Editorial: Insights

Stoyan Tanev, Chief Editor and Gregory Sandstrom, Managing Editor

Welcome to the November issue of the *Technology Innovation Management Review*. This edition brings together a mixed collection of Insights, covering a range of themes from entrepreneurship, university-business ecosystems, incubation practices, marketing, competitive advantage, and learning capabilities, to new themes such as "deepfakes" online and in the digital media, as well as a paper on "design rules" for inter-organisational collaboration.

The edition starts with **Anna Brattström**'s "Working with Startups? These are the Three Things You Ought to Know about Startup Teams". Dr. Brattström provides a general introduction to startup teams, teamwork, and the people side that makes successful startups, based on a review of "state-of-the-art research about startups" (5). The aim is to provide "actionable insights about startup teams; who they are, how they work, and how they stay together" (5). The author conducted a study in the Web of Science research database focusing on new venture teams, startups, and entrepreneurship between 1997-2019. From this, she identifies "three stylized facts" that help keep startup teams together, which deal with team composition, structure and emotion. The focus on homogeneity, change, and emotion is likely to resonate with experienced startup teams, as well as assist new startups, or startups-in-formation to navigate the fast-moving new business relationship territory.

Haven Allahar and **Ron Sookram** follow up by presenting a use case paper on university-business incubation, collaboration, and scaleup in, "A University Business School as an Entrepreneurial Ecosystem Hub". The authors raise important questions about what role is or can be played by a university business school in incubating startups, and thus also in producing entrepreneurs. The paper takes a constructive approach to building an "entrepreneurial ecosystem" based on the authors' experiences and research conducted at the University of the West Indies (UWI). They start with a university-industry-government "triple helix" approach (see paper 5 by Dankbaar), then apply the lens of "the extended concept of the 'quadruple helix' of university-industry-government-civil society collaboration" (16). Their paper covers a range of topics that involve "entrepreneurship education", drawing on examples as the authors participated in planning, designing, participating in, and overseeing the MBA entrepreneurship education program at UWI. In assessing the entrepreneurial ecosystem hub at UWI, the paper's conclusions resonate with existing literature in reporting that "collaboration between university and industry was the decisive factor in stimulating innovation" (22). It makes forward-looking suggestions in promoting "an investment facilitation platform to address the funding challenges" (21). The article will be of interest to a range of actors and stakeholders involved in entrepreneurship ecosystem hubs now being developed in business schools around the world.

In "The Impact of Digitalization and Resources on Gaining Competitive Advantage in International Markets: The Mediating Role of Marketing, Innovation and Learning Capabilities", co-authors **Yan Yin Lee** and **Mohammad Falahat** aim to test "the direct and indirect effects of digitalization on enterprise, specifically focusing on price, product, and service advantages in digitalized international markets" (26). They base their research on a study of data collected from 143 exporting manufacturers in Malaysia. The paper considers the competitive advantages that can arise for SME's through digitalization efforts to open up international markets. It concludes that while "digitalization has no direct effect on any of these competitive advantages ... [yet] the indirect effects of digitalization and resources on product and service advantages keep these two constructs important in any comprehensive model of determinants for competitive advantages in international markets" (33). The paper provides readers with an accessible way to approach the growing trend of emerging economies looking to internationalize with the help of digitalization.

Mika Westerlund's "The Emergence of Deepfake Technology: A Review" opens a new theme in the TIM Review. The paper aims to present this currently growing topic in a balanced way by providing an overview of the current literature about deepfakes. It answers basic questions about what deepfakes are and who produces them, along with explaining possible potential benefits, as well as various misuses, and possible threats they may cause. It provides examples of deepfakes, as well as methods to combat deepfakes. The paper concludes that "deepfakes are a major threat to society, the political system and businesses because they put pressure on journalists struggling to filter real from fake news, threaten national security by disseminating propaganda that interferes in elections, hamper citizen trust toward information by authorities, and raise cybersecurity issues for people and organizations" (47).

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It points out that technological solutions are currently in high demand in this field and encourages budding entrepreneurs and engineers that "there are numerous business opportunities for technology entrepreneurs, especially in the areas of cybersecurity and AI" (47).

Following the introduction to a "quadruple helix" framework in paper 2 above by Allahar and Sookram, in "Design Rules for 'Triple Helix' Organizations", **Ben Dankbaar** focuses on how to improve triple helix collaboration between organizations. He starts by giving an example of a "successful failure" where a multinational company partnered with a university department and received partial government funding. While it may sound familiar for TIM Review readers, he also notes that "neither the university professors nor the PhD students were very motivated to spend a lot of time integrating their results with those of others" (55). The paper therefore looks at factors that contribute to failure or success among triple helix organizations. To do this it combines cybernetic thinking and organization design theory as a background for the proposed "design rules", which constitute the main body and theme of the paper. It concludes, noting that "these [11 rules] or similar design rules may be codified into a general norm for the organization of triple helix and other collaborative projects" (60).

The final paper turns our attention to look at the data in **Can Azkan**, **Markus Spiekermann** and **Henry Goecke**'s "Uncovering Research Streams in the Data Economy Using Text Mining Algorithms". Launching off the growth of data-driven business models, the paper delves into the new "data economy" as it relates to the innovation potential of companies. It shows the results of searching over 800 scientific publications and text mining them using a systematic literature review for its research design. It provides several visualisations, including both geographical and subject area specialities, a network graph of keywords, and a Gephi analysis of nodes involving fields of innovation potential. The paper concludes by suggesting it has come up with "an automatized way to derive areas for innovation in the field of data economy" (72).

The December issue of the TIM Review will be a special edition on Artificial Intelligence, based on a working group that met at the ISPIM Florence conference in 2019. For future issues, we invite general submissions of articles on technology entrepreneurship, innovation management, and other topics relevant to launching and scaling technology companies, and solving practical problems in emerging domains. Please contact us with potential article topics and submissions, or proposals for future special issues.

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