**Corporate Strategy Prediction and**

**M&A Recommendation**

**based on analysis of USPTO Data**

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**Background**

In today’s marketplace, being aware of intellectual property more important than ever. Patent, a representation of the innovation process, provides exclusive rights for successful applicants, endowing strong market position and fostering development of innovative products. There has been many attempts of visualization, text-based, citation-based analysis of patents, but patent analysis by “corporate-unit” lacks in its numbers.

**Objective**

Generally, when corporate initiates new project or shift focus outside of their scope of business area, acquisitions of startups possessing pertinent technologies take place for rapid transition or adoption of the new field. In this sense, analyzing patents may enable a peek into the next moves of business and corporates as well as suggest which corporate or patent owner they can negotiate with. The acknowledgement of strategic movement of corporates indirectly disclose specific technologies receiving spotlights and lead to prediction of emerging technologies.

**Methodology**

The United States Patent and Trademark Office, an agency that issues patents to inventors and business for their inventions, provides bulk data of patents. By classifying the bulk data by organizations, dates and performing text analysis on patent contents, corpus and timeline of interested technology can be generated. Comparison of corpus and measuring cosine similarity of vectorized words can provide technological similarity index of respective corporations. The propagation of technological interest of respective corporate can be drawn as a network, using patent issued dates.

**Significance, Expected Outcomes**

Integration of technological similarity index and propagation network will facilitate intuitive analysis of specific technological interest and assessment of patent status of respective companies. Structural technology holes can be found and recommendation of filling the gap with relevant patent may be suggested. Also, from the propagation network, corporate’s next R&D area or M&A candidates can be predicted or recommended.

수고했는데, 주말동안 Key paper를 언어/영어영역에서 비문학 지문 분석하듯이 문단별로 주제문 찾고 그 주제문들이 어떻게 이어져서 글의 구조를 이루고 있는지 먼저 분석해볼래요? 마인드맵처럼 그려봐도 좋을듯. 그 후에 다시 제안 내용을 정리/수정/보완해보세요.