Supply Chain Management Tools and Processes in a Global Distributed Student Team

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Abstract

Global Formula Racing team (GFR) is the first international collaboration in Formula SAE between Oregon State (USA) and DHBW Ravensburg (Germany). Global collegiate collaborations have multiple advantages such as an increase in manpower, greater access to manufacturing companies, and broader reach to sponsors for raising funds. But this comes at a cost of increased project complexity. Significant challenges need to be managed, including management of more than 100 team members, communication across nine time zones, and planning of the manufacturing and acquisition of thousands of parts to produce two vehicles. Hence, GFR developed various project management and supply chain management tools, which students use in their everyday collaborative tasks, in order to streamline supply chain management processes, to record and integrate valuable data and information in online databases, and to effectively and efficiently manage the GFR team.

The project management and supply chain management tools are based on Google Apps and the cloud-based project management software Smartsheet. Tutorials for all tools and processes were created in order to enhance user clarity and understanding, and to familiarize GFR team members with the management tools. A case study was used to identify weaknesses and errors of the tools, processes, and tutorials. Thereby, voluntary GFR team members were asked to briefly describe identified problems, as well as to assign a problem category and problem severity.

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