

BOARD GAMES AND TEACHING TEXTILE MARKETING AND FINANCE

Dr. Helmut H. Hergeth
North Carolina State University
HHH@ncsu.edu

Dr. Michelle R. Jones
North Carolina State University
Michelle_Jones@ncsu.edu

Abstract

This preliminary study of the use of experiential learning reports on the use of the Income/Outcome™ financial game for students taking courses in textile marketing, accounting, and finance. With the increased need for students to have a practical understanding of business concepts prior to entering the job force, educators are looking for inventive application for students to view these concepts in a deeper dimension. A discussion of the impact on critical business factors is provided.

Note: The original form of this paper has been published in the Journal of Textile and Apparel, Technology and Management (JTATM), Volume 2, Issue 3, Summer 2002.

Introduction

Using an innovative approach for teaching textile marketing and finance was the goal of incorporating the Income/Outcome™ financial game. The US textile industry has been facing an increasing amount of competition, nationally and internationally. Thus marketing and financial savvy have become increasingly important in the development of competitive strategies. The future employees of the textile industry are required to be global thinkers in terms of the customers of their company and global employees with respect to their own companies. To be an effective and contributory employee graduates entering the textile and apparel industry must have an awareness of the general practices of running a company. Specifically, students must understand how their decisions within one department affect the strategic planning and outcomes for all departments, such as marketing, operations, accounting, and human resources.

An understanding of these concepts is possible on an abstract level through traditional coursework and reading, but this can never replace actual experiences. One way to quickly gain experience without the risk of destroying an actual company is through game simulations. Many

companies use game simulations to train employees at all levels (Orbanes, 2002), and North Carolina State's College of Textiles is using the same techniques for its students within the textile and apparel management and technology curricula (Jones and Hergeth, 2002).

The Game

The Game of Income/Outcome™ is a board game where teams of three to five people each run a start-up company. The game board consists of a variety of chips in different colors, representing cash, depreciation, assets, equity, and loans. Within their teams players discuss strategies and typically assume certain roles within their company. The marketer may try to win as many bids as possible, which may be incongruent with the objectives identified in production. The pros and cons of capacity expansions, labor cost reductions, inventory policies, and marketing strategies are readily discussed. Meanwhile the players have to continuously be mindful of their cash flow and their profit objectives.

(Figure 1, see Appendix)

The course of the game is completely determined by the decisions and actions of the different teams; nothing is due to chance – there are no dice and random number generators at work. During the game the teams compete against one another for orders at the “marketplace”, and here the key is “The Market Shows No Mercy”. As such, the market, due to sudden lack of demand, can withdraw bids, and orders may be filled more cheaply by imports. The spontaneity of the game keeps the students on their toes and strategizing on how to win orders in subsequent rounds. With each round, and improvement can be purchased: A reduction in per unit labor cost due to an increase in productivity, customizing machines that allow the owner to bid on extra orders, a reduction in per unit raw material costs, quality improvements, and an increase in capacity. And in every

Developments in Business Simulation and Experiential Learning, Volume 30, 2003

game round each team experiences the financial consequences of their decisions.

to have a clear grasp on the impact that their decisions have in the areas of finance, marketing, and production.

Learning by Experiencing

Over the course of one and a half days and several game rounds the students learn to make decisions for various aspects of the business. The biggest gain is that they actually experience the impact these decisions have on other areas of the business. Rather than reading or hearing about pricing decisions and developing market strategies, they truly make these decisions and have to live with the consequences in profit and cash flow. Rather than calculating abstract production planning algorithms, they decide on production capacities and their efficiencies, and then get to manage and live with these decisions in a competitive market.

In following the eight steps of new product development (Kotler, 2000), idea generation, idea screening, product concept testing, business analysis, test marketing, and commercialization, the game addresses the business analysis stage. Here students draw on their experience in playing the game to establish product pricing to meet the objectives of the company. Specifically they learn how to price products based on anticipated competition while balancing pricing requirements to meet internal cash flow needs (e.g., pay labor and liabilities, buy raw materials, and submit advertising proposals). Students also have a chance to witness how the pursuit of a differentiation strategy (e.g., niche or product innovation) plays out relative to companies who have chosen a low cost strategy.

Maximizing shareholders' wealth has become the determinant of value creation within a company (Brigham and Houston, 2002). Students see first hand the difference between accounting profit and cash flow and how the management of these two financial components is highly interrelated. Students learn quickly that an accounting profit does not necessarily translate into cash availability to pay routine monthly expenses. In addition students learn about converting assets from one type into another (e.g., cash to raw materials) and maintaining the value of a company as opposed to using cash for operating expenses.

Of course it is useful for participants in any industry to be aware of the basic financial rules and market concepts of a company. For the textile and apparel industries this business knowledge is particularly critical because of the intensely competitive environment. As the integrated textile pipeline consists of an unusually complex number of stages before reaching the ultimate customer, it is easy to lose sight of basic principles.

The College of Textiles by its very nature has to be very applied in its research and teachings. The textile and apparel management and textile technology curricula combine concepts of technology and management to prepare students for careers in all levels inside and outside the integrated textile complex. For these students it is essential

Impact on Learning

On a trial basis, the Game of Income/Outcome™ was introduced to students starting in the summer of 2001 in two different courses, one being in their Junior year in a Softgoods Marketing class, and the other being a Strategic Management and Decision Making class in their Senior year. Parallel the game was also introduced to a few high school seniors with interest in business management and textile management to assess a wide range of students within a relatively short period of time.

Since every game round allows for tiebacks where new concepts can be introduced and links to industry or to class can be demonstrated it was quite easy to find evidence of where the game was of value to the students.

One of the most critical outcomes is the fact the students see and understand the connections of different aspects of a business. This "bigger picture" is easily lost in traditional classroom experiences, just as it is often lost in the daily work routine within specific business functions in industry. Using this model scale of a business directs the focus to the whole business, not only individual aspects. Additionally many individual aspects of finance, marketing, and management become well understood because the theoretical concepts can be visualized on the gameboard. Students responded that they could see connections and that for the first time they had been able to use and see in practice the theories they had been taught during lectures.

It is also evident by the reaction of students during the game as well as their comments some time later that experiences during the business simulation have a much stronger effect on the participants than a description in a case study or the evaluation of a business situation through calculations on a computer. The emotional involvement makes these game experiences much stronger and thus has a longer lasting effect. Like pilots who train in a flight simulator to gain experiences that can avoid crashes, College of Textile students gain experiences that may help avoid the crashing of a company.

Impact on Curricula

At this time it is planned to move the simulation experience from the Junior and Senior level courses into a course for the second year students. This puts the game experience in the curriculum before classes in accounting and textile management. It is hoped that this will improve the level of understanding and the degree of involvement in the subsequent classes. An evaluation of the impact on these classes will be easily possible.

In addition to using the Game of Income/Outcome™ in a classroom, the gameboard is being tried as an analytical tool to aid in the financial analysis of real companies. Its strength lies in the ability to visualize financial streams and

Developments in Business Simulation and Experiential Learning, Volume 30, 2003

concepts and to display the balance (or imbalance) of the financial framework of a company. During traditional classroom lectures the gameboard is referred to for the purpose of pointing out differences between companies in the same industry or between different types of industries (e.g., manufacturing versus retail, see Figure 2). This tends to reinforce the link between game session and course content.

Outlook

The textile and apparel industries are rapidly changing, technologically, economically, socially, and regionally. To be prepared for this changing business environment students have to be familiar with the technologies, business concepts, and financial aspects of the business, using business simulation games is a particularly efficient way to convey such concepts to textile students. Just like its industries the College of Textiles is ever changing and improving its products.

References

- Eugene F. Brigham and Joel F. Houston, 2002. *Fundamentals of Financial Management, Concise Third Edition*, South-Western, Mason, OH.
- Michelle Jones and Helmut Hergeth, Teaching Marketing and Finance through Entrepreneurship Concepts, *Journal of Textile and Apparel, Technology and Management*, Volume 2, Issue 3, Summer 2002.
- Phil Orbanes, 2002, March. Everything I Know About Business I Learned from MONOPOLY, *Harvard Business Review*, pp. 51 – 57.
- Philip Kotler and Gary Armstrong, 2001. *Principles of Marketing, Ninth Edition*, Prentice Hall, Upper Saddle River, NJ.

Appendix

Figure 1: Textile Manufacturing Company



Figure 2: Textile Wholesale and Retail Company

