## Menu Engineering

A relatively new method of menu analysis $\mathbb{\&}$ food pricing is called menu engineering. This sophisticated and fairly complex approach considers both the profitability and popularity of competing menu items. The emphasis is on gross margin rather than food cost percentage.

Menu engineering requires the manager to know each menu item's food cost, selling price, and quantity sold over a specific period of time. The menu item's gross margin (selling price minus food cost) is characterized as either high or low in relation to the average gross margin for all competing menu items sold.

For example, if a menu item has a gross margin of RS. 30/- when the average gross margin for the menu is RS. 35/-, then the menu item is classified as having a low gross margin. If the menu item has a gross margin of RS. 45/-, then it is classified as high for profitability purposes.

Each menu item is further classified by popularity (high or low) based on the item's menu mix percentage, that is, the menu item count for each menu item as a percentage of the total menu items sold. Where " n " equals the number of competing menu items, the dividing point for determining high low popularity is calculated as follows:

$$
70 \% \times 1 / n
$$

Therefore, if there are 10 competing items on a menu, the dividing point is $7 \%$, determined as follows:

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70% x 1/10=.07 or 7%
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| Profitability |  | Popularity |
| :--- | :--- | :--- |
| High | High | Classification |
| High | Low | Puzzles |
| Low | High | Plow Horses |
| Low | Low | Dogs |

Stars: Menu items high in both popularity and contribution margin. Stars are the most popular items on your menu. They may be your signature items.

Plow Horses: Menu items high in popularity but low in contribution margin. Plow horses are but low in contribution margin. Plow horses are demand generators. They may be the lead items on your menu or your signature items.

They are often significant to the restaurant's popularity with price conscious buyers.

Puzzles: Menu items low in popularity but high in contribution margin. In other words, Puzzles yield a high profit per item sold. But they are hard to sell.

Dogs: Menu items low in popularity and low in contribution margin. These are your losers. They are unpopular, and they generate little profit.

## How to use the categories

Once you have grouped your menu into the four key categories, you are ready to make decisions. Each category must be analyzed and evaluated separately.

Stars: You must maintain rigid specifications for quality, quantity, and presentation of all Star items. Locate them in a highly visible position on the
menu. Test them occasionally for price in-elasticity. Are guests willing to pay more for these items, and still buy them in significant quantity? The Super Stars of your menu - highest priced Stars - may be less price sensitive than any other items on the menu. If so, these items may be able to carry a larger portion of any increase in cost of goods and labor.

Plow Horses: These items are often an important reason for a restaurant's popularity. Increase their prices carefully. If Plow Horses are highly price sensitive, attempt to pass only the cost of goods increase on to the menu price. Also, consider reducing the item's standard portion without making the difference noticeable. Merchandise the Plow Horse by packaging it with side items to increase its contribution margin. Another option is to use the item to create a "better value alternative."

Puzzles: Take them of the menu. Particularly if a Puzzle is low in popularity, requires costly or additional inventory, has poor shelf life, requires skilled or labor intensive preparation, and is of inconsistent quality. Another option is to re-position the Puzzle and feature it in a more popular location on the menu. You can try adding value to the item through Table D'Hote Packaging. Rename it. A Puzzle's popularity can be affected by what it its called, especially if the name can be made to sound familiar. Decrease the Puzzle's price. The item may have a contribution margin that is too high and is facing price resistance. Care must be taken, however, not to lower the contribution margin to a point where the Puzzle draws menu share from a Star.

Dogs: Eliminate all Dog items if possible. Foodservice operators are often intimidated by influential guests to carry a Dog on the item. The way to solve this problem is to carry the item in inventory (assuming it has a shelf life) but not on the menu. The special guest is offered the opportunity to have the item made to order upon request. Charge extra for this service. Raise the Dog'sprice to Puzzle status. Some item in the Dog category may have market
potential. These tend to be the more popular Dogs, and may be converted to Puzzles.

## Menu margin concept-

Supposed analyze menu in 2 ways
a) Profitability
b) Popularity

Purpose -

To determine:
$\checkmark$ Food cost of each and every item
$\checkmark$ Selling prize
$\checkmark$ Number of each item sold for a specific period of time.

Menu margin concept-

| A | B <br> NAME OF <br> DISH | C <br> SALES <br> PRICE | D <br> FOOD <br> COST | E <br> MARGIN <br> C-D | F <br> GROSS <br> /AVG <br> MARGIN | G <br> PROFIT <br> OVER/UNDER |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | MURG <br> TANDOORI | 320 | 150 | 170 | 100 | OVER |
| 2 | MURG <br> MALAI <br> TIKKA | 250 | 100 | 150 | 100 | OVER |


| 3 | MURG <br> RESHNI <br> TIKKA | 300 | 100 | 200 | 100 | OVER |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 4 | MURG <br> MAKHANI | 285 | 130 | 155 | 100 | OVER |
| 5 | MURG <br> HARIYALI | 275 | 100 | 175 | 100 | OVER |
| 6 | MURG DO <br> PIYAZA | 250 | 125 | 125 | 100 | OVER |
| 7 | CHICKEN <br> SATAY | 225 | 100 | 125 | 100 | OVER |
| 8 | CHICKEN <br> BURGER | 155 | 80 | 75 | 100 | UNDER |
| 9 | CHICKEN <br> SANDWICH | 150 | 45 | 105 | 100 | UNDER |
| 10 | CHICKEN <br> SASHLIK | 175 | $75 / 85$ | $100 / 85$ | 100 | UNDER |

SBU=STRATEGIC BUSINESS UNIT
GROSS MARGIN=SELLING PRICE-FOOD COST

## POPULARITY

| SL. NO. | NAMES OF DISHES | NAME OF <br> ITEMS <br> SOLD | AVERAGE OF <br> ITEM SOLD | POPULARITY OVER/UNDER |
| :---: | :---: | :---: | :---: | :---: |
| 1 | TANDOORI MURG | 15 | 46 | UNDER |
| 2 | MURG MALAI TIKKA | 50 | 46 | OVER |


| 3 | MURG <br> RESHMI <br> TIKKA | 40 | 46 | UNDER |
| :---: | :--- | :---: | :---: | :---: |
| 4 | MURG <br> MAKHANI | 75 | 46 | OVER |
| 5 | MURG <br> HARIYALI | 60 | 46 | OVER |
| 6 | MURG DO <br> PIYAZA | 50 | 46 | OVER |
| 7 | CHICKEN <br> SATAY | 25 | 46 | UNDER |
| 8 | CHICKEN <br> BURGER | 60 | 46 | OVER |
| 9 | CHICKEN <br> SANDWICH <br> 10 | CHICKEN <br> SASHLIK | 25 | 46 |


| PLOW |  |
| :---: | :---: |
| HORSE/CASHCOW |  |
| (OVER/UNDER) | STAR |
| (OVER/OVER) |  |
| DOGS | PUZZLES |
| (UNDER/UNDER) | (UNDER/OVER) |


| POPULARITY | PROFITABILITY | CATEGORY |
| :--- | :--- | :--- |
| OVER | OVER | STAR |
| UNDER | UNDER | DOGS |
| OVER | UNDER | CASH COWS/PLOW <br> HORSES |
| UNDER | OVER | PUZZLES |

$\checkmark$ STAR- SIGNATURE ITEMS
$\checkmark$ PUZZLES - NEW PRODUCT LAUNCH
$\checkmark$ CASH COW - POPULARITY MAY PERSIST PROFIT MAY DECREASE
$\checkmark$ DOGS - NO PROFIT AND POPULARITY

