Review of: "Strategic Citations in Patents: Analysis Using Machine Learning"

Ren Chong Lim[1]

1 University of Brunei Darussalam

Potential competing interests: No potential competing interests to declare.

There are two main hypotheses investigated in this article:

1. the use of cosine similarity between two patent abstract text to measure the proximity of ideas, and
2. relationship between idea proximity and citations.

The second hypothesis is critical because it generates insights about inventors who switch firms, skewed incentives of patent lawyers, locality of ideas (related to knowledge spillovers and innovation direction), and the trend in spurious citations. Furthermore, citations such as forward citations have long been established as a measure of market value, economic importance, and patent quality [1][2][3].

The results indicate a rise in the obfuscation of patent citing, which can potentially deteriorate the use of patent citations to track knowledge spillovers. The rate of citations in the same city has also increased, and it will be interesting to explore this relationship further with the patent attorneys engaged. Finally, the strategic omission of an inventor's prior patents is a fascinating observation and is evidence of changing personal incentives and motivation when an inventor switches firms.

These findings highlight the role of human agencies in innovation and that human capital present in inventors continues to play an essential role in driving innovation direction. Firms are present to shape and organize the incentives for inventors who can switch firms and move cities. Tracking the mobility of inventors is a more suitable method of identifying knowledge spillovers than patent citation. Patents can thus be reduced to legal mechanisms of value capture behind the inventions produced and vehicles for raising and attracting investment [4].

Some minor typos were present in the text such as the stemmed word "provid" for "provides". The stemmed word should have been "provide" in this example. Also, footnote 2 has the citation Lin *et al.* 2015 but the reference lists Lin *et al.* published in 2014. Please define the abbreviation MSA.

References

1. ^Bronwyn H. Hall, Adam Jaffe and Manuel Trajtenberg. (2005).Market Value and Patent Citations. The RAND Journal of Economics, vol. 36 .
2. ^Leonid Kogan, Dimitris Papanikolaou, Amit Seru, Noah Stoffman. (2017).Technological Innovation, Resource

Allocation, and Growth*. doi:10.1093/qje/qjw040.

3. ^*Ashish Arora, Wesley Cohen, Honggi Lee, Divya Sebastian. (2023). Invention value, inventive capability and the large firm advantage.* Research Policy, vol. 52 (1), 104650. doi:10.1016/j.respol.2022.104650.

4. ^*(2023). The Cambridge Handbook of Investment-Driven Intellectual Property.* doi:10.1017/9781108989527.