

Store managers play a pivotal role in a retailer's financial success. So designing the right incentive schemes is crucial. New research shows just how crucial

Incentives: getting what you pay for

RESEARCH

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Store managers play a critical role in retailing. Store employees report to them and they perform many tasks within the store – influencing a range of key metrics, such as operating expenses.

The people-intensive and customer interactive nature of their work means store managers play a critical role in ensuring the store supports the overall mission of the company.

Yet direct owner oversight of store managers is difficult, given the number of different store locations in the average retail chain, combined with their geographic dispersion. For example, The Gap Inc, a casual apparel retailer, operates more than 2,500 stores in six different countries. Store manager behaviour in these stores is unobservable and uncontractible, but the way in which they are evaluated and rewarded for these tasks affects their effort allocation.

Consequently, it is vital to design

appropriate incentives to motivate store managers.

Our research shows that retail performance can be improved substantially through appropriate design of store manager incentives. Using data from a consumer electronics retailer, we measured retail performance (sales and shrink) under two different incentive policies, after controlling for variables such as inventory level, advertising dollars, industry retail sales growth, and store differences. And the results were dramatic. Changes in store manager incentives resulted in increased store profits by 3.3 per cent of sales.

Modelling store manager incentives

Because their work is largely unobservable – and hence, uncontractible – store managers have a high degree of control over their own jobs, including the number of hours they put in, how hard they work,

Because their work is largely unobservable, store managers have a high degree of control over their own jobs. This makes incentive design crucial

and in what way they allocate effort to different activities in the store. Broadly speaking, these activities fall into two categories – sales generation and expense control.

Sales generation is easy to visualise in “push” environments such as car dealerships and some consumer electronics stores, where store employees are directly involved in selling products to customers.

However, even in “pull” environments, including supermarkets (that is self-service environments), store managers can impact sales, though to a lesser degree than in push environments, by altering display, ensuring that shelves are restocked frequently, and keeping aisles clean.

Expense control can be more subtle. The growth of centralised merchandising and strategic planning has left store managers with relatively little direct impact on real estate costs and cost of goods sold. But they often have substantial influence over controlling shrink and labour costs.

The research site for this particular study was Bryn Mawr Stereo (BMS), a chain of 13 consumer electronics stores in Pennsylvania, Maryland, New Jersey and Delaware. Tweeter Home Entertainment Group (Tweeter), a New England-based retail chain of comparable stores, acquired BMS some years ago and

changed incentives immediately after the acquisition.

We observed monthly sales and shrink in BMS stores both before and after this change in ownership. We then isolated the effect that changing store manager incentives at 12 of 13 BMS stores had on retail performance, controlling for variables such as inventory levels, advertising, and industry retail sales growth.

We were helped in our analysis by the fact that so many other aspects of the two stores’ operations did not change. Tweeter did not dramatically alter other aspects of store operations, such as training or employee turnover, or aspects of store identity, such as name or location, during the period under study.

Tweeter and BMS served the same customer segment, selling a variety of consumer electronic products falling into the following three categories: audio (receivers, amplifiers, speakers, car stereos, personal stereo devices), video (televisions, camcorders, DVD players), and accessories (cables, cassettes, batteries). Because Tweeter and BMS were part of the same buying group – small speciality retailers making collective purchases from suppliers in order to obtain favorable prices – Tweeter and BMS had identical product assortments.

The buying group focused on purchasing products in the mid to top end

The big difference between BMS and Tweeter was how store managers were incentivised – to maximise sales, or to minimise theft?

of a manufacturer's range which both BMS and Tweeter sold primarily to well-educated, affluent customers interested in quality products.

Employee turnover during the period under study was minimal. All but one of the BMS store managers remained in their positions under Tweeter ownership. Similarly, no turnover occurred in the commissioned sales staff during this period. Even the store manager's reporting structure remained intact and staffed by BMS employees.

Tweeter's acquisition was not one that involved the radical overhaul of key staff positions. Such continuity in personnel was critical to our analysis. Any major shifts in personnel at multiple levels of the organisation would not allow us to determine if the observed differences in performance measures, such as sales and shrink, were the result of the incentive change or merely differences in individual ability at store management, sales or operational control.

Similarly, there was no change in the pricing policies and the product assortment at the stores. As noted above, BMS and Tweeter were part of the same buying group – The Progressive Retailers Organization. Thus, both had access to the same manufacturers and obtained their products for the same price.

Our interviews revealed that BMS's and Tweeter's product assortments were

virtually identical, and that retail prices did not change substantially after the acquisition. In fact, both BMS and Tweeter had price guarantees in place during our period of analysis such that the store would match the price of any other consumer electronic retailer.

Moreover, none of the six merchants we interviewed about this question was able to identify specific ways in which pricing or assortment changed after the acquisition. The chief merchant specifically stated that any changes in assortment and pricing were minor, and not a critical factor in explaining the changes to sales and shrink.

The big difference between BMS and Tweeter, then, was how store managers were incentivised.

Educating the customer was an essential part of the sales process at both BMS and Tweeter because the nature of their products required store employees to provide detailed product information to the customer. Store managers directed the effort of salespeople who reported to them and in some cases sold product to customers as well.

In addition to motivating and training salespeople, store managers affected sales by freeing up salespeople to focus on sales activities (for example, sparing salespeople from having to operate the cash register, deal with returns, receive inventory, or monitor shrink) and by

Exhibit 1: Understanding the Drivers of Sales and Shrink Performance at BMS and TWTR

affecting the display of merchandise at the store (for instance, whether items requiring hands-on sampling, such as personal stereo devices, were easily accessible for customers to use).

Store managers also played an important role in affecting store operating expenses. The most notable expense under the store manager's control at BMS and Tweeter stores was shrink. And like sales, store managers could affect shrink by directing the efforts of salespeople and by their own actions. For example, store managers could ask salespeople to monitor colleagues and customers in order to identify shoplifters.

Moreover, store managers could monitor inventory receipts carefully and affect the display of merchandise by deciding to place readily stolen items, including batteries, personal stereo devices or cables, behind lock-and-key, or on open shelves where customers could browse these products easily.

BMS and Tweeter offered store managers performance-based compensation contracts. Such contracts were important because the firm could not monitor the effort allocated by a store manager to increasing sales and reducing shrink. Furthermore, stores were often many miles from headquarters, making direct observation of managerial action impossible.

Nevertheless, the form of these

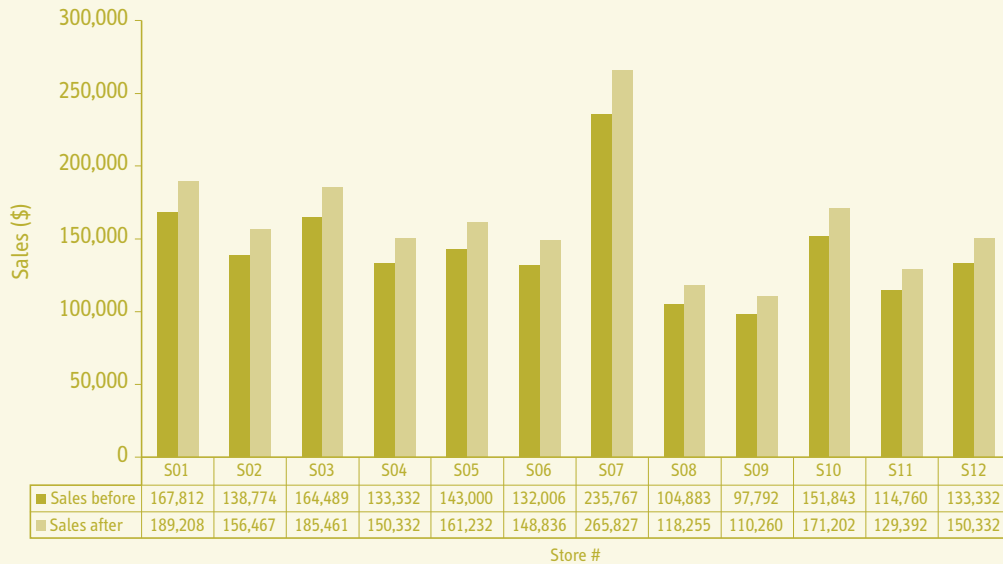
performance-based contracts differed substantially between the two companies. The primary difference, described in detail below, was the degree to which the store manager was rewarded for shrink relative to sales.

The BMS incentive system emphasised shrink, although the bonus BMS store managers received included both sales and shrink. All BMS store managers were penalised one dollar for every dollar of shrink in their stores. Consequently, they were extremely concerned with controlling shrink.

This type of accountability, although rarely associated with shrink, is commonly used in retailing for maintaining control of cash receipts. In addition, all BMS managers were rewarded for additional sales. These ranged from 0.2 per cent to five per cent of additional sales dollars based on the store manager's performance.

Tweeter penalised shrink less than BMS because it rewarded store managers a percentage of additional store operating income (SOI). While each store manager received the same contract, bonuses ranged from zero to 20 per cent of SOI based on the level of SOI. For example, at a store with an additional \$100 in shrink, the store manager's bonus would be reduced \$100 under the BMS plan. At Tweeter, the manager's bonus would be reduced by, at most \$20 (20 per cent of \$100) for the same incremental shrink amount.

Exhibit 2: Comparison of Predicted Monthly Sales Before and After Incentive Change (Model 4)



Data collection and analysis

In order to associate the change in incentives with differences in retail performance, we identified and controlled for those variables which could plausibly account for differences in the observed performance metrics, sales and shrink.

Our control variables included inventory levels, US retail sales, advertising expenses and store differences. Our objective was to answer the following two research questions:

1. Controlling for changes in US retail sales of consumer electronics, store inventory, advertising expenditures, and store differences, do monthly store sales differ when store managers are rewarded according to the BMS plan than when they are rewarded under the Tweeter plan?

2. Controlling for store inventory and store differences, does monthly store shrink differ when store managers are rewarded according to the BMS plan than when they are rewarded under the Tweeter plan?

We collected relevant data from the firm's sales and operating records and conducted almost 150 hours of fieldwork during which we met with on-site personnel familiar with both BMS and Tweeter, including store, merchandising, operations, finance and regional sales management.

This data gathered from company

records included monthly sales, shrink, advertising, and inventory dollars for 12 different stores and were collected for 11 months prior to Tweeter's acquisition (May 1995-April 1996) and 11 months after (May 1996-April 1997).

We then constructed a series of nested, fixed-effects regression models to test the relationship between monthly store sales and store manager incentives, taking account of other possible variables such as seasonality, industry growth, inventory levels and advertising expenditures. (For detailed description of the methodology and statistical results, contact the authors for the full paper).

Preliminary analysis revealed that both sales and shrink increased after Tweeter implemented the change in store manager incentives. When store managers were rewarded as a percentage of sales and a dollar-for-dollar reduction for shrink, monthly sales averaged \$155,890 while monthly shrink averaged \$122.91. Alternatively, when store managers were rewarded based on store operating income, monthly sales averaged \$189,867 while monthly shrink averaged \$676.25, an increase of 22 per cent and 4.5 per cent respectively.

Interpreting our results, we determined that the BMS versus Tweeter incentive plans accounted for a 13 per cent positive difference, on average, in store sales (Exhibit 2), after taking account of

Across the entire chain of 12 stores the incentive change improved profits by \$742,000, while shrink showed just a slight increase of \$785

other factors such as consumer electronics industry retail sales, available inventory, and store differences. Few changes in retailing can cause a 13 per cent sales increase. ("Comparable store sales increase" typically averaged one per cent during the same period for consumer electronics stores).

This dramatic increase in sales was accompanied by only a slight increase – \$785 – in the average monthly shrink. Hence, using a gross margin rate of 30 per cent, average monthly store profit increased by \$5,154. Across the entire chain of 12 stores and over the complete year, the incentive change improved profits by \$741,844. In other words, by ascertaining that store manager activities were not rewarded appropriately, Tweeter was able to dramatically improve its retail performance.

Managerial implications

Our findings show that balancing incentives suitably for multi-tasking agents can lead to improved performance. Where agents perform multiple activities, incentive pay can be used not only to motivate agents to work in the interest of the firm but also to allocate effort among several activities (1).

Increasing the compensation for any one activity will result in reallocation of the agent's effort away from other activities. So poorly designed contracts

lead to sub-optimal allocation of effort which, in turn, results in sub-optimal firm performance.

The strong link between incentives and performance is supported by field observations of managerial behaviour. Because the penalty for shrink was reduced, store managers shifted their effort allocation away from activities which prevented shrink towards those activities that increased sales.

This shift in effort allocation was readily apparent in the behaviour of store managers. BMS store managers were described as creating a "defensive" (theft-preventing) store environment. Essentially, BMS store managers would lock up any inventory that could readily be stolen. This included product categories such as accessories (cassettes, batteries, cables), personal stereo devices, and camcorders, where sales could be increased by allowing consumers to touch and feel the product.

While making products inaccessible to thieves helped control shrink, it also made product inaccessible to potential customers, thus creating an atmosphere of "sales prevention", according to former BMS and current Tweeter executives.

Such concern over shrink also seemed to influence other operational decisions made by store managers. For instance, BMS store managers often refused to open a store for business should too few sales

Store managers perform multiple tasks and are responsible for multiple performance measures. So appropriate incentive weights are critical

people be on-hand during a particular time period.

Furthermore, BMS store managers monitored the product-delivery process by personally reconciling shipments between the store and the warehouse, even if this meant leaving customers unserved.

The former BMS operations manager and current Tweeter Director of Operations summed up the atmosphere at BMS succinctly, "...Everything was operations... we had control of everything."

However, under the Tweeter incentive plan, store managers became "business managers" who were "out on the sales floor watching what was going on and assisting their sales people in making sales, making sure the merchandising was right, and the operational stuff was sound".

Store managers became "sales motivators" and could be seen on the sales floor more often. Product was no longer kept in locked displays but rather out on the floor where individual customers could touch and feel it. Additionally, Tweeter store managers did not insist on personally monitoring receipts at the store when their presence was required for sales assistance.

The descriptive evidence of the change in store manager behaviour after implementation of the BMS incentive plan lent support to our analytical

findings. The way in which store managers are rewarded for the set of activities that control shrink and the set of activities which generate sales is associated with variations in sales and shrink.

Implications for other retailers

Many retail executives from the more than 40 retailers we have studied during the last few years agree on the importance of performance-based store manager incentives, but struggle with the optimal design for these incentives. Our research underscores the importance of using a multi-tasking agent framework to design these incentives.

Store managers perform multiple tasks and are responsible for multiple-performance measures. Consequently, it is important that firms set appropriate weights on different performance measures while designing incentives for store managers.

Incentives need to be designed differently in various retail contexts, based on the relative importance of these performance measures to the firm's profitability and the store manager's ability to impact each of these performance measures.

Consider, for example, the reward that should be given for incremental sales. The relative importance of sales to profitability often differs among retailers

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because of differences in their relative gross margins. For example, a top-end jewellery retailer such as Tiffany & Co has gross margin in excess of 50 per cent of sales, while Price/Costco, a warehouse club, has a gross margin of roughly 11 per cent. In other words, \$100 of additional sales adds \$50 to Tiffany's gross profits, while only \$11 to that of Price/Costco.

Understandably, all else remaining equal, a chain such as Tiffany should reward store managers more for generating sales than a chain with lower-gross margins. In addition, retailers with high-gross margins must be willing to tolerate more shrink. Using the example above, Costco should allow for only one dollar in shrink for every ten dollars of sales, while Tiffany should allow five dollars of shrink for the same amount of sales.

Similarly, a store manager's ability to improve sales and control expenses can vary substantially from one retail context to another. Supermarket store managers, for instance, have less impact on sales than store managers of automobile dealerships who work directly with customers to generate sales.

Thus, we would expect the relative emphasis on sales in the store manager's reward to be lower at supermarkets than at businesses including Tiffany and automobile dealerships, where store managers have considerable influence

over sales. Tremendous gains can be achieved by recognising store manager incentives which are set sub-optimally and altering them suitably.

As evidence of this, we noted that BMS had set incentives sub-optimally for a long time by placing much greater emphasis on shrink over sales. Tweeter was able to improve annual profits by 3.3 per cent of sales at BMS by changing these incentives such that they were aligned with the ability of the store manager to impact sales and shrink and the relative importance of each measures to firm profitability.

Moreover, Tweeter has successfully achieved similar results at other retailers acquired since BMS. Once again, incentives played a key role in changing behaviour and performance at these newly acquired retailers.

For example, at another chain acquired by Tweeter, salespeople were rewarded based on sales revenue rather than on gross margin or store operating profit. Not surprisingly, high-price items (such as large-screen TVs) that often had low gross margins received more attention and accounted for a large portion of this chain's sales. Managers even allowed salespeople to negotiate prices on such items in order to achieve store sales goals.

By changing the incentives at these stores to emphasise operating profit, Tweeter was able to change the sales mix

Retailers often change one incentive at a time. But by focusing on just one performance measure, they inadvertently affect performance in other areas too

at such stores considerably. High gross-margin items such as receivers and amplifiers increased from 27 per cent to more than 30 per cent of their overall business. Despite the fact that comparable store sales decreased following the acquisition, this focus on profitable sales ensured the contribution each store made to the retailer's profit increased.

We have anecdotal evidence that retailers in other segments face similar challenges in designing incentives for store managers. At one Texas-based convenience store chain, store managers were paid according to seniority rather than according to the performance of their stores. Recently, the incentives were changed so those store managers received a percentage of store profit. In doing so, the chain found that not only were expenses controlled more effectively but sales also increased substantially.

Retailers often seem to forget they are dealing with multi-tasking agents in their stores. Consequently, when faced with a situation where they need to control one performance measure, retailers seek to change the incentives associated with that measure alone. They often fail to note that changing incentives associated with one performance measure, without any regard to others, could hurt other performance measures substantially.

Two examples serve to illustrate this notion. In spite of the dramatic

performance achieved after the acquisition of BMS, some Tweeter managers were uncomfortable with the higher levels of store shrink and hence advocated a return to tighter control. Some of them even advocated reverting to the BMS incentive system where store managers were penalised severely for every dollar of shrink.

The plan to revert to the old incentive system was scuttled by some managers who pointed out that such punitive measures would divert attention from generating sales. To support their position, these managers were able to point to historical data of how the stores had performed under the old incentive plan compared with their current performance.

Emphasising the multi-tasking nature of retailing is key since rewarding store managers for their performance on one measure has implications for their performance on other measures.

A second example can be drawn from another retailer which was concerned with the accuracy of its inventory systems. Physical audits had revealed that the company's inventory records were often inaccurate (the company had substantially more or less inventory in its stores than indicated by the inventory computer systems). Some company managers suggested tying the bonus of store managers and salespeople to the

Tying the bonus of store managers to the accuracy of physical audits, for example, might divert their attention from sales-generating activities

accuracy of the physical audits.

While this bonus system might reduce the discrepancy between the inventory records and the actual inventory held in the store, company managers did not consider the adverse effect that such a system might have on sales by diverting the attention of store-level employees away from key sales-generating activities. When we pointed out this trade-off, managers at the retail store quickly renounced their proposed incentive change.

Our analysis shows the importance of both using performance-based incentives and taking a multi-tasking approach to incentive design in the context of retailing. Retailers must be cognisant of the way in which a firm's performance depends on the behaviour of store employees – and be sure to induce behaviours that contribute to the firm's profit.

Doing so requires that retailers understand the reward for one activity impacts not only on the effort allocated to that activity, but to each of the other activities for which the individual is accountable.

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Further reading

This is an edited version of a longer paper. Readers interested in the detailed methodology and statistical analysis behind this study should contact Nicole DeHoratius at nicole.dehoratiusgsb.uchicago.edu.

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