

# Developments in Business Simulation and Experiential Learning, Volume 25, 1998

## Cash Flow Statements: Are they Important in Business Simulations?

Kenneth R. Goosen, University of Arkansas at Little Rock

### INTRODUCTION

The purpose of this paper is to address three fundamental questions: 1. Should business game participants be expected to have the skill and knowledge to prepare the cash flow statement, even after completing courses in accounting and finance? 2. Is the expression, "cash flow statement" ambiguous in meaning? 3. Does the preparation of the cash flow statement improve the quality of simulation decision-making?

In accounting courses, two types of cash flow statements are presented: The historical cash flow statement and the projected or pro forma cash flow statement. When students reach senior status and are taking their capstone courses, a common complaint is that they do not understand or have the ability to prepare cash flow statements.

### HISTORICAL CASH FLOW STATEMENTS

The reason students have difficulty in learning how to prepare the historical cash flow statement can in part be attributed to: (1) the way in which the cash flow statement is taught in accounting and finance courses, and (2) the failure to recognize that there are two entirely different types of cash flow statements based on two distinctly different processes for preparing the statement.

The term "cash flow statement" may refer to a projected (budgeted) cash flow statement or a historical cash flow statement. It is important when discussing the cash flow statement to make clear which type is the subject of discussion. The format of these two types of statements and the processes for preparing them are fundamentally different.

Preparation of the historical cash flow statements requires understanding and following some rather detailed procedures. The problem is that students find it difficult to master the procedures necessary for preparing the statement. The steps required to convert accrual basis values to a cash basis are rather formidable for many students.

There are several reasons why students experience difficulty in learning and applying the required

preparation steps. First of all, the standard cash flow chapter requires that all students have a solid knowledge of financial statement fundamentals. This condition is seldom met. Secondly, the class time devoted to this chapter, which is usually one week or less, is inadequate for even the best students to acquire any in-depth understanding. Third, the preparation of the cash flow statement requires the computation of some important adjustments which are needed to convert the accrual basis balance sheet items to a cash basis. The purpose or reason for these adjustment is not always understood.

Another major problem is that two quite different formats are taught for presenting the cash flow statement, the direct and indirect method as they are generally called. Adjustments are required for both the direct method and the indirect method; however, only the indirect method shows the adjustments on the statement itself.

The indirect method (a popular method with professional accountants) starts with net income which requires various adjustments in order to arrive at the correct fund of cash from operating activities. Students find the indirect method more difficult to comprehend. The reason for showing adjustments in the cash flows from operating activities section is not easy to understand, even if explained well. Also, the time between completion of the second course in principles of accounting and the enrollment in a course that requires a business enterprise simulation may be several years. In this span of time most students will have forgotten how to prepare the cash flow statement.

At the principles level, the primary teaching objective is to acquaint students with cash flow concepts and give students some exposure to the mechanics of preparing the statement. Development of preparation skill is not a primary objective. Even if students were able to acquire and retain considerable skill in preparing the cash flow statement, it still would be contended in this paper that students should not be required to prepare historical based cash flow statements. Manual preparation of historical cash flow statements by business game participants does not contribute to the making of better simulation decisions. Also, most simulation programs

## Developments in Business Simulation and Experiential Learning, Volume 25, 1998

automatically generate historical cash flow statements. Ability to prepare these statements is, therefore, generally unnecessary

### PROJECTED CASH FLOW STATEMENT

**Cash flow statements based on historical** transactions are basically irrelevant to the internal decision-making process. However, the ability to prepare a projected cash flow statement should be helpful in making decisions. Preparation of the projected cash flow statement must be based on decisions already made. The intrinsic nature of total enterprise simulations requires understanding the process of business budgeting (profit planning) which includes the projected cash flow statement.

The projected or pro forma cash flow statement in accounting courses is always presented in the framework of profit planning or master budgeting. The prerequisites to the preparation of this type of cash flow statement is the preparation of a total profit plan.

The complaint that students do not know how to prepare a cash flow statement should also be a complaint that they do not understand the business budgeting process (profit planning). It is also a contention of this paper that the majority of business students are not being adequately taught the fundamentals of profit planning. Although most principles of accounting books contain a chapter devoted to budgeting, it should not be assumed that this chapter is being taught or that the coverage is sufficient to allow students to develop profit planning skills.

Several reasons can be given as to why little attention has been given to the chapter on profit planning in principles of accounting courses. Accounting faculty are, for the most part CPA oriented and usually are inclined to skip this chapter. Also, those instructors that consider this chapter on budgeting important often are unable to devote more than one or two days to coverage. The chapter on profit planning appears at the end of the book and is usually scheduled for discussion near the end of the semester. Course material scheduled for coverage towards the end of a semester tend to be omitted or receive only scant of attention.

The ability to prepare a meaningful budget requires considerable knowledge of financial statements. Most of the business enterprise simulations such as the *Business Management Laboratory* (Jensen, 1996), the *Business*

*Policy Game*, (Cotter & Fritzsche, 1995) and *The Multinational Management Game* (Keys & Wells, 1997), are simulations of manufacturing operations. Therefore, the profit planning process must involve planning production and the related cost of production costs. The preparation of a profit plan for a manufacturing business requires that the students have a basic knowledge of the accounting principles for a manufacturing business. Students as a whole have a much weaker understanding of manufacturing accounting than the accounting for a merchandising business. The less than adequate understanding of the accounting for a manufacturing business also contributes to the inability of students to prepare the cash flow statement.

### BUSINESS SIMULATIONS AND PROFIT PLANNING

Students who participate in total enterprise simulations are required to make marketing, production, and financial decisions. To the extent possible, the making of decisions should be a thoughtful, analytical, and orderly process. The implementation of a formal profit planning process provides an organized and effective methodology to decision-making. Students who are required to prepare business budgets are compelled to recognize and work with various financial statement and decision relationships. Of particular importance is the necessity to determine both long term and short objectives that serve as the foundation of the budgeting process. The foundation of a finished profit plan is a set of decisions. In fact, until a set of tentative or final decisions has been made, the budget cannot be completed. Also, the essence of simulation play is decision-making. Therefore, the relevance and importance of preparing profit plans in simulation play is obvious and logical.

Whether or not formal planning results in improved decision-making performance has been a matter of debate. Hornaday and Curran (1996) reported that their experiment in dividing teams into planners and nonplanners resulted in planners significantly out performing nonplanners. When the budget process is based on careful analysis of data and thoughtful exploration of various decision options, then the expectations of improved performance is reasonable. The extent to which students voluntarily prepared or were required to prepare profit plans in business simulation play and whether the preparation of the budgets actually affected the quality of decisions should be a fruitful area of research.