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Implementation Strategies for MIS Chargebacks

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Introduction

In this paper we extend our previous study (Friedman and Grayson, 1995) in which we had (1) evaluated the pros and cons of assessing chargebacks and (2) demonstrated the economic efficacy of instituting chargebacks in nearly every situation. We also pointed out that to help ensure that a company would operate at its point of maximum attainable profit, its users of MIS services should always be charged for routine (non-innovative and non-experimental) use of those services. The savings achieved through chargeback systems are demonstrably large compared to the relatively smaller cost of instituting them. Yet, if the system is not properly implemented, is not well accepted, or otherwise disrupts the organization that it was designed to serve, the whole effort will be self-defeating and futile.

Cognizant of these potential pitfalls, we undertake in the present paper to explore several strategies for both carrying out the implementation of a chargeback system and smoothing its acceptance. Our approach is based on a determination of two profiles: (1) the nature of the organization involved and (2) the type of manager heading each department that is to be assessed a chargeback. The latter is accomplished by an informal psychological estimate by the MIS department rather than a formal test. Thus different situations, depending on these profiles, call for perhaps unique, tailor-made chargeback plans. Still, no matter what plan is agreed upon in the negotiations between MIS and the user department, the MIS department needs to be sure that the charges it assesses do indeed cover the actual costs of providing service. The ideal instrument for determining these costs is found in an accounting method known as ABC, activity-based costing (Ness and Cucuzza, 1995), which provides the theoretical basis for establishing the measurements of MIS costs. Thus we focus not on *whether* users should be charged, but on *how* they are to be charged.

The academic and professional literatures contain various suggested bases for computation of charges to user departments (Cushing, 1976). However, no one basis has ever been provably established as better than all other bases. We suggest that, when judged on the criterion of user satisfaction, no one single basis is pre-eminent. One reason for this is that managers, being of different personality types, would receive differing amounts of utility, and thus user satisfaction, depending on which method is used to compute chargebacks. Hence, we recommend that the MIS department, in advance of each chargeback negotiation session with a user department, prepare a *tailor made plan* for the manager involved--based on what can be determined about his/her psychological and managerial profile.. Of course, the manager is not to be restricted to this plan; it is just anticipated that he/she would find it congenial to his/her management style; that's why it is offered first. Other cost schedules could be created and be available to meet unexpected preferences.

A menu of choices as to what should be included on the bill could contain such traditional type charges as wall-clock time for a job, CPU cycles, person hours required, materials used, or a flat price for the running of a job. Development and maintenance costs might also be included. The user manager would be free to make other suggestions. Then an agreement would be signed.

In addition to the items a manager wished to see on the bill, there could also be customized methods of itemization, accommodations as to frequency of billing and the like. The company profile enters the picture in providing global constraints and determining the permissible parameters for all the plans offered. Nevertheless, no matter what plan is initially presented or what is agreed upon in the negotiation, the amount eventually paid by the user department has to reflect the actual costs plus perhaps a certain mark-up. This approach, along with the notion of a menu of choices, is a considerable departure from the common practice of having a single, monolithic charging system, which, incidentally, privileged or politically connected users try to circumvent. With a system customized for them, they will have no such motivation

Chargebacks not only reimburse MIS but serve as controls on excessive usage, hence real costs should be the basis of chargebacks. Admittedly, these real costs are hard to determine, so organizations try other methods to achieve cost recovery. Examples of non-usage bases of chargeback are sending a bill for costs avoided (say, for personnel), billing a user department according to its revenue, its number of workstations, or its number of employees. Sometimes the costs are shared in equal amounts by each department without any attempt to reflect departmental usage at all. All of these methods entail that some department will be undercharged for what it uses and, therefore, will be inadvertently encouraged to overuse MIS resources.

What Is ABC?

ABC differs from the traditional method of cost accounting. Traditional cost accounting accumulates the cost of direct materials and direct labor, with all other costs pertaining to goods or services sold going into overhead. The direct materials and direct labor known to have been used to make a product or render a service are included in its cost; then overhead is allocated so that the total cost includes direct materials, direct labor, and overhead. ABC involves a different cost summarization and allocation approach.

Users of ABC attempt to determine, ordinarily on a case-by-case basis, those activities (called *cost drivers*) that cause costs to be incurred. Any product or service that benefits from or uses the cost driver causes the cost to be incurred, so the cost is allocated to such product or service. Similarly, if the cost driver was not used by a department, then the cost was not incurred, hence no cost is applied. For example, under traditional cost accounting, a product is not separately charged for a machine set-up, but under ABC, it typically is. Under traditional cost accounting, the machine set-up cost is accumulated in the pool of overhead costs and is subsequently allocated to *all* products made by that business unit (even those which require no set-ups) via the allocation basis, which, as previously stated, is typically direct labor. Under ABC, the machine set-up cost is a cost that is separately traceable to the product, so it is charged directly to the product dependent on the set-up. Because machine set-ups and other cost drivers are traced and charged directly to products, the untraced portion of costs remaining in overhead is lower under ABC than traditional cost accounting. Thus, under ABC, the overhead allocation rate is lower, and *complex* products with many set-ups that were not previously charged for the set-ups are no longer effectively subsidized by *simple* products having no or few set-ups. Under ABC, managers learn what activities cause costs to be incurred, so when managers avoid use of those activities, they truly avoid incurring costs. This leads to a real economic difference in the effects of the two competing cost-accounting systems.

The ABC method approach as applied to MIS, by providing rational and comprehensive information about costs, is positioned to be an important foundation piece of an MIS chargeback system. Until MIS knows how much something costs, the price charged to users is likely to be too high or too low by a significant amount, thereby defeating much of the purpose of charging the user. However, there still remain several administrative issues, e.g., how to introduce such a new system within a firm, and how to offer and group, singly or in combination, the set of MIS services to be rendered in order to accommodate certain users' preferences.

We propose that MIS enter into charge back negotiations with each department manager by preparing beforehand a strategy based on its best estimate of their relevant psychological traits. This is designed to satisfy these managers by offering them a variety of options concerning the charging system most likely to be accepted. The result will be a number of somewhat different chargeback plans operating simultaneously, where each is tailored for a specific department. This is a departure from the common practice of having a single charging system by giving each manager a format that is desired rather than one imposed by MIS.

Tailoring Chargeback Implementation to Managerial Personality

It will be the responsibility of MIS to make or obtain an estimate of the personality type of each manager with whom they will be dealing. It is natural to expect that different managers will respond to any proposed chargeback system according to their personality types, and MIS should approach them accordingly. In addition, the methods of implementation and billing a manager will probably prefer can also be expected to

depend on the characteristics of his or her personality. A relevant set of characteristics is well documented (Briggs and McCaulley, 1986) and widely accepted.

Myers-Briggs indicators distinguish sixteen personality types, each designated by a four-letter, ordered tuple. The first letter in the tuple indicates a person's preferred attitude or orientation of energy, either E for extroversion or I for introversion; the second letter describes a person's normal method of gathering information, S for sensing or N for intuition; the third letter indicates one's judging function, which is either T for thinking or F for feeling; and the fourth letter in a person's type gives the attitude toward the outer world, either J for a judging attitude or P for a perceiving attitude.

As an example of an MIS plan tailored for one type of manager, suppose the manager is deemed to be of type ESTJ, i.e., extroverted, sensing with thinking and a judgmental attitude toward the world. This is the archetypal middle management type. Because they are logical, analytical, objectively critical, and not likely to be convinced by anything but reasoning, they make a systematic effort to reach their objectives on schedule. These individuals are likely to want a list of resources used, together with prices and a timetable for all MIS services expected by the manager. Thus MIS will enter into a meeting with the predicted items and be ready to negotiate efficiently.

Moreover it might be thought that when managers would discover that their methods of billing were different from one another's, there would be complaints about MIS. However, each would realize that MIS approached them in good faith and offered to give the managers the type of chargeback system that suited them best, by their own concurrence. Hence complaints would be less than under a single monolithic chargeback schedule, for it is not the rates that would differ.

Tailoring Chargeback Systems to Organizational Type

The prevalent managerial philosophy of a company, too, is a factor to be considered in designing chargeback systems. We construct a set of dimensions (culled from the literature, e.g., Hall, 1995) in order to categorize organizations for our purpose, namely, creating chargeback systems. First we differentiate between control-oriented and coordination-oriented organizations. In the former, a further distinction can be made between those allowing discretion about the level of supervision and those emphasizing the power to determine use of resources. In the latter, some firms coordinate by planning others by feedback.

Other differentiating factors among firms involve how a firm defines jobs, whether it countenances conflicting domains, how it motivates employees, the degree of bureaucracy, if it uses TQM, reengineering (where, e.g., employees participate in diverse task sequentially), or an open-management philosophy (e.g., empowerment of employees), and whether it is primarily subjective (expectancy theory) or dependent on total rationality.

Suppose a firm is subjective and control-oriented, while emphasizing managerial power to determine use of resources, yet follows an open management policy of encouraging its employees to regard themselves as partners in the enterprise. MIS in its negotiation stance should be ready to offer a chargeback plan based on meeting with a jointly constituted group from each department involving both users and managers. The department, with the concurrence of the manager would most likely choose a list of services conducive to job satisfaction, while still appearing to protect the company from waste. MIS would not offer intricate breakdown of costs, but overall totals. Of course such totals would be arrived at beforehand by careful activity based costing.

To illustrate how a company's strategic type may influence the general nature of how chargebacks are implemented, consider another guiding classification (Miles, Snow, Meyer, and Coleman, 1978). This typology involves four sorts of organizations, distinguished by how they implement their commercial strategies: Defenders (who seek stability), Prospectors (who strive for flexibility and quickness), Analyzers (who change only when it is demonstrated as safe to do so), and Reactors (who are inconsistent in their strategic moves). Thus MIS should (initially) approach departments in an Analyzer type organization by

showing how other companies (or departments) profited from a tried and true chargeback discipline, without suggesting highly innovative chargeback systems.

Conclusion

While chargebacks are essential for an organization's economic well-being, no one method of implementation is universally superior to the others that might be employed. We tackled the situation as an opportunity rather than as a problem, hence we propose tailor making different systems for different managers operating in different corporate environments. The idea is to maximize the utility *perceived* by the different managers, departments, and firms. Nevertheless, to achieve a maximal profit, a company, its MIS department and each user area must know what its MIS costs are. Therefore we recommend and apply the techniques of Activity-Based Costing.

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