Mitigating Corona Impacts: Startups are the speedboats for innovations

A recent study by the University of Hohenheim, Stuttgart, Germany, on the Corona crisis: Startups are nine to ten days ahead of established companies when introducing innovations. Further results and experts on the Corona crisis and its consequences can be found at https://www.uni-hohenheim.de/en/expert-list-corona-crisis

Prof. Dr. Andreas Kuckertz and Prof. Dr. Bernd Ebersberger from the University of Hohenheim in Stuttgart find that during the COVID-19 crisis, startups introduce new products and services to market around nine to ten days faster than established companies. Their study analyzed 136 innovations worldwide that emerged in response to the challenges of the COVID 19 pandemic. The average time from the outbreak of infection in each region to the introduction of innovations was the same worldwide, at 38 days. Surprisingly for the researchers, universities showed similar response times to established companies. They also identified nine megatrends that can be considered key drivers of innovation. In the publication of their findings, they also provide recommendations for startups, established companies, universities, and policymakers. You can find the research published in the Journal of Business Research (open access): https://doi.org/10.1016/j.jbusres.2020.11.051

Challenges like the COVID-19 crisis demand innovative responses. Quick and creative solutions can help mitigate the harmful effects of the crisis because the pandemic situation affects the health sector and entails economic and social problems.

"The actions taken to control the pandemic present individuals, organizations, and nations with a host of unexpected problems. New behaviors and new needs emerge, which again provide opportunities to innovate," explains Kuckertz.

"Overall, our analysis points to a changing innovation landscape triggered by COVID-19," emphasizes Ebersberger. "These changes go far beyond just health concerns. The crisis affects society as a whole."

Startups as speedboats for innovations

In the economic literature, there is often an image of established companies as inert tankers. They react only ponderously to changes and introduce innovations slowly. Startups, on the other hand, are smaller and more agile speedboats. They can immediately pick up on new trends and are generally regarded as the key to rapid innovation in times of crisis.

Kuckertz and Ebersberger investigated whether this metaphor also applies in the crisis triggered by the COVID-19 pandemic and whether startups and established companies react differently to the crisis with innovations.

For their research, Kuckertz and Ebersberger drew on data from the pandemic’s first wave between January 24 and May 1. To do so, they used data from the commercial database Trendexplorer, which records more than 46,000 innovations.
worldwide that go beyond the stage of mere invention. They found 136 innovations triggered by the pandemic. Of these, 23 innovations came from Asia and Oceania, 39 from Europe, and 74 from North America.

Overall, the range of new products and services is broad. The data contains innovations such as a swab kit that detects viral loads on surfaces and in wastewater, a GPS tracker that beeps to remind employees to keep the minimum distance, virtual movie theater experiences, or digital visits to a hairdresser.

Important megatrends in the crisis

However, innovations are not found equally in all areas. Kuckertz and Ebersberger identify nine megatrends that are critical drivers of innovation in the COVID-19 crisis. Technology-driven megatrends, in particular, seem to be leading to innovations in health, work, and consumption with artificial intelligence, the use of Big Data, and network technologies.

Unsurprisingly, health is at the center of these. Other megatrends are concerned with the question of how we will live and work in the future. For example, innovations are emerging in the so-called Outernet, which links the online and offline worlds and provides real-time information on COVID-19-related topics. Other innovations deal with how to enable a seamless relationship with the potential customer across all channels.

Similar reaction times worldwide

Kuckertz and Ebersberger were particularly interested in how quickly companies responded to new and changing needs triggered by the COVID-19 crisis. Ebersberger explains that the first innovations were launched in the Asian region because the virus and the disease appeared there first. But on average, all regions of the world responded equally quickly, with an average of 38 days.

This becomes clear when one looks at the so-called local reaction time. It captures the time from when the infection dynamics first crosses 100 confirmed COVID-19 cases in the respective country until the introduction of innovations.

However, startups worldwide took nine to ten days less than established companies to introduce their innovations to the market. According to Kuckertz, one of the reasons for this significantly shorter response time of startups is that they are organized differently. Hence, startups can pick up social change more quickly and respond to problems of various kinds more swiftly.

"In particular, organizational flexibility and energy are advantages that startups are more likely to exhibit than established companies," says Kuckertz.

Universities and companies comparably fast

The researchers also looked at the role of universities. In principle, universities should be particularly well-positioned to find innovative solutions to the problems triggered by the COVID-19 pandemic: They have diverse knowledge and interdisciplinary networks that should enable them to contribute to innovation in the complex situation of the COVID-19 crisis.

However, since universities are strictly managed and have a high level of procedural rules, the experts expected that this would harm technology transfer and innovation, translating into a much longer response time. To their surprise, however, Kuckertz and Ebersberger found that universities and other research institutions do not react significantly faster or slower to the COVID-19 crisis than established companies.

Recommendations for startups, companies, universities, and politics
From their data, the two experts also derive recommendations on what startups, companies, universities, and politics can do to promote innovation during the crisis. In their opinion, innovation management should focus in particular on the nine most important megatrends.

“There is another consequence of our analysis for established companies and their innovation management. Reducing innovation activities during the crisis might not be a good thing to do. Our research suggests that it would be clever to ensure that startups are part of a holistic and overarching corporate innovation system,” says Ebersberger.

For example, established companies can benefit from startups’ agility and speed by seeking collaboration with them or adopting their thought and process models. Conversely, startups should not lose their goal orientation as they grow and avoid increasing inertia.

Policymakers can also do their part: appropriate measures can help to harness the innovative spirit of startups and strengthen collaboration between startups and established companies - with benefits for all involved. Universities should increasingly develop into entrepreneurial universities by promoting and demanding the transfer of technologies.

Kuckertz concludes: "From a societal perspective, it seems desirable to meet the challenges arising from the COVID-19 crisis with a balanced combination of all types of innovators."

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