
AC 2012-3293: PROJECT-BASED LEARNING FOR A CLASS ON MANUFACTURE DISTRIBUTOR RELATIONSHIPS

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Introduction

In today's world where students have grown up in the Internet age, "relationships" and "being connected" have taken on different meanings from the past. In businesses, especially in Business to Business (B2B) scenarios, strategic relationships are very significant. So, teaching students the value of strategic relationships and how to go about developing them is critical. For the past few years, the students who go through the class on strategic relationships are provided a project based learning experience. Perrenet *et al.*²(2000) indicate that project-based learning is better than problems-based learning because it not only helps with knowledge acquisition, but also with time and resource management. As a part of this class project, students get to see and assess the effects of such relationships while working with a real industrial distributor. The students work on a semester long project with the industrial distributor involving different topics. They are provided resources including research materials, faculty time and time with industry.

This course is a required class for the Industrial Distribution curriculum of the Engineering Technology and Industrial Distribution (ETID) department and is specifically targeted towards ETID juniors majoring in Industrial Distribution. This article talks about how the project is aligned with the learning objectives and the topics covered in the class. Measures taken to assess learning while actively working on the project are also discussed. Extensive industry projects done with undergraduate students have specific challenges and those are discussed as well. Nepal and Lawrence³ (2011) have shown how project-based learning has been effective in a graduate course. Benefits to the students as a result of this type of learning experience and how the learning experience will better equipped the students to enter into industry will also be discussed. Having taken this course and worked on the project students are able to gain a better understanding of how relationships are developed. They also understand that one cannot win all the time if they expect to have a successful long-term strategic relationship.

Course Content

In the Industrial Distribution curriculum, Manufacturer Distributor relations is a course students are required to take at their junior level. One or two sections of this class are offered every semester and there are about 50 students in each class. This course is offered as a three credit course and meets twice a week for an hour and fifteen minutes. The class is offered in the Spring and Fall semesters which span 14 weeks. The 28 class periods are divided between guest speakers, lectures, in class exercises, presentations and exams.

The objectives of the course are listed below:

- To develop an understanding of the basic concepts and issues in distribution channels.
- To develop an understanding of the interaction between manufacturers and distributors.
- To challenge students to think creatively and critically about the manufacturer/distributor relationship.

The main content of the course is divided into five units and each unit is covered over 3-4 class periods. Of the 3-4 class periods for each unit, 2 of the classes are lecture classes, one is an in class exercise based on the topic of discussion and then there is a discussion about the in class exercise. The five units covered throughout the semester are

- Unit I: Definition of strategic relationships
- Unit II: Strategic relationships and Trust
- Unit III: Strategic relationships and Market Growth
- Unit IV: Strategic relationships and Accountability
- Unit V: Strategic relationships and Channel Compensation

To provide the students with real time learning about the topics covered in class, a semester long project was designed. The project accounts for more than a third of the grade of the students. As a part of this project, the students work with a distributor to assess challenges that they are facing due to less than optimum strategic relationships, and then propose solutions to those problems.

A distributor who was willing to work with the students was identified and selected. Five topics related to manufacturer distributor relations were chosen after discussions with the distributor. A champion for this project at the company was also selected.

Project Content

A sample of the topics that were chosen is listed below.

Formalizing Manufacturer – Distributor Relationships

Distributors establish relationships with their suppliers in varying levels of formality. How can such relationships be established and maintained. Explore new ways to ensure the relationships are functioning properly.

Areas of Focus:

- Many existing supplier alliances are informal in nature. How do you formalize supplier relationships and establish Key Performance Indicators (KPIs) to measure supplier performance (what should they be?) and how do you enforce them?
- How can distributors assist their suppliers in designing preferred customer programs? How to ensure these newly designed/evolving programs are set up to favor distributor's needs?
- Impact of channel choice (saturation distribution vs. exclusive distribution)
- Identification of metrics associated with Manufacturer – Distributor Relationships

Manufacturer and Distributor collaboration for new market opportunities

Distributors have well-designed offerings for a variety of customer types. New markets could include customers that are currently underserved by distribution. Distributors could better serve these markets by changing their product and service offerings or, in some instances, formulating new value propositions.

Areas of Focus:

- How should distributors identify new market opportunities?
- What new blends of services and products can launch new market opportunities?
- How should distributors approach market segmentation?

Distributor Compensation

Compensation has risen to the top of many priority lists. Distributors find themselves pressed between the supplier's need for volume and the customer's desire for lower prices. Targeted rebate programs are becoming more popular as a method for suppliers to increase sales while still protecting the distributor's profitability.

Areas of Focus:

- Identify distributor compensation programs across different channels.
- Demonstrate how suppliers can drive volume with rebates.

Growing Market Share

Explore the various means by which distributors can improve their market share in collaboration with suppliers and customers.

Areas of Focus:

- Methodologies and initiatives to increase market share.
- Customer and supplier stratification.
- New market forecasting and programs to pursue new opportunities.

Understanding Supplier Expectations

Suppliers have options other than industrial distributors in their channels to market. Distributors need to understand why suppliers use distributors, how they use distributors, what expectations they have, and how the distributor channel meets the supplier's critical objectives.

Areas of Focus:

- Tying distributor compensation to supplier needs.
- Connecting sales force compensation to supplier expectations directly and indirectly.

Project Delivery

Project topics were assigned to groups of approximately 10 students each. Each group was divided into two sub groups M & D. Group M approached the topic from the perspective of the Manufacturer. Group D approached the topic from the perspective of the distributor.

A group of the distributor's representatives were invited to come to campus and interact with the students during the first couple of weeks of class. The company representatives

explained the project objectives, introduced and explained the topics and set their expectations to the class. Then students were asked to perform a background research about their topic. They were requested to look at industry practices, interview other industry representatives and to do a detailed literature review. The student groups then had to submit a 2-page report on their background research.

Then students were taken on a field trip to visit the distributor’s facilities. Prior to the field trip, the distributor had chosen a champion for each of the topics under discussion. During the field trip, each topic champion discussed their topic and the challenges that they encounter in those areas during breakout sessions. Students attend different topics during each breakout session. There are two breakout sessions during the field trip. A tentative schedule for the field trip is provided below.

The tentative schedule for the field trip is as follows:

10:30a – 10:45a	Welcome and Team Introductions
10:45a – 11:45a	Breakout Session I
11:45a – 12:45p	Lunch
12:45p – 1:45p	Breakout Session II
1:45p – 2:45p	Tour of the warehouse and facilities
2:45p – 3:00p	Concluding Remarks

After the field trip, a discussion board was set up where students could post questions and the topic champions could log in on specific days to post answers. This was done to avoid overloading the industry representatives with questions and also prevent them from answering the same questions from different students repeatedly. The instructor also has one or two discussion sessions with each group providing more focused direction and assessing student teams’ progress. Industry representatives returned to campus to interact with the students a couple of weeks prior to the completion of the project. During this session, the representatives fielded questions that the students had regarding the implementation of their proposed solutions.

Finally, the project culminates with the student teams submitting their project reports and making presentations of their findings to an executive team from the company. Both the distributor and the manufacturer students teams come together to make the final presentation on the topic. This helps to ensure that the final solution presented is feasible to both the distributor and the manufacturer.

Project Assessment

The grading guidelines for the activities related to the project during the semester and the detailed grading rubrics for the final project report and presentation are provided in Table 1, Table 2 and Table 3 respectively.

<u>Due Date</u>	<u>Project Activity</u>	<u>Points</u>
15-Sep	Background Research [2 pages]	50

25-Oct	Project Update Report [4 pages]	50
18-Nov	Final Report	100
18-Nov	Presentations	100

Table 1 Project Grading

1. Quality of Background Research	20	
2. Description of current issues and challenges	20	
3. Quality of solution proposed [Alternatives, Recommendations, Implementation Plan]	30	
4. Value of solution [Link to Profitability]	10	
5. Grammar/ Writing Quality	10	
6. Bibliography/ References	10	

Table 2 Grading Rubric for final project report

1. Organization	15	
2. Subject Knowledge/Content	30	
3. Graphics and Mechanics	15	
4. Eye Contact, Elocution and Body Language	15	
5. Presentation within time limit	5	
6. Involving the audience	10	
7. Attire (Professional Req'd.)	5	
8. Turn in peer evaluation forms / hard copy of presentation before presenting	5	

Table 3 Grading Rubric for final project presentation

Student and Industry Response

After the project was completed, students were asked to provide feedback about their project experience. The questions posed to the students were also used to assess how the project helped the students with achieving the course objectives. Students were asked to choose an option from a 5 Point Lickert Scale in which 1 was Strongly Disagree and 5 was Strongly Agree. From Table 4, it can be seen that the students were not very satisfied by the support from the industry. This was the first time a project of this nature and scale was done as a part of this class. The industry support to the students while working on the project was not made available at the level or frequency that was planned. This is clearly reflected in the student feedback. The detailed feedback from the students has provided the instructors with better ideas regarding how to engage students and industry during the course of the project. The plan is to currently implement these improvement measures during the upcoming semester.

The feedback indicates that working on the project and the material covered in class was useful to the students and so were the topics and materials covered in class. Communication and implementation need improvement. Additionally, the experience of working in teams helped students engage with their peers. This is often a challenge in a class of 120 students, but students were able to communicate effectively with their teammates during the course of their project.

experience on the topics that were covered in class so that students can better understand the concepts and issues between manufacturers and distributors. The results seem satisfactory. However, the improvements to the project in the future semesters will make these responses better.

Do the students have an understanding of basic concepts and issues in distribution channels?	3.85
Do the students have an understanding of the interaction between manufacturers and distributors?	3.70
Have the students thought creatively and critically about the manufacturer/distributor relationship?	3.91
Are the students ready to make an immediate contribution to the industry?	3.62

Table 5 Feedback from industry executives about the solutions proposed

Conclusion

The project execution has been improved to provide more support to the students from both the instructors and from the industry. Specific changes to the course and project implementation are outlined below:

- Instructors have better defined the expectations of the involvement of the distributor and their project champions.
- Instructors have better defined each assignment associated with the project to provide better direction to the students throughout the project.
- More class time has been allotted to group exercises in which students can work on their projects with instructor access.
- More class time has been allotted to group presentations in which students share with the class the progress on their respective topics. This gives students an opportunity to learn from students in other groups, plus provides instructors an opportunity to better monitor the content of the students' projects.

In spite of the challenges, the project was a great working opportunity for the students to see a variety topics discussed in class come to action. The guest speakers from the industry reinforced the importance of the concepts that the students learn in class. Industry involvement and support has helped the students understand the importance of the class and the significance of the topics. Another assessment will be made the semester that the changes to the course and project are implemented and a follow up paper will describe the impact of the improvements.

Bibliography

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