FEASIBILITY ANALYSIS OF A MICROBREWERY

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By

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Chapter 1

INTRODUCTION

Consumers have become more aware of the quality differences between craft and generic beer. The popularity of premium craft beer has been growing since the microbrewery boom in the early 1970s. The United States experienced a large increase in the availability of beer and a sharp increase in the number of microbreweries due to the legalization of brew pubs in 1978 (Economic Research Service 2003). This legislature provides excise tax breaks and marketing advantages to microbreweries, which helps small production breweries stay competitive in an industry dominated by giant mass producers (Brewers' Association 2011). Sierra Nevada Brewing Co. (Chico) and The Boston Beer Co. (Boston), are the two highest grossing craft breweries in the U.S. and both businesses were established shortly after brewpubs were legalized. Dogfish Head Brewery (DHB), Gaithersburg, Maryland, is the nation's fastest growing craft brewery. The brewmaster at DHB stated that practicing economies of scope has been the key to their success, as well as educating consumers about the appealing complexity and sophistication of craft beer (Calagione 2011).

The economic theory, economies of scope, is when a business can decrease production costs by increasing the variety of goods produced (Panzar and Willig 1981). Microbreweries practice economies of scope because they produce a variety of beers, rather than mass producing a single type of beer. Before brewpubs were legal, the majority of U.S. consumers' palates had been exposed to primarily lagers and pilsners (Parcell and Woolverton 2008). Mass producers like Coors, Anheuser-Busch InBev, and SAB Miller spend more dollars on marketing than any other breweries because they're concerned with economies of scale and gaining market share, however their generalized product offerings create peripheral product opportunities for

microbreweries to survive (Carroll and Swaminathan 2000). The difference between economies of scale and scope will continue to partition the resources available to large and small scale brewers. Mass producers are unable to efficiently distribute a large variety of beers, which allows microbreweries to target consumers looking for new malt beverages, and unique tastes (Carroll and Swaminatha 2000). The growing number of microbreweries dwarfs the number of mass-producers, which resembles a true change in consumer preferences and a shift in demand for premium craft beer (Parcell and Woolverton 2008).

Between 1990 and 2010, 1,376 microbreweries were established in the United States. Rapid expansion in the 1980's led to an oversaturated market and volatility peaked in 1996 when 333 microbreweries opened, and only 36 closed. The volatile growth of the microbrewery industry has been compared to the dot-com boom in the '90's. Since 2005, there has been a rise in the number of microbrewery openings, and a decrease in closings. 2007 yielded 80 openings and 42 closings, which indicates a decrease in market volatility (Parcell and Woolverton 2008). Starting a brewery now may be a worthy endeavor for an entrepreneur.

Carlo Pisan Ranch will be analyzed in this study as a potential site for starting a new brewery. The prospective brewery will be called Carlo Pisan Ranch Brewery (CPRB), and will be built on family owned property. The property is located in El Dorado County, in the foothills of the Sierra Nevada Mountains. Carlo Pisan Ranch is a rural destination located in Coloma, CA, which is where gold was discovered in California. Existing local businesses generate profits from tourists that come from all over the world. Nearby metropolitan areas such as Sacramento and the San Francisco Bay area cities, as well as Tahoe National Forest, are critical factors to El Dorado County's tourism industry. Currently, there are two profitable vineyards surrounding Carlo Pisan Ranch, and one of the vineyards recently opened at brewery. The isolated, rural area

of Coloma, CA, will embrace CPRB because it will make the area more attractive to tourists. Establishing CPRB will require a feasibility study to be completed, in order to estimate if the project is financially feasible.

A feasibility study is designed to determine whether or not a specific project is economically sound. A myriad of possibilities are available to entrepreneurs who possess the right ingenuity, so a feasibility study is needed to narrow the scope of those possibilities. Feasibility studies are used for various reasons, mostly to improve the common interest and perspective of the entrepreneur (Blank 1984). In the case of Carlo Pisan Ranch Brewery, the observed market conditions, and a local economy driven by tourism, will provide CPRB an opportunity for success.

Problem Statement

Is it feasible to open a microbrewery in the rural area of Coloma, CA?

Hypothesis

Opening a microbrewery in Coloma will provide an internal rate of return of five percent of greater.

Objectives

1) Determine investment capital needed for starting a microbrewery in El Dorado County.
2) Determine the costs of production for operating a 10 BBL brewing system.
3) Determine the feasibility of this project using Net Present Value and Return on Investment analysis.

Justification

The implementation of a brewery at Carlo Pisan Ranch will be a lucrative business, which will be beneficial to the rural economy of El Dorado County. The average employee at a brewery, winery, or distiller earns $18.62 hourly, which is sufficient income when compared to minimum wage (First Research). U.S. breweries are forecasted to grow 3% every year between 2012 to 2015, and most of the growth will be manifested by microbreweries (First Research 2011). One reason microbreweries continue to succeed is because of their regulatory environment. Large brewers (brewers that sell over 60,000 barrels yearly) must pay $18 per barrel in excise tax, while small breweries only pay $7 per barrel (First Research 2011).

Carlo Pisan Ranch Brewery (CPRB) will be built on family-owned land, zoned for agriculture. Agricultural zoned land receives subsidized water, which is useful because it takes 75 liters of water to make a single 250 ml glass of beer (First Research 2011). CPRB will neighbor two vineyards and a brewery, a mile away from the American River. The American River attracts thousands of tourists because that is where gold was discovered in California and the river perpetuates one of the largest whitewater rafting industries in California. CPRB will experience immediate exposure to agritourism, and tourists will enjoy 60 acres of beautiful foothill terrain, a view of the American River valley, and premium craft beer. A new casino opened locally, and will attract even more tourism to the area. Approximately 16,880, 272 people in the U.S. drink craft beer and visit gambling casinos (SRDS 2012)

This study will provides beneficiaries a framework for creating a feasibility study of their own, especially for those focused on building and opening a microbrewery. The feasibility study of CPRB will be used to determine if the project can generate a positive return on investment (ROI). If a positive ROI is concluded, this report will be attractive to lenders and investors, who can help make the project a reality.

Chapter 2

Review of Literature

The Feasibility Study

A businesses ability to repay debt capital and interest needs to be determined before investing large amounts of money into the new business. Feasibility studies determine whether the enterprise can make enough profits to pay off the interest and principal in a timely manner. Blank (1984) provides a framework for conducting an analysis of factors that directly influence the success of a business. As Blank notes, a complete analysis of directly influencing factors can be divided into three parts: (1) market determination; (2) raw product supply; (3) production process (Blank 1984).

Market analysis estimates the demand for a new product offering and is used to project future sales revenue. In order to create demand for a product, the following components should be analyzed: consumption trends, distribution systems, market entry barriers, potential buyers, possible selling arrangements, sale prices (Blank, 1984). George et al. (2011), states 73% of agritourism operators believe word of mouth to be the most effective promotional strategy. Economic availability of raw material needs to determined before a business can enter into the production process. To determine raw material supply needs of a business, inferences need to be drawn for the following items: minimum economic size of the facility, production plant requirements, availability of requirements, and security of the supply stream (Blank 1984). Estimates from equipment wholesalers are important for predetermining the size of equipment, production space and raw material requirements. Available suppliers must be identified because it is important to understand their willingness to enter into long-term and short term contracts (Blank 1984). Production costs are the final costs accounted for in a feasibility study of directly

influencing factors. Production cost are determined to estimate capital requirements, financing requirements, and potential costs and returns from the operation.

U.S. Microbrewery Industry

Two million Americans over 21-years-old, drink approximately 21 gallons (80 liters) of beer every year (Beer Institute 2011). Since the legalization of brewpubs in 1978, the number of breweries has increased from 600 breweries in 1994 to 1,500 in 2012. The growing number of practicing brewers indicates an increase in the diversity of beer styles, which signifies a shift in the demand for craft beer (First Research 2012). The U.S. microbrewery market was highly volatile from 2000-2005 because more breweries closed than opened (Parcell and Woolverton 2008). However, 2011 recorded 250 brewery openings and 37 closings; resulting in a total of 100,000 employees. The craft brewing industry increased sales volume by 13%, and 15% by dollars in 2011, while the overall beer market was down about 2%. Also, craft brewers sold over a million more barrels in 2011 than they sold in 2010 (Brewers Association 2011). The eight biggest breweries account for about 90% of the industry revenue. SAB Miller, Anhueser-Busch, and Coors produce the following production share: A-B at 56%; Miller at 21%; Coors at 13% (Modern Brewery Age 2005).

As the number of breweries continues to rise, data shows no increase in the number of generalist breweries in America. Parcell and Woolverton (2008) discuss the causation of the microbrew movement, and the impact of economies of scale within the whole beer industry. Parcell and Woolverton (2008) discuss the resemblance the microbrewery movement has to an actual social movement. Additionally, Carrol and Swaminatha (2000) discuss why the number of small craft brewers in the U.S. has increased, even though the beer market has become increasingly dominated by mass-production brewing companies. Large scale competition has an

advantageous sociological impact on craft breweries. The craftsman style and the locally oriented identity microbrewers embody, allow them to generate revenue from a market segment mostly populated by beer enthusiasts. The increase of craft breweries is directing related to increasing resource space, outside the mass producers' target areas. Craft breweries compete in these 'outside lands', where mass-production breweries cannot reach. Carroll and Swaminatha (2000) utilized a compilation of life-history data, on the population of brewing firms opened from 1938 to 1997. The life history data was used to compute counts of density, foundings, and deaths on a per year basis. The study utilized qualitative and quantitative data to draw statistical inferences to determine organizational growth in generalist and specialists brewing operations. Carroll and Swaminatha (2000) found the microbrewery industry was much more competitive, but growing fast. They faced adversity when contrasting the organization growth of specialists breweries and generalists breweries because when generalists breweries were founded, there were no specialists breweries.

Kleban and Nickerson (2011) analyze the competitive factors in the craft brewing industry, and define different categories of craft breweries depending on their annual beer output. A large critical factor to the growingly competitive microbrewery industry is due to easy access to loans, which has created an explosive growth in the number of craft breweries operating in the US market. The microbrewery industry experiences the most competition because competitors compete for a small share of the beer industry. On the other hand, microbreweries have a competitive advantage in regards to their unique craft beverages that appeal to local consumers. Microbreweries increase their market share by increasing the awareness of their consumers, sustainable brewing and environmental stewardship, and by innovating their brands and product lines (Kleban and Nickerson 2011).

CA and El Dorado County Market Overview

A determination of the financial health of the local industry is difficult because microbreweries in El Dorado County do not publicly list their financial statements. Jensen, et al. (2011), provides an up-to-date, economic and demographic analysis of El Dorado County. El Dorado County increased by $42.1 million in tourism earnings from 1998 to 2008. Total industry earnings accrued $8.82 billion dollars in 2008. Also, in 2008, the tourism industry yielded earnings of $224.8 million, which is 0.8% of tourism earnings in California (Jensen, et. al., 2011). Per Capita income is $49,187 and has risen by 5% from 2007 to 2008. Household income in El Dorado is expected to rise by 8.5% in the next four years. Inflation adjusted per capita income indicates El Dorado County's per capita income will decrease to $47,269 by 2030.

SRDS (2012) provides lifestyle analysis, market profiles, and demographic reports. Researchers can use SRDS to find lifestyle data on a city, county, state, region, or national basis. The lifestyle index for alcoholic beverages is highest for microbrews, which suggests that more people drink craft beer than any other alcoholic beverage. The county population is 178,901 and it is estimated that 20,681 of those people drink microbrew beer. The housing market compounded by an economic recession has slowed the population growth from 24% (1990-2000), to 14.5% (2000-2011). Growth is expected to decrease to 7.2%, from 2011 to 2016. A large amount of tourism in El Dorado comes from the San Francisco and other metropolitan areas around the San Francisco bay. San Francisco has the highest market potential for microbreweries in the United States. San Francisco accounts for 868,528 craft beer drinkers (SRDS 2012).

The California agritourism industry is growing because urbanization and decreasing profit margins have motivated farmers to seek alternative practices for maintaining profitable

agricultural enterprises. Historically, the USDA's definition of agritourism has restricted major on-farm activities (festivals, private accommodations, and direct sales of product) from being accounted for, which has led to the industry being undervalued (George et al., 2011). Up until 2008, there was no statewide study of the California agritourism industry, which made market entry planning difficult to conduct for prospective agritourism operators. 2008 yielded the first statewide systematic study of the California agritourism industry and a comprehensive database of information about the industry was created. The University Of California Cooperative Extension (UCCE) found that 75% of agritourism operators ventured into agritourism to increase profitability and 64% plan to expand their businesses within the next 5 years (George et al., 2011). George et al. (2011), redefines "agritourism" as any income generating activity conducted on a working farm or ranch for the enjoyment and education of visitors.

Federal, State, and County Compliances

Brewers and all others who produce and sell alcohol must bear the burden of government mandates. Before a business can generate revenue, the federal, state, and county regulations and permits must be followed. 69% of agritourism operators in California reported negative statements about their counties' permit system and regulations (George et al. 2011). Due to the inherently dangerous nature of alcoholic beverages, businesses serving alcohol must undergo more harsh regulations than businesses that do not sell alcohol. A standard business license needs to be acquired and can be purchased through the county governments' treasurer tax collectors office (El Dorado County). A building permit will need to be purchased from a counties' building services department. New structures need to be permitted and regulated by the local government, so the new structure can be taxed and built according to county building code. Also, a beer manufacturers license needs to be purchased from the department of alcoholic

beverage control. A beer manufacturer's license authorizes the sale of beer, and permits consumer consumption of beer on the manufactures' premises (California 2011). The beer manufacturers license permits beer tasting and minors are allowed on the premises as long as the proprietor operates under specific conditions (Section 23357.3), regulated by the California State Board of Equalization (California State Board of Equalization 2006). Only a certain number of licenses are given out in each county; fortunately permits can be acquired via pre-existing permit holders, for a fixed annual fee.

The state board of equalization requires certain financial records to be reported in order to determine the correct tax liability for the business owner (California State Board of Equalization 2006). Brewers must follow the regulations laid before them in the *California State Board of Equalization's Alcohol Beverage Tax Regulations and Instruction Booklet,* which requires brewers to keep extensive record of business transactions; recording the volume of beer sold, down to the last bottle (California State Board of Equalization 2006). The state of California levies excise tax on a per gallon basis, and requires the brewer to record who bought the alcohol, and the quantity sold to each retailer, wholesale distributor, or consumer.

George et al. (2003) discusses interviews with county officials and agritourism operators, conducted by the Agricultural Issues Center (AIC). Agritourism operators from El Dorado, Placer, San Luis Obispo, and several other counties, shared their perspectives of the agritourism regulatory process in California. Also, county planners and environmental health specialists provided their personal insight on what they believe are the biggest obstacles within the agritourism regulatory process. El Dorado and Placer County officials attributed the increase of agritourism to wineries. Officials stated there has been a significant percent increase in agritourism applicants in their counties. In the past five years, Placer County has tripled the

amount of agritourism permits issued. All the operators planned on continuing their agritourism businesses for the next ten years, and some operators planned to expand their operations. County officials and operators provided their opinions about obstacles and the costs incurred during the permitting process. The majority of the operators considered rules and regulations to be unclear, moreover describing the permitting process with dissatisfaction and distrust. County officials in El Dorado County reported no obstacles to entering into agritourism activities (George et al., 2003). George et al. (2003) compiled a table which presents perceived problems and suggested solutions, which were recorded from agritourism operators and county officials. Operators asked for more county awareness and assistance through the permitting process. County officials suggested a business plan and pre-application meetings with county agency officials. The article presents a rift between the county and business operators. This study displays the perspectives of both parties, which will help the agritourism industry to be better understood.

Financial Statements

A balance sheet, income statement, and statement of cash flows are used to monitor and evaluate the health of a business. A balance sheet specifies information about a company's assets, liabilities, and equity. Assets include physical property like property, plant, and equipment, as well is intangibles things like patents and trademarks. Liabilities are financial obligations the company owes to others; this can include borrowing of money from other companies, or payroll payable to employees. The following formula summarizes what a balance sheet shows (U.S. Securities and Exchange Commission. 2007):

ASSETS=LIABILITIES+SHAREHOLDERS' EQUITY

The next two financial statements that are implemented in a feasibility study are the income and cash flows statements. The income statement reports how much revenue a company

accrues over the course of a year. Income statements display net income, which is the difference between revenue and costs of revenue. Net income is calculated by subtracting operating expenses, depreciation of assets, taxes, and interest from the gross profit. According to the U.S. Securities and Exchange Commission, the statement of cash flows report a company's inflow and outflow of cash (U.S. Securities and Exchange Commission 2007). Statement of cash flows displays how much cash a company has on hand at a given point in time, also known as "operating capital". High operating capital is a good indicator that a company can pay off their short-term obligations. These financial statements can be used to calculate Net Present Value, which draws inferences about a companies' potential profitability.

Company Valuation Techniques

Graham and Tennent (2005) discuss project appraisal technique that can be conducted through analysis of forecasted cash flows. Cash flows relevant to determining a companies' future success include sales, purchases, operating costs, tax payments and receipts. When evaluating a proposal with company valuation techniques, only cash flows from the initial investment and the operating activities should be used. Graham and Tennent (2005) describes project valuation techniques, such as Net Present Value (NPV) and Internal Rate of Return (IRR) (Graham and Tennent 2005). Net Present Value may be used to determine whether to accept or reject a project. NPV sums up periods of cash inflows and outflows, less a discount rate, which calculates the present value of future values of net income. The summation of all the discounted cash flow periods is the net present worth of the project. The higher the NPV, the more attractive the project. The following displays the correct formula for calculating NPV:

NPV= ((Sum of Expected Cash Flows)/(1+Discount Rate^period)) – Initial Investment.

The IRR is a form of break even analysis, which will indicate the highest discount rate a project can support before a negative NPV is generated. IRR is difficult to calculate manually, but excel provides an IRR function which makes solving IRR much easier. IRR is a great measurement to use if the size of a project is infinitely variable, rendering the NPVs of projects useless for comparison (Graham and Tennent 2005).

Chapter 3

Data Collection

Carlo Pisan Ranch Brewery (CPRB) cannot become a reality until the resources needed for creating the business are defined. Capital debt requirements were defined in order for CPRB to reach the production phase. The Building Services Department, El Dorado County, sells the building permit, which must be paid for before construction can begin. The title of the property will be transferred to the author from a family member, and the transfer will be subject to gift tax. A transfer tax affidavit must be filed with the El Dorado recorder's office, but the gift tax will be paid for by the transferor. The land and warehouse have already been acquired, but labor will be needed to assemble the warehouse.

Cheap labor will be used for non-skilled tasks, but specialists will need to be contracted to install utilities: electrical, plumbing, heating and air-conditioning, gas. Semi-trucks and tractors will be needed for transporting the heavy building materials, grading a building pad, and excavating the necessary infrastructure (septic, water, erosion controls, parking lot, foundation footings). Reedconstructiondata.com provides average warehouse construction costs on a per square foot basis. There are several estimates available, and each estimate assumes that certain aspects of the construction process have already been completed. Assuming a concrete foundation has been poured, and a steel frame has already been erected, construction can be

completed for $79.67 a square foot using union labor. However, El Dorado County has a large availability of non-union service workers, decreasing construction costs to $73.16 a square foot. These estimates include contractors fees, architectural fees, and user fees (predominately permits). A steel frame that's 40' tall and 60' long has already been acquired, so once the concrete is poured, a construction estimate of $175,584 can be assumed (Reed Construction 2012). Concrete will cost about $2.50 to $4.50 per square foot, so assuming concrete costs $3.50 is a sq. foot, the total construction cost will be $183,98 (Concrete Network 2012). The price of capital can be calculated by consulting a banker. Online loan calculators are less credible, but are readily available and quick (Bankrate.com 2012).

An interview with the director of sales of Central Coast Brewing Company (CCB), in San Luis Obispo, recommended JV Northwest Equipment Wholesalers (JVNW) for a brewing system. JVNW will use a CAD program to design a brewpub layout within the size parameters of the warehouse[1]. The CAD program will create a blue print of the interior layout of the brewery. After the interior layout has been determined, fixtures can be incorporated into the blueprint, which will provide an estimate on the cost to furnish the brewery. Fixtures will include the bar, tables, seating, appliances, and lighting. The fixtures will be aesthetically pleasing to the customer, and give the brewery its own personal style. JVNW provides a biased, yet lucrative pro forma statement, that displays a costs and sales projection for a brewery using a 10 barrel system. JVNW's pro forma statement includes all the direct manufacturing costs for producing the beer, and can be increased in scale for a larger barrel brewing system (JVNW 2012). Financial statements from CCB will provide a more realistic perspective on the sales revenue a microbrewery could expect to generate. Also, CCB's financial statements will show indirect costs of running a microbrewery, which JVNW's pro forma did not include. Also, Premier

Stainless Systems, provide a quote for their 15BBL brewing system, which includes installation and training. It is important to obtain multiple equipment estimates from wholesalers before purchasing the brewing equipment.

3 years of financial records from Central Coast Brewing Company, and the brewpub pro forma from JVNW, will be used to budget operating costs and project sales revenue. Pro forma financial statements will be created based off the cost and revenue data gathered.

Data Analysis

The brewpub pro forma from JVNW, as well as the financial statements collected from CCB, will serve as proxies for estimating operating costs and sales revenue. The proxy pro forma statements will first be used to create a pro forma income statement, which will account for all the liabilities and assets the project requires. Also, CPRB's pro forma income statement will incorporate a sales revenue estimate. However, the existing sale revenue data from CCB is not an precise indicator of revenue because CCB operates in a different region of California, which may have a completely different market demand.

CCB and CPRB are similar because they are both located in California and compete in the same industry. In order to refit CCB's financials to pro forma statements for CPRB, the market demand for craft beer in San Luis Obispo (SLO) and Coloma must be compared. SDRS (2012) reports that the market potential for craft beer in SLO is higher than any other beverage. Also, the population of SLO dwarfs the rural population of Coloma. CPRB will be surrounded by tourism and will compete with less businesses, so it difficult to determine which area has more demand for craft beer. Due to the flourishing vineyard and winery operations surrounding Carlo Pisan Ranch, and nearby metropolitan areas, it is reasonable to believe there will be a higher demand for craft beer in Coloma than SLO.

A ‘driver’ will be applied to CCB’s financials, which will increase items such as sales revenue, accounts receivable, inventory, cost of goods sold, and operating activities to meet the estimated demand of the Coloma market place. Once a base forecast is created for CPRB, income will be forecasted 5 years into the future. The income statements will be used to conduct a Return on Investment analysis, which will include calculating Net Present Value and the Internal Rate of Return for this project. If positive ROI, NPV and IRR are realized, Carlo Pisan Ranch Brewery will be an attractive business venture for investors, lenders, and the owner of Carlo Pisan Ranch.

Assumptions

The land will be given to the proprietor of CPRB, and the land owner will provide free use of semi-trucks and tractors. It is assumed that the financial statement provided by JV Northwestern and Central Coast Brewing Company are valid, and realistic. It is assumed that the utility prices in California will remain at present values, and that the existing volatility of the microbrewery market in Northern California will experience minimal change.

Limitations

Estimating the sales revenue from CCB’s financial statements will not provide an absolutely accurate indicator of the potential sales revenue Carlo Pisan Ranch Brewery may incur. Coloma is renown for its wine, gold history, and wilderness, so it is difficult to assume how the market will react to a new brewery. Analyzing the financial statements of the existing businesses in Coloma would help for determining sales revenue, but that information may be confidential and difficult to acquire.

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[1] *Aaron, Jim. 2012. Sales Manager, Central Coast Brewing Company. Personal Interview, San Luis Obispo (February 28).*

Chapter 4

Development of the Study

A feasibility study must estimate costs and revenue in order to determine if a prospective project will be financially sound. Financial records for privatized microbreweries are difficult to obtain, but Central Coast Brewing Company (CCB), in San Luis Obispo, agreed to share their financials for the sake of this project. CCB's financial statements were a great reference for deciphering which types of permits, fees, and marginal costs would be incurred. Also, CCB's beta helped for determining fixed costs and estimating revenue. I included all of the fixed cost CCB incurred, excluding several costs I deemed not prevalent to CPRB's situation.

Determining fixed costs was challenging because the information was not as centralized as the variable costs. CCB's financial statements helped centralize many of the fixed cost, but some costs would be unique for CPRB. I was able to estimate many of these fixed costs through online sources, including: property taxes, facility lighting, telephone, Alcohol and Beverage Control fees, and construction costs. The online construction estimate was compatible to this scenario because the estimate assumed a steel warehouse frame and concrete foundation already be obtained. Carlo Pisan Ranch owns a large steel warehouse frame, so an online concrete calculator helped estimate the price of pouring the concrete foundation, which completed the construction estimate. Heavy equipment will be provided by the family demolition business at no cost, so grading and exaction costs are not included. Not having to include grading and excavation, increased the efficacy of the construction estimate because all preliminary phases before construction were not included in the construction estimate. JV North West Equipment Wholesalers (JVNW) and Premier Stainless Systems provided quotes for brewing systems. My total cost pro forma includes a 15 barrel direct fired brew system from Premier Stainless Systems because this system was substantially cheaper than the quotes provided by JVNW.

JVNW provides a brewpub pro forma which is used to determine operational cost on a 10 barrel basis. This pro forma includes all the costs for making the beer, including labor, utilities (with California rates), and taxes. $7,440 in revenue will be generated if 10 barrels of beer are sold at $3 a pint. This linear profit line will realize an 88% contribution margin, and only 12% cost of goods sold for every 10 barrels of beer sold. The biggest challenge was determining how fast Carlo Pisan Ranch Brewery could turnover their inventory.

Revenue generated by private microbreweries is confidential information. A brewery adjacent to CPRB's prospective location, and the next two closest breweries refused to release their financial records. The financial records provided by Central Coast Brewery, in San Luis Obispo, became the primary resource for forecasting CPRB's revenue. The strengths and weaknesses of operating a microbrewery in El Dorado County and San Luis Obispo were compared to determine if CCB and CPRB compete in similar enough markets to be comparable.

San Luis Obipso and El Dorado County are both growing in population at the rate of 5% and 7%, but travel expenditures have increased tremendously in SLO County (25% from 2001-2007). Travel spending in El Dorado is diminishing, measuring $604 million (CSU Chico 2011). Total travel spending in San Luis Obipso dwarfs El Dorado at $1.121 billion in 2007 (EVC 2008). MRI (2012) states that these breweries' primary market segment includes *married, professionally attained males, 18-49 years old,* with a *household income* of at least *$75 thousand.* SDRS (2012) states there are more households earning over $75 thousand in El Dorado than SLO, and educational attainment in both counties is almost equal; except in the doctoral degree range, where SLO County is higher than all other California counties. There are more married couples in El Dorado, but fewer people report to be microbrew drinkers. SDRS (2012) reports that 10% of the SLO population drinks microbrews, while El Dorado accrues only

8.7%. Also, because the travel and tourism spending is still growing in San Luis Obispo, outside microbrew drinkers bring more revenue to SLO County microbreweries. The competition in San Luis Obispo is similar to El Dorado, and according to GoogleMaps, both counties have 10 breweries within their county lines. CCB and CPRB experience tourism perpetuated by surrounding metropolitan and rural attractions, however SLO's rapidly growing travel expenditures will make owning and operating a successful brewery in SLO County more likely than El Dorado County. From 2009 to 2011 CCB's sales revenue grew 20% each year. Contrary to the earlier chapters of this study, all the above contentions and the fact CCB has been established since 1989, suggest CPRB will generate less sales revenue than CCB the opening year.

Income statements and balance sheets were created according to 25%, 50%, and 75% of CCB's 2011 sales revenue amount. CPRB will take out an 8 year, $400 thousand note at a 6% interest rate and each year a payment of $64,414 is made; refer to the appendix to see the amortization table and financial statements. In order to determine NPV, the weighted average cost of capital had to be calculated (WACC). Determining the rate of equity (ROE) was the most difficult component of the WACC equation to solve. I calculated an average ROE of 12.67% from three brewing entities: Craft Brew Alliance, Boston Beer Co., Molson Coors Brewing Company (Finviz.com). Each year costs become a smaller percentage of the revenue, allowing CPRB to obtain positive net present values by year 8. NPV and IRR were calculated for the three different revenue circumstances. Naturally, NPV grew as CPRB assumes larger revenue at year 1; NPV will be highest if CPRB generates 75% of the revenue CCB generated recently. NPV values at 25%, 50%, and 75% are as follows: $-293,373.67; $19,731.02; $336,171.02. Refer to the appendix to see a breakdown of the future values used to calculate NPV and to see the IRR

values. The large contribution generated by the sale of each batch of beer, and the linear profit line, explains the wide range of profitability depicted by the NPV results.

Chapter 5

Summary

Creating a feasibility study for Carlo Pisan Ranch Brewery was a difficult endeavor because of the exclusive beta needed to complete the revenue forecast. Thanks to CCB, CPRB was able to accurately project revenue for three different circumstances (25%, 50%, and 75% of CCB's sales revenue). It was determined that CPRB would not be profitable at 25%, and needed to make at least $90,058 a year to break even (refer to appendix c for the respective graph). An 8 year, SBA loan of $400,000 and an owner's contribution of $50,000 was requisite to finance the $375,000 worth of assets needed, and to pay down $16,000 of fixed costs. If CPRB is able to generate 50% of the revenue CCB generated in SLO County, they will realize a NPV of $19,731.02 and an IRR of 6%. At 75% CPRB will obtain a NPV of $336,171.02 and an IRR of 17%

Producing beer is fairly cheap and if CPRB runs an efficient operation they will generate an 88% contribution margin. This high contribution margin is characteristic to the enormous increase of NPV from 50% to 75% of CCB's revenue. After year 8, and the costs decrease tremendously, CPRB will continue to increase their profit margins, hopefully allowing them to expand their distribution channels. CPRB's target market is very similar to CCB's target market as far as the type of person, but there will be less market demand in El Dorado County. It is unlikely CPRB will generate as much revenue as their SLO brewing counterpart, however their odds of breaking even are definite if they can sell at least 120 barrels a year.

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APPENDIX A

Total Costs including the first 10 Barrels of Production

Fixed Expenses	
ABC Fee	$ 261.00
Long Term Note Payable	$64,414
ATF Fee	$ 450.00
El Dorado Business License	$ 32.00
Property Tax	$ 1,938.24
Fire Insurance	$ 250.50
Liability Insurance	$ 2,885.00
Advertising	$ 10,000.00
Telephone	$ 900.00
Bar Supplies	$ 350.00
Total Fixed Costs	**$ 81,130.74**
Variable Expenses	
Malt	$ 185.00
Yeast	$ 5.00
Hops	$ 42.50
Filter Sheets	$ 40.00
Water(Gallons)	$ 4.00
Sewer Charges	$ 8.97
Electrial	$ 15.05
Natural Gas	$ 9.46
CO2	$ 10.00
Cleaning Chemicals	$ 30.00
Federal Taxes	$ 70.00
State Taxes	$ 89.40
Labor	$ 266.67
Total Variable Costs	**$ 776.05**
Total Cost	**$ 81,906.79**

Appendix B

Carlo Pisan Ranch Brewery									
Income Statement 75% Forecast									
Years 2013-2017	Forecast								
$									
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
ASSETS									
CURRENT ASSETS									
Cash	$ 74,998.30	$ 124,446.85	$ 188,096.51	$ 272,553.67	$ 381,979.82	$ 510,253.22	$ 671,614.71	$ 872,681.93	$ 1,112,775.06
Inventories	$ -	$ 18,735.40	$ 22,482.48	$ 26,978.97	$ 32,374.77	$ 38,849.72	$ 46,619.66	$ 55,943.59	$ 67,132.31
Total Current Assets	$ 74,998.30	$ 143,182.25	$ 210,578.99	$ 299,532.64	$ 414,354.58	$ 549,102.94	$ 718,234.38	$ 928,625.52	$ 1,179,907.38
Long Term Assets	$ 375,001.70	$ 360,206.34	$ 345,444.99	$ 330,710.83	$ 315,998.44	$ 301,928.45	$ 287,247.39	$ 272,577.47	$ 261,345.04
TOTAL ASSETS	$ 450,000.00	$ 503,388.59	$ 556,023.98	$ 630,243.47	$ 730,353.02	$ 851,031.39	$ 1,005,481.77	$ 1,201,202.99	$ 1,441,252.41
LIABILITIES & SHAREHOLDERS' EQUITY									
CURRENT LIABILITIES									
Payroll Payable	$ -	$ 1,685.25	$ 2,022.31	$ 2,426.77	$ 2,912.12	$ 3,494.54	$ 4,193.45	$ 5,032.14	$ 6,038.57
Accounts Payable to Suppliers	$ -	$ 1,873.54	$ 2,248.25	$ 2,697.90	$ 3,237.48	$ 3,884.97	$ 4,661.97	$ 5,594.36	$ 6,713.23
Total Current Liabilities	$ -	$ 3,558.79	$ 4,270.55	$ 5,124.66	$ 6,149.60	$ 7,379.52	$ 8,855.42	$ 10,626.50	$ 12,751.80
LONG TERM DEBT (less current p	$ 400,000.00	$ 359,585.62	$ 316,746.38	$ 271,336.79	$ 223,202.62	$ 172,180.40	$ 118,096.85	$ 60,768.28	$ 0.00
Total Liabilities	$ 400,000.00	$ 366,703.21	$ 325,287.49	$ 281,586.12	$ 235,501.81	$ 186,939.43	$ 135,807.68	$ 82,021.29	$ 25,503.61
STOCKHOLDERS' EQUITY									
Owner's Equity	$ 50,000.00	$ 93,244.40	$ 135,376.42	$ 184,552.94	$ 241,812.15	$ 297,889.88	$ 361,234.95	$ 433,616.67	$ 502,226.73
Retained Earnings		$ 43,440.98	$ 95,360.08	$ 164,104.41	$ 253,039.06	$ 366,202.08	$ 508,439.14	$ 685,565.03	$ 913,522.08
Total Equity	$ 50,000.00	$ 136,685.38	$ 230,736.49	$ 348,657.36	$ 494,851.22	$ 664,091.96	$ 869,674.09	$ 1,119,181.70	$ 1,415,748.81
TOTAL LIABILITIES & EQUITY	$ 450,000.00	$ 503,388.59	$ 556,023.98	$ 630,243.47	$ 730,353.03	$ 851,031.39	$ 1,005,481.77	$ 1,201,202.99	$ 1,441,252.41

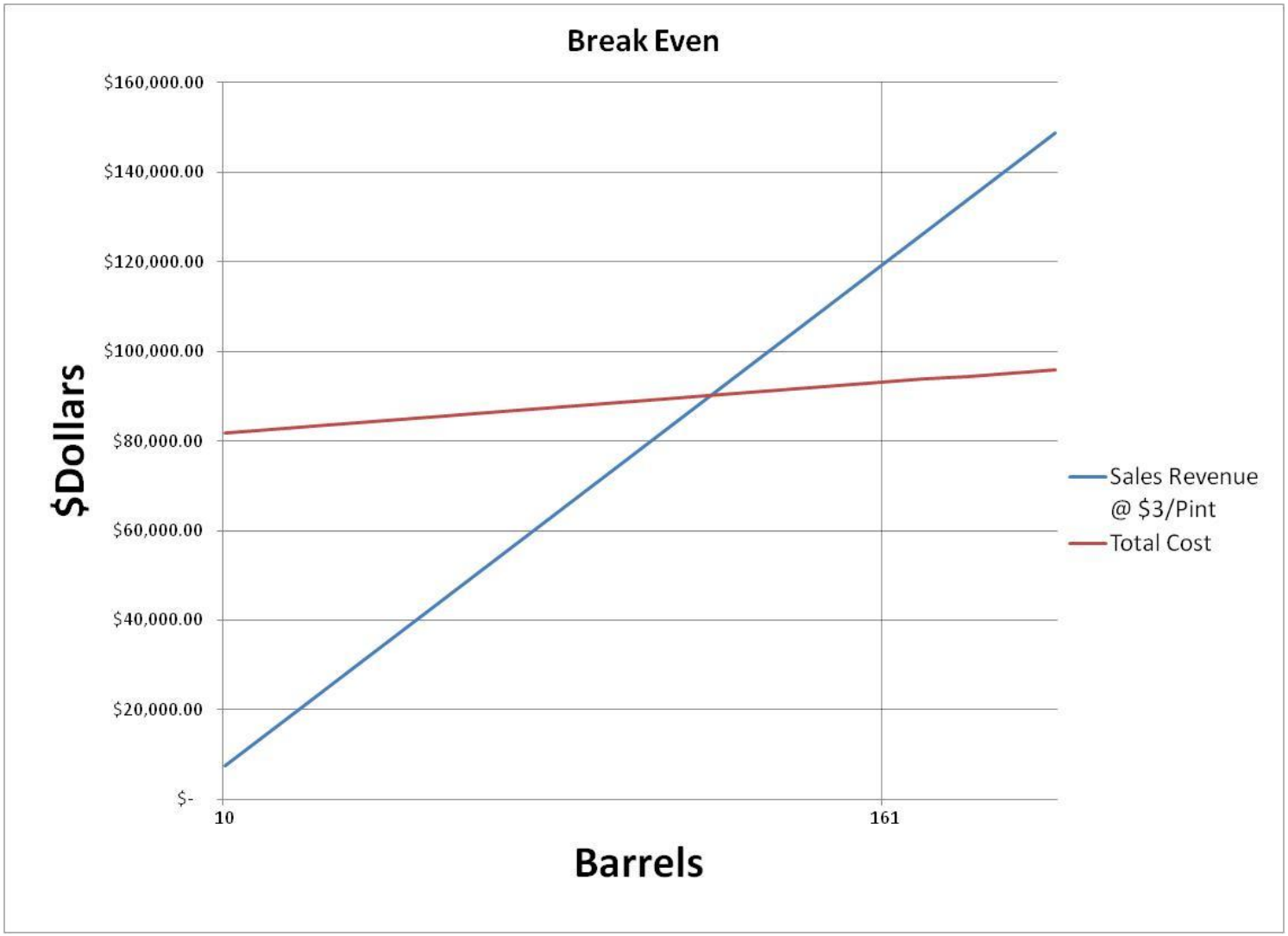
Appendix B (Cont.)

Carlo Pisan Ranch Brewery									
Income Statement 50% Forecast									
Years 2013-2017					Forecast				
$									
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
ASSETS									
CURRENT ASSETS									
Cash	$ 74,998.30	$ 96,727.72	$ 127,084.37	$ 171,976.40	$ 231,464.56	$ 310,927.92	$ 414,361.51	$ 536,017.29	$ 689,437.64
Inventories	$ -	$ 12,490.26	$ 14,988.32	$ 17,985.98	$ 21,583.18	$ 25,899.81	$ 31,079.77	$ 37,295.73	$ 44,754.88
Total Current Assets	$ 74,998.30	$ 109,217.98	$ 142,072.69	$ 189,962.38	$ 253,047.74	$ 336,827.73	$ 445,441.28	$ 573,313.02	$ 734,192.52
Long Term Assets	$ 375,001.70	$ 360,206.34	$ 345,444.99	$ 330,710.83	$ 315,998.44	$ 301,928.45	$ 287,247.39	$ 272,577.47	$ 261,345.04
TOTAL ASSETS	$ 450,000.00	$ 469,424.33	$ 487,517.68	$ 520,673.21	$ 569,046.18	$ 638,756.18	$ 732,688.68	$ 845,890.49	$ 995,537.55
LIABILITIES & SHAREHOLDERS' EQUITY									
CURRENT LIABILITIES									
Payroll Payable	$ -	$ 1,123.50	$ 1,348.20	$ 1,617.84	$ 1,941.41	$ 2,329.70	$ 2,795.64	$ 3,354.76	$ 4,025.71
Accounts Payable to Suppliers	$ -	$ 1,249.03	$ 1,498.83	$ 1,798.60	$ 2,158.32	$ 2,589.98	$ 3,107.98	$ 3,729.57	$ 4,475.49
Total Current Liabilities	$ -	$ 2,372.53	$ 2,847.04	$ 3,416.44	$ 4,099.73	$ 4,919.68	$ 5,903.61	$ 7,084.34	$ 8,501.20
LONG TERM DEBT (less current p	$ 400,000.00	$ 359,585.62	$ 316,746.38	$ 271,336.79	$ 223,202.62	$ 172,180.40	$ 118,096.85	$ 60,768.28	$ 0.00
Total Liabilities	$ 400,000.00	$ 364,330.68	$ 322,440.45	$ 278,169.67	$ 231,402.08	$ 182,019.75	$ 129,904.07	$ 74,936.95	$ 17,002.40
STOCKHOLDERS' EQUITY									
Owner's Equity	$ 50,000.00	$ 86,868.72	$ 122,975.30	$ 165,307.78	$ 211,894.30	$ 266,280.36	$ 328,239.56	$ 389,060.29	$ 452,418.09
Retained Earnings		$ 18,224.92	$ 42,101.93	$ 77,195.76	$ 125,749.79	$ 190,456.07	$ 274,545.04	$ 381,893.25	$ 526,117.06
Total Equity	$ 50,000.00	$ 105,093.64	$ 165,077.22	$ 242,503.54	$ 337,644.09	$ 456,736.43	$ 602,784.61	$ 770,953.54	$ 978,535.15
TOTAL LIABILITIES & EQUITY	$ 450,000.00	$ 469,424.32	$ 487,517.68	$ 520,673.21	$ 569,046.17	$ 638,756.18	$ 732,688.68	$ 845,890.49	$ 995,537.55

Appendix B (Cont.)

Carlo Pisan Ranch Brewery									
Income Statement 25% Forecast									
Years 2013-2017					Forecast				
$									
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
ASSETS									
CURRENT ASSETS									
Cash	$ 74,998.30	$ 57,143.43	$ 48,038.72	$ 49,618.20	$ 61,148.47	$ 84,737.13	$ 117,768.29	$ 165,869.74	$ 232,055.52
Inventories	$ -	$ 6,245.13	$ 7,494.16	$ 8,992.99	$ 10,791.59	$ 12,949.91	$ 15,539.89	$ 18,647.86	$ 22,377.44
Total Current Assets	$ 74,998.30	$ 63,388.57	$ 55,532.88	$ 58,611.19	$ 71,940.06	$ 97,687.04	$ 133,308.18	$ 184,517.60	$ 254,432.95
Long Term Assets	$ 375,001.70	$ 360,206.34	$ 345,444.99	$ 330,710.83	$ 315,998.44	$ 301,928.45	$ 287,247.39	$ 272,577.47	$ 261,345.04
TOTAL ASSETS	$ 450,000.00	$ 423,594.91	$ 400,977.87	$ 389,322.02	$ 387,938.50	$ 399,615.49	$ 420,555.57	$ 457,095.07	$ 515,777.99
LIABILITIES & SHAREHOLDERS' EQUITY									
CURRENT LIABILITIES									
Payroll Payable	$ -	$ 561.75	$ 674.10	$ 808.92	$ 970.71	$ 1,164.85	$ 1,397.82	$ 1,677.38	$ 2,012.86
Accounts Payable to Suppliers	$ -	$ 624.51	$ 749.42	$ 899.30	$ 1,079.16	$ 1,294.99	$ 1,553.99	$ 1,864.79	$ 2,237.74
Total Current Liabilities	$ -	$ 1,186.26	$ 1,423.52	$ 1,708.22	$ 2,049.87	$ 2,459.84	$ 2,951.81	$ 3,542.17	$ 4,250.60
LONG TERM DEBT (less current p	$ 400,000.00	$ 359,585.62	$ 316,746.38	$ 271,336.79	$ 223,202.62	$ 172,180.40	$ 118,096.85	$ 60,768.28	$ 0.00
Total Liabilities	$ 400,000.00	$ 361,958.15	$ 319,593.42	$ 274,753.23	$ 227,302.35	$ 177,100.08	$ 124,000.46	$ 67,852.62	$ 8,501.20
STOCKHOLDERS' EQUITY									
Owner's Equity	$ 50,000.00	$ 85,233.88	$ 121,135.88	$ 159,521.65	$ 199,087.54	$ 240,054.99	$ 279,095.23	$ 317,636.09	$ 347,870.92
Retained Earnings		$ (23,597.12)	$ (39,751.43)	$ (44,952.86)	$ (38,451.39)	$ (17,539.57)	$ 17,459.88	$ 71,606.37	$ 159,405.87
Total Equity	$ 50,000.00	$ 61,636.76	$ 81,384.45	$ 114,568.79	$ 160,636.15	$ 222,515.42	$ 296,555.11	$ 389,242.46	$ 507,276.79
TOTAL LIABILITIES & EQUITY	$ 450,000.00	$ 423,594.91	$ 400,977.86	$ 389,322.02	$ 387,938.50	$ 399,615.49	$ 420,555.57	$ 457,095.07	$ 515,777.99

Appendix C



Breakeven point at $90,058 and 120 barrels sold

Appendix D

NPV @ 25%										
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
WACC	0.048%									
FV		$ (450,000)	$ (17,854.87)	$ (9,104.71)	$ 1,579.48	$ 11,530.27	$ 23,588.67	$ 33,031.16	$ 48,101.44	$ 66,185.78
NPV	($293,373.67)									
IRR	-13%									
NPV @ 50%										
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
WACC	4.80%									
FV		$ (450,000)	$ 21,729.42	$ 30,356.65	$ 44,892.03	$ 59,488.16	$ 79,463.36	$ 103,433.59	$ 121,655.78	$ 153,420.35
NPV	$19,731.02									
IRR	6%									
NPV @ 75%										
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
WACC	4.80%									
FV		$ (450,000)	$ 49,448.55	$ 63,649.66	$ 84,457.16	$ 109,426.15	$ 128,273.40	$ 161,361.50	$ 201,067.21	$ 240,093.14
NPV	$336,171.02									
IRR	17%									

Appendix E

Ammortization Table					
time	payment	principal outstanding beginning	interest	principal outstanding end	Principal Reduction
0	$0	$ -	$ -	$ 400,000	$0
1	($64,414)	$ 400,000	$ 24,000	$ 359,586	($40,414)
2	($64,414)	$ 359,586	$ 21,575	$ 316,746	($42,839)
3	($64,414)	$ 316,746	$ 19,005	$ 271,337	($45,410)
4	($64,414)	$ 271,337	$ 16,280	$ 223,203	($48,134)
5	($64,414)	$ 223,203	$ 13,392	$ 172,180	($51,022)
6	($64,414)	$ 172,180	$ 10,331	$ 118,097	($54,084)
7	($64,414)	$ 118,097	$ 7,086	$ 60,768	($57,329)
8	($64,414)	$ 60,768	$ 3,646	$ 0	($60,768)

Appendix F

Carlo Pisan Ranch Brewery								
Income Statement 75% Forecast								
Years 2013-2017								
($)	**Forecast**							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
NET REVENUES	$ 156,728.68	$ 188,074.41	$ 225,689.30	$ 270,827.15	$ 324,992.59	$ 389,991.10	$ 467,989.32	$ 561,587.19
% of COGS	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%
COST OF GOODS SOLD	$ 18,735.40	$ 22,482.48	$ 26,978.97	$ 32,374.77	$ 38,849.72	$ 46,619.66	$ 55,943.59	$ 67,132.31
GROSS PROFIT	$ 137,993.28	$ 165,591.94	$ 198,710.32	$ 238,452.39	$ 286,142.87	$ 343,371.44	$ 412,045.73	$ 494,454.87
% of Revenues	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%
Expenses								
Paid Principal	$ 40,414.38	$ 42,839.24	$ 45,409.59	$ 48,134.17	$ 51,022.22	$ 54,083.55	$ 57,328.57	$ 60,768.28
Depreciation Expense	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Total Fixed Expenses	$ 55,209.73	$ 57,600.59	$ 60,143.75	$ 62,846.56	$ 65,092.21	$ 68,764.61	$ 71,998.49	$ 72,000.72
% of Revenues	35.23%	30.63%	26.65%	23.21%	20.03%	17.63%	15.38%	12.82%
EARNINGS BEFORE INTEREST & TAXES	$ 82,783.55	$ 107,991.34	$ 138,566.58	$ 175,605.82	$ 221,050.66	$ 274,606.83	$ 340,047.24	$ 422,454.16
INTEREST INCOME / (EXPENSE)	$ 24,000.00	$ 21,575.14	$ 19,004.78	$ 16,280.21	$ 13,392.16	$ 10,330.82	$ 7,085.81	$ 3,646.10
Net Earnings	$ 58,783.55	$ 86,416.20	$ 119,561.79	$ 159,325.62	$ 207,658.50	$ 264,276.00	$ 332,961.43	$ 418,808.06
Income Tax	$ 25,815.61	$ 37,864.95	$ 50,243.25	$ 65,097.22	$ 94,037.52	$ 118,294.48	$ 147,402.83	$ 190,953.79
Cash Reconciliation								
net income	$ 58,783.55	$ 86,416.20	$ 119,561.79	$ 159,325.62	$ 207,658.50	$ 264,276.00	$ 332,961.43	$ 418,808.06
Depreciation	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Payables not paid in cash	$ 1,685.25	$ 337.05	$ 404.46	$ 485.35	$ 582.42	$ 698.91	$ 838.69	$ 1,006.43
Cash Earnings	$ 49,448.55	$ 63,649.66	$ 84,457.16	$ 109,426.15	$ 128,273.40	$ 161,361.50	$ 201,067.21	$ 240,093.14

Appendix F (Cont.)

Carlo Pisan Ranch Brewery								
Income Statement 50% Forecast								
Years 2013-2017								
($)	**Forecast**							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
NET REVENUES	$ 104,485.79	$ 125,382.94	$ 150,459.53	$ 180,551.44	$ 216,661.72	$ 259,994.07	$ 311,992.88	$ 374,391.46
% of COGS	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%
COST OF GOODS SOLD	$ 12,490.26	$ 14,988.32	$ 17,985.98	$ 21,583.18	$ 25,899.81	$ 31,079.77	$ 37,295.73	$ 44,754.88
GROSS PROFIT	$ 91,995.52	$ 110,394.62	$ 132,473.55	$ 158,968.26	$ 190,761.91	$ 228,914.29	$ 274,697.15	$ 329,636.58
% of Revenues	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%
Expenses								
Paid Principal	$ 40,414.38	$ 42,839.24	$ 45,409.59	$ 48,134.17	$ 51,022.22	$ 54,083.55	$ 57,328.57	$ 60,768.28
Depreciation Expense	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Total Fixed Expenses	$ 55,209.73	$ 57,600.59	$ 60,143.75	$ 62,846.56	$ 65,092.21	$ 68,764.61	$ 71,998.49	$ 72,000.72
% of Revenues	52.84%	45.94%	39.97%	34.81%	30.04%	26.45%	23.08%	19.23%
EARNINGS BEFORE INTEREST & TAXES	$ 36,785.79	$ 52,794.03	$ 72,329.80	$ 96,121.69	$ 125,669.70	$ 160,149.68	$ 202,698.67	$ 257,635.87
INTEREST INCOME / (EXPENSE)	$ 24,000.00	$ 21,575.14	$ 19,004.78	$ 16,280.21	$ 13,392.16	$ 10,330.82	$ 7,085.81	$ 3,646.10
Net Earnings	$ 12,785.79	$ 31,218.89	$ 53,325.02	$ 79,841.49	$ 112,277.55	$ 149,818.86	$ 195,612.86	$ 253,989.77
Income Tax	$ 6,975.23	$ 15,848.30	$ 23,436.78	$ 35,389.29	$ 47,272.46	$ 61,532.26	$ 89,186.12	$ 112,472.81
Cash Reconciliation								
net income	$ 12,785.79	$ 31,218.89	$ 53,325.02	$ 79,841.49	$ 112,277.55	$ 149,818.86	$ 195,612.86	$ 253,989.77
Depreciation	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Payables not paid in cash	$ 1,123.50	$ 224.70	$ 269.64	$ 323.57	$ 388.28	$ 465.94	$ 559.13	$ 670.95
Cash Earnings	$ 21,729.42	$ 30,356.65	$ 44,892.03	$ 59,488.16	$ 79,463.36	$ 103,433.59	$ 121,655.78	$ 153,420.35

Appendix F (Cont.)

Carlo Pisan Ranch Brewery								
Income Statement 25% Forecast								
Years 2013-2017								
($)	**Forecast**							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
NET REVENUES	$ 52,242.89	$ 62,691.47	$ 75,229.77	$ 90,275.72	$ 108,330.86	$ 129,997.03	$ 155,996.44	$ 187,195.73
% of COGS	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%	11.95%
COST OF GOODS SOLD	$ 6,245.13	$ 7,494.16	$ 8,992.99	$ 10,791.59	$ 12,949.91	$ 15,539.89	$ 18,647.86	$ 22,377.44
GROSS PROFIT	$ 45,997.76	$ 55,197.31	$ 66,236.77	$ 79,484.13	$ 95,380.96	$ 114,457.15	$ 137,348.58	$ 164,818.29
% of Revenues	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%	88.05%
Expenses								
Paid Principal	$ 40,414.38	$ 42,839.24	$ 45,409.59	$ 48,134.17	$ 51,022.22	$ 54,083.55	$ 57,328.57	$ 60,768.28
Depreciation Expense	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Total Fixed Expenses	$ 55,209.73	$ 57,600.59	$ 60,143.75	$ 62,846.56	$ 65,092.21	$ 68,764.61	$ 71,998.49	$ 72,000.72
% of Revenues	105.68%	91.88%	79.95%	69.62%	60.09%	52.90%	46.15%	38.46%
EARNINGS BEFORE INTEREST & TAXES	$ (9,211.97)	$ (2,403.28)	$ 6,093.03	$ 16,637.56	$ 30,288.75	$ 45,692.53	$ 65,350.09	$ 92,817.58
INTEREST INCOME / (EXPENSE)	$ 24,000.00	$ 21,575.14	$ 19,004.78	$ 16,280.21	$ 13,392.16	$ 10,330.82	$ 7,085.81	$ 3,646.10
Net Earnings	$ (33,211.97)	$ (23,978.42)	$ (12,911.76)	$ 357.36	$ 16,896.59	$ 35,361.71	$ 58,264.28	$ 89,171.48
Tax	$ -	$ -	$ 377.74	$ 3,701.26	$ 7,572.05	$ 17,244.58	$ 25,112.32	$ 34,553.61
Cash Reconciliation								
net income	$ (33,211.97)	$ (23,978.42)	$ (12,911.76)	$ 357.36	$ 16,896.59	$ 35,361.71	$ 58,264.28	$ 89,171.48
Depreciation	$ 14,795.36	$ 14,761.36	$ 14,734.16	$ 14,712.40	$ 14,069.99	$ 14,681.06	$ 14,669.92	$ 11,232.44
Payables not paid in cash	$ 561.75	$ 112.35	$ 134.82	$ 161.78	$ 194.14	$ 232.97	$ 279.56	$ 335.48
Cash Earnings	$ (17,854.87)	$ (9,104.71)	$ 1,579.48	$ 11,530.27	$ 23,588.67	$ 33,031.16	$ 48,101.44	$ 66,185.78