

# New ESMT Berlin research shows how to weed out bad ideas at the early stages of open innovation using data from the LEGO IDEAS platform

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The characteristics people use to judge whether an idea will be successful differ vastly depending on the stage of the idea, according to new research from ESMT Berlin. At an early stage, people tend to look at the status of the idea creator and a carefully crafted presentation, characteristics that have little bearing on success. Whereas at a later stage in the development of business ideas, people are more likely to judge based on how popular it already is and how that popularity is growing.

This research was conducted by Linus Dahlander, professor of strategy at ESMT and holder of the Lufthansa Group Chair in Innovation, in collaboration with Michela Beretta and Lars Frederiksen of Aarhus University, Arne Thomas of the University of Amsterdam, and Shahab Kazemi and Morten H.J. Fenger, former researchers of Aarhus University. The focus of research interest was in understanding how open innovation platforms impact idea generation and whether the characteristics people used as success indicators differed throughout the various stages of such generation.

In addition, the researchers analyzed whether a predictive machine learning model could also weed out any of the bad ideas at the initial idea generation stage and pick any of the ideas that would become successful. To do so, they analyzed data from the LEGO IDEAS platform – an interactive platform where any user can submit a proposal for a new LEGO set, which then goes through various rounds of crowd selection until a winner is found – a premier example of crowdsourcing.

The research identified two main results: First, people's criteria for assessing the potential of an idea vary dramatically based on the idea's evolution. Initially, the status and presentation of the idea creator are in the spotlight. However, as the idea matures, its popularity and growth trajectory become the focal points. The second key result addresses the power of machine learning. Can algorithms outpace human judgment in sifting through potential gold mines? This research dives deep into studying the predictive capabilities of machine learning in discerning the winners from a sea of submissions.

“Our research furnishes innovation managers with a roadmap,” emphasizes Linus Dahlander, professor of strategy at ESMT and holder of the Lufthansa Group Chair in Innovation. “By understanding these critical characteristics of successful ideas, managers can sieve out underwhelming concepts right at the inception. The long-term implications? More informed, strategic decisions in innovation management.”

Intriguingly, the study ascertained that the initial stages of an idea offer a clearer predictive window than the latter stages. Early bird signs were crucial in understanding which ideas would face crowd rejection.

The research was published in Research Policy. The manuscript may be found [here](#).

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