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State Funded Marketing and Promotional Activities to Support a State's Winery Business; Are There Economic Returns?: A Case study using Texas Senate Bill 1370's support of the Texas Wine Industry¹

Abstract

Texas wineries responded to a survey regarding their participation in wine marketing activities, annual changes in gross sales and level of sales growth they attribute to TDA's support and if these funds create positive economic impacts to their winery. The response rate was 53 of the 93 registered wineries or a 57 percent response rate. Senate Bill 1370 funds allocate annually \$725,000 to marketing and promotion of Texas wine. Combining the \$725,000 and the normal funding of \$250,000 identifies \$975,000 in annual support to grow economic value. The most often utilized promotional activity is promotional materials and attending TDA supported wine events. Ninety-two percent of Texas wineries recognize an increase in awareness for the Texas wine industry and attribute 49 percent of the increase to state marketing efforts. A portion of TDA marketing funds were directed towards supporting wine events in Texas as they attract large numbers of consumers and allow promotional opportunities. One result found that 68 percent of consumers reported the event encouraged them to buy more Texas wine. Annual Economic Impact Results from supported marketing activities are estimated to create \$8.42 per \$1 of funding in direct sales increases, \$15.33 per \$1 of funding in economic impact of increases in sales and \$1.54 per \$1 of funding in value added impacts (based on IMPLAN Type II Economic Multiplier values). Annual Economic Impact Results from all funding activities are \$2.16 per \$1 of funding of total direct sales increases, \$3.93 per \$1 of funding in economic impacts of increases in sales and \$.40 per \$1 of funding in valued added impacts (based on IMPLAN Type II Economic Multiplier values). It is apparent that both direct and indirect economic results are positive returns to program funding and create economic growth in local economies.

Keywords: Texas Wine, Wine Economics, State Commodity Support, State Agricultural Marketing, State Commodity Marketing

Authors:

Roger Hanagriff
MSC 228
Texas A&M Kingsville
Kingsville, Texas 78363
Roger.hanagriff@tamuk.edu

Michael Lau
PO Box 2088
Sam Houston State University
Huntsville, TX 77340
michaellau@shsu.edu

Sarah L. Rogers
Graduate Research Assistant
sara020608@yahoo.com

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INTRODUCTION

Texas Wine Marketing Assistance Program

The Texas Legislature created the Texas Wine Marketing Assistance Program (TWMAP) in 2001 under the auspices of the Texas Department of Agriculture. The Wine Marketing Assistance Program is charged with assisting the Texas wine industry in promoting and marketing Texas wines and educating the public about the Texas wine industry.

As part of its mandate, the program is helping package stores around the state promote Texas wine sales in their stores. These stores receive promotional materials such as posters, recipe cards and winery guides to be distributed free of charge to their customers. Additional efforts include working with wineries to promote the production and market exposure for Texas wines. This base of funding includes annual expenditures of \$250,000.

Senate Bill 1370

A new source of funding surfaced in 2006 to invest new monies into previous market assistance areas as well increasing investments in other areas such as education, strategic planning and quality measurement. The funds are divided into three categories, which include education, market research and promotional activities. The budget is a two year allocation, but divided annually for 2007 creates the operational cost to compare to economic benefits. Table 1 is a summary of Senate Bill 1370 funding and directly related funding to economic impacts of Texas wineries.

Table 1.0 Senate Bill 1370 Funding Summary

Funding Categories	2006 & 2007 Funding (2 year)	2007 Funding (1 Year)	Directly Related to Economic Growth
Research and Education	\$ 2,216,000.00	\$ 1,108,000.00	No
Market Research	\$ 424,000.00	\$ 212,000.00	No
Promotional Activities (Removes TWMAP 500K)	\$ 1,450,000.00	\$ 725,000.00	Yes
Total Funding	\$ 4,090,000.00	\$ 2,045,000.00	\$ 725,000

The 2007 funding area of promotional activities (\$725,000) includes promotional materials, consumers outreach, media relations, event support and administrative payroll and operating expenses. This is also the type of expenses that also include previous TWMAP cost, but for budgeting purposes the \$250,000 in annual funding is separated. These funds are related to expanding annual growth of the Texas wine industry, and hopefully assist in increases gross sales. Total funding for this area is \$725,000 new funds and the \$250,000 in TWMAP for a total funding base of \$975,000.

REVIEW OF LITERATURE

With the Agricultural Marketing Act of 1946, Congress declared a sound, efficient, and privately-operated system for distributing and marketing agricultural products. The act identified

that this system is essential to insure a prosperous agriculture and is indispensable to the maintenance of full employment and to the welfare, prosperity, and health of the nation (Caswell, 1997).

GO TEXAN is a marketing initiative by Texas Department of Agriculture (TDA) in marketing Texas agriculture by promoting all Texas agricultural products – food, fiber, wine and horticulture – under one easily recognized trademark: a glowing brand in the shape of Texas. Wine is targeted commodity in the Texas brand of products and has a program titled Texas Wine Marketing Assistance Program (TWMAP), which is similar to other commodities programs that focus on fiber, livestock and general agricultural business development (GOTEPP).

A comparable agricultural marketing program is the Jersey Fresh Program established by the New Jersey Department of Agriculture. This state's sponsored program was implemented to promote locally grown fruits and vegetables with the intention of increasing the profitability of New Jersey farms and the viability of local agriculture (Govindasamy, Italia, and Thatch, 1998). A study of this program reported that over 87% of people surveyed said they would prefer to purchase produce grown locally, while 75% said they would even be willing to pay a premium for the Jersey Fresh produce (Govindasamy, Italia, and Thatch, 1999). A follow-up study in 2005 revealed that 75 percent of a random sample of consumers in New Jersey were familiar with the Jersey Fresh logo (Govindasamy, Sullivan, Puduri, Schilling and Brown, 2005).

There are many potential reasons why a state marketing program may work. Researchers at Rutgers University (Adelaja, Brumfield and Lininger, 1990) identified a growing interest among states to assist in marketing agricultural commodities. According to Holloran and Martin, (1989), policymakers typically seek to promote (a) products that have certain state characteristics, (b) promote unique products, and (c) attempt to gain economic returns.

Another illustration of state support is monitoring industry growth such as in a recent report by the Texas Wine Marketing Research Institute, wine consumption is on the rise across the United States. Over the past ten years, total consumption of wine in the U.S. has increased by 39%. Many states have created wine programs to assist producers in the production and marketing of state grown wines.

The Indiana Wine Grape Council states that since its creation in 1989, the number of Indiana wineries has increased from 9 to nearly 30. Additionally, Indiana agriculture has seen more than a 300 percent increase in wine-grape acreage since 1991. In New York, enologists and viticulturists at Cornell have helped the 253 wineries in New York with most of these wineries experiencing annual growth. An additional aspect of wine is tourism, and in New York represents around 4.1 million visitors annually, which has a considerable contribution on the state's economy.

The wine industry in Oregon provides more than \$1.4 billion in economic activity for the state. According to the Oregon Wine Center, this impact is reflected in wages, revenue, taxes and spending on agricultural and production technology and supplies for Oregon's wine and wine grape industries and other wine industries. The wine industry in Washington State employs more than 11,000 people who have a combined annual income of more than \$34 million.

California's wine industry has the largest economic impact compared to other wine producing states; however California is the fourth largest wine producer in the world. Current figures show that there are 1,294 wineries in the state. The wine and grape industry supports more than 207,000 full-time employees which have a combined income totaling more than \$7.6 billion. Tourism is one of the many factors working to promote the wine industry in California. There are an estimated 14.8 million visitors each year who spend more than \$1.3 billion while they are in the state.

The objective of this study is to evaluate state marketing programs ability to assist an industry to meet objectives or goals. Common goals such as growth, increasing exposure to customers and increasing market share are common threads of industry success. An evaluation of these types of parameters may then be used to prove how well activities meet the program objectives (Jensen and Pompelli, 1998). Little research has been conducted to analyze the factors that contribute to the awareness of state-sponsored marketing programs, thus giving the need for further investigation of the effectiveness of such programs (Govindasamy, Italia, and Thatch, 1998). Specifically, the purpose of this study was to evaluate the economic returns of state funding directed to the Texas wine industry use of state funding for promotional activities.

SURVEY METHODOLOGY

According to a 2007 report from the Texas Wine Marketing Institute, there are 127 wineries in Texas, which illustrates dramatic industry development from the previous decade of less than 50 wineries state-wide. Some wineries have multiple locations, and for the purpose of this survey, these are summarized into one winery business. An adjusted population for this assessment includes 93 wineries that are the current TWMAP associated wineries.

Beginning in August 2007, 93 emails were sent to wineries to request their response to a survey that measures growth of the industry, their involvement in marketing programs and other assessment questions. The results of this initial survey contact were 34 winery responses. Two follow-up emails were sent in September to increase responses, which resulted in 12 additional responses. In October, follow-up phone calls requested wineries to fax their surveys, which resulted in seven additional responses. This is a total of 53 responding wineries. The total response of 53 of the 93 wineries is a 57 percent response rate and is adequate to extrapolate results to the entire industry of 93 wineries.

Extrapolating conservative results to the entire industry of is accomplished by using a 95 percent confidence interval on the mean values of the 53 responding winery results. This conservative approach creates a value that is more conservative and adjusts for deviations in the sample. The survey instrument included demographic questions to describe wineries as well as questions to quantify annual gross sales, annual changes in sales and winery on-site visitations. An additional set of questions was targeted to collect their opinions of marketing approaches to enhance the growth of the wine industry in Texas. Respondents were also asked about their attendance to Texas wine events and their wineries resulting sales. Respondents were also asked if they had planted areas of grapes and plans for expanding production or tourism services.

DEMOGRAPHICS OF WINERY RESPONDENTS

Demographics of Texas Wineries Compared to Program Funding

To determine the size of the wineries involved, respondents were asked to report their total annual gross sales. Wineries in this year's assessment averaged \$704,000 per winery, which is a dramatic increase over the 2006 report value of \$367,000 annual gross sales. The 95 percent confidence mean sales value is \$440,545 and is the value used to predict total industry value.

Utilizing the confidence mean and extrapolating to all 93 wineries, the annual gross sales of all Texas wineries is nearly \$41 million (93 wineries * \$440,545 = \$40.9M). This includes gross sales of wine through the tasting room and other sales through more traditional methods such as whole sale distribution or direct winery sales.

The economic value to Texas is found by utilizing the IMPLAN economic multiplier value for the wine/grape industry (\$1.82) and total industry gross sales. The total economic value of these gross sales is over \$74.6 million (\$1.82 * \$40.9 million), which creates significant economic value to the Texas economy. Total budget cost include \$250,000 in TWMAP funding and Senate Bill 1370 \$2,045,000 for a total funding for all areas. Table 2.0 illustrates a summary of total wine budget expense and compares the value to economic industry value.

Table 2.0 A Comparison of Total Budget Cost to Economic Value

Annual Wine Budget Expense (TWMAP+SB1370)	\$ 2,295,000
Total Estimated Winery Annual Revenue	\$ 40,970,751
Total Economic Value of Wine Sales	\$ 74,623,430
Percent Budget Support of Total Economic Value	3%

Budget cost compared to the total economic value of gross sales is to measure the magnitude of funding. As table 2 illustrates, three percent of the industry economic value is represented in total annual funding. This illustrates that the industry is supported primarily by private investment and not funded by government funding as only three percent of the industry's economic value is program funded.

Also, direct marketing budget represents \$975,000 of the \$2,295,000 in annual funding, which represents that 43 percent the funding is focused in marketing activities with 57 percent proportioned to education, research, quality control and strategic planning.

Sixty-four percent of the responding wineries reported sales of less than \$500,000, which is usually a small to mid-size business when considering gross sales. Seventeen percent of the wineries reported sales between \$500,000 and \$1 million, and are considered above average size wineries as this category includes the average sales value. Thirteen percent of responding wineries reported sales of over \$1 million and are considered larger wineries.

Wineries responded to question if they had expanded operations during the past year. Sixty-nine percent of the responding wineries indicated that they had expanded their winery operations sometime during the past year. One targeted assessment of winery expansion includes planted areas of grapes. Eighty-one percent or 42 of the 53 wineries have some level of planted grape acres. These 42 wineries indicating having 615 total planted acres, which averages approximately 15 acres per winery.

WINERIES' PERCEPTIONS OF TDA MARKETING ACTIVITIES

Participation in Wine Marketing Activities

Texas wine marketing Assistance Program offers support and assistance to Texas wineries. TWMAP assists wineries with various activities including education, tasting and events, invitations to GO TEXAN events and the use of TDA promotional materials. Respondents indicated which marketing activities they utilized or been involved with during the past year. Figure 1 illustrates the percentage of wineries participation in specific marketing activities.

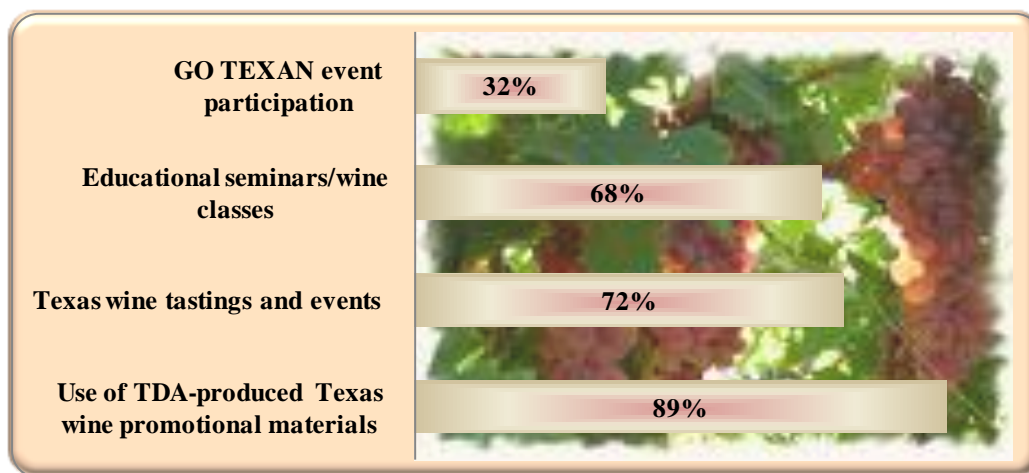


Figure 1. Percent of Wineries That Recognize Participating in Marketing Activities

Using promotional materials is the most widely recognized marketing activity. However, some activities are not potential opportunities for all wineries based on their location and business operation. Other activities and the percent of wineries using the activity are listed in figure 1.

Effectiveness of Promotional Materials

The most utilized marketing support activity was promotional materials (figure 2). This is usually a common marketing activity, so survey questions focused on measuring the effectiveness for different types of promotional materials. Figure 2 illustrates which promotional materials are the most recognized by wineries as effective in promoting Texas wines.

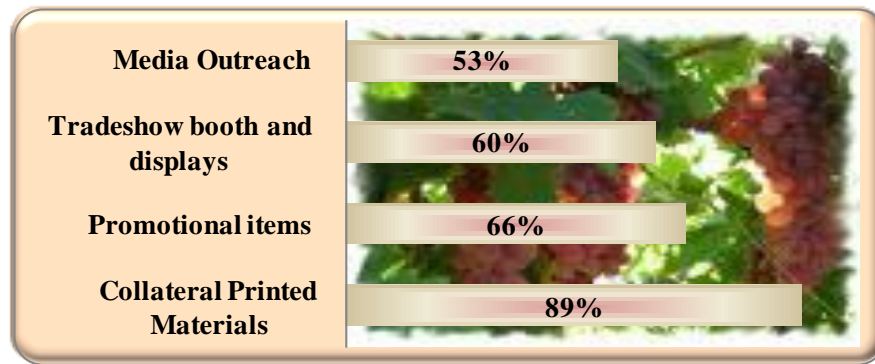


Figure 2. Percent of Wineries Rating Effective Promotional Materials

More than half of the respondents rated all areas of promotional materials as being effective in promoting Texas wines. Collateral printed materials (Winery Guide, One-Minute-Pocket Guide, Rising Star publication, and the Grape Growers Guide) were recognized by more wineries as an effective promotional material (89%). Other materials are illustrated in figure 2.

Industry Awareness of Texas Wines

Awareness is difficult to measure, but the industry survey included a question for wineries to measure their perceived perception of Texas wines. Ninety-two percent indicated there is some level of increase an awareness of Texas wine. This is likely evident to their business as increasing sales, increasing customer contacts and increasing request for their wines, which will be reviewed by measuring correlations to those reporting increases in awareness matched to the same winery reporting increases in sales.

Respondents were also asked to indicate their perceived value of industry awareness they attribute to TDA's wine marketing efforts. Figure 3 illustrates the percent of wineries selections for increases in industry awareness they attribute to TDA efforts.

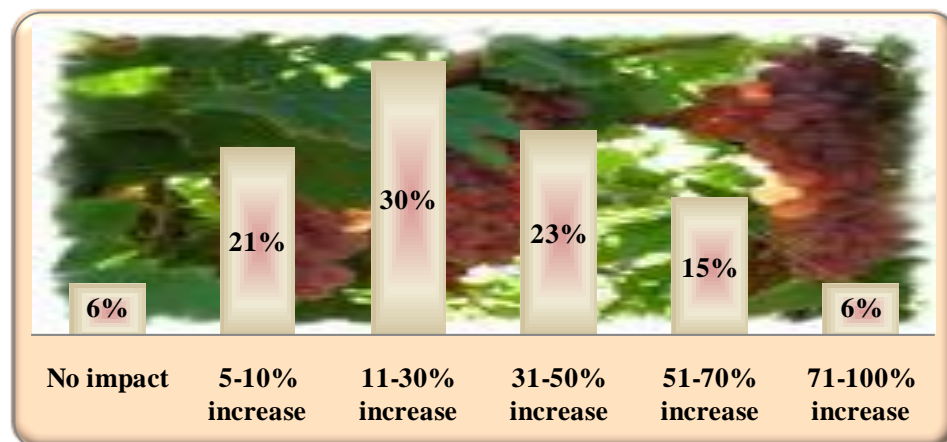


Figure 3. Overall Awareness of Texas Wine Industry Resulting from TDA Efforts

The most recognized awareness category is 11 to 30 percent. This identifies that most wineries feel that the overall awareness of the Texas wine industry has increased by 11 to 30 percent as a result of TDA's wine marketing efforts. The average numerical value using the mid-point

values wineries attribute to TDA's marketing efforts is 49 percent increase in awareness attributed to state supported efforts.

As previously mentioned, wineries recognize TDA is responsible for some of the growth, but the aspects of what is causing a growth in awareness is a vital aspect of assessment. Figure 4 illustrates which activities were identified by responding wineries to have the greatest impact on increasing awareness of Texas wines.

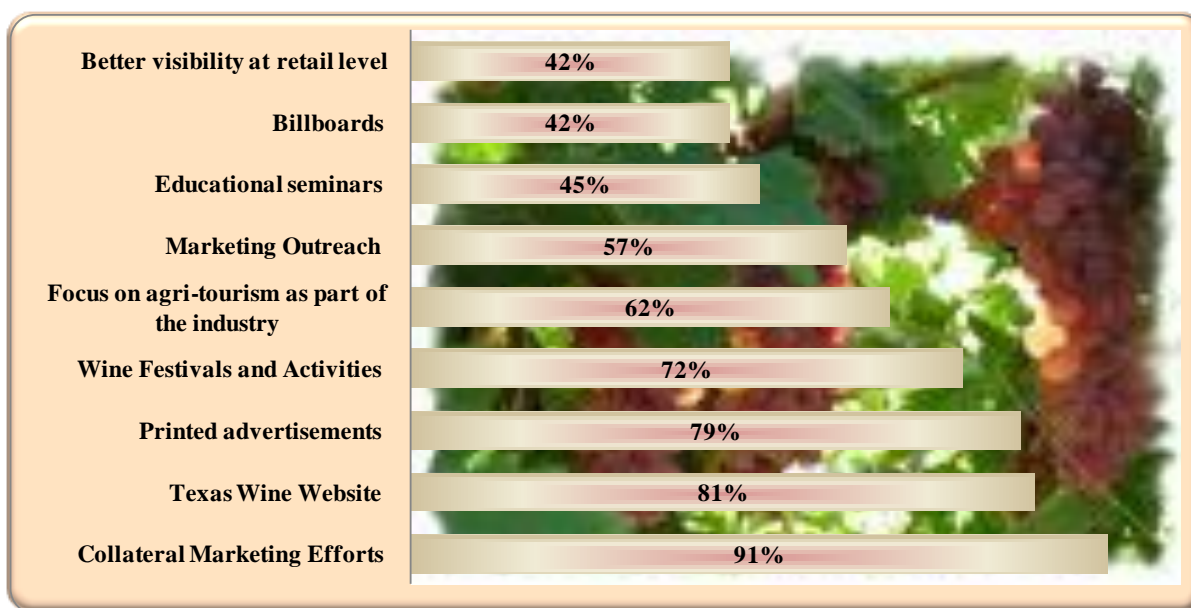


Figure 4. Activities and Expected Causes for Increasing Awareness of Texas Wines

Collateral marketing efforts, Texas wine website and printed advertisements were all recognized as high impact activities contributing to increased awareness of Texas wines. Educational seminars, billboards, and better visibility at retail level were not as highly recognized as the other activities on the survey. A list of all activities and the percent of wineries recognizing each as an increase to industry awareness.

Wineries Results in On-site Visitations

Winery visitations is a business strategy that is used to market and promote the winery. Previous reports have consistently identified visitations to the wineries as directly related to increases in sales.

Currently, 92 percent of responding wineries reported an increase in on-site visits. This is an increase in value from the 85 percent value in the 2006 report. Increased visits has the potential to generate positive economic impacts in Texas. The most recognized winery visitations category increase is 11 to 30 percent. The numeric mid-point value for increases is slightly higher at 32 percent increases in winery visitation over the previous year.

An additional question in this assessment was tourism services offered at each winery. Offering these services brings customers to the winery, which causes visitations and can lead to increases

in sales. Figure 5 illustrates the percent of wineries that offer the following tourism related services.

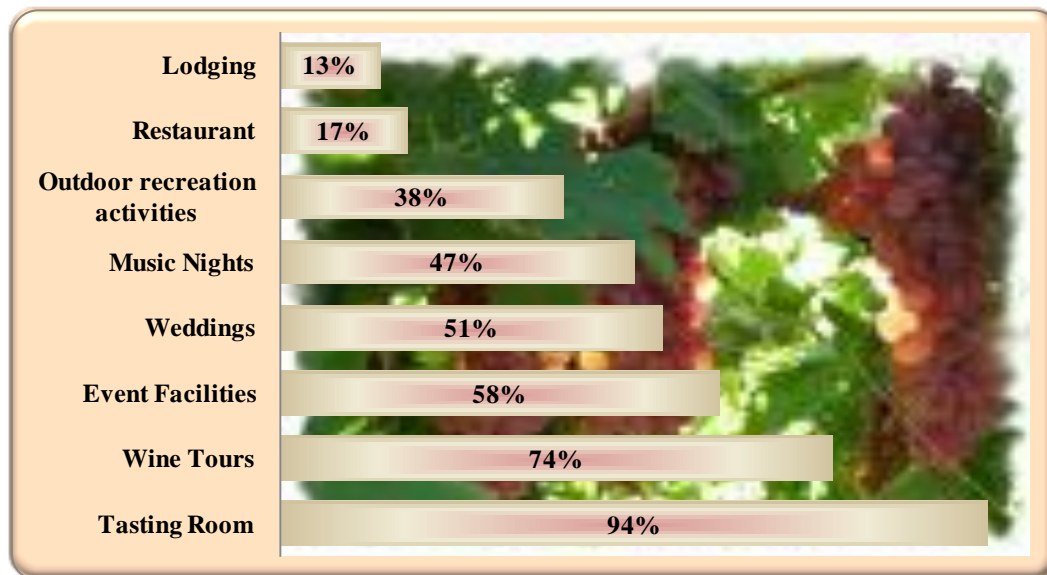


Figure 5. Tourism Related Activities Offered by the Winery

The majority of wineries indicated that they offered tasting rooms (94%) and wine tours (74%). Approximately 50 percent of wineries offer facilities (58%), weddings (51%) and music nights (47%). Less frequently offered tourism related services are outdoor recreations, restaurants and lodging.

MARKETING ACTIVITIES CORRELATED TO INCREASES IN SALES

Pearson correlations determine if there are any relationships or statistically referred to as correlations between variables. Correlations determine relationships between TWMAP variables and likely program objectives such as winery increases in sales.

Pearson correlations are a measure of linear association between the variables and are represented by the following equation for two variables X and Y.

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{(n-1)S_X S_Y}$$

The following correlations are significant at the $p < .05$ level and represent positive correlation values of relationship.

Attending TDA Wine Events

A positive correlation was found between wineries that attended wine events and increases in sales ($r = .380$). This identifies wineries attending wine events recognized greater increases in sales than those wineries that did not attend events.

On-site Visitations

A positive correlation was found between wineries that recognized on-site visits and percent increases in sales ($r=.435$). This identifies that visitations to wineries likely create higher increases in sales.

Percent Increases in Sales Related to TDA Support

A positive correlation was found between wineries that recognized TDA impacts to their sales increases and increases in total sales ($r=.482$). This identifies that wineries identifying increases in sales are very likely the wineries that also recognize TDA impacts their sales. This verifies the previous hypothesis wineries recognizing TDA support are experiencing higher increases in sales than wineries that relate less success value from TDA support.

Diversity of Winery Services Related to Increases in Sales

A positive correlation was found between wineries that offer services such as tasting rooms and tours and gross sales ($r = .366$). This identifies that the more tourism services a winery offers, the higher their potential for gross sales.

ECONOMIC IMPACT FROM STATE SUPPORTED MARKETING

As previously mentioned, allocated budgets for the 2007 Texas wine industry include \$250,000 of original TWMAP funding and \$725,000 in promotional funding. The aspects of each provide insight to the effectiveness of program funding. This funding is compared to wineries increases in revenue and the resulting economic impact by utilizing the IMPLAN \$1.82 economic multiplier.

Economic Impact of Sales Increases from the Texas Wine Industry (TWMAP)

Respondents were asked to report their un-audited annual sales totals and their average annual sales increases over the past year in order to assess the economic impacts of the TWMAP. The information from the wineries is utilized to measure the total value of the industry, measure increases in gross sales, measure the economic impacts from increases in sales and measure value added impacts to the Texas economy.

Wineries reported their sales have grown 33 percent over the previous year's level of gross sales. Considering the growth in sales and using a 95 percent confidence estimate, in 2007 wineries averaged \$125,109 in increases in gross sales. This is an increase in sales as the 2006 report illustrated an \$85,109 increase in gross sales. Considering the 93 wineries in Texas, the extrapolated total value for increases in winery gross sales is \$11.6 million ($93 * 125,109$).

TWMAP may not be able to take full credit for the sales increases, but respondents indicated that the program has a positive impact on the Texas wine industry. To provide more detail, wineries reported 18 percent of their increases in sales are directly attributed to efforts of the TWMAP. This value communicates that 18 percent of the \$11.6 million in sales increases or \$2.1 million is directly associated to efforts of TWMAP ($\$11.6M * .18$). This is a slight also an increase from the \$2.06 million communicated in the 2006 report.

As previously mentioned, economic impacts are derived from industry sales and exhibit the total economic value to the Texas economy. The previous direct sales value of \$2.1 million and using the previously reported IMPLAN model value of \$1.82 creates a direct economic value of \$3.8 million (\$2.1 million * 1.82 IMPLAN).

In addition to economic impact, IMPLAN model also estimates value added economic benefits, which include product value added during the production process. Considering direct sales increases of \$2.1 million, there is a value-added impact of \$386,223 increase impacts (\$2.1 million * \$1.82 IMPLAN Valued Added \$0.183) that boost the Texas economy and are directly related to the efforts from the TWMAP. Table 3 is a summary for increases in winery sales along with sales increases related to the efforts of Texas Department of Agriculture's marketing efforts.

Table 3.0 Summary of Increases in 2007 Winery Sales and Associated Economic Benefits	
Total Sales Increases (all wineries)	\$ 11,635,110.84
Percent Sales Increases Wineries Attribute to TWMAP	18%
Sales Dollars Directly Related to TWMAP	\$ 2,105,955.06
Direct Economic Benefits of Sales Increases (\$1.82)	\$ 3,832,838.21
Direct Value Added Benefits of Sales Increases (\$0.183)	\$ 385,389.78

Economic Impact of Total Market Outreach

As previously mentioned, new funds invested in the market create a new source of growth potential (SB1370 \$725,000). However, as the base of funding change from the original \$250,000 to the new level of \$975,000 (includes the \$250k + marketing associated budget \$725k) there will be an initial decrease in ROI. There is not current comparison of this value, but this does create a value of comparison for the 2008 report. Table 5 illustrates the summary of direct sales increases and associated economic impacts related to new budget allocations.

Table 5.0 Summary of Increases in Economic Value Compared to Budget Allocations (TWMAP + Market Cost of SB 1370)	
Total Direct Increases in Sales	\$2,105,955
Total Direct Economic Value	\$ 3,832,838
Total Direct Value Added Value	\$ 385,389
Total Annual Program Cost	\$ 975,000
Return on Investment Values (ROI)	
Direct Sales Increases per \$1 of Program Cost (\$2.1m / 975k)	\$ 2.16
Direct Economic Returns per \$1 of Program Cost (\$3.8 m / 975k)	\$ 3.93
Direct Value Added Returns per \$1 of Program Cost (385k / 975k)	\$ 0.40
Total Economic ROI for TWMAP (\$3.93+\$0.40)	\$ 4.33

As illustrated in table 8, there is a \$2.16 increase in sales directly related to \$1 in total marketing funds. This increase in sales represents \$3.93 in economic value for \$1 in funding, which identifies nearly four times the increase in economic value for every \$1 in funding. Value added increased by \$.40 per \$1 of invested value, which adds the total economic return.

CONCLUSIONS AND RECOMMENDATIONS

This report illustrates an industry that is sustaining constant growth as well as an industry that is in the early stages of development and is situated to reach high economic levels of productivity. Program funding, which includes annual funding of TWMAP and Senate Bill 1370 for a total of \$2,295,000 represents three percent of the industries economic impact to Texas. In comparison to the total economic value, this level of funding is not excessive and represents opportunity for strong economic return on investment. Primarily the funding target is long-term education and research with a smaller portion of the budget (\$975,000 of the 2.3 million) allocated to marketing Texas wine. The budget allocation is appropriate and proportioned to promote industry growth.

In this 2007 report, wineries recognize funding is essential to the growth. Texas wineries report that 49 percent of increases in awareness are direct results of TDA funding. A more targeted response value is that wineries reported 18 percent of their 33 percent increase in sales is attributable to TDA's marketing efforts. The economic benefits stem from wineries using collateral marketing materials and attending wine events to make consumers more aware of the wine industry in Texas.

Total return on investment includes TWMAP and the annual marketing budget of Senate Bill 1370. Total annual funding is \$975,000, which results in \$3.93 in economic impact and \$.40 in value-added impacts per \$1 in program funding. These return on investment values exhibit positive impacts to the industry, which translates to positive impacts to the Texas economy. Wineries that increased their involvement in state supported events and supported tourism events at their winery exhibit positive relationships to increases in sales and are likely the driving force behind these economic returns.

The recommendations from this report include continuing the marketing and promotions efforts to continue to create economic growth of the wine industry. Sales increases were correlated to wineries that attended wine events, recognized increased in on-site visitations and wineries that offer tourism services. Program activities that enhance these types of activities will likely causes growth in economic value.

An additional recommendation is to continue assessment efforts to measure changes in the program, measure involvement by wineries and calculate economic return on investment. These values provide insight to success and assistance to manage aspects of the program that encourage that growth.

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