Improving the supply chain using Artificial Intelligence (AI)!

Since 1999 PipeChain has created collaboration and improved visibility in supply chains. PipeChain has always used a proactive methodology where potential problems are pinpointed in advance and solved before they arise. Unfortunately, we cannot prohibit all issues that arise between supply chain partners until it is too late. PipeChain need a smarter solution that can give probable information about the present and of the future, and helps the user make better decisions. The thesis is to suggest and implement a machine learning prototype that can be used to improve a supply chain by clustering and/or predicting it.

MAIN ASSIGNMENT

We want to elaborate a model that can help us describe a supply chain and inform us of how the supply chain's state is likely to change, a model that can be used either to:

- Find articles and orders with possible future supply problems.
- Improve collaboration with current partners and find suitable new ones.
- More correct forecasting.
- Investigate if the supply chains can be modelled in a more optimal way.

We hope that a prototype can help us with at least one of the above tasks when describing the supply chain. The thesis' prototype should use machine learning, perhaps a Bayesian network, to find probable outcomes.

METHODOLOGY

The students will create a machine learning prototype and verify how well the machine learning prototype can describe parts of a supply chain compared to traditional methodologies. The exact form and goal of the thesis will be elaborated collaboratively between the students, the academic tutor and us. Both English and Swedish can be used for the report. PipeChain would prefer students that specialize in programming or in supply chain management. If the students have completed the course EDA132, Applied Artificial Intelligence, that's a plus.

MA-SYSTEM AND PIPECHAIN

The company group MA-system AB consists of PipeChain, MA-system Consulting and MA-system Utbildning and are one of the leading Scandinavian enterprises with expertise in Supply Chain Management.

PipeChain delivers solutions and services that create end-to-end visibility and automation of supply chains. Increased visibility makes it possible to run a supply chain based on real demand. This gives the immediate benefits of reduced stock levels, decreased administration, and higher service levels. See more at www.pipechain.com.

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