Setting the Bar: Bar Area Equipment Layout Basics

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Setting the Bar: Bar Area Equipment Layout Basics

Abstract
[Excerpt] A number of years ago, I was asked to design the bar equipment layout for a client who was opening a new casual-dining restaurant. When I asked him to tell me more about his ideas for the bar so that I could do an effective design, I he replied, "Oh, you know, I just want a regular bar." He thought he knew what he needed and that his description of a "regular bar" would be sufficient. But good design requires good information input, and that means asking the right questions early on, before you get too far into laying out your entire restaurant and making up your equipment budget.

Keywords
restaurant, bar, layout, design, functionality

Disciplines
Food and Beverage Management

Comments
Required Publisher Statement
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A number of years ago, I was asked to design the bar equipment layout for a client who was opening a new casual-dining restaurant. When I asked him to tell me more about his ideas for the bar so that I could do an effective design, he replied, “Oh, you know, I just want a regular bar.” He thought he knew what he needed and that his description of a “regular bar” would be sufficient. But good design requires good information input, and that means asking the right questions early on, before you get too far into laying out your entire restaurant and making up your equipment budget.

The right questions to ask really just hinge around one idea: What do you want this bar to be able to do? You might want a bar that is primarily a service bar, mixing drinks for pickup by servers. Or you envision the kind of bar that guests will gather around to watch the game (or watch each other). Maybe you want a bar that is a showpiece; forming the visual center of your restaurant as a way of merchandising beverages and making your restaurant feel more lively — a time-tested way of increasing your sales. And perhaps your bar also will serve as dining space for single guests, or as a venue for lighter fare than your main dining room. Each of these kinds of bars will have a very different kind of design and, depending on the types of beverages you plan to serve, may have a very different array of equipment.
First, How Big?

Two things define the size of a bar: your beverage program and your expected volume. Let’s start with the beverage program, which is another way of saying what categories of drinks you plan to sell and how many types of each category you plan to offer. For example, you may plan to emphasize wine in your restaurant, offering several dozen wines by the glass and perhaps even flights of wine so that guests can taste several related varieties at once. This approach would suggest lots of glassware storage (one guest might be receiving three to five drinks at a time if she orders a flight of California reds or Alsatian whites) and substantial refrigerated storage for holding opened wine bottles as well as additional stock. Compare this with a restaurant that serves predominantly draft beer: In this case, the range of glassware will be reduced to perhaps one or two sizes of pint glass or mug, and you won’t need that much refrigeration right at the bar other than what is required for your kegs. Broad cocktail menus that include every drink under the sun mean that you’ll need a lot of glassware storage space, lots of back-bar space for merchandizing call brands of liquor, plenty of maneuvering room to allow your bartenders to assemble drinks from a wide range of ingredients, and ready access to higher volumes of ice. So very early in your planning process, you need to consider the type of beverages that you think you will sell most and the particular needs these drinks have in terms of glassware, equipment, storage and garnishes.

Your volume is the other key factor in sizing the bar. In general, the higher the volume, the more staff you’ll need behind the bar. A rule of thumb for a bar that serves cocktails, a modest range of beers and a few wines — perhaps this is what most people think of when they think “regular bar” — is to allow 60 square feet (SF) for the first bartender and another 30-50 SF for each additional bartender. If you think you’ll have enough volume to warrant two bartenders and perhaps a bar back on weekend nights, size the bar for these peak periods. If your bar is only serving wine and bottled beer, you can get by with the lower number for the additional bartender, whereas a beverage program that emphasizes mixed drinks might want to use the higher number to allow for a second cocktail mixing station and space to double up on popular liquors and mixers.

One more factor that influences how big the bar area becomes is how close it is to the kitchen. If your bar is next to your kitchen, you can often make the bar a bit smaller; glassware can be washed and ice can be made in the back of house, and you can have a smaller par stock of supplies and glassware right at the bar if it’s quick and easy to get more from the kitchen nearby. For restaurant concepts that put the bar far from the back of the house, you may want to err on the high side in terms of sizing to allow room for a glass washer, extra glass racks, and perhaps even an ice maker.

Many restaurateurs make the mistake of planning how many seats they want to have at the bar and from that determining the size of the bar. I believe this is the wrong way to think about it: Bars are not cheap to build, nor does it make it easy on your staff to try to operate a bar that is too big for them. An efficiently planned bar leads to more effective staff, faster service, and, in the end, happier customers. So it makes sense to start with the functional aspects of the bar and work from there.
If you do want to figure out how much space you need based on number of seats along the front of the bar, you can do so by allowing about two linear feet per seat. So a 20-seat bar needs about 40 linear feet of bar top, not including pickup space for servers.

Regardless of their length, bars have some fixed dimensions in their depth. The most common style of bar — one against a wall — is typically 8-9 feet deep measured from the wall to the edge of the bar top facing the guest. This depth allows 24 inches for a back bar, 36 inches for a working aisle, and sufficient room for bar equipment and the bar die itself. The bar die is the term for the structure that separates the guest from the bartender. For illustration, see “Typical Bar Dimensions” drawing on this page.

I recommend 36 inches as a working aisle, because it is wide enough to allow two employees to pass relatively easily and narrow enough for bartenders to get to items on the back bar without having to take extra steps. For extremely busy bars where you may have a lot of bar back activity, you may want to widen the aisle to 42 inches, but this is about as wide as is practical for most operations.

**Behind the Scenes**

In addition to the equipment that must be at the bar to serve your beverage program, you’ll need some supporting equipment that may or may not be at the bar itself. As I mentioned, being close to the kitchen might allow you to put these items in the kitchen areas, which helps to streamline the bar layout and make it a bit more pleasant workspace for your staff. But if your bar is in a different part of your building, you will probably want to put the supporting equipment nearby. This supporting equipment is a glass washer of some kind, an ice cube maker and bin, and back-up storage shelving.

The reason that I discuss these equipment items separately is because they have a very different effect on bar layout than does the drink equipment. It’s easy to see why; glass washers and ice machines need to be readily accessible to all bartenders so they often have to be placed in the middle of the bar layout, which is “prime real estate” — the spot where you really ought to be merchandising drinks or encouraging guest-bartender interaction. Glass washers generate heat and moisture and sometimes noise, all of which may be out of place for your concept or an annoyance to your bartender. Ice machines likewise generate heat, and as most bar-area ice machines are air-cooled, they may have trouble getting adequate airflow to operate well in a crowded and cluttered under-bar space. They also generate a sudden cascade of noise at unexpected intervals, which can be disastrous if your bar offers live entertainment. Glass racks that go through most ware washers are about 20 by 20 inches, and can be stacked on a dolly that can be rolled into a parking spot under the bar for quick access during peak times. For glassware you wish to have out and at the ready, think about providing short adjustable shelves on the back bar so that you can maximize the space as your glassware needs change over time. In many places in the United States, hanging your stemware is not permitted for health reasons, so plan on providing shelves for all glassware.

That said, some owners like a “thru the bar” glass washer that servers can unload dirty glasses into and bartenders can refresh their glass stocks from. Consider your drink volume as you decide whether to adopt this approach, as well as this glass washer’s relationship with nearby seats. And if you do go with a through-the-bar unit, make sure you have a sturdy waterproof dump container on the server side so that stir sticks, lemon wedges, soiled napkins and other debris don’t get run through the machine where they can cause problems.

The other reason to consider a small service space adjacent to the bar is to provide a screened space for unattractive but necessary items like a mop and bucket, the sound system, extra wicker baskets for bar snacks, bags of popcorn — all the extra “stuff” that most bars seem to accumulate. Locate your bins and racks for empties here, too, so you can separate them easily for recycling and/or returning to the bottler. Lastly, if you use a soda or liquor gun system, this room is a good place to put the dispensing system.

**Typical Bar Dimensions**

The most common style of bar — one against a wall — is typically 8-9 feet deep measured from the wall to the edge of the bar top facing the guest. This depth allows 24 inches for a back bar, 36 inches for a working aisle, and sufficient room for bar equipment and the “bar die,” i.e., the structure that separates the guest from the bartender.

**Common Mistakes and How to Avoid Them**

I visit a lot of bars (strictly for professional purposes, I assure you), and have noticed a number of common planning mistakes that could have been easily avoided if the operator had thought through the way the bar was intended to function before equipment was purchased and put in place. Here are my “top 10” typical bar planning mistakes:

**Not enough glass storage.** This one requires little explanation, but it’s the most common problem I see. Operators underestimate the number of glasses they’ll need, and overestimate the bartenders’ ability to wash and replenish glasses when the bar gets busy. It is far better to have more than you think you’ll need than to run out during a rush. Remember that the glass racks that go through most ware washers are about 20 by 20 inches, and can be stacked on a dolly that can be rolled into a parking spot under the bar for quick access during peak times.

**No place for empties.** Most bars plan for handling empty beer bottles, but often fall down when it comes to storing empty liquor or wine bottles. In many cities, these must be recycled by law, and it’s not unusual for the waste handling company to require glass bottles to be separated...
Choose Your Equipment Well

Knowing the details of your beverage program not only makes it easier to size your bar but also helps you refine precisely what equipment you'll need to get to support your concept. Because a lot of bar equipment is relatively simple — mostly counters, sinks and refrigeration — you can often find good buys on the used equipment market. But you'll still have a significant investment to make, so it pays to think through your needs carefully.

For mixed drinks you will need a cocktail station, also called a mixing station or a cocktail unit. This is a combination of an ice bin (sometimes with a cold plate running through it for chilling soda lines) and wells for mixers, garnishes and tools. Sometimes these also include a lowered blender shelf, which is always a good idea because the lower height makes it easier on the bartender to pour ingredients in and hold down the top while blending. Along the front of the cocktail station we typically hang one or more tiers of speed rails, which are just long bins that hold the liquors you pour most often. You can also get tiered bottle racks that sit next to the cocktail station, which are handy when you need to have a lot of popular liquors close at hand. Remember that many of your liquor bottles will have a pouring spout inserted in them, making them taller than usual; plan your backbar shelving heights accordingly. High-margin specialty brands will need to be highly visible but also easy to grab for your bartenders. If the drink is easy and fast to make, the bartender is more likely to help push these upscale products.

You'll also need storage for empty glassware close by; the types and quantities of glassware will depend on your customers' preferences. A lot of bars try to save space by moving to serving cocktails in only one of three glass types: a martini glass, a short rocks glass and a highball. Depending on your clientele and your price point, this might be an option for you, although if pousse-cafes (pronounced pooze-ka-fay and meaning a drink made by layering cordials in a tall cordial glass) or hurricanes are big sellers for you, you'll want a more elaborate glass selection. And if you plan on featuring specialty drinks like frozen margaritas and will rely on a machine for producing these, ensure you allocate both space and flexible utility hookups for this equipment, which is often leased from (or even provided free) from the drink mix vendor.

If your concept emphasizes beer, your big decision will be how much draft beer vs. how much bottled beer you intend to offer. Draft beer will require a dispensing system either at the bar or from a remotely located walk-in refrigerator. In general, if your beer walk-in is within 25 feet of your taps, you don't have to refrigerate your beer lines, although many restaurateurs do regardless of the length of the run. The beer "snake" can be as much as 8 inches in diameter, so plan accordingly when laying out its route from the walk-in to the bar. Bottled beer is generally easier to handle; you just need refrigeration at the bar either in glass-front cabinets (for merchandising) or a bottle cooler with top access. Consider your clientele when deciding the types and numbers of beer glasses to have on hand. Many customers are happy to drink beer from a bottle in very casual settings, but you will want to be able to offer glasses on demand. Some concepts like to add a mug "froster" to their bar equipment list, but you can often get a similar effect by storing mugs in a refrigerator.

Wine bars may have fewer equipment needs, but they make up for it in glassware requirements and, in some cases, storage for par inventory. If you are serving quality wines you'll be concerned with holding temperatures for whites as well as for reds, and may want to investigate wine preservation and service systems for by-the-glass programs. You may want dedicated glasses for reds, whites, sparkling wines and fortified wines. By color prior to pickup. Think about your beverage program and how you'll purchase your inventory, and plan bins or shelves to handle empty bottles as close to the point of use as you can.

Poor server support. If it is awkward for servers to get drinks from the bar, they are less likely to sell them. Do everything you can to make it easy for servers to place orders, pick up drinks and, if you want, dispense nonalcoholic beverages themselves. I always try to create a server station at one end of the bar, along the most reasonable route from the seating areas and/or the kitchen. Protect this station from encroachment by guests by keeping seating well away, changing the floor finish in this area, or placing some kind of physical barrier to separate the service area from guest spaces. Make sure you put the soda gun, ice and glasses within easy reach; same goes for the coffee and related service items. Provide a clear space for servers to put down trays, and include some storage for extra trays so soiled ones can be swapped out. You may want to include a POS terminal in this area, as well as space for side work or table-service items. Lastly, it's important that this space have a direct line of sight to the main cocktail station so that servers can communicate easily with the bartender even if you are using a computerized ordering system.

Poor sightlines. The bartender should be able to see his or her entire domain while working: all guest seats, the server pickup station, the POS terminal, and all supplies and stock. One bar I know has a large proportion of its seats around the corner from the bar, and ironically those seats are the most popular ones for guests. The bartender cannot see a lot of these seats without leaving the bar and walking over to this part of the space, nor do guests pass the bar on their way to these seats so there's no way to know if the seats are occupied unless someone actively checks. This means that the operator needs to have an alert cocktail server and a bartender on at all times, even when business is very slow. Rethinking the bar placement — or even the layout of furnishings to put the popular lounge-style seats closer to the bar — would result in reduced labor and happier guests.

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wines. (If your wines are really top end, you may even want different styles of red and white wine glassware for specific varietals or regions.) Don’t forget storage for wine buckets.

An important question for the restaurant owner to consider is whether the bar will be the source of nonalcoholic beverages as well. Many operations place espresso equipment — machine, grinder, refrigeration and a waste dump — at the bar as a way to promote these high-margin items as well as use the bar labor most effectively and reduce training needs (only the bartenders need to have espresso skills). If you serve specialty coffee drinks, you’ll want to add a coffee brewer with a hot-water dispenser to your list, and if your restaurant is small that may be the sole brewer for the entire facility. Soft drinks can also be dispensed from the bar. For coffee and soft drinks, consider positioning the equipment as well as the service-ware within reach of your server pickup area so that servers can pour these nonalcoholic drinks without waiting for the bartender, who may be busy with other tasks.

No matter your beverage program, there are some pieces of equipment that are necessary: a hand sink, a separate three-compartment bar sink, waste receptacles for garbage and for empty bottles, glass rack storage, and a small amount of dry storage for paper goods like cocktail napkins and POS tape. The POS system itself likewise needs to have a place at the bar, and operators are of two minds about where to place them. One school of thought puts the POS on the back bar, away from guests’ hands, as a security precaution and to free up workspace in the “business” part of the bar. Another wants the POS on the front bar but down low, so that bartenders do not have to turn their back on customers at any time. There is no one approach that is intrinsically better than another; just consider your concept and type of guest as you make plans for where to place the POS terminal.

Lack of support for dining at the bar. The growing trend toward small plates and more casual dining has led to more and more guests wanting to eat at the bar. This can be good news for operators who have long waits for tables, because there is evidence that diners at the bar free up their seats earlier than diners at a table. If you plan to serve meals at the bar, plan for it through the design of the bar die. Bar dies with raised lips (called “marine edges”) are uncomfortable for most diners and should be avoided for bar dining. Make sure you have some space behind the bar for menus, cutlery wraps and place mats, if you use them, as well as a bus tub for clearing soiled tableware. You should also consider providing some kind of hook or shelf under the front bar for guests’ purses; while many female patrons will hold their purses on their laps or over their shoulder while drinking, few will want to do so while eating.

Not designing for cleaning and maintenance. Bars get dirty; drinks spill, lemons squirt, and all manner of debris can fly when the home team is
Take a Test Drive

Once you have determined what equipment you think you need and worked out a specific amount of space for it, it's time to test-drive your design before you commit to a floor plan. Drawing a to-scale diagram on a sheet of paper is a good first step, while some operators go so far as to map out a life-sized version of the bar on the floor (or in the parking lot) using masking tape. Either way, this prototype will be useful for making imaginary drink orders and testing whether you have arranged the equipment in a way that makes sense, and whether you've left anything out. Try this; lay out a rough draft of your bar equipment and then walk through in detail the steps for preparing the following: a glass of white wine; a pint of Bud on draft; a bottle of Heineken with a frosted glass; a dirty call-brand martini, shaken, with two olives; and a Cuba Libre. This particular drink order is a good test because it involves multiple product types, multiple garnish types, and a wide range of garnishes and techniques. Let's just look at the steps for a dirty martini:

- With one hand, grab a martini glass (from where?) and set it on the bar die.
- Fill the glass with ice (from where?) to prechill it.
- Fill a cocktail shaker with ice (Where will the shaker be kept?).
- Pour the call brand gin and vermouth into the shaker (Where are your call brands? Your well brand of vermouth?).
- Cover the shaker and shake (Where will the cover be kept?).
- Discard the ice from the martini glass (into where?).
- Strain the liquor into the glass (and your strainer is where?).
- Pour in a small amount of olive juice (Where will you keep the olive jar?).
- Spear two olives on a pick and mount the pick on the side (where will the picks and fruit garnishes be?).

Walk through a similar exercise with each of the drinks mentioned above, and with the kinds of drinks that you think your clientele will order frequently given your concept and beverage program. Don't forget to consider little details like where the beer bottle caps will go, where you'll store the white wine (and the corkscrew), and where you will cut the limes for the Cuba Libre. (Where are you going to keep the uncut limes, and the corkscrew?) Needless to say, if you have not been a bartender yourself, you'll want someone with experience creating the kinds of drinks you plan to offer to be your tester. It also doesn't hurt to show your proposed plan to a number of other bartenders, who are often very forthcoming with their views about what makes a bar design work well. Listen to them, but remember that the eventual design needs to work for your concept and your operation.

As you do these experiments, keep a list of the items you need to add to your plan or to your small wares list, and the changes you need to make to your plan. Revise the layout as necessary and try the same exercise again. It's not unusual to repeat this process five or six times to fine-tune the design, but it will definitely be time well spent.

Refrigerated equipment has compressor housings that need to be accessed for cleaning as well as periodic maintenance, so make sure these are easy to get to so that your staff doesn't neglect them. Dusty air panels on refrigerators can reduce airflow and result in equipment failure. On floors, removable mats that can be separated into manageable segments are your best bet; choose those with holes large enough to trap slippery items like fruit slices or bottle caps. Mats that can be taken apart and hosed off outside or even run through a dish machine are more likely to be kept clean.

Forgetting your customers' anatomies. Flipping through the trade magazines recently, I saw a newly opened bar being touted as "cutting edge design." The problem was that all the smiling models sitting at the under-lighted bar with cosmopolitans in hand had to sit sideways: the bar top was joined flush with the upright support behind the bar equipment, leaving no space for guests' knees if they sat at the bar. This was a clear case of the interior designer not considering that customers need to be physically comfortable if you want them to stay at the bar and order a second drink. Another design feature that influences guest comfort is the height of the bar die. It should be about 42 inches high for standing guests to be able to reach their drinks comfortably or converse with those seated. And provide some kind of foot rest — ideally affixed to the bottom of the bar die — as ergonomic research has shown that people will stand for longer periods in comfort if one foot is raised 4-6 inches and supported by something sturdy. Bar stools with a back are preferred because guests find them more comfortable over time, and they also provide a place to hang a sweater or jacket in colder climates. Remember also that when they interact, most people like to position themselves at 90-degree angles to their colleagues, so make sure that your bar stools are easy to move.

Forgetting your bartenders' anatomy. Tending bar can be a tough job. Anything you can do to make it easier for your bartender will be appreciated. One common problem I see is a mishmash of equipment

winning (or losing). So you'll need to be able to access every nook and cranny at the bar for cleaning — something that is more difficult to do when there are small gaps between or behind equipment. Try to choose equipment that is designed to work together to minimize these gaps, or plan enough room for at least a bottle brush in any cracks. Consider also covering up the gap between the rear of the equipment and the interior of the bar die so that items can't fall behind equipment.
of differing depths, resulting in a series of jutting edges and corners that can catch a bartender's knees, hips and elbows when things get busy. Another is a lack of consideration when planning work stations: Glasses might be two steps to the right, ice two steps to the left, and the soda gun might be on the wrong side. (About 85 percent of the population is right-handed, so think hard about where you'll mount items that require one-handed use.) You want to minimize the amount of walking and reaching your staff have to do, which is one reason for the recommended 36-inch aisle between front and back bars. Lastly, when stocking the bar, put frequently needed supplies and brands within two feet of the middle of the cocktail station (for cocktail bars) or the beer taps (for draft beer bars), as most people of average height are comfortable with a 24-inch reach.

**Designing for aesthetics without considering function.** While there are some excellent interior designers and architects out there, all too often I see bars that have been designed to look good but not function well. The organization of the back bar liquor should be based on the sales mix, bartender preferences, and the promotional goals of the operation, not on how attractive the bottles look. (You may laugh, but I have had earnest conversations with designers who wanted to organize the back bar by the color of the liquor bottles.) Very low or highly colored lighting may be in vogue, but if the bartender cannot clearly see what she is doing or the customers cannot enjoy the appearance of their drinks, you won't be optimizing your restaurant's potential.

**Designing for function without considering aesthetics.** On the flip side, remember that the bar must be enticing to your guests and give off the appearance of order, efficiency and quality. Used glasses, bar rags and empties should be kept out of sight in places planned for them during the design process; the back bar should always be well-stocked and organized; clean glassware should be neatly stacked and brightly lit so that they sparkle. A sleek modern look can be very appealing, which means a careful editing of the equipment and supplies you have on hand.

**A Little Effort Upfront Can Spare Big Headaches Down the Line**

Putting time and energy into planning your bar early in the design process will save you both money and aggravation once your facility is built, and will make it much easier for your staff to work effectively and happily. Carefully consider what you want to the bar to do and how you plan to both produce and serve the drinks, and use this information to assemble a tentative equipment list and test drive your proposed layout. Think about the ergonomics of the spaces from the perspective of both your guests and your staff; is everything comfortable to use, easy to reach, pleasant to look at? The biggest operational problems often stem from the smallest details — no provision for waste or poorly planned glass storage — rather than major omissions. And as you work through your design, make sure to visit plenty of bars to observe what works and what doesn't. Remember, it's purely for professional purposes.

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