

Saving the Green

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We live in a time of increasing demands and decreasing budgets, a time of greater concern for the Green of our environment but with less Green in our budgets to accomplish the task. Plants are seeing increased input from increasing populations, but if your budget doesn't increase at the same rate what can you do? One answer is purchasing value. Common sense? Already doing that? Taking another look at how we purchase items might change your mind.

So, what is value? Value is simply the functionality compared to the cost. The following article describes some methodology for finding value. Anyone that deals with equipment procurement is often faced with the choice of several items that range in cost and features. How do you determine the value among the items when they are not exact equivalents? The features and costs are the basis for determining value, but looking past the obvious can help you find the best value.

The most critical step is often overlooked: Consider what you need the item to do. Get a rough idea of the performance requirements. This will be the basis of a specification or a reference for you to use when comparing items. Needs should define a specification and often the reverse is done and a specification is used to define the needs and the equipment. When you use this reverse method, you are often over-specifying your needs. Specifying the performance of a Ferrari when you really only need a Geo, will cost you more and confuse the issue. This also reduces your options, leaving you a small range from which to choose.

Another important aspect is to decide how much of your time looking for a better value is worth. Consider how critical the item is, and what how much you could potentially save. A screw worth \$0.20 does not have a lot of potential, but if it is holding a \$10,000 unit in place it still has some importance.

As equipment gets more complicated, it becomes harder to compare apples and apples. Try to quantify these qualities as much as possible and always keep in mind the real purpose of the item.

Technology is always changing and innovations can certainly increase the value of an item, but new product features that increase the complexity don't always increase the value. Features that aren't used complicate an item unnecessarily. If you are going to pay more for the features, make sure they're something you need or they're not added value.

Information about new products may be obtained by a number of methods. Word of mouth is good if it comes from someone whose opinion you trust. Some magazines offer new product sections. It's a more difficult task to find innovation from smaller companies who don't have large advertising budgets. Often typing key words that describe a problem or a solution in an Internet search engine can get results. For example, if it's difficult to keep your samples cold in a portable sampler, or you just want to save money by using less ice, a search for ice portable sampler melting yields results such as an insulative covering made for just this situation. Be careful not to fall into the never-ending search. If you're prone to this, set a time limit for your search.



Portable sampler in an insulative wrap.

Alternatives are important to finding a good price. Consider a common purchase such as a container for your composite samples. There are a number of choices. Some of the containers are extremely durable thick walled containers and cost accordingly. Many items like this are purchased because they are a tradition and alternatives have never been explored. These habitual purchases aren't necessarily a good value. In this example, an online price for the 5-gallon container is \$73. An alternative exists of the same materials and the same capacity with some additional features, such a large opening for cleaning and access to the fluid, at nearly a third of the price.



Stationary sampler on refrigerator.

The most obvious data collected for comparison are cost and features. Cost is simply the money you will pay for the equipment. Make sure you understand all of the costs and the extended cost over time. A common issue is that the item is cheap initially, but replacement parts are expensive. For example, cell phones are given away to secure your use of their service, but a new battery may be cost prohibitive. So, if you're buying a stationary sampler, find out how much a refrigerator or any other major parts would cost to replace.

Part of the price often neglected is cost over time. Ask what maintenance is required and what consumable parts will cost. An easy way to do this is to use a familiar situation. Use a real world example of your current or intended use of the item and ask what the projected maintenance and consumable parts will cost. For example, "What are my costs over a year for a sampler running 24 samples a day at a head height of 10 feet and a volume of 200ml"? "What is the standard labor rate for repair?" Most mechanical items eventually need some work or repair. I've never seen a bill for a Ferrari repair, but I would guess it is higher than for a Geo and this should be part of the consideration of value for an item.

Once you have all your data, begin comparing the features of each item to your needs. Remember that needs are the base from which you are choosing. If an item doesn't have the features you need, then it typically drops from consideration. Use some discretion in this. A feature that is close to your needs and a good price might warrant a quick review of the specification. Discard items with features

that are below the range of your needs. Items that have features above the range but have a comparable cost should be considered. Items with features above the range you need and higher cost should be discarded as well.

At this point you should have a list of acceptable items that will fit your needs. Now a choice must be made as to which is the best value. You have cost, and can sort them accordingly. Look at the extra features, as everything on the list should meet your needs. This is perhaps the most difficult refinement, but after the previous steps it should be laid out in an organized manner and you can see what you are choosing and exactly what it's cost will be. Is an analog option worth an extra \$100? It depends on whether or not you end up using it. Some guess work will always be involved. Consider where your operation is going to be in the next 5 years. Selecting an option at the time of purchase is much more cost effective than adding the same option later.

If some items are close in value, a final factor can be the company itself. Call the vendor and see how you're treated. A favorite method of mine is to ask if they have any suggestions on how to reduce the cost. You might be pleasantly surprised with some of the answers. A helpful company can be worth a lot when you need support in the future.

It takes some judgment to choose between an apple for a buck and an orange for a buck fifty, but remember, if you know you need orange juice, the decision is a lot clearer.