STUDY 1

Identifying the Characteristics & Behavior of Consumer Segments in Texas
Introduction

Some wine industries depend largely on local residents’ loyalty

The current study is an initial attempt to examine local residents’ attitudes towards local wines in Texas
Purpose of the Study

- to segment the Texas wine market into distinct market segments based on their attitudes towards regional wines
- to provide socio-demographic and wine consumption profiles for each segment
- to examine any potential differences between the segments in their attitudes and wine consumption
Sample

Telephone survey of Texas households

A sample of 502 competed interviews has been obtained
Measures

Assessment of local wines
“Texas wines are...”
– good quality
– appropriately priced
– better than expected
– widely available
– not advertised enough

1 (strongly disagree); 5 (strongly agree)

Recommendation of local wines
“How likely are you to recommend Texas wines to others?”
1 (very unlikely); 5 (very likely)

Rating of quality of local wines
“Please rate the quality of Texas wines”
1 (poor quality); 5 (excellent quality)
Results

<table>
<thead>
<tr>
<th></th>
<th>Assessment of Regional Wines</th>
<th>Would Recommend to Others</th>
<th>Rating of Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Enthusiasts</strong></td>
<td>4.11</td>
<td>4.62</td>
<td>4.43</td>
</tr>
<tr>
<td><strong>Local Detractors</strong></td>
<td>2.50</td>
<td>1.40</td>
<td>1.88</td>
</tr>
<tr>
<td><strong>Local Advocates</strong></td>
<td>3.26</td>
<td>3.46</td>
<td>2.93</td>
</tr>
<tr>
<td><strong>Local Non-Advocates</strong></td>
<td>3.53</td>
<td>2.09</td>
<td>3.67</td>
</tr>
</tbody>
</table>
## Socio-demographic profile of clusters

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Enthusiasts (n = 73)</th>
<th>Detractors (n = 67)</th>
<th>Advocates (n = 82)</th>
<th>Non-Advocates (n = 81)</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>32.0</td>
<td>46.2</td>
<td>38.0</td>
<td>28.4</td>
<td>6.11</td>
</tr>
<tr>
<td>Female</td>
<td>68.0</td>
<td>53.8</td>
<td>62.0</td>
<td>71.6</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>6.4</td>
<td>4.5</td>
<td>7.3</td>
<td>8.9</td>
<td>8.81</td>
</tr>
<tr>
<td>31-40</td>
<td>17.5</td>
<td>13.6</td>
<td>21.9</td>
<td>11.6</td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td>18.9</td>
<td>25.8</td>
<td>25.6</td>
<td>20.5</td>
<td></td>
</tr>
<tr>
<td>51-60</td>
<td>22.8</td>
<td>22.7</td>
<td>23.2</td>
<td>28.2</td>
<td></td>
</tr>
<tr>
<td>61+</td>
<td>33.4</td>
<td>32.4</td>
<td>22.0</td>
<td>30.8</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>17.9</td>
<td>6.1</td>
<td>11</td>
<td>9.9</td>
<td>24.36*</td>
</tr>
<tr>
<td>Vocational/technical</td>
<td>3.5</td>
<td>0.0</td>
<td>3.7</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>19.7</td>
<td>19.7</td>
<td>15.9</td>
<td>28.4</td>
<td></td>
</tr>
<tr>
<td>Undergraduate degree</td>
<td>24.1</td>
<td>30.3</td>
<td>46.3</td>
<td>37.0</td>
<td></td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>24.9</td>
<td>43.9</td>
<td>23.2</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td>Ethnic origin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>86.4</td>
<td>84.5</td>
<td>77.8</td>
<td>90.9</td>
<td>26.85*</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>7.1</td>
<td>6.3</td>
<td>9.9</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>African American/Asian/American Indian</td>
<td>6.5</td>
<td>9.2</td>
<td>12.3</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under $39,999</td>
<td>12.3</td>
<td>9.4</td>
<td>10.0</td>
<td>13.5</td>
<td>36.88*</td>
</tr>
<tr>
<td>$40,000-$59,999</td>
<td>21.9</td>
<td>17.0</td>
<td>18.6</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>$60,000-$79,999</td>
<td>22.6</td>
<td>15.0</td>
<td>14.3</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>$80,000-$99,999</td>
<td>19.2</td>
<td>9.4</td>
<td>17.1</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>$100,000-$119,999</td>
<td>11.7</td>
<td>5.7</td>
<td>7.14</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>$120,000-$129,999</td>
<td>2.0</td>
<td>5.7</td>
<td>14.3</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>$140,000+</td>
<td>10.3</td>
<td>37.8</td>
<td>18.6</td>
<td>21.0</td>
<td></td>
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</tbody>
</table>
## Wine consumption profile of clusters

<table>
<thead>
<tr>
<th>Item</th>
<th>Enthusiasts (n = 173)</th>
<th>Detractors (n = 67)</th>
<th>Advocates (n = 82)</th>
<th>Non-Advocates (n = 81)</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>2.9</td>
<td>20.9</td>
<td>7.3</td>
<td>9.8</td>
<td>30.23*</td>
</tr>
<tr>
<td>Several times a week</td>
<td>23.7</td>
<td>23.4</td>
<td>29.3</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>Once a week</td>
<td>33.5</td>
<td>26.9</td>
<td>30.5</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td>Once a month</td>
<td>22.0</td>
<td>11.9</td>
<td>19.5</td>
<td>18.5</td>
<td></td>
</tr>
<tr>
<td>Less than once a month</td>
<td>17.9</td>
<td>11.9</td>
<td>13.4</td>
<td>27.2</td>
<td></td>
</tr>
<tr>
<td>Favorite type of wine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td>46.8</td>
<td>69.2</td>
<td>60.5</td>
<td>46.2</td>
<td>19.20*</td>
</tr>
<tr>
<td>White</td>
<td>31.6</td>
<td>27.7</td>
<td>25.9</td>
<td>38.8</td>
<td></td>
</tr>
<tr>
<td>Blush / Rosé</td>
<td>21.6</td>
<td>3.1</td>
<td>13.6</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>Dry/Sweet preference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry</td>
<td>36.4</td>
<td>65.7</td>
<td>54.3</td>
<td>43.2</td>
<td>22.17*</td>
</tr>
<tr>
<td>Sweet</td>
<td>54.9</td>
<td>26.9</td>
<td>34.6</td>
<td>43.4</td>
<td></td>
</tr>
<tr>
<td>No preference</td>
<td>8.7</td>
<td>7.4</td>
<td>11.1</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Most often consume from region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>0</td>
<td>7.7</td>
<td>3.9</td>
<td>6.5</td>
<td>95.89*</td>
</tr>
<tr>
<td>Italy</td>
<td>4.8</td>
<td>7.7</td>
<td>3.9</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>6.0</td>
<td>13.5</td>
<td>10.4</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>33.9</td>
<td>53.8</td>
<td>64.9</td>
<td>70.5</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td>38.9</td>
<td>1.5</td>
<td>5.2</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>17.4</td>
<td>10.8</td>
<td>11.7</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td>Purchased Texas wine in the past 12 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.106*</td>
</tr>
<tr>
<td>Yes</td>
<td>87.3</td>
<td>39.4</td>
<td>61.3</td>
<td>45.6</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>12.7</td>
<td>60.6</td>
<td>28.7</td>
<td>54.4</td>
<td></td>
</tr>
</tbody>
</table>
Discussion

“Enthusiasts”
- enthusiastic about local wine
- purchase local wines on a regular basis
- especially interested in blush/rose and sweeter wines

“Detractors”
- income levels substantially higher
- consume imported wines
- probably are image conscious with respect to brands
- local products are likely to be seen as less of a fit with their social image
“Advocates”
- larger portion of minority groups
- consume wine less frequently, but prefer red over white and blush
- consumption of Texas wine is relatively infrequent, but perception of quality is relatively high
- the majority of this group (61.3%) PURCHASED Texas wine in the past 12 months
- are willing to recommend Texas wines to others

“Non-Advocates”
- consume wine least frequently
- consumption of Texas wine is relatively infrequent, but perception of quality is relatively high
- the majority of this group (54.4%) DID NOT PURCHASE Texas wine in the past 12 months
- are not willing to recommend Texas wines to others
Managerial Implications

- Capitalize on “enthusiasts”
- Know their tastes and preferences. Provide product that meets their needs
- There will always be “detractors”. Media recommendations is probably the most important source of information for this group
- Differences between “advocates” and “non-advocates” (purchased within the last 12 months vs did not purchase?)
- Particularly unfortunate for local wineries to have local people believe that the wine quality is good, but to also be unwilling to recommend the wines to others.
- Word-of-Mouth has been consistently found the most important source of information
- Have variety of products (especially dry vs sweet)
- Many wineries in Australia and New Zealand were very successful in selling semi-sweet wines in 70’s & 80’s. Later, when the market developed, new drier styles were introduced
STUDY 2

Brand Survival: Is it Your Name or Your Wine?
A Longitudinal Examination
Brand Equity

WINERY

Price Effects

Volume Effects

BRAND

Image
Recognition
Loyalty

Perceived Quality
Associations

CUSTOMER
Research Question

Do brand recognition and brand evaluation (perceived product quality) influence the likelihood of brand survival?
Study Design

Phase One:

- 1991 Survey of Texas ‘wine enthusiasts’
  - Subscribed to wine-related periodicals
  - Mail order purchases of wine related products
  - Visited a winery in Texas
- Mailed questionnaire to 2,952 consumers
- 928 questionnaires completed and returned
Questionnaire

- Five pages of questions relating to wine purchase and consumption behavior
- 27 Texas brands listed (two fictitious)
- For each of the 27 brands:
  - Do you recognize the brand? [yes / no]
  - Have you tried their wine? [yes / no]
  - What is your evaluation of the wine?
    [poor (1) to excellent (5) ]
Study Design (cont)

Phase Two:
Mortality data on 27 Texas wine brands obtained from Texas Wine Marketing Research Institute in 2006
Analysis

- **Recognition**: percent of sample that has heard of the brand
- **Evaluation**: average rating of wine quality by those who have tried the brand

**Analysis**:

Mortality = $f$ (recognition and evaluation)
Estimated Probability of Survival by Brand Evaluation

![Graph showing the estimated probability of survival by brand evaluation. The x-axis represents brand evaluation averages ranging from 'Poor' to 'Excellent,' and the y-axis represents survival probability ranging from 0 to 1. The graph indicates a trend where higher brand evaluation averages correspond to higher survival probabilities.]
Estimated Probability of Survival by Percent Recognition

![Graph showing the relationship between Brand Recognition Percentages and Survival Probability. The graph plots data points that suggest a positive correlation between the two variables. The x-axis represents Brand Recognition Percentages ranging from 0 to 90, and the y-axis represents Survival Probability ranging from 0 to 1.]
Results

- Recognition was a significant predictor of brand survival
- Evaluation (quality of wine) was not

High brand awareness is more likely to lead to brand survival than high perception of wine quality
Managerial Implications

**Wine Making skill vs. Wine Marketing skills?**

**Importance of Brand Development**: Making your brand known to enough consumers in a very crowded brand market appears to significantly improve the likelihood of brand survival.

With so many brands to consider, **extrinsic attributes** become more important to consumers.

Especially true for the wine market, where the opportunity to experience the product (taste wine) is severely restricted. Marketing is critical.
Managerial Implications (cont)

**Reality:** limited resources *(purchase higher quality grapes OR spend $ on marketing to improve brand recognition?)*

Where does brand recognition come from?

- shows
- tasting rooms
- advertising
- public relations
Managerial Implications (cont)

Lessons from this research:

- While wine quality is important, it may not be the critical factor that sustains a winery.

- A balance must be found between developing the brand through wine quality and through market presence.
Study 3

Effects of Winery Visitor Group Size on Purchasing
Gratitude and Obligation

**GRATITUDE**

- warm sense of appreciation for somebody or something
- goodwill towards that individual or thing

**OBLIGATION**

- feeling of indebtedness
- aversive psychological tension
Gratuity Purchasing

Products or services bought by consumers fully or partly due to a perceived need to repay benefits received from a business or its employees
Purpose of the Study

ワインの見学者がワインを買う必要があるかを調査する

お酒を買うかどうかが、グループの人数に影響するかを調べる
Methodology

Sample

- Winery visitors
- Six Texas wineries with tasting rooms
- 357 usable questionnaires collected
- Visitors who bought wine and those who did not make a purchase included

Data Collection

- Weekends
- Personal distribution of questionnaires
# Measures

*How much did you feel? (7-point scale)*

- Appreciation of wine tasting
- Desire to thank personnel
- Appreciation of tour

*(Gratitude)*

- Purchase expectation from the winery personnel
- That buying wine is a socially proper thing to do
- Ethical indebtedness to buy wine at the end?

*(Obligation)*

*How much did you spend today at {XYZ} winery?*

$$ $$

*(Purchasing)*
Differences between the Groups

<table>
<thead>
<tr>
<th>Number of People in the Group</th>
<th>Dollar amount spent at wineries</th>
<th>Mean¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 visitors</td>
<td>$44.61ₐ</td>
<td></td>
</tr>
<tr>
<td>3-4 visitors</td>
<td>$32.57ₕ</td>
<td></td>
</tr>
<tr>
<td>5 and more visitors</td>
<td>$12.19ₙ</td>
<td></td>
</tr>
</tbody>
</table>

¹ Different subscripts indicate that difference exists between the groups
### Differences between the Groups

<table>
<thead>
<tr>
<th>Number of People in the Group</th>
<th>Gratitude (mean score on a 7-point scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>1-2 visitors</td>
<td>5.23&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>3-4 visitors</td>
<td>4.93&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>5 and more visitors</td>
<td>3.08&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup> Different subscripts indicate that difference exists between the groups.
## Differences between the Groups

<table>
<thead>
<tr>
<th>Number of People in the Group</th>
<th>Obligation (mean score on a 7-point scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 visitors</td>
<td>Mean&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>3-4 visitors</td>
<td>3.76&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>5 and more visitors</td>
<td>3.56&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td></td>
<td>2.79&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup> Different subscripts indicate that difference exists between the groups
## Differences between the Groups

<table>
<thead>
<tr>
<th>Number of People in the Group</th>
<th>Dollar amount spent at wineries</th>
<th>Gratitude (mean score on a 7-point scale)</th>
<th>Obligation (mean score on a 7-point scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 visitors</td>
<td>$44.61&lt;sub&gt;a&lt;/sub&gt;</td>
<td>5.23&lt;sub&gt;a&lt;/sub&gt;</td>
<td>3.76&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>3-4 visitors</td>
<td>$32.57&lt;sub&gt;b&lt;/sub&gt;</td>
<td>4.93&lt;sub&gt;a&lt;/sub&gt;</td>
<td>3.56&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>5 and more visitors</td>
<td>$12.19&lt;sub&gt;c&lt;/sub&gt;</td>
<td>3.08&lt;sub&gt;b&lt;/sub&gt;</td>
<td>2.79&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

<sup>1</sup> Different subscripts indicate that difference exists between the groups.
Conclusions

When visitors find their experiences enjoyable, they are likely to develop a sense of gratitude (to personnel) and possibly a sense of obligation (to return the hospitality received).

These feelings, in turn, can lead to a perceived need to buy wine or accessories at the end of the visits – that is, gratuity purchasing.
Visitors who travel to wineries in smaller groups are likely to spend more money, feel more grateful, and more obliged to make a purchase than visitors of larger groups.
Possible Explanations

- Purchasing occurs in public conditions (reciprocal unfolding in a public way)
- Larger groups – someone in the group has already purchased. Obligation discharged ("theory of diffused responsibility")
- Larger groups – less opportunity to communicate with winery personnel
- Crowded conditions
- Different motivational factors (larger groups emphasis more on socializing with others)
Managerial Implications

- Be aware and consider the effect of gratitude and obligation on purchasing
- Sell experience! Needs to be enjoyable for gratitude to occur
- Be aware about a short-term effect of obligation (might buy now, but not willing to return)

Different strategies for smaller and larger groups
- If possible, more than one person for larger groups
- Smaller groups – more emphasis on product characteristics
- If premises permit, consider opportunities for socializing for larger groups
Study 4

Effects of Visitors’ Gender on Purchasing at Wineries
Introduction

Consumption has long been associated with gender differences.

The effect of gratitude and obligation was expected to be different for men and women.

Why?
Gender Differences

- **Men** attach more importance to advancement and learning
  **Women** – to relationships, rendering service, and physical environment

- **Boys** socialize towards achievement and self-reliance
  **Girls** socialize towards nurturance, responsibility, and oftentimes obedience

- Overall tendency for females to **conform** to a greater extend than males
Purchasing Model for Men

- Gratitude
- $$ Spent
- Obligation
Purchasing Model for Women

Gratitude

Obligation

$$ Spent
Results

- **Obligation** has a stronger effect on purchasing behavior of women than on purchasing behavior of men.

- **Gratitude** has a stronger effect on purchasing behavior of men than on purchasing behavior of women.
Managerial Implications

- Males and females tend to reciprocate for different reasons
- Product attributes are more important for men
Texas Wine Marketing Research Institute

- [http://www.depts.ttu.edu/hs/texaswine](http://www.depts.ttu.edu/hs/texaswine)
- texaswine@ttu.edu