

THE KNOCK-ON EFFECT OF INTRODUCING AI AS A SUPPLY RISK OPTIMISER - HOW IMPLEMENTING AI CAN ASSIST COMPANIES TO ENDURE A CRISIS

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ABSTRACT

2020 has been the year of unexpected changes. While the COVID-19 pandemic caused businesses and entire economies to struggle, it also acted as a catalyst for digitalisation and a rethinking of strategies. This paper focuses on supplier risks, such as the pandemic, within the automotive industry, and how Artificial Intelligence (AI) can help struggling companies get back on their feet post pandemic. A total of 25 companies within the automotive supply chain, from OEMs to TIER 3, were asked about their impression of supplier risk developments in a qualitative study. After breaking down the companies' focuses on various supplier issues, the integration of AI within the business was considered. It is clear that despite positive attitudes and perceptions of AI, companies are hesitant to share AI-related information. With supplier risks having increased over the previous years, and an increasing belief that it will further increase over the upcoming years, AI will become a key player ("game-changer" as quoted by a TIER 2) in supporting business activities to smooth out potential issues. However, to the outside high costs and low willingness to integrate AI can be blamed, but through deeper questioning the silence surrounding AI should be seen as a strategic decision to get an advantage over competitors rather than a pure lack of knowledge and integration. With COVID-19 having changed the mobility world drastically, now is the time to act. Despite AI requiring large investments, the payoff, in the long run, will help companies get back on their feet by improving their supplier risk management through information gathering and evaluating, as well as enabling an early warning system to prepare for problems before they arise.

Keywords: Supplier risks, Pandemic, Artificial intelligence, change

1. INTRODUCTION

2020 has been the year of many unexpected changes. As the SAR-CoV-2, also known as COVID-19 or CoronaVirus, swept across the globe, the mobility world came to a halt. People stopped short- and long-distance traveling, whether by plane or public transport, and started working from home. As a result, mobility companies across the various sectors within have struggled. Entire productions of vehicles were halted, such as Volkswagen suspending production across plants worldwide in March 2020. Some plants remained closed for up to 10 weeks, and when production returned only continued at a 60% to 70% capacity rate (Volkswagen AG 2020). Automotive manufacturers such as Ford raised money from debt investors in order to have sufficient liquidity to overcome the crisis (White 2020). The production suspension caused manufacturers and OEMs to suffer. While a national lockdown may not have been avoidable, there is a measure companies can take to prepare themselves for a crisis: incorporating Artificial Intelligence (AI) within their companies can support various departments and thus the company as a whole to pre-emptively and reactively help the companies to overcome difficult times.

The COVID-19 pandemic may have resulted in companies struggling with the production of their vehicles, as well as to have sufficient financial means to ensure payment of workers and other critical components relevant to the production and sales of their vehicles. Instead of being worried, manufacturers and suppliers should take this as an opportunity to rethink their strategies and integrate new innovations to help them thrive. The companies which already have AI integrated now benefit from the control