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**Dollars and Sense
of Sales Compensation**

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DOLLARS & SENSE OF SALES COMPENSATION

by Robert Lindgren

Many graphic arts executives observe that, for a class of people who sometimes seem to make inordinate amounts of money, salespersons often appear to possess surprisingly little community of interest with the company. How can you get salesmen to stop cutting the price or twisting the estimator's arm, or to rein in their "printing broker" urge to sell the jobs which only your competitors can print?

First, let's examine the most prevalent method of sales compensation--*straight percent commission on gross sales*--and see why this method creates these problems. We will assume that ABC Litho has a sales compensation program which pays its salesman, Joe, a 10% commission on gross sales. Joe receives a draw against this commission, but since he is a successful and well established salesman, his actual commission earnings are well in excess of the draw. So, it is the way his commission is computed that affects his behavior. If we give Joe a price for a job, and Joe succeeds in talking us into reducing the price by \$1.00, he suffers a loss of 10¢ of his income. Joe is balancing the probability of losing his entire commission against a loss in commission of 10¢ from a cut in the quotation. *So there's little incentive for Joe to do other than shave prices.* On the other hand, if Joe is a "creative biller" and inspired to get another dollar on the estimated price, his share is only 10¢. The 90¢ goes right to the house's bottom line--which is terribly good for the house, but only 1/9 as good for Joe. So Joe's resourcefulness in "creative billing" is small--regardless of what the house may

want him to do on pricing the job.

If Joe's incentive to do a better job of pricing is weak, his incentive to concentrate his efforts on selling the house's jobs under this plan is non-existent. *The traditional method pays exactly the same commission on a brokered job as one produced in-house*, tempting Joe to try to sell the big web job that we can't produce so he can make a killing, while we can try to pay the bills.

OTHER COMMISSION PLANS

Fortunately, there may be a better way, and to begin the search for it, let's consider three other possible methods of sales compensation. The first of the three alternative methods is the "*profit split*" approach, where the salesman receives a high proportion (usually half) of the difference between the fully allocated cost and the invoice price. This method is also commonly combined with the "percentage of gross". The second alternative is "*percentage of value added*." By value added, we mean the difference between raw materials plus purchased outside services (without mark-ups), and invoice price. The third method is "percentage on contribution to overhead". By contribution to overhead we mean the difference between raw materials, purchased outside services at cost, out-of-pocket factory labor, and the invoice price.

Exhibit 1, Column A shows a typical sheet fed job sold at a 10% net profit margin on invoice price. (The definition of fully allocated cost is familiar to almost everyone, but

in our example, costs have been restated to distinguish between out-of-pocket expenses and allocated fixed expenses. In the traditional cost system, fixed factory expense, selling, and administrative expense are buried inside the all inclusive hour rates and the materials and outside service mark-ups.)

In Exhibit 2, we have computed the salesman's commission, using the four different methods discussed above on our alternative "A". By selecting the appropriate commission rates, we have made the dollar amount of commission the same for all four commission plans, so we have an equal starting point for comparing the plans under strategies B, C and D.

Exhibit 2 shows that, while the salesman's commission under strategy "A" is exactly the same under all four plans, the benefits or penalties for pricing efficiently are fundamentally different. We noted at the beginning, that the traditional "percentage of gross method" gave our salesman 10¢ on the dollar reward in "creative billing", and imposed a similar penalty for price cutting. Exhibit 2 shows us that the alternative commission methods provide Joe with incentives or penalties which have a much stronger effect on his economic well being. *Any one of the three alternative commission methods would thus do a better job in the pricing efficiency area than the traditional one.* Joe is penalized only \$20 for cutting prices (strategy "C") on a 10% commission on sales, but far more heavily with the other three plans.

JOE THE BROKER

The second area of concern in salesmen's behavior is the tendency to sell products that

are not produced by the house. Column "B" of exhibit 1 shows our hypothetical standard job reconfigured as a 100% buy-out, with the billing remaining at \$1,000 dollars, but materials and outside services rising to \$745. The effect of this sort of shift in sales mix is obvious from looking at the change in contribution to overhead-- that magic number which measures the cash impact of the job on our company. In the normal job, shown in column "A", contribution to overhead was \$320, whereas on this job, it has fallen to \$255--a 31% reduction. Contribution to overhead pays the rent and generates profit - not payments to outside suppliers.

In exhibit 2, column "B" we see some sharp divergences in the commission compensation Joe receives. In the traditional "percentage of gross" method and in the "profit split approach", the commission remains unchanged in this example, but with the "value-added" and "contribution to overhead" methods, the commission is sharply reduced by a "brokered" job, with the strongest effects coming from the "value-added" commission method. These two methods, then, provide our sales force with incentives to concentrate on the sale of those products which we can produce internally, and which will maximize contribution to overhead and net profit.

You will notice that in the traditional method, "percentage of gross", we see the smallest amount of change in salesmen's earnings over these four variant conditions of sale--exactly the problem that we began to address. If the sales force has no economic incentive to do the right thing for the firm, it is unlikely to do so. The "profit split" approach, the second method, makes Joe highly sensitive to changes in pricing level, but not to the differences

between in-house and bought-out jobs. The "value added" approach is sensitized to the differences in both purchased and produced jobs, and pricing levels, but is somewhat more sensitive to product mix differences than to pricing differences. The "contribution to overhead" approach, recognizes both differences, but makes commissions more sensitive to changes in pricing levels.

The profit split approach is flawed way because of its inability to help Joe distinguish between jobs bought out and jobs internally produced. This is highly significant because many times neither the sales force nor management fully realizes the depressing effect on profits caused by permitting the sales force to sell somebody else's work. The second disadvantage with the profit split approach is that the salesman's commission rapidly falls to zero (or negative) in a price-competitive situation, and may make it difficult for the house to keep the sales force on the street bringing in jobs when the economy is soft, and price competition is on the rise. Also, there should be some concern that when a salesman is receiving a high percentage (50% or better) of additional billing dollars and is dealing with a purchasing agent who is interested in a kickback, his commission may be providing a large fund for such illegal payments.

Considering next the value added approach, it can be seen that the objections raised to profit split are completely met. The value added commission plan has an inescapable bias toward penalizing product mix problems, rather than pricing problems. The final method, percentage of contribution to overhead, does both jobs, but is rather more

biased in favor of pricing policy efficiency.

TAKE YOUR PICK

Of the methods above, which is preferable? On a purely theoretical level, compensation based on a percentage of contribution is obviously the desirable method, since it is contribution to overhead that we are trying to maximize, and we ought to build our compensation system around the objective we're trying to attain. There are, however, serious practical problems with this method, since it makes the salesman's income not only dependent upon what he does, i.e., the prices for the products he sells, but upon what the shop does, i.e., what's on the cost sheet. On balance it is probably not useful for us to turn the salesman's creative efforts toward arguing with the accounting department about how many hours have been charged to jobs. This problem could be overcome, of course, by basing contribution on estimated, rather than actual cost, but that approach might simply force Joe's attention from the cost accountant to the estimator. This leaves us with the value-added method, which seems to us to meet the objection raised about the contribution approach by deducting only external costs. The chances are that those numbers will be accepted by the sales force as factual and beyond question. So on balance, what emerges as the preferred method is "value added" - with "contribution" a close second.

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EXHIBIT 1

PRE-COMMISSION PRICES, COSTS USING DIFFERENT STRATEGIES

		Pricing/Production Alternative			
		A	B	C	D
		Normal We do	Normal Outside	20% cut We do	20% over We do
	Alternative:				
	Price:				
	Who Prints?				
	Invoiced Price	\$1000	\$1000	\$800	\$1200
LESS:	Direct Materials	260	0	260	260
	Outside Purchases	90	745	90	90
EQUALS:	Value Added	\$650	\$255	\$450	\$850
LESS:	Out-of-Pocket Labor and Factory Costs	330	0	330	330
EQUALS:	Contribution to O'head and Profit	\$320	\$255	\$120	\$520
LESS:	Allocated Fixed Factory Expenses	65	0	65	65
EQUALS:	Gross Profit	\$255	\$255	\$55	\$455
LESS:	Allocated General & Admin. Costs.	155	155	155	155
EQUALS	Net Profit on Job	\$100	\$100	\$(100)	\$300

Table splits traditional "all inclusive" job costs into fixed and variable ("out-of-pocket") portions. First column show typical sheetfed job we do in-house at normal price rates, to net \$100. Strategy "B" shows same job done outside, with same book profit. Columns C and D show impact of cutting or raising price by 20%, doing it ourselves. "Contribution to Overhead and Profit" measures cash inflow to company before sales rep's commission is paid.

EXHIBIT 2

CASH IMPACT OF COMMISSION PLANS UNDER DIFFERENT STRATEGIES

COMMISSION PLAN	Pricing/Production Alternative			
	A	B	C	D
10% on Gross Sales				
- Commission	\$100	\$100	\$ 80	\$120
- Contribution less Commission	\$220	\$155	\$ 40	\$400
5% on Gross Sales + 50% of Net Job Profit				
- Commission	\$100	\$100	\$ 10	\$210
- Contribution less Commission	\$220	\$155	\$110	\$310
15.4% of Value Added				
- Commission	\$100	\$ 39	\$ 69	\$131
- Contribution less Commission	\$220	\$216	\$ 51	\$385
31.1% of Contribution				
- Commission	\$100	\$ 80	\$ 38	\$163
- Contribution less Commission	\$220	\$175	\$ 82	\$357

Table shows how sales rep, company benefit under different commission plans and pricing/production strategies. Top number in each set gives sales commission, bottom figure represents contribution to overhead and profit after salesman is paid off.