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RESILIENCE IN THE STRATEGIC MANAGEMENT OF MANUFACTURING COMPANIES

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The Corona pandemic has been revealing the fragility of the manufacturing industry for more than a year now: The often existence-threatening challenges ranged from disrupted supply chains to severe drops of demand in strategic customer segments and corresponding liquidity bottlenecks. However, events that occur unexpectedly - like the corona pandemic now - bringing with them enormous repercussions for world affairs are by no means a new phenomenon. Since Nassim Nicholas Taleb's bestseller, they have been widely known and feared as so-called "black swans".

Looking back to the financial crisis of 2008/09 or the attacks of September 11, 2001, such unpredictable events have occurred time and again in the past, depending on the industry and business. Analysts from major consulting groups such as A.T. Kearney and McKinsey estimate that there will be one exogenous shock per year and one longer-term disruption of more than one month every 3.7 years in the near future.

Such events show that companies today have varying degrees of ability to deal with external shocks and the associated turbulence. This ability, summarised under the term "resilience", is therefore increasingly becoming a competitive advantage in the volatile business environment. The Fraunhofer Institute for Production Technology IPT in Aachen has therefore examined the resilience of companies in relation to their strategies as part of a white paper and gained insights into how corporate resilience can be developed strategically.

What contribution can strategic management make to building resilience in the organisation as a whole? Here, the Aachen scientists selected four strategic starting points, which they examined in more detail: corporate strategy, technology strategy, engineering strategy and production strategy. They investigated the influence of the company's individual strategic positioning on its actual resilience. To this end, the researchers worked out which principles, for example modularity or redundancy, are responsible for higher resilience. They also took a

look at the normative goals and influences that could conflict with the development of higher resilience, such as the desire for particularly high profits or a prominent position in the market. This will now be followed by research on a systematic assessment of the level of resilience in order to derive measures for building an individual position of resilience.

System interrelationships within integrated resilience strategies

The Fraunhofer IPT white paper is intended to serve as a practical guide that companies can use to approach the systematic management of resilience within their organisation. To this end, the paper provides both a brief introduction to the theoretical framework and a guide to deriving appropriate actions. The explanations create a basis for not only setting the right priorities, but also for evaluating the impact of the measures planned in this way on the company as a whole.

From the field: Strategy work in the face of growing disruption

To find out how resilience can become a competitive advantage in a volatile business environment, the Aachen researchers at Fraunhofer IPT conducted an empirical interview study in addition to the white paper they had just completed. Here, the goal was to discover concrete examples of successful resilience strategies in industrial practice. A qualitative survey of strategists and decision-makers in various industries aimed to show how strategy work is carried out in normal operations and how - in contrast - externally induced discontinuities are dealt with strategically in the event of a crisis. In addition to the past, the current events surrounding the corona pandemic provided both an occasion and an example. In the publication, which will be available for download for free from the Fraunhofer IPT website in June 2021, case studies and best practices of strategic work are presented in order to derive conclusions for resilience-promoting corporate strategies.

INC Technology & Innovation Summit

Topic: **Resilience and technology strategies.**

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The event is aimed at professionals and executives of technology-oriented companies, primarily from research and development, technology and innovation management, new business development and strategy. A special feature of the conference will be the practice-oriented presentations by speakers from industry and academia, who will present and illustrate trends in modern technology and innovation management using specific case studies.

As last year, the organizers are again offering digital participation in 2021.

For more information visit: <https://invention-center.de/ti-summit/>

