Headquartered in Franklin, Tennessee, the Carlstar Group generates $600 million in annual revenue, which includes $30 million from the styled wheel division. The company employs 4,000 people at 22 facilities in five countries.

Carlstar’s 2020 financial goal is to generate $100 million in revenue from its styled wheel division, which includes three brands, Cragar, Black Rock, and Unique. Cragar was selected as the first brand to undergo a sales growth strategy analysis.

In order to develop a go-to-market strategy to enter new market segments that would result in an annual sales increase from $7.5 million to $25 million by 2020 for the Cragar wheel brand, Carlstar’s leadership group brought in a student team from the University of Michigan’s Tauber Institute for Global Operations, consisting of Aditya Jagannathan and Vaibhav Mishra, both pursuing Master of Supply Chain Management degrees; and Juan Ornelas, working on a Master of Engineering in Manufacturing degree under the Engineering Graduate Program (EGP).

“The purpose of the AIP-Carlstar project was to develop a strategy that would result in increasing the annual revenue of their Cragar vintage wheel brand,” said Ornelas. “This brand competes in the street rod and custom segment of the automotive styled wheel aftermarket. A styled wheel is a replacement wheel that a consumer would purchase for their vehicle to enhance its look or performance. In most cases, consumers just want to enhance the appearance of their vehicle. In order to increase sales, Carlstar knew that the product portfolio would have to be improved in order to be successful in new segments of the automotive styled wheel aftermarket.”

A major objective of this 14-week project was to develop a comprehensive understanding of styled wheel consumers and competitors in order to identify a target market and value proposition. Sales channels were also evaluated by the Tauber team to determine the most effective method to reach consumers with products.

The purpose of the AIP-Carlstar project was to develop a strategy that would result in increasing the annual revenue of their Cragar vintage wheel brand.

The investment required to develop new products that would compete in new market segments was also calculated, taking into account potential market share for the Cragar wheel brand.
“This project was not about improving quality, cost-effectiveness, or reducing costs,” said Ornelas. “It was more of a product management or marketing strategy project.

“The focus of the project was to understand what consumers in the new target segments wanted in terms of styled wheel prices, finishes, and sizes. Our team also had to understand the value proposition provided by competitors and the competitor landscape.

“Finally, our team had to evaluate the number of wheels that would have to be added to the existing product portfolio, project the number of consumers that would have to be captured, and identify the new target segments.”

Research for this project was completed through surveys, interviews, and industry reports. Surveys were developed using the latest surveying techniques to prevent answer bias and survey fatigue. Industry report information was validated with survey data generated from this project. The team attended car shows in order to complete surveys and focus group discussions with consumers. Thorough research was completed in order to generate an accurate hypothesis on the styled wheel market.

“The innovative aspects of this project were efficiently identifying what was important to consumers in the new target segments,” said Ornelas. “The team initially went to a national car show in Nashville, Tennessee in order to complete consumer surveys and interviews that would give a general idea of what consumers that purchase aftermarket styled wheels valued.

“After a three-day weekend with three team members canvassing the car show, we only obtained 96 surveys. These surveys and interviews provided the Tauber team with valuable information that helped the team in generating more refined surveys. However, the Tauber team realized that attending car shows in order to obtain survey data was not the most efficient way to obtain consumer data.”

According to Ornelas, the Tauber team turned to Facebook in order to obtain sufficient survey responses.

“Unfortunately, our project was focused on such a specific product that there were not any industry reports that could provide the data that we were attempting to obtain,” he said. “Our team decided to use Facebook’s ad feature that would allow us to obtain consumer data with minimal cost or effort. Over a week, we were able to generate approximately 200 survey responses for each of the two rounds of surveys that were completed.

“In short, Carlstar paid Facebook to advertise a wheel survey that consumers could take without any rewards. Fortunately, we were able to generate enough responses that helped the team gain a great understanding of consumer preferences and that could be used in generating a value proposition for the Cragar wheel brand.”

In order to increase Cragar sales, the Tauber team recommended developing unique wheel designs and targeting a specific consumer profile by leveraging the heritage of the Cragar brand. New market shares of five percent of modern muscle and three percent of light truck vehicles would need to be obtained in order to meet the $25 million sales goal. This market share would provide the opportunity to sell approximately 129,000 wheels per year by 2020.

“Our team concluded that the street performance and light truck segments would need to be entered in order to generate sufficient sales to meet revenue targets,” said Ornelas. “Price point, wheel sizes, and wheel finishes that are important to consumers were also identified.

“The value proposition was developed for the Cragar wheel brand, and an assessment of competitors was completed. Through multiple industry reports and data sources, we developed equations that calculated the market share that could be obtained. Finally, the team evaluated the investment required in order to provide an improved and competitive product portfolio to consumers.”
In order to gain new market share of modern muscle and light truck vehicles, 20 new wheel designs will need to be released over a four-year period in order to provide a product portfolio that appeals to these new segments and generates enough sales to reach targets.

“Our project made the sponsor very much aware of the competitive challenges in its target segment,” said Ornelas. “The results that were achieved gave the sponsor an idea of the investment that would be required, along with the associated risks for that investment.”

### AIP-Carlstar Project Team

**Students**
- Aditya Jagannathan—Master of Supply Chain Management
- Vaibhav Mishra—Master of Supply Chain Management
- Juan Ornelas—EGP (Master of Engineering in Manufacturing)

**Project Sponsors**
- Kent Allen—Marketing Director
- Joel Bjerke—Global Procurement Vice President
- Ashish Goel—Marketing Executive Vice President

**Faculty Advisors**
- Luis Garcia-Guzman—Lecturer of Industrial and Operations Engineering, College of Engineering
- Ariel Shwayder—Lecturer of Business Economics and Public Policy, Ross School of Business

### About Tauber Team Projects

The 2016 Tauber Team Projects resulted in $460 million in savings according to sponsoring company calculations, an average of $14.4 million per project over 3 years.

Each two to three person Tauber Team consists of graduate engineering, MBA, and/or MSCM students. Along with receiving high-level corporate support from the sponsoring company, each team is advised by a College of Engineering and a Ross School of Business faculty member and overseen by a Tauber Institute Co-Director. The projects begin on-site in May and continue for 14 weeks. Students present the results of their projects and compete for over $40,000 in scholarships at the U-M Tauber Institute’s annual Spotlight! event, held each September in Ann Arbor, Michigan. Spotlight! provides outstanding opportunities for students and corporate partners to establish relationships while exploring innovations in operations and manufacturing.

To learn more about the Tauber Institute for Global Operations, visit tauber.umich.edu or contact us at 734-647-1333.