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Home ▶ All Journals ▶ Economics, Finance & Business ▶ Industry and Innovation ▶ List of Issues ▶ Volume 27, Issue 1-2 ▶ The valuation of patent-trademark pairin

Industry and Innovation >

Volume 27, 2020 - Issue 1-2: Trademarks and their Role in Innovation, Entrepreneurship and Industrial Organization. Guest Editors: Carolina Castaldi, Joern Block, & Meindert Flikkema

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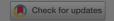
The valuation of patent-trademark pairing as IP strategy: evidence from the USPTO

Grid Thoma

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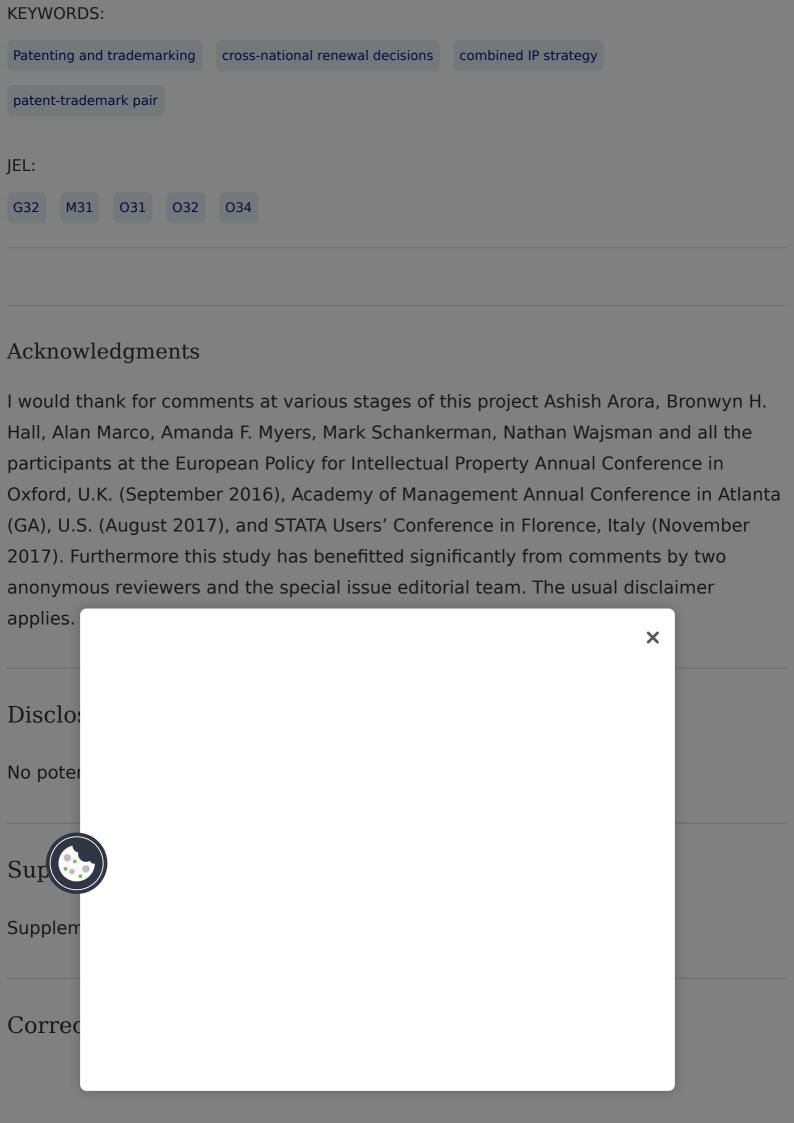
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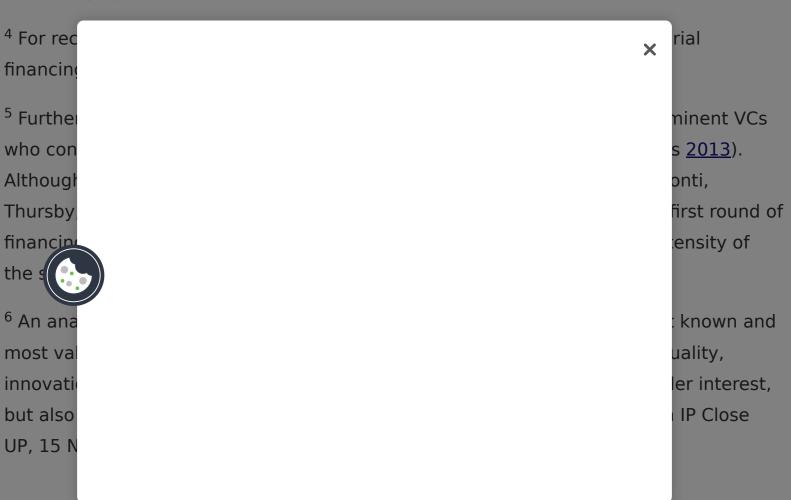
rather than



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Notes

- ¹ Moore (2005) documents that at the USPTO about 16 percent of utility patents are never renewed after they have been granted, and only 46 percent of them provide full-term statutory protection.
- ² With respect to the prosecution costs at the USPTO from start until patent issue, in 2000 Lemley (2001) estimated a lower bound of \$ 10 thousand and upper bound \$ 30 thousand in current values, which in terms of 2015 prices amount to \$ 13 thousand and \$ 40 thousand respectively. In 2015, the USPTO issued about 300 thousand utility patents, which means an overall range in prosecution costs of between \$ 4 and 12 billion.
- ³ In the marketing literature, brand equity encompasses not only its value but also the brand meaning and strength (For a fuller discussion on the concept of brand equity see the survey by Srinivasan, Hsu, and Fournier <u>2012</u>).



 7 See Landes and Posner ($\underline{1987}$) and Beebe and Fromer ($\underline{2018}$) for a discussion on different types of trademarks.

⁸ The AIPLA survey (2015) estimated that the attorney's fee for a typical trademark application in 2010 amounted to \$ 3,050. Other costs involved in design search could increase this expenditure. In terms of office fees, the 2010 USPTO schedule included trademark application and statement of use fees of about \$ 475 per international class, which means \$ 665 for a typical trademark with 1.4 international classes. However, these are lower bound procedural fees at the PTO, and other costs would be incurred for 'intent-to-use in commerce' applications or more complex trademark filings. Hence, on average, trademark attorney and office fees could amount to \$ 4,000–5,000.

⁹ Another criterion for approval of the registration of a mark is that the application should not be deceptive and contrary to law or morality.

It is noteworthy that the assumption of monotonicity of non-increasing benefits R – given the non-decreasing fee costs C – is sufficient but not necessary for the validity of Equation (2), which is required to hold solely in the neighbourhood of the optimal renewal age. In particular, there is a time \dot{T} for which R_{tj} – C_{tj} > 0 for t < \dot{T} and R_{tj} – C_{tj} < 0 for t > \dot{T} , where \dot{T} is the last age which the patentee pays the renewal fees. Hence, the net revenues may be increasing in some periods before \dot{T} .

X ¹¹ See L (2007) for Belgium 12 At the nd under strict co For fuller details s 13 Limiti sample cove market to attract t respect to the abov ave designa Stat 2016). Furthern riod in the largest E at <u>2016</u>). ¹⁴ This y tent legislation fees in PPP U.S. dollars.

- ¹⁵ The empirical investigation assessed the robustness of the results by considering a GDP deflator at the national level instead of for the service sector alone.
- ¹⁶ As a robustness check, I relaxed this depreciation assumption and used higher levels of the depreciation rate.
- ¹⁷ Given the importance of the United States as a locus of R&D activities, I do not think that limiting the analysis to the patented inventions owned by U.S. patentees is a serious drawback.
- ¹⁸ The direct priority links were garnered from the PatStat (2016).
- ¹⁹ The Maintenance Fee Events File is accessible at <u>www.google.com/googlebooks/uspto-patents-maintenance-fees.html</u>.
- ²⁰ A complete list of sources for the historical fee cost schedules is available upon request to the author.
- While strict equivalents are patent filings including exactly the same priorities or combination of priorities, an INPADOC patent family constitutes a self-contained and consolidated group of priority links including any direct or indirect priority link. For more information on the patent family definition see Martinez (2011).



description of a mark in terms of goods and services, sectoral classification, and other procedural information (Graham et al. <u>2013</u>).

- ²⁸ During the time period covered by the analysed dataset (1982–1998) 95.7% of the registrations include textual information and 68.3 relied only on text.
- ²⁹ An extensive discussion of the string similarity J^w index, matching methodology and related implementation in the case of patent and trademark documents is presented in Appendix A of the Supplementary Material.
- ³⁰ For a battery of examples see Appendix Table 3.

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³¹ Several visual inspections revealed that the textual similarity across the portfolio of patents and trademarks originated from: a) discriminating token(s) in the patent title and wordmark; b) combination of non-discriminating tokens from a patent title, that could appear in one single wordmark or in combination of wordmarks in distinct trademarks (within the same portfolio); c) one single and non-discriminating token from a patent title repeated in many trademarks from the same portfolio, which can be assimilated to umbrella branding.

³² This assumption is broadly consistent with the time lag between a firm's first patent and its trademark, as shown in Appendix A of the Supplementary Material: seven out of ten of th within three X s (within a years of year) of 33 As the posit of Industria on or after 13 May ns filed f the before proc 34 This p atent or tradema 35 In add t provide

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- ³⁶ For 42 patents invented by the U.S. business patentees, I could not identify bibliographic information or patentee demographics.
- ³⁷ In terms of the renewal fee payment, I computed the present value rule starting with the application year both for the U.S. and EPC patents and did not consider the application and grant fees in the value computations. See section 3 for a fuller presentation.
- ³⁸ The continuous indicators were detrended for time and technology effects, using the geometric mean method.
- ³⁹ Twelve dummies of the year-technology interaction effects computed at the two digit classification could not be identified, and hence they were aggregated to the left-out category in the regression analysis.
- 40 Although according to the Trademark Manual of Examining Procedure (TMEP § 1202.01, available at tmep.uspto.gov) trade naming does not constitute a demonstration of the use requirement of the Lanham Act, it is suitable for trademark protection through the common law system, when it is also employed as a product or service name in the marketplace. Thus, a patent titled with the trade name could be indicative of a common law trademark owned by the patentee. In fact, this protection strategy of product Iines (Se

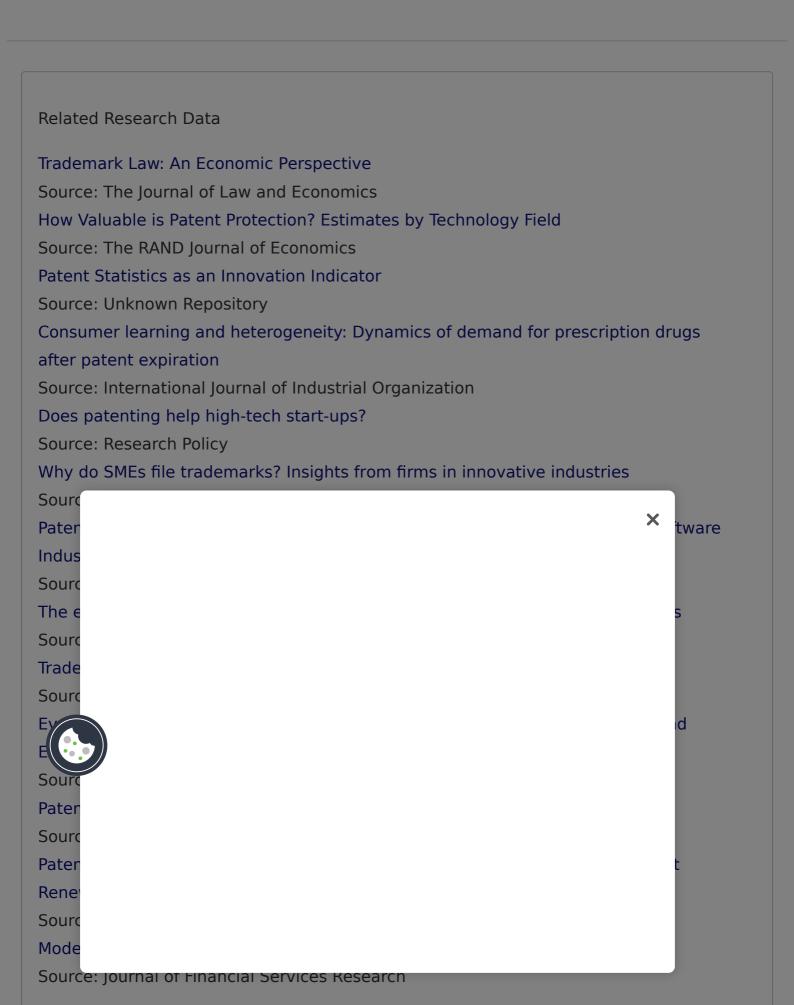
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Cameron and Trivedi (2010).

⁴³ Furthermore, I executed a pairwise correlation analysis of the patent-trademark pairs computed as binary variables at different thresholds of the similarity distribution of the J^w index with the log number of forward citations, and I confirm a positive Pearson's coefficient even at a one percent level of significance.



Productivity and the role of complementary assets in firms' demand for technology innovations

Source: Industrial and Corporate Change
Text matching to measure patent similarity

Source: Strategic Management Journal

Branding and Firm Value

Source: Unknown Repository

The diminishing signaling value of patents between early rounds of venture capital

financing

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Trade marks: complementary to patents

Source: World Patent Information

Drivers of Brand Extension Success

Source: Journal of Marketing

Source: Research Policy

The Value of U.S. Patents by Owner and Patent Characteristics

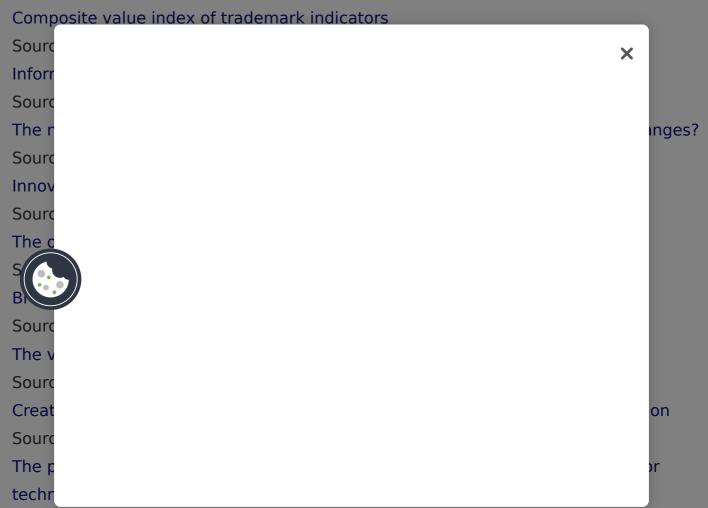
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Spillover effects, cost savings, R&D and the use of brand extensions

Source: International Journal of Industrial Organization

Foreign entry and survival in a knowledge-intensive market: emerging economy countries' international linkages, technology competences, and firm experience

Source: Strategic Entrepreneurship Journal



Survival of high tech firms: The effects of diversity of product-market portfolios, patents, and trademarks Source: International Journal of Research in Marketing Are patents strategic barriers to entry? Source: Journal of Economics and Business The private value of patents by patent characteristics: evidence from Finland Source: The Journal of Technology Transfer To trademark or not to trademark: The case of the creative and cultural industries Source: Research Policy Product portfolio performance in new foreign markets: The EU trademark dual system Source: Research Policy Do applicant patent citations matter? Source: Research Policy Recent Research on the Economics of Patents Source: Annual Review of Economics Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy Source: Research Policy How patenting informs VC investors - The case of biotechnology Source: Research Policy Business-Model Innovation: General Purpose Technologies and their Implications for **Industry Structure** Sourc X The l Sourc Trade Sourc Pater Sourc The \ Sourc Pater ent Value Sourc Appro Sourc Privat

Source: European Economic Review

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Evidence Using Trademark Registrations

Source: International Journal of the Economics of Business

Valuation of Innovation and Intellectual Property: The Case of iPhone Sourc X The I idence from Sourc Can I Sourc The e Sourc nt and Sourc Proba Sourc Ratio Sourc Are Ti udy of

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