Real Estate Financing Techniques Can Be Motivational Tools

David A. West, Ph.D., (E-Mail: WestD@missouri.edu), University of Missouri, Columbia
Timothy D. West, Ph.D., C.P.A., (E-mail: Westt@mail.olin.wustl.edu), Washington University, St. Louis

Abstract

Internal financing decisions regarding corporate real estate are not market determined. Managers calculate occupancy costs by utilizing capital allocations, financial charges, and IRRs. This process can be rather arbitrary. Although newer costing systems produce more accurate numbers, they may not create better working relations. This article demonstrates that desired organizational behavior in some instances may be motivated more effectively with three imprecise financial techniques than with truly accurate costing.

Introduction

Most of the financing decisions of a corporate real estate department are internal cost allocations. Moreover, alternative financing decisions affect employee attitudes very differently. For example, internally financed inter-unit occupancy costs can be prorated among departments in various ways. These financing decisions (allocations) must balance the advantages of financial accuracy against any potentially undesirable side effects such as perceived inequities, morale problems, or dysfunctional behavior. As several recent studies demonstrate, the implementation of new information systems can produce more accurate data, but this greater accuracy does not necessarily result in either positive organizational behavior or higher corporate profits.¹

In this article, we illustrate in a corporate real estate setting that imprecise financial techniques can be useful as motivational tools. These imprecise techniques can dominate more accurate costing methods to preserve or improve organizational cooperation, to enhance cost effective decision making, or to enable profitable innovations. Merchant and Shields [1993] provide a useful analytical framework in which to examine the impact of these imprecise financial techniques.² In a manufacturing setting, these authors identify three effects of imprecise costing: 1) upward bias, 2) downward bias, and 3) lower precision. They illustrate that less financial precision may be beneficial, and that these three financial techniques can be used to enhance organizational behavior and increase profits.

Readers with comments or questions are encouraged to contact the author via e-mail.

We use the Merchant and Shields designations to examine each of these techniques from a corporate real estate perspective. Although more accurate financial techniques are usually helpful, increased financial precision does not always assure better management decisions. The determination of corporate departmental occupancy costs illustrates this dilemma as well as or better than any other financial decision.

Example

This specific problem occurred in an electronics firm located in the Midwest. The essential components of the case are as follows:

1. The Status Quo

This company owns and occupies a \$4 million, 40,000 sqft building that is shared by the departments of engineering and marketing. About 100 engineers and 20 marketing professionals utilize 35,000 and 5,000 sqft, respectively. As part of the company's new departmental costing system, annual rent of \$20 per sqft is charged to each department on the basis of sqft usage: \$700,000 to engineering and \$100,000 to marketing. At present, both departments meet their budgets, and both earn bonuses.

2. The Need to Expand

The space at this site is not adequate for present needs. Recent growth and future prospects require a 20% expansion by engineering. Twenty additional engineers are needed to handle increased customer demands. Because of its large unit size and especially due to the existing electronic installations at the present site, engineering really should stay where it is. Therefore, marketing should move. (See Table 1)

3. The Financing Problem

The financing problem is this: how much should engineering and marketing pay for their new quarters? The real estate department is preparing to lease a new upscale 5,000 sqft office space for marketing at \$30 per sqft. Marketing's new space will lease for \$150,000 per year, an increase of 50%. In addition, relocation expenses, including some refit costs and new furnishings, will total \$100,000. The real estate department's related planning expenses will approximate \$80,000. The moving and planning costs will be amortized over the four-year lease period at the rates of \$25,000 and \$20,000 per year, respectively. If all these occupancy costs are charged to the marketing department (\$150,000 + \$25,000 + \$20,000), its annual rent will increase by 95% (\$195,000 vs. \$100,000). Marketing bonuses will be in jeopardy. Marketing will not be happy.

The example above illustrates a common problem faced by corporate real estate managers. Proponents of accuracy argue that calculations of internal rate of return (IRR) and net present value (NPV) allow managers to pinpoint areas of inefficiency and maximize profits by reducing unnecessary costs. An alternative view suggests that accuracy is less important than motivating profitable behavior. Charging the higher costs of their new space to marketing may be more accurate, but the resulting organizational disruption could be very expensive. Moreover, the loss of marketing's old property rights could well justify some compensation from engineering.

Calculations of IRRs, NPVs, or whatever are simple. Estimations, negotiations, leases, and contracts are also relatively easy. The most serious difficulties in corporate real estate finance arise when financial decisions cause inter-unit conflicts and dysfunctional organizational behavior. Financing decisions

truly affect motivations. Moreover, accuracy is not the ultimate corporate goal. Recognizing this accuracy/motivation tradeoff leads to a greater awareness that financial techniques can be used to influence organizational attitudes and behavior. The essential question in situations like the example in this article, therefore, is how much should be charged to each department; that is, how should these occupancy changes be internally financed.

Alternative Solutions

The above financing problem may be solved in at least three ways: 1) company-wide costing or pooled rates (aggregation), 2) departmental costing (disaggregation), or 3) imprecise costing. How these occupancy costs are charged to engineering and marketing will significantly affect any subsequent unit-by-unit profitability analysis, and may well determine unit bonuses.

Table 1
Departmental (Accurate) Costing

	Status Quo		Expansion Plan	
	Engineering	Marketing	Engineering	Marketing
Annual base rent ^a	\$700,000	\$100,000	\$800,000	\$100,000
Cost to upgrade ^b				50,000
Moving expenses ^c				25,000
Real estate dept ^c			10,000	10,000
Specific bia ^e				
Total annual rent	\$700,000	\$100,000	\$810,000	\$185,000
Square feet (sqft)	35,000	5,000	40,000	5,000
Price per sqft	\$20	\$20	\$20.25	\$37
Capital allocation ^f	\$3,500,000	\$500,000	\$4,050,000	\$925,000
Required IRR	.14	.14	.14	.14
Realized IRR	.14	.14	?	?

- Incremental base rent due to expansion is listed as "cost to upgrade" below.
- Upgrade costs are charged to marketing because they will occupy the new space.
- Moving expenses of \$100,000 are amortized equally over four years and charged to marketing.
- Real estate department planning costs of \$80,000 are amortized equally over four years.
- Under accurate costing, no specific costing bias is assigned to either department.
- Leasehold capital is valued as a function of total annual rent assuming a 30% operating expense ratio and a 14% capitalization rate.

Solution 1. Company-wide Costing or Pooled Rates (Aggregation)

The company could charge all or most of the new occupancy costs to general overhead, and thereby bury the costs. This decision could make both engineering and marketing happy. Similarly, many companies aggregate all leased properties in a city to compute a single pooled rate per sqft that is charged to all units within that city regardless of any specific lease. Both engineering and marketing might also like this policy. However, management will not accept either of these proposals because aggregate costing is exactly the type of solution/problem that the company's new departmental costing system was installed to overcome. Indirect costing clouds subsequent profitability analysis because return on capital is based, in part either explicitly or implicitly, on overhead allocations to the various operating units.

Solution 2. Departmental Costing (Disaggregation)

The company could use the numbers produced by its new departmental costing system. Management believes this new system will enable more accurate financial analysis and more profitable decision making. Although departmental costing has its roots in manufacturing, these systems are now being applied increasingly to various service industries. Departmental costing represents one of the most significant advances in management accounting because these systems accurately charge all units for the resources they actually consume.³

Table 1 illustrates the new rents under departmental (accurate) costing. Marketing's rent will increase by 85% to \$185,000 to \$37 per sqft. Engineering's rent will remain virtually unchanged at \$20.25 per sqft. Since marketing consumes the new resources (additional

space), marketing will be charged for the upgrade costs (\$10 higher rental cost per sqft x 5,000 sqft = \$50,000) and for the moving expenses (\$100,000 total moving expenses allocated over 4 years = \$25,000). Both marketing and engineering, however, will be charged for planning costs (\$10,000 each per year) because both units require some planning, supervision, and review by the real estate department as they occupy their new quarters. Accurate costing requires that capital allocations be linked to specific units to establish equitable IRRs and NPVs, and to create appropriate profit incentives. Although this departmental costing approach enables the best profitability analysis, marketing will not be happy with this solution.

Solution 3. Imprecise Costing

Adopt one of three imprecise or biased costing techniques as a motivational tool. In many cases, the reporting and use of more accurate cost measurements are not in an organization's best interests. Some companies deliberately and wisely add systematic biases to their costs to induce desirable responses. This approach can arbitrarily overcharge engineering, marketing or both -- based upon some kind of convenience, equity, or incentive basis. Unit profitability is intentionally misrepresented since the consequent financing decisions do not reflect precise or accurate capital costs or returns on investment. The firm's overall profitability may increase, however, because of fewer conflicts between engineering and marketing, higher intradepartmental morale, and greater overall productivity.

The ultimate goal of a corporate real estate department is to assure the availability of space that will be of greatest benefit to the company as a whole. All parties should perceive the costing of space as truly fair and equitable for all concerned. Nonetheless, financial incentives are a very real part of corporate

life. In some instances, management may wish to send a cautionary message to discourage waste. Arbitrarily higher costs (charges) can discourage undesirable behavior. Conversely, subsidized (lower) costs can stimulate desired behavior. Therefore, less accurate costing can be better than accurate costing at inducing specific behavioral responses.

Three Imprecise Financing Techniques

The imprecise internal financing techniques analyzed here may be grouped as follows: 1) upwardly biased costs, 2) downwardly biased costs, and 3) lower precision or differentially shared costs which create measurement noise with unknown directional biases. All three of these techniques can be useful as motivational tools.

Technique 1. Upward Bias

The object of upwardly biased costing is to charge more than accurate or proportional costs to the department using the resources. Management's reasons for implementing this technique may vary. For example, there could be a need to increase productivity before rewarding bonuses, to increase unit profitability, or to discourage undesirable behavior. Alternatively, management might wish to take this opportunity to increase the base incentive hurdle point for marketing. The entire leasehold charge to marketing could be doubled, therefore, arbitrarily. This higher rental cost would challenge marketing much more than previously. Such an upward costing bias policy was used for nearly two decades by NuTone Housing Group.⁴ Total costs were overstated by 40% primarily to influence pricing decisions. NuTone's General Manager, James Rankin, truly believed that his upwardly biased costing system was the primary management practice that contributed to the success of his company.

Table 2 illustrates the use of upward costing bias in our electronics company example. Using this technique, marketing's new rent will increase by 295% to \$395,000, from \$20 to \$79 per sqft. Engineering's rent would remain at \$20 per sqft. Whereas departmental costing would increase marketing's rent by \$85,000 to \$185,000 (Table 1), upward costing bias could charge all of the \$95,000 incremental rent to marketing. Additionally, upward costing could arbitrarily add, for example, another \$200,000. This added charge would customarily be called a cost of capital allocation or an administrative cost allocation. From marketing's perspective, the \$85,000 rent increase alone could represent an upward bias if they believe that engineering should pay a larger proportion than \$10,000 of total increased occupancy costs. Nevertheless, using the upward costing bias technique, management could charge the additional \$295,000 entirely to marketing. This total includes all the incremental costs of expansion and relocation plus an arbitrary annual upward bias. Since marketing will occupy the new space, they might require a new incentive. These financing decisions would have substantial motivational impacts on at least some individual marketing professionals, and probably on marketing as a whole.

Initially, marketing was very happy to move. They expected to obtain better offices with no change in their rental charges. They thought engineering would pay for all incremental occupancy costs. Furthermore, marketing has every reason to be cautious about paying more rent themselves. If their rent increases too much, they would have to work harder to compete effectively within their required margins. Moreover, the disruption of their efforts during the move itself could reduce their productivity for a time. They really wanted their rent to stay at \$100,000 annually or \$20 per sqft. In that case, marketing would be very happy.

However, by charging a \$200,000 upward costing bias to marketing, management would send a message to them (and perhaps to all other departments) that new space requires an additional capital allocation -- that moving is disruptive and costly. Since more capital is being invested in the unit, more return is expected. Units that initiate or agree to

such expansion proposals should be quite certain that they will be significantly more productive if their requests are approved. In the event that a unit is wrong in predicting its subsequent productivity, the consequences of that error will include serious threats to its own bonus picture.

Table 2
Imprecise Costing: Upward Bias for Marketing

	Status Quo		Expansion Plan	
	Engineering	Marketing	Engineering	Marketing
Annual base rent ^a	\$700,000	\$100,000	\$800,000	\$100,000
Cost to upgrade ^b				50,000
Moving expenses ^c				25,000
Real estate dept ^c				20,000
Specific bia ^e				200,000
Total annual rent	\$700,000	\$100,000	\$800,000	\$395,000
Square feet (sqft)	35,000	5,000	40,000	5,000
Price per sqft	\$20	\$20	\$20	\$79
Capital allocation ^f	\$3,500,000	\$500,000	\$4,000,000	\$1,975,000
Required IRR	.14	.14	.14	.14
Realized IRR	.14	.14	?	?

- Incremental base rent due to expansion is listed as "cost to upgrade" below.
- Upgrade costs are charged to marketing because they will occupy the new space.
- Amortized moving expenses are charged over four years to marketing.
- Amortized real estate planning costs are charged over four years to marketing.
- Under upward costing bias for marketing, \$200,000 is charged annually to marketing.
- Leasehold capital is valued as a function of total annual rent assuming a 30% operating expense ratio and a 14% capitalization rate.

Technique 2. Downward Bias

The object of downwardly biased costing is to charge less than accurate or proportional costs to the department using the resources. This financing technique is used in some companies because actual costs of products or services exceed what they should cost to enable effective competition. Many Japanese firms refer to this practice as “target cost-

ing” and they frequently set their standard target costs well below known costs.⁵ In other instances, downward costing bias is used to stimulate consumption of services. For example, many companies undercharge for computer set-ups in their various operating units as a way to stimulate PC usage. Similarly, banks may not charge ATM costs to their customers because they want to encourage ATM use, as well as other banking services.

Table 3
Imprecise Costing: Downward Bias for Marketing

	Status Quo		Expansion Plan	
	Engineering	Marketing	Engineering	Marketing
Annual base rent ^a	\$700,000	\$100,000	\$800,000	\$100,000
Cost to upgrade ^b			50,000	
Moving expenses ^c			25,000	
Real estate dept ^c			20,000	
Specific bia ^e			200,000	
Total annual rent	\$700,000	\$100,000	\$1,095,000	\$100,000
Square feet (sqft)	35,000	5,000	40,000	5,000
Price per sqft	\$20	\$20	\$27.37	\$20
	\$3,500,000	\$500,000	\$5,475,000	\$500,000
Required IRR	.14	.14	.14	.14
Realized IRR	.14	.14	?	?

a. Incremental base rent due to expansion is listed as “cost to upgrade” below.

b. Upgrade costs are charged to engineering to lower occupancy costs for marketing.

c. Amortized moving expenses are charged over four years to engineering.

d. Amortized real estate planning costs are charged over four years to engineering.

e. Under downward costing bias for marketing, \$200,000 is charged annually to engineering.

f. Leasehold capital is valued as a function of total annual rent assuming a 30% operating expense ratio and a 14% capitalization rate.

Table 3 illustrates rents under downwardly biased costing in our electronics company example. Marketing's new rent would remain at \$20 per sqft, whereas engineering's rent would increase from \$20.00 to \$27.37 per sqft. Under downward bias, marketing's rent would not increase at all. Despite their superior new quarters, their rent could stay at \$100,000 annually (\$20 per 5,000 sqft). In this instance, engineering would bear all the incremental occupancy costs (\$295,000) -- both the \$95,000 incremental occupancy costs and the \$200,000 arbitrary costing bias. Marketing might see this as eminently fair. The initiative to move marketing, after all, came from engineering.

Originally, in fact, most of the parties involved believed that engineering should bear all the costs of marketing's move. Upon learning more about the plush new office space that marketing had selected, however, many of the engineers felt that marketing's higher occupancy costs were excessive. Moreover, neither department initially was aware that a costing bias might be assessed as a result of this expansion. Subsequently, engineering balked at fulfilling its original agreement. The engineers were still willing to subsidize marketing to some extent, of course. They really wanted that additional 5,000 sqft because for them it would be very convenient, highly productive, and quite inexpensive. On the other hand, if marketing were charged nothing more for its better space and engineering paid for everything, marketing would feel very special. Prospectively, this preferential treatment could be highly motivational to marketing.

Although ultimately rejected by management, this downward bias technique for marketing was seriously considered. Management wanted to encourage marketing to move. Management also wanted marketing to feel very good about their move. Those fancy new

offices at a significant cost concession could give them a whole new lease on life. With these motivations in mind, all the additional occupancy costs incurred, including all new furnishings, could have been charged either to engineering, to the real estate department, or to general overhead. Marketing's new space could be charged at their old rate -- which is well below its true value. Doubtless, this decision could serve as a significant behavioral stimulant to marketing. Engineering, however, would be ready to blow a fuse.

Technique 3. Lower Precision

The object of the lower precision approach is to enhance employee performance. This bias need not be automatic in any given direction. Any excess costs can be shifted to any given operating unit, to the real estate department, or to general overhead. Its primary purpose is to focus employee attention on increasing competitive advantage through simplifying the production process or resolving organizational complications and behavioral conflicts. With this technique, innovative performance is more important than either accuracy in costing, unit profitability, or individual IRRs.

In the case of our electronics company example, lower precision is the financial technique that was ultimately selected to resolve this issue. If the unadjusted (although accurate) cost figures produced by the company's new departmental costing system had been used to determine occupancy charges for engineering and marketing, the prospects for their future interdepartmental cooperation would have faced serious challenge. Furthermore, everyone agreed that a shared cost of the move would be more fair and equitable. Because of this agreement, future relations between engineering and marketing would be more cooperative, and both units should be more productive by applying the less accurate,

lower precision approach.

Table 4 illustrates the rents ultimately charged using this lower precision financing technique. Marketing's new rent is \$31.80 per sqft. Engineering's new rent is \$25.90 per sqft. Given the primary goal of this technique, namely to enhance employee performance, the final solution to this dilemma was "negotiated" as follows: 80% of the moving costs, real estate planning, and specific bias were charged to engineering, and 20% of these costs were charged to marketing. The

justification for the 20% charge to marketing was their selection of a superior property with rather expensive tenant improvements, and management's desire to create some additional incentive for them. Both engineering and marketing were satisfied with this proration of total incremental occupancy costs for moving, real estate planning, and incentive bias. Higher bonuses were offered to both departments in the event that they exceeded their new costing breakeven points (IRR hurdle rates). Both engineering and marketing are happy with this resolution. The lower preci-

Table 4
Imprecise Costing: Lower Precision

	Status Quo		Expansion Plan	
	Engineering	Marketing	Engineering	Marketing
Annual base rent ^a	\$700,000	\$100,000	\$800,000	\$100,000
Cost to upgrade ^b			40,000	10,000
Moving expenses ^c			20,000	5,000
Real estate dept ^c			16,000	4,000
Specific bia ^e			160,000	40,000
Total annual rent	\$700,000	\$100,000	\$1,036,000	\$159,000
Square feet (sqft)	35,000	5,000	40,000	5,000
Price per sqft	\$20	\$20	\$25.90	\$31.80
Capital allocation ^f	\$3,500,000	\$500,000	\$5,180,000	\$795,000
Required IRR	.14	.14	.14	.14
Realized IRR	.14	.14	?	?

- Incremental base rent due to expansion is listed as "cost to upgrade" below.
- Upgrade costs are split 80%-20% to engineering and marketing, respectively, for equity.
- Amortized moving expenses are split 80%-20% to engineering and marketing.
- Amortized real estate planning costs are split 80%-20% to engineering and marketing.
- Costing bias is split 80%-20% to engineering and marketing to provide incentives for each.
- Leasehold capital is valued as a function of total annual rent assuming a 30% operating expense ratio and a 14% capitalization rate.

sion approach achieved its primary objective: to enhance the prospects of higher employee performance.

Less precise costing is less technically sophisticated, more judgmental, and somewhat arbitrary. Lower precision understates some costs and overstates others. Although managers may understand the basic concepts of departmental (accurate) costing, they may choose to accept costing imprecisions to induce specific positive responses. Furthermore, managers frequently do not understand all the inaccuracies of an imprecise costing system. As discussed at length by Merchant and Shields [1993], costing imprecisions may take the form of specific costing adjustments, and this point is especially relevant to our example. Although lower precision costing can be implemented in numerous ways, its purpose is always to focus employee attention on the factors management deems most critical to success.

In our case study example, rents could have been charged to engineering and marketing based upon the number of employees, total salaries, or total departmental profits rather than prorated on the basis of average cost per sqft occupied. Using a salary-based approach, engineering would have paid much more rent than marketing because there are five times as many engineers. In most shopping malls, rents are charged to retailers based upon percentage of sales. More successful retailers pay higher rents. Higher sales volume in that specific location suggests a higher value for that space for that particular retailer. Internal corporate financing through imprecise costing can better reflect market realities.

In the real estate marketplace, market-determined occupancy costs are negotiated to reflect much more than a simple average cost per sqft. Location, quality, and uniqueness are important occupancy variables. For

example, rents or price may reflect the value of space to a specific user rather than being based upon sqft occupied. A bank might pay an above average market price for an adjacent parking lot because it is more valuable to that bank than any other space. It might also be more valuable to that bank than to any other user.

In contrast, internally financed occupancy costs are not market determined. They can be computed, nonetheless, using one or more proxies for such market adjustments. In this case study, for example, engineering might have been charged a disproportionate rent for marketing's old space because that space is adjacent to engineering, and therefore especially valuable to engineering. Thereby, marketing's old property rights would be acknowledged as well.

Implications

Admittedly, the engineering/marketing example above was selected because it is an effective illustration of how financing decisions can affect organizational behavior and motivations. Nonetheless, this example is not unique; on the contrary, it is typical. Financial managers tend to become enamored with accurate cost numbers, rates of return, and profitability analyses. They tend to ignore the interpersonal motivational consequences of their financial decisions. However, both financial accuracy and organizational behavior are truly important issues. To become more effective managers within an organization, financial managers should seek accuracy, of course, but they also should strive to resolve conflicts, reduce excessive waste, and facilitate profitable new ventures by using financing techniques as motivational tools.

Financial Considerations

In the case of corporate real estate

assigned to operating units, these internal financing or costing decisions are essentially allocations of capital. Although we customarily perceive capital budgeting decisions as a function of required IRRs or NPVs, in reality realized unit IRRs are determined in part by previous capital allocation decisions. Since occupancy costs can impact significantly a unit's realized IRR, either more space (capital) or a higher value (cost) assigned to any given space will lower the unit's realized IRR, assuming that unit earnings remain unchanged. In other words, capital allocation dictates IRRs or NPVs.

These internal financing or costing decisions are not market determined. They are arbitrary managerial decisions that have predictable behavioral implications. They may be accurate reflections of economic reality, or purposefully misspecified to solicit desired corporate behavior. By overstating occupancy costs, capital allocation is biased upwardly, and realized IRR is reduced. People in that unit may have more incentive to work harder, they could strive to reduce other operating costs, or they might react negatively. On the other hand, by understating occupancy costs, a downward bias in capital allocation is implemented, thereby increasing a unit's realized IRR. These different IRR or NPV calculations are a function of the earlier financing or costing decisions -- no matter what the unit's earnings are at any given time.

Moreover, many corporate managers must achieve realized IRRs which exceed required IRRs if they are to earn bonuses for their units and promotions for themselves. Internal financing or capital allocation decisions regarding real estate assignments, therefore, will affect managers' motivations and behaviors. Whether purposefully or otherwise, if a unit's occupancy costs are biased either upwardly or downwardly, incentives are impacted. The higher the cost assigned to any

given space, the less attractive it is, and the less it will be used. If one unit is perceived to have an unfair advantage over another as a result of the costs assigned to spaces occupied or shared by the two units, their realized IRRs will also be seen as unfair. Conflict between those two units is virtually assured. Performance and profits will suffer. The key to success for the corporate real estate department is to allocate fair and equitable capital charges to the operating units while facilitating overall corporate policy at the same time.

Motivational Considerations

One of the most important contributors to the financial health of an organization is high morale, that is, the perception of fairness or enthusiasm among employees. Financial decisions of necessity sometimes undermine the morale of some employees. For example, downsizing represents a financially justified response to perceived organizational inefficiency. Although managers everywhere want better cost data, the use of more accurate financial information for ill-advised purposes can be just as hurtful and dysfunctional as the misuse of any other type of information. Ugly people, for example, need not be told how truly ugly they really are. More precise information does not require its use at any cost.

In our electronics company example, if the cost numbers as calculated in Solution 2 are charged to the two departments, engineering will win in every way: 1) they obtain additional low-cost space in which to become more productive, 2) they do not lose valuable time and energy by relocating somewhere across town, and 3) they may preserve and increase their bonuses with relative ease. Not surprisingly, engineering is quite supportive of the company's commitment to its new departmental cost accounting system. And engineering has more votes.

At the same time, marketing will lose in almost every way: 1) they must move to a non-adjacent office space with all the inconvenience and inefficiency that implies -- both during the move as well as when negotiating future sales, 2) they will have to work harder to realize the same unit IRR because their department has been allocated more leasehold capital, albeit against their wishes, and 3) they may very well lose their bonuses if they cannot achieve the required IRR established by management for all operating units. As a result, marketing is virtually unanimous in feeling displaced, victimized, and mistreated. They resent the engineering, real estate, and accounting departments, for certain, and perhaps the entire company. Surely, this state of affairs cannot be tolerated simply in the name of greater financial accuracy.

Changes in cost systems guarantee some winners (subsidized departments) and some losers (subsidizing departments). Departmental or disaggregated cost systems significantly reduce the bundling or aggregating of indirect costs. For example, general overhead is charged out to all departments, products, and services based upon their consumption of corporate resources. As a result, there are fewer free goods and services. The identification of waste in the various operating units is more likely. One of the principal arguments for a more sophisticated costing system, in fact, is the prospect of cost reductions and greater cost effectiveness induced by more clearly specified financial incentives.

In the case of occupancy costs, many companies include in general overhead many or all of the costs of owning, leasing, managing, and financing real estate. If space is a free good, of course, more will be used. If additional space or tenant improvements are charged only indirectly at best to the units that use them, more and better space will be in demand by all departments. In this case study,

engineering might become less interested in more space if they were required to pay for all the incremental costs faced by marketing. Moreover, if marketing knew that its new and better space could increase their workloads or eliminate their bonuses, they might choose less expensive offices. They might even prefer not to move.

Financing techniques do affect motivations. They can affect motivations positively or negatively, purposefully or accidentally. Financial managers are frequently maligned by others in an organization as insensitive to the human aspects of the business, or unfeeling in their blind commitment to the bottom line. Moreover, financial techniques are frequently mistrusted because of their mystical characteristics or their questionable assumptions. In reality, financial techniques are only tools to enable better decisions, to achieve desired goals and objectives. Financial compensation, for example, is usually perceived as beneficial because it encourages desired behavior. Similarly, accurate information is usually valuable because it results in better decisions. However, as demonstrated in our electronics company example, costs that are upwardly biased, downwardly biased, or less precise may also be useful in some instances because they motivate desired organizational behavior.

Accurate costing models and imprecise costing techniques are not necessarily mutually exclusive. Accurate costing may result in better analyses, but management may choose not to implement a change based upon accurate costs because of other equally or more important considerations. Similarly, financial analysis and organizational morale are not mutually exclusive. In fact, they should be complementary. The three imprecise costing methods discussed in this article illustrate that financial techniques can be useful as motivational tools in achieving successful long

term organizational performance and financial profitability.

Suggestions For Future Research

Possible future research directions include: 1) individual case studies that identify and examine this financial accuracy/motivational tradeoff in other industries with more or less capital intensity, 2) field studies that contrast similar impacts across industries with different capital intensity ratios, 3) field studies which examine the impact of internal financing decisions on productivity and profitability as a function of different total real estate or other capital investments by different companies within the same industry, 4) surveys that investigate the impact of this tradeoff on organizational performance and behavior of select target populations, 5) longitudinal investigations of the changes in the financial accuracy/motivational tradeoff, or 6) behavioral studies which test for differences in employee motivations as a function of how alternative internal financing or costing decisions are made, announced or implemented.

The results of this study suggest that internal corporate financing decisions may significantly affect employee motivations, departmental productivity, and overall corporate returns on investment. These financing decisions are more arbitrary than market determined. Therefore, managers could benefit from future research that examines the impact of alternative financing or costing techniques. Moreover, additional research is needed regarding the organizational processes whereby these financing decisions are determined and implemented. $\mathcal{S}$

Endnotes

¹ Shields, Michael D., and Michael A. McEwen. "Implementing Activity-Based Costing Systems Successfully." *Journal of Cost Man-*

agement, Vol. 9, No. 4, pp. 15-22, Winter 1996. Roberts, Michael W., and Katherine J. Silvester. "Why ABC Failed and How It May Yet Succeed," *Journal of Cost Management*, Vol. 9, No. 4, pp. 23-35, Winter 1996. Kotter, John P., and Leonard A. Schlesinger. "Choosing Strategies for Change," *Harvard Business Review*, Vol. 57, No. 2, pp. 106-114, March-April 1979.

² Merchant, Kenneth A., and Michael D. Shields. "Commentary on When and Why to Measure Costs Less Accurately to Improve Decision Making," *Accounting Horizons*, Vol. 17, No. 2, pp. 76-81, 1993.

³ Cooper, Robin, and Robert S. Kaplan. "How Cost Accounting Distorts Product Costs." *Management Accounting*, Vol. 70, No. 10, pp. 20-27 April 1988: "Profit Priorities from Activity-Based Costing," *Harvard Business Review*, Vol. 69, No. 3, pp. 130-135, May-June 1991. "Activity-Based Systems: Measuring the Costs of Resource Usage," *Accounting Horizons*, Vol. 6, No. 3, pp. 1-13, September 1992.

⁴ Merchant, Kenneth A. "Scovill Inc.: NuTone Housing Group," Harvard Business School case 9-186-136,1.

⁵ Hiromoto, Toshiro. "Another Hidden Edge-Japanese Management Accounting," *Harvard Business Review*, Vol. 66, No. 4, pp. 22-26, July-August 1988.

Notes

Notes