EarthTrax, Inc. White Paper Series

How It Works

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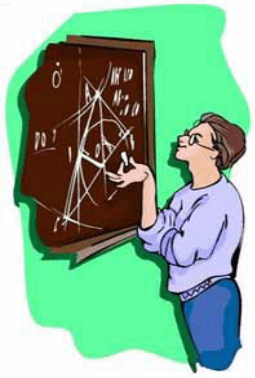


At **AuctionProfits**, we have taken the necessary time to analyze the behavioral characteristics and predictability of any auction; we are able to mathematically model the final outcome and optimize the parameters to maximize the final attainable bid price. We have been quite successful in predicting numerous auctions and thus have, as of yet, filed three patents to protect our ingenious methodology, and are working on more patents as time progresses.

But without giving away too much of our trade secrets, we shall try to explain how complex this problem is of finding the optimal auction parameter settings.

Elements That We Analyze

From massive amounts of completed auction data, we have determined that, to date, the following list of auction elements is crucial in mathematically modeling the auction behavior:

- Start Price
- Start Time
- Duration
- Start Day
- Buy-It-Now Price
- Reserve Price
- Dutch Auction Splitting

As we work to refine our formulas, we may add to this list, but as it stands we are as accurate as possible.

Let us now provide a rough example of an auction: Suppose we want to find the optimal parameters to set our auction of a new pair of ‘Diesel Rotuck’ jeans. For this example, we shall consider only ‘Start Price’, ‘Start Time’, ‘Duration’, and ‘Start Day’ to demonstrate the level of complexity to calculate all of the optimal parameters, however, here at **AuctionProfits**, we take into account all of the elements when calculating the optimum settings.

Looking at numerous past auctions of ‘Diesel Rotuck’ jeans, we note that when people had started their auction for these jeans at $20, they ended up with a final bid price of about $92.00. Similarly, when they had started their auction at $50, they ended up with about $142.00, etc. Through extensive analysis of all the various start prices and corresponding final bid prices we may wind up with a graph that looks like this:

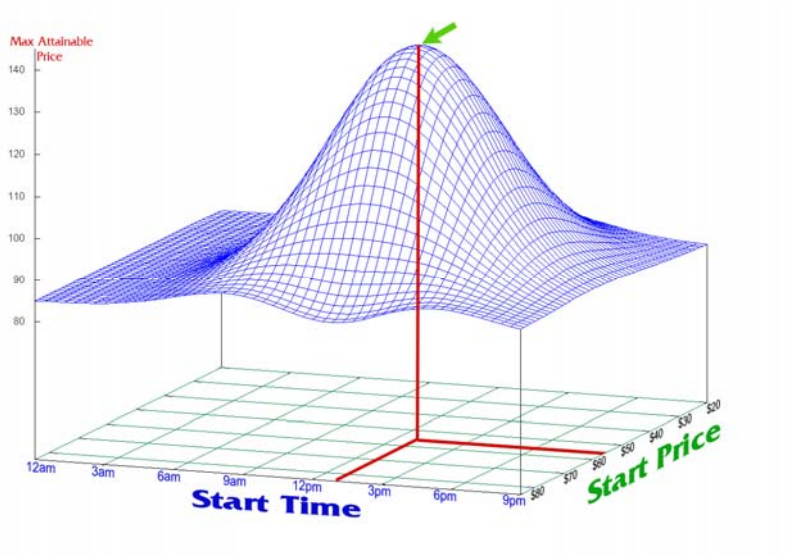
If we continue with our analysis of 'Start Time' relative to the final bid prices, we may end up with a graph like:

And, if we continue analyzing all the other auction elements relative to the final attainable bid price, we would get graphs that resemble the above two. But for the sake of our example, we may get graphs for 'Duration vs. Final Price' and 'Start Day vs. Final Price' that look like these:

Combining Relevant Elements

Since the goal is to achieve a maximal final bid price, it is essential to combine auction elements and observe the result. In our example, we shall try to combine the elements 'Start Price' and 'Start Time', and mathematically model a formula that takes into account variations of the maximum attainble price when these two elements are offset against each other. If our model is correct, we may get a three dimensional graph of a 'mound', each point of which represents the maximum final bid price when the start price and start times are varied against each other. The top of this 'mound' would be the 'optimal' setting of 'Start Price' and 'Start Time' to achieve maximum monetary value.

Here is an example of such a graph:

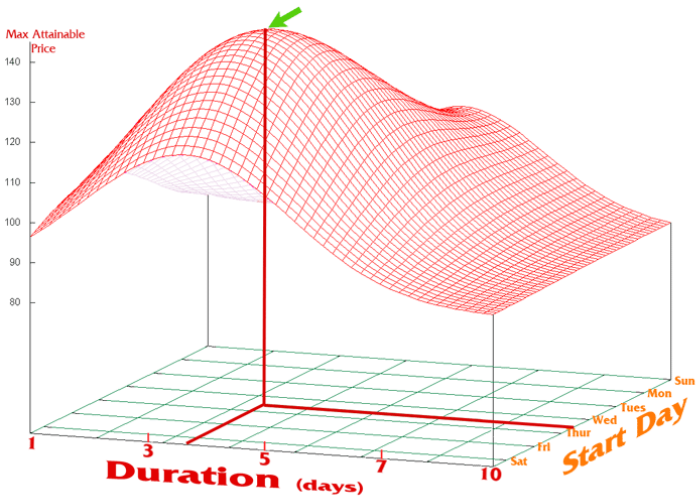


On this graph, you can easily visualize that by holding the start time constant at, say, 1:00AM (early morning) and varying the start price from $20 to $80, the resulting final attainable bid price would still not be as impressive as if you started the auction at 1:00PM (early afternoon) with an initial start price of $57. This is mainly because of eBay's auction rules stating that the auction must end at exactly the same time of day as it began. And, not many people place bids in their sleep.

Combining All the Elements

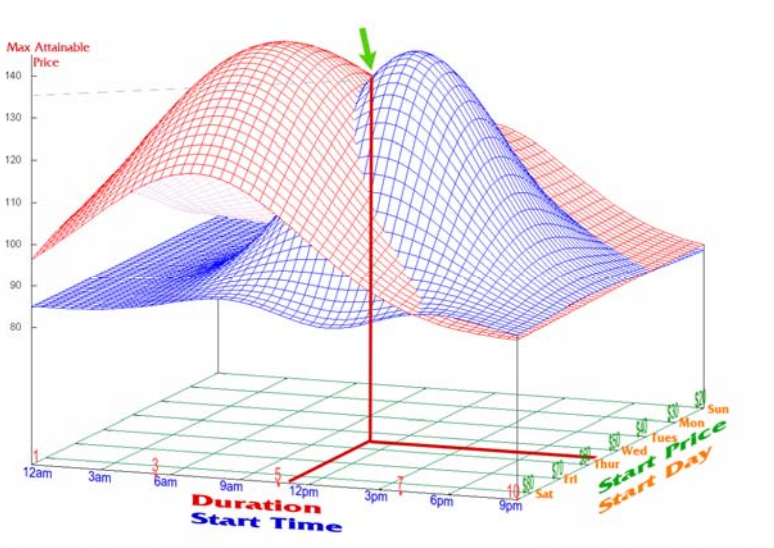
As we add in more and more auction elements, finding the optimal solution becomes increasingly difficult. In our example we shall add in 'Duration' and 'Start Day' to demonstrate some of this complexity.

Just as we had done with 'Start Price' and 'Start Time' we could mathematically model a meaningful three dimensional graph that would give credence to the maximum attainable final price when varying the duration lengths over the start day of vice versa. In this example, we may end up with a graph that resembles:



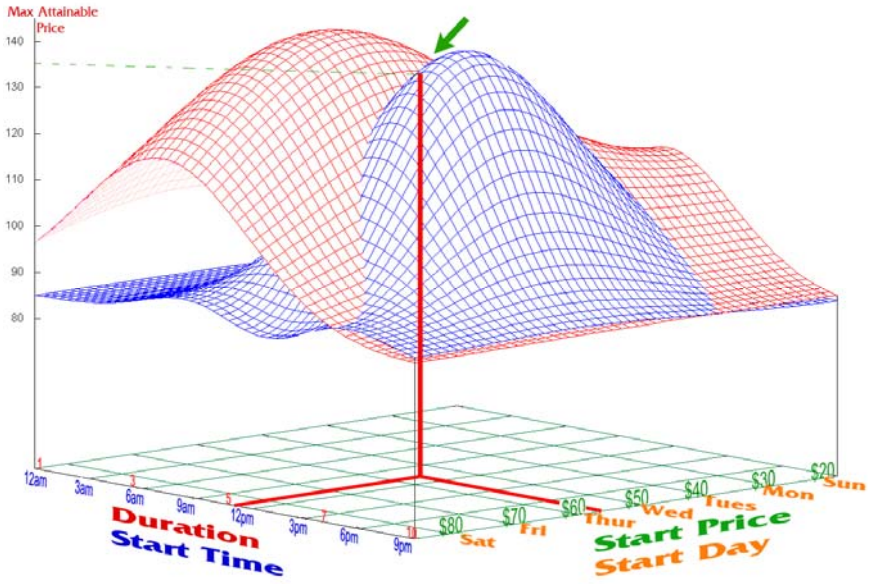
This graph shows that for our fictitious auction of 'Diesel Rotuck' jeans, the most one would be able to get is about $142, when we set the auction length to be 3 days and start it on Thursday.

Now, combining the above two 3 dimensional 'mounds', we would get a graph like:



showing that the only meaningful points of this graph is at the intersection of the 2 'mounds'. And taking the highest point of this intersection is the equivalent of reading the maximum attainable final price, in this case, about $136 for our auction. This highest point would then, according to the graph, happen if we set up our auction with a start price of $57, start time of around 11:00AM, start day of Thursday, and auction length of about 3 days. For our example auction of 'Diesel Rotuck' jeans, these would be the optimal parameters.

Here is another view of the above graph shown at a different angle to make the intersection point more obvious:



Ultimate Complexity

What happens now when we wish to combine the other 3 auction parameters into our equation? How would we optimize the final bid price for that? And, what would the graph look like then? In fact, it is actually **unplottable**. Our formulas take into account (presently) 7 simultaneous formulas and are solved for an optimal solution based on our patent-pending methodology. There is truly no three dimensional representation graph of a 7-tuple formula – it goes beyond visualization.

Summary

We have attempted to explain the vast complexity involved in finding an optimal solution to the initial auction parameter problem to achieve a maximum attainable final bid price. This complexity would not only involve much time in gathering all necessary relevant data to your auction item as in months of completed auction data, but also possibly days interpreting all that data, sorting out all essential points. Once that is done, you can then begin to mathematically model formulas to calculate an optimal solution; and then spend more time trying to solve all those equations.

There is always a better way. What we offer at **AuctionProfits** is the solution to this overly complicated problem. For a very meagre fee, you can obtain the optimal auction parameter settings from us, and rest assured that your auction will complete with its maximal attainable price being reached. Contact **AuctionProfits**.com for more information.