

2018 Strategic Technology & Innovation Management Programme

The development of business models to anticipate disruption

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Industrial / managerial need addressed

Researchers indicate that when the advent of a new technology causes disruption, it is because firms might not have properly reacted and assimilated the signals of change. On one side, they might have missed out on the weak signals (as they might appear in areas which might seem not related to the business); on the other, they might have just downplayed the implications (as initially the commercial implications of a new technology might seem trivial or too complicated/uncertain especially for large businesses). Having a way to feel prepared to imminent threats could be a proactive approach to reduce the challenges of assimilating intelligence relative to problems and threatening futures. This project aims to understand whether there are patterns in the way managers react to the task of developing new business models emerging in the light of a looming technological disruption or a radical change.

Approach

The advancement and implication of additive/digital manufacturing for industry have been taken as a case example. The approach will develop a range of theoretical business model options (Business Models Archetypes) and then it will attempt to work backward to the definition of the required steps for its implementation. This work has been initiated in STIM 2015-17, whereby a range of theoretically possible directions for business models archetypes development for additive manufacturing has been obtained, based on the current experts' views. One of these directions considers additive manufacturing as an enabler for the mass customization of products. The work will expose managers to this opportunity and collect responses on their view about new possible business models for mass customization and their implementation in their specific industry. The following questions have been used as project guide:

- Which business models are possible for mass customization based on additive/digital manufacturing in your firm/industry? This question will be directly beneficial for the managers involved in the study.
- How do managers react in front of the opportunities provided by emergent technologies? How do managers evaluate the opportunities for new business models? These questions will guide the development of the academic outcomes and will be obtained from the observation of the discussions amongst managers during the development of the business models. The results will be used to develop guidelines on how companies could reconfigure their value-capture approach when thinking about a prospective disruption. Academic publications will emerge from the work.

Engagement opportunities

We are looking for volunteers who work in various manufacturing industries and who feel threatened by the disruptions linked with the adoption of 3D printing/additive manufacturing for mass customisation or interested in the opportunities presented and wish to discuss this with researchers.