DACO Incorporated

IIT's Operation Marketing Gurus

Ideas for the Future

Engine Flywheel Market Research & Business Strategy Development

IPRO 346 Project Plan Spring 2009

Advisor: Philip Lewis

1.0 Team Information

Name	Major, Year	Skills and Strengths	Experience and Academic Interest
Dan Coughlin **dcoughl1@iit.edu**	Aerospace and Mechanical Engineering 4th Year	Microsoft Office and MATLAB, organizational skills, perseverance, knowledge of engineering design process, confidence in public speaking.	Experience with construction company performing budget predictions and marketing, interaction with the public, resource allocation. Interested in engine and propulsion efficiencies.
Eric Hamann **ehamann@iit.edu**	Materials and Aerospace Engineering 3rd year	Microsoft Office and Matlab programs, knowledge of materials and design procedures, can learn quickly	Experience tutoring most of the MMAE and PHYS classes. Experience using a variety of testing equipment. Interested in new materials and failure analysis.
Hasan Hasan **hhasan1@iit.edu**	Mechanical Engineering 4th year	Microsoft Office, organizational skills, engineering knowledge. Customer service and mechanical background .	Experience working in a HVAC systems and working with machinery. Interested in research on body language
Tim Lipman **tlipman@iit.edu**	Psychology 3rd Year Minor: Business	Marketing and business knowledge, psychology background to help bring a different perspective, dedication	Experience working in a manufacturing plant for plastic bottles and working with machinery. Interested in research on sleep.
Jelena Milkic **jmilkic@iit.edu**	Architecture 5th year Minor: Construction Management	Design, 3D modeling, AutoCAD, drafting, Adobe Photoshop and Illustrator, multitasking and organizational skills. Microsoft office skills.	Experience in architectural firm as drafter, measuring and inputting drawings, interested in construction management and marketing ideas.
Jay Park **jpark71@iit.edu**	Psychology 3rd year Minor: Business	Psychology, business knowledge, organization skills, Microsoft office.	Experience working with organizations and groups, as well as business marketing. Interested in Industrial/Organization psychology.
Zack Phillips **zphilli@iit.edu**	Psychology 3rd year	Test administration and proctoring, working with children, analytical work, “thinking outside of the box”	Experience with intellectual testing with children, profound interest in neurophysiology.
Michael Tishler **mtishler@iit.edu**	Mechanical Engineering 3rd year	Microsoft Office, AutoCAD, SolidWorks, Machining Strategist, DaisyLab. Lots of machining, C.N.C., product design and development, and other manufacturing, building, testing, and processes.	Four years experience in an internship at in a product development division at Illinois Tool Works. Lots of work on product design, product improvement, testing, and machining and building of prototypes and text fixtures.
Kara Wilke **kwilke@iit.edu**	Mechanical Engineering 4th year	Microsoft Office, various processes that Daco offers, organizational skills, recognizing strengths/weaknesses, engineering knowledge.	Experience working as an intern in 2 different manufacturing plants using die presses and other machinery. Lab testing experience with various mechanical properties. i.e. bending, tension, fatigue, etc.

2.0 Objectives/Team Purpose

The goal of Operation Marketing Gurus is to expand the customer base of Daco, Inc. We plan to achieve this through several objectives including:

- Seeking new customers for existing Daco products
- Researching new products desired by current Daco customers
- Designing and marketing new products to Daco customers

3.0 Background

A.
Daco Inc. is a contract manufacturer of precision machined components for the on- and off-highway automotive market. Daco turns and mills complex, precision components with secondary options such as heat treating, balancing, and grinding. Components include flywheels, ring gears, adaptors, hubs, flanges and pulleys.

B.
Daco would like our group to investigate different manufacturing opportunities that can be accomplished with already existing equipment. We are to provide help with marketing research, expanding their market, and finding new opportunities for products.

C.
They are already at the top of the field with their manufacturing equipment, but need help finding different products to make with that equipment. Their equipment consists of CNC lathe & turning, CNC mill & drill, CNC balancing, CNC shaping, CNC grinding, heat treating, and assembly. Current products made by Daco are listed in part A.

D.
To our knowledge, there have been few attempts to address this problem in the past.

E.
Our team must be careful not to undermine other companies. We must investigate fairly and without copying other manufacturers' products. We will not use our status as students to ask for inside information from competitor companies and safeguard any information that Daco wants kept private from other companies.

F.
The declining economy has affected their production. Daco has recently upgraded their equipment to be more automated and precise, allowing for increased productivity. We would like to improve their notability in the precision machining area.

G.
Our group is currently brainstorming ideas and will be forming and researching those ideas to find plausible opportunities for Daco. We will separate into groups to attack problems and ideas and draft possible proposals for Daco to take into consideration.

H.
TBD

I.
TBD

4.0 Methodology

Problem:
DACO Inc., a supplier of flywheels and universal joints to the automotive, agricultural, and other things that require flywheels, is low on business during these rough times in the automotive industry.

Solution:
To increase the business that DACO has by one or both of two ways. The first is to increase their market on their current products by looking for other businesses that use flywheels and universal joints and are not currently being supplied by DACO. The second is to find similar products that are in the manufacturing realm that DACO could handle that could start up a whole new market for DACO. Each of these will be broken up into smaller sections that different members and subgroups will focus on. The odds of success are very high.

Methods to get to solutions:
As stated earlier different members will be designated different research areas as well as different subgroups. For the most part there will be two groups. One will be looking to expand the market on the items DACO already has to offer, while the other will be looking into new markets of which DACO should be in. Expansion will be done by going to other companies that use flywheels and universal joints and trying to get their business. New markets will be found by brainstorming as a class and as groups to figure out what other products are similarly manufactured as well as looking at other flywheel companies and seeing what they also manufacture.

Documentation:
It will be the responsibility of the individual and subgroups to document all findings which will all be reported to the class during the next scheduled meeting or to DACO at the next scheduled meeting. At the end of the semester, all documented materials will be organized and saved.

Analysis of results:
Analysis of any results will be done as a class as to figure out the best direction for the rest of the class to head in.

Deliverables:
Deliverables will be sectioned up and assigned to each member of the IPRO team with one person designated to put all of the sections together. This decreases the workload so as to allow for more time spent on the solutions.

5.0 Expected Results

A.
We plan to research Daco, Inc and their marketing strategies. We will also research other companies similar to Daco and determine if there is anything Daco can be doing anything differently to increase sales.

B.
Data collected may include annual reports, customer demographics, and other market research.

C.
When enough data has been collected, we will propose new products that Daco can produce with their existing machinery, as well as introduce new marketing strategies Daco can employ in an effort to increase its customer base.

D.
Expected results from smaller tasks of the project include brochures and posters to display our findings, as well as possibly producing prototypes of other potential products.

E.
To achieve our goals, we must work effectively as a team, which includes brainstorming ideas and coming to compromises that may best suit the team, rather than our individual ideas. Scheduling conflicts also present an obstacle that must be overcome. In addition to these difficulties, we must also make a number of assumptions, including Daco's proficiency in machining and the potential for the flywheel market to grow, among others.

F.
The data collected in conjunction with the deliverables will be presented to Daco as evidence of what their company and the flywheel market is currently doing and what Daco could be doing to increase their stature in the flywheel industry.

6.0 Project Budget / Team Values

6.1 Team Values

A.
As a team, we will be punctual and professional as we understand that this project requires a professional atmosphere; and also with the understanding that some team members' schedules may require an occasional absence.
We also understand the need for group participation and that problems will occur if each individual does not do their part. What is required is full group participation and individual drive to complete each of ours tasks promptly and efficiently.

B.
First and foremost, I believe that any problem that arises that is noticed by any individual of the team should be reported on the group discussion section of our group's page. If the problem still isn't addressed by any other team member, then it must be brought up in class with the instructor present.
One organization-related task that will help us minimize future problems will be regular maintenance of our iGroups page so that no confusion arises with our keeping track of things electronically.

6.2 Project Budget

Transportation:

	Miles to Daco, Inc	Gas Budget
1 car from IIT	50 mi x 4 round trips = 400 miles	$ 200
2 cars from Lombard	30 mi x 4 round trips x 2 cars = 480 mi	$ 240
1 car from Northside of Chicago	90 mi x 4 round trips = 360 mi	$ 180
Total	**1240 mi**	**$ 620**

Food for Catering:

We have planned a day for a two to four Daco representatives.

15 people x $10/person = $150

Printing Costs:

We plan to print a large poster as well as brochures: $200

Research Costs:

Research costs include paying for access to various annual reports and other consumer publications.

$500

Transportation	$ 620
Food for Catering	$ 150
Printing Costs	$ 200
Research Costs	$ 500
Total	$ 1470

7.0 Schedule of Tasks

Task	Start Date	End Date	Due Date	Est. Hours	Task Details
Defining the problem	1/21/2009	1/28/2009	X	1	Defining the problem, everyone involved
Gather Research/Background	1/28/2009	2/20/2009	X	3	Gather background on Daco, Flywheel industry and other industries as discussed in class
Project Plan	2/2/2009	2/6/2009	6-Feb	5	Each person assigned a section, and upload to iGroups
Identifying Possible Solutions	1/21/2009	3/4/2009	X	3	Looking at research and identifying potential solutions
Visit Customer	2/20/2009	2/20/2009	X	5	Visiting client's site
Midterm Presentations	3/2/2009	3/12/2009	X	0.16	IPRO office will announce our presentation time
Midterm Slides			TBA		Due on the date we have to present
Visit Customer	3/6/2009	3/6/2009	X	5	Potential date to visit client's site
Analyzing and selecting	3/16/2009	4/1/2009	X	5	Looking at potential solution and selecting
Visit Customer	3/27/2009	3/27/2009	X	5	Potential date to visit client's site
Designing and Modifying	4/1/2009	4/22/2009	X	5	Designing final recommendation for customer
Visit Customer	4/17/2009	4/17/2009	X	5	Potential date to visit client's site
Abstract/Brochure	4/22/2009	4/27/2009	27-Apr	2	Designing abstract/brochure by 9am on due date
Poster	4/22/2009	4/27/2009	27-Apr	2	Designing poster and submitting by 9am
Preparing for IPRO day	4/22/2009	5/1/2009	1-May	3	Preparing presentation and all info for IPRO day
Final presentation slides	4/22/2009	4/29/2009	29-Apr	2	Putting together final slides and uploaded to iGroups
IPRO Day	5/1/2009	5/1/2009	1-May	8.5	IPRO Day
Final Reports	5/1/2009	5/8/2009	8-May	4	Pulling together final report
10 Hour "Slack Time"				10	Allotted 10 hours of "slack time"
Total Hours				73.66	

8.0 Designation of Roles

Master Schedule Maker: Tim Lipman
Time keeper: Jay Park
Minute Taker: Kara Wilke

Further Assignments as identified

Weekly Timesheet Collector/Summarizer: Everyone. We ultimately decided to do this part individually, because we believe this will make our project run more efficiently with fewer problems.

Marketing Strategies for Daco*:* Jay, Tim, Dan, and Jelena will research the marketing strategies and look at potential customers who may be attracted to Daco. Potential customers include Caterpillar, Deere, and Mercedes-Benz.

List of companies that produce flywheels: Zach, Mike, Kara, Eric, and Hasan will look into Daco's competitors and compare and contrast the differences between the companies.