Practical Applications of the Price Elasticity of Demand

Presented by

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Sonoma Research Associates

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Davis, California
August 10 2007
Effective Use of Price Elasticity of Demand Allows Wineries to:
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Increase Revenue
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• Strategic Pricing Regionally
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- Reduce Inventory Cost by Accurately Estimating Demand
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Uses Price Elasticity of Demand to Answer Two Basic Questions
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Uses Price Elasticity of Demand to Answer Two Basic Questions

- How Much Can I Sell
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Uses Price Elasticity of Demand to Answer Two Basic Questions

- How Much Can I Sell
- How Much Can I Charge
How Much Can I Sell

*Price Elasticity of Demand* help firms determine what quantity will be sold at various prices.
How Much Can I Sell

*Price Elasticity of Demand* help firms determine what quantity will be sold at various prices.

For example, if a winery is considering a price change, price elasticity of demand will tell them what will happen to quantity sold and revenue resulting from the price change.
Estimated Annual Case Volume, Revenue and Price Elasticity of Demand at a Price of $16 per 750 ML Bottle for a Rosenblum Zinfadel

<table>
<thead>
<tr>
<th>Estimated Annual Sales (Cases)</th>
<th>Estimated Annual Revenue</th>
<th>Estimated Price Elasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>631</td>
<td>$121,222.12</td>
<td>1.68</td>
</tr>
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More Importantly, Knowing How Price Elasticity Varies by Month Tells You How Sales Will Vary by Month.
## Estimated Monthly Case Volume, Revenue and Price Elasticity of Demand at a Price of $16 per 750 ML Bottle for a Rosenblum Zinfandel

<table>
<thead>
<tr>
<th>Month</th>
<th>Estimated Monthly Sales (Cases)</th>
<th>Estimated Monthly Revenue</th>
<th>Estimated Price Elasticity</th>
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<tbody>
<tr>
<td>January</td>
<td>48</td>
<td>$9,144.51</td>
<td>1.68</td>
</tr>
<tr>
<td>February</td>
<td>70</td>
<td>$13,508.15</td>
<td>1.13</td>
</tr>
<tr>
<td>March</td>
<td>52</td>
<td>$9,920.74</td>
<td>1.55</td>
</tr>
<tr>
<td>April</td>
<td>37</td>
<td>$7,017.27</td>
<td>2.18</td>
</tr>
<tr>
<td>May</td>
<td>49</td>
<td>$9,359.35</td>
<td>1.64</td>
</tr>
<tr>
<td>June</td>
<td>42</td>
<td>$8,093.62</td>
<td>1.89</td>
</tr>
<tr>
<td>July</td>
<td>37</td>
<td>$7,129.08</td>
<td>2.15</td>
</tr>
<tr>
<td>August</td>
<td>49</td>
<td>$9,445.43</td>
<td>1.62</td>
</tr>
<tr>
<td>September</td>
<td>43</td>
<td>$8,213.89</td>
<td>1.87</td>
</tr>
<tr>
<td>October</td>
<td>61</td>
<td>$11,803.03</td>
<td>1.30</td>
</tr>
<tr>
<td>November</td>
<td>63</td>
<td>$12,081.58</td>
<td>1.27</td>
</tr>
<tr>
<td>December</td>
<td>81</td>
<td>$15,505.48</td>
<td>0.99</td>
</tr>
</tbody>
</table>

### Annual Cases Sold
- **631**

### Annual Revenue
- **$121,222.12**
Accurately Forecasting Demand Allows Wineries to:

- Increase Revenue by Meeting Demand During Peak Months
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- Increase Revenue by Meeting Demand During Peak Months
- Reduce Inventory Costs by Reducing Shipments During Low Demand Months
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- Increase Revenue by Meeting Demand During Peak Months
- Reduce Costs by Reducing Inventory During Low Demand Months

This Same Type of Forecast Can Be Done Regionally As Well As Temporally
How Much Can I Charge
How Much Can I Charge

Price Elasticity of Demand Allows Wineries to Price Strategically, Both Regionally and Temporally
When Should I Adjust Price
When Should I Adjust Price

*Price Elasticity of Demand* allows Wineries to effectively price discriminate Throughout the year
When Should I Adjust Price

*Price Elasticity of Demand* allows Wineries to effectively price discriminate Throughout the year

For Example, demand changes during the holiday months of October, November & December. *Price Elasticity of Demand* allows Wineries to take advantage of these demand changes through strategic pricing.
Price Elasticity of Demand By Month Estimated for a Seghesio Zinfandel

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<thead>
<tr>
<th>Month</th>
<th>Price Elasticity</th>
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<tbody>
<tr>
<td>Jan</td>
<td>0.653</td>
</tr>
<tr>
<td>Feb</td>
<td>0.784</td>
</tr>
<tr>
<td>Mar</td>
<td>0.867</td>
</tr>
<tr>
<td>Apr</td>
<td>0.827</td>
</tr>
<tr>
<td>May</td>
<td>0.662</td>
</tr>
<tr>
<td>Jun</td>
<td>0.571</td>
</tr>
<tr>
<td>Jul</td>
<td>0.709</td>
</tr>
<tr>
<td>Aug</td>
<td>0.889</td>
</tr>
<tr>
<td>Sep</td>
<td>0.759</td>
</tr>
<tr>
<td>Oct</td>
<td>0.703</td>
</tr>
<tr>
<td>Nov</td>
<td>0.640</td>
</tr>
<tr>
<td>Dec</td>
<td>0.486</td>
</tr>
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</table>
Where Am I Most Competitive

*Price Elasticity of Demand* allows wineries to effectively price discriminate geographically.
Price Elasticity of Demand allows wineries to effectively price discriminate geographically.

For example, if demand differs from location to location, *Price Elasticity of Demand* allows wineries to take advantage of these demand changes through strategic pricing.
Price Elasticity of Demand in California by Region, Estimated for Turning Leaf Merlot

<table>
<thead>
<tr>
<th>City</th>
<th>Price Elasticity of Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>0.88</td>
</tr>
<tr>
<td>San Diego</td>
<td>1.00</td>
</tr>
<tr>
<td>Sacramento</td>
<td>1.03</td>
</tr>
<tr>
<td>San Francisco</td>
<td>0.96</td>
</tr>
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</table>
How Much Should I Charge

*Price Elasticity of Demand* allows Wineries to estimate the maximum price consumers are willing to pay for your wine.
Pacific Rim Sold 4,390 Cases of Dry Riesling for $9.95 Per Bottle.
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That 65 cent difference results in $34,242.
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Increased Revenue
Increased Revenue – Decreased Costs
Increased Revenue
– Decreased Costs
= Increased Profit