Consumer's Awareness and Willingness to Pay for Colorado Wines

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Introduction

The growth of U.S. wine per capita consumption has been strong over the past five years. Recent consumption gains have been mainly driven by the assimilation of news relating moderate wine consumption to positive health outcomes, the positioning of wine as a more "casual" drink, and by a strong U.S. economy companied by increasing disposable incomes. In addition, many new grape growing areas are expanding across the United States. California, with 90% of the total output is still the largest producer (Klonsky, Tourte and Zalom), while new areas that were not previously associated with wine production, such as Washington and Oregon (the Pacific Northwest) have developed smaller but profitable industries. However, in spite of the fact that each region produces wines with different styles and flavors, new emerging regions (such as Colorado, Texas, New Mexico, Virginia, and New York) are encountering difficulties in creating a reputation for a high-quality product. Thus, several marketing strategies have been designed to increase the market niche for these local wines including numerous labeling programs claiming local origin of different regional wines.

Labeling of origin of production plays an especially important role in differentiating and marketing European wines. Steiner studied the British wine market showing that origin constitutes the most important choice criterion for French wines, whereas grape varieties are highly important for the choice of Spanish, Italian, and Australian wines. The consumer relies on the image of the area that guarantees and promotes the particular label. Thus, when the collective reputation of the product is good, the label will be a powerful tool to signal quality.

Unlike the European wine industry, the U.S. wineries have used strategies of product differentiation mainly based on varietal names (such as Chardonnay, Merlot, Zinfandel, and Riesling to name a few), referring to the grape variety used in the production of each particular wine. However, as recognition and reputation of a certain quality in some areas of the country have increased (such as in Sonoma County or Napa Valley), origin and appellations of origin are gaining importance among the different marketing strategies used by the U.S. wine industry. These appellations of origin and local labeling programs could have major implications for the wine industry, in which consumers traditionally look after "signs of quality" to make their wine choice.

The present study is about consumer response and recognition of Colorado wine, and it will update previous marketing research done on quality perceptions of wine and state promotional efforts. Winemaking began on Colorado's Western Slope more than a century ago and is one of the fastest growing wine industries in the nation. From 1990 to 1999, the number of wineries grew from five to 26, and the amount of wine produced in the state has more than tripled in the past eight years. However, the industry has a long way to go. Despite the substantial growth through the 1990s, Colorado wine industry is very small. New growing areas such as Pennsylvania, Virginia, Missouri, North Carolina, Indiana, Tennessee, and Arkansas have substantially higher production than Colorado. Another limiting factor, and perhaps the most sensitive issue within the industry is related to both, quality and quality consistency. In spite of the fact that Colorado wines are winning awards in national and international tasting competitions, past low-quality levels coupled with quality inconsistency are factors that have delayed the takeoff of Colorado wines in the state (Denver Post, 2000).

Currently, the Colorado Wine Board Development Industry (CWBDI) is thinking about different alternatives that may increase Colorado's wine market share. As reported by the Denver Post (2000), for every 100 bottles sold in Colorado, less than one (0.89 to be exact) is a Colorado-grown wine. By comparison, Washington State wines account for nearly 25 percent of Washington State's wine market (Washington Wine Commission, 2001). One of the considered alternatives is the use of environmentally friendly labels on the bottles of Colorado wine. Colorado wineries may benefit by emulating Coors, the beer producer located in Colorado that increased its market share substantially by creating an image of environmentally friendly production. Colorado grapes are grown in high altitudes over the sea level. This natural condition contributes to the disabling of many pests, and the reduction of pesticide applications. In addition, many wineries are using "environmentally friendly" production techniques, scattering the residues of the produced wine (grape pull) into the fields and consequently, reducing the amount of applied fertilizers. Thus, it seems worthwhile to study how environmentally friendly labels may help the Colorado wine industry to capture higher premiums.

The objectives of the present study are twofold: first, to study overall consumer perceptions toward Colorado wine, and second to calculate and compare the mean willingness to pay for regular and environmentally friendly Colorado wines. This study is organized as follows: first, we present a literature review about different labeling programs that producers may consider using; second, we comment the results of our survey, and finally, we conclude with some recommendations.

Wine Labeling

Wine labeling is a complicated issue. Wine labels are very diverse, including the brand or producer name, to the type of wine (varietal), the place of origin, the vintage, the alcohol and sulfate content, and government warning labels. This section reviews the wine labels commonly used to denote quality and origin of wine.

Among these different labeling programs, it's worth mentioning labels such as the different appellations of origin. When a U.S. winery wants to indicate the geographic pedigree of its wine, it uses a tag on its label called an appellation of origin. This tag must meet federal and state legal requirements. An *appellation of origin* can be the name of a country, the name of a state or states, or the name of a county or counties within a state. According to the legal definition given by the United States Bureau of Alcohol, Tobacco and Firearms (ATF), if a state name is used in the label, 100% of the grapes used in the wine must be grown in the state, and if a county name is used 75% of the grapes must be grown in that county. If an AVA (a federally approved viticultural area) label is used (such as Napa Valley), 85 % of the grapes used must come from the defined area. In Colorado, two AVA are recognized: The Grand Valley, and the recently approved West Elks (Denver Post, 2001). These appellations of origin are seen as a sign of quality, and an assurance to consumers of quality standards. European wines are also labeled with their own appellation of origin labels called Protected Denominations of

Origins (PDO) labels, which are not only exclusively used in wine, but in many European products that have been made using traditional techniques.

Other types of labels frequently used by the wine industry are the “reserve”, or “grand reserve” labels, which carry no legal definition by the (ATF). Because of years of overuse by wineries specializing in inexpensive wines, some wineries in Napa Valley are eliminating the label “reserve” from their wines since they are concerned that the term has lost popularity.

Other labels used to denote quality are the “vintage” and the “individual vineyard” labels. The vintage label indicates the year the grapes were grown, and the ”vineyard” assigns the origin of the grapes within a geographical region. According to the ATF, if these labels are used, at least 95% of the grapes must be of the vintage and must come from the vineyard names on the label.

Organic and environmentally friendly labels are also becoming popular in the wine industry. Over the years, many wines have been released claiming that they were organic, but confusion existed during the years about what constituted an organic wine. The Food and Drug Administration (FDA) passed the organic regulation for wines, stating that the term “organic may only be used on labels and in labeling of raw or processed agricultural products, including ingredients, that have been produced and handled in accordance with the regulations in this part” (FDA, 2000). This implies that only wines made of grapes grown as 100% organic are eligible to be marketed as organic.

In the case of environmentally friendly labels, the applied standards are not so strict, and vary from producer to producer. Among the most recognized environmentally friendly or sustainable viticulture programs in the United States is the LIVE, Inc project (Low Input Viticulture and Ethnology Program) developed in Oregon. This program provides vineyards and wineries official recognition for sustainable agricultural practices that are modeled after international standard, providing assurance for both, fruit quality and practices used in achieving this quality.

Survey Instrument

This study used a survey mechanism to elicit consumer WTP for Colorado and environmentally friendly Colorado wines. The survey was pre-tested in December, 2000, in a wine tasting organized by the Red Cross in Denver. In that pre-test consumers emphasized the low level of familiarity with Colorado wines, and as a consequence, some questions were slightly modified, reducing also the amounts asked to be paid by consumers, or thresholds contained in the payment card format. The survey contains mainly five sections: consumption habits and market share of Colorado wines, awareness level and effectiveness of promotion of Colorado wines, quality perceptions and image of Colorado wines, and willingness to pay for local and environmentally friendly wines. Socio-demographic characteristics are also summarized and compared to national levels.

Face-to-face surveys were conducted in liquor stores along the Colorado Front Range (Boulder, Fort Collins, Colorado Springs, and Denver) during the spring of 2001. Locations included: Fort Collins, Denver, Colorado Springs and Boulder. Participation was voluntary and response rate varied from town to town, but on average it was over 50%. The lowest response rate has been obtained in Denver (around 20%). Surveys were given to consumers who randomly visited the liquor stores where we surveyed. In particular, we surveyed at *Supermarket Liquors* in Boulder and Fort Collins; *Pringles* in Fort Collins; *The Vineyard, The Argonaut, Total Beverage, Lukas Liquors,* and *Applejack* in Denver; and *Cheers* and *Colorado Liquor Outlet* in Colorado Springs. Consumers entering the liquor store were asked the screening question, "Do you drink wine regularly?" If the answer was affirmative, then the interviewer asked them to participate in the survey. Otherwise they were dismissed from this study. Notice that we included both types of consumers, Colorado wine drinkers, and wine drinkers who are not satisfied or familiar with Colorado wines. The most important results are summarized below and compared to previous studies conducted by Beauty Associates.

Consumption Habits & Market Share of Colorado Wines

In our sample, 38% of the consumers buy wine weekly, and another 50% buys wine at least once a month. Because of this high frequency purchase of wine, it's expected that a representative sample of wine drinkers was collected. This sample will provide more accurate information than other potential samples obtained by mail or phone interviews.

Among our respondents, 44% spend on average between $10-$15 on a regular 750_{ml} bottle of wine, serving Merlot as their favorite variety. In total, 28% of consumers tried Colorado wine in the past six months. This may represent a considerable increment on consumption since 1996. Beauty and Associates reported that 37% of the surveyed consumers had *never* tried Colorado wines. However, Colorado wines still have a small market share, and from the total sample, only 3.7 % of the consumers (15 consumers) buy Colorado wines regularly.

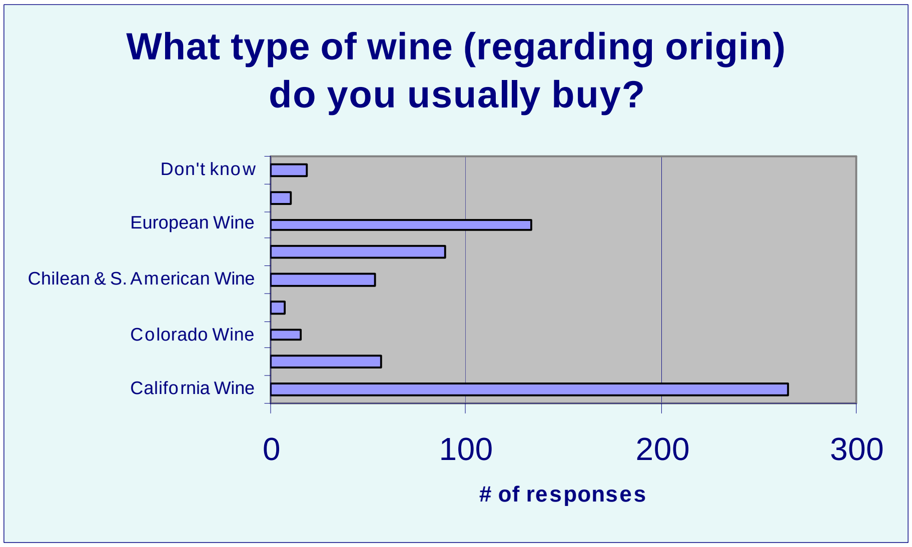
<u>Awareness and Effectiveness of Information about Colorado Wines</u>

20% of the surveyed consumers said they were well informed about Colorado wines, while 50 % said to know only "a little bit" about them. Still, 30% of the consumers remain *not* familiar with Colorado wines. In comparison with other more recent promotional efforts, awareness of Colorado wines is fairly high. As an example, only 13% of the consumers were familiar with the promotional program, "Colorado Proud," developed by the Colorado Department of Agriculture. In addition, awareness about Colorado wines has increased about 15% since the last study conducted by Beauty Associates.

Regarding effectiveness of promotion strategies, it is surprising how effective wineries and wine tasting festivals are to learn about Colorado wines, followed by newspaper ads and coupons, and friends as a third source of information about Colorado wines. Consumers seem to have their first experience with Colorado wines mainly at home (28%), wineries (26%), or wine festivals (13%). These results are comparable to those reported by Beauty and Associates in 1996.

<u>The Importance of Locality (or local attributes)</u>

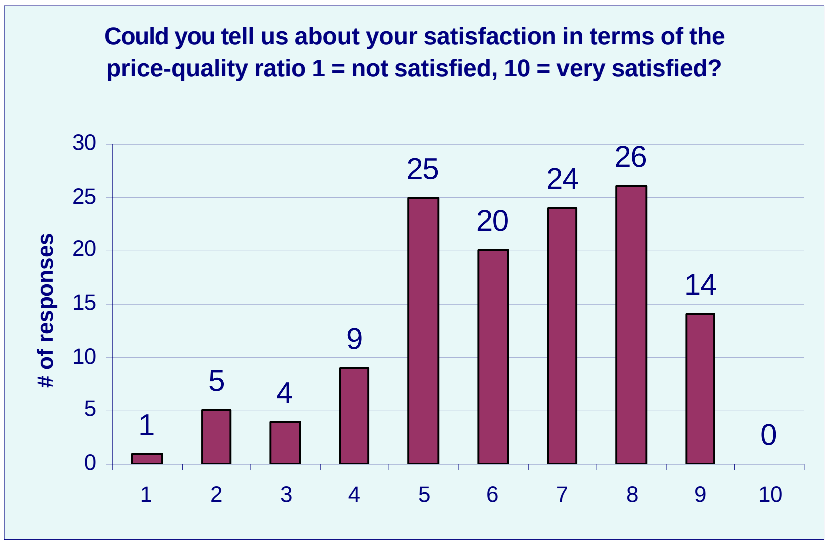
81% percent of the consumers recognized paying attention to wine labels designating the geographical origin of the wine they purchase. From the total, 265 consumers (66%) buy California wines, 134 (33%) buy European wines and 89 (22%) buy Australian wines. Notice that the percentages add to a higher number than 100 since the answers are not exclusive, implying that consumers combine several sources of wines. The fact that consumers drink more domestic than imported wine is in accordance with previous statistics that reflect differences of wine consumption throughout the United States. MediaMark Research Inc. reported in 1997 that domestic consumption is predominant in the Western United States, while in the Northeast, North Central, and South, imported wine sells in greater quantities than domestic wine. As a conclusion, Colorado wines still have a small market share, and from the total sample, only 3.7 % of the consumers buy Colorado wines regularly.



Quality Perceptions and Likelihood of Repurchase of Colorado Wines

Most of the sample thinks that Colorado wines' quality is *"neither good nor bad"* or *"average"* (65%), but still there is a fairly large consumer segment that thinks that Colorado wines are low-quality wines. In particular, 21% of the surveyed consumers think that Colorado wines' quality is bad or below average. On the other hand, since perceived quality is a matter of taste, a small segment of consumers seems to think that Colorado wines' quality is above average (6%).

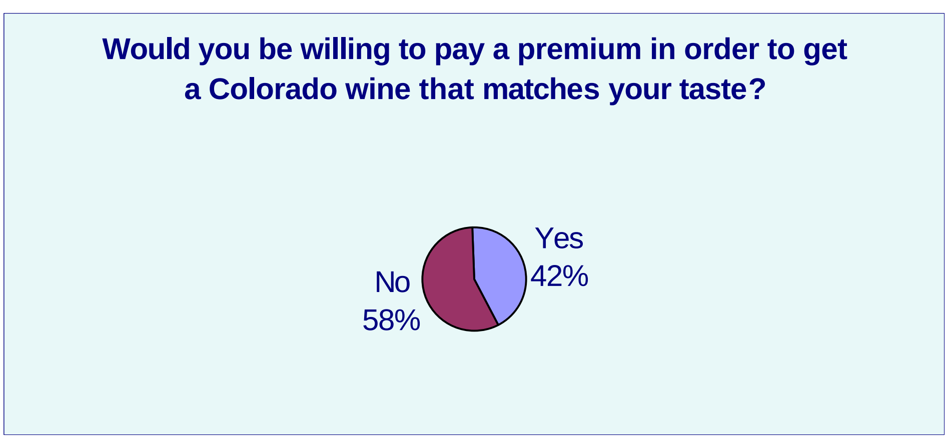
From the 28% who tried Colorado wines in the last six months, it seems that the majority were satisfied with their quality. In particular, around 43% of the consumers gave a ranking higher than 6 in a scale of 1-10 (being 10 the highest satisfaction rate). An even larger percentage (50%) rated their satisfaction in terms of price/quality ratio higher than 6. In the survey done by Beauty and Associates, it was reported that 56% of consumers were very satisfied with Colorado wines. This may not necessarily imply a current lower satisfaction rate, but rather a more selective sample in this study, since we are collecting data among wine buyers directly.



In terms of the likelihood of repurchase based on consumers' satisfaction with Colorado wines, 73% said in 1996 that they were very likely to repurchase Colorado wines. However, Beauty and Associates only had 37 responses to this particular question. In the current study, 31% of the consumers said to be very likely of repurchasing Colorado wines, and 45% somewhat likely. The same argument as above applies; it may happen that our sample has a higher expectation about wine quality than the sample used in the 1996 study.

Consumers Willingness to Pay for Local Wines

Locality is also the main factor that drives consumers to buy Colorado wines, with 49% of the consumers buying Colorado wines to support local wineries. We infer from our survey that the importance of locally grown attributes seems to be higher for fruits and produce than for wines. This means that consumers are more willing to buy local produce and fruits than local wines when they make their purchasing decisions. This could be explained because of the fact that Colorado enjoys a very good reputation for producing high quality fresh vegetables based on climatic comparative advantages. In spite of this fact, locality is still an important attribute in the wine market. In total, 42% of the surveyed consumers said that they were willing to pay a premium to get a Colorado wine that *matches their taste*. The premium that consumers were willing to pay is around 5-10% above the regular price, assuming that the regular price is $10 per bottle of wine. This implies that on average 36% of consumers would be willing to pay up to $1.00 more (for a $10 bottle) to get a Colorado wine that *matches their taste*. This result should be understood as the maximum premium to be charged above other wine prices.



Consumers Willingness to Pay for Local Environmentally Friendly Wines

Overall, consumers were more prompt about willing to pay a premium for environmentally friendly wines grown in Colorado. In total, 56% of the interviewed sample were willing to pay a premium for *environmentally friendly wines*, versus only 42% who were willing to pay a premium for traditional Colorado wines. This implies almost a 15% difference on the acceptance level for environmentally wines in comparison with traditional wines. The calculated mean premium is, about $1.50 for a $10 wine bottle. In light of these results, the costs of labeling and environmental production practices should be explored in order to find out about the economic feasibility of environmentally friendly wine production in Colorado. On the demand side, our marketing study shows a potential high demand for Colorado environmentally friendly wines.

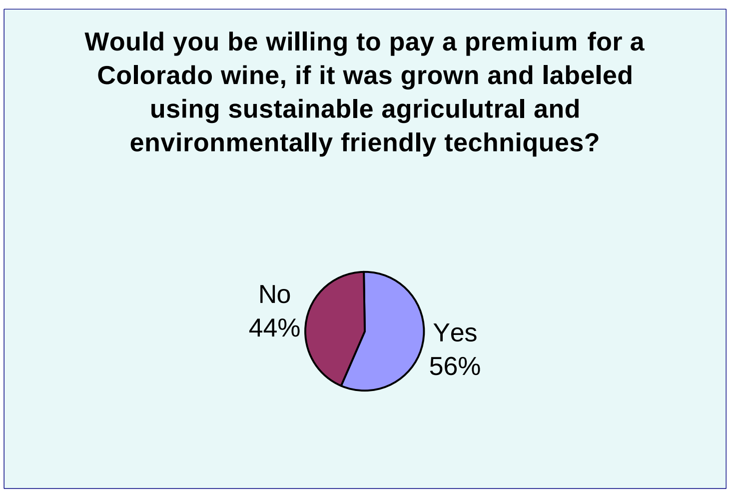


Table 1 reports the frequencies or percentages associated with the willingness to pay intervals for the two different wine types have negative slopes. As expected, the higher the amount asked to by paid by the consumer (or in this case the threshold contained in the interval of the payment card), the lower the percentage of affirmative responses to the willingness to pay question. At a first glance, the large percentages of the distribution located in the lower-end levels of the wiliness to pay distribution are evident. This reflects the overall difficulty of creating differentiated markets for Colorado wine, which are still perceived by some as being low quality wines.

Table 1: Frequencies of Responses (Total Sample)

Intervals in Payment Card	Frequency of Respondents for WTP of Colorado Wines	Frequency of Respondents for WTP of Colorado Environmentally Friendly Wines
$0	211 (51.46%)	177 (43.49%)
$0-$1.5	92 (22.43%)	122 (29.97%)
$1.5-$2.5	68 (16.58%)	80 (19.65%)
$2.5-$3.5	24 (5.85%)	18 (4.42%)
>$3.5	15 (3.66%)	10 (2.46%)
N=	410	407

Socio-demographic Profile of the Sample

On average, 23% of our sample lives in Fort Collins, 14% in Boulder, 22% in Colorado Springs and 41% in Denver. The mean number of years lived in Colorado is about 17. In addition, 67% of the respondents are male, and approximately 40 years old. Average household income was estimated between the interval of $50,000-$70,000 during the year 1999. The average education level of the sample was a Bachelors Degree or equivalent. This average income and education level are higher than the national average levels reported by the U.S. Census (2000), implying that wine drinkers in Colorado have a higher social "status" than regular residents. This finding is also supported by Wolf's research regarding the socio-demographic profiles of wine drinkers in California. Nevertheless, according to the socio-demographics presented by the Wine Market Council, our sample is comparable to national averages among wine drinkers. Summary statistics of the socio-demographic variables are presented in Table 2.

Table 2: Demographic Characteristics of the Sample

Variable Definition	**Mean**	**Standard Deviation**
Gender =1 if Female, 0 otherwise	0.4263	0.4951
Age	40.720	12.180
Income: 1= < $15K 2=$15K-$30K 3=$30K-$50K 4=$50K-$70K 5=$70K-$100K 6= >$100K	4.553	2.059
Education: 1= Some School 2= High School 3= Some college 4= Bachelor's or Professional Degree 5= Advanced Degree	4.203	2.629
Core-drinker =1, if consumer buys wine at least once a week, =0 otherwise	0.391	0.559
Years spent in Colorado	16.996	14.063

Critical Points and Recommendations

Based on the data collected from the survey, and comments from the consumers, we identify some critical points in the marketing of Colorado wines. Among them still is a concern of the low level of consumer awareness about Colorado wine, the low perceived quality of the product, and the in-store presentation of the wines. Therefore, four main objectives have been identified : (1) increase consumer awareness and recognition; (2) (2) increase the perceived quality of the product; (3) increase retail volume and product presentation; and (4) increase total market share of Colorado wines.

- **Objective: Increase Level of Consumer Awareness**

Recommendations:

- Keep an updated website about Colorado wines, festivals, countryside tours, wine tasting events and links to wineries. Try to promote on-line sales.

- Present wines at wine tastings. Control wine quality in these wine tastings and tasting rooms in wineries. They are the most successful instruments promoting Colorado wines in the Front Range.

- Advertisements in local news media rather than using coupons. Very small return rate was observed in the in-store coupon experiment.

- Public Relations - maintain relations with local food column journalists. Additionally, articles about wineries in business sections will help increase awareness.

- Sponsorship, i.e. NPR, festivals, marathons, or other events.

- **Objective: Increase Retailing Volume and In-Store Presentation**

Recommendations:

- Customers are frequently not aware what wines are sold at the stores they are visiting. Some stores have Colorado wines presented in awkward places (i.e. among imported wines) where customers would not look for them.

- Educate retail staff on Colorado wines. Uninformed consumers rely highly on retail staff recommendations. Retail staff is the third most important source of information mentioned by wine consumers.

- Offer POP materials (such as Colorado Wine Brochures) to retailers that will attract customers' attention and educate customers.

- Offer Colorado maps, flags or other devices that highlight Colorado's wine area and provide information such as type of wine grown in region, special growing conditions, etc.

- Supply stores with shelf tags that provide information about wine characteristics, recommended side dishes, and information on any prizes and positive reviews from the wine media. Label wines showing awards and prizes. This will increase the perceived quality of Colorado wines.

- Support in-store wine tastings (if legalized) and promotions.

- **Objective: Increase market penetration**

Recommendation:

- Competition in terms of quality and price is very strong in the wine industry. Colorado wines should be priced competitively with other wines available at retail levels. According to our survey, wines that are priced above $15 at the retail level will be priced too high for the majority of wine consumers. A lower price will ensure that Colorado wine is marketed at a price point that is considered by wine consumers on a regular basis.

- **Objective: Increase the image of Colorado Wines**

- Use additional tags such as “Colorado Proud” or any local identification sign. Consumers are willing to support local products.

- Think about alternative environmentally friendly labels that without significantly increasing your marketing cost may help you to capture a larger niche market.

- Have traditional looking label and bottle design - Colorado wineries are viewed as very young and with inconsistent quality. Traditional bottle and label designs will promote that the wineries are established.

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