



International Collaboration and European Contributions to International Business Research

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Abstract

This study measures and ranks the performance of nations and academic institutions based on a 45-year analysis of international business (IB) publications, including 5853 academic authors from 1542 affiliated institutions. Examining authors' academic origin and university of affiliation, and with a focus on the European nations that participated in the production of IB research, we make several novel contributions to the field: (1) identifying a unique internationalization process of IB research that consists of three distinct stages driven by international collaboration, (2) highlighting the role of international collaborations in overcoming publication barriers at the regional and country level, and (3) highlighting the role of both scale and scope of international collaborations in achieving a top-ranked position in the production of IB research.

Keywords International collaboration · International business · Internationalization · Resource dependency · Research

1 Introduction

Several recent bibliometric studies have shown that international business (IB) research has become geographically diversified, with increased mobility of researchers across borders. Simultaneously, while still a major producer of research, North American dominance in IB journal publications has evidenced a relative decline, partly a reflection of increased output by authors in Europe (Aïssaoui and Geringer 2018; Chan et al. 2006; Ellis and Zhan 2011; Geringer and von Glinow 1999; Kothari and Lahiri 2012; Lahiri and Kumar 2012; Ryazanova et al. 2017; Trevino et al. 2010; Xu et al. 2014). While most studies report on the Americanization of IB research (Mangematin and Baden Fuller 2008; Üsdiken 2014), this recent redistribution of relative geographic dominance between

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American and European institutions begs the question of whether Europeanization of IB research is a reflection of the American model of “publish or perish” (Miller et al. 2011; Wilson 1942) or whether, instead, we are observing a fundamental transformation of the field where dynamic new clusters of IB research activity are emerging, often in conjunction with cross-border and inter-regional collaborations.

A key finding of prior literature is that acceptance of the “publish or perish” model for achieving academic career success has not been equal across nations (Üsdiken 2004; Viuu et al. 2016). Low penetration or adaptation of this performance model in some nations or regions has been attributed to different causes, including attaching importance to non-English language publications (e.g., national or regional), different publication outputs being more prestigious (e.g., books rather than journals), or emphasis on different epistemologies than the positivist approach common to North American research (Eden and Rynes 2003; Hicks 2012; Lopez-Navarro et al. 2015). Another strand of the literature identifies nations’ and institutions’ resource constraints as a central motivation to adopt this model. Such constraints range from economic factors, such as the need to access costly and unique databases, to networking and conference participation, editorial board diversity, and English language skills (Chinchilla-Rodriguez et al. 2018; Harzing and Metz 2012, 2013; Horn 2017; Ribeiro et al. 2018).

Yet another strand of the literature suggests that increased international collaboration and mobility is contributing to proliferation of the “publish or perish” model (Jonkers and Cruz-Castro 2013; Lages et al. 2015). This finding is largely echoed in research assessing the evolution of published IB research output, which points to a clear Americanization of academic practices (de Rond and Miller 2010; Tsui 2007). For instance, Xu et al. (2014) and Aïssaoui and Geringer (2018) find that development of IB research in the Asia–Pacific region was largely supported by extensive collaboration between Asia–Pacific and North American academic institutions. Specifically, Aïssaoui and Geringer (2018) note how hiring research stars from the U.S.—and the U.K.—represented a key strategy among Asia–Pacific universities as they sought to jumpstart their position as leading global actors in IB research.

Together, these studies agree that increased collaboration (Jonkers and Cruz-Castro 2013; Kirkman and Law 2005) and increased internationalization (Leonidou et al. 2010; Ryazanova et al. 2017) have contributed to the emergence of both European and Asian academic institutions as central actors in the global arena for publication of scholarly research (Ellis and Zhan 2011; Trevino et al. 2010). However, these studies also lament a continued under-representation of research from Africa, Latin America, and the Middle East (Kirkman and Law 2005; Lages et al. 2015). Importantly, the asserted unequal representation that favors North American research has been widely criticized for social phenomena in general, and international and intercultural phenomena specifically, as being highly contextual and thus requiring search for both etic and emic explanations (Leung 2009, 2012).

Our study explores the evolution of IB research by European academic institutions. Our focus on Europe is motivated by the relative dearth of bibliometric studies focused on the region, a rather surprising situation given the central role played

by European researchers and academic institutions in the evolution of IB research. For instance, European research tends to favor interpretivist approaches (Baruch 2001; Lopez-Navarro et al. 2015) whose decided advantage is their insistence on the importance of context, and thus their ability to shed light on contextual and institutional factors in cross-national and cross-cultural variations (Kostova 1997, 1999; Peng 2002).

Furthermore, we cover the period from 1971 to 2015, which allows us to trace the evolution of the European region and its academic institutions since the initial years of IB journals and to contrast European trends with those of other regions. Our database includes 5853 authors from 1542 affiliated institutions involved in producing 5508 qualifying publications. Findings from this study contribute to both our understanding of resource dependencies in academic research and the role of international collaboration on research performance, notably by identifying that different types of international collaboration may be at play in supporting research productivity. Specifically, this study's contributions include: (1) identifying a unique internationalization process of IB research that consists of three distinct stages driven by international collaboration, (2) highlighting the role of international collaborations in overcoming publication barriers at the regional and country level, and (3) highlighting the role of both scale and scope of international collaborations in achieving a top-ranked position. The next section discusses the evolution of IB research, including globalization of "publish or perish" practices and international research collaboration. The discussion then turns to this study's research methodology, followed by presentation and discussion of results. The final section presents our study's conclusions and potential limitations.

2 Americanization of Research Practices in IB: Challenges and Opportunities for European Research

2.1 Globalization of "Publish or Perish" Practices

Bibliometric studies have widely adopted peer-reviewed articles in leading journals as their favored unit of analysis to assess research performance (Adler and Harzing 2009; Usdiken 2014), since they are argued to "introduce a measure of objectivity into the evaluation of scientific literature" (Zupic and Cater 2015). Results from these analyses help assess the evolution of a field, both quantitatively and qualitatively, and assist in identifying constraints to a field's development and key institutional sources for research performance (Tuselmann et al. 2016). Importantly, bibliometric analyses are instrumental in recruitment, selection, and resource allocation decisions, among others (Aithal 2016; Hall 2001). In the U.S., successful publishing in academic journals is a common consideration in tenure and promotion decisions (Bedeian et al. 2010; Glick et al. 2007) and it influences both financial rewards (Bird 2006) and resource allocation (Hall 2001). The practice commonly known as "publish or perish" to measure academic success (Miller et al. 2011) has been widely adopted in other regions. Lahiri and Kumar (2012), for instance, show how the "publish or perish" practice has been institutionalized in Europe and Asia.

Adoption of a “publish or perish” approach, as has occurred in most of Europe (Hicks 2012), is not without challenges or resistance. An excellent review of major roadblocks against institutionalization of this model is provided in a symposium series by the *Journal of Management Inquiry*, led by Behlül Üsdiken (2004). Although conducted nearly two decades ago, the symposium’s authors offer an in-depth historical overview of ways in which European nations implemented this practice, often adapting it to fit their own needs and definitions of quality research: Engwall (2004) focuses on Scandinavian nations, Kieser (2004) on Germany, Tiratsoo (2004) on Britain (see also Hewitt-Dundas 2012), and Kipping et al. (2004) on Mediterranean Europe. These studies trace the Americanization of this academic standard first to post-World War II relationships between Europe and the U.S., more pointedly to the Marshall Plan in a resource-constrained region (Hewitt-Dundas 2012), and later to policies driven by the European Commission (Hewitt-Dundas 2012; Viuu et al. 2016).

Importantly, these studies reveal wide heterogeneity in practice adoption, which Kipping et al. (2004), Mangematin and Baden-Fuller (2008), and Hicks (2012) equate to what Zilber (2006) and Sahlin and Weldin (2008) would call an institutional translation process, i.e., a process of adaptation and modification of a practice to align it with the context in which it is implemented. For instance, Hicks (2012) explains that journal lists commonly used to assess research productivity are often inadequate for universal application, which led Norway to adopt “publish or perish” but only after various adaptations. Also building on the institutional diffusion literature, Kipping et al. (2004) chronicle how Spanish academia developed a hybrid performance system. A central insight from this research is its illustration that practices often cannot achieve global adoption without some form of modification or translation (Minkov and Hofstede 2011), or ‘glocalization’ (Robertson 1997).

Resistance to the “publish or perish” practice for European markets is further explained by its tendency to discount non-English language publications (Eden and Rynes 2003; Hicks 2012). In addition, this performance standard can disadvantage European authors whose prestige may derive from their ability to write books more so than journal publications (Baruch 2001; Lopez-Navarro et al. 2015).

These isomorphic pressures remain very strong, though, as more and more business schools seek to increase their global legitimacy and visibility by obtaining the U.S.-based AACSB accreditation (Harzing and Metz 2013; Scherer et al. 2005; Üsdiken 2004, 2014). Stating that, “A signal should closely reflect the underlying unobservable quality for which it serves as a proxy”, Ryazanova et al. (2017, p. 832) assert that insistence on journal publications as a prime indicator of research contribution largely benefits English-speaking scholars in general, and U.S. scholars in particular.

Üsdiken (2014) and Ryazanova et al. (2017) identify a strategy to address this pressure to publish, namely international collaboration and, more specifically, collaboration with English-speaking authors. In their examination of 60 years of psychological research published in American journals, Piocuda et al. (2015) note the importance, for achieving progress in that field, of international collaboration, which has the added benefit of better discriminating the emic from the universal.

2.2 International Collaboration and Research Performance

Üsdiken (2014, p. 764) tests the assumption that U.S. dominance in journal publications has been decreasing, but finds instead, “a greater tendency towards the U.S.-style when educational and collaborative ties to the USA are involved”. This continued dominance, the author argues, has been particularly pronounced with underrepresented nations. This is consistent with the view that international collaboration has been widely leveraged to address increasing pressures for publishing, even more so in leading journals and by non-English speaking authors (Baruch 2001; Eden and Rynes 2003). This tendency toward increased international collaboration and with an increasing number of nations is particularly visible in IB and management research, which Kirkman and Law (2005, p. 380) explain by “the complexity of international management research and the cross-nation collaboration that is characteristic of this type of research” (see also Leonidou et al. 2010).

Furthermore, international collaboration is sometimes the only viable route for emerging market authors to access valuable resources that are often required to publish in top-tier journals (Piocuda et al. 2015), making scientific relationships increasingly resource dependent (Chinchilla-Rodriguez et al. 2018). While these resources are often economic, such as the need to access costly and unique databases (Eden and Rynes 2003), other key resources include access to a network of central actors or gatekeepers in academic fields (Harzing and Metz 2013; Ryazanova et al. 2017), as well as to English-speaking authors. Networking is indeed widely recognized as facilitating research productivity (Cohen et al. 2003; Settles et al. 2006) and access to leading journals (Baruch 2001; Ribeiro et al. 2018).

Yet, despite obvious efforts by mainstream IB journals to be more inclusive, there is still evidence of a handicap for non-U.S. authors, notably by studies on editorship effects, which commonly identify a positive relationship between connection to journal editors and research output. Assessments of leading economics and finance journals, for instance, largely report that members of an editor’s network publish with higher frequency (Brogaard et al. 2014; Colussi 2018; Zinovyeva and Bagues 2015). With leading journals often based in the U.S., this situation aggravates challenges faced by non-U.S. academics (Baruch, 2001) and even more so by authors from already underrepresented regions (Harzing and Metz 2013; Lopez-Navarro et al. 2015). Lages et al. (2015) explain that this bias may be fueled by editors’ and reviewers’ lack of knowledge about these regions. Leung (2012) adds that requirements to demonstrate generalizability of research are generally more stringent for papers based on non-U.S. data.

While not denying the existence of editor or reviewer bias and further recognizing the uneven distribution of acceptance rates by the *Academy of Management Journal* across regions and nations, Eden and Rynes (2003) also find that the number of submissions from Africa, southern Europe, and Latin America is also lower (see also Harzing and Metz 2013). A direct survey among non-North American authors revealed that reluctance to submit research to this journal stemmed from these authors’ concerns that their work would not “receive a favorable review because it is ‘different’” (Eden and Rynes 2003, p. 679).

This issue has long been a challenge for European authors whose research tends to build on different epistemologies and, by extension, methodologies than what is commonly viewed as sound research in U.S. academia (Baruch 2001; Jarley et al. 1998). European research has a long tradition of an interpretivist/constructivist approach, which often requires qualitative methods (Creswell 2009; Yilmaz 2013). In contrast, North American research favors a positivist approach and has long rejected non-quantitative methods, which are perceived as lacking objectivity (Amis and Silk 2008).

In addition to slow acceptance of non-positivist approaches (March 2005), differences have been noted with respect to research focus, preferred topics, and perspectives. Even within Europe, Hofstede (1981, p. 32) noted a wide variety in focus: “Authors from Latin Europe focus on power; from Central Europe, including Germany, on truth; from Eastern Europe, on efficiency; from Northern Europe, on change”. Similarly, a difference in preferred topics was identified across nations and found to hinder Asian research innovativeness, as Asian authors tend to choose Western topics as a means to improve chances of publication (Meyer 2006; Tsui 2007). Lastly, Eden and Rynes (2003, p. 679) find that preferred perspectives also vary across regions, with European research often adopting the perspective of stakeholders beyond just managers or shareholders, as is common in North America. Bajwa and König (2019) add that while labor unions are often discussed in many parts of the world, they are barely covered in U.S. studies.

Together, these challenges for non-North American research help explain not only the Americanization of management research, but also the need to collaborate with North American authors, which in turn perpetuates the Americanization of IB research (Mangematin and Baden-Fuller 2008). March (2005) and Tsui (2007) lament this paradigmatic convergence which, they argue, has led to “a paucity of high-quality context-specific, or indigenous, research” (Tsui 2007, p. 1354; see also: Leung 2009, 2012). In addition, despite continued calls for greater cultural sensitivity and cultural awareness (Doktor et al. 1991; Earley and Singh 1995), the establishment of English as the *lingua franca* of academic research contributes to this lack of cultural sensitivity as it may not adequately convey “local rhetorical and stylistic patterns” (Lopez-Navarro et al. 2015, p. 940).

English has indeed become an almost inescapable resource for authors seeking to publish in top management journals (Horn 2017; Lillis and Curry 2010), a situation which, in European academia, has been further encouraged by European Union policies (Kieser 2004; Modiano 2017). As a result of this linguistic standardization, those who are less English-proficient are handicapped or marginalized (Horn 2017; Lopez-Navarro et al. 2015), with Burgess et al. (2014) noting that non-native English speakers face an unfair hurdle associated with the additional time and economic resources required. This language barrier is argued to be the principal reason for low representation of non-English speaking nations in mainstream journals (Baruch 2001; Engwall 1996). Ryazanova et al. (2017, p. 834) further explain that as the “top” journals are predominantly published in English, “This makes an institution’s endowment of linguistic capital a source of heterogeneity within the industry”.

Although “the majority of the world’s scholars do not possess English as their first language” (Flowerdew 2008, p. 77), the proportion of articles in English by researchers whose first language is not English is increasing (Lopez-Navarro et al. 2015). This situation is strongly fueled by and motivates increased international collaboration and mobility (Abramo et al. 2018; Jonkers and Cruz-Castro 2013; Lages et al. 2015; Piocuda et al. 2015).

In sum, North American researchers enjoy what some would call an unfair advantage as their language, theories, models, and research standards have become de facto standards (Bajwa and Konig 2019; Üsdiken 2004). In the next sections, we first present our research methodology and then investigate how IB research conducted by authors in European nations has developed within this context.

3 Research Methodology

3.1 Journal Selection

As the leading IB-focused scholarly journal, we use the *Journal of International Business Studies (JIBS)* to identify journals to include in analyses. Specifically, each journal citation contained in the articles and research notes published in *JIBS* from 1980 through 1991 was counted and the 14 most highly cited journals were identified.¹ This approach allowed our study to respond to calls to include general management journals in assessment of IB research productivity (e.g., Trevino et al. 2010). In addition to three IB-focused journals, namely *JIBS*, *Management International Review*, and *Journal of World Business* (previously *Columbia Journal of World Business*), eleven journals encompassing different business disciplines were identified: *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *American Economic Review*, *California Management Review*, *Harvard Business Review*, *Journal of Finance*, *Journal of Marketing*, *Journal of Marketing Research*, *Sloan Management Review*, and *Strategic Management Journal*.²

3.2 Article Selection

Due to the wide variety of topics contained in the sample journals, only publications focused explicitly on IB issues were included. These publications were identified using the definition of IB developed by Nehrt et al. (1970), subsequently reiterated

¹ The difference between the 14th and 15th highest-cited journals, *Sloan Management Review* and *Journal of Applied Psychology*, respectively, was 29.3% (53 vs. 41 citations during the 12-year period examined). The next 6 highest-cited journals ranged from 40 to 34 citations, suggesting an appropriate breakpoint for analysis was after the top 14 highest-cited journals.

² Other IB-focused journals that may currently be recognized as prominent outlets for IB research, such as *International Business Review (IBR)* or *Journal of International Management (JIM)*, were not included in this study’s analysis since they were not established until 1992 and 1995, respectively.

by Ricks (1985) as editorial policy at *JIBS* and used by Morrison and Inkpen (1991) in their study of significant IB contributions. This definition is found in “Appendix”.

Using this definition, all articles and research notes published in the 14 sample journals from the beginning of 1971 to the end of 2015 were identified. Other journal contents, including case studies, monthly columns, introductions to special issues, editorials, comments and replies, and dissertation abstracts, inter alia, were excluded. This process resulted in identification of 5508 qualifying publications. This population database includes 5853 authors and 1542 affiliated institutions, both academic and non-academic, that were listed for at least one qualifying article in the sample journals during the 45-year period of study.

These publications were manually coded for author, author’s institution of affiliation, geographic location of the affiliated institution, journal, journal’s volume and issue, type of article, and number of authors. In addition, the Ph.D. affiliation of each author was manually coded by extracting information from each article, if available, along with searching a broad range of databases including WorldCat, Academy of International Business Directory, *Dissertation Abstracts International*, and LinkedIn, among other sources, supplemented with Internet searches for authors with no information in the prior databases. If authors were not holding a Ph.D., we coded any other highest scientific degree. Students in Ph.D. programs were coded as seeking to obtain the degree from the institution where they were enrolled. The sample authors obtained their Ph.D. from 637 unique institutions.

3.3 National and Institutional Measures of Output

To measure institution- and nation-level output, we used an approach similar to Lahiri and Kumar (2012) and Chan et al. (2006), assessing both absolute and adjusted scores. Absolute score consists of the absolute number of appearances for a given author, regardless of the author’s share in the publication. Alternatively, the adjusted score considers the number of authors for an article. This is a straightforward method in line with most other studies where if N_i is the number of authors of article i , then the weight assigned to each author is simply $1/N_i$. For example, the listed institution and author of a sole-authored publication was credited with 1.0 point, the institutions and authors in a dual-authored paper each received 0.5 points, and so forth. An advantage of the adjusted measure over the absolute measure is that it avoids overestimation of institutions’ contributions in multi-authored papers. Because the number of articles with multiple authors is increasing, using the absolute measure could bias results in favor of authors and their respective affiliations in the sample’s most recent years. Results for an institution are derived by aggregating all authors who state this institution as their current affiliation at the time of publication. To get summary statistics for nations, results for institutions located in the respective nations are simply summed.

3.4 Measures of International Collaboration

We measure the degree of international and inter-regional collaboration by adapting the indicators of internationalization of Abramo et al. (2018) and further refined by Abramo et al. (2019). We define International Collaboration Intensity (*ICI*) as the number of publications with authors from at least two different nations and inter-Regional Collaboration Intensity (*RCI*) as the number of publications with authors from at least two different regions, with the regions categorized as Europe, North America, Asia Pacific, Africa, Latin America, and the Middle East. These measures are expanded to evaluate a nation's International Collaboration Rate (*ICR*) and region's inter-Regional Collaboration Rate (*RCR*), i.e., the proportion of articles resulting from international and inter-regional collaboration, respectively, out of the total number of articles. The scope of internationalization of IB research is represented by the number of nations with which a nation collaborates, or International Collaboration Amplitude (*ICA*).

4 IB Research Productivity in Europe

Before analyzing European IB research productivity, we describe the European Union's role in the standardization of educational practices and policies and the consequent rise in demand for English proficiency that prior studies have identified as an important factor for publishing in the leading management journals. Subsequently, we present the rankings of nations and institutions in IB research productivity, with a focus on the increasing contribution of European nations and academic institutions.

Against this backdrop, we then analyze the role of international collaboration in overcoming resource dependencies and publication barriers (e.g., English proficiency, gatekeeper ties), thereby allowing nations and, in turn, regions to develop or enhance their IB research capabilities. Focusing on the most productive European nations, we identify a process that may have contributed to highly performing European nations establishing their leading positions in global IB research. International collaboration with the leading nations, markedly the U.S., appears to be key, especially in the early stages of a nation's efforts for IB research capability development. Further, to achieve a top ranking in IB research productivity, high levels of both scale and scope of international collaboration seem justified, as we identify next. We conclude with a detailed analysis of a select set of European countries and a discussion of our results.

4.1 European IB Research in the Global Scene: Background

Europe hosts a large number of nations—27 of which are represented in our study—with diverse historical, religious, linguistic, and economic backgrounds. Many are part of the European Union (EU), becoming members of this political-economic union at different times. Others (Iceland, Liechtenstein, Norway, Switzerland) have

chosen instead to unite through a trade agreement, the European Free Trade Association. These unions have been instrumental in the introduction of a wide set of standards aimed at harmonizing various aspects of members' political, legal, economic, monetary (Goerke and Holler 1998), and educational practices and policies (Enever 2012; EU Education 2020).

In education, the EU further encourages collaboration among members with such initiatives as the Erasmus exchange program, established in 1987 to promote mobility of students within the European community. Erasmus+ and Erasmus Mundus expanded this practice to a wider set of educational actors and nations. These programs and policies have driven demand for English proficiency (Enever 2012), making it the most widely spoken foreign language in 19 of the 23 member states where it is not an official language.

The U.K. has traditionally held an important role in ensuring “English correctness and standardization” in Europe (Modiano 2017, p. 314). Our study reveals that the role of the U.K. as the epicenter of IB research in Europe is central in linking European research to the global IB academic community. However, with the recent Brexit, it is reasonable to ask whether the U.K. will maintain its position as both the gatekeeper of a unified English in the European region and the epicenter of IB research.

4.2 Europe and Its Evolving Role in Global IB Research

We examined the performance of Europe and its participating nations by aggregating data over all 45 years and for the three 15-year periods of 1971–1985, 1986–2000, and 2001–2015.³ Table 1 ranks the 20 most productive nations by academic affiliation and presents research performance for the three periods based on each nation's share of adjusted output. Figure 1 illustrates the evolution of IB research, comparing performance by academic affiliation to performance by academic origin for the most productive regions.

Our findings confirm the increasing presence of European IB research in leading journals, as previously discussed by Morrison and Inkpen (1991) who cover 9 journals from 1980 to 1989, Xu et al. (2014) who examine 23 journals from 1995 to 2011, and Ryazanova et al. (2017) who provide an analysis of IB research in 149 journals from 2007 to 2015. Europe's increasing role, along with increasing performance in the Asia–Pacific region, corresponds with a declining relative performance of the U.S. and Canada. We note, though, that Europe's upward trend began almost 15 years prior to that of Asia–Pacific, whose nations began to experience a significant rise in their rankings.

The nations driving Europe's rising role have experienced less dramatic changes. The U.K., France, The Netherlands, and Germany have maintained high rankings (from 2nd to 10th) during the three 15-year periods, being responsible for a share of the adjusted global output ranging from 1.8% for Germany to 7.6% for the U.K.

³ Following the suggestion of an anonymous reviewer, we report results using 15-year time periods. However, results are qualitatively the same when 5-year time periods are used.

Table 1 Top 20 nations in IB research output based on academic affiliation, 1971–2015

Nation	Adjusted output 1971–2015			Absolute output 1971–2015			1971–1985			1986–2000			2001–2015		
	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Share adj. out (%)	Rank	Share adj. out (%)	Rank	Share adj. out (%)	Rank	Share adj. out (%)	
USA	1	3235	58.8	1	6022	54.6	1	76.0	1	69.2	1	42.3			
UK	2	418	7.6	2	903	8.2	3	3.6	2	6.5	2	10.6			
Canada	3	341	6.2	3	678	6.1	2	6.6	3	5.2	3	6.6			
France	4	139	2.5	6	269	2.4	5	1.4	4	3.1	4	2.8			
Hong Kong	5	133	2.4	4	335	3.0	32	0.1	5	2.1	5	4.0			
Australia	6	126	2.3	5	305	2.8	13	0.4	10	0.9	4	4.3			
The Netherlands	7	109	2.0	7	243	2.2	10	0.7	8	1.1	6	3.3			
Germany	8	101	1.8	8	213	1.9	6	1.2	9	1.0	8	2.7			
Sweden	9	77	1.4	9	169	1.5	9	1.0	6	1.4	13	1.6			
Japan	10	56	1.0	14	108	1.0	7	1.1	7	1.4	21	0.7			
China	11	56	1.0	9	169	1.5	44	0.0	21	0.3	9	2.0			
Israel	12	55	1.0	14	108	1.0	4	1.8	11	0.7	22	0.7			
Switzerland	13	55	1.0	18	98	0.9	8	1.1	12	0.6	17	1.2			
South Korea	14	53	1.0	11	127	1.2	21	0.2	13	0.6	12	1.6			
Denmark	15	50	0.9	14	108	1.0	44	0.0	25	0.3	10	1.9			
Singapore	16	49	0.9	13	113	1.0	23	0.2	14	0.6	14	1.5			
Spain	17	49	0.9	12	121	1.1	30	0.1	22	0.3	11	1.7			
Taiwan	18	41	0.8	19	95	0.9	28	0.1	16	0.5	15	1.3			
Belgium	19	40	0.7	20	88	0.8	12	0.5	15	0.6	19	1.0			
Finland	20	39	0.7	17	103	0.9	32	0.1	18	0.3	16	1.3			
<i>Regions</i>															
North America	1	3575	65.0	1	6700	60.8		82.5		74.4		48.9			

Table 1 (continued)

Nation	Adjusted output 1971–2015			Absolute output 1971–2015			1971–1985		1986–2000		2001–2015	
	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Share adj. out (%)	Rank	Share adj. out (%)	Rank	Share adj. out (%)
Europe	2	1204	21.9	2	2615	23.7		10.8		16.8		31.5
Asia-Pacific	3	608	11.1	3	1468	13.3		3.1		7.4		18.0
Other Regions		114	2.1		244	2.1		3.6		1.4		1.7

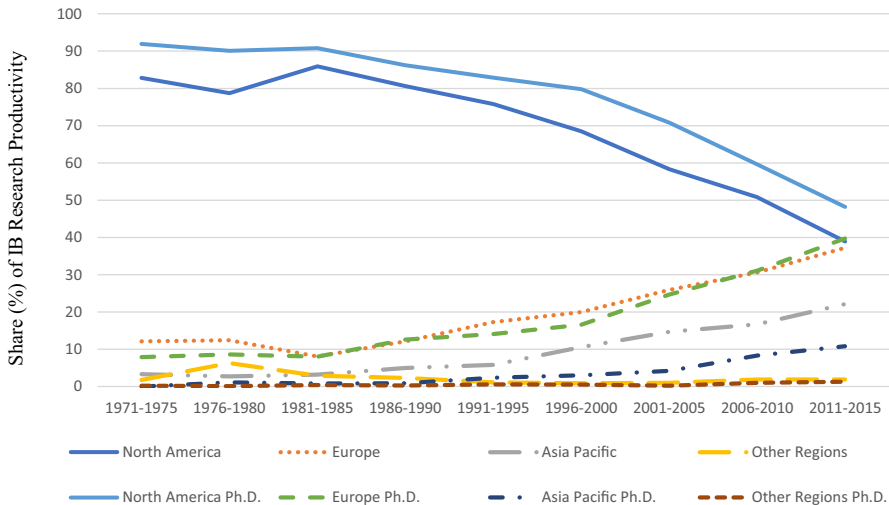


Fig. 1 Regional share of international business research productivity by academic origin and academic affiliation, 1971–2015

for the whole period (Table 1). These performances contrast sharply with the U.S. which, despite its declining share, is still responsible for almost 60% of the IB research produced globally. However, the European region as a whole experienced incredible growth, from a 10.5% share in 1971–1985 to 31.5% in 2001–2015, which is primarily due to the number of participating European nations increasing from 14 in the first period, to 21 in 1986–2000, and 26 in the last period (Fig. 1). In this last period, six nations (Bulgaria, Croatia, Estonia, Greece, Iceland, and Lithuania), including four socialist or post-socialist nations, published their first IB work in one of the 14 leading journals.

Europe's increasing prominence in global IB research was further supported by its role as a training center for IB research, even surpassing North America's performance in 2014 (Fig. 1). Aspiring Ph.D.s are also increasingly likely to graduate from Asia–Pacific academic institutions, whose share has begun to witness a sustained and gradual growth, from 4.2% in 2001–2005 to 10.8% in 2011–2015. At the same time, North American dominance in authors' academic origin declined from 70.8% to 48.2%.

4.3 Leading European Institutions in IB Research

Table 2 ranks the 15 academic institutions with the highest adjusted output and their corresponding absolute output, for the overall and three sub-periods. Data are also provided for the number of total institutions during these periods, along with the combined shares these 15 institutions were responsible for. The role of leading academic institutions emerges as critical in driving their nation's and even region's performance. Only 31 of the 1083 academic institutions are ranked among the top 15 institutions in any one of these four periods; that is, 98.6% of the institutions

never reached this rank. It is worth noting, however, that the rankings are volatile. With some exceptions, such as Harvard, Rutgers, and the universities of Pennsylvania and South Carolina, no institution made it to the top 15 in all four periods, only six appeared three times, and almost 70% of these leading academic institutions achieved a place in these rankings only once or twice.

Together, these leading institutions held a disproportionate share of the global production of IB research. In the first period, they accounted for only 4% of the total number of academic institutions but 34% of the adjusted output. This concentration by leading institutions remained significant in the following periods: less than 3% of institutions in 1986–2000 and 1.8% in 2001–2015, but 29% and 19% of the global output, respectively, demonstrating that concentration among the leading institutions has persisted despite an increase in the number of institutions worldwide being involved in generating publications.

Comparatively, IB research output was even more concentrated among the top 15 European academic institutions (Table 3). Despite an increasing number of European institutions publishing in a top 14 journal, the leading 15 academic institutions represented 52.0% of the total European output in the first period, 49.0% in the second period, 37.5% in 2001–2015, and more than one of three publications for the whole 45-year period. Akin to the global rankings, some exceptions such as INSEAD, London Business School, and the universities of Reading and Uppsala appeared as leading institutions in all four periods and eight appeared three times in these rankings, with the remaining 16 institutions occupying a place in these rankings only once or twice.

These data reveal two main issues. First, while leading European academic institutions fare better than their non-North American peers who are practically absent from these rankings (Table 2), they are still performing at significantly lower levels than the highest performing North American institutions. In fact, some North American academic institutions performed even better than entire nations. Harvard was responsible for an adjusted output of 179 (3.6%) (Table 2) for the 45-year period whereas France, despite its position as the 4th leading nation, had a score of 139 (2.5%) (Table 1) and performed only slightly better than Columbia University and University of Pennsylvania (Table 2), each of which held a share of 2.1%.

Second, volatility of these rankings warrants caution about conclusions regarding these institutions' performance. Tables 3 and 4 both show that achieving a top position during one time period does not guarantee a subsequent similar position and maintaining a top position over multiple time periods is particularly challenging. In fact, even the top 5 institutions experienced significant changes, notably as non-North American institutions began to establish prominence.

As a final point, the number of European authors publishing IB research in the leading journals increased dramatically, from 172 in 1971–1985 and 359 in 1986–2000, to 1098 authors in the last period. The equivalencies and changes for being a leading author in Europe compared to a leading author globally further reflect the increased competitiveness of European authors. Indeed, being the most productive European author in the first period did not guarantee a spot among the top 25 most prolific global authors. Only in the second period did this situation change, with four authors holding a leading position both in Europe and globally.

Table 2 Top 15 institutions in IB research output based on academic affiliation, 1971–2015

Institution	1971–2015						1971–1985					
	Adjusted output			Absolute output			Adjusted output			Absolute output		
	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)
Harvard	1	179	3.6	1	276	2.7	1	81	7.1	1	108	6.4
Columbia U	2	107	2.1	5	152	1.5	2	59	5.2	2	73	4.3
U Pennsylvania	3	104	2.1	2	173	1.7	3	35	3.1	3	55	3.2
U South Carolina	4	81	1.6	3	172	1.7	4	24	2.1	4	40	2.4
Rutgers U	5	79	1.6	7	131	1.3	5	22	1.9	11	24	1.4
Western Ontario	6	75	1.5	4	153	1.5	6	22	1.9	9	28	1.7
INSEAD	7	75	1.5	6	144	1.4	7	21	1.8	7	30	1.8
New York U	8	64	1.3	9	112	1.1	8	20	1.7	5	31	1.8
U Michigan	9	60	1.2	8	115	1.1	9	19	1.7	5	31	1.8
Northeastern U	10	46	0.9	15	85	0.8	10	17	1.4	10	25	1.5
Copenhagen BS	11	44	0.9	11	97	0.9	11	16	1.4	16	18	1.1
Indiana U	12	43	0.9	12	93	0.9	12	16	1.4	16	18	1.1
UT Austin	13	42	0.8	17	80	0.8	13	15	1.3	8	29	1.7
UC Berkeley	14	42	0.8	25	64	0.6	14	14	1.2	11	24	1.4
Ohio State U	15	42	0.8	17	80	0.8	15	14	1.2	14	20	1.2
Total		1083	21.8		1927	18.8		393	34.3		554	32.7
All institutions	1052	4978		10,256			362	1144			1696	

Table 2 (continued)

Institution	1986–2000						2001–2015							
	Adjusted output			Absolute output			Adjusted output			Absolute output				
	RRank	Score	Share (%)	RRank	Score	Share (%)	RRank	Score	Share (%)	RRank	Score	Share (%)		
Harvard	1	68	4.7	1	112	4.0	Harvard	1	52	2.2	Harvard	1	91	1.6
U Pennsylvania	2	43	3.0	3	68	2.5	Copenhagen BS	2	40	1.7	Copenhagen BS	2	88	1.5
U South Caro- lina	3	37	2.6	2	74	2.7	Western Ontario	3	37	1.6	Western Ontario	3	83	1.4
INSEAD	4	32	2.2	6	57	2.1	INSEAD	4	35	1.5	Chin. U Hong K	4	81	1.4
Western Ontario	5	29	2.0	4	61	2.2	Rutgers U	5	32	1.3	Leeds	5	75	1.3
U Michigan	6	29	2.0	4	61	2.2	U Miami	6	32	1.3	INSEAD	6	72	1.2
New York U	7	27	1.9	7	46	1.7	Leeds	7	30	1.3	U South Carolina	7	69	1.2
Rutgers U	8	25	1.7	9	39	1.4	U South Caro- lina	8	29	1.2	Rutgers U	8	68	1.2
UT Austin	9	21	1.4	8	40	1.4	Chin. U Hong K	9	27	1.1	U of Hong Kong	9	60	1.0
UC Berkeley	10	20	1.4	13	30	1.1	U Pennsylvania	10	25	1.1	U Miami	10	55	0.9
Columbia U	11	20	1.4	12	31	1.1	U of Hong Kong	11	24	1.0	York U	11	53	0.9
Indiana U	12	19	1.3	11	33	1.2	Tilburg U	12	22	0.9	Michigan State	11	53	0.9
Georgetown U	13	18	1.3	15	29	1.0	Ohio State U	13	22	0.9	UT Dallas	13	51	0.9
U Hawaii	14	17	1.2	18	28	1.0	Northeastern U	14	22	0.9	Texas A&M	13	51	0.9
Michigan State	15	16	1.1	10	38	1.4	U Melbourne	15	21	0.9	City U of Hong K	13	51	0.9
Total		422	29.1		747	27.0	Total		450	18.9			1001	17.3
All institutions	532	1452		2770			All institutions	847	2382				5790	

Table 3 Top 15 institutions in European IB research output based on academic affiliation, 1971–2015

Institution	1971–2015						1971–1985					
	Adjusted output			Absolute output			Adjusted output			Absolute output		
	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)
INSEAD	1	75	6.7	1	144	5.8	1	8	7.2	1	15	8.7
Copenhagen BS	2	44	4.0	2	97	3.9	2	7	6.3	4	8	4.6
Leeds	3	35	3.1	3	85	3.4	3	5	4.3	4	8	4.6
London BS	4	33	3.0	5	63	2.5	4	5	4.0	6	6	3.5
Uppsala	5	28	2.5	4	68	2.7	4	5	4.0	3	9	5.2
Tilburg	6	26	2.3	6	55	2.2	6	4	3.6	8	5	2.9
Reading	7	25	2.3	9	48	1.9	7	4	3.1	11	4	2.3
Stockholm School Econ	8	25	2.2	8	49	2.0	8	3	2.9	2	10	5.8
Erasmus	9	22	2.0	7	51	2.1	9	3	2.8	11	4	2.3
WU Vienna	10	20	1.8	10	45	1.8	10	3	2.7	14	3	1.7
IMEDE-IMD	11	20	1.8	17	32	1.3	11	3	2.5	8	5	2.9
Bradford	12	19	1.7	14	36	1.5	12	3	2.2	11	4	2.3
Manchester BS	13	19	1.7	11	41	1.7	13	2	2.1	8	5	2.9
Catholic U Louvain	14	18	1.6	12	40	1.6	14	2	2.1	14	3	1.7
U Sheffield	15	15	1.4	13	38	1.5	15	2	1.9	6	6	3.5
Total		423	38.1		892	36.1		58	52.0		95	54.9
All institutions	332	1112		2474			62	111		173		

Table 3 (continued)

Institution	2001–2015											
	1986–2000				2001–2015				2001–2015			
	Adjusted output		Absolute output		Adjusted output		Absolute output		Adjusted output		Absolute output	
	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)	Rank	Score	Share (%)
INSEAD	1	32	13.2	1	57	11.8	1	40	5.3	1	88	4.8
Stockholm Sch Econ	2	11	4.7	2	23	4.7	2	35	4.6	2	75	4.1
Bradford	3	11	4.3	3	17	3.5	3	30	4.0	3	72	4.0
London BS	4	10	4.3	3	17	3.5	4	22	2.9	4	49	2.7
Reading	5	8	3.3	6	12	2.5	5	21	2.7	4	49	2.7
Strathclyde	6	6	2.6	10	9	1.9	6	20	2.6	6	46	2.5
Bath	7	6	2.3	8	10	2.1	7	19	2.5	7	41	2.3
Uppsala	8	5	2.0	5	14	2.9	8	15	2.0	8	37	2.0
Manchester BS	9	5	2.0	7	11	2.3	9	15	2.0	9	32	1.8
IMEDE-IMD	10	5	1.9	21	6	1.2	10	14	1.8	9	32	1.8
Leeds	11	5	1.9	8	10	2.1	11	11	1.5	11	29	1.6
Copenhagen BS	12	4	1.7	10	9	1.9	12	11	1.5	12	28	1.5
Limburg	12	4	1.7	14	8	1.6	13	11	1.4	13	27	1.5
WU Vienna	14	4	1.5	16	7	1.4	14	11	1.4	13	27	1.5
U Cambridge	15	4	1.5	27	5	1.0	15	10	1.4	15	26	1.4
Total		118	49.0		215	44.3	Total	285	37.5		658	36.2
All institutions	134	242		485			All institutions	287	759		1816	

Number of European authors publishing IB research: 172 in 1971–1985; 359 in 1986–2000; 1098 in 2001–2015

Table 4 International and inter-regional collaboration, 1971–2015^a

	International collaboration ^b						Inter-regional collaboration ^b							
	1971–2015		1971–1985		1986–2000		2001–2015		1971–1985		1986–2000		2001–2015	
	ICI	ICR	ICI	ICR	ICI	ICR	ICI	ICR	RCI	RCR	RCI	RCR	RCI	RCR
Global	1437	0.41	114	0.23	297	0.31	1026	0.51	1072	0.31	237	0.25	740	0.37
Europe	796	0.67	59	0.72	151	0.63	586	0.68	617	0.52	126	0.53	436	0.50
North America	1018	0.41	99	0.22	253	0.31	666	0.53	892	0.36	221	0.27	587	0.47
Asia-Pacific	650	0.82	30	0.86	111	0.87	509	0.81	590	0.75	108	0.84	452	0.72
Africa	14	0.88	2	0.67	2	0.67	10	1.00	14	0.88	2	0.67	10	1.00
Latin America	35	0.90	6	0.75	11	1.00	18	0.90	35	0.90	11	1.00	18	0.90
Middle East	65	0.76	16	0.62	14	0.74	35	0.88	65	0.76	14	0.74	35	0.88
UK	337	0.71	21	0.70	56	0.61	260	0.73	240	0.50	38	0.41	185	0.52
France	145	0.85	18	0.95	44	0.80	83	0.86	114	0.67	42	0.76	55	0.57
The Netherlands	95	0.69	1	0.33	14	0.61	80	0.72	60	0.44	1	0.33	49	0.44
Germany	76	0.67	8	0.67	8	0.62	60	0.68	50	0.44	7	0.54	38	0.43
Sweden	58	0.64	5	0.50	16	0.67	37	0.65	28	0.31	6	0.25	17	0.30
Denmark	49	0.77			3	0.50	46	0.79	18	0.28	0	0.00	18	0.31
Belgium	46	0.82	7	1.00	9	0.75	30	0.81	27	0.48	6	0.50	14	0.38
Switzerland	41	0.77	2	1.00	7	0.78	32	0.76	27	0.51	7	0.78	18	0.43
Finland	40	0.73			7	1.00	33	0.70	26	0.47	5	0.71	21	0.45
Spain	38	0.61	1	1.00	4	0.80	33	0.59	28	0.45	4	0.80	23	0.41
Italy	32	0.76			3	0.60	29	0.78	13	0.31	2	0.40	11	0.30
Austria	30	0.81			3	0.60	27	0.84	14	0.38	2	0.40	12	0.38
Norway	21	0.75	4	1.00	3	0.60	14	0.74	14	0.50	2	0.40	8	0.42
Ireland	19	0.83			4	1.00	15	0.79	5	0.22	1	0.25	4	0.21

Table 4 (continued)

Rest of Europe	International collaboration ^b				Inter-regional collaboration ^b							
	1971–1985		1986–2000		2001–2015		1971–1985		1986–2000		2001–2015	
	ICI	ICR	ICI	ICR	ICI	ICR	ICI	RCR	ICI	RCR	ICI	RCR
40	0.82	6	0.67	34	0.87	16	0.33	1	0.11	15	0.38	

^aOnly nations with more than 10 internationally co-authored publications were included in this analysis

^bOnly co-authored articles were included in this analysis

International Collaboration Intensity (*ICI*): number of publications with authors from at least two different nations

Inter-Regional Collaboration Intensity (*RCI*): number of publications with authors from at least two different regions, with the regions categorized as Europe, North America, Asia-Pacific, Africa, Latin America, and the Middle East

International Collaboration Rate (*ICR*): proportion of articles resulting from international collaboration out of the total number of articles

Inter-Regional Collaboration Rate (*RCR*): proportion of articles resulting from inter-regional collaboration out of the total number of articles

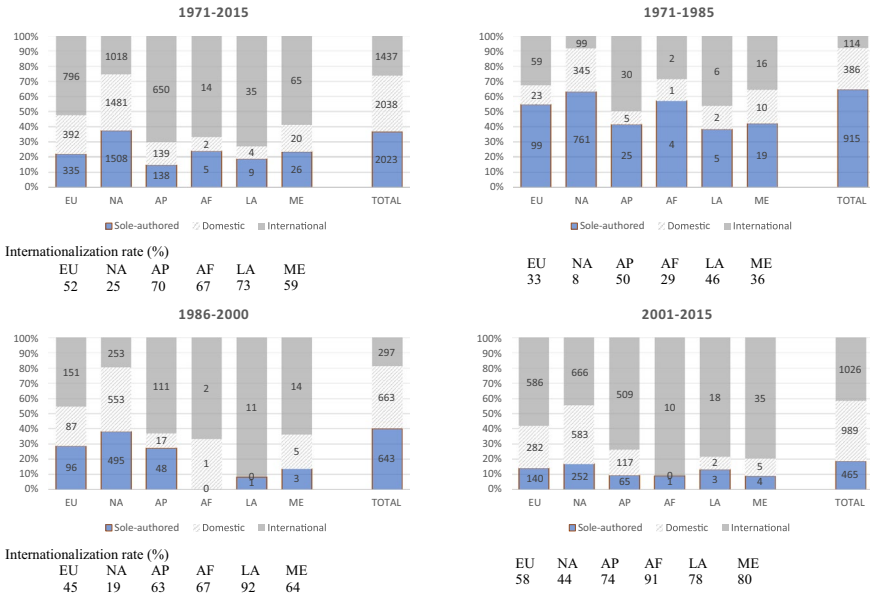


Fig. 2 Distribution of types of publications by region, 1971–2015. *EU* Europe, *NA* North America, *AP* Asia–Pacific, *AF* Africa, *LA* Latin America, *ME* Middle East. Domestic refers to co-authored domestic publications. The percent of international co-authored publications is found by dividing the number of international publications over all publications for each region and period. For instance, the internationalization rate of North America in 1971–1985 is $99/(99 + 345 + 761) = 8.21\%$.

In 2001–2015, half of the authors ranking among the top 15 for Europe also held a spot among the 25 most productive authors globally. For this final period, it is worth noting that the most prolific European authors were trained primarily in the U.K. (7 authors) and North America (5 authors), followed by Sweden and Denmark, with each training 2 leading authors.

4.4 International Collaboration and European Research Performance

4.4.1 Main Trends

IB research faces a similar trend as in management research in general (Geringer and von Glinow 1999; Kirkman and Law 2005): a decreasing rate of sole-authored publications for all regions (Fig. 2). However, North America remains the region with the highest, albeit decreasing, number of sole-authored publications, which may indicate that its authors are better equipped to publish alone and/or represent a subtle characteristic of the “publish or perish” standard, in that sole-authored papers may be more valued and encouraged for tenure and promotion purposes at U.S. academic

institutions (Liner and Sewell 2009). Interestingly, the second and third regions in number of sole-authored publications are Europe and Asia–Pacific, respectively, followed by the Middle East, Latin America, and Africa, an order which may reflect resource dependency levels and low penetration of the “publish or perish” standard of the three latter regions.

Indications of resource dependency and penetration of the “publish or perish” standard are further evidenced in data on international collaboration levels. While the proportion of sole-authored articles is decreasing across each of North America, Europe, and Asia–Pacific, examination of the absolute number of sole-authored papers shows a decline for North America, while corresponding figures in Europe and Asia–Pacific evidence an increase over time, albeit with such trends primarily evident only in the final time periods examined. The data for Europe and Asia–Pacific may indicate decreasing resource dependency and increasing adaptation of the sole-author subtlety of the “publish or perish” standard, although evidence supporting such trends should be considered preliminary. In other words, even if North America is gradually moving away from sole-authored papers, the data provide tentative support for Europe’s and Asia–Pacific’s IB research catching up with North America’s performances. In contrast, underrepresented regions of Africa, Latin America, and the Middle East have the highest levels of international collaboration, along with decreasing or stable levels of domestic publications (i.e., publications where all authors are from the same nation), which suggests greater publishing challenges faced by authors in these regions absent the support of co-authors from more established regions. Further, while all regions have intensified their international collaboration, North America’s internationalization has increased more rapidly than Europe’s and Asia–Pacific’s. With growth from 8% in the first period to 44% in the last period, North America’s internationalization rate has increased by a factor of 5.40, compared to 1.78 for Europe and 1.69 for Asia–Pacific (Fig. 2). These trends suggest a potential shift in the resource dependency relationships between regions, notably as North America increasingly relies on other regions. In contrast, Europe and Asia–Pacific, while still maintaining high levels of international collaboration, are also intensifying their domestic collaboration, though at somewhat modest rates.⁴ For example, between the second and third periods, the rate of domestic publications increased modestly for Europe (from 26% to 28%) and a bit more substantially for Asia–Pacific (from 10% to 17%), while it decreased for North America (from 43% to 39%).

Similar results are obtained from the ICI and ICR indicators, presented in Table 4, that depict international collaboration for each region and for European nations with more than 10 internationally co-authored publications. In particular, ICI levels are increasing over time for each region, indicating increasing international collaboration. However, results based on the rate of international collaboration (ICR) reveal three distinct, if preliminary, patterns. In the first pattern, North

⁴ As noted by an anonymous reviewer, there may be greater similarity between international collaboration and inter-regional collaboration for North America than may be the case for the European or Asia–Pacific regions, where there are many more countries across which collaboration might occur.

America, Africa, and the Middle East exhibit increasing ICR throughout the 45-year period, suggesting that, in these regions, domestic IB research is being replaced by international collaborations. On the other hand, Europe exhibited a decline in ICR in the second period, indicating a rise in domestic IB research, with a subsequent increase in the last period. The third group of regions (Asia–Pacific and Latin America) shows an increase in the second period but a subsequent decrease. Taken together, these results suggest there may be a region-specific threshold of international collaboration that allows regions to develop domestic IB research capabilities conditional on their resources. Europe appears to have achieved this threshold in the second period, while Asia–Pacific and Latin America appeared to have achieved this in the third period. This is consistent with our findings from Tables 1, 2 and 3, where we showed that Europe’s upward trend began almost 15 years prior to that of Asia–Pacific. Further, this finding may be indicative that the lower the resources of a region, the higher the level this threshold needs to be in order to support a shift from international to domestic collaboration.

4.4.2 International and Inter-regional Collaboration, by Region

Inter-regionalization and internationalization trends provide additional evidence of the centrality of resource dependencies in IB research, along with the dynamic stages of internationalization. Inter-regional collaboration increased dramatically between 1971 and 2015 and reveals important changes in inter-regional relationships. The total number of co-authored publications involving two or more regions (RCI) increased from 95 in 1971–1985 to 237 in the second period to 740 in the last period (Table 4). It is worth noting that these data are highly driven by North America’s disproportional share of global IB research production.

In fact, this global trend toward increasing inter-regionalization is unevenly distributed across regions. In addition to holding only a small share of IB publications over 45 years, underrepresented regions had no intra-regional collaboration and very little domestic collaboration (Fig. 2). It may just be that these collaborations exist but do not translate into publications in these primarily U.S.-based journals. On the other hand, while North American authors were expanding their collaboration with authors from other regions (RCR growing from 0.19 to 0.47 between the first and last periods), Europe and Asia–Pacific were turning inward, as indicated by their RCR declining over time. This further confirms our previous findings that dynamic stages of internationalization of IB research may be region-specific (Table 4). These findings on inter-regional collaboration may, of course, be impacted by the larger number of intra-regional nations within both Europe and Asia–Pacific, compared to North America.

Dependency of the underrepresented regions on the more developed regions is even more evident as we consider these inter-regional relationships: underrepresented regions never collaborate with each other, not even through a different region (Table 5). It is only when we include articles with 10 or more authors that these regions find the opportunity to work on the same publication. Similarly, the dominance of North America is clear from these data. Amongst all inter-regionally

Table 5 Inter-regional collaboration amplitude and main inter-regional partners for European authors, 1971–2015

		Europe	North America	Asia-Pacific	Africa	Latin America	Middle East
<i>1971–2015</i>							
	RCA	RCI					
Europe	30	–	71.3%	32.6%	0.8%	2.3%	3.4%
North America	60	49.3%	–	48.8%	1.1%	3.0%	5.2%
Asia-Pacific	26	34.1%	73.7%	–	0.7%	0.7%	1.2%
Africa	8	35.7%	71.4%	28.6%	–	0.0%	0.0%
Latin America	5	40.0%	77.1%	11.4%	0.0%	–	0.0%
Middle East	18	32.3%	70.8%	10.8%	0.0%	0.0%	–
<i>1971–1985</i>							
	RCA	RCI					
Europe	9	–	81.8%	16.4%	1.8%	1.8%	3.6%
Partner 1			USA (69%)				
Partner 2			Canada (16%)				
Partner 3				Australia (9%)			
Partner 4				Japan (4%)			
Partner 5							Israel (4%)
<i>1986–2000</i>							
	RCA	RCI					
Europe	11	–	87.3%	15.9%	0.0%	2.4%	0.8%
Partner 1			USA (82%)				
Partner 2				Hong Kong (8%)			
Partner 3			Canada (6%)				
Partner 4				Australia (3%)			
<i>2001–2015</i>							
	RCA	RCI					
Europe	29	–	65.4%	39.4%	0.9%	2.3%	4.1%
Partner 1			USA (56%)				
Partner 2			Canada (12%)				
Partner 3				Australia (11%)			
Partner 4				China (7%)			
Partner 5				Hong Kong (6%)			

Regions: Europe, North America, Asia-Pacific, Africa, Latin America, and the Middle East

Inter-regional collaboration amplitude (RCA): number of nations that a region collaborates with

Inter-Regional Collaboration Intensity (RCI): percent of publications with authors from at least two different regions. Given that a publication may have authors from several regions, the percentages for each region (row or column sums) do not add to 100%

The top panel shows the RCA for each region and the RCI among regions for the entire period. The partners for each region are depicted in columns three through eight for the RCI. For instance, Europe collaborated with North America in 71.3% of their publications over the entire period, but North America collaborated with Europe in 49.3% of their collaborative publications

The remaining panels show the RCA, RCI, and major partners within each region for Europe in the three periods examined

co-authored publications, Europe collaborated 71.3% of the time with North America, akin to Africa (71.4%) and the Middle East (70.8%), and this share was even higher for Asia–Pacific (73.7%) and Latin America (77.1%). Conversely, when North American authors collaborate with other regions, that only occurred 36% of the time, far below comparable figures for other regions (see Table 4). Table 5 shows these relationships are much less exclusive (with low shares of collaboration of 1.1% with Africa, 3.0% with Latin America, and 5.2% with the Middle East), and largely favor collaboration with Europe (49.3%) and Asia–Pacific (48.8%). These results indicate that regions with high research output tend to collaborate among themselves rather than with the peripheral regions, while the latter regions tend to collaborate with the high research areas rather than with other peripheral regions.

Inter-regional relationships have also strongly evolved, with European authors beginning to show stronger ties with Asia–Pacific. The last period saw a decrease of 22 percentage points in the relationship Europe–North America (from 87.3% to 65.4%), which was compensated for by an increase of 24 percentage points in the relationship Europe–Asia–Pacific. European authors have maintained strong partnerships with the U.S. and Canada, but these have become much less exclusive, declining from 81.8% to 65.4% between the first and last periods. In the second period, European authors collaborated more with authors from Hong Kong than they did with Canada. In the last period, they began collaborating more extensively with Chinese authors, thus expanding their relationships with Asia–Pacific authors.⁵

In Europe, the nature of these relationships seems strongly influenced by the U.K., as we will see in more detail in the next sections, confirming the U.K.'s role as an epicenter of IB research in Europe. Specifically, most of these observed relationships correspond with important historical and colonial ties the U.K. shares with Australia, Canada, and Hong Kong. It is not clear whether other European nations leverage their historical ties to expand IB research. While our data do suggest otherwise, it may also be that such collaborations are strong but do not translate into publications in the 14 journals of our study. If such collaborations do actually exist but are not revealed in these journals, this would further reinforce the strong bias toward English-speaking authors and journals, and different ways by which institutions' and authors' research performance are evaluated.

4.4.3 International and Inter-regional Collaboration by European Nations

Examination of the most productive European nations reveals a process by which high-performing European nations may have established their leading positions in global IB research. These nations seem to be entering the field first through 'the big door,' i.e., by collaborating intensively with authors from North America. For instance, inter-regional collaboration between Europe and North America increased

⁵ As suggested by an anonymous reviewer, some of the international and inter-regional collaborations reported in this paper can be expected to be impacted by authors collaborating with their former colleagues at their doctoral institutions (including if doctoral students graduate and return to their home nation), or by internationally mobile authors who continue collaborating, for a while at least, with colleagues at their former universities.

from 81.8% in the first period to 87.3% in the second period, before dropping to 65.4% in the last period (Table 5). Similar findings are echoed in the nations panel of Table 4 where, comparing ICI against RCI for the first period, we observe that out of 18 internationally co-authored articles by France in the first period, all but one were inter-regional. During the same period, all internationally co-authored publications for The Netherlands and Sweden were inter-regional, whereas Belgium, Switzerland, Spain, and Norway had no publication that was not the result of inter-regional collaboration.

During the second step, international collaboration seems more likely to develop within a region, as leading nations in the region may reach a level of resources that renders inter-regional collaboration less essential. Except for The Netherlands and Germany, which were slower than their European peers in their internationalization process, the leading European nations decreased their rate of inter-regional collaboration (RCR) in their second period of publishing in leading journals, even though levels of ICI and RCI increased for nations overall (Table 4). Their leading position and resource endowments may also make leading nations increasingly attractive for other nations in the region. Indeed, during this second step, the ratio of inter-regional (RCI) to international collaboration (ICI) decreased, that is, inter-regional collaboration decreased, but international collaboration increased. We suspect this attractiveness expands to other regions in a third step, as illustrated by the U.K. which, after decreasing its RCR from 0.57 to 0.41 between the first and second period, increased both its RCR and ICR in the last period (i.e., the U.K. increased its global reach, both within and outside Europe).

In other words, these findings suggest a simple model of internationalization of IB research. In the first stage, all nations collaborate with the incumbent leader (North America) to develop the capabilities and/or overcome the barriers of publishing in IB journals. But nations have different resource endowments and absorptive capacity, affected by 'gatekeeper ties' (e.g., number of Ph.D.s trained in the U.S.), historical ties, and proficiency in English language, as we saw previously. Of course, cultural differences and other factors may also play a role. This leads to different stages of capability development by region and nation, evidenced by the threshold of internationalization suggested previously.

In the second stage, there is development of a cluster of nations with the highest resource endowments and absorptive capacity that take an increasingly leading role in IB research. In our case, this cluster was Europe and, within this cluster, the U.K. took a leading role in IB publications and training of Ph.D.s. Development of this cluster in the second stage allows nations with less absorptive capacity to collaborate not only with North America but also with the leading nations in the cluster.

This leads to the third stage of IB research evolution, where a third cluster of nations becomes an important player in IB research, namely Asia–Pacific in our study. Asia–Pacific's rise corresponds with increasing international collaboration with not only North America, but also Europe and the U.K. in particular, and thus at this stage the cluster's RCR increases. That is, once a nation develops its domestic capabilities, inter-regional collaboration increases. Of course, our categorization of nations into physical regions may not fully capture nation heterogeneity in or across regions, but we address this issue next.

France and the U.K., in particular, have been at the forefront of both inter-regional and international collaboration during all three 15-year periods, solidifying our previous findings. The U.K. and France were responsible for 42% and 18% of the international collaboration and 39% and 18% of the inter-regional collaboration for Europe, respectively. This remarkably high concentration of international and inter-regional collaboration by the U.K. and France has not been challenged by a general tendency, for European nations, to increase their ICI and RCI; nor by the increasing number of nations involved in inter-regional collaboration (from 9 in 1971–1985, to 14 and 22 in the second and last periods, respectively) and international collaboration (from 9 in 1971–1985, to 19 and 23 in the second and last periods, respectively).

As indicated above, nations that are the most under-resourced are likely to engage in international collaboration. At the same time, though, because these nations began publishing in the latest periods, they often chose intra-regional over inter-regional collaboration, as an increasing number of European nations was becoming prominent on the global scene. All but four of these nations are from Eastern Europe, three from the Mediterranean region. They began publishing with a high level of international collaboration (0.67), which kept increasing in the following period (0.87), but their inter-regional collaboration was among the lowest, with an RCR of 0.11 in 1985–2000 and 0.38 in the last period.

4.4.4 International and Inter-regional Collaboration by Leading European Nations

In order to shed further light on these trends, we examine the trajectories of the five leading European nations with respect to their international and inter-regional collaboration, namely, the U.K., France, The Netherlands, Germany, and Sweden. We present these detailed analyses in Tables 6, 7, 8, 9 and 10. As shown and discussed below, the data suggest several interesting traits and trends, although the findings should be considered preliminary, due to the small number of cases. Future research may be appropriate to confirm and explore these issues further.

4.4.4.1 The United Kingdom The U.K. had the highest global reach, with an International Collaboration Amplitude of 42. U.K. authors collaborated with 8 nations in the first period, 20 in the second, and 42 in the last, excluding publications with more than 10 authors (Table 6). While the U.S. remained the U.K.'s main partner, the intensity of this relationship dramatically decreased, from 50.0% in the second period to 32.3% in the last period. Interestingly, the U.K. seems to have established itself as a dominant actor by leveraging its historical ties with Commonwealth nations. The U.K.'s ICI with Canada and Australia reached a high of 52.4% in the first period, compared to 28.6% with the U.S. Further, of the 8 nations the U.K. collaborated with in the first period, only 3 were European. The situation took a radical turn in the second period as the U.K. intensified its relationship with the U.S., with half of the internationally co-authored publications from the U.K. involving a U.S. author. This change was primarily at the expense of the strong relationship the U.K. had with Canada and Australia, which decreased to a low of 11%.

Table 6 International collaboration amplitude and nation partners: United Kingdom

	1971–2015			1971–1985			1986–2000			2001–2015		
	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA
Total U.K	337	42	21	8	56	20	260	42				
Europe	122	36.2	19	6	28.6	3	27	48.2	11	121	40.8	19
North America	154	45.7	2	14	66.7	2	31	55.4	2	109	41.9	2
Asia-Pacific	111	32.9	15	5	23.8	2	14	25.0	7	92	35.4	15
Africa	2	0.6	1	0	0.0	0	0	0.0	0	2	0.8	1
Latin America	3	0.9	2	0	0.0	0	0	0.0	0	3	1.2	2
Middle East	10	3.0	3	1	4.8	1	0	0.0	0	9	3.4	3
Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation
Partner 1	USA	118	35.0	Canada	8	38.1	USA	28	50.0	USA	84	32.3
Partner 2	Canada	36	10.7	USA	6	28.6	Sweden	6	10.7	Canada	25	9.6
Partner 3	China	24	7.1	Germany	4	19.0	France	4	7.1	China	21	8.1
Partner 4	Australia	20	5.9	Australia	3	14.3	Hong Kong	4	7.1	Australia	14	5.4
Partner 5	France	18	5.3	Japan	2	9.5	Australia	3	5.4	Hong Kong	14	5.4

International Collaboration Intensity (ICI): number of publications with authors from at least two different nations (in percent)

International Collaboration Amplitude (ICA): number of nations with which a nation collaborates

Publications with more than 10 authors are excluded

Table 7 International collaboration amplitude and nation partners: France

	1971–2015			1971–1985			1986–2000			2001–2015		
	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA
	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)
Total France	145	25	18	5	44	10	83	23				
Europe	52	35.9	12	3	16.7	3	8	11				
North America	100	69.0	2	17	94.4	1	40	2				
Asia-Pacific	22	15.2	8	1	5.6	1	5	7				
Africa	0	0.0	0	0	0.0	0	0	0.0				
Latin America	1	0.7	1	0	0.0	0	0	1.2				
Middle East	2	1.4	2	0	0.0	0	0	2.4				
Partner 1	USA	91	62.8	USA	17	94.4	USA	38	86.4	USA	36	43.4
Partner 2	UK	18	12.4	Belgium	1	5.6	UK	4	9.1	UK	13	15.7
Partner 3	Canada	9	6.2	Germany	1	5.6	Hong Kong	3	6.8	Canada	7	8.4
Partner 4	Sweden	7	4.8	UK	1	5.6	Canada	2	4.5	Australia	6	7.2
Partner 5	Australia	7	4.8	India	1	5.6	Belgium	1	2.3	Sweden	6	7.2

International Collaboration Intensity (ICI): number of publications with authors from at least two different nations (in percent)

International Collaboration Amplitude (ICA): number of nations with which a nation collaborates

Publications with more than 10 authors are excluded

Table 8 International collaboration amplitude and nation partners: The Netherlands

	1971–1985				1986–2000				2001–2015			
	ICI (%)		Nbr art		ICI (%)		Nbr art		ICI (%)		Nbr art	
	Nbr art	ICI (%)	Nbr art	ICI (%)	Nbr art	ICI (%)	Nbr art	ICI (%)	Nbr art	ICI (%)	Nbr art	ICI (%)
Total Netherlands	95	27	1	1	14	5	80	26				
Europe	56	58.9	14	0	4	28.6	52	14				
North America	44	46.3	2	0	8	57.1	36	2				
Asia-Pacific	20	21.1	8	0	2	14.3	18	8				
Africa	0	0.0	0	0	0	0.0	0	0.0				
Latin America	1	1.1	1	0	0	0.0	1	1.3				
Middle East	3	3.2	2	1	1	7.1	1	1.3				
	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)
Partner 1	USA	40	42	Israel 1	100	8	USA	8	57	USA	32	40
Partner 2	UK	16	17			3	UK	3	21	Belgium	13	16
Partner 3	Belgium	13	14			2	Hong Kong	2	14	UK	13	16
Partner 4	France	5	5			1	Italy	1	7	France	5	6
Partner 5	Hong Kong	5	5			1	Israel	1	7	Germany	4	5

International Collaboration Intensity (ICI): number of publications with authors from at least two different nations (in percent)
 International Collaboration Amplitude (ICA): number of nations with which a nation collaborates
 Publications with more than 10 authors are excluded

Table 9 International collaboration amplitude and nation partners: Germany

	1971–2015			1971–1985			1986–2000			2001–2015		
	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA
Total Germany	76		23	8		6	8		3	60		23
Europe	45	59.2	10	5	62.5	2	3	37.5	2	37	61.7	10
North America	38	50.0	2	4	50.0	2	7	87.5	1	27	45.0	2
Asia-Pacific	21	27.6	8	0	0.0		0	0.0		21	35.0	8
Africa	2	2.6	1	1	12.5	1	0	0.0		1	1.7	1
Latin America	3	3.9	1	1	12.5	1	0	0.0		2	3.3	1
Middle East	1	1.3	1	0	0.0		0	0.0		1	1.7	1
Nation	Nbr art	ICI (%)	ICA	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)
Partner 1	USA	31	40.8	UK	4	50.0	USA	7	87.5	USA	22	36.7
Partner 2	UK	18	23.7	Canada	2	25.0	UK	2	25.0	UK	12	20.0
Partner 3	Canada	7	9.2	USA	2	25.0	France	1	12.5	Switzerland	6	10.0
Partner 4	Switzerland	6	7.9	France	1	12.5				Australia	6	10.0
Partner 5	France	6	7.9	Brazil	1	12.5				Canada	5	8.3

International Collaboration Intensity (ICI): number of publications with authors from at least two different nations (in percent)
 International Collaboration Amplitude (ICA): number of nations with which a nation collaborates
 Publications with more than 10 authors are excluded

Table 10 International collaboration amplitude and nation partners: Sweden

	1971–2015			1971–1985			1986–2000			2001–2015		
	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA	Nbr art	ICI (%)	ICA
Total Sweden	58		16	5		2	16		7	37		15
Europe	40	69.0	10	0	0.0		11	68.8	4	29	78.4	9
North America	19	32.8	2	4	80.0	1	5	31.3	2	10	27.0	2
Asia–Pacific	13	22.4	4	1	20.0	1	1	6.3	1	11	29.7	4
Africa	0	0.0		0	0.0		0	0.0		0	0.0	
Latin America	0	0.0		0	0.0		0	0.0		0	0.0	
Middle East	0	0.0		0	0.0		0	0.0		0	0.0	
Nation	Nbr art	ICI (%)	ICA	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)	Nation	Nbr art	ICI (%)
Partner 1	USA	17	29.3	USA	4	80.0	UK	6	37.5	UK	9	24.3
Partner 2	UK	15	25.9	Australia	1	20.0	USA	4	25.0	USA	9	24.3
Partner 3	Denmark	9	15.5				Denmark	3	18.8	Denmark	6	16.2
Partner 4	France	7	12.1				Austria	1	6.3	France	6	16.2
Partner 5	Australia	7	12.1				France	1	6.3	Australia	5	13.5

International Collaboration Intensity (ICI): number of publications with authors from at least two different nations (in percent)

International Collaboration Amplitude (ICA): number of nations with which a nation collaborates

Publications with more than 10 authors are excluded

The U.K. also leveraged its increasing global predominance to benefit European nations. At the same time it was surpassing Canada in share of adjusted output (see Table 1), the U.K.'s collaboration with European nations increased from 28.6% in the first period to 48.2% in the second period. In the third period, the U.K. stabilized its predominance and continued to expand its network of international partners (42 nations in the last period compared to 20 in the previous period) and extended its global reach by working with authors from all regions. At the same time, other nations' reliance on the U.K. to publish in top journals intensified. Starting in 1986–2000, the U.K. became the second main partner for France (Table 7), The Netherlands (Table 8), and Germany (Table 9), and even replaced the U.S. as first partner for Sweden (Table 10). In the last period, it was the first partner for Sweden and The Netherlands, and second partner for France and Germany.

4.4.4.2 France France held the first rank in both ICR and RCR (0.85 and 0.67, respectively, for the 45-year period), indicating that French authors almost never published without collaboration of a non-French author (Table 4), instead seeking collaboration with authors from English-speaking nations. Indeed, data show that France relied heavily on collaboration with the U.S.: 94.4% and 86.4% of internationally co-authored publications in the first and second periods, respectively, involved a U.S. co-author (Table 7). This reliance on English-speaking nations decreased in the third period as France broadened its international reach, both within Europe and with other regions. France collaborated with 5 nations in the first period, 10 in the second, and 23 in the last period.

4.4.4.3 The Netherlands The Netherlands was slower than its European peers in its internationalization process. Despite being the 10th most productive nation in the first period (see Table 1), The Netherlands was also the least likely to collaborate internationally. Further, its internationalization favored European nations more than other regions, as evidenced by the nation's ICR rates growing much faster than its RCR rates (Table 4). Yet, The Netherlands accelerated its Europeanization more than any other European nation. Between the first and second periods, its share of internationally co-authored articles involving European nations increased from 28.6% to 65%. During the same period, The Netherlands decreased its relationship with North America by 12 percentage points and intensified its relationship with Asia–Pacific by 8 points. We note the same tendency as France to partner with a nation with English proficiency. Collaboration with the U.S., the U.K., Canada, Australia, Singapore, and Hong Kong amounted to 70% of The Netherlands' publications in the last period (Table 8).

4.4.4.4 Germany Germany experienced a different trajectory than the other leading European nations. While Germany had one of the most diverse sets of partners in the first period, including some collaboration with Africa and Latin America, its ICA decreased from 6 to 3 in the second period when 87.5% of the articles were published in collaboration with the U.S. (Table 9). In the last period, though, Germany accelerated both its internationalization intensity and global reach, becom-

ing one of the rare European nations to collaborate with nations from all regions. This happened primarily at the expense of its collaboration with the U.S. which, even though it remained its first partner, decreased to 36.7%. Collaboration with English-speaking nations was also dominant during that period.

4.4.4.5 Sweden Sweden remained relatively stable, both in its share of IB research productivity (Table 4) and its international and inter-regional collaboration measures. Despite its position as a leading producer of IB research, Sweden stands out for its relatively low international collaboration levels (Table 4) and its limited global reach, with a maximum of 15 collaborating nations in the last period (Table 10). Further, contrary to the other nations sampled in this analysis, Sweden did not collaborate at all with underrepresented regions, instead limiting its collaboration to European nations, primarily from northern Europe, with a total share of 78.4%.

5 Discussion and Future Research

We introduced this work by suggesting the need to assess the role of European nations, institutions, and authors in the development of IB research. Despite a central role in IB knowledge production and dissemination, limited prior assessment of Europe's contribution to the field left many questions unaddressed. For instance, what are potential constraints for European academic institutions and authors as they seek to be recognized as leading global actors in the field? What is the role of international collaboration in overcoming such constraints? More generally, we were interested in understanding how European IB research evolved within a context of globalization of academic practices such as “publish or perish” (Miller et al. 2011) or the use of journal publications as a measure of research performance (Aïssaoui and Geringer 2018; Geringer and von Glinow 1999; Lahiri and Kumar 2012; Ryazanova et al. 2017).

As our study examined the evolution of IB research over 45 years, 76 nations, 14 journals, 5508 publications, 5853 authors, and 1542 institutions, we are able to shed light on these questions and identify important trends. Our findings provide a salient overview of the state and evolution of the field of IB as they build on the same data, methods, and concept definitions, thus allowing a strong foundation for comparability and identification of trends and patterns within and across nations and regions. Findings from the evolution of Europe's role in IB research allow us to proffer several novel contributions and to identify practical implications for academia.

5.1 International Collaboration and Global Visibility

International collaboration has been widely associated with improved creativity and thus research performance (Ryazanova et al. 2017), specifically because of

the possibility to leverage the diversity of collaborating authors' theoretical and methodological perspectives (Abramo et al. 2018; Burt 1992). Our findings suggest a positive relationship between international collaboration and research performance, measured as publications in top journals, at least within IB scholarship.

Building on Abramo et al.'s (2018) distinction between international collaboration intensity (i.e., a nation's level of international collaboration) and international collaboration amplitude (i.e., a nation's number of foreign partners), we developed a detailed analysis of the leading European nations with IB publications in 14 journals. Using this approach, our findings suggest such international collaboration efforts best support research performance and global visibility when they focus both on intensity and amplitude. For instance, The Netherlands' and Germany's rankings improved with increased international collaboration and amplitude. Conversely, Sweden's slower internationalization and collaboration with a narrower set of nations and regions has been accompanied by a decline in its global ranking.

This evaluation has direct implications at the levels of academic institutions, nations, and regions, notably by guiding institutions' decision-making on their investments in international collaboration, including decisions on hiring of internationally mobile scholars who might have existing networks of collaborators. Indeed, if the initial findings presented in our study regarding the role and/or combination of each type of international collaboration on research performance are confirmed by future research, both within IB and within the broader area of management as a whole and perhaps across business disciplines in general, institutions, nations, and regions will be better equipped to gauge the international collaboration intensity and amplitude needed to achieve their goals. Thus, we expand on the widespread argument that international collaboration positively impacts research performance (Leonidou et al. 2010; Ryazanova et al. 2017) by suggesting that various types of international collaboration may have different impacts. We further identified a processual pattern of international collaboration, shedding further light on the role that resource dependencies may play in the evolution of the field.

5.2 Resource Dependencies and Global IB Research Performance

Resources, such as access to valuable and often costly data (Eden and Rynes 2003), connections to editors and gatekeepers (Brogaard et al. 2014; Colussi 2018; Harzing and Metz 2013; Zinovyeva and Bagues 2015), and English proficiency (Horn 2017; Lillis and Curry 2010; Ryazanova et al. 2017), have been identified as important conditions, and by extension barriers, to publishing in leading journals. Additional constraints, specifically for non-North American authors, include lack of familiarity and expertise with the theoretical and methodological approaches favored by North American research (Lopez-Navarro et al. 2015). Our findings are consistent with the existence of such constraints, but also point to patterns of resource dependencies between regions and nations seeking to contribute to IB research.

First, we identified a processual pattern which indicates that in order for a nation to gain visibility in leading IB journals, it often requires initial collaboration with

North American authors. We found no nation that was able to gain a prominent position without first collaborating with North America, and all regions collaborated with North America on at least 70.8% of all co-authored articles, with a high of 77.1% observed for Latin America (Table 5). In a second step, after a nation has become more established, its collaboration with North America begins to decline and is replaced with domestic and/or intra-regional collaboration. The third step of this pattern is when the nation becomes sufficiently established and resourced to attract authors from a broader range of nations and regions. This three-step process was observed in all five leading European nations (Tables 6, 7, 8, 9, 10).

This finding is consistent with previous research linking resource dependencies to international collaboration by the least economically developed nations (Chinchilla-Rodriguez et al. 2018). Ribeiro et al. (2018: 165) further suggest that these resource dependencies may vary depending on the development stage of a nation, noting that, “the least developed countries depend strongly on international cooperation to start”. Our study suggests this assessment may be underestimated. While there is strong evidence of such a link, we also find that the least developed regions never collaborate with each other, except where the research involves a very large number of co-authors.

Importantly, the patterns of resource dependencies and the three-step process we identified apply to developed and less developed nations equally, which further suggests that while economic resources are central, they are not sufficient to support a nation’s research productivity and global visibility. Instead, English proficiency stands as a critical resource which, when lacking, may further aggravate this economic disadvantage. While European nations’ reliance on the U.S. has decreased substantially, it has often been replaced by increasing reliance on the U.K. In addition, out of the 18 leading European authors, 12 were trained in either the U.K. or the U.S. In fact, the criticality of English proficiency probably partly explains the U.K.’s emergence as the epicenter of IB research in Europe. Data also suggest that Hong Kong may be assuming a similar role in Asia–Pacific and, in doing so, contributing to further international diversification associated with publishing IB research in journals such as those studied in this paper, albeit with English language ability as a key element in its emergence.

This reliance on developed and English-speaking nations has implications for development of the field. First, it may hinder in-depth comparative research among emerging nations, notably research capable of identifying universals without sacrificing the role of emics in explaining business phenomena (Leung 2009, 2012; Tsui 2007). This reliance is unfortunate, given that cross-national comparative research is a central part of the discipline (Ricks 1985). This reliance is of further concern because emerging nations are also likely to be the most dynamic with respect to their economic, political, and social environments (Peng 2002), which warrants a keen understanding of these dynamics to better evaluate their impact on IB research.

Progress with respect to comparative approaches has been made recently, as reflected in research such as the GLOBE project (House et al. 2004) or X-Culture (Taras et al. 2012) that build on collaboration among a large set of nations and regions. For instance, GLOBE’s investigation aims at discriminating the universals from the emics in leadership phenomena. There is, however, room to further expand

such efforts, notably with research examining the impact of different theoretical perspectives or different foci on our understanding of business phenomena (Bajwa and König 2019; Eden and Rynes 2003; Hofstede 1981).

Mangematin and Baden-Fuller (2008) explained that such advancements would require establishment of research epicenters outside North America. The U.K. has taken on this role, evidenced not only by European nations' increasing collaboration with the U.K. but also their increasing collaboration with nations sharing historical connections to the U.K. (e.g., Commonwealth nations). There is potential to further leverage historical ties that other European nations share with other nations or regions, notably in the underrepresented regions of Africa, Latin America, Asia, and the Middle East.

Academic conferences such as the Academy of International Business or the Academy of Management (AOM) annual meetings have recently promoted higher involvement from underrepresented regions. For instance, the AOM developed a group to foster research from and with African researchers, investing in not only marketing efforts but also travel funds to encourage higher visibility of African research. European nations are in a prime position to replicate such initiatives, notably as the EU encourages and financially supports international collaboration in education and academia (EU Education 2020). Recent emergence or expansion in virtual conferences and webinars, including as a result of COVID-19, may further facilitate international cooperation with and capacity-building in underrepresented regions, particularly to the extent that such virtual environments are sustained over time and effectively assist in overcoming resource constraints such as travel-related expenses and logistics.

5.3 Limitations and Implications for Future Research

All studies have limitations and our research is no exception. Our study perpetuates the common methodological limitation raised by Ryazanova et al. (2017), in that measures used to assess research performance—in this case publications in 14 leading journals—fail to recognize the variety of national systems of research evaluation (Saunders et al. 2011). Further, while there is evidence of an Americanization of academic practices such as “publish or perish,” even when these practices are adopted by European nations and their institutions, it is often after significant adaptations. Thus, it is worth repeating Ryazanova et al.'s (2017, p. 832) assertion that, “A signal should closely reflect the underlying unobservable quality for which it serves as a proxy”.

In addition, small numbers of observations for some of the analyses in this study suggest that some of the results may be viewed as only preliminary. Future research could address these issues by developing regional assessments and by developing a larger sampling of the population, perhaps by further broadening the list of publication outlets that are examined or by broadening the focus, perhaps to the entire field of management or even a range of different fields of business (e.g., marketing, finance, accounting). Such an approach might provide insight into whether the patterns discovered in this study are mirrored in or differ across other academic fields.

This study also examined research productivity based on the country of institutional affiliation for the authors. Future research might add data based on the birth nation of authors or their nationality at the time of publication, to the extent that these differ. Future research might also examine the impact of individual authors, as mobile individual academics might impact the relative performance of institutions and their countries. Such research might also examine strategies of institutions, in terms of recruiting, hiring, incentivizing, and providing support to academics in order to influence the absolute or relative level of publication performance and ranking versus peer institutions.

Future research could also take a more qualitative approach to bibliometric analyses, such as Mangematin and Baden-Fuller (2008), to verify the decreased dependency on North American research. It is not clear from our data whether the decreasing predominance of North American research has enhanced introduction of a wider range of theoretical and methodological approaches, or whether, as suggested by Mangematin and Baden-Fuller (2008), it is a result of the diffusion of North American research practices to other regions.

Examinations of national institutional performance, such as our study examining research productivity in IB, inevitably embody limitations due to the conceptual and practical choices that must be addressed in their design and execution. Nevertheless, our study helps to advance understanding of this phenomenon. Using 45 years' worth of data from 14 prominent journals, this study makes several novel contributions to the field, including identification of a unique internationalization process of IB research that consists of three distinct stages driven by international collaboration; demonstrating the role of international collaborations in helping to overcome publication barriers at the regional and country level; and highlighting the role of both scale and scope of international collaborations in achieving a top-ranked position globally. We hope these discoveries can foster additional discussion and research to help further increase our understanding of how to foster better quantity and quality of research in IB.

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Code Availability SAS code available upon request from the corresponding author.

Appendix: Definition of International Business Research

International business research is defined by Nehrt et al. (1970), and repeated by Ricks (1985, p. 1), as:

“scholarly investigation and/or analysis of a subject that meets the following criteria:

1. It is concerned with firm-level business activity that crosses national boundaries or is conducted in a location other than the firm's home country. (This activity may be the movement of goods, capital, people, and know-how, or it may be manufacturing, extraction, construction, banking, shipping, advertising, and the like.)
2. It is concerned with the interrelationship between the operations of the business firm and international or foreign environments in which the firm operates.
3. It does not include studies devoted to economic development, development planning, foreign trade, and the international monetary system, which belong to development and international economics. Excluded also are studies of foreign legal, political, economic, and social environments. These belong to the fields of law, political science, economics, and behavioral science unless the study itself relates the environment directly to the organizational, operational, or decision-making problems of international business firms.
4. It does not include studies of business activities in given foreign nations. A study of marketing channels in Turkey, whether it is done by a U.S., French, or Turkish professor of marketing, is still a study about domestic business in Turkey. This would not be international business any more than would the study of motivation levels of Portuguese workers or the study of personal income distribution in Japan, even though each may be of interest to international business firms.
5. As an exception to point 4, however, *comparative* business studies are included within this definition. For example, a study of pharmaceutical marketing channels in Germany, Italy, Brazil, and Japan, which makes comparisons and analyzes the causes and effects of similarities and differences, would be considered international business research even though it was not concerned with the relationship between the marketing channels within each country and international business firms".

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