

Emerging market Multinational Enterprises taking over United States trademarks: predating or leveraging?

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Abstract:

The extent to which emerging market multinational enterprises (EMNEs) benefit from their acquisitions and their after-deal strategies remains a conundrum for scholarship and practice. These acquisitions often aim to gather strategic assets that EMNEs lack because of the weakness of their home country institutional and technological context. This paper focuses on the acquisition of specific strategic assets that are USPTO (United States Patent and Trademark Office) trademarks and investigates the effect of such acquisitions on EMNEs' branding strategies. The relevance of these assets rests on EMNEs low legitimacy and reputation in advanced markets that generates prejudices in customers in advanced countries. In particular, we focus on whether EMNEs enrich their trademark portfolio after the trademark acquisitions or they exploit the new asset. We address our research questions using a novel database of USPTO trademark assignments involving Global Fortune 2000 firms from emerging countries or their subsidiaries between 1981 and 2014.

Our preliminary results suggest that some characteristics such as EMNEs experience, acquired trademark quality, and acquisition mode (i.e. "appropriation by take-over" vs. "direct appropriation") have a different effect on EMNEs' strategy. This paper offers a new contribution to the international business literature by offering a quantitative study of the phenomenon of brand acquisitions by EMNEs, complementing the case-based evidence so far.

1 Introduction

From Lenovo acquiring IBM to TATA becoming the owner of Jaguar, the bold acquisitions of companies from emerging economies like China and India, have spurred much debate on the strategies of emerging market multinational enterprises (EMNEs) in conquering international markets' strategic assets. One of the conventional interpretations of this phenomenon is that EMNEs acquire foreign assets as they lack firm-specific advantages and therefore use foreign acquisitions to fill these voids by appropriating patents and brands owned by other firms, especially in the advanced countries (Giuliani et al., 2014). Earlier research has looked at the gains accrued by EMNEs' cross-border acquisitions regarding enhanced financial performance (Aybar and Ficici, 2009) or innovative capacity (Amendolagine et al., 2017; Awate et al. 2012). Many such studies show that it is all but easy for these firms to leverage on the acquired assets (e.g. Amendolagine et al., 2017), so that EMNEs expectations about the beneficial effects of their cross-border acquisitions, often remain unfulfilled. Take for instance the bold acquisition of UK steel giant Corus by Tata: the deal turned out in a major failure. Instead, Tata Motors seems to benefit from the acquisition of Jaguar, as they essentially exploit the strong brand to establish a position in the UK market.

¹ Hence, the extent to which EMNEs benefit from their acquisitions and their after-deal strategies remains a conundrum for scholarship and practice.

In that context, this paper investigates EMNEs' branding strategies by looking at their trademarks, which are the legal basis for building valuable brands and represent reputational assets that often account for a substantial part of firms' market value in global markets (Sandner and Block, 2009; WIPO, 2013; Schautschick and Greenhalgh, 2016). Trademarks also capture firms' capabilities to introduce new products and services (Castaldi and Dosso, 2018).

When they invest in advanced countries, EMNEs tend to suffer from home country liabilities (Madhok & Kayhani, 2012; Ramachandran & Pant, 2010): originating from countries with weaker institutions and poorer reputation for product quality, safety, etc., leads them to face difficulties in operating in foreign markets through their own brands (Frey, Ansar and Wunsch-Vincent, 2015). This motivates EMNEs to acquire foreign brands, either by taking over existing firms in the host countries and appropriating their trademark portfolio (hereinafter "appropriation by take-over"), or by acquiring one or more trademarks as a solo operation that

¹ <https://qz.com/1124906/jlr-is-essentially-tata-motors-now-how-tatas-british-acquisition-is-keeping-the-indian-carmaker-alive/>

does not involve the acquisition of a firm (hereinafter “direct appropriation”) (Khanna et al., 2009).

But do EMNEs benefit from acquiring foreign trademarks in the advanced countries? Do they enrich their trademark portfolio after the trademark acquisition and what influences this outcome? More specifically, we are interested in understanding EMNEs’ trademark appropriation strategies and investigate whether they are purely ‘*predatory*’ strategies – i.e. EMNEs acquire trademarks but do not develop new ones after the acquisition, or ‘*leveraging*’ strategies, a strategy where EMNEs do develop new trademarks after the acquisition. Note that integration of trademarks might be as tricky as the integration of patents, but differently so, as the underlying language is symbolic rather than analytical/codified (Amendolagine et al., 2017). Developing a new trademark relies on introducing a new symbol to the market, essentially equivalent to an arena where multiple companies engage in a ‘semiotic struggle’ to persuade customers to choose their product (Mendonça, 2012). The interpretation and meaning of such symbols are socially-constructed (Sanz, 2015), thereby strongly linked to the cultural background of customers. Hence, integrating symbols with a very different semiotic history is bound to be challenging (Gussoni and Mangani, 2002).

We address these research questions using a novel database of United States Patent and Trademark Office (USPTO) trademark assignments involving Global Fortune 2000 firms from emerging countries or their subsidiaries between 1981 and 2014. Our preliminary results suggest that indeed some characteristics such as EMNEs experience in the US market, the quality of the acquired trademark, and acquisition mode have a different effect on EMNEs' strategy.

The paper’s structure is as follows. In the next section, we develop arguments on key determinants of post-acquisition new trademark applications. Section 3 explains the data and methods. Section 4 presents our preliminary results, while Section 5 concludes.

2 Background literature

2.1 Internationalization of EMNEs

EMNEs are gaining increasing importance as witnessed by their growing presence among the biggest worldwide companies and by spectacular acquisitions of developed countries' innovative firms (Deng, 2009). Being a new phenomenon, the global expansion of EMNEs generated significant ferment in the international business and strategy literature, because it represented a challenge to consolidated internationalization theories. For instance, it led some scholars to challenge Dunning’s ownership-internalization-location (OLI) theory (Dunning,

1981) on the ground that EMNEs would lack an ownership advantage (i.e. in terms of superior market positions, technologies, brands, etc.). As EMNEs originate from countries with poor markets, they have limited opportunities for consolidating their competitive positions at home prior to expanding globally. While the debate around these issues has been quite hot for some years (Mathews, 2002; Dunning, 2006; Ramamurti, 2012), one of the main takes is that EMNEs are not a homogenous group of firms. Next to clear liabilities, they do possess numerous advantages (e.g. low factor costs, support of governmental policies, good managerial practices, frugal engineering capabilities, among others, see: Makino, 2002; et al. 2007; Athreye, 2009), which help to explain their internationalization.

Strategic asset-seeking motivations typically drive EMNE's internationalization in developed countries (Buckley et al., 2007; Luo and Tung, 2007). Accordingly, their key "strategic intent" is to acquire overseas intangible assets for catching up with, or even overtaking, the incumbent global leaders in the long run (Meyer, 2015).

While we know a lot about EMNEs asset-seeking internationalization strategies (Amighini et al., 2013; Buckley et al. 2007; Hitt et al. 2000; Makino et al. 2002; Rabbiosi et al., 2012), we still know very little about their impact. Recent research has focused on the effect of cross-border acquisitions on EMNEs innovative capacity and accumulation of technological capabilities. Some in-depth case studies describe EMNEs upgrade of production and technology through a variety of international connections, among which acquisitions of advanced country technological leaders – see e.g. the cases of Haier (Bonaglia, et al. 2007, Duysters et al. 2009), Shanghai Automotive Industry Corporation (SAIC) (Nam and Li, 2012) in China, Tata Group (Duysters et al. 2009) and the pharmaceutical companies Ranbaxy and Dr Reddy (Kedron and Bagchi-Sen 2012), in India as well as Mabe in Mexico and Arçelik in Turkey (Bonaglia, et al. 2007). Some of this research suggests that, while EMNEs are good at catching up by imitating and adopting new technologies, they experience difficulties in accumulating technological capabilities (see e.g. Awate et al. 2012; 2015; Amendolagine et al., 2017), which means that their capacity to improve upon the acquired knowledge by innovating at the frontier proves much more difficult to develop.

2.2 EMNEs' trademark strategies

Trademarks (i.e. distinctive signs such as words, graphics, sounds, colours, etc.)² associated with a good or service are another critical asset for EMNEs and foreign trademark applications from emerging countries are on the rise (Zolas et al., 2016). Trademarks fulfil two complementary roles. The first one is an identification/individualization role: they indicate the source/origin of a product. The second one is a differentiation role: they distinguish a good from that offered by other entities in a given market (Ramello, 2006). Because of these two roles, trademarks help to overcome market failures: they reduce transaction costs between buyers and sellers and provide incentives for sellers to offer goods of recognizable quality (Akerlof, 1970; Economides, 1988; Milgrom and Roberts, 1986). A trademark owner has the exclusive right and also the obligation to use the trademark in the market, so that trademarks constitute the legal basis of brands. Because the validity of trademarks is geographically bound, their registration is often used to signal entry into a market (Giarratana and Torrisi, 2010; Barroso et al., 2015; Li and Deng, 2017). Hence, for instance, the USPTO handles trademark applications for the U.S., which means that foreign firms can only register trademarks in the U.S. if they sell products or services in that market.

When they enter a new market in advanced countries, EMNEs may opt for different branding strategies³ (Chattopadhyay and Batra, 2012; Chailan and Ille, 2015). They can either develop new brands or acquire existing brands owned by advanced country firms. Brand acquisitions can happen in two ways: either by purchasing a company with its trademark portfolio or by direct trademarks acquisition.

Creating new brands is a risky activity, even within the same country, since it entails firm-specific and cumulated efforts of building brand equity around a trademark (Aaker, 2012). To overcome the risks and costs of new brand creation, companies may thus resort to buying trademarks on the market (Frey et al., 2015; Graham et al., 2015).

Cross-Border brand acquisitions are challenging because the reputation and credibility of the acquiring firm may differ from that of the acquired trademark (Yang et al., 2011; Gussoni and Mangani, 2012). Such misalignment could make consumers react negatively to the brand ownership change, especially if the new owner's reputation is perceived as being poor, or not up to standards. EMNEs particularly face these issues because of biases against their country of

² See WIPO (2004) for a definition.

³ While trademarks are different from brands, they are in practice difficult to separate (WIPO, 2013; Frey et al., 2015). Trademarks have been shown to be extremely valuable to companies exactly because they help to create brand equity (Krasnikov et al., 2009). Trademarks represent reputational assets that allow companies to strengthen their positions in markets by increasing customer retention, but also by signaling value to investors (Flikkema et al., 2014).

origin. Indeed, the literature on global branding (Dinnie, 2002; Pappu et al., 2006) documents Western countries' consumer's biases against emerging countries' brands, which are perceived as being of lower value (Zhou et al., 2010).

2.3 Research questions

Relying on the previous considerations, we focus on three research questions unfolding the effects of Western (i.e. USPTO) trademark acquisition on EMNEs trademark filings. The first effect we are interested in exploring is the role of EMNEs experience in the US market on trademark development. EMNEs might suffer from “liability of emerginess” as an additional burden on top of the “liability of foreignness” (Madhok and Kayhani, 2012; Ramachandran and Pant, 2010). For instance, EMNEs typically have a lower valuation in markets of developed economies (Frey et al., 2015). However, this liability can in principle be compensated by the experience gained by an initial presence in developed markets. On the one hand, we could expect that EMNEs more acquainted with customers from developed countries will leverage this knowledge by building more brands from their existing ones (e.g. brand extensions). On the other hand, we could also expect that they exploit prior trademarks without developing new ones. For this, we ask:

R1: What is the effect of the EMNEs experience in the US market on the post-deal development of new trademarks?

The acquisition of a USPTO trademark could serve as a way to overcome liability in the US market. Most likely, the quality of the acquired trademarks also matters in determining future trademark strategies. Valuable trademarks provide legitimation in their function of signaling the quality of the market offerings (Ramello and Silva, 2006). High-quality trademarks are also more likely to be coupled to investment in brand equity. Brand equity entails high product recognition, customer satisfaction and eventually above-average returns for the focal company. EMNEs that acquire valuable trademarks can rely on their existing reputational value to further exploit the acquired asset. Therefore, acquiring valuable trademarks might imply a disincentive for EMNEs to develop new trademarks after the deal, making it attractive to simply predate those valuable assets. Thereby, we ask:

R2: What is the effect of acquiring a valuable trademark on the post-deal development of new trademarks?

Finally, as trademarks can be acquired either through an “appropriation by take-over” (i.e. taking over existing firms in the host countries and appropriating their trademark portfolio) or through a “direct appropriation” (i.e. acquiring one or more trademarks as a solo operation), we investigate whether the acquisition mode has any further effect. When the acquisition involves an entire company, trademarks are likely to be one of the many assets to be internalized. The extensive literature on M&A transactions has revealed how M&As success is strictly related to the capacity of integrating different organizational entities (Ahuja and Katila, 2001; Cassiman et al., 2005; Makri et al., 2010). This might make it harder for EMNEs to immediately benefit from the trademark acquisition. We then ask:

R3: What is the effect of an “appropriation by take-over” vs “direct appropriation” on the development of new trademarks?

3 Data and methodology

We seek an answer to our research questions by constructing an original dataset of USPTO trademark ⁴assignments involving multinationals from emerging countries or their subsidiaries between 1981 and 2014. The dataset relies on matching data from different databases, as we explain below.

3.1 Data construction

We first select the universe of firms from emerging countries⁵ listed in the Global Fortune 2000 (399 focal firms), and for each of them, we find all the controlled subsidiaries⁶ with at least one USPTO trademark using the Bureau van Dijk ORBIS Database. We consider as subsidiaries of focal firms those that are either independent companies acquired by the focal firm (i.e. taken-over subsidiaries), or those subsidiaries resulting from a Greenfield investment (i.e. newborn subsidiaries). We classify each subsidiary as either one type or the other by looking at its history (based on the available information retrievable from companies’ websites and other

⁴ For the remainder of the paper, when we refer to trademarks we mean USPTO trademarks, unless differently specified.

⁵ The countries included are: Argentina, Brazil, Chile, China, Colombia, India, Indonesia, Lebanon, Malaysia, Mexico, Nigeria, Perú, Russia, South Africa, Thailand, Turkey, Venezuela.

⁶ We include all the subsidiaries of which the Global Fortune firm owns directly or indirectly at least the 51% of shares.

relevant sources). For the trademarks filed by the taken-over subsidiaries before the acquisition, we set as acquisition date the date of assignment of the trademark to the focal firm. For trademarks filed after the acquisition, we match them to the “USPTO Trademarks assignment database” (Graham et al., 2015)⁷ to ascertain whether they were acquired from a third party. We also recover the trademarks owned by the newborn subsidiaries within the “USPTO Trademarks assignment database” to identify which ones have been acquired from another company.⁸

After this data cleaning we ended up with a dataset of USPTO trademark reassignments that indicates the change of ownership of a trademark. The set includes 986 trademark reassignments to firms from eight emerging countries between 1981 and 2014.

3.2 Variables

Dependent variable

Our dependent variable is the post-deal development of new trademarks, which we operationalize as the number of trademarks applied at the USPTO by the focal firm in the three years after the deal in the same Nice class of the acquired trademark (*NUM_TRAD_AFTER_ACQU_3Y*). We consider new trademarks in the same product class of the acquired trademark to capture new trademarks that represent the development of that trademark into related trademarks. This is in line with the idea that new trademark applications can proxy the introduction of new products and services (Flikkema et al., 2014). The source of data for this variable is the ORBIS database developed by the Bureau van Dijk.

Independent variables

To address R1, we consider two sides of EMNEs experience to capture prior reputation and knowledge of the US market. In terms of quantity, we include the number of trademarks filed by the acquirer before the deal (*LN_US_TRAD_PORTFOLIO_SIZE*). This also captures the overall EMNE trademark strategy. We expect that EMNEs that already own trademarks in the US markets will be more likely to have the capability to develop new trademarks. In terms of quality, we measure the presence of the EMNE’s brands (*US_TRAD_PORTFOLIO_AGE*), as

⁷ The dataset is available at: <https://www.uspto.gov/learning-and-resources/electronic-data-products/trademark-assignment-dataset>

⁸ It is important to note that a trademark can be associated with several entries in the “USPTO Trademarks assignment database” as it can be reassigned several times. However, not all of these entries are of any interest for our analysis. For instance, reassignments to a bank where trademarks are given as collateral for loans cannot be considered a strategic acquisitions and therefore they are not included in the analysis. Similarly, changes of ownership associated to company’s name changes or internal restructuring (for instance, the reassignment to a subsidiary that manages all the group IPRs) are removed from the set. For these reasons, all the assignments retrieved from the “USPTO Trademarks assignment database” have been manually checked to keep only the relevant ones.

the age of the oldest trademark in the EMNE trademark portfolio at the time of the reassignment, as this represents the standing of such portfolio. The older the prior US trademark is, the longer the EMNE and/or its (pre-deal) subsidiary have been active in the United States. Trademark age can indicate the strength of the reputational assets built by the EMNE in the US (Melnyk et al., 2014). We calculate this variable using the filing date from “USPTO Trademark Case Files Dataset” (Graham et al. 2013).⁹

As for the other two research questions, our variables of interest are at reassignment level as they refer either to the attributes of the reassigned trademark (i.e. the focal trademark) or the characteristics of the reassignment mode.

R2 refers to the role of the trademark value, which we measure it in two ways. The first one is the age of the reassigned trademark (*TRADEMARK_AGE*), which we measure as the number of years since the filing of the focal trademark at the time of the reassignment. The second one (*TRADEMARK_BREADTH*) relies on the breadth measures proposed by Sandner and Block (2009). This is calculated as the number of different Nice classes covered by the acquired trademarks. Trademarks are filed for specific markets, classified in 45 Nice classes. Trademark applicants have to demonstrate use of the mark in all these markets and typically, registration fees are proportional to the number of Nice classes. Thereby, a trademark covering more classes should bear a higher value for the applicant.

R3 refers to the mode of acquisition of the trademark. The variable *DIRECT_APPROPRIATION* is a dummy equal to 1 if the reassignment refers to a direct trademark acquisition (e.g. the acquisition of the trademark “S Zorb” related to a sulfur removal process by China Sinopec in 2007) and 0 if the trademark is obtained through the acquisition of a firm (and therefore also of its trademark portfolio) (as e.g. in the case of Lenovo acquiring IBM). The variable stems from manually checking the assignment deals.

Control variables

We control for the cultural distance (*CULTURAL_DISTANCE*) between the emerging country and the nationality of the EMNEs subsidiary acquiring the trademark. Prior international business literature has extensively studied the role played by cultural distance in cross-border acquisitions (Morosini, Shane and Singh, 1998). Given our focus on EMNEs capabilities to develop brands, cultural distance is a relevant mediator factor of the matching between firm’s marketing strategy to the peculiar characteristics of the chosen market. A new trademark is a way for a company to signify a new experience to market customers and this involves developing

⁹ The dataset is available at: <https://www.uspto.gov/learning-and-resources/electronic-data-products/trademark-case-files-dataset-0>

symbols, narratives and languages (Ramello, 2006). In this process, cultural differences in perceived meanings are likely to create barriers to integration between EMNE and the acquired trademark. To proxy cultural distance, we use the measure developed by Berry et al. (2010) that calculates such distance using indicators of power distance, uncertainty avoidance, individualism, and masculinity retrieved from the World Value Survey (WVS). As explained by the authors the choice of these specific aspects is an attempt to mimic the already established Hofstede’s indicator of cultural distance. The advantage of the new indicator is the availability of yearly data.

We also control for patent portfolios of the EMNE (*LN_USPTO_PAT_5YBEF*) including the logarithm of the number of USPTO patents filed in the five years before the acquisition of the trademark. The rationale for this control is the complementarity of patents and trademarks, given that trademarks facilitate the commercialization of the patented inventions and extend protection after patent expiry (Flikkema et al., 2014). Furthermore, firms owning USPTO patents might have an advantage regarding prior experience with filing procedures at the USPTOs and in terms of general experience with intellectual property rights. Firms’ patents come from the using the ORBIS database. We control for the size of the EMNE’s headquarter (*LN_REVENUES*) using the logarithm of the revenues in the year before the deal. We retrieved these data from DATASTREAM. Another control for the size is the number of subsidiaries of the company worldwide (*NUM_SUBSIDLARIES*). We retrieve this information from the ORBIS database. Finally, the last control regards the nationality of the subsidiary carrying out the acquisition of the trademark, we control whether it is located in the United States using a dummy variable (*US*).

As trademark use and strategy are known to be highly sector-dependent (Flikkema et al, 2014), in particular when comparing markets for products and services, we include industry dummies.¹⁰ Models also include year dummies (for the assignment year) to control for the economic crises effects, as trademark use strongly depends upon business cycles (Greenhalgh and Rogers, 2010). Finally, to account for differences of the home countries of our Global Fortune Companies we include country dummies.

Table 1 summarizes all the variables and Table A1 (in appendix) reports correlation coefficients.

Table 1 – Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
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¹⁰ The classification links to the NACE Codes (Main Section) and the sectoral classification provided by the Bureau van Dijk. See Table 3 for the list of categories.

<i>NUM_TRAD_AFTER_ACQU_3Y</i>	986	28.281	39.435	0	178
<i>LN_US_TRAD_PORTFOLIO_SIZE</i>	986	3.142	1.671	0	5.6092
<i>US_TRAD_PORTFOLIO_AGE</i>	986	28.543	15.358	0.022	54.553
<i>TRADEMARK_AGE</i>	986	12.569	13.986	0.008	115.602 7
<i>TRADEMARK_BREADTH</i>	986	3.046	3.611	1	34
<i>DIRECT_APPROPRIATION</i>	986	0.157	0.364	0	1
<i>CULTURAL_DISTANCE</i>	983	12.429	12.297	0	75.31
<i>US</i>	986	0.442	0.497	0	1
<i>NUM_SUBSIDIARY</i>	986	201.128	111.363	1	562
<i>LN_REVENUES</i>	978	22.476	0.935	18.979	25.636
<i>LN_USPTO_PAT_5YBEF</i>	986	1.361	1.301	0	4.663

3.3 Econometric method

As the dependent variable (*NUM_TRAD_AFTER_ACQU_3Y*) is a count, we estimate a Poisson Quasi Maximum Likelihood (PQML) model. This specific model is more flexible than negative binomial models (also used for count models), because it gives consistent estimates also under the weaker assumption of correct conditional mean specification, and does not entail any restriction on the conditional variance (i.e., it allows for over dispersion due to a large number of zeros) (Cameron and Trivedi, 2010; Gourieroux et al., 1984; Wooldridge, 2002).

4 Results

This section reports the first preliminary results and some descriptive statistics of our dataset.

Figure 1 shows the evolution over time of the number of assignments by type. We can notice that acquisitions of trademarks started in the early 80s, but took off in the middle of the 1990s. In particular, the very early acquisitions in our set regard a Mexican group active in the food industry and a Brazilian mining company (Vale S. A. and Alfa Group). Overall, the “appropriation by takeover” is a more common phenomenon as compared to the “direct appropriation”. The figure also highlights that reassignments are not back to their historical heights after the drop due to the economic crisis.

Figure 1 – Number of assignments per year and type

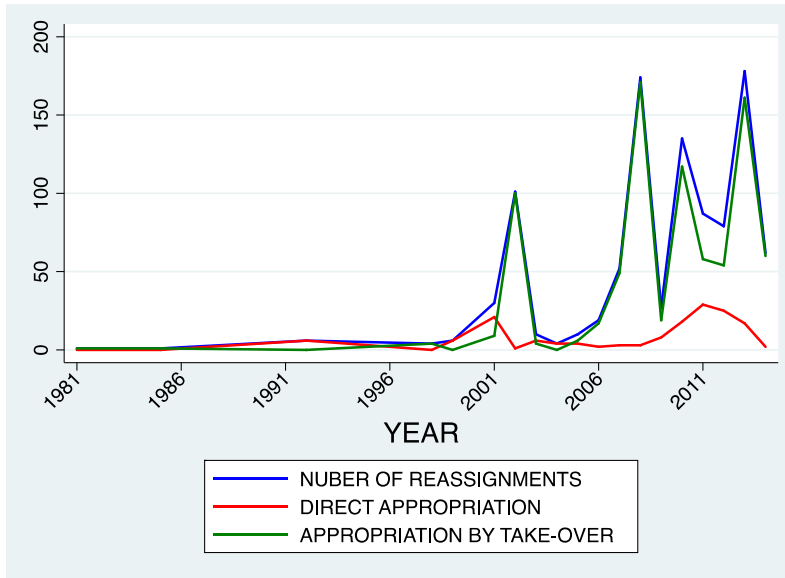


Table 2 shows a rather concentrated geographical distribution of the EMNEs' home countries, where three countries account for 86.8% of all the reassignments in the set. The top investors are Mexican controlled firms that account for the majority of the deals, followed by India and Brazil. This suggests the relevance of factors such as similar language and geographical proximity in explaining the likelihood of trademark assignments.

Table 2 - Distribution of the reassignments by home country

COUNTRY	Freq.	Percent	Cum.
MX	490	49.7	49.7
IN	313	31.74	81.44
BR	53	5.38	86.82
ZA	53	5.38	92.19
CN	50	5.07	97.26
CL	14	1.42	98.68
RU	7	0.71	99.39
TH	6	0.61	100
Total	986	100	

As regards the sectoral distribution, Table 3 reports that most of the reassignments take place in the manufacturing industry and in particular in “Food, beverages, tobacco” and “Machinery, equipment, furniture, recycling” (70.7%). Services are not prominent as they account for the 9.04% (sum of “Other services”, “Financial Services”, ICT” and “Transport”).

Table 3 - Distribution of the reassignments by acquirer sector

SECTOR	Freq.	Percent	Cum.
Food, beverages, tobacco	471	48.96	48.96
Machinery, equipment, furniture, recycling	209	21.73	70.69
Chemicals, rubber, plastics, non-metallic products	138	14.35	85.03
Metals & metal products	43	4.47	89.5
Other services	28	2.91	92.41
Financial services	24	2.49	94.91
ICT	20	2.08	96.99
Transport	14	1.46	98.44
Primary sector	9	0.94	99.38
Wholesale & retail trade	6	0.62	100
Total	962	100	

Table 1 reports the estimates that allow providing answers to our research questions. The regression reported in column 1 includes only the controls. The size of the patent portfolio has a positive and significant effect on the acquirer’s trademark performance after the deal. On the contrary, EMNE’s headquarter size has a negative impact on the post assignment trademark performance. Looking at the group structure, the size of the group has a significant and positive effect. Finally, when significant, cultural distance has a negative effect.

In column 2, we find that the size of the EMNE’s trademark portfolio before the trademark assignment has a positive and significant effect on the number of trademarks registered after the deals. This result suggests the persistence of the trademark strategy over time, backed up by underlying capabilities. Column 3 reports the results when we consider the quality of the EMNE’s experience measured as the length of the presence in the US market. The variable *US_TRAD_PORTFOLIO_AGE* calculated using the age of the USPTO trademark portfolio is negative and significant, meaning that EMNEs with more valuable prior trademarks tend to file fewer trademarks in the same class after the trademark acquisition. We can better interpret the magnitude of the effect by computing the incident rate ratios (IRR) taking coefficients’ exponential value. Column 3 indicates a 1.48% (significant at the 0.01% level) decline in the expected number of trademark filings in the same class after the trademark acquisition¹¹. The effect is smaller than the one in column 2; however, this finding points to a

¹¹ The result is obtained as follows: $e^{-0.015} - 1 = -0.0148$

possible “exploitative” strategy, where an EMNE tends to file fewer trademarks, possibly because it relies on its portfolio. We find evidence that the quality, rather than the quantity of prior trademarks is a key determinant of this strategy.

Column 4 addresses R2 using *TRADEMARK_AGE* as a proxy of the acquired trademark value. The coefficient of our variable of interest is negative, significant and larger than the one in column 3. Indeed trademark age has a stronger negative effect as increasing of one year the age of the acquired trademark decrease of 2.1% the number of trademarks filed by the EMNEs after acquiring a new trademark. This again suggests some evidence of exploitation by the EMNEs of the acquired asset.

Column 5 addresses R2 using a different measure of trademark value. Following existing literature (Sandner and Block, 2009), our variable *TRADEMARK_BREADTH* relates to the number of product class in which the trademark is filed. Interestingly, we find a rather large positive effect. Trademark breadth has a stronger positive affect as the inclusion of one extra product class increase of 4.8% the number of trademarks filed by the EMNEs after acquiring a new trademark. The difference in the two results suggests that these two measures of trademark values captures rather different aspects of what contributes to the value of the trademark. Indeed, the first one is more related to the legitimacy of a brand in the US; whereas, is more related to its product scope. This difference raises some questions on the different perception of trademark value and it needs further investigation.

Column 5 shows the results for the trademark acquisition mode. The estimated coefficient for the variable *DIRECT_APPROPRIATION* is quite large, positive and significant, indicating an increase of about 22% when the acquisition just target only a trademark. This suggests that when EMNEs specifically acquire trademarks this results in more trademark development after the deal as compared to a situation where trademarks are part of a company being acquired. This might have to do with the motivation behind the acquisition, which might be trademark-unrelated in the case of firm acquisitions. Also, M&As are complex operations which take several years to achieve real integration in the new entity. This might delay new trademark development, as efforts are focused on integration challenges in the early years after integration. Alternatively, this result might indicate that EMNEs are targeting specific trademarks that fit in their overall strategy of market expansion.

Finally, column 7, 8 and 9 show that the most of the results are supported when all the variables are included in the estimation model.

Table 4 - Regression results

Dependent variable: Number of trademark filed in the same class in the three years after the assignment

	ONLY CONTROLS	R1	R1	R2	R2	R3		ALL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>CULTURAL_DISTANCE</i>	-0.006	-0.010**	-0.005	0.004	-0.005	-0.005	0.001	-0.007*	0.001
	0.005	0.005	0.005	0.004	0.005	0.005	0.004	0.004	0.004
	0.187	0.041	0.263	0.348	0.225	0.25	0.857	0.094	0.865
<i>US</i>	0.021	0.063	0.057	0.208**	0.023	0.065	0.326***	0.169	0.328***
	0.114	0.115	0.104	0.098	0.111	0.116	0.102	0.104	0.099
	0.855	0.582	0.581	0.034	0.838	0.576	0.001	0.102	0.001
<i>LN_REVENUES</i>	-0.419***	-0.339***	-0.364***	-0.326***	-0.427***	-0.386***	-0.195*	-0.255***	-0.189*
	0.093	0.097	0.092	0.092	0.093	0.094	0.1	0.097	0.099
	0.000	0.000	0.000	0.000	0.000	0.000	0.052	0.009	0.056
<i>LN_USPTO_PAT_5YBEF</i>	0.301***	0.257***	0.325***	0.288***	0.293***	0.275***	0.216***	0.237***	0.208***
	0.05	0.047	0.049	0.049	0.05	0.051	0.048	0.05	0.048
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>NUM_SUBSIDIARY</i>	0.009***	0.004***	0.010***	0.009***	0.009***	0.008***	0.005***	0.005***	0.005***
	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001
<i>LN_US_TRAD_PORTFOLIO_SIZE</i>		0.489***					0.447***	0.471***	0.475***
		0.106					0.107	0.104	0.105
		0.000					0.000	0.000	0.000
<i>US_TRAD_PORTFOLIO_AGE</i>			-0.015***				-0.007	-0.015***	-0.007
			0.004				0.005	0.005	0.005
			0.001				0.113	0.001	0.148
<i>TRADEMARK_AGE</i>				-0.021***			-0.019***		-0.019***
				0.003			0.003		0.003
				0.000			0.000		0.000
<i>TRADEMARK_BREADTH</i>					0.047***			0.047***	0.045***
					0.012			0.011	0.012
					0.000			0.000	0.000
<i>DIRECT_APPROPRIATION</i>						0.201***	0.309***	0.277***	0.308***
						0.075	0.075	0.08	0.075
						0.008	0.000	0.001	0.000
<i>CONSTANT</i>	5.261***	6.527***	3.636*	2.964	5.222***	4.517**	2.564	3.842**	2.439
	1.884	1.976	1.859	1.866	1.862	1.917	1.989	1.949	1.946
	0.005	0.001	0.051	0.112	0.005	0.018	0.197	0.049	0.21
<i>EMERGING_COUNTRY_DUMMY</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>YEAR_DUMMY</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>SECTOR_DUMMY</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	952	952	952	952	952	952	952	952	952
II	-7517.6	-7398.3	-7305.6	-6926.2	-7415.8	-7478.1	-6700.9	-7029.4	-6623.201

LEGEND: Models are estimating using a Poisson Quasi-Maximum Likelihood. Robust standard errors and P-values are reported below the coefficients. Significance level: * 0.05 ** 0.01 *** 0.001.

5 Preliminary conclusions

The aim of this paper is to shed some light on the effects of EMNEs acquisition of a specific type of strategic assets, namely trademarks. We highlight here three central starting questions, which we would like to develop further, to include moderating factors as well.

Preliminary results indicate that that the quality of prior US trademarks owned by EMNEs matters for the decision not to develop new trademarks, while the quantity of previous trademarks captures the presence of capabilities and reputational assets which potentially motivate EMNEs to create new trademarks. We also find that acquiring trademarks highly legitimated in the US seems to provide an incentive for exploitation of that market, with significantly less new trademark activity. However, when the acquired trademark has a rather broad application, the incentive completely changes, with substantially more trademark activity. Our preliminary results on the effect of the appropriation mode indicate that direct acquisition is positively related to new trademark development. We provide possible interpretations for the underlying mechanisms, but more testing is needed to disentangle these processes.

The search for a better understanding of the mechanism entails an improvement of the data with more qualitative analysis on the trademark portfolios, EMNEs legitimacy and post-acquisition trademarks. In particular, ongoing data collection aims to include an independent measure of firm legitimacy and to understand the extent to which the post-acquisition trademarks are related to the acquired ones (i.e. to measure the degree of brand extension).

This study aims to contribute both original theoretical questions and original empirical evidence. We envision adding to the international business literature by offering a quantitative study of the phenomenon of brand acquisitions by EMNEs, complementing the case-based evidence so far. Our study also contributes to the emerging empirical literature in economics and management using trademarks (Schautschick and Greenhalgh, 2016), by exploiting data on trademark transactions. Similar to the idea of “markets for technology”, the global marketplace is increasingly creating “markets for trademarks” which are not fully understood yet.

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Appendix A

Figure A1 – Correlation table

	1	2	3	4	5	6	7	8	9	10	11
1 <i>NUM_TRAD_AFTER_ACQU_3Y</i>	1										
2 <i>LN_US_TRAD_PORTFOLIO_SIZE</i>	0.3702	1									
3 <i>US_TRAD_PORTFOLIO_AGE</i>	-0.0847	-0.0989	1								
4 <i>TRADEMARK_AGE</i>	-0.1566	0.1465	0.2788	1							
5 <i>TRADEMARK_BREADTH</i>	-0.2476	-0.3862	0.0405	-0.2233	1						
6 <i>DIRECT_APPROPRIATION</i>	0.1713	0.0681	-0.0707	-0.0227	-0.057	1					
7 <i>CULTURAL_DISTANCE</i>	-0.2603	-0.2387	0.0281	0.0889	0.2506	-0.1845	1				
8 <i>US</i>	-0.0381	0.4453	-0.0684	0.2631	-0.2621	-0.0979	0.0193	1			
9 <i>NUM_SUBSIDIARY</i>	0.3326	0.4765	0.0931	0.0478	-0.2545	-0.0472	-0.3152	0.2052	1		
10 <i>LN_REVENUES</i>	-0.0042	0.2465	0.1917	0.0856	-0.0331	0.0791	-0.3618	-0.1143	0.2892	1	
11 <i>LN_USPTO_PAT_5YBEF</i>	-0.0313	-0.0007	0.4583	0.013	0.1618	0.0499	0.1111	-0.1202	-0.1523	0.3071	1

