SOME NOTES ABOUT CLASSIFICATIONS:

Depending where an item occurs on the matrix, appropriate action should be taken

STARS (High Popularity & High CM):
Are profitable and popular items / leave them alone or perhaps consider raising their price a bit. It is possible to increase their menu prices without affecting volume.

CASH COWS/plough horses (High Popularity & Low CM): Are relatively unprofitable but popular items / try to improve their individual contribution margins without decreasing volume. Optional actions are to increase price, reduce dish cost by modify the recipe, use less expensive ingredients, or reduce the portion size. Look for a way to keep them on the menu but increase their contribution margins without decreasing volume.

QUESTION MARKS/puzzles (High CM & Low Popularity): Are comparatively profitable but relatively unpopular items / keep them on the menu but try to improve popularity (volume) without substantially decreasing profitability. Optional actions include price reduction, the renaming of the dish, repositioning the item on menu, item promotion through staff selling, or removing it from menu.

DOGS (Low CM & Low Popularity):
These are items that are both unprofitable and unpopular, combining low volume and small contribution margin. These items need to be replaced. If they need to remain on the menu for some reason, alter them so that they move up to at least the QUESTION MARK classification. Optional actions include replacing the dish, redesign dish or removing it from menu. Remove from the menu unless there is a valid reason for continuing to sell them or profitability can somehow be increased.

...Note: the optional action of "do nothing" applies to all 4 classifications. However, when you think about it, if you "do nothing" after going through the rigors of a doing a quality menu analysis and generating a menu engineering worksheet, you have wonder why you did the analysis in the first place. "do nothing" may apply to a very few, at most, of you menu items. Remember that your competition is probably not "doing nothing".

Popularity Index ==> a percentage derived by dividing number of item units sold by total units sold

Item Contribution Margin ==> Item Sales Price minus (variable)Item Food Cost per unit

Item Total Cost ==> number of item unit sold times the Item Food Cost

Item Total Revenues ==> number of item units sold times the Item Sales Price

Item Total Profit ==> number of item units sold times its Item Contribution Margin
Average Contribution Margin ==> Total Item Total Profit divided by the number of units sold

Item Profit Category ==> If the Item Contribution Margin is less than the Average Contribution Margin the result is an "L". If the Item Contribution Margin is greater than the Average Contribution Margin the result is an "H". "L" is for Low and "H" is for High.

Popularity ==> If the item's Popularity index is less than 70% of the average number of menu items the result is an "L". If the item's Popularity index is more than 70% of the average number of menu items the result is an "H". "L" is for Low and "H" is for High. This number "70% of the average number of menu items" in our example, is calculated by dividing 1 by 5 and then multiplying by .7 and then multiplying the resultant decimal by 100 to get a percentage. ((1/5) times .7) times 100 which equals 14% (where 5 is the number of menu items). The only variable number in this calculation will be the number of menu items, all else remains unchanged in the simple formula.

SOME BACKGROUND INFORMATION ABOUT MENU ENGINEERING

INTRODUCTION:
Once your menu items have agreed upon and the menu has been printed and is in use, keeping your food cost and food cost percentage on target, as important as it is, does not mean that you are maximizing your potential profit. At the end of the financial accounting cascade, or at the bottom of all the lines, what determines how much profit there will be is the "Gross Profit", or "Contribution Margin" of the menu items. Let's look at an example from the Nighthawks Cafe Menu:

Nighthawk Burger
- costs $3.50
- sells for $10.00
- contribution margin $6.50

Chicken of the Night
- costs $4.00
- sells for $12.00
- contribution margin $8.00

In other words, each "Chicken of the Night" sold, compared to the "Nighthawk Burger" brings in an additional $1.50 in revenue. Multiply that by a hundred per month and we have and additional $150.00 in revenue or Gross Profit.
Identifying or analyzing dishes that perform well or poorly has probably been practiced by foodservice owners/managers/chefs since the hospitality business began. Good selling profitable menu items get promoted (the house specialty or signature dish) and poor selling, low profit items usually get removed from the menu.

**MENU ANALYSIS** is the process of applying a wide range of techniques and procedures to try and improve decision-making regarding marketing and the menu. One popular approach to successful menu analysis is called "menu engineering". The other popular approach is the one we all know as "food cost percentage". In the end, a foodservice operator is often simply trying to answer the questions of (1) are my menu items priced correctly? (2) am I in the right market for my product?, (3) are the individual items selling well enough to keep them on the menu? and (4) is my overall profit margin at an acceptable level?

**MENU ENGINEERING** was developed by Michael L. Kasavana and Donald J. Smith in 1982. Based on the very prestigious "Boston Consulting Group's" (BCG) "Matrix Conceptualization Model" (www.12manage.com/methods_bcgmatrix.html), Kasavana and Smith's idea began in and grew out of the hospitality industry. Menu engineering is an empirically driven, deterministic approach for the evaluation of present and possible future menu pricing, design and content decisions.

The goal of menu engineering is to group dishes into good and poor performers comparing the performance of each individual menu item (usually only the main courses). The most frequently used criteria for this menu examination are

1. financial performance (contribution margin)
2. sales volume of each menu item (popularity or sales volume)

Explained another way, this menu examination relies on an accurate analysis of the (1) popularity (drawn from the sales history) of each menu item and (2) the cost vs. selling price relationship, commonly known as the "CONTRIBUTION MARGIN". There are numerous versions to this approach.

All the menu items are then analyzed according to the above two criteria utilizing a four-section (BCG) matrix to visually present each item's respective performance. Each of the quadrants of the (BCG) matrix is given a name to represent the "performance classification achievement" of menu items. Depending where a dish lands on the matrix, appropriate action should be taken as indicated above.

Some Key Points
1) It is VERY important to understand that because menu engineering uses the technique of "comparative analysis", there will always be dishes with low popularity and poor financial performance compared to other menu items. You might want to see how these "poor performers" actually did when measured against 'forecasted sales' and/or your financial plan's food and beverage sales budget if you have one.
2) Menu engineering requires accurate information to provide a reliable and valid analysis. For small-scale, single-roof operations, this data should be collected over a reasonably long period to have statistical validity.

3) Variations in the range of the period being analyzed will invalidate the analysis. Menus items must be planned, and remain unchanged (from a cost-selling price perspective), for at least a few months or you will have insufficient data. When comparing consecutive periods make sure they are of the same length and that any "odd occurrences" are accounted for and explained (bad weather, kitchen fire, last minute convention in town, etc).

4) During the analysis period you make sure that you monitor ingredient costs, yields and menu item costs accurately. These need to remain a constant, with minimal fluctuations.

5) A frequent and legitimate criticism of Menu Engineering, with its emphasis on contribution margin, is that this kind of menu analysis tends to favor high-priced items over low-price ones. The logic is that higher priced items, generally speaking, have the higher contribution margins. This often results in sales techniques like menu placement decisions tending to subtly influence the guest to think that an operation is of a higher quality than it may justify.

**IN CONCLUSION:**
Managing a foodservice operation to achieve a specific budgeted food cost percentage has historically been an ingrained fundamental principle of the foodservice business. How well your menu is "performing" and contributing to the budgeted food cost profit target can be approached and analyzed in many different ways using many various techniques and procedures.

Current "In vivo" practice tends to focus on aggregated hard data and traditional matrix analysis.
"Practical" approaches, on the other hand, will focus on the use of market, industry, customer, and competitor analyses.
A "hybrid" approach directs the application of marketing concepts and techniques based on the menu engineering and contribution margin concepts to an effort to achieve the best possible financial results.
"Qualitative menu analysis" increasingly supports the position that the profitability of individual menu items is only one of several important criteria when designing a menu and it is probably management's execution and decision making that will determine the success or failure of a new or revised menu.