2020 年度研究活動報告
Research Activities (FY2020)

理工学術院・創造理工学部経営システム工学科／
創造理工学研究科経営デザイン専攻
鬼頭朋見 (Tomomi Kito)

Refereed Journal Articles

- K. Futagami, Y. Fukazawa, N. kapoor, T. Kito: "Pairwise acquisition prediction with SHAP value interpretation," The Journal of Finance and Data Science, doi: 10.1016/j.jfds.2021.02.001, 2021.

- T. Kito, N. Moriya, J. Yamanoi: "Inter-organisational patent opposition network: how companies form adversarial relationships," The Japanese Economic Review, 72, 145-166, 2021.

Refereed International Conference Papers

- Y. Takeuchi, T. Kito, J. Yamanoi: "Boundary Conditions of Optimal Distinctiveness and Imitation Strategies: A Computational Modeling Approach," The Strategic Management Society 41st Annual Conference, 2021 (accepted).

- T. Kito, T. Furue: "Motif analysis of the establishing, sustaining, and unwinding of cross-shareholdings in Japan," Networks 2021, 2021 (accepted).

- T. Kito, Y. Murata, N. Moriya, J. Yamanoi: "The dynamics of inter-organisational adversarial relationships in patenting," Networks 2021, 2021 (accepted).

- T. Doi, T. Ishii, T. Ikezawa, T. Yasui, T. Kito: "Business domain information can be a good indicator for predicting the success of startups," Networks 2021, 2021 (accepted).

- T. Yasui, T. Doi, T. Ikezawa, T. Ishii, T. Kito: "Investors' investment portfolio diversity and startup success," Networks 2021, 2021 (accepted).

- Y. Takada, H. Fukushige, T. Kito, H. Huang, P. Holme: "Daily rhythms of travel-route morphology probe the organization of cities," Network 2021, 2021 (accepted).

- T. Kito, K. Ueda: "Measuring product relatedness for capturing product portfolio diversification strategies of auto-parts suppliers," The Proceedings of The 28th International Annual EurOMA (European Operations Management Association) Conference, 2021 (accepted).

- P. Liu, T. Kito, N. Masuda, A.E. Sarıyüce: "Temporal motifs in patent opposition and collaboration networks," Poster presentation, Third Northeast Regional Conference on Complex Systems, 2021.

- T. Kito, N. Moriya, J. Yamanoi: "Inter-organisational patent opposition network: how companies form adversarial relationships," The Japanese Economic Review, 72, 145-166, 2021.

- T. Kito, K. Futagami, N. Kapoor, Y. Fukazawa: "Predicting future pairs of acquirer and acquiree companies by using information of companies' relationships and network positions," The proceedings of Conference on Complex Systems (CCS), 2020.

- T. Kito, N. Moriya, J. Yamanoi: "The emergence of the inter-organisational adversarial network in strategic patenting," The proceedings of Conference on Complex Systems (CCS), 2020.

- T. Ikezawa, T. Kito, T. Doi, Y. Fukazawa: "Capturing the trend in the IT industry via network analysis of company descriptions", NetSci 2020, poster presentation, 2020.

- T. Doi, T. Kito, T. Ikezawa, Y. Fukazawa: "Business category network analysis for capturing the value of intangibles", NetSci 2020, poster presentation, 2020.

- M. Furukawa, T. Kito, J. Yamanoi, H. Sayama: "An integrated index for product & customer diversification strategies," oral presentation at NetSci-X 2020, 2020.

- N. Moriya, T. Kito, J. Yamanoi, H. Sayama: "Patent opposition network: Adversarial interactions of companies and trend of innovation," oral presentation at NetSci-X 2020, 2020.

- H. Fukushige, T. Kito: "Road-Railway Detour Index for multimodal transportation networks," poster at NetSci-X 2020, 2020.

- Y. Takeuchi, T. Kito, J. Yamanoi: "Trademark network analysis for investigation of name-branding strategies," poster at NetSci-X 2020, 2020.

Award

- Best Poster Award, Third Northeast Regional Conference on Complex Systems (NERCCS) 2021. (P. Liu, T. Kito, N. Masuda, A.E. Sarıyüce: "Temporal motifs in patent opposition and collaboration networks.")

International workshop organizer

- Socioeconomic Networks and Network Science Workshop, July 3 – 4, 2020 (online).

Book

- M. Shimaoka, T. Asahi, T. Inoue, T. Kito, T. Ohno, S. Takata: "Entrepreneurship education at Waseda University, Japan: challenges in integrating entrepreneurship education programs across universities and beyond," Chapter 4, in: Innovation in Global Entrepreneurship Education - Teaching Entrepreneurship in Practice (Eds: H.M. Neck and Y. Liu), Edward Elgar Pub, 2021.

Interviews (in Japanese)

- 鬼頭朋見、小林照義、増田直紀：「ネットワーク科学はどのように経済を読み解けるのか？」，経済セミナー（日本評論社）717 号「特集：ネットワーク科学と経済学」巻頭鼎談, 2020.

- 鬼頭朋見：「イノベーションを創出する早稲田の研究開発とベンチャー」，早稲田大学アントレプレナーシップセンター動画コンテンツ, 2021.

研究成果 Research Summary

- スタートアップ企業の買収予測モデルを構築した（学術論文出版済）。
  Developed a model for the prediction of inter-company M&A events.

- 企業間の特許共同保有と特許抗告のデータを収集し、企業間のポジティブな関係性とネガティブな関係性が形成されるメカニズムを追究した（学術論文出版済）。
  Investigated the emerging mechanism of inter-firm positive and negative relationships using patent data.

- その他、複数の研究プロジェクトの立ち上げ・推進を行った。

  例：

  ・マルチモーダル交通ネットワークの評価

  ・製造企業の多角化戦略の定量的モデル化と生存・成長予測

  ・スタートアップ企業の成功予測

  Other ongoing projects:

  - modeling and assessment of multimodal transportation network

  - modeling of firms' diversification strategies and prediction of firm survival and growth

  - prediction of start-up firms' success