MNCs.

Berry, H., 2020. Internationalizing Firm Innovations: The Influence of Global Knowledge Clusters and Multimarket Overlap in Knowledge Activities, *Journal of International Business Studies 51(6): 963-85.*

*Abstract:* Building on insights from the multimarket competition and knowledge management literatures, this paper explores how multimarket overlap in knowledge activities influences firm decisions to internationalize their home-country generated innovations. I argue that higher multimarket overlap in knowledge activities with industry rivals pushes firms to internationalize and protect their innovations. At the same time, I argue that this strategic response will be attenuated for higher value firm innovations and in industries with higher global knowledge concentration across countries. Empirical results from a comprehensive panel of US MNCs and their worldwide family patents provide support for these arguments. While a higher overlap in knowledge activities with home and foreign rivals pushes firms to internationalize their innovations, this main strategic response is attenuated for higher value firm innovations and when industry knowledge is concentrated in fewer countries. Taken together, this paper extends the knowledge management literature by exploring how knowledge threats from home and foreign rivals impact the decisions of firms to transfer their innovations to foreign countries while at the same time expanding the multimarket competition literature by offering new ways of identifying credible knowledge threats by rivals.

Berry, H., Multidirectional and Multifunctional Intrafirm Connections and Knowledge Exploration in MNCs, under third review.

*Abstract:* This paper analyzes how multidirectional and multifunctional intrafirm connections influence knowledge exploration in the foreign operations of multinational corporations. While several studies have shown that strong intrafirm connections tend to limit knowledge exploration, this paper examines the influence that different types, directions and combinations of intrafirm connections can have in either encouraging or discouraging diverse knowledge outcomes in foreign operations. Empirical results from a comprehensive panel of US MNCs show that while knowledge inflows are associated with less diverse knowledge outcomes, product outflows are associated with more diverse knowledge outcomes. Furthermore, the results reveal that product outflows can offset the limiting effects from knowledge inflows, highlighting the importance of examining the influence of multidirectional and multifunctional connections on knowledge exploration.

Berry, H, and R. Donnelly, Defending Knowledge Abroad, under review

*Abstract:* We extend the knowledge management and competitive dynamics literatures by examining why firms are more likely to defend some types of innovations over others. We argue that the same local connections that help foreign operations create new ideas and innovations also threaten to capture and utilize this newly created knowledge in local host country markets, leading MNCs to have higher incentives to defend locally-generated innovations over third-country or home-country generated innovations in foreign markets. We also expect MNCs to defend their innovations that are widely-diffused across countries in foreign markets, especially in industries with higher multimarket contact in knowledge activities, because of the importance of swift reactions and signaling to rivals. Empirical results using data from Orbis, Patstat and Lex Machina reveal that conditional on firm knowledge being patented in a foreign country, MNCs are more likely to defend patents that are generated in the local host-country market or that have a wide-scope of use across multiple countries. Further analysis confirms that our local innovation results are driven by those innovations that have been generated in close proximity to industry rivals while our widely-diffused innovation results are driven by firms with high multimarket overlap with rivals in knowledge activities. Taken together, our results suggest that MNCs use litigation in foreign markets to send signals to rival claims on firm knowledge and to protect firm knowledge that is most at risk of unintended spillovers.

1. **Fifth Research Stream: Global Sourcing and Its Impact**:

Berry, H. and A. Kaul, 2015, Global Sourcing and Foreign Knowledge Seeking, *Management Science* 61(5): 1052-71.

*Abstract:* We develop and test a rigorous theoretical account of firm global sourcing decisions, distinguishing the antecedents of offshore integration from those of offshore outsourcing. Though traditional theories of global sourcing focus on lowering costs, we argue that as high performing firms seek to develop new capabilities by tapping into foreign knowledge, they will increasingly turn to offshore integration to reap collocation benefits and overcome expropriation challenges. In contrast, offshore outsourcing will be preferred by less profitable firms seeking to tap into low-cost inputs, especially as investments in information technology lower monitoring costs. Empirical analysis of a comprehensive panel of cross-border product transfers by US manufacturing MNCs from 1989 to 2004 reveals support for these arguments. Our study thus highlights the effect of foreign knowledge seeking on global sourcing, and helps to explain recent trends in this increasingly important phenomenon, especially the increasing reliance on offshore integration in technology intensive industries.

Berry, H., Kaul, A., and N. Lee. 2021. Follow the Smoke: The Pollution Haven Hypothesis, *Strategic Management Journal*

*Abstract:* We empirically examine the pollution haven hypothesis (PHH) in the context of global sourcing. In addition to directly investing in countries with weak environmental standards, we argue that firms can indirectly access weaker standards through third-party global sourcing. Empirical analysis of foreign product flows into the US from 77 countries across 84 industries supports this argument, showing that the share of both direct and indirect sourcing from a country decreases with the stringency of its environmental standards. Supplementary analyses show that these results hold irrespective of an industry’s greenhouse gas or toxic emission levels, but that the relationship between environmental standards and indirect sourcing is stronger in more competitive industries, while that between environmental standards and direct sourcing is less pronounced for technology intensive industries.

Berry, H and A. Kaul, The Changing Nature of Global Product Integration, first revision requested

*Abstract*: In this paper, we revisit the drivers of global product integration, examining the industry level factors that drive both the level and direction of cross-border product flows within multinational corporations (MNCs). While prior work has emphasized the importance of parent firm technological intensity and scale as drivers of global product integration, we include a broader set of drivers that capture the availability and accessibility of key industry resources and capabilities in foreign countries. Using data from benchmark surveys of US manufacturing MNCs from 1989 to 2014 from the Bureau of Economic Analysis (BEA), we confirm that parent firm technology intensity drives global integration, while also finding that global integration increases with industry digitalization and the globalization of industry knowledge, and falls with increasing offshore outsourcing. Further, while parent technological intensity drives flows from parents, global knowledge and digitalization are more important in driving flows from affiliates. Finally, we make available our industry level data on global product integration, which we call the Global Product Integration Index (GPII).