Coyle Treepieces

Team 3 : Integrated Business Project (IBP) 2013

by:

Ying Xie

Kayla Sims

David Vasquez

Michael Bertuccio

Chavanun Yainuknaen

Oregon State University OSU

Table of Contents

Executive Summary

Coyle Design and Build's (CDB's) flagship product offers a new twist on the traditional bicycle helmet. The company's helmets, known as Treepieces, replace the synthetic elements of traditional helmets with wood shells that create a unique and visually stunning piece of safety equipment.

Treepiece helmets outperform traditional helmets in impact tests. Prototype helmets, constructed from Douglas Fir and agglomerated cork, outperformed traditional helmets in impact and safety tests at an independent, accredited testing laboratory in California. These helmets will be unique in a growing market as cycling popularity is increasing in the United States. According to the U.S. Census Bureau, municipalities across the country are planning to improve their cycling infrastructure through the construction of bike paths and lanes as well as the installation of bicycle parking structures (McKenzie, 2011). CDB is positioned to capitalize on this opportunity.

CDB has gained recognition for its distinctive product on popular websites and business conferences. In April of 2012, the company's Treepiece helmets were featured on Gizmodo.com. One month later, CDB won the Concept Company Award at the Willamette Angel Conference Competition in Eugene, Oregon. CDB's helmets are gaining attention not only for their aesthetic benefits, but also for their promise as effective safety products.

Treepiece helmets are designed for the commuting and recreational cyclist. As such, CDB has identified an initial target market of three bike friendly American cities with average annual incomes of $50,000 or more. Portland, Oregon, Seattle, Washington, and San Francisco, California provide access to over one million cyclists. The company also plans to expand its product line to capture part of the winter sport market. The market for ski and snowboard helmets is also expected to grow as helmet use rates have increased dramatically. In 2002, only 25% of skiers and snowboarders at ski resorts wore a helmet. Just a decade later, the percentage of skiers and snowboarders wearing helmets had jumped to 67% (NSAA, 2013). By targeting the most popular ski areas in the country, CDB could gain access to over 22 million skiers and snowboarders.

CDB plans to enter these markets by leveraging the unique visual and safety aspects of Treepieces. The natural appearance of the helmet's wooden shell stands out among the usual plastic helmets. This gives each helmet an individual look as wood grains and colors are unique to each block of wood. The aesthetic distinction from one Treepiece to the next is not easily imitated by traditional plastic helmets. CDB plans to make this competitive advantage evident to consumers by selling Treepieces on the same retail shelves as Bell or Giro helmets.

To meet anticipated demand levels, the company will rely on a contract manufacturer in Portland, Oregon for helmet production. For CDB to successfully increase production and pursue new markets, the company needs $650,000 of funding. The company will use this funding to hire critical employees, purchase testing equipment, expand its marketing campaign, and secure contract manufacturing.

Chapter 2: The Industry, the Company, and its Products and Services

The Industry: Description and Analysis

The bicycle helmet market is populated with many well-known and well-established competitors. Many of the most well-known brands are subsidiaries of much larger companies. For example, Easton-Bell Sports Company owns Bell Helmets, Giro, Riddell, and Easton brands for baseball, cycling, and hockey. Bell is the largest manufacturer of bike helmets. Based on the sales data from Easton-Bell Sports' financial reports, the company controls roughly 40% of the bicycle helmet market (Easton-Bell Sports, 2012).

Pacific Cycle is another large helmet company with ownership of Schwinn, Mongoose, Roadmaster, Dyno, and a number of other cycling brands. Major brands such as Trek, Specialized, and Nutcase round out the market. These companies all produce different helmets for various uses. Easton-Bell produces the widest array through its brands with offerings for commuting cyclists, football players, hockey players, and racing cyclists.

Bicycle helmets come in many different styles, sizes, and materials for different uses. Most of these helmets are sold in bicycle retail stores. In the United States alone, bike shops captured just under $89 million in sales revenue in 2010 from all helmet styles (Weibe, 2010). Regardless of the style or intended use, all helmets are safety tested in accordance with the U.S. Consumer Product Safety Commission's (CPSC) standards.

Although there are well-established companies in the helmet industry, CDB will aim to target a much different crowd of cyclists. Treepieces will become a product of differentiation and style for its consumers. CDB will aim to create a sense of exclusivity with those who purchase a Treepiece.

The Company and its Concept

CDB was founded in 2010 by Daniel Coyle. The company's product is a beautifully crafted wood bicycle helmet made with cork lining. Each helmet is made with sustainability in mind. The wood is salvaged from logging sites and the cork is sustainably harvested (Cork Quality Council, 2012). These helmets are also finished with Dragon Shield, an energy-absorbing polymer, for increased shatter resistance. The company is currently in the process of obtaining CPSC safety certification. Treepieces offer a unique opportunity for its customers, as these are the first wooden helmets made in the United States.

Figure 2.1: Treepieces

The Product

CDB designs and produces natural fiber helmets. These helmets are the first of their kind in that they are crafted

from all natural materials. The helmet's shell is carved from wood and the internal padding is agglomerated cork. This combination of materials provides a unique look that is strikingly different from any other bicycle helmet on the market. The company moved to protect this unique design by filing two patents on June 19, 2011. These pending patents claim ownership of natural fiber helmet shells and natural fiber helmet padding. While these helmets were conceived with aesthetics in mind, they are designed to protect the wearer's head in the event of an accident. Figure 2.1 shows an image of a Treepiece.

Entry and Growth Strategies

Since CDB is the first company in the U.S. to offer helmets made from these materials, many aspects of the company are different compared to existing helmet companies from CDB's supply chain design to its marketing strategies. Even as a small operation, CDB has gained popularity, both locally and internationally, through bicycle trade shows and the company's website. The company has been recognized in blogs, news reports, and gift catalogs such as Gizmodo, Discovery News Online, Outdoor Magazine, and Details Magazine. Despite this recognition, the company has sold only 75 Treepieces. This slow growth is the result of two problems: lack of funding and supply chain development issues.

The company started an online fundraising campaign on indiegogo.com that was a combination of helmet sales, donations, and other miscellaneous goods such as t-shirts. CDB successfully raised $27,990 through December 2012.

CDB currently operates out of a small prototyping and assembly shop producing a limited inventory of standard helmet sizes while also filling orders for custom helmets. To effectively penetrate the helmet market, the company needs to produce certification-ready helmets of homogeneous sizes and styles.

CDB's Treepiece helmets are already on display at Peak Sports in Corvallis, Oregon. The store does not currently carry Treepiece helmets for in-store sales due to low production levels, but the display has increased consumer interest.

Chapter 3: Market Research and Analysis

Potential Customers

CDB will target cyclists in bike friendly cities in addition to skiers and snowboarders in popular winter sport resort areas. CDB's target cycling market will focus on people with more than $50,000 of annual income as cycling popularity increases with income (Royal & Miller-Steiger, 2008). This target includes people with enough disposable income to consider high-end purchases. Table 3.1 displays the median income of CDB's three initial target markets.

Table 3.1: Median Income of CDB's Initial Target Markets 2010

City	Position On The List of the Most Bike Friendly Cities in America (Bicycling.com)	Median Income (U.S. Census)	Population (U.S. Census)
Portland	1	$50,203	585,429
San Francisco	8	$70,770	805,463
Seattle	10	$60,843	610,710

People in these cities are expected to be potential CDB customers. These cities encourage people to commute via bicycle with essential infrastructure such as bike routes, wide shoulders on roads, and racks for public bicycle parking (Area Vibes Inc., 2012). CDB expects its largest group of consumers to be white males between the ages of 24 and 44 years old. This group has been identified as the main participants in cycling, skiing, and snowboarding (Patterson, 2011).

CDB will position Treepieces as high-end products, which combine functional aspects with the beauty of crafted wood. Consumers of high-end products seek to satisfy a myriad of psychological and functional needs. For example, Wiedmann, Hennings, and Siebel (2009) explain the needs of high-end consumers through a conceptual model. This model shows that high-end consumers see overall luxury value in products that provide value in the following areas: price, usability, quality, uniqueness, self-identity, hedonism, materialism, conspicuousness, and prestige. CDB's Treepieces meet all of these criteria. For example, high-end consumers may perceive high quality in products with a high price (Wiedmann, Hennigs and Siebel, 2009). CDB's high price for its product can help reinforce the consumers' perception of high quality. Treepiece helmets also provide usability value for cyclists, skiers, and snowboarders in that it can protect heads like any other helmet. CDB will meet the quality value criteria by implementing strong quality assurance policies in product inspection. Uniqueness value in Treepiece helmets will be created through a high degree of exclusivity. The helmets will not be available in large retailers such as REI or Wal-Mart. In keeping the availability of helmets restricted to a relatively small group of consumers, the unique value of the product will rise (Wiedmann, Hennigs and Siebel, 2009). CDB's product can also possess self-identity value for consumers through simple, custom laser engravings. This can give a helmet a personal connection to the consumer. Hedonic value is achieved in Treepieces in their aesthetic properties. Wiedmann et al (2009) suggest that products with high levels of visual appeal can fulfill consumers' need for hedonic value. Consumers seeking materialistic value typically seek to use the product in a public setting (Wiedmann, Hennigs and Siebel, 2009). CDB's product fulfills this criterion also in that it will be used on popular ski slopes or crowded city streets. Treepiece helmets also satisfy conspicuousness values. Since the helmets are so strikingly different, the wearer will easily stand out in a crowd. Finally, CDB will create prestige for its product by aligning it with action sports events like the X-Games. All of these values will drive CDB's marketing efforts to try to attract these consumers. Other companies have successfully employed this strategy to sell high-end, functional wood products. For example, Shwood sells wood sunglasses ranging from $145-$195. Renovo provides a new twist to the bicycling industry by producing wooden bicycles with prices ranging from $2,000-$5,100. Lastly, Grove sells iPhone cases starting at $79 and iPad cases starting at $159. The successful sale of wood products at a premium price by these companies suggests potential for CDB to experience similar success with its Treepiece helmets.

Market Size and Trends

Helmet sales are expected to grow based on the following trends. First, commuting by bicycle has been gaining popularity in the United States. The U.S. Census Bureau found that the number of people who regularly commuted to work via bicycle grew by 50% between 1999 and 2009 to approximately 766,000 (McKenzie & Rapino, 2011). This number is likely to increase substantially in the next decade. In addition, many municipalities are planning to build new bike routes (McKenzie & Rapino, 2011). Second, it is assumed that urban population growth will have a positive impact on cycling popularity. According to Pucher and Buehler (2008) cycling rates are highest in countries with dense urban areas and correspondingly short distances for cyclists to travel. With urban population growth outpacing national population growth in the United States since 2000, cycling popularity is expected to increase (U.S. Census Bureau, 2012). Last, there is potential for Coyle Treepieces to become a trendy accessory in the popular eco-fashion industry, as sales of organic and ethical fashion items were growing by 50% each year despite the global financial crisis of 2008 (Poldner, 2012). With this dramatic growth, CDB's unique and sustainable wood helmets may attract the growing population of eco-friendly consumers.

According to market research company Leisure Trends, 1.7 million helmets were sold at bike shops from 2009 to 2010. These sales totaled approximately $89 million. Bell, Specialized and Trek are the three leading brands of bicycle helmets in the industry. Most of the market is represented by these three leading companies in addition to other brands such as Bern, Fox, and MET. Most of these helmet brands have experienced increased sales in recent years (Wiebe, 2010).

Competition and Competitive Edge

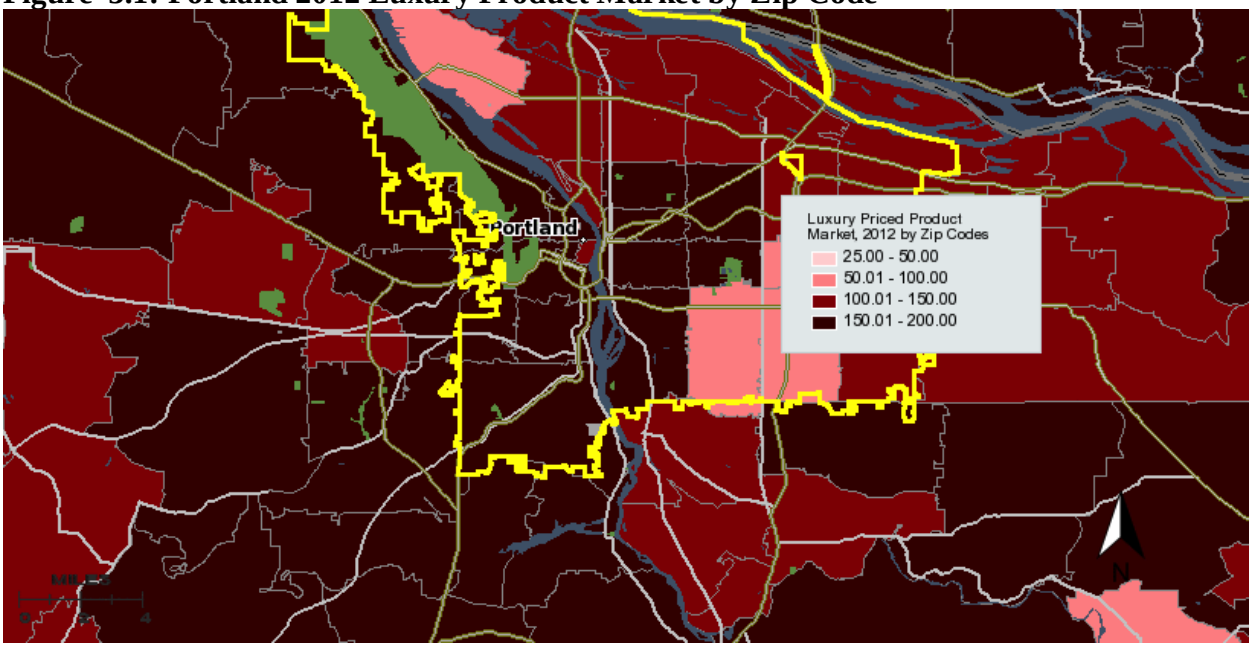
CDB's modest size could serve as a competitive advantage as many local retailers prefer to work with small companies instead of large ones like Bell and Trek (Weibe, 2010). Competitors in the market use mass production to quickly produce highly standardized helmets. This presents CDB with a disadvantage and potential competitive edge at the same time. Competitors can quickly meet customer demand levels, but offer little uniqueness when compared to CDB's helmets. CDB's style of helmets offers a much different buying experience for prospective helmet consumers. Each Treepiece will be unique as grain patterns change from tree to tree and species of tree. In addition, the company will use various wood stains on Treepieces that will create even more variation for customers.

Since CDB's helmet shells are made from wood, they absorb energy better than plastic helmets. According to Scott Leavengood (2012) of Oregon State University's Wood Science and Engineering Department, CDB's wood and cork helmets are more than capable of passing the CPSC's safety tests. The Dragon Shield coating also enhances durability of the helmets on impacts to prevent the wood from splintering.

Sales Projections

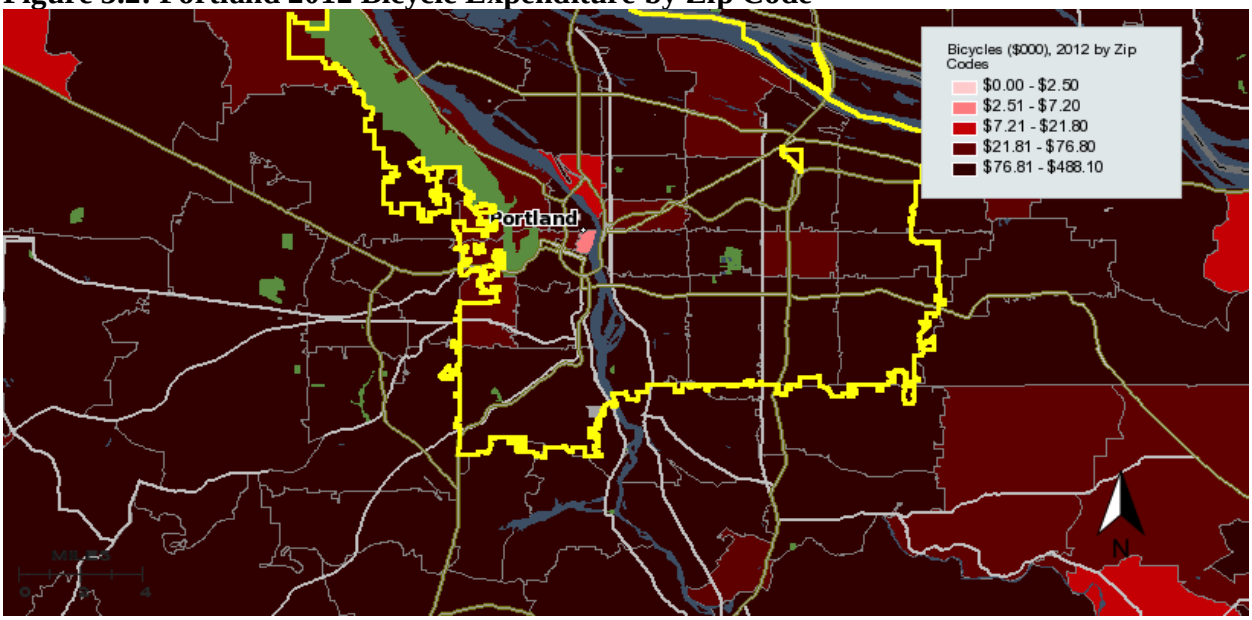
CDB expects demand for Treepieces to increase in its target cities over the next five years. The company's sales projections are the product of market research in the company's target cities. First, the company's initial target cities were examined to determine consumer behavior in the area. Figure 3.1 is a map of Portland's Zip Codes, which are colored based on the Luxury Product Market. This data was compiled by EASI Analytics and presented through the Simply Maps demographics software. EASI explains the legend as follows: "A higher value indicates more than average number of luxury priced products available near the geography. EASI has developed an index to reflect the prestige & brand conscience shopping interests of the local community" (EASI Analytic, 2010).

Figure 3.1: Portland 2012 Luxury Product Market by Zip Code



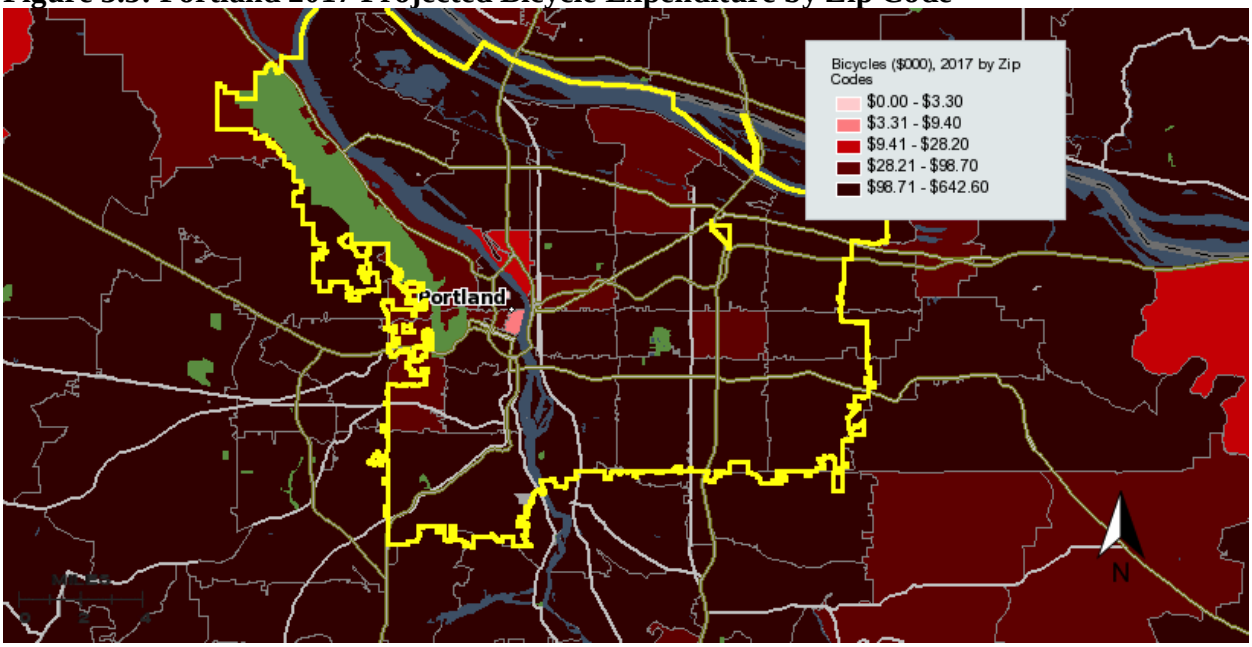
The national average for this index is 100. Any areas shaded in red or dark red are considered above average. This data indicates that consumers in the greater Portland area are willing to shop for prestigious goods. Since CDB's product is positioned as a high-end helmet in the bicycle equipment market, this data suggests that Portland could serve as a significant source of demand. This conclusion is further supported by annual expenditures on bicycles in the area. Figure 3.2 displays a colored view of Portland's zip codes based on annual expenditures on bicycles in 2012.

Figure 3.2: Portland 2012 Bicycle Expenditure by Zip Code



The dark red areas indicate an expenditure of $76,810 to $488,100 on bicycles in a given zip code. EASI's map data projects an increase of up to $642,600 in these areas by 2017. Figure 3.3 displays the projected bicycle expenditure map for 2017.

Figure 3.3: Portland 2017 Projected Bicycle Expenditure by Zip Code



This expected increase in bicycle expenditures supports the US Census' Prediction of increased cycling popularity mentioned on page 5. The same analysis was conducted for Seattle, Washington and San Francisco, California. Corresponding maps for these analyses can be found in Appendix 3.1. All three of these initial target cities are home to promising high-end product sales and significant bicycle expenditures according to EASI's demographic data.

ATAR Model Sales Projections

After examining CDB's initial target cities, the ATAR model was used to determine the number of units the company is projected to sell in Years 2 through 5. CDB has projected sales increases through Year 5 based on historical cycling, skiing, and snowboarding popularity data. Cycling popularity was calculated with the following formula:

$$Target\ Market = \begin{pmatrix} Population\ of \\ City\ A \end{pmatrix} x \begin{pmatrix} proportion\ of\ the \\ population \\ expected\ to \\ ride\ bicycles \\ regularly\ based \\ on\ City\ A's \\ median\ income \end{pmatrix} x \begin{pmatrix} proportion\ of\ cyclists \\ wearing\ helmets \\ while\ cycling \\ all\ or\ most \\ of\ the\ time \\ in\ City\ A's \\ median\ income\ level \end{pmatrix}$$

This formula produced estimated helmet market sizes for each of the 5 years. To calculate the winter sport market size, city population data was replaced with skier and snowboarder population data collected from popular ski resorts. Cycling trend data was obtained from the U.S. Census Bureau and the US Department of Transportation's Survey of Bicyclist and Pedestrian Attitudes and Behaviors. Winter sport trends were obtained from the National Ski Areas Association's 2012 Demographic Survey. Trends were used to project market size for years 2 through 5. The Awareness factor of the ATAR model was based on a percentage of ski or bike shops in a given target city that could carry Treepiece helmets on its shelves. This was calculated at approximately 5-6% for each year. To calculate this, the company identified 5 high-end bike shops in each of the three initial cities. There are approximately 85 bike shops in each city. The market size estimation derived from the formula above was then multiplied by this Awareness factor. It is assumed that each bike shop in a given city attracts roughly the same percentage of the population in a given city. The Trial factor of the ATAR model was the percentage of cycling and winter sport participants who regularly visit retail stores even when they are not in the market for a particular cycling or winter sport item. This was calculated at 32% (Patterson, 2011). The Availability factor reflects CDB's efforts to keep the product exclusive. This ranged from 10-14% for year 2-5. These percentages were tailored to match expected manufacturing capacity for each year. For example, Availability was restricted to 10% in year 2 as CDB's manufacturer will only produce a maximum of 700 units in that year. CDB expects to retain approximately 50 units for internal safety testing. For CDB's product the Repeat factor is zero, as the company does not expect a significant amount of repeat purchases. Therefore, the Repeat factor is not calculated in the ATAR model. The ATAR model's results are shown below in Table 3.2 as the projected units sold.

$$ATAR = \binom{Target}{Market}\ x\ \binom{\%\ of\ Awareness}{Factor} x\ \binom{\%\ of\ Trial}{Factor} x\ (\%\ of Availability\ Factor)$$

Table 3.2: ATAR Model Projections (Units)

Years	Year 2	Year 3	Year 4	Year 5
Projected Sales	645	6740	12860	45200
Number of Cities	3	6	9	13
Product Lines	Bicycle	Bicycle and Ski/Snowboard	Bicycle and Ski/Snowboard	Bicycle and Ski/Snowboard

Ongoing Market Evaluation

As mentioned above, cycling popularity is expected to grow steadily in the United States. To ensure CDB's participation in a viable market, the company will continuously monitor trends in the recreation sport market. For example, the aforementioned seasonality of bicycle equipment sales could negatively affect CDB's sales. The company plans introduce new products for skiing and snowboarding to offset this seasonality. As these helmets become more popular, the company will continue innovating its designs to introduce new materials such as bamboo composites and laminated wood.

Chapter 4: The Economics of the Business

Gross and Operating Margins

According to Charlie Cooper and Greg Shoenfeld (2012), the gross profit margin for bicycle retailers is approximately 46.5% for helmets (Cooper & Shoenfeld, 2012). These figures helped create the pricing structure for CDB helmets. They were also used in determining an MSRP that covers CDB costs and allows both the retailers and CDB to create sustainable profits.

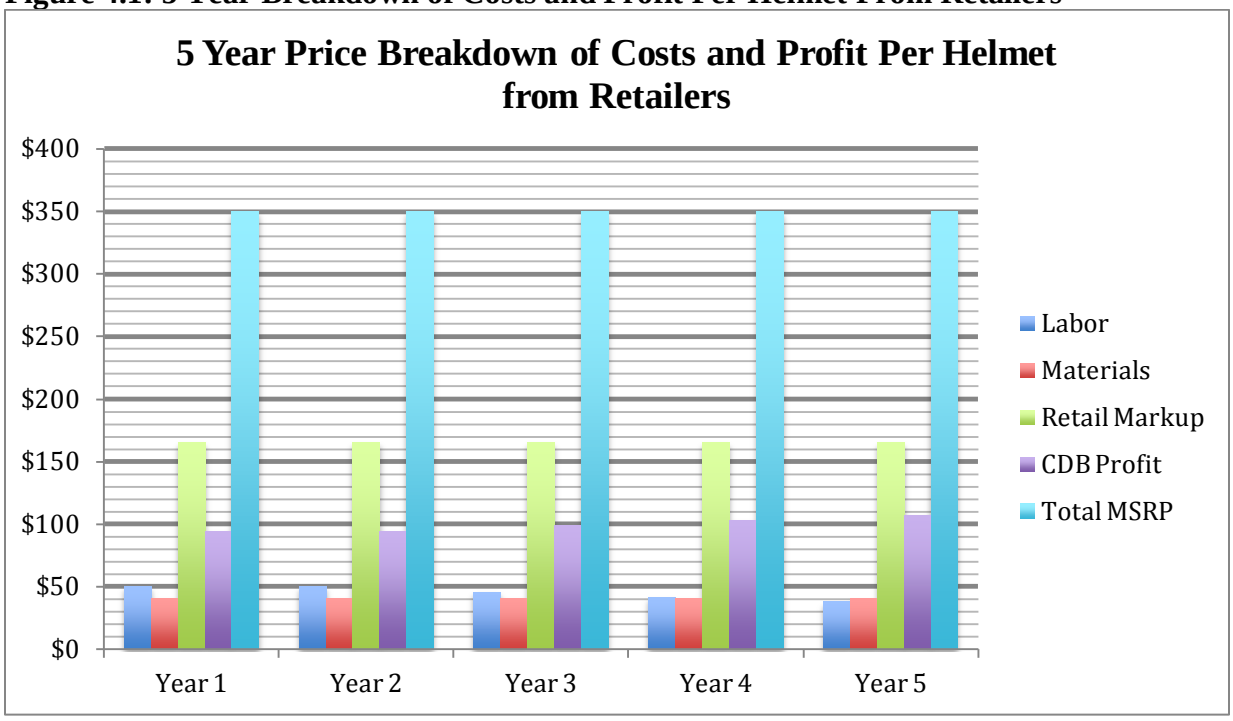
CDB will sell to retailers for $185 and direct to consumers online for $350. Accordingly, Treepiece helmets will be sold at a manufacturer's suggested retail price (MSRP) of $350. This means CDB will have higher gross margins on products that are sold direct to consumer and lower gross margins for those sold to retailers. Table 4.1 shows the breakdown of gross margins for products sold wholesale, online and the total gross margins. Economies of scale will allow per unit costs to decrease for Treepieces. Gross margins will increase, as the MSRP will remain at $350.

Table 4.1: CDB Gross Margin for Years 1-5

Gross Margin	Year 1	Year 2	Year 3	Year 4	Year 5
Wholesale	N/A	50%	53%	57%	58%
Online	N/A	74%	75%	77%	78%
Total	N/A	56%	59%	61%	63%

The breakdown of the costs and profit associated with each helmet is shown in Figure 4.1. At wholesale, CDB will make a profit of approximately $94 per helmet, excluding fixed costs. Treepieces sold online will allow CDB to make a profit of approximately $259 that would have otherwise gone to the retailer.

Figure 4.1: 5 Year Breakdown of Costs and Profit Per Helmet From Retailers



Fixed, Variable, and Semi-Variable Costs

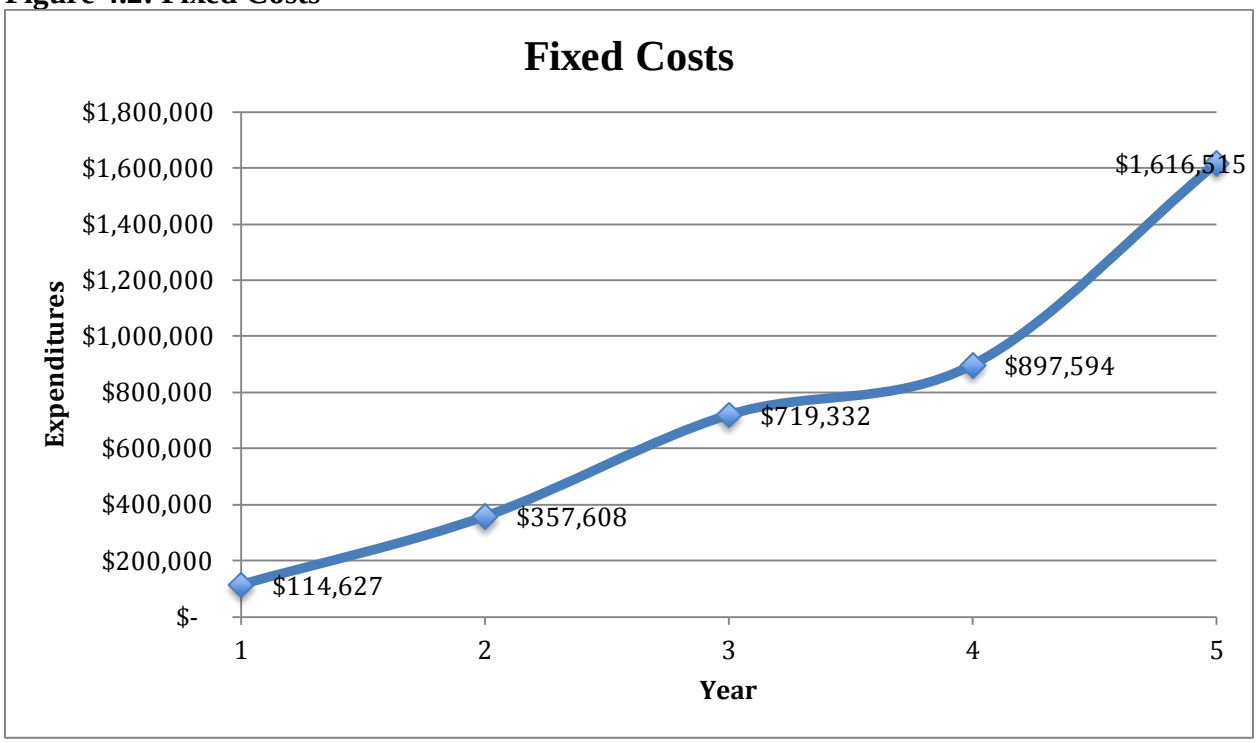
As seen in Table 4.2, variable costs equal $90.83 per helmet in Years 1 and 2. As production increases, the materials and direct labor cost will decrease at a rate of 5% per year in Years 3, 4 and 5 due to economies of scale. In Year 5, the fabrication costs will decrease to approximately $77.87 per helmet. Overall, there is expected to be a 14% decrease in fabrication costs over the next five years.

Table 4.2: Variable Costs (Cost of Goods Sold)

	Year 1	Year 2	Year 3	Year 4	Year 5
Fabrication Costs	$90.83	$90.83	$86.29	$81.97	$77.87

Fixed costs are shown in Figure 4.2 and as the production and sales of Treepieces increase, there is also an increase in fixed costs. This is due to increased spending in expenses such as salaries, marketing, and design. In Years 1 and 2 of operations, fixed costs are relatively low because there are fewer sales and less people operating the company. As the company expands into new markets, fixed costs will also increase due to the additional resources needed.

Figure 4.2: Fixed Costs



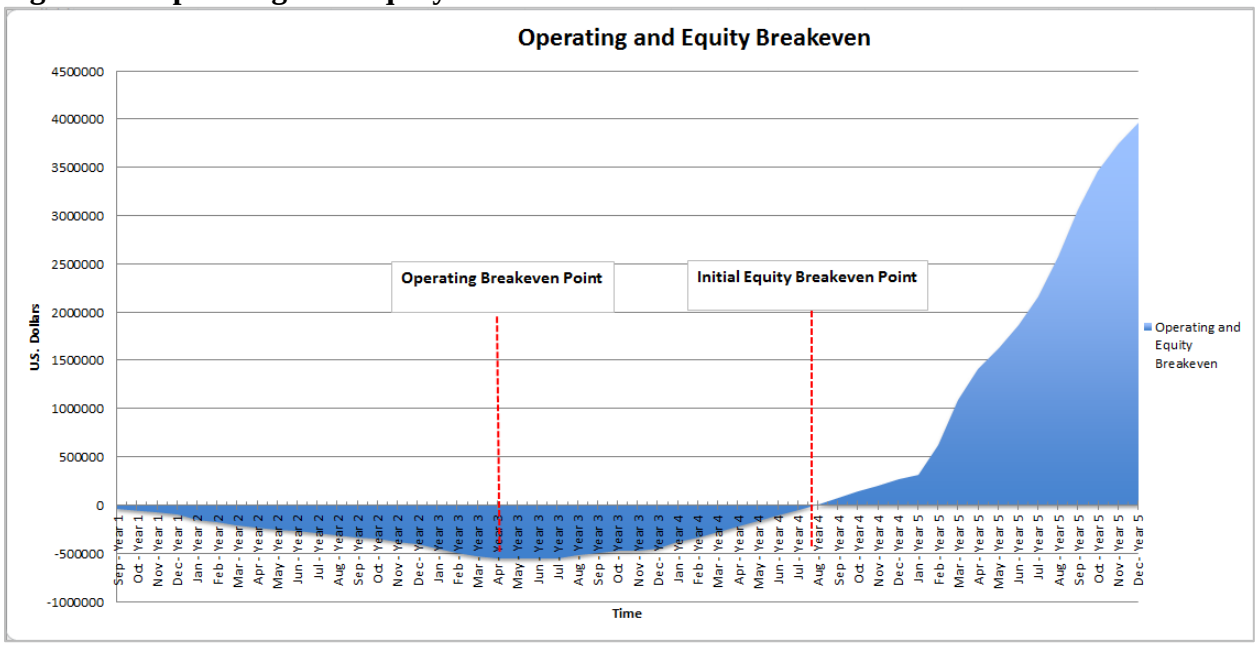
The components of fixed costs include rent, utilities, salaries and marketing expenses. Since the manufacturing of the product is outsourced, CDB will avoid major startup costs that would have otherwise been incurred through purchasing a manufacturing facility.

A detailed breakdown of the fixed and variable costs for the first 5 years of operations is provided in Appendices 4.1 and 4.2. In addition, a breakdown in salaries is provided in Appendix 4.3. The tables show current market estimates for all aspects of manufacturing. As CDB expands, fixed costs are expected to increase as more employees, design testing, and marketing is needed. Variable costs will be driven down by larger production output and economies of scale. The major cost drivers for variable costs are contracted labor and the cost of wood.

Operating and Equity Breakeven Analysis

CDB will have an initial investment of $650,000 to fund operations. Figure 4.3 shows how the company will use the investment until it hits the operating breakeven at April of Year 3. The second breakeven shows when CDB will recoup all of the initial investment, which is achieved at August of Year 4.

Figure 4.3 Operating and Equity Breakeven



Profit Potential and Durability

The profit potential will be primarily influenced by fixed and variable costs, product demand, and competition. Input materials and wood costs are expected to see some fluctuation and most likely a rise even though timber prices have been dropping recently. Appendix 4.4 shows the price trends for Douglas Fir. The potential input price range will be examined in the sensitivity analysis, discussed in Chapter 12, to account for potential market fluctuations.

CDB's profit potential and durability can be limited if increased demand for Treepieces attract new competitors into the market. This can be prevented through intellectual property protection, which CDB is pursuing through patents. The branding of CDB is also important, as the power of the CDB brand can be a major decision factor for consumers purchasing helmets in this market.

Chapter 5: Marketing Plan

Overall Marketing Strategy

CDB's overall marketing strategy aims to build a high-end brand, which will revolve around the aesthetic aspects of its products to create high value for the customers. CDB will concentrate its efforts on one segment by creating "functional art" for bicycle commuters and cycling enthusiasts. It is important for the company to create a unique and memorable connection with consumers through its product. As the company grows, this strategy will also apply to another segment for sales of winter sports helmets.

CDB will target the high-end market of commuting cyclists with a disposable income in bike friendly cities. This niche market will focus on people with over $50,000 of annual income as cycling popularity increases with income (Royal & Miller-Steiger, 2008). For initial intensive

selling efforts, cyclists in Portland, San Francisco and Seattle will be CDB's potential customers. From Year 3, the company will expand into the winter sports market to generate more sales and offset seasonality. CDB will place an emphasis on product quality and customer service. The helmets, even though priced more than traditional plastic bike helmets, are noticeably unique and provide sustainability and functionality for its customers.

Initially, Treepiece helmets will be distributed regionally because of the strong relationships that have been built with retailers[1] in the Pacific Northwest. Expansion will continue to large, bike friendly cities such as Portland, San Francisco, and Seattle (League of American Bicyclists, 2009). Further expansion will follow demand and cycling trends in various regions. Winter sport helmets will be introduced in Year 3 at popular ski resort areas in Colorado, California, and Vermont. To offset seasonal declines in bicycle helmet sales, CDB will rely on winter sport helmet sales when the winter months arrive. Other companies in the industry such as Easton-Bell rely on sales of winter sport equipment to reduce the impact of seasonal sales patterns in cycling helmet sales (Easton-Bell Sports, Inc., 2011).

Pricing

Treepiece helmets are currently priced at $350. To maintain the product's high-end status, the MSRP will remain at $350 even as manufacturing costs decline. Winter sport helmet retailers seek similar margins, but ski and snowboard helmets are often more expensive than bicycle helmets. Competing winter sport models can be sold for $250 or more. There are even bamboo ski helmets selling in Europe for $850 (Conlin, 2012)

Sales Estimates & Sales Tactics

Helmets will be manufactured in standard sizes and styles. Retailers will receive a unique display to showcase Treepieces. CDB will attend trade shows to generate sales and increase brand awareness in the industry. In an effort to penetrate the action sport and winter sport market, CDB will sponsor events to align itself with new markets. Sponsorship will be discussed further in the Advertising and Promotion section.

Retail distribution will demand a new strategy for displays and pricing. Given the premium prices of CDB's helmets, it will be crucial for the company to create a unique retail environment for its products through the inclusion of visual merchandising displays with the helmets. An example of these displays can be seen in Figure 5.1. Magazines and catalogues may help to get CDB's name in the mind of consumers, but visual merchandising and advertising in stores will be crucial for the company.

[1] Peak Sports of Corvallis, Oregon already has a dedicated display for Coyle Treepieces despite the fact that helmets are not for sale in the store.

Figure 5.1: Visual Merchandising Displays with Treepieces

According to Chandon, Hutchinson, Bradlow and Young (2009), in-store advertising is a more effective way to influence purchasing decisions for low market share brands like CDB. Furthermore, CDB's target consumers are more readily influenced by in-store advertising techniques than advertisements found elsewhere (Chandon, Hutchinson, Bradlow, & Young, 2009). Rather than relying on retailers to display CDB's products, the company will offer to include a unique display for its helmets. According to Bemmaor and Mouchaux (1991), brands with low market share benefit from free standing or end aisle displays. If CDB can arrange its own attractive display for Treepiece helmets, consumers may be four times more likely to purchase the product than if standard displays are used (Kerfoot, Davies, & Ward, 2003).

High-End Appeal

The allure of Treepiece helmets is a key element of demand for the product. These helmets are high-end items and will be promoted as such. CDB will seek to create a feeling of exclusivity about the helmet among consumers. To create the feeling of high-end exclusivity, CDB must connect with the consumer in a special way to create a memorable and even emotional experience with its product (Hader 27-31). CDB will achieve this by presenting helmets on unique displays in retail stores and by providing superior customer service. For example, if a consumer contacts CDB to inquire about sizing or other product details, the company will be quick to respond to such inquiries in 48 hours or less. This responsiveness must be reflected in retail stores as well. CDB will carefully examine retail stores before filling wholesale orders. These examinations will consider the quality of other products in the store, the passion of the retail sales associates, and the consumers' perception of the store's retail experience. CDB will require retailers to submit an application and commit to an agreement before making a wholesale deal with the store. The agreement will block the retailer from using its own website to sell Treepiece helmets. CDB will be the only online marketplace for Treepieces. The goal of this strategy is to capture the aspirational high-end goods shopper. These are the consumers who are not of high net-worth, but spend more than necessary to obtain high-end products. As CDB grows, its products will increasingly fall in the "masstige" category (prestige for the masses) (Hader 27-31). CDB will expand and align itself with winter sport events such as the X Games and Winter Dew Tour to evoke the emotional response necessary to secure sales. The company will also carefully select high-end retailers in the area surrounding event venues.

Service and Warranty Policies

Since Treepieces have not been in consumers' hands for very long, it is difficult to use historical data to create appropriate warranty coverage. Instead, CDB's warranty policy will be based on the policies of other companies in the industry. Standard warranty policies involve product registration, product care instructions, and warranty claim procedures.

Modeling the warranty policy of Easton-Bell Sports, CDB's policy will urge consumers to register their helmets on the company's website. To make a warranty claim, consumers must email CDB with their claim and product serial number or return to the retail store in which the helmet was originally purchased. The warranty will cover the helmet against product defects for one year under normal use conditions. If a helmet is found to be defective, CDB will offer a credit for a new helmet. Helmet repairs or partial replacement credits will also be offered if a helmet is damaged in an accident. Repairs to Treepiece helmets currently cost consumers $15 as repairs typically require new cork padding or epoxy to fill shell cracks. Repairs or warranty replacements will be determined and completed at CDB's headquarters and prototyping lab in Corvallis, Oregon.

Advertising, Promotion Strategies and Plans

To attract consumers to CDB's products, the company will rely on tradeshows, social media, and in-store advertising at retail locations. The company currently presents its products at bicycle tradeshows and drives most of its sales through such events. Social media sites such as Facebook, Twitter and Pinterest will be used to increase awareness of CDB in the market. According to Colliander and Dahen (2011), social media sites and blogs are as effective as word-of-mouth recommendations between friends in attracting consumers. CDB's social media strategy would mirror could give the company the ability to reach nearly 200 million consumers in one day (Cendrowski, 2012).

For example, CDB has already established an account on Facebook. The company will target its promotion to people with winter sport or cycling related interests through Facebook. Such advertisements will guide consumers to CDB's website. CDB could also share photos and videos about cycling activities or tradeshows. This will provide CDB with the opportunity to connect with consumers on a personal level. It is crucial for CDB to keep the page up-to-date and spend time each day to communicate with fans and followers on its page. This can be an effective platform for CDB to interact with its followers' opinions about the products, unique features and user experience. The company can use this medium to keep followers aware of upcoming events and promotions.

CDB will also pursue promotional event sponsorship in an effort to encourage consumers to use helmets as a trial. CDB can be a sponsor of an existing event related to cycling and generate a positive image in the minds of consumers by making the brand's name clearly visible at the event (Close, Krishen, & Latour, 2011). For example, the company could sponsor a charity event similar to the Anchor House Ride for Runaways, a 500-mile charity bike ride for abused teenagers. CDB can sponsor the event for as little as $250 and is guaranteed exposure through race banners, ride videos, and the Anchor House website (Anchor House, 2012). Sponsoring or advertising at events is expected to be an effective form of marketing for CDB. In a 2011 survey,

Action Sport participants and consumers reported recognition of event sponsors in the marketplace over 30% of the time (Patterson, 2011).

In Year 4, the company will host its own event to promote its image. Since Treepiece helmets are not designed for high performance racing, the company could host experiential marketing events centered on a lifestyle. An example of this is Red Bull's annual Flugtag contest wherein competitors are judged on the style and effectiveness of their man-made flying machines (Red Bull, 2013). According to Drengner, Gaus, and Jahn (2008) competitive events like this can help a company create a positive image in consumers' minds. Red Bull is effectively promoting a lifestyle around its product instead of directly promoting its product. CDB can host similar events to promote a lifestyle of cycling in style and standing out in a crowd. This will increase over time to accommodate events.

The company also plans to supply winter sport athletes with helmets when they compete in major events like the Winter X Games. By putting Treepieces on the heads of X Games snowboarders and skiers, CDB can capture the attention of the 114,000 people in attendance and 35 million people who watch the event on television in the United States. If the company wishes to go beyond supplying athletes with helmets, it could secure a small endorsement deal with lesser known X Games athletes for as little as $5000 (Lazarus, 2004). This form of marketing is also expected to be effective for CDB. Action Sport participants from age 24 to 35 often watch their favorite activities on television or YouTube channels (Patterson, 2011). By giving Treepiece helmets to prevalent athletes in these activities, CDB can get over 33% of Action sport participants to see the helmets in action. Several other action sport equipment companies have used this tactic effectively in the past (Patterson, 2011).

Distribution Plans

Retail sales channels offer an excellent opportunity for helmet sales. At independent retailers, helmets, apparel and shoes represented over $400 million in sales in 2011. Many of these helmets were purchased with bicycles as the two items were sold together in 31% of bicycle transactions (Cooper & Shoenfeld, 2012). As discussed above, other sales would be generated through trade shows and CDB's website. CDB will first target cities identified as the most bike-friendly by the League of American Cyclists. Winter sport helmets will be sold in areas surrounding the most popular ski resorts. CDB will limit availability of Treepieces in retail stores to maintain exclusivity of the product.

Chapter 6: Design and Development Plan

Development Status and Tasks

Treepieces have been sold for more than two years through various channels such as online, trade shows, and direct sales. CDB continuously develops Treepieces in order to provide customers high quality products. For example, the company is still experimenting with different shapes and layouts of cork padding to increase impact reduction in the event of a crash.

CDB currently offers EPS as an option for padding. Given the ongoing development of cork padding, EPS foam will be used for impact testing in CPSC tests. CPSC safety testing can be completed through independent testing labs around the country. CDB has submitted helmets to ACT Labs in California for CPSC testing and certification. For initial retail distribution, CDB will introduce the helmets with EPS foam, which can be seen in Appendix 6.1. When Treepieces with cork padding become certified, CDB will launch the new design to the retail stores. In accordance with certification, CDB will develop a cork layout that looks professional and attractive. In addition, each helmet will have the company's logo stamped into the cork as seen in Figure 6.1.

Figure 6.1: CDB's Logo

New helmet designs will be sold to meet demands of ski and snowboard consumers. To bring new designs to the market more quickly, the company is seeking good sources of materials, machines, suppliers, and also additional employees for sales, marketing, and design.

Before launching new products to the market, CDB may exhibit the new products at trade shows and allow customers to try new helmets. This feedback could provide valuable information on design.

New Products and Services

Product line extensions include helmets for skiers and snowboarders. CDB will continuously monitor the helmet industry for new opportunities. The company has seen a limited demand for wood motorcycle helmets and kayaking helmets. CDB has not yet made an attempt to expand into one of these markets.

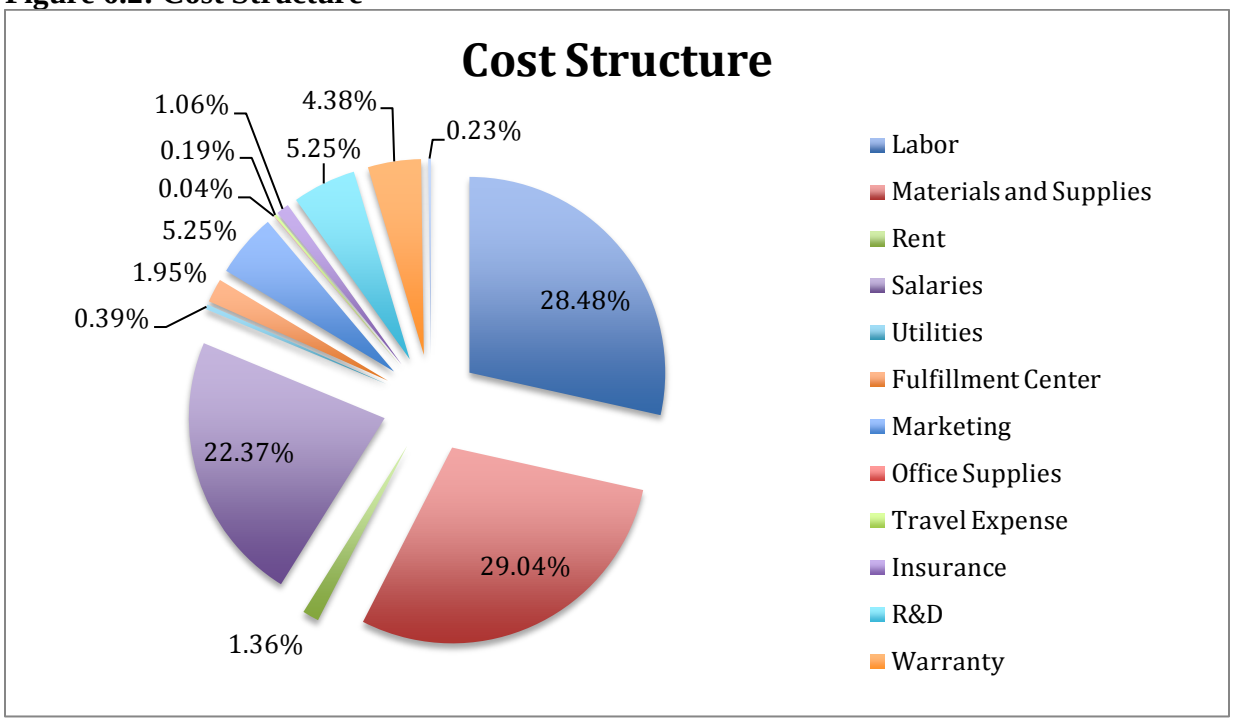
CDB would continue the warranty service to customers. The company website will be used for products registration prior to sending the helmets to get fixed. They will need to be returned to the original point of purchase. The website will also be used as a means to inform the customers about the product status and the pick-up date.

Cost Structure

Currently, CDB's cost structure includes variable costs and fixed costs, which are 59% and 41% respectively. The cost structure of the company is the proportion of fixed costs over variable costs, which is 0.69 (Figure 6.2). The higher ratio of fixed costs to variable costs produces higher productivity. Since fixed costs are relatively stable, it is important for CDB to have control over the variable costs in order to minimize the operation budget.

Based on the current sales of 100 helmets per month, CDB's cost structure is mostly material and labor intensive.

Figure 6.2: Cost Structure



Chapter 7: Legal, Intellectual Property, and Ethical Issues

Selection of a Business Entity

CDB is currently a Domestic Limited Liability Corporation registered in Oregon's Benton County. As an LLC, the company benefits from the pass-through federal tax treatment. Given the company's current size, this form of business entity is ideal (Fleischman & Bryant, 2000). The company will convert to an S-Corp by the end of 2013 in an effort to attract investors. The S-Corp will give CDB the opportunity to offer equity to investors while also allowing for the same pass-though taxation (Fleischman & Bryant, 2000). While the company's recent funding campaign through Indiegogo was successful, CDB will need to raise more capital to help with startup costs, R&D, employee salaries, and other expenses related to operations. The need for this additional capital calls for the equity advantage of S-corps. To become an S-Corp, CDB must first become incorporated and then apply with Form 2553 Election by a Small Business Corporation (IRS, 2012). Then, the company will file an S-Corp form with Oregon's Secretary of State office.

Like an LLC, the S-Corp features flow through of losses to individual owners' tax returns, which can offset other income. As an S-Corp, CDB would be required to form a small board of directors and hold regular meetings (Beesley, 2012). The board will be determined by finding individuals with a wide range of expertise, including someone "retired from the industry, lawyers, accountants or other professional managers with demonstrated records of accomplishment" (O'Connor, 1991). The company would only be allowed to offer common stock to investors. CDB would only be allowed to carry up to 100 shareholders. None of these

shareholders can be corporations or partnerships (Bagley & Dauchy, 2012). CDB will seek wealthy individuals or angel investors as its primary sources of capital. Since the company is still young, it is crucial for CDB to continuously review be benefits and drawbacks of its legal entity status (Fleischman & Bryant, 2000).

Proprietary Issues and Developing and Protecting Intellectual Property

CDB has already moved to protect its unique product design by filing 2 patents on June 19, 2011. These pending patents claim ownership of natural fiber helmet shells and natural fiber helmet padding. Currently, the biggest concern on the status of these patents is the possibility for conflict with another product. Abus, a European company, currently sells the Kranium ECOLUTION helmet, which uses corrugated cardboard as padding (Abus, 2012). These helmets are not currently available or patented in the United States, although, there is a patent on the technology in Europe (Michelmores LLP, 2011). The European patent could pose a threat to CDB's natural fiber patent. The European inventor has several international patents on helmet designs and materials. Another patent of concern relates to lamination of materials to ensure strength for cycling helmets (WIPO, 2001). If CDB's design infringes on existing patents, the company would need to pursue licensing agreements.

If CDB's patents were denied, the company would have no legal protection against imitators. Since CDB does not currently feature a logo on the outside of the helmet, it would be rather easy for a consumer to get confused by an imitation product, which would be harmful to CDB's brand. In order to prevent these issues, the company will have an easily recognized trademark and logo on its helmet to make them truly unique. According to the USPTO, a trademark is, "is a word, phrase, symbol, and/or design that identifies and distinguishes the source of the goods of one party from those of others" (USPTO, 2013). A registered trademark can help CDB distinguish itself in the market. Trademark registration through the USPTO costs $275 (USPTO, 2013). It is critical for CDB to get the brand and logo with various products into the market to build brand awareness and loyalty as soon as possible.

Managing Legal Liability Risks

Given the nature of CDB's business, the company is exposed to warranty and product liability claims for defective or unsafe products. CDB could face legal ramifications if a helmet does not protect the wearer to the extent that is expected. To protect itself from such claims, CDB will maintain liability insurance while consistently testing helmets to ensure safety. To ensure the protection of CDB product distributors and retail stores, the company must maintain a high degree of insurance protection (Slepicka, 2004).

CDB's helmets are subject to CPSC testing before they are sold to consumers. If any helmets are deemed unsafe by the CPSC, products could be withheld from the market. CDB could be forced to repurchase such products if they are distributed to retailers. To reduce the likelihood of CPSC failure, helmets in a CPSC certified line would be randomly selected for internal testing by CDB to ensure compliance with the CPSC. This will also ensure that the contract manufacturer is consistently producing helmets that meet safety regulations.

If a defective product leads to a consumer injury, responsibility for the defect can fall to anyone and everyone in the supply chain due to strict liability. CDB needs to ensure quality control along the supply chain from design to delivery in an effort to mitigate these risks. CDB will use product inspectors when raw helmet shells are carved from wood and when the product is completed and ready for distribution.

All Treepieces will be sold with safety warnings and have proper use instructions on the packaging. Any product that fails to warn consumers of the risks of improper use is considered defective (Bagley & Dauchy, 2012). CDB will create a helmet manual that is specific to wood helmets since there is no precedent. Although these manuals will not prevent all possible legal issues, they can serve to partially protect the company in the face of liability lawsuits.

Chapter 8: Manufacturing/Operations Plan

Operating Cycle

CDB's operating cycle time is currently 74 days. This number represents the company's average length of time between purchasing materials and receiving payments. The company will need to reduce this operating cycle to avoid the need for a loan due to cash shortages.

Geographical Location(s) and Rationale

Currently, CDB manufactures and distributes helmets from one small facility in Corvallis, Oregon. In order to acquire additional space, the company will move to a facility located in Portland, Oregon. The company will need to have more space to support new employees and design efforts. This Portland location is ideal for the company's distribution and supply channels as it sources everything but cork from the American Northwest.

Facilities and Improvements

The company currently operates out of a rented shop in a garage. This shop is where all product orders, manufacturing and shipping take place. Milling and applying wood finish to the shells occurs at other facilities but all assembly steps are carried out in the Corvallis headquarters. To expand, the company will focus its efforts on R&D, distribution, marketing, and sales while contract manufacturing will mill and assemble the helmets and ship all finished goods to the fulfillment center. These facility improvement goals will create a more cost effective supply chain that can deliver as many helmets as demand calls for.

To initiate the improvements, CDB will establish its headquarters in Portland that will include an R&D lab for product material and design testing. A small portion of the facility will be used for creating custom helmet shells and fixing defective helmets under warranty period. Assembly of such helmets will still occur at the contract manufacturing facilities for assembling standard helmets. The headquarters office will also house human resources, marketing, customer relations and administration of the business. An external accounting firm will complete accounting activities in the first two years after which CDB will operate accounting activities on its own.

Strategy and Plans: Manufacturing and Operations

The manufacturing strategy will hinge on a dynamic supply chain that can respond quickly to demand changes. Twelve CNC facilities in the United States were contacted as potential manufacturers of Treepieces. Many of the facilities were either too small or ill-equipped for production of helmets. A detailed list of possible manufacturers is provided in Appendix 8.1. In Year 2, CDB will partner with a manufacturer who can produce the wood helmet shells from the raw materials. Wood blocks will be sent to the manufacturer directly from a lumber company. Full assembly of the helmets, including applying finish, inserting padding and attaching chinstraps, will occur in the manufacturing facility.

The selection process for selection of the manufacturer were based upon the following criteria:

1) Ability to make entire helmet
2) High quality
3) Location
4) Price
5) Flexibility

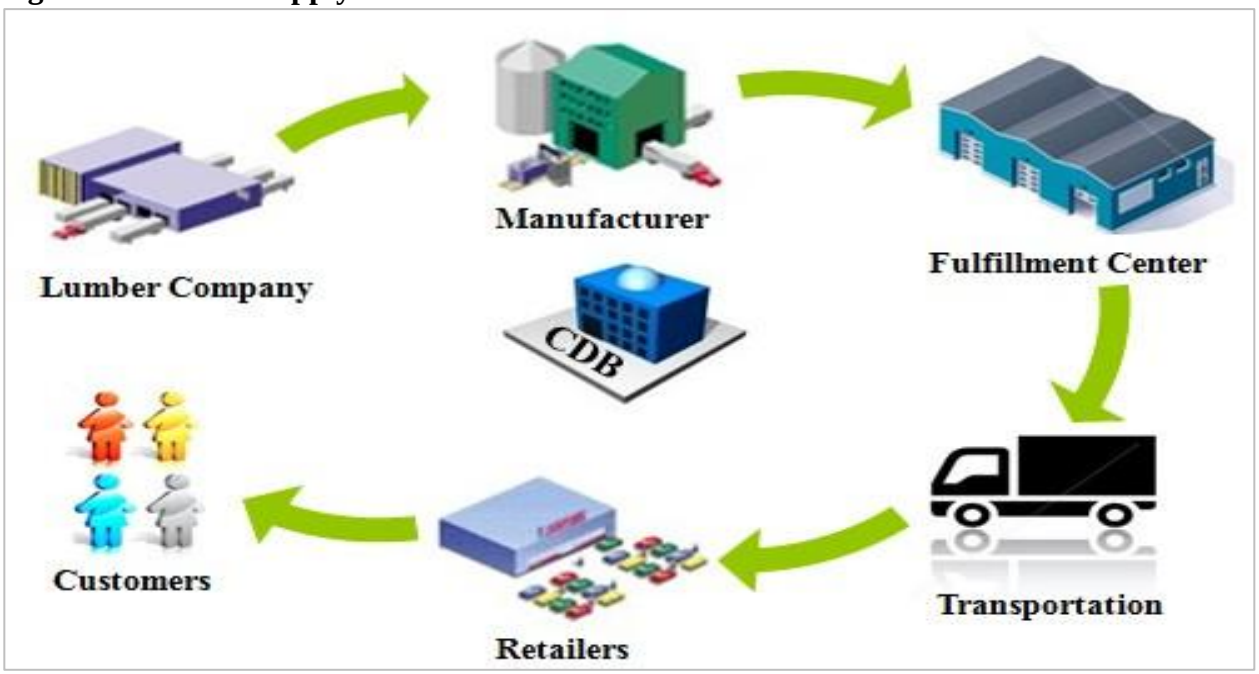
It was important that the manufacturer could make the entire helmet to avoid additional shipping costs. Since the product is new, proximity will play a key role in fostering a strong partnership between CDB and the manufacturer. It is also important to be able to keep costs as low as possible and produce high quality products.

After considering a number of fabrication facilities for helmet manufacturing, FAB PDX, in Portland, Oregon, is the leading candidate for CDB. FAB PDX will be equipped to carve shells and fully assemble helmets. CDB and FAB PDX have agreed on a five year contract in which the manufacturer will purchase any necessary equipment upgrades to meet future demand. Once the helmets have been inspected for quality purposes, they will be shipped to a fulfillment center located in Portland. The fulfillment center will be responsible for shipping Treepieces to retailers and direct to customers.

Supply Chain Strategy and Design

Contract manufacturing with an existing fabrication facility will increase the company's manufacturing capacity quickly. By decreasing the manufacturing workload for the company, CDB can focus on product design and expansion of online sales. The helmet shells are shaped and coated by the manufacturer and once the product is complete, Treepieces will be sent to a fulfillment center. From there, the fulfillment center will ship to retailers and directly to end-users. The supply chain can be seen in Figure 8.1. This supply chain design has two major advantages. First, it gives the company access to a range of retailers. Second, it allows CDB to exploit its core competency while outsourcing other areas to companies with higher expertise to take care of manufacturing and logistics. It is critical for CDB to ensure efficient transfer of products from manufacturing plants to retail stores and customers. CDB will also be able to focus more on demand planning and forecasting estimates.

Figure 8.1: CDB's Supply Chain



CSR and Sustainability Plans

CDB's wood materials come from salvaged wood left behind in logging activities to reduce the company's impact on forests. Since milling helmets in a CNC machine leaves a large amount of material behind, the company will use waste for wood fuel or pressed wood products. The company will also promote the product as an environmentally friendly option when cork padding is added to the Treepieces.

Chapter 9: Management Team

Despite the fact that CDB has been a legal business entity for two years, the company is operating with no management team. Dan Coyle is still the company's only employee and is responsible for many functions of the business. For the company to grow, CDB will need to add experienced management personnel to its team. Regardless of employment status, new managers need to fill the roles of CEO, CFO, and product manufacturing director. Dan Coyle will remain in charge of product design while working closely with the CEO and operations director. He will also serve on the Board of Directors.

Key Management Personnel

Ideal candidates for any management position will have multiple years of experience in their respective roles with relevant experience in start-up companies. The specifications for key management personnel were extrapolated from the type of executives working at Easton-Bell Sports (Easton Bell Sports, 2013). A more detailed description of qualifications can be seen in Appendix 9.1.

CDB will need to hire several key managers throughout the first three years of operations. Year 1 will include hiring the Director of Operations, and Director of Sales and Marketing. Dan will become CDB's Director of Product Design. These positions will serve several roles, as needed in the company until appropriate staff is hired in later years. Once the company has become established in the marketplace, it will seek a Chief Executive Officer and Chief Financial Officer to take over major tasks. These additional managers will be added in Year 3. Each high-level manager should bring experience from jobs of similar nature.

Decision-making Responsibilities

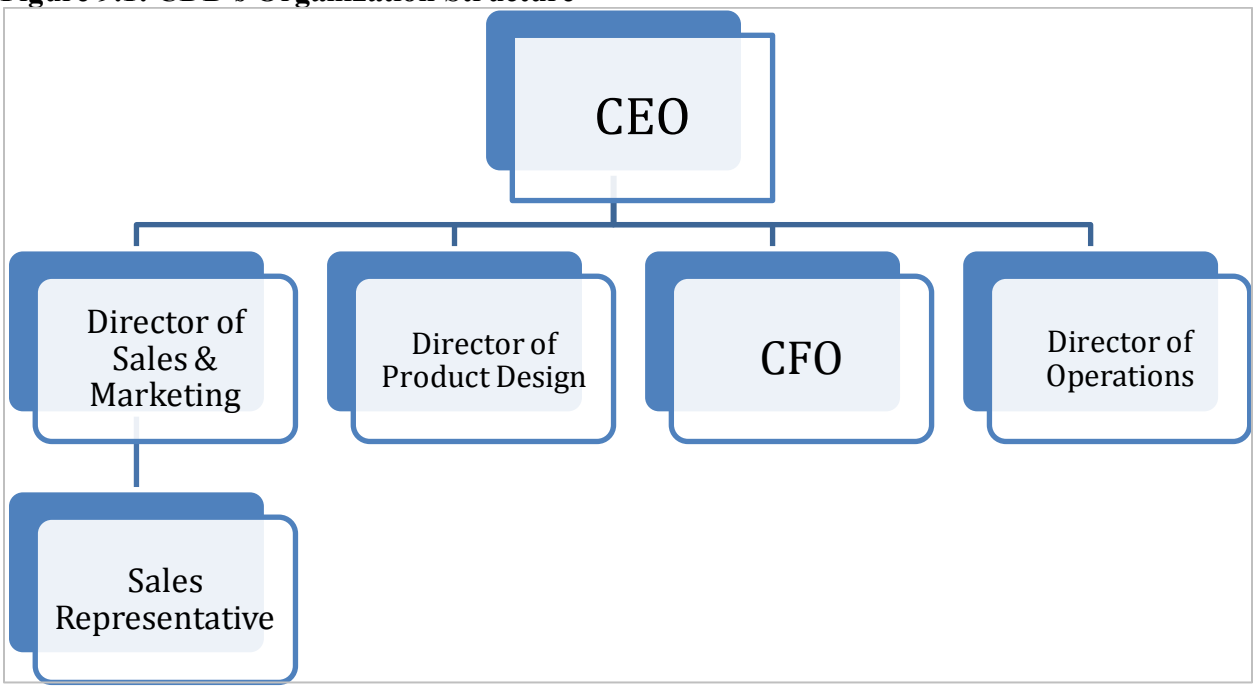
The company is likely to remain relatively small for a few years. Despite that, CDB will still face difficult decisions. With a small management team, it is crucial for the company to clearly identify the duties and responsibilities of each person. Currently, all decision-making responsibilities fall on founder Daniel Coyle. Once the management team is established, his role will be the Director of Product Design focusing on overseeing product design, marketing, and quality control. He will also serve on the Board of Directors to select the CEO and Director of Operations.

As the management team is assembled, decision-making responsibilities will be defined for finances, manufacturing, marketing, and product design. The CEO will control financial decisions on behalf of the Board of Directors. The CEO will evaluate the company's performance to make decisions on mission and goal definitions. The CEO will ultimately decide what markets to enter with new products and which companies to partner with to help grow CDB. The Director of Operations will control manufacturing decisions and be in charge of quality control measures. This person will work closely with FAB PDX to make decisions on raw material sources and oversee manufacturing and assembly facilities. The Director of Operations will also work closely with Daniel Coyle and other designers to ensure efficiency of the company's supply chain. As the Product Design Director, Daniel Coyle will assist the Director of Operations in choosing raw materials ensure compliance with CPSC standards and design goals. Daniel Coyle will also serve as the "face" of the company by representing CDB at trade shows and marketing events.

Organization Structure: Roles and Responsibilities

Growth of the company will require expansion of CDB's management structure. The owner(s) currently takes strategic responsibility in the company. When CDB develops into a larger organization, a more complicated structure would be applied. CDB will use a simple structure with three levels of administration. Entry-level employees represent the base level of the structure, which includes marketing and design, sales, and customer relations. Managers and owners will represent the second and third levels and will oversee the entry-level employees. Business owners and managers will play an active role in the majority of business decisions. These representatives will report to CDB's operation department. The organization structure is presented in Figure 9.1.

Figure 9.1: CDB's Organization Structure



Management Compensation and Ownership

To compensate managers and other employees, CDB will offer equity in the company. The company will also set aside 20 percent of ownership to attract new investors and managers in the future. Further expansion of the management level to include assistant managers will require compensation based on level of responsibility, experiences, and education. While the company is small, compensation will be offered largely in the form of production bonuses.

The division of shares for compensation will be framed around the typical division of shares for an initial public offering (IPO) despite the fact that the company may never go public. The company will set aside 25% of its shares to attract initial investors. As the initial investor and founder, Daniel Coyle will claim a larger share than any single investor. The remaining shares will be used to compensate managers and attract new investment if needed. The CEO and Director of Operations will be offered 8% and 4%, respectively. The CFO will be offered 4% equity stake when hired. The remaining shares will be saved to attract managers in the future (Timmons & Spinelli, 2009).

Employment and Other Agreements

Investors and top managers will be offered controlling stakes in the company, as CDB does not currently have enough cash to attract a strong management team. Since the company will be an S-Corp, it cannot offer stock to more than 100 investors. CDB will not be allowed to offer shares of the company to other business entities or any foreign investors. Members of the management team will be offered performance-dependent stock options to ensure their effort and commitment to the company.

Stock Options and Bonus Plans

As an S-Corp, the company will only offer one class of stock. Employees and other investors will all be offered common stock. This form of stock does not guarantee voting rights to all holders (Leitner, 2009).

Shareholders: Rights and Restrictions

CDB's shareholders have the right to transfer stocks, which claim ownership in the company. As owners, shareholders also have the right to information on the company's financial health.

Other Investors: Actual or Planned

When the company was founded, CDB's initial funding was supplied by the founder, generous friends and family members. The company's most successful funding campaign to date was through indiegogo.com.

Supporting Professional Advisors and Services

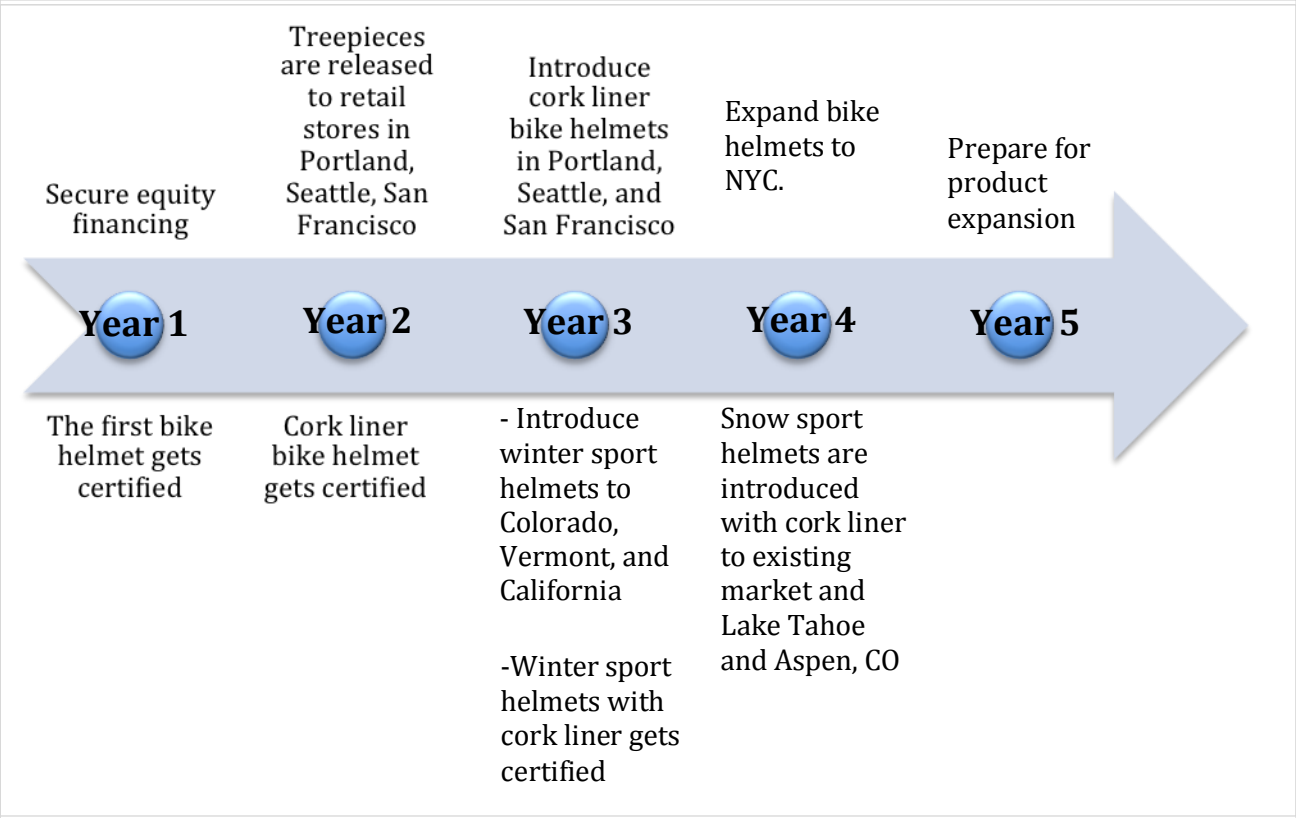
CDB will need professional advisors and services from the organizations that have experience in guiding and promoting development of businesses. Legal issues and IP protection are also important to CDB. Hiring an attorney in order to get advice about IP protection and other legal issues would also be a good step for CDB. Oregon State University is another source of advising support. CDB has already consulted with OSU professors like Scott Leavengood for information on wood processing.

Chapter 10: Overall Schedule

Key Milestones and Target Dates

CDB has prepared a 5-year plan in order to achieve short-term and long-term goals. The key milestones and estimated target dates are outlined in Figure 10.1. A more in depth timeline can be seen in Appendix 10.1.

Figure 10.1: Key Milestones



Overall Schedule Summary

In Year 1, CDB will complete the design and development of Treepieces with an EPS liner. With certification secured, the development timeline will begin. Production will begin in November of Year 1. The company will continue displaying products at trade shows, through blogs, and the company's website. Expansion activities will be triggered by revenue goals developed through the operating plan.

The operating plan outlines all manufacturing strategies and expands upon the limited target market. Wood helmets with cork liners are expected to be safety certified by the end of Year 1 and will be initially distributed to the three identified cities. The company will start R&D on winter sport helmets for certification. At the end of Year 3, CDB will launch the new winter sports helmets. In Year 4, the company will focus on perfecting cork liners for the winter sport helmets while designing more models. In Year 5, the company will expand to the remaining target cities displayed in Chapter 5. A detailed implementation schedule is provided in Appendix 10.2.

There are some challenges CDB may experience in the schedule. Since CDB will outsource, it is important that the company establishes a good relationship with FAB PDX to achieve the intended milestones. Second, CDB will solidify its distribution channel for wholesaling to retail stores with the fulfillment center. These two steps must complete before any commercial activities can begin.

If initial product launches are successful, CDB will introduce new products and enter new geographic markets. The company will complete the necessary market research and product R&D to bring the right products to the appropriate market.

Chapter 11: Critical Risks, Problems, and Assumptions

Major Risks to the Venture and Investors

Expansion of CDB's operations and product line may present the company with a number of risks. These risks include environmental, market, budget, and product risks; all of which can be endogenous or exogenous (Fiet & Patel, 2008). The most significant risks to CDB will be discussed in detail below. A complete risk analysis is provided in Appendix 11.1.

- **Decreasing-demand for bicycle helmets**
    - Response: focus resources on the winter sport market
    - Contingency: explore the market for helmets for other action sports
    - Likelihood: low

If the market size estimations are inaccurate, CDB may need to refocus its resources on a different market. The company's first option would be to introduce ski and snowboard helmets sooner. The winter sport market set a new record for sales at $3.3 billion in 2011. As part of this new industry record, helmet sales rose to 1.2 million units in 2011 (Snowsports Industries America, 2011). This increase in helmet sales indicates that consumers feel the need to wear some form of protective gear while skiing or snowboarding. If neither market is profitable for CDB, the company will dedicate resources to designing helmets and marketing campaigns for skateboarders or motorcyclists. It is not likely that this risk will pose a real threat to the company as the evidence suggests growth in the cycling and winter sport markets.

- **Poor manufacturing quality from contract manufacturers**
    - Response: enforce contract penalties if possible
    - Contingency: consider internal production of helmets
    - Likelihood: low

When CDB secures a manufacturing contract with a third party CNC facility, the company will negotiate for quality checks based on CPSC standards. To avoid CPSC compliance issues, CDB will maintain its own safety test equipment to mimic that of the CPSC. If the company finds any of its products to be non-compliant, it will seek to enforce penalties on the contract manufacturer. If penalties are ineffective or not possible, CDB may consider producing small quantities of helmets in its prototyping lab until a new manufacturer is located. CDB will mitigate this risk by relying on manufacturers with experience in CNC woodworking.

- **Certification failure**
    - Response: invest more heavily in research and development to reduce the inconsistency of wood strength in the helmets.
    - Contingency: produce bamboo or wood laminate helmets to improve helmet

strength.
    - Likelihood: medium

Failure to meet CPSC standards with early models of Treepiece helmets would significantly delay the company's expansion schedule. Without certification, Treepiece helmets cannot be sold in retail stores. According to Scott Leavengood of the Oregon State University Wood Science and Engineering Department, Treepiece helmets should pass CPSC tests easily. The only concern with the current design is the inconsistencies in density associated with wood. Such inconsistencies are not likely to result in certification failure (Leavengood, 2012). If CNC machined shells are deemed unsafe by the CPSC, the company will change its designs or introduce bamboo and wood laminate helmets to reduce the inconsistencies. Since there has never been a natural fiber helmet, it is difficult to accurately predict the results of CPSC tests. CDB will subject its helmets to the same CPSC testing protocols before approving new designs for production to ensure compliance with all safety standards.

The CPSC certification process requires eight helmets of each size and model. All of the test helmets are destroyed after the testing process that involves extreme heat in excess of 120 ℉, extreme cold below 8 ℉, nearly 24 hours of water submersion, and repeated impact testing on an anvil. Helmets are then strapped to a dummy head form and smashed on different surfaces to imitate real-world crash conditions (Consumer Product Safety Commission, 1998).

- **Accessory compatibility issues**
    - Response: suggest compatible accessories
    - Contingency: slight redesign
    - Likelihood: Medium

CDB's products are designed to be comfortable and safety compliant. Since Treepieces are not currently designed with accessories in mind, it is possible that cycling or winter sport helmets may not be compatible with certain styles of glasses or goggles. If a helmet's design is found to prevent the wearer from comfortably using some styles of accessories, CDB will provide a list of compatible accessories on its website. If compatibility proves to be a large issue, CDB will redesign Treepieces to make room for goggles and sunglasses. This risk can be mitigated through wear-tests to test compatibility with multiple accessories.

- **Environmental policy compliance issues**
    - Response: reduce size of raw materials needed
    - Contingency: introduce new materials
    - Likelihood: low

CDB's current Treepiece design uses Douglas Fir wood in the helmet's shell. As the company introduces new materials it will need to be mindful of endangered tree species.

Chapter 12: The Financial Plan

Financial Summary

There are several assumptions that affect the financial analysis conducted for CDB. Year 1 involves several start-up activities that are important steps for improving the business. Activities such as the certification of Treepieces, building an inventory, and hiring employees are all an integral part in the company's success. As such, sales in the first year will be limited to those already sold through the indiegogo campaign. Retail distribution will begin in March of Year 2. A full detail of assumptions is given in Appendix 12.1.

CDB will have a gross margin of 56% in Year 2 and it will increase to 63% by Year 5. In 2012, gross margins for Easton-Bell Sports were approximately 33% due to "higher average selling prices" (Bicycle Retailer and Industry News, 2012). Since CDB plans to sell a limited number of units, the company will maintain a MSRP of $350 to realize a high gross margin per unit. The company can also achieve such a high gross margin because of the target market the helmets attract.

Sales will be low in the first two years while the contract manufacturer upgrades its facility. The company will experience a net loss in Year 1 and 2 at ($90,452) and ($284,045), respectively. In Year 3, CDB will start making a profit due to an increase in demand and the entrance into the winter sports market. By Year 5, CDB is expected to earn approximately $9.4 million is sales. A brief overview of revenue and net income can be seen in Table 12.1.

Table 12.1 Revenue and Net Income

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	$14,565	$ 134,225	$ 1,402,594	$ 2,676,241	$ 9,406,120
Net Income	$ (90,452)	$ (273,665)	$ 97,515	$ 718,256	$ 4,261,577

With the predicted revenue and net income, CDB will obtain a net profit margin of 6.95% in Year 3. Year 4 and 5 will reach a net profit margin of 26% and 45%, respectively. CDB can obtain such high net profit margins because non-critical functions are being outsourced. The major indicator for such high net profit margins can be attributed to contract manufacturing.

Table 12.2: Net Profit Margins

	Year 1	Year 2	Year 3	Year 4	Year 5
Net Profit Margin	NA	NA	6.95%	26.83%	45.30%

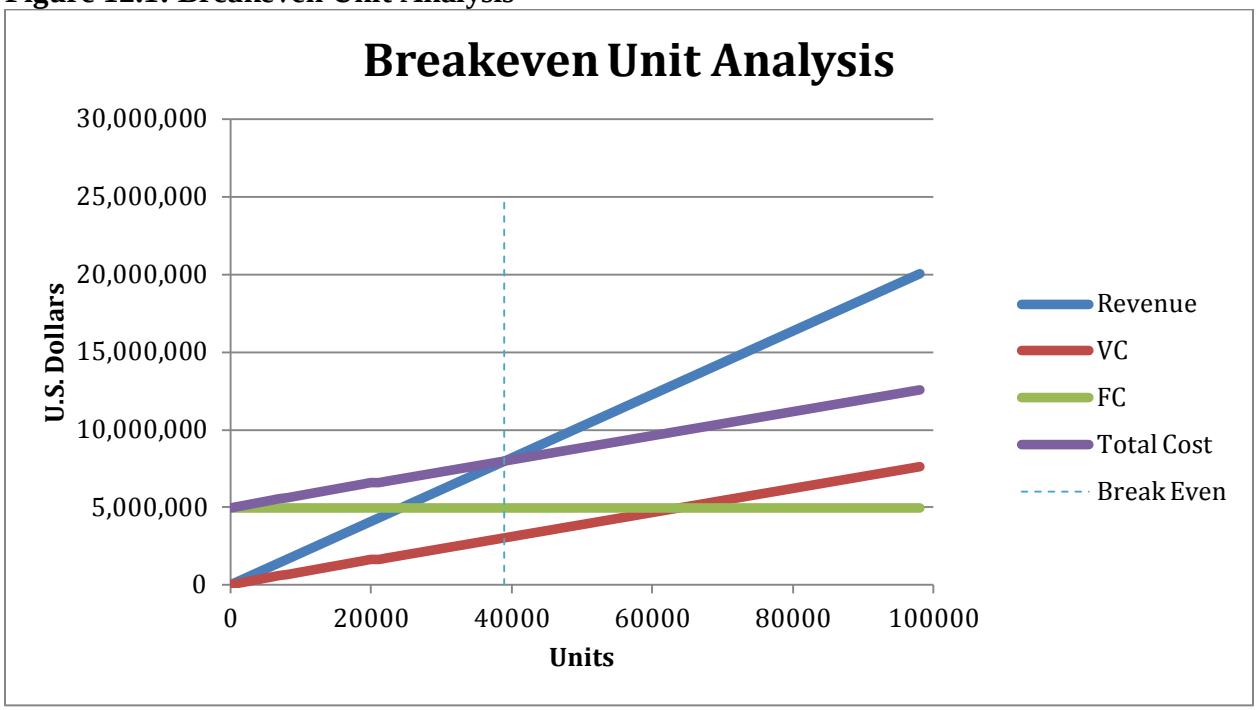
Appendices 12.2 through 12.14 provide detailed spreadsheets for CDB's monthly and yearly income statements, monthly and yearly cash flows, and the company's balance sheet.

Breakeven Analysis and Chart

A breakeven analysis was conducted by taking the total predicted fixed and variable costs and finding at which point the company will recoup all of the expected expenses, five years is

assumed. This method is used because it allows for flexibility in the company if demand estimates are not met as predicted. CDB will need to sell approximately 38,895 Treepieces to recover all expenses from years 1 to 5, which can be seen in Figure 12.1. Furthermore, CDB will have a margin of safety of approximately 40% or 26,592 units. This means that at current prices, a reduction in 26,592 units would result in the company breaking even. The point at which the company breaks even is approximately 12,303 units.

Figure 12.1: Breakeven Unit Analysis



Cost Controls

CDB will enter into a contract at a negotiated price with FAB PDX. As the manufacturer reaches economies of scale, the cost per unit will decrease at a contracted rate of 5% per year. Outsourcing other areas that are not CDB's core competencies are other ways CDB can control costs. Some cost controls may also involve shifting some activities that were previously external to the company and bringing them internal. For example, accounting will start out externally but will shift to CDB's control as the firm grows. The CEO and financial officer will take an active role in monitoring and adjusting activities to stay on budget.

Operating Capital Plan

The company will need approximately $650,000 in investments to cover the cost of operating capital needed to scale the company up. CDB will avoid heavy investments in property, plant and equipment whenever possible. Most of the capital will be to cover the cost of rent, staff and operations.

Sensitivity Analysis Using Monte Carlo Methods on Financial Estimates

The sensitivity analysis was conducted using Monte Carlo modeling to determine a range of scenarios for CDB's net income. These stochastic models provide a depiction of possible scenarios by allowing for many "cases" to occur. These 'cases' are based on outside financial risk factors that CDB has little control over. The three main risk factors included the cost of input materials, the cost of labor, and the demand for the product.

The analysis was conducted by looking at averages taken from 5,000 iterations of possible input variables. The modeling was prepared by using Palisade Decision Tools. This is a software suite that allows a user to take varying input levels and explore possible outcomes based on the inputs. For instance, if labor were to rise by $2 and demand was 10% lower than forecasted, an analysis could show what would happen to CDB's overall net income. The result of this analysis created a statistical distribution of net incomes for each year of CDB's business.

A triangular distribution was used to model labor and material cost fluctuations. Tables 12.3 and 12.4 show the potential range of fluctuation. The model accounts for higher labor and material costs since any significant cost increase could pose a threat to CDB's margin. The probability of obtaining cheaper materials or labor due to economies of scale or good market conditions was also included in the analysis. A heavier statistical weight was placed on the expected cost of labor and materials already presented in Chapter 4. Market Growth and Sales Data were modeled with a normal distribution to best represent a large population of data. (Anderson, Sweeney, & Williams, 2012).

Table 12.3: Labor Fluctuations

	Labor Fluctuations				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
5% Lower	$ 1,995	$ 30,638	$ 292,664	$ 508,517	$ 1,620,806
Average	$ 2,100	$ 32,250	$ 308,067	$ 535,281	$ 1,706,112
10% Higher	$ 2,310	$ 35,475	$ 338,874	$ 588,809	$ 1,876,723

Table 12.4: Material Fluctuations

	Material Fluctuations				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
5% Lower	$ 1,629	$ 25,019	$ 259,851	$ 492,939	$ 1,722,931
Average	$ 1,715	$ 26,335	$ 273,528	$ 518,883	$ 1,813,612
15% Higher	$ 1,972	$ 30,286	$ 314,557	$ 596,715	$ 2,085,654

The model's output of interest was the firm's net income for each of the 5 years. Each year was examined through statistical simulation software. Table 12.5 displays the resulting range of possible Net Income for years 1 through 5.

In Years 1 and 2 the company will be operating on invested capital. In Year 3 the company will most likely generate over $90,000 in net income. There is a 2.5% chance that the company will make less than $6,000 in Net Income and less than a 2% chance that the company will not

generate any net income. In Year 4 the company will most likely generate over $700,000 in net income, and in Year 5 they will most likely generate over $4 million in net income. Given the range of input variables at the level of sales they are generating in Year 4 and 5 they would generate positive net income even under a "worst case" scenario.

Table 12.5: Net Income Risk Analysis Outcomes

	Year 1	Year 2	Year 3	Year 4	Year 5
Minimum Net Income	-$105,597	-$288,711	-$65,228	$383,643	$3,150,155
Average Net Income	-$103,911	-$274,202	$92,379	$709,330	$4,233,152
Maximum Net Income	-$102,342	-$259,260	$244,432	$1,000,037	$5,329,658
Standard Deviation	$443	$4,155	$43,101	$81,640	$288,215

Chapter 13: Proposed Venture Offering

Required Financing and Investor Profile

The required financing for CDB is relatively low. This can be attributed to the stage of the company when investment is needed. CDB is an established business with a working product. At this stage of the company, an investment of $650,000 will allow CDB to grow into a solid working business and allow the company to successfully implement its operation plans.

Ideally, CDB will find one or two major partners who will be able to invest $650,000 for a 25% stake in the company. This will place the pre-money valuation of the company at 2.6 million. This financing will be used to cover fixed and manufacturing costs for the company. The company will not make any significant sales in Year 1, but will need money to compensate employees during the training and marketing period before launching Treepieces. The proposed financing will allow them to build the company and accelerate growth that would be unachievable without the investment.

CDB wants to find an investor who can provide not only financing but also business expertise to the growing company. Ideally, the investor would have connections in manufacturing, retail, marketing or logistics. They should also have an interest and vision in the product that can help guide the company.

Offering

CDB is asking for an investment of $650,000 for a 25% stake in the company. This will give CDB enough capital to help grow a working business. Investors will engage in a company that currently has demand and sales for the product.

Use of Funds

The allocation of funds will be directly tied to creating and launching the product. This will include employee salaries, material and labor costs, utilities, rent, and other expenses associated with the startup. In addition, funds will be used for any accumulated inventory needed to prepare

for the launch of Treepieces. Due to the use of contract manufacturing, the amount of funding is significantly reduced allowing a much higher return for the investors. Table 13.1 provides a breakdown of the $650,000 investment from investors. The additional funds will be reserved for the company in case of any unexpected costs arises.

Table 13.2: Investment Breakdown

Salaries	$219,000	34%
Cash on Hand	$156,620	24%
Fabrication Costs	$76,000	12%
Marketing	$72,000	11%
Design and Testing	$69,000	11%
Rent and Utilities	$48,000	7%
Equipment	$10,380	2%
Total	**$650,000**	**100%**

Capitalization

Table 13.1 displays the valuation of CDB's stock. For the capital investment of $650,000, CDB will only issue 100,000 shares of private stock. A large number of shares will be kept in reserve and if CDB needs to pursue additional funding, it can issue more shares from this reserve. The initial firm worth is $30,000, calculated by the Indiegogo funding. Once the company receives the $650,000 investment for a 25% stake in the company, the firm's worth will be approximately $2.6 million.

Table 13.1: CDB Capitalization

Initial Capitalization Year 1	**Shares Outstanding**	**Percent Ownership**	**Stock Price**
Founder	100,000	100%	$0.3
Venture Capital	0	0	
Firm Worth	$30,000		
First Round Financing Year 1	**Shares Outstanding**	**Percent Ownership**	**Stock Price**
Founder	75,000	75%	$26
Venture Capital	25,000	$650,000	
Firm Worth	$2,600,000		

Estimated Investor Return (IRR)

CDB's desired investment amount of $650,000 will purchase 25% of the company's equity. By Year 5, CDB will have over $9 million in overall sales and $4 million in net income per year. The financial statements were used to determine the predicted value of the company at Year 5. Five different valuation methods were calculated and the average of these values were taken to estimate the firm's worth. At Year 5, the company is valued for more than $22 million. The market value for each valuation method can been seen in Table 13.3. If acquired, this would bring a return of $5.5 million on a 5-year investment of $650,000. This is close to an overall

return of 8 times the original investment. An 8-time return is the amount an investor would require given that they are investing in an early stage company with proven sales (Preston, 2007)

Table 13.3: CDB Market Value Year 5

Valuation Method	Market Value
Capitalization of Earnings	$30,904,094
Discounted Cash Flow	$20,393,966
Straight Capitalization Method	$27,702,531
Years of Income Purchased	$24,378,657
Sales Price Ratio	$9,312,059
Average of Values	**$22,538,261**

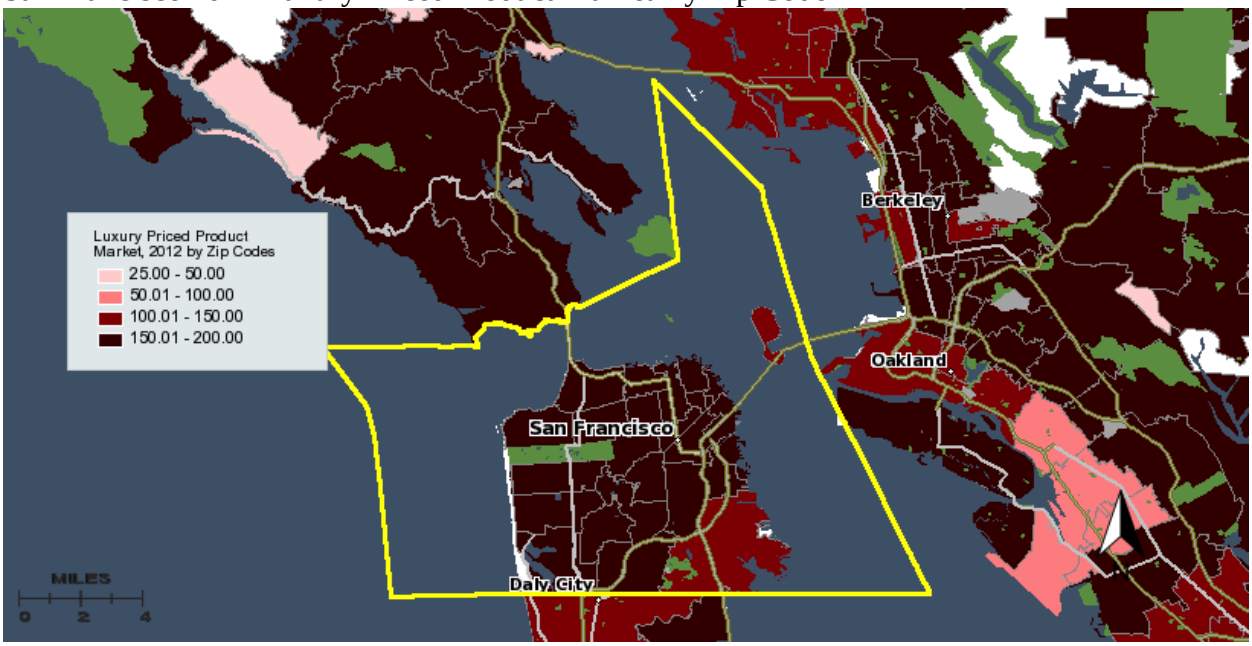
Exit Strategy

The firm's exit strategy will center on an acquisition depending on the state of the company at the time of consideration. This strategy will allow the company to gain expertise and resources from the acquiring company. In addition, the acquiring company will have the opportunity to work with new materials like wood and cork. An acquisition can be beneficial to both parties as there is always a need to diversify your product and each party will bring along their knowledge, know-how, and resources.

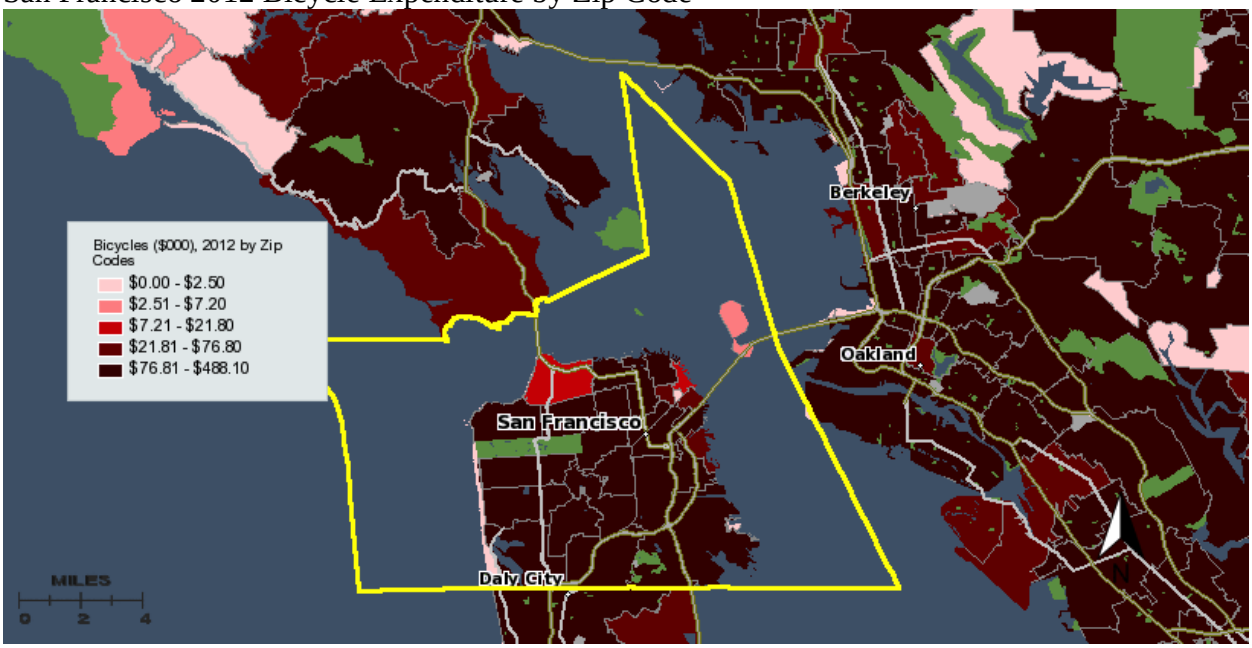
Appendices

Appendix 3.1: Sales Projections by City Maps

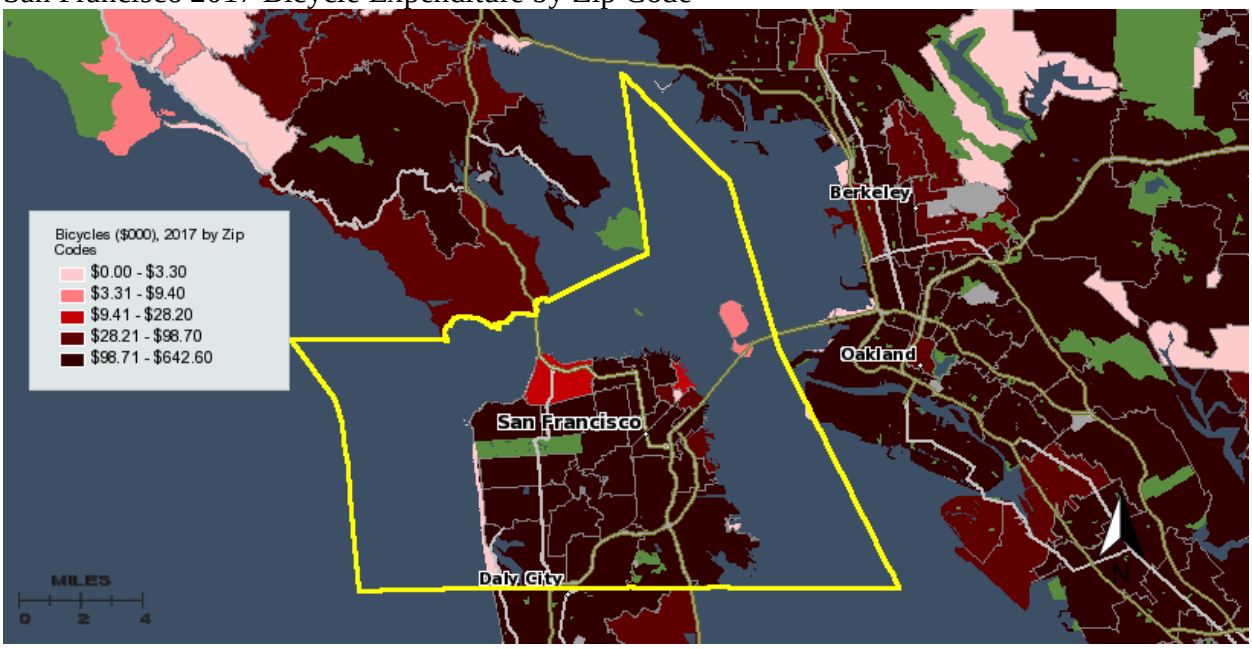
San Francisco 2012 Luxury Priced Product Market By Zip Code



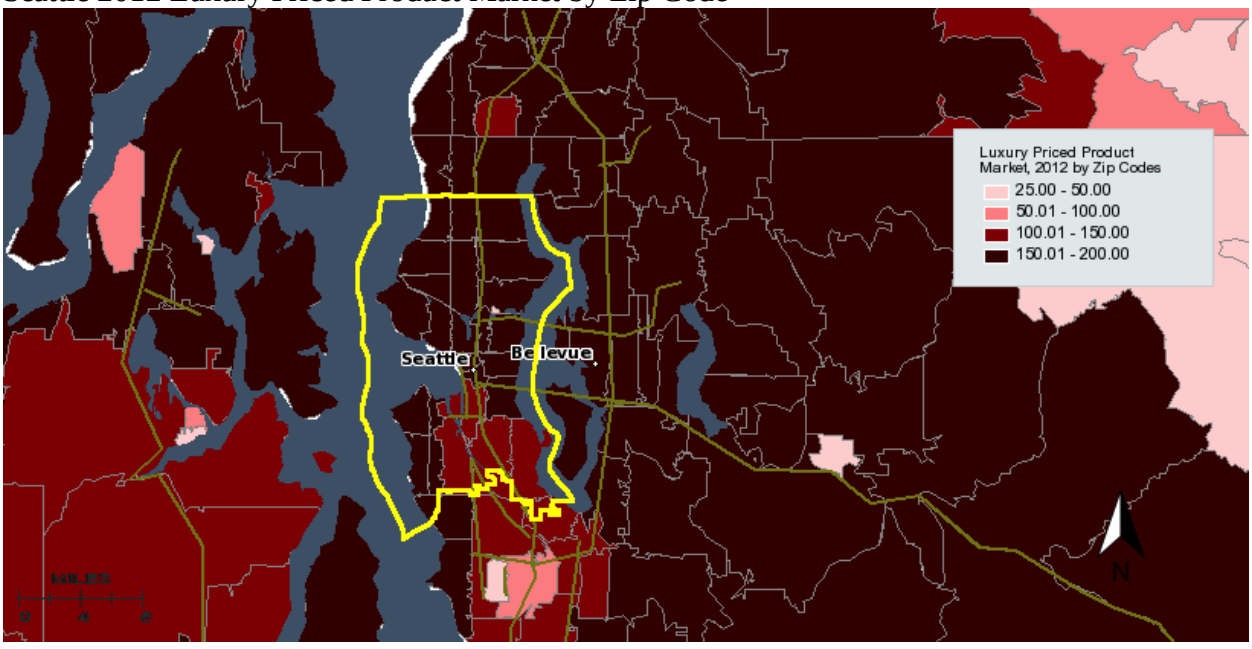
San Francisco 2012 Bicycle Expenditure by Zip Code



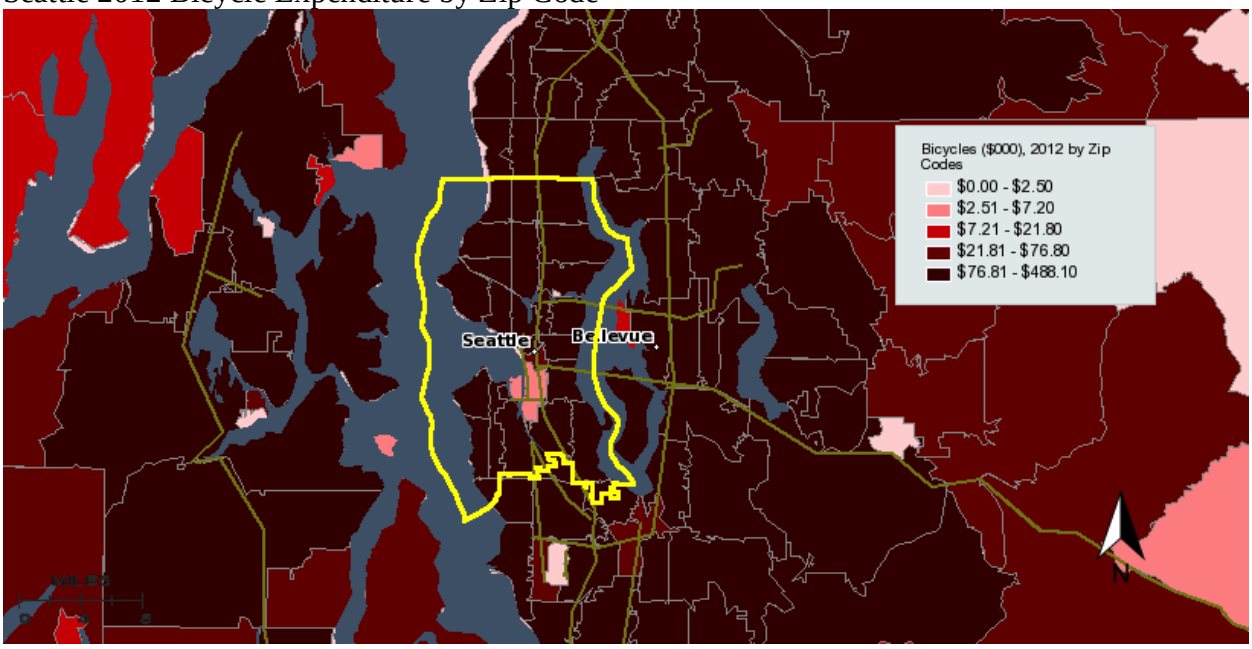
San Francisco 2017 Bicycle Expenditure by Zip Code



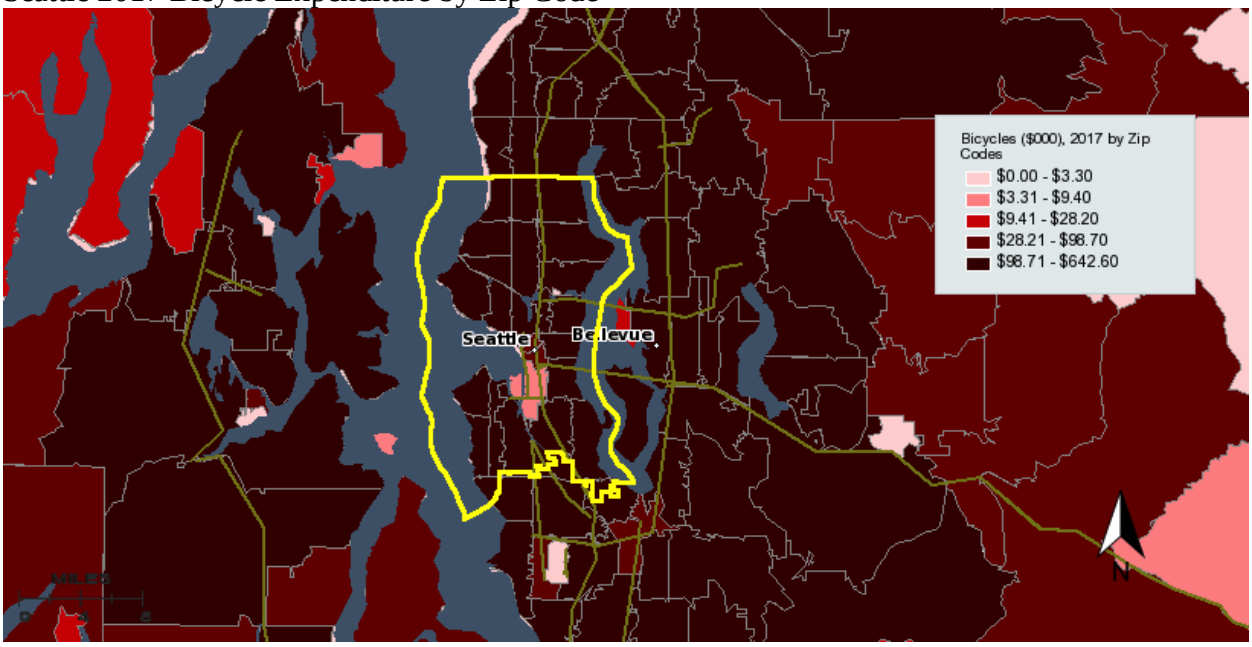
Seattle 2012 Luxury Priced Product Market by Zip Code



Seattle 2012 Bicycle Expenditure by Zip Code



Seattle 2017 Bicycle Expenditure by Zip Code



Appendix 4.1: Variable Costs Related to Contract Manufacturer

Years 1 and 2	
Per Unit Costs	**Outsourced**
Labor	$50.00
Wood	$15.00
Machined Foam Inserts	$0.00
Foam Inserts	$2.50
Harness Materials	$7.00
Finishing Supplies	$4.33
Packaging/Shipping/Delivery	$12.00
Total	**$90.83**

Year 3	
Per Unit Costs	**Outsourced**
Labor	$45.71
Wood	$15.00
Machined Foam Inserts	$0.00
Foam Inserts	$2.50
Harness Materials	$7.00
Finishing Supplies	$4.33
Packaging/Shipping/Delivery	$11.75
Total	**$86.29**

Year 4	
Per Unit Costs	**Outsourced**
Labor	$41.62
Wood	$15.00
Machined Foam Inserts	$0.00
Cork	$2.50
Harness Materials	$7.00
Finishing Supplies	$4.33
Packaging/Shipping/Delivery	$11.52
Total	**$81.97**

Year 5	
Per Unit Costs	**Outsourced**
Labor	$37.75
Wood	$15.00
Machined Foam Inserts	$0.00
Cork	$2.50
Harness Materials	$7.00
Finishing Supplies	$4.33
Packaging/Shipping/Delivery	$11.29
Total	**$77.87**

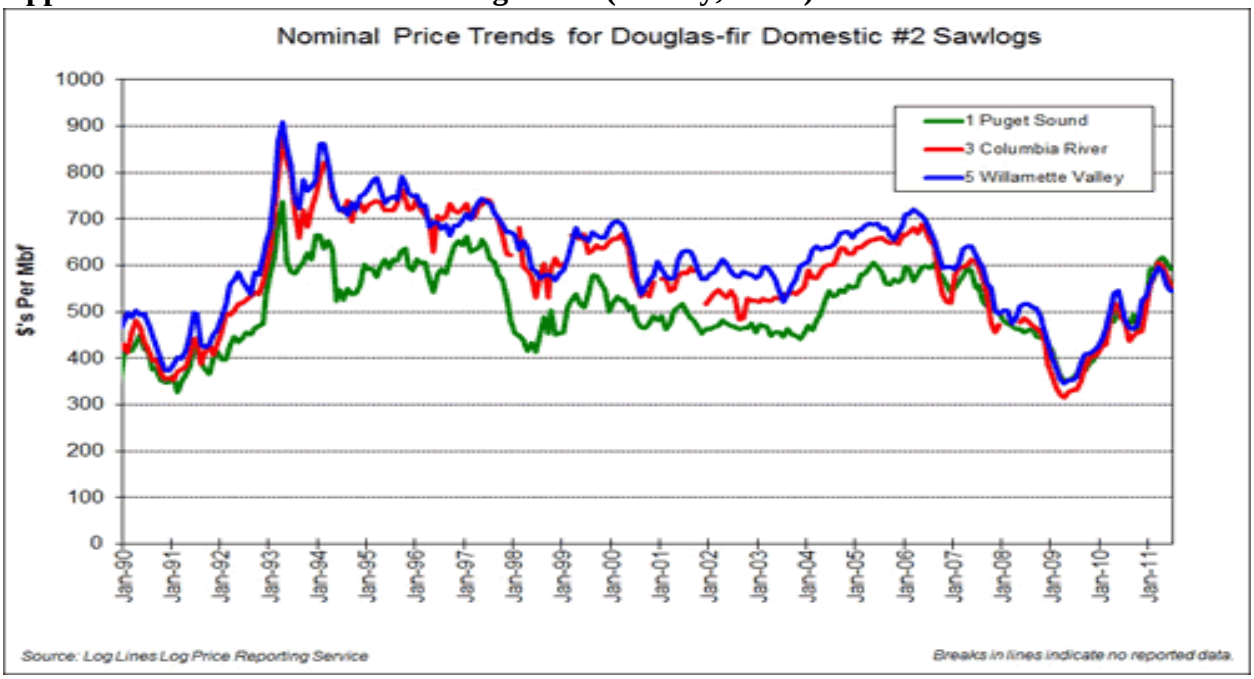
Appendix 4.2: Fixed Costs

Fixed Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Rent	$9,500	$28,500	$28,500	$28,500	$28,500
Salaries	$27,500	$219,000	$533,000	$581,000	$669,000
Utilities	$2,211	$7,772	$7,772	$8,811	$8,811
Marketing	$34,083	$37,870	$42,078	$80,287	$282,184
Warranty	$0	$2,929	$29,080	$52,707	$175,986
Insurance	$2,750	$7,300	$13,600	$19,600	$52,600
Research and Design	$34,083	$37,870	$42,078	$80,287	$282,184
Office Supplies	$500	$500	$750	$750	$750
Travel	$3,000	$3,500	$3,500	$3,500	$3,500
Fulfillment Center	$1,000	$1,988	$18,975	$42,151	$113,000
Total Fixed Costs	**$114,627**	**$346,778**	**$719,332**	**$897,594**	**$1,616,515**

Appendix 4.3: Salary Breakdown

Salary Breakdown					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
CEO			$90,000	$90,000	$95,000
Direct of Product Creation			$80,000	$80,000	$80,000
CFO			$70,000	$70,000	$73,000
Operations Manager	$60,000	$60,000	$65,000	$65,000	$65,000
Operations Staff					$40,000
Customer Service Rep		$40,000	$40,000	$40,000	$40,000
Customer Service Rep			$40,000	$40,000	$40,000
Customer Service Rep					$40,000
Head of Marketing and Sales	$50,000	$50,000	$55,000	$55,000	$55,000
Sales		$45,000	$45,000	$48,000	$48,000
Sales				$45,000	$45,000
Bookkeeping Expense		$24,000	$24,000	$24,000	$24,000
Intern(s)			$24,000	$24,000	$24,000
Total	**$110,000**	**$219,000**	**$533,000**	**$581,000**	**$669,000**

Appendix 4.4: Price Trends for Douglas Fir (Kinney, 2010)



Appendix 6.1: Treepiece with EPS padding

Appendix 8.1: Manufacturing Partner Selection

Potential Manufacturers	Notes
Mohoosue Woodworks	Inadequate machinery
Upstate CNC	Capacity constraints
Carey's Custom woodwork	Inadequate machinery
Mainly Metals Inc.	Capacity constraints
Unique Statements	Declined
Denver Woodworking (website quote of $120 for 1 hour or CNC running)	Capacity constraints
Four Corners LLC	Declined
E.Leet Woodworking LLC	Declined
HAAS Woodworking	Declined
Wisconsin Products	Declined
FAB PDX	Able to produce with factory upgrades
ADX Portland	Capacity constraints

Appendix 9.1 Key Management Personnel

- **Chief Executive Officer (CEO)**: A B.S. in business, marketing, finance, or other business related field is required. Candidates must also have an MBA from an accredited university. Prior experience in a leadership role at a startup company is required. Experience with venture capital financing is preferred. The CEO will report directly to the Board of Directors to guide the company toward its long and short-term goals. The CEO will also work closely with the CFO in efforts to secure investor financing.

- **Chief Financial Officer (CFO)**: A B.S. in business, accounting, finance or related field is required. Ideal candidates will also have a M.S. or MBA with a focus in finance. Candidates must have at least eight years of experience as a CFO, Director of Finance, or in a key leadership role at a startup. Experience with venture financing is strongly preferred.

- **Director of Product Design:** Daniel Coyle will be the leader in this department. The main responsibilities are design and develop the new models of helmet, as well as improve overall quality of the products.

- **Director of Operations**: A B.S. in business with an M.S. or MBA with a focus on manufacturing and/or supply chain design is required. Ideal candidates will have at least eight years of supply chain experience at a wood product company or in a leadership role at a CNC fabrication facility. The Director of Operations will oversee all aspects of the manufacturing process and will work closely with product designers and the CEO to improve the effectiveness of the supply chain to minimize materials costs while reducing lead times.

- **Director of Sales and Marketing**: A B.S. in business with an M.S. or MBA with an emphasis on marketing. Ideal candidates will need to have insight, professional experience, and have deep connections in the industry. The Director of Sales and Marketing will work closely with product designer in order to have the products that meet customers' needs or preferences.

Appendix 10.1: CDB's Milestones

Date	Milestones
2013	
January	▪ Develop the bike helmet prototype with EPS liner
March	▪ Start operating the company as S-Corp
August	▪ Secure equity financing / Shareholders start investing in CDB ▪ The first model of bike helmet get certified ▪ Sign contract with FAB PDX and a fulfillment center
September	▪ Hire 3 staff (salesperson, marketing manager, operation manager)
November	▪ Start the first production lot
2014	
March	▪ Introduce bike helmets to retail stores in Portland
June	▪ Introduce bike helmets to retail stores in Seattle and San Francisco
August	▪ Develop bike helmet prototype with cork liner
December	▪ Bike helmet with cork liner gets certified
2015	
January	▪ Develop snowsport helmet prototype with EPS liner
March	▪ Introduce Treepieces with cork liner to retail stores in Corvallis, Portland, Seattle, and San Francisco
July	▪ The first model of ski/snowboard helmet gets certified
August	▪ Start the first ski/snowboard helmet production lot
September	▪ Hire 2 employees (salesperson, accounting staff) ▪ Introduce the ski helmets with EPS foam to retail stores in Vail, Colorado, Okemo, Vermont, and Mammoth Lakes, California

Date	Milestones (Cont'd)
November December	▪ Develop new model of bike and ski/snowboard helmets with cork ▪ The ski/snowboard helmet with cork liner get certified
2016 January June	 ▪ Introduce new model of bike helmet to the existing market ▪ Expand helmets to New York City ▪ Introduce snowsport helmets with cork liner to retail stores in existing market ▪ Expand snowsport market to Lake Tahoe and Aspen, Colorado ▪ Introduce the new model of ski/snowboard helmet to the existing market
2017 January - February December 	 ▪ Add new models of bike and ski/snowboard helmets with cork liner ▪ Expand into Chicago, IL and Los Angeles, CA with bike helmets ▪ Expand into Park City, Utah and Snogalmie, Washington with winter sports helmets. ▪ Emphasize on increasing sales volume activities ▪ Prepare for international expansion ▪ Prepare to extend production line to laminated wood and bamboo helmet

Appendix 10.2: Detailed Implementation Schedule

Date	Plan of Action
2013	
January-July	CDB incorporated as S-Corp; Prototypes (EPS) created; Market research; Website sales; Local retail store display, Management team set up
August	Have funds obtained from investors; Bicycle helmets get certified with EPS foam
September	Contract with fulfillment center location; Social media promotion; Display in trade shows
October-December	Start production with FAB PDX
2014	
January	Marketing efforts
March- June	Introduce to Portland, San Francisco, and Seattle
July	Complete orders; ship to filing center; Ship to distributors; Keep current on market research
August-September	Prototype (cork liner) created
December	Get cork liner helmets certified; Keep track of sales and expand market research; Continue sales (Christmas sales)
2015	
January-February	Ski helmets developed and prototypes created; Social media promotion
March-May	Introduce bike helmets with cork liner to San Francisco, Portland and Seattle
June-July	Manufacturing production; Place orders
July-August	Winter sport helmets get certified; Social media promotion; Trade shows launch and display; Start winter sport helmets with EPS liner production
September –October	Introduced winter sport helmets (EPS) to Vail, Colorado, Okemo, Vermont, and Mammoth Lakes, California
November	Manufacturing production; Place orders; Winter sport helmets with cork liner developed; New models of bike helmets prototyped

Date	Plan of Action (Cont'd)
2016	
January-May	Introduce winter sport helmets with cork liner to retail stores in existing market; expand winter sport helmets to Lake Tahoe and Aspen, Colorado; Continue sales and Promotion; Expand bike helmets to New York City
June-September	Social media promotion; New products launched into existing market
October-December	Expand advertising to print and continue social media efforts
2017 – Future	
January-May	Expand winter sports market to Park City, Utah and Snogalmie, Washington.
June -December	Expand bike helmets to Chicago, IL and Los Angeles, CA Expand advertising on television; Sponsor small bike activities; Cooperate with ski resorts; Prepare to extend production line to laminated wood and bamboo helmets; Prepare for international expanding

Appendix 11.1: Risk Analysis

Risks Analysis

Consumer Injury

If customers sustain a head injury while wearing the helmet, the company could be held partially or wholly liable for customers' injury. As a result, the company's reputation and image could be tarnished and monetary damages may have to be paid.

- **Response: Avoid:** CDB can avoid the risk of customer injury by testing prototypes of all designs in order to make sure that customers will be safe when wearing the helmet properly. The company will have safety instructions on the helmet and packaging. In addition, CDB will have liability insurance to help with potential lawsuits.
- **Contingency:** If a customer sustains a head injury, the company will hire a lawyer and/or will pay settlement fees if necessary.
- **Trigger:** Customer injury due to product failure.

Patent Infringement

There is already a product in the European market that uses corrugated cardboard as padding. The inventor has several international patents on helmet designs and materials. One patent of concern relates to lamination of materials to ensure strength for cycling helmets (WIPO, 2001). CDB's current shell design incorporates a wood shell with a shatter resistant coating. This design may infringe upon the aforementioned patent and force CDB to pursue a licensing agreement.

- **Response: Retain:** If CDB's wood shell design infringes on any domestic or international patents, the company can pursue a licensing agreement to avoid a shell redesign. The shatter resistant coating on the wood shell is currently a major point of emphasis for the helmet's safety.
- **Contingency:** If a licensing agreement is too expensive or simply out of the question, CDB could simply make helmets with cork padding inside a traditional plastic shell, thus a shell redesign.
- **Trigger:** Cease and desist letters.

Low Sales after Funding from Angel Investors or Wealthy Individuals

After the $650,000 investment, CDB will need to show a high level of growth to keep investors satisfied with the company progress.

- **Response: Transfer:** To make sure that CDB meets a high sales level after securing capital, the company must first work to test market demand. If CDB works with an experienced investor, they will be able to receive expert advice in the decision making process. This can help mitigate risk and allow the company some room to get the supply chain and sales in order without immediate payments due.
- **Contingency:** The risk will be shared between Coyle Design and its partner. If sales are low the two can work together to pursue new strategies to market and sell the product by utilizing additional investment.
- **Trigger:** The investor is unhappy with his return on investment.

Founder Abandonment

If Dan is unhappy with current productivity or decides he does not want to continue with the business, it poses a huge risk on his company as a whole.

- **Response: Avoid:** One key way to avoid founder abandonment is to have a partner to work with. By creating a stronger team, it will be more likely to succeed and grow. The responsibilities are divided and not one person is required to do all of the work.
- **Contingency:** If the founder abandons the company, there should be a liquidation of its assets.
- **Trigger:** The founder is unhappy with company progress and chooses to sell or abandon company.

Weathering Issues

These helmets are made from a material that is new to the helmet industry. There are many unknown factors when it comes to the effects weather plays on helmets. Will the helmet be able to hold its shape or will it swell during rain? Will it dry out and break during periods of high heat? Can it compare to the effects that weather has on it compared to plastic shells?

- **Response: Mitigate:** In an attempt to avoid unknown weathering issues, helmets can be certified by the CPSC. During the certification process, helmets must pass different types of environments that may occur during use and storage. Testing includes helmets being tested in the following categories:
    - Normal room temperature and humidity

    - Cold temperatures between 1 °F and 9°F for 4 to 24 hours.
    - Hot temperatures between 117 °F and 127 °F for 4 to 24 hours.
    - Underwater for 4 to 24 hours (Federal Register, 2011).
- **Contingency Plan:** Redirect marketing efforts as an art piece and not for the uses of a helmet. This will eliminate any need to test the risk because it will be most likely stationed in a controllable environment.
- **Trigger:** Customer Complaint or Certification Failure

Environmental Issues

Since CDB's supplies are natural materials, the supply chain is at the whims of Mother Nature. Anything from the devastation of floods or forest fires to the limited impact of invasive tree and insect species can affect the flow of high quality supplies. Since CDB's current supply chain is mostly concentrated in one region, any environmental event could cripple the flow of supplies.

- **Response: Mitigate:** While it is impossible to predict every major environmental or geologic event, CDB can monitor developments in Oregon forests to brace for the impact of dry seasons or invasive species. CDB should maintain a list of alternative supply sources in the event that primary suppliers in Oregon cannot produce high quality raw materials.
- **Contingency:** Rely on alternative suppliers if an event occurs.
- **Trigger:** As invasive species become a growing concern, the company can move to secondary suppliers preemptively. For unpredictable events such as forest fires and tsunamis, the company will need to react after the event has occurred.

Environmental Policy

Environmental policies can change over time as the scientific community learns more about chemicals or eco systems. For CDB, regulation changes could force a major change in the product line. For example, if a particular tree species becomes protected or limited in use, the company would need to find new manufacturing materials. Furthermore, the helmets are sprayed with a reinforcing coat of chemical polymers. If these chemicals are deemed harmful, the entire design of the product must be changed to omit this reinforcing layer.

- **Response: Mitigate:** The level of mitigation will vary based on the severity of the risk. For example, if CDB can no longer use a specific type of wood, products could easily be made with new materials without the need for a complete redesign. If a chemical used in the production process is deemed unsafe, such as the reinforcing polymer mentioned above, it is possible that the company would need to reassess all aspects of design to maintain safety under new regulations. Proactively testing new materials and designs could make such a transition easier in the event of major regulation issues.
- **Contingency:** Move to new materials and refine manufacturing process to be more ecologically efficient.
- **Trigger:** Government regulations

Manufacturing Quality Inconsistency

CDB makes helmets, which are digitally designed, CNC machine cut, and hand finished. Manufacturing quality inconsistency is another risk may occur due to problems such as machine failures, design problems, and human error. Negative impacts on product safety, reliability, and overall quality could hurt the customers' perception of value in CDB products. This is most likely to occur if the company outsources any manufacturing.

- **Response: Mitigate:** The most important thing that company should do is to set up a manufacturing quality control system, which includes quality management, quality assurance, and quality improvement. Through this system, first, the company can improve the operational processes, which are directly related to product quality. Second, it identify problems and provide efficient solutions quickly and systematically to achieve consistent quality. Third, thorough inspection of finished products will be required before delivering to customers.
- **Contingency:** Delay delivery of products to ensure quality. Maintaining customers' perception of value is paramount.
- **Trigger:** Production of low quality products.

Patent Denial

CDB's two pending patents are very vague as they claim ownership over all natural fiber materials for use in helmets. This can include anything from wood to cotton and possibly cardboard. It is difficult to tell if the patents will be amended for specificity or outright denied at this point.

- **Response: Mitigate:** If one or both of CBD's patents are denied, the company must act quickly to create strong brand equity in an attempt to block imitators. This would require a quick increase in production to push these helmets into the market in large quantities. With no patents, the company will need to rely on brand loyalty.
- **Contingency:** Move to create new products such as ski goggles, water bottles, and athletic jewelry like watches. Get the brand and logo into as many athletic markets as quickly as possible.
- **Trigger:** Patent Denial

Cycling Popularity Decline

If cycling popularity declines, the company may face with sales decrease problem resulting in lower income.

- **Response: Mitigate:** CDB should have alternative plan for new product lines so that when sales of the bicycle helmets decrease the company can still survive by selling helmets for different activities.
- **Contingency:** CDB should use their alternative plan for new plausible markets and change or add new product lines, such as water bottles, ski goggles, and glasses.
- **Trigger:** When the company gets information that bicycle sales dramatically drop.

Economic Downfall

Economic troubles could reduce sales for CDB given that the helmets will be sold as a high-end product. A recession could drive potential customers toward cheaper helmets that simply meet safety needs.

- **Response: Mitigate:** It would be difficult for CDB to reduce the likelihood of an economic downturn. The best way to plan for an economic slump is to continue to create a strong niche high-end brand. This would lower the impact even in a down economy because there will still be individuals with high purchasing power.
- **Contingency:** The contingency plan would be to explore cheaper products made of wood that might have higher demand in a struggling economy. Constant monitoring of market trends for other products could help the company determine what is most likely to sell in a slow growth economy.
- **Trigger:** External political and economic factors would cause issues here.

Imitation

Since Coyle Treepieces are simple products made from readily available materials and are not currently patent protected, it is possible to see imitators enter the market. A company or even an individual could commission a CNC milling facility to make wooden helmet shells quickly. Since Treepieces do not currently feature a logo on the outside of the helmet, it would be rather easy for a consumer to get confused by an imitation product.

- **Response: Mitigate:** CDB will quickly develop an easily recognized logo or artistic trademark to make its helmets truly unique. As discussed above, brand loyalty could be huge for the company if it is awarded no patents. With mass production of other unique, eco-friendly helmets such as the Kranium, CDB may be running out of time to enter this niche market.
- **Contingency:** Find a new shell material or design to regain the unique "cool factor" of Treepieces. The company could start designing bamboo composite or wood resin shells.
- **Trigger:** Introduction of imitators at trade shows.

Appendix 12.1: Financial Assumptions

- Production will begin in November of Year 1.
- Sales will begin in March of Year 2.
- Collections are based on 50% payment upon delivery and 25% for the two subsequent months.
- The total sales are based off of 14% being sold online and 86% sold in retail stores. Percent sales online versus retail is based on research from the following source: *http://www.statista.com/topics/961/sporting-goods/*
- Payment to suppliers (i.e. contract manufacturer) is based on a 30-day period upon delivery.
- Depreciation is calculated by the MACRS method over a period of 5 years.
- CDB will enter into a manufacturing contract with FAB PDX. The total unit price is based on $90.83 for years 1 and 2. Following years will decrease at a rate of 5% each year.

- Lease payments are paid the first of the month.
- R&D will be determined yearly for cork padding testing, interior design of the helmets, and new product development.
- Rent is the lease amount for a building to hold inventory, conduct research and development, design testing, and to serve as offices.
- Liability insurance is calculated at a $550 monthly fee in addition to a premium of $1 per helmet sales projections. The premium is the suggested amount of coverage the company should pay per unit for a safety product. This information was estimated by an insurance agent.
- Utilities include water/sewer, garbage, Internet, telephone, and electricity.
- Travel includes hotels and tradeshow fees.
- The marketing budget is determined by calculating 3% of total sales. The marketing budget includes upkeep on social media pages, banners, display cases for retail locations, and any other expenses associated with the purchase of displays for retail stores.
- Certification testing costs will be continuous with the ongoing R&D for testing cork padding as a better substitute to EPS foam padding. Each cost is per new product being certified. These calculations are based on the owner's previous experience with ACT Lab in El Segundo, California.
- Direct Materials: Finishing supplies is based on 2 ounces of west system 105 @ $.71/oz, 1 ounce of west system 207 @ $1.38/oz., $.25 worth of disposable foam brushes, and $1.28 worth of sand paper.
- Warranty costs are based on 5% return rate multiplied by the unit cost for replacement.

Appendix 12.2: Annual Income Statement Years 1-5

Coyle Design and Build Annual Income Statement (Years 1-5)					
	2013	2014	2015	2016	2017
Revenue					
Sales	$ 14,565	$ 134,225	$ 1,402,594	$ 2,676,241	$ 9,406,120
Other Revenue	$ 13,425	$ -	$ -	$ -	$ -
Total Revenue	$ 27,990	$ 134,225	$ 1,402,594	$ 2,676,241	$ 9,406,120
Cost of Revenue					
Labor	$ 2,100	$ 32,250	$ 308,067	$ 635,281	$ 1,706,112
Materials and Supplies	$ 1,715	$ 26,335	$ 273,528	$ 518,883	$ 1,813,612
Gross Profit	$ 24,175	$ 75,639	$ 820,999	$ 1,622,077	$ 5,886,396
Operating Expenses					
Rent	$ 9,500	$ 28,500	$ 28,500	$ 28,500	$ 28,500
Salaries	$ 27,500	$ 219,000	$ 533,000	$ 581,000	$ 669,000
Utilities	$ 2,211	$ 7,772	$ 7,772	$ 8,811	$ 8,811
Fulfillment Center	$ 1,000	$ 1,988	$ 18,975	$ 42,151	$ 113,000
Marketing	$ 4,083	$ 7,870	$ 42,078	$ 80,287	$ 282,184
Office Supplies	$ 500	$ 500	$ 750	$ 750	$ 750
Travel Expense	$ 3,000	$ 3,500	$ 3,500	$ 3,500	$ 3,500
Insurance	$ 2,750	$ 7,300	$ 13,600	$ 19,600	$ 52,600
Design and Testing (R and D)	$ 4,083	$ 7,870	$ 42,078	$ 80,287	$ 282,184
Warranty	$ -	$ 2,929	$ 29,080	$ 52,707	$ 175,986
Amortization/Depreciation	$ -	$ 2,076	$ 4,152	$ 6,228	$ 8,304
Total Operating Expenses	$ 114,627	$ 349,304	$ 723,484	$ 903,822	$ 1,624,819
Operating Income	$ (90,452)	$ (273,665)	$ 97,515	$ 718,256	$ 4,261,577
Income (Loss) Before Income Taxes	$ (90,452)	$ (273,665)	$ 97,515	$ 718,256	$ 4,261,577
Net Income (Loss)	$ (90,452)	$ (273,665)	$ 97,515	$ 718,256	$ 4,261,577

Appendix 12.3: Monthly Income Statement Year 1

Monthly Income Statement Year 1

	January	February	March	April	May	June	July	August	September	October	November	December	Year Total
Revenue													
Sales	$	$	$	$	$	$	$	$	$	$	$	$ 14,565	$ 14,565
	$ 13,425												
Total Revenue	$ 13,425	$	$	$	$	$	$	$	$	$	$	$ 14,565	$ 27,990
Cost of Goods Sold													
Labor	$	$	$	$	$	$	$	$	$	$		$ 2,100	$ 2,100
Materials and Supplies	$	$	$	$	$	$	$	$	$	$		$ 1,715	$ 1,715
Gross Profit	$ 13,425	$	$	$	$	$	$	$	$	$	$	$ 10,750	$ 24,175
Operating Expenses													
Rent	$	$	$	$	$	$	$	$	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 9,500
Salaries	$	$	$	$	$	$	$	$	$ 9,167	$ 9,167	$ 9,167	$ 9,167	$ 27,500
Utilities	$	$	$	$	$	$	$	$	$ 553	$ 553	$ 553	$ 553	$ 2,211
Fulfillment Center	$	$	$	$	$	$	$	$	$	$	$ 500	$ 500	$ 1,000
Marketing	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 34,083
Office Supplies	$	$	$	$	$	$	$	$	$ 125	$ 125	$ 125	$ 125	$ 500
Travel Expense	$	$	$	$	$ 750	$ 750	$	$	$ 750	$ 750	$	$	$ 3,000
Insurance	$	$	$	$	$	$	$	$ 550	$ 550	$ 550	$ 550	$ 550	$ 2,750
Design and Testing (R and D)	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 2,840	$ 34,083
Warranty	$	$	$	$	$	$	$	$	$	$	$	$	$
Amortization/Depreciation													$
Total Operating Expenses	$ 5,681	$ 5,681	$ 5,681	$ 5,681	$ 6,431	$ 6,431	$ 5,681	$ 6,231	$ 10,033	$ 19,200	$ 18,950	$ 18,950	$ 114,627
Operating Income	$ 7,744	$ (5,681)	$ (5,681)	$ (5,681)	$ (6,431)	$ (6,431)	$ (5,681)	$ (6,231)	$ (10,033)	$ (19,200)	$ (18,950)	$ (8,200)	$ (90,452)
Income (Loss) Before Income Taxes	$ 7,744	$ (5,681)	$ (5,681)	$ (5,681)	$ (6,431)	$ (6,431)	$ (5,681)	$ (6,231)	$ (10,033)	$ (19,200)	$ (18,950)	$ (8,200)	$ (90,452)
Net Income (Loss)	$ 7,744	$ (5,681)	$ (5,681)	$ (5,681)	$ (6,431)	$ (6,431)	$ (5,681)	$ (6,231)	$ (10,033)	$ (19,200)	$ (18,950)	$ (8,200)	$ (90,452)

Appendix 12.4: Monthly Income Statement Year 2

Monthly Income Statement Year 2													
	January	February	March	April	May	June	July	August	September	October	November	December	Year Total
Revenue													
Sales	$	$	$ 15,608	$ 15,608	$ 15,608	$ 16,648	$ 16,648	$ 16,648	$ 12,486	$ 5,203	$ 7,284	$ 12,486	$ 134,225
Total Revenue	$	$	$ 15,608	$ 15,608	$ 15,608	$ 16,648	$ 16,648	$ 16,648	$ 12,486	$ 5,203	$ 7,284	$ 12,486	$ 134,225
Cost of Revenue													
Labor	$	$	$ 3,750	$ 3,750	$ 3,750	$ 4,000	$ 4,000	$ 4,000	$ 3,000	$ 1,250	$ 1,750	$ 3,000	$ 32,250
Materials and Supplies	$	$	$ 3,062	$ 3,062	$ 3,062	$ 3,266	$ 3,266	$ 3,266	$ 2,450	$ 1,021	$ 1,429	$ 2,450	$ 26,335
Gross Profit	$	$	$ 8,795	$ 8,795	$ 8,795	$ 9,382	$ 9,382	$ 9,382	$ 7,036	$ 2,932	$ 4,104	$ 7,036	$ 75,639
Operating Expenses													
Rent	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 28,500
Salaries	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 18,250	$ 219,000
Utilities	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 7,772
Fullfillment Center	$	$ 188	$ 188	$ 188	$ 200	$ 200	$ 200	$ 150	$ 63	$ 88	$ 150	$ 375	$ 1,988
Marketing	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 37,870
Office Supplies	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 42	$ 500
Travel Expense	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 3,500
Insurance	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 608	$ 7,300
Design and Testing	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 3,156	$ 37,870
Warranty Expense	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 244	$ 2,929
Amortization/Depreciation	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 173	$ 2,076
Total Operating Expenses	$ 28,597	$ 28,785	$ 28,785	$ 28,785	$ 28,797	$ 28,797	$ 28,797	$ 28,747	$ 28,660	$ 28,685	$ 28,747	$ 28,972	$ 349,304
Operating Income	$ (28,597)	$ (28,785)	$ (19,989)	$ (19,989)	$ (20,002)	$ (19,415)	$ (19,415)	$ (19,365)	$ (21,623)	$ (25,753)	$ (24,643)	$ (21,936)	$ (273,665)
Income (Loss) Before Income Taxes	$ (28,597)	$ (28,785)	$ (19,989)	$ (19,989)	$ (20,002)	$ (19,415)	$ (19,415)	$ (19,365)	$ (21,623)	$ (25,753)	$ (24,643)	$ (21,936)	$ (273,665)
Income Tax Expense													
Net Income (Loss)													$ (273,665)

Appendix 12.5: Monthly Income Statement Year 3

Monthly Income Statement Year 3

	January	February	March	April	May	June	July	August	September	October	November	December	Year 3 Total
Revenue													
Sales	$ 31,215	$ 38,904	$ 84,281	$ 104,050	$ 104,050	$ 124,860	$ 145,670	$ 156,075	$ 124,860	$ 104,050	$ 166,480	$ 208,100	$ 1,402,594
Total Revenue	$ 31,215	$ 38,904	$ 84,281	$ 104,050	$ 104,050	$ 124,860	$ 145,670	$ 156,075	$ 124,860	$ 104,050	$ 166,480	$ 208,100	$ 1,402,594
Cost of Goods Sold													
Labor	$ 6,856	$ 10,741	$ 18,511	$ 22,854	$ 22,854	$ 27,424	$ 31,995	$ 34,280	$ 27,424	$ 22,854	$ 36,566	$ 45,707	$ 308,067
Materials and Supplies	$ 6,087	$ 9,537	$ 16,436	$ 20,291	$ 20,291	$ 24,350	$ 28,408	$ 30,437	$ 24,350	$ 20,291	$ 32,466	$ 40,583	$ 273,528
Gross Profit	$ 18,272	$ 28,625	$ 49,333	$ 60,905	$ 60,905	$ 73,086	$ 85,267	$ 91,358	$ 73,086	$ 60,905	$ 97,448	$ 121,810	$ 820,999
Operating Expenses													
Rent	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 28,500
Salaries	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 4,417	$ 53,000
Utilities	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 7,772
Fulfillment Center	$ 588	$ 1,013	$ 1,250	$ 1,250	$ 1,500	$ 1,750	$ 1,875	$ 1,500	$ 1,250	$ 2,000	$ 2,500	$ 2,500	$ 18,975
Marketing	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 42,078
Office Supplies	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 750
Travel Expense	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 3,500
Insurance	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 13,600
Design and Testing	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 42,078
Warranty Expense	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 29,080
Amortization/Depreciation	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 346	$ 4,152
Total Operating Expenses	$ 59,297	$ 59,722	$ 59,959	$ 59,959	$ 60,209	$ 60,459	$ 60,584	$ 60,209	$ 59,959	$ 60,709	$ 61,209	$ 61,209	$ 723,484
Operating Income	$ (41,025)	$ (31,096)	$ (10,626)	$ 946	$ 696	$ 12,627	$ 24,683	$ 31,148	$ 13,127	$ 196	$ 36,239	$ 60,601	$ 97,515
Income (Loss) Before Income Taxes	$ (41,025)	$ (31,096)	$ (10,626)	$ 946	$ 696	$ 12,627	$ 24,683	$ 31,148	$ 13,127	$ 196	$ 36,239	$ 60,601	$ 97,515
Income Tax Expense													
Net Income (Loss)													$ 97,515

Appendix 12.6: Monthly Income Statement Year 4

Monthly Income Statement Year 4

	January	February	March	April	May	June	July	August	September	October	November	December	Year Total
Revenue													
Sales	$208,100	$210,701	$213,335	$216,002	$218,702	$221,435	$224,203	$227,006	$229,844	$232,717	$235,626	$238,571	$2,676,241
Total Revenue	$208,100	$210,701	$213,335	$216,002	$218,702	$221,435	$224,203	$227,006	$229,844	$232,717	$235,626	$238,571	$2,676,241
Cost of Revenue													
Labor	$41,623	$42,143	$42,670	$43,203	$43,743	$44,290	$44,843	$45,404	$45,972	$46,546	$47,128	$47,717	$535,281
Materials and Supplies	$40,347	$40,852	$41,362	$41,879	$42,403	$42,933	$43,470	$44,013	$44,563	$45,120	$45,684	$46,255	$518,883
Gross Profit	$126,130	$127,707	$129,303	$130,919	$132,556	$134,213	$135,890	$137,589	$139,309	$141,050	$142,813	$144,598	$1,622,077
Operating Expenses													
Rent	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$2,375	$28,500
Salaries	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$48,417	$581,000
Utilities	$734	$734	$734	$734	$734	$734	$734	$734	$734	$734	$734	$734	$8,811
Fulfillment Center	$2,531	$2,563	$2,595	$2,627	$2,660	$2,693	$2,727	$2,761	$2,796	$2,831	$2,866	$2,500	$32,151
Marketing	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$80,287
Office Supplies	$63	$63	$63	$63	$63	$63	$63	$63	$63	$63	$63	$63	$750
Travel Expense	$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$292	$3,500
Insurance	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$1,633	$19,600
Design and Testing	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$6,691	$80,287
Warranty Expense	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$4,392	$52,707
Amortization/Depreciation	$519	$519	$519	$519	$519	$519	$519	$519	$519	$519	$519	$519	$6,228
Total Operating Expenses	$74,337	$74,369	$74,401	$74,433	$74,466	$74,499	$74,533	$74,567	$74,602	$74,637	$74,672	$84,306	$903,822
Operating Income	$51,793	$53,338	$54,902	$56,486	$58,090	$59,713	$61,357	$63,022	$64,707	$66,414	$68,141	$60,293	$718,256
Income (Loss) Before Income Taxes	$51,793	$53,338	$54,902	$56,486	$58,090	$59,713	$61,357	$63,022	$64,707	$66,414	$68,141	$60,293	$718,256
Income Tax Expense													
Net Income (Loss)													$718,256

Appendix 12.7: Monthly Income Statement Year 5

Monthly Income Statement Year 5

	January	February	March	April	May	June	July	August	September	October	November	December	Year Total
Revenue													
Sales	$ 1,040,500	$ 936,450	$ 624,300	$ 520,250	$ 624,300	$ 728,350	$ 936,450	$ 1,040,500	$ 769,970	$ 624,300	$ 520,250	$ 1,040,500	$ 9,406,120
Total Revenue	$ 1,040,500	$ 936,450	$ 624,300	$ 520,250	$ 624,300	$ 728,350	$ 936,450	$ 1,040,500	$ 769,970	$ 624,300	$ 520,250	$ 1,040,500	$ 9,406,120
Cost of Goods Sold													
Labor	$ 188,729	$ 169,856	$ 113,238	$ 94,365	$ 113,238	$ 132,110	$ 169,856	$ 188,729	$ 139,660	$ 113,238	$ 94,365	$ 188,729	$ 1,706,112
Materials and Supplies	$ 200,621	$ 180,559	$ 120,372	$ 100,310	$ 120,372	$ 140,435	$ 180,559	$ 200,621	$ 148,459	$ 120,372	$ 100,310	$ 200,621	$ 1,813,612
Gross Profit	$ 651,150	$ 586,035	$ 390,690	$ 325,575	$ 390,690	$ 455,805	$ 586,035	$ 651,150	$ 481,851	$ 390,690	$ 325,575	$ 651,150	$ 5,886,396
Operating Expenses													
Rent	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 28,500
Salaries	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 55,750	$ 669,000
Utilities	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 8,811
Fulfillment Center	$ 11,250	$ 7,500	$ 6,250	$ 7,500	$ 8,750	$ 11,250	$ 12,500	$ 9,250	$ 7,500	$ 6,250	$ 12,500	$ 12,500	$ 113,000
Marketing	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 282,184
Office Supplies	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 750
Travel Expense	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 3,500
Insurance	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 4,383	$ 52,600
Design and Testing	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 23,515	$ 282,184
Warranty Expense	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 14,666	$ 175,986
Amortization/Depreciation	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 692	$ 8,304
Total Operating Expenses	$ 137,235	$ 133,485	$ 132,235	$ 133,485	$ 134,735	$ 137,235	$ 138,485	$ 135,235	$ 133,485	$ 132,235	$ 138,485	$ 138,485	$ 1,624,819
Operating Income	$ 513,915	$ 452,550	$ 258,455	$ 192,090	$ 255,955	$ 318,570	$ 447,550	$ 515,915	$ 348,366	$ 258,455	$ 187,090	$ 512,665	$ 4,261,577
Income (Loss) Before Income Taxes	$ 513,915	$ 452,550	$ 258,455	$ 192,090	$ 255,955	$ 318,570	$ 447,550	$ 515,915	$ 348,366	$ 258,455	$ 187,090	$ 512,665	$ 4,261,577
Income Tax Expense													
Net Income (Loss)													$ 4,261,577

Appendix 12.8: Cash Inflows Statement Years 1-5

Coyle Design and Build Summary of Cash Inflows Years 1-5					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Sales (Units)	42	645	6740	12,860	45,200
Collections	$14,565	$125,119	$1,251,329	$2,644,202	$8,720,964
Investments+Donations	$663,425	$-	$-	$-	$-
Total Cash Collected:	$677,990	$125,119	$1,251,329	$2,644,202	$8,720,964

Coyle Design and Build Summary of Cash Outflows Years 1-5					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Previous Payables	$-	$21,634	$22,103	$87,355	$360,813
Fabrication Cost	$18,166	$58,585	$568,651	$972,194	$3,130,374
Rent	$9,500	$28,500	$28,500	$28,500	$28,500
R&D	$31,243	$34,714	$38,571	$73,597	$258,668
Salaries	$27,500	$219,000	$533,000	$581,000	$669,000
Utilities	$1,658	$7,124	$7,124	$8,077	$8,077
Fulfillment Center	$500	$1,613	$16,475	$29,651	$100,500
Marketing	$31,243	$34,714	$38,571	$73,597	$258,668
Travel	$3,000	$3,208	$3,208	$3,208	$3,208
Office Supplies	$500	$500	$750	$750	$750
Insurance	$2,200	$6,692	$12,467	$17,967	$48,217
Warranty	$-	$2,685	$26,657	$48,315	$161,321
PP&E	$-	$10,380	$-	$-	$-
Total Cash Out:	$125,510	$429,350	$1,296,077	$1,924,210	$5,028,096

Coyle Design and Build Changes in Cash Years 1-5					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Cash Balance Beginning of Month	$-	$552,480	$248,250	$203,502	$923,494
Total Cash Collected	$677,990	$125,119	$1,251,329	$2,644,202	$8,720,964
Total Cash Used	$125,510	$429,350	$1,296,077	$1,924,210	$5,028,096
Net increase/decrease in Cash	$552,480	$(304,230)	$(44,748)	$719,992	$3,692,868
Cash Balance End of Month	$552,480	$248,250	$203,502	$923,494	$4,616,361

Appendix 12.9: Cash Inflow Statement Year 1

Coyle Design and Build Summary of Cash Inflows Year 1

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Units Purchased											200	200	
Sales (Units)												42	42
Total Sales												14,565	14,565
Collections												14,565	14,565
Investments									650,000				
Indiegogo Donations	13,425												13,425
Total Cash Collected:	13,425								650,000			14,565	677,990

Coyle Design and Build Summary of Cash Outflows Year 1

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Materials Cost												8,166	8,166
Direct Labor												10,000	10,000
Rent									2,375	2,375	2,375	2,375	9,500
Design and Testing		2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	31,243
Salaries									9,167	9,167	9,167	9,167	27,500
Utilities										553	553	553	1,658
Fullfilment Center												500	500
Marketing		2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,840	31,243
Office Supplies										125	125	125	500
Travel						750	750			750	750		3,000
Insurance									550	550	550	550	2,200
PP&E													
Warranty Payment													
Total Cash Out:		5,681	5,681	5,681	5,681	6,431	6,431	5,681	8,731	19,200	19,200	37,116	125,510

Coyle Design and Build Changes in Cash Year 1

	January	February	March	April	May	June	July	August	September	October	November	December	Ending
Cash Balance Beginning of Month		13,425	7,744	2,064	(3,617)	(9,297)	(15,728)	(22,158)	(27,839)	613,431	594,231	575,031	575,031
Total Cash Collected	13,425								650,000			14,565	14,565
Total Cash Used		5,681	5,681	5,681	5,681	6,431	6,431	5,681	8,731	19,200	19,200	37,116	37,116
Net increase/decrease in Cash	13,425	(5,681)	(5,681)	(5,681)	(5,681)	(6,431)	(6,431)	(5,681)	641,269	(19,200)	(19,200)	(22,551)	(22,551)
Cash Balance End of Month	13,425	7,744	2,064	(3,617)	(9,297)	(15,728)	(22,158)	(27,839)	613,431	594,231	575,031	552,480	552,480

Appendix 12.10: Cash Inflow Statement Year 2

Coyle Design and Build Summary of Cash Inflows Year 2

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Units Purchased	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Sales (Units)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Sales	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Collections	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Investments													[illegible]
Total Cash Collected:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Coyle Design and Build Summary of Cash Outflows Year 2

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Previous Payable	[illegible]												[illegible]
Fabrication Costs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rent	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Design and Testing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Salaries	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Utilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fullfillment Center	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Marketing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Office Supplies	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Travel	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Insurance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PP&E	[illegible]												[illegible]
Warranty Payment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cash Out:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Coyle Design and Build Changes in Cash Year 2

	January	February	March	April	May	June	July	August	September	October	November	December	Ending
Cash Balance Beginning of Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cash Collected	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cash Used	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net increase/decrease in Cash	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cash Balance End of Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Appendix 12.11: Cash Inflow Statement Year 3

Coyle Design and Build Summary of Cash Inflows Year 3

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Purchased Units	$ 235	$ 405	$ 500	$ 500	$ 600	$ 700	$ 750	$ 600	$ 500	$ 800	$ 1,000	$ 1,000	
Sales (Units)	$ 150	$ 235	$ 405	$ 500	$ 500	$ 600	$ 700	$ 750	$ 600	$ 500	$ 800	$ 1,000	$ 6,740
Total Sales	$ 31,215	$ 48,904	$ 84,281	$ 104,050	$ 104,050	$ 124,860	$ 145,670	$ 156,075	$ 124,860	$ 104,050	$ 166,480	$ 208,100	$ 1,402,594
Collections	$ 18,651	$ 34,397	$ 59,046	$ 85,076	$ 100,271	$ 112,005	$ 128,838	$ 145,670	$ 142,154	$ 122,871	$ 131,893	$ 170,458	$ 1,251,329
Investments													$ -
Total Cash Collected:	$ 18,651	$ 34,397	$ 59,046	$ 85,076	$ 100,271	$ 112,005	$ 128,838	$ 145,670	$ 142,154	$ 122,871	$ 131,893	$ 170,458	$ 1,251,329

Coyle Design and Build Summary of Cash Outflows Year 3

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Previous Payables	$ 22,103												$ 22,103
Fabrication Costs	$ -	$ 20,278	$ 34,947	$ 43,145	$ 43,145	$ 51,774	$ 60,403	$ 64,717	$ 51,774	$ 43,145	$ 69,032	$ 86,290	$ 568,651
Rent	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 28,500
Design and Testing	$ -	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 38,571
Salaries	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 44,417	$ 533,000
Utilities	$ -	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 648	$ 7,124
Fullfilment Center	$ -	$ 588	$ 1,013	$ 1,250	$ 1,250	$ 1,500	$ 1,750	$ 1,875	$ 1,500	$ 1,250	$ 2,000	$ 2,500	$ 16,475
Marketing	$ -	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 3,506	$ 38,571
Office Supplies	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 63	$ 750
Travel	$ -	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 3,208
Insurance	$ -	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 1,133	$ 12,467
PP&E	$ -												$ -
Warranty Payment	$ -	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 2,423	$ 26,657
Depreciation													
Total Cash Out:	$ 68,957	$ 79,229	$ 94,323	$ 102,758	$ 102,758	$ 111,637	$ 120,516	$ 124,956	$ 111,637	$ 102,758	$ 129,395	$ 147,153	$ 1,296,077

Coyle Design and Build Changes in Cash Year 3

	January	February	March	April	May	June	July	August	September	October	November	December	Ending
Cash Balance Beginning of Month	$ 248,250	$ 197,944	$ 153,113	$ 117,836	$ 100,154	$ 97,667	$ 98,035	$ 106,356	$ 127,070	$ 157,587	$ 177,700	$ 180,198	$ 180,198
Total Cash Collected	$ 18,651	$ 34,397	$ 59,046	$ 85,076	$ 100,271	$ 112,005	$ 128,838	$ 145,670	$ 142,154	$ 122,871	$ 131,893	$ 170,458	$ 170,458
Total Cash Used	$ 68,957	$ 79,229	$ 94,323	$ 102,758	$ 102,758	$ 111,637	$ 120,516	$ 124,956	$ 111,637	$ 102,758	$ 129,395	$ 147,153	$ 147,153
Net Increase/decrease in Cash	$ (50,306)	$ (44,832)	$ (35,277)	$ (17,682)	$ (2,487)	$ 368	$ 8,321	$ 20,714	$ 30,517	$ 20,113	$ 2,497	$ 23,304	$ 23,304
Cash Balance End of Month	$ 197,944	$ 153,113	$ 117,836	$ 100,154	$ 97,667	$ 98,035	$ 106,356	$ 127,070	$ 157,587	$ 177,700	$ 180,198	$ 203,502	$ 203,502

Appendix 12.12: Cash Inflow Statement Year 4

Coyle Design and Build Summary of Cash Inflows Year 4

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Units Purchased	$ 1,012.50	$ 1,025.16	$ 1,037.97	$ 1,050.95	$ 1,064.08	$ 1,077.38	$ 1,090.85	$ 1,104.49	$ 1,118.29	$ 1,132.27	$ 1,146.42	$ 5,000.00	
Sales (Units)	$ 1,000.00	$ 1,012.50	$ 1,025.16	$ 1,037.97	$ 1,050.95	$ 1,064.08	$ 1,077.38	$ 1,090.85	$ 1,104.49	$ 1,118.29	$ 1,132.27	$ 1,146.42	$ 12,860
Total Sales	$ 208,100.00	$ 210,701.25	$ 213,335.02	$ 216,001.70	$ 218,701.72	$ 221,435.50	$ 224,203.44	$ 227,005.98	$ 229,843.56	$ 232,716.60	$ 235,625.56	$ 238,570.88	$ 2,676,241
Collections	$ 200,145.00	$ 209,094.38	$ 211,210.87	$ 213,851.00	$ 216,524.14	$ 219,230.69	$ 221,971.08	$ 224,745.71	$ 227,555.04	$ 230,399.47	$ 233,279.47	$ 236,195.46	$ 2,644,202
Investments													
Total Cash Collected:	$ 200,145	$ 209,094	$ 211,211	$ 213,851	$ 216,524	$ 219,231	$ 221,971	$ 224,746	$ 227,555	$ 230,399	$ 233,279	$ 236,195	$ 2,644,202

Coyle Design and Build Summary of Cash Outflows Year 4

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Previous Payables	$ 87,355												$ 87,355
Fabrication Costs		$ 82,995	$ 84,032	$ 85,082	$ 86,146	$ 87,223	$ 88,313	$ 89,417	$ 90,535	$ 91,666	$ 92,812	$ 93,972	$ 972,194
Rent	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 2,375	$ 28,500
Design and Testing	$ -	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 73,597
Salaries	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 48,417	$ 581,000
Utilities	$ -	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 734	$ 8,077
Fulfillment Center	$ -	$ 2,531	$ 2,563	$ 2,595	$ 2,627	$ 2,660	$ 2,693	$ 2,727	$ 2,761	$ 2,796	$ 2,831	$ 2,866	$ 29,651
Marketing	$ -	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 6,691	$ 73,597
Office Supplies	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 663	$ 7,750
Travel	$ -	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 292	$ 3,208
Insurance	$ -	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 1,633	$ 17,967
PP&E	$ -												$ -
Warranty Payment	$ -	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 4,392	$ 48,315
Depreciation													
Total Cash Out:	$ 138,210	$ 156,813	$ 157,882	$ 158,964	$ 160,060	$ 161,170	$ 162,293	$ 163,431	$ 164,583	$ 165,749	$ 166,930	$ 168,125	$ 1,924,210

Coyle Design and Build Changes in Cash Year 4

	January	February	March	April	May	June	July	August	September	October	November	December	Ending
Cash Balance Beginning of Month	$ 203,502	$ 265,437	$ 317,719	$ 371,048	$ 425,935	$ 482,399	$ 540,459	$ 600,137	$ 661,452	$ 724,424	$ 789,074	$ 855,424	$ 855,424
Total Cash Collected	$ 200,145	$ 209,094	$ 211,211	$ 213,851	$ 216,524	$ 219,231	$ 221,971	$ 224,746	$ 227,555	$ 230,399	$ 233,279	$ 236,195	$ 236,195
Total Cash Used	$ 138,210	$ 156,813	$ 157,882	$ 158,964	$ 160,060	$ 161,170	$ 162,293	$ 163,431	$ 164,583	$ 165,749	$ 166,930	$ 168,125	$ 168,125
Net Increase/decrease in Cash	$ 61,935	$ 52,282	$ 53,329	$ 54,887	$ 56,464	$ 58,061	$ 59,678	$ 61,315	$ 62,972	$ 64,650	$ 66,350	$ 68,070	$ 68,070
Cash Balance End of Month	$ 265,437	$ 317,719	$ 371,048	$ 425,935	$ 482,399	$ 540,459	$ 600,137	$ 661,452	$ 724,424	$ 789,074	$ 855,424	$ 923,494	$ 923,494

Appendix 12.13: Cash Inflow Statement Year 5

Coyle Design and Build Summary of Cash Inflows Year 5

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Units Purchased	[illegible]4,500	[illegible]3,000	[illegible]2,500	[illegible]3,000	[illegible]3,500	[illegible]4,500	[illegible]5,000	[illegible]3,700	[illegible]3,000	[illegible]2,500	[illegible]5,000	[illegible]5,000	
Sales (Units)	[illegible]5,000	[illegible]4,500	[illegible]3,000	[illegible]2,500	[illegible]3,000	[illegible]3,500	[illegible]4,500	[illegible]5,000	[illegible]3,700	[illegible]3,000	[illegible]2,500	[illegible]5,000	[illegible]45,200
Total Sales	[illegible]1,040,500	[illegible]936,450	[illegible]624,300	[illegible]520,250	[illegible]624,300	[illegible]728,350	[illegible]936,450	[illegible]1,040,500	[illegible]769,970	[illegible]624,300	[illegible]520,250	[illegible]1,040,500	[illegible]9,406,120
Collections	[illegible]454,494	[illegible]802,137	[illegible]837,013	[illegible]644,188	[illegible]579,913	[illegible]644,188	[illegible]788,013	[illegible]936,450	[illegible]917,198	[illegible]765,993	[illegible]612,368	[illegible]739,013	[illegible]8,720,964
Investments													[illegible]
Total Cash Collected:	[illegible]454,494	[illegible]802,137	[illegible]837,013	[illegible]644,188	[illegible]579,913	[illegible]644,188	[illegible]788,013	[illegible]936,450	[illegible]917,198	[illegible]765,993	[illegible]612,368	[illegible]739,013	[illegible]8,720,964

Coyle Design and Build Summary of Cash Outflows Year 5

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Previous Payables	[illegible]360,813												[illegible]360,813
Fabrication Costs	[illegible]	[illegible]350,415	[illegible]233,610	[illegible]194,675	[illegible]233,610	[illegible]272,545	[illegible]350,415	[illegible]389,350	[illegible]288,119	[illegible]233,610	[illegible]194,675	[illegible]389,350	[illegible]3,130,374
Rent	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]2,375	[illegible]28,500
Design and Testing	[illegible]	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]258,668
Salaries	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]55,750	[illegible]669,000
Utilities	[illegible]	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]734	[illegible]8,077
Fulfillment Center	[illegible]	[illegible]11,250	[illegible]7,500	[illegible]6,250	[illegible]7,500	[illegible]8,750	[illegible]11,250	[illegible]12,500	[illegible]9,250	[illegible]7,500	[illegible]6,250	[illegible]12,500	[illegible]100,500
Marketing	[illegible]	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]23,515	[illegible]258,668
Office Supplies	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]63	[illegible]750
Travel	[illegible]	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]292	[illegible]3,208
Insurance	[illegible]	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]4,383	[illegible]48,217
PP&E													[illegible]
Warranty Payment		[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]14,666	[illegible]161,321
Depreciation													
Total Cash Out:	[illegible]419,000	[illegible]486,958	[illegible]366,403	[illegible]326,218	[illegible]366,403	[illegible]406,588	[illegible]486,958	[illegible]527,143	[illegible]422,662	[illegible]366,403	[illegible]326,218	[illegible]527,143	[illegible]6,028,096

Coyle Design and Build Changes in Cash Year 5

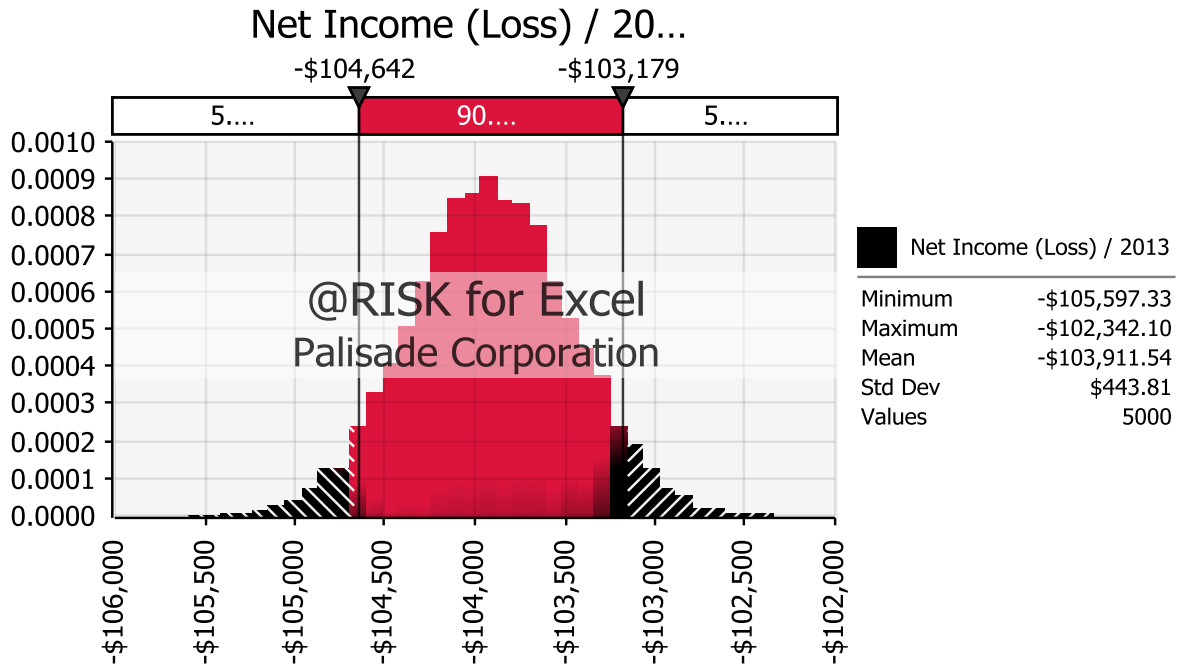
	January	February	March	April	May	June	July	August	September	October	November	December	Ending
Cash Balance Beginning of Month	[illegible]23,494	[illegible]958,988	[illegible]1,274,167	[illegible]1,744,777	[illegible]2,062,746	[illegible]2,276,256	[illegible]2,513,855	[illegible]2,814,910	[illegible]3,224,217	[illegible]3,718,753	[illegible]4,118,342	[illegible]4,404,492	[illegible]4,404,492
Total Cash Collected	[illegible]454,494	[illegible]802,137	[illegible]837,013	[illegible]644,188	[illegible]579,913	[illegible]644,188	[illegible]788,013	[illegible]936,450	[illegible]917,198	[illegible]765,993	[illegible]612,368	[illegible]739,013	[illegible]739,013
Total Cash Used	[illegible]419,000	[illegible]486,958	[illegible]366,403	[illegible]326,218	[illegible]366,403	[illegible]406,588	[illegible]486,958	[illegible]527,143	[illegible]422,662	[illegible]366,403	[illegible]326,218	[illegible]527,143	[illegible]527,143
Net increase/decrease in Cash	[illegible]35,494	[illegible]315,179	[illegible]470,610	[illegible]317,970	[illegible]213,510	[illegible]237,600	[illegible]301,055	[illegible]409,307	[illegible]494,536	[illegible]399,590	[illegible]286,150	[illegible]211,870	[illegible]211,870
Cash Balance End of Month	[illegible]958,988	[illegible]1,274,167	[illegible]1,744,777	[illegible]2,062,746	[illegible]2,276,256	[illegible]2,513,855	[illegible]2,814,910	[illegible]3,224,217	[illegible]3,718,753	[illegible]4,118,342	[illegible]4,404,492	[illegible]4,616,361	[illegible]4,616,361

Appendix 12.14: Balance Sheet Years 1-5

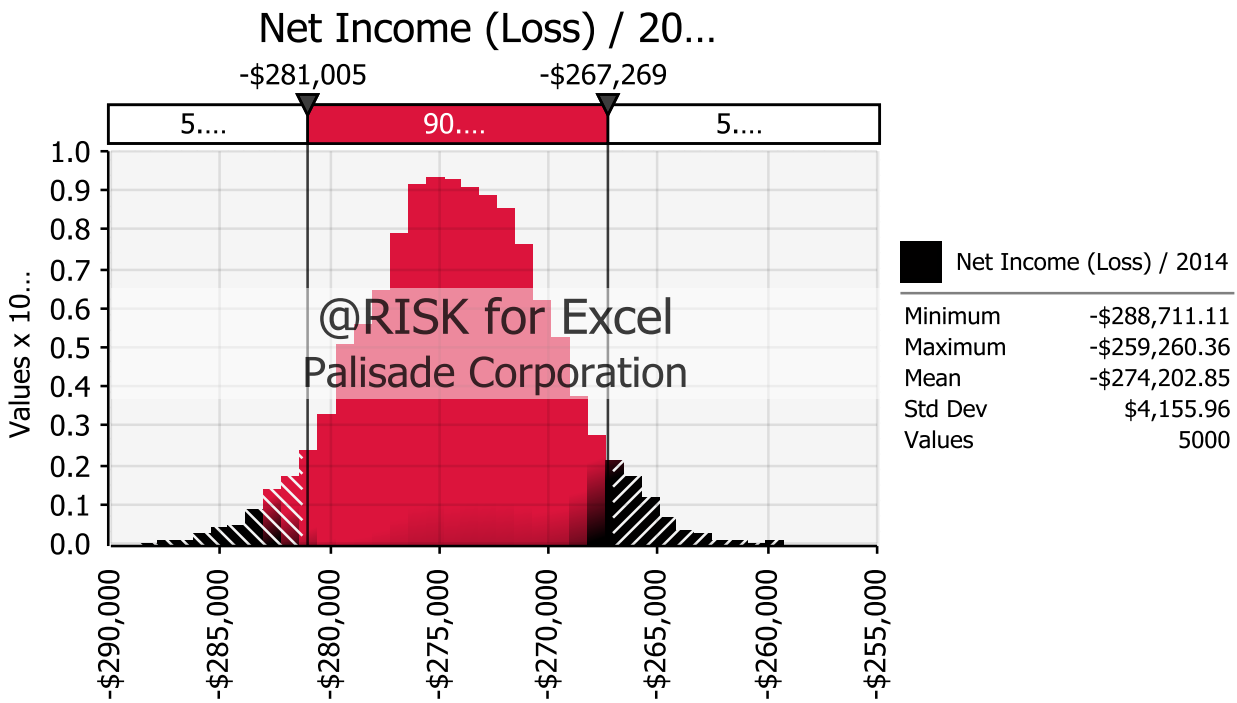
Coyle Design and Build Balance Sheet Years 1-5					
	Year 1 12/31	**Year 2 12/31**	**Year 3 12/31**	**Year 4 12/31**	**Year 5 12/31**
Assets					
Current Assets					
Cash	$ 52,480	$ 248,250	$ 203,502	$ 923,494	$ 4,616,361
Accounts Receivable	$ -	$ 9,105	$ 68,674	$ 206,941	$ 896,249
Inventory	$ 32,517	$ 46,142	$ 119,488	$ 447,368	$ 447,368
Total Current Assets	**$ 84,998**	**$ 303,497**	**$ 391,664**	**$ 1,577,803**	**$ 5,959,979**
Long Term Assets					
PP&E	$ -	$ 10,380	$ 10,380	$ 10,380	$ 10,380
Less: Accumulated Depreciation	$ -	$ 2,076	$ 4,152	$ 6,228	$ 8,304
Net PP&E	$ -	$ 8,304	$ 6,228	$ 4,152	$ 2,076
Total Assets	$ 84,998	$ 311,801	$ 397,892	$ 1,581,955	$ 5,962,055
Liabilities					
Accounts Payable	$ 25,449	$ 36,298	$ 124,874	$ 490,681	$ 609,204
Total Liabilities	$ 25,449	$ 36,298	$ 124,874	$ 490,681	$ 609,204
Equity					
Common Stock at Par	$ 650,000	$ 650,000	$ 650,000	$ 650,000	$ 650,000
Retained Earnings	$ (590,452)	$ (374,497)	$ (376,982)	$ 441,274	$ 4,702,851
Total Equity	$ 59,548	$ 275,503	$ 273,018	$ 1,091,274	$ 5,352,851
Total Liabilities and Member's Equity	$ 84,998	$ 311,801	$ 397,892	$ 1,581,955	$ 5,962,055

Appendix 12.15: Monte Carlo Analysis

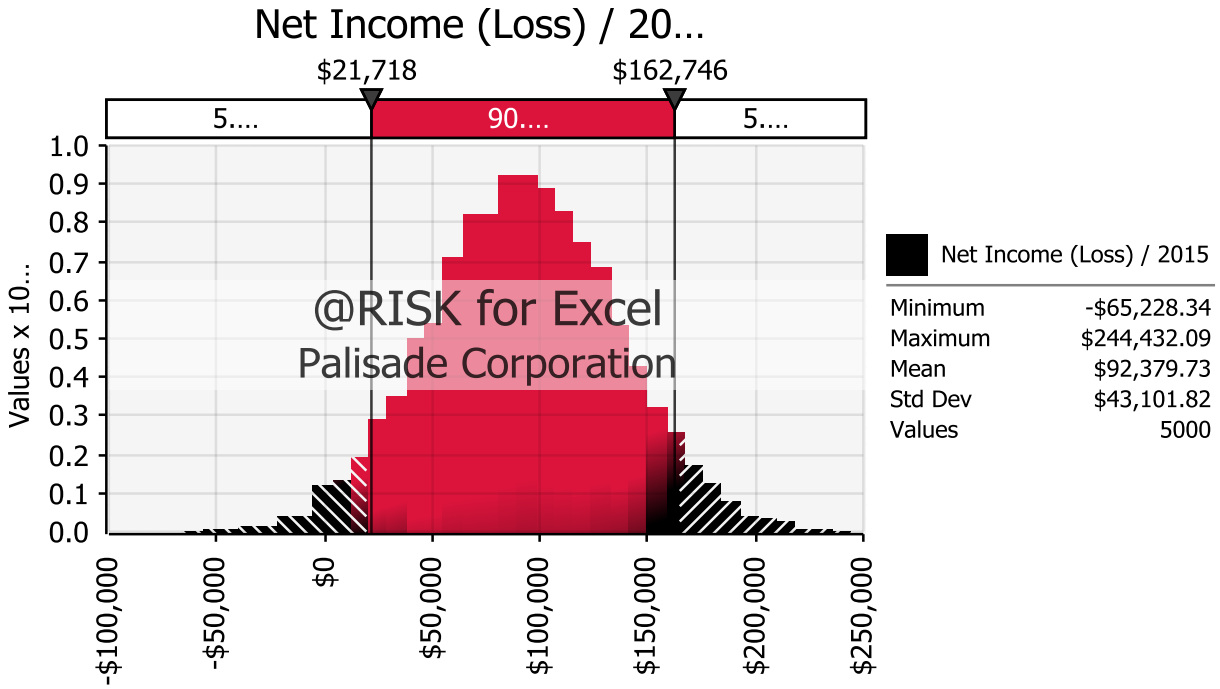
Year 1



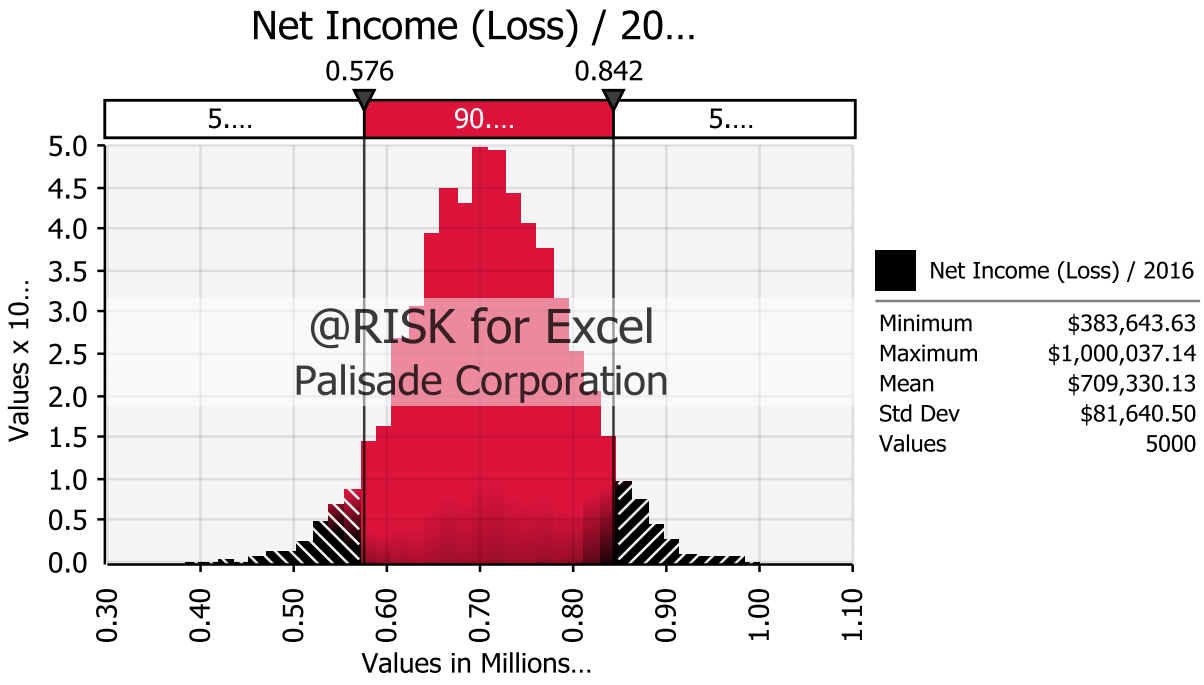
Year 2



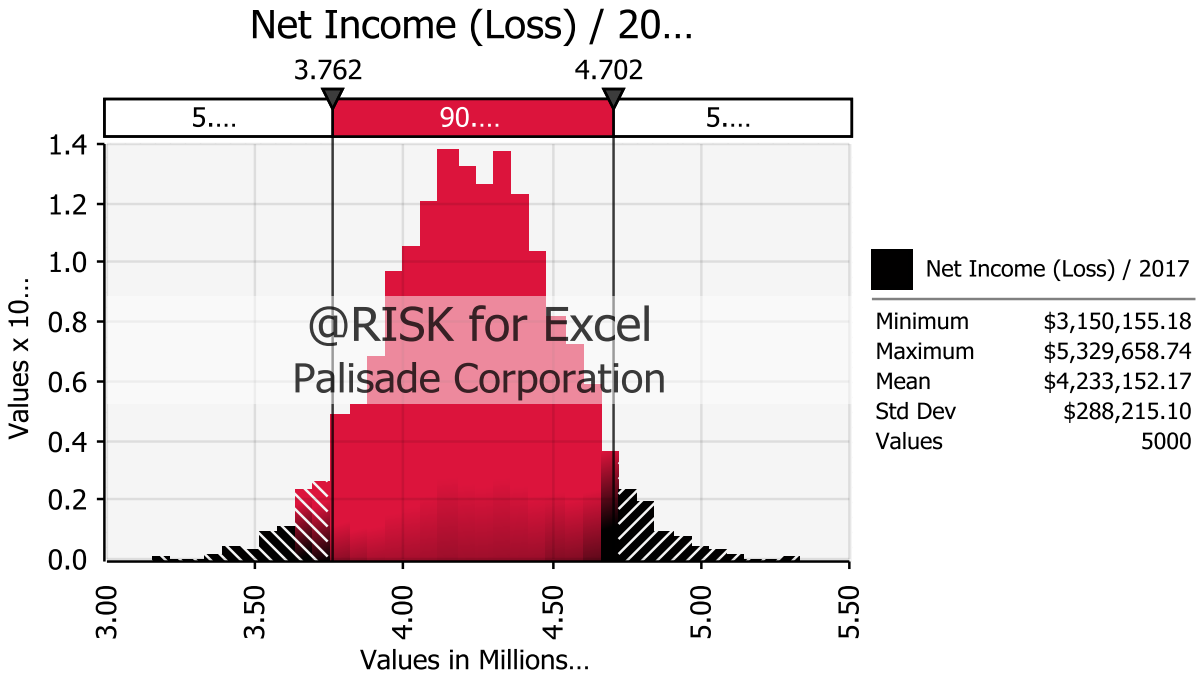
Year 3



Year 4



Year 5


Net Income (Loss) / 20...
3.762
4.702
5....
90....
5....
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Values x 10...
@RISK for Excel
Palisade Corporation
3.00
3.50
4.00
4.50
5.00
5.50
Values in Millions...
Net Income (Loss) / 2017
Minimum $3,150,155.18
Maximum $5,329,658.74
Mean $4,233,152.17
Std Dev $288,215.10
Values 5000

Bibliography

Abus.(2012). *ABUS KraniumEcolution*. Retrieved October 20, 2012, from Abus Security Tech Germany: http://www.abus.com/eng/Mobile-Security/Bike-safety-and-security/Helmets/Urban-City/Kranium-ECOLUTION

Anchor House. (2012). *Corporate Sponsors*. Retrieved February 1, 2013, from Anchor House Ride for Runaways: http://www.anchorhouseride.org/Pages/CorporateGiving

Anderson, D., Sweeney, D., & Williams, T. (2012). Practical business analysis.

Area Vibes Inc. (2012). *Best Places to Bike Ride in America*. Retrieved January 17, 2013, from Area Vibes: http://www.areavibes.com/library/best-places-to-bike-ride-in-america/

Bagley, C., & Dauchy, C. (2012). *The Entrepreneur's Guide to Buisness Law.* Cengage Learning.

Bemmaor, A., & Mouchoux, D. (1991, May). Measuring the Short-Term Effect of In-Store Promotion and Retail Advertising on Brand Sales: A Factorial Experiment . *Journal of Marketing* , pp. 202-214.

Cendrowski, S. (2012, February 27). Nike's New Marketing Mojo. *Fortune, 165* (3).

Chandon, P., Hutchinson, J. W., Bradlow, E. T., & Young, S. H. (2009, November). Does In-Store Marketing Work? Effects of the Number and Position of Shelf Facings on Brand Attention and Evaluation at the Point of Purchase . *Journal of Marketing, 73*, pp. 1-17.

Close, A., Krishen, A., & Latour, M. (2011, September). This Event Is Me! *Journal of Advertising Research* , pp. 271-284.

Colliander, J., & Dahen, M. (2011, March). Following the Fashionable Friend: The Power of Social Media Weighing Publicity Effectiveness of Blogs versus online Magazines. *Journal of Advertising Research* , 313-320.

Conlin, Jennifer. "Keeping Safe on the Slopes, Stylishly, of Course." *Travel - The New York Times*. N.p., 06 Jan 2012. Web. 18 Feb 2013. <http://travel.nytimes.com/2012/01/07/travel/07iht-gear07.html?_r=0>.

Consumer Product Safety Commission. (1998). 16 CFR Part 1203 Safety Standard for! Bicycle Helmets; Final Rule. *Federal Register, 63* (46).

Cooper, C., & Shoenfeld, G. (2012). *Leisure Trends Group 2012 Industry Update: Consumer Product Trends Affecting Independant Bicycle Dealers.* Leisure Trends Group. Leisure Trends Group.

Cork Quality Council. (2012). *Harvesting Natural Cork*. Retrieved Janaury 15, 2013, from CorkQC: http://www.corkqc.com/harvesting/harvest.htm

Drengner, J., Gaus, H., & Jahn, S. (2008, March). Does Flow Influence the Brand Image in Event Marketing? . *Journal of Advertising Research* , 138-147.

"Easton-Bell shoe, helmet sales rise in Q1." *Bicycle Retailer and Industry News*. 07 May 2012. Web. 26 Apr. 2013. <http://www.bicycleretailer.com/north-america/2012/05/07/easton-bell-shoe-helmet-sales-rise-q1>.

EASI Analytic. (2010). Sales potential variable metadata**.** *Simply Map*, Retrieved from http://sm2.simplymap.com

Easton-Bell Sports, Inc. (2011, December 31). *Form 10-K 2011*. Retrieved January 21, 2013, from Easton-Bell Sports: http://www.eastonbellsports.com/assets/pdf/sec/Easton-Bell-Sports-Inc-10-K-FYE-2011.pdf

Easton-Bell Sports, Inc. (2013). *Leadership*. Retrieved May 25, 2013, from Easton-Bell Sports: http://www.eastonbellsports.com/about-us/leadership/

Ethics Resource Center. (2009, May 29). *Why have a code of conduct*. Retrieved from http://www.ethics.org/resource/why-have-code-conduct

Federal Register. Department of Transportation, (2011). *16 cfr 1203 - safety standard for bicycle helmets* (63 FR 11729). Retrieved from U.S. Government Printing Office website: http://www.gpo.gov/fdsys/granule/CFR-2012-title16-vol2/CFR-2012-title16-vol2-part1203/content-detail.html

Fiet, J., & Patel, P. (2008). Forgiving business models for new ventures. *Entrepreneurship: Theory & Practice*.

Fleischman, G., & Bryant, J. (2000). What form is best for your business?. *Management Accounting Quarterly*, 1-8.

Hader, Suzanne. "Wooing Luxury Customers." *Marketing Management*. (2008): 27-31. Print.

Hill, T. (2012, November 21). *Leisure Trends: IBD sales up 7 percent through September*. Retrieved January 16, 2013, from Bicycle Retailer and Industry News: http://www.bicycleretailer.com/studies-reports/2012/11/21/leisure-trends-ibd-sales-7-percent-through-september#.UPh_GaVqZNw

Hill, T. (2012, December 6). *Report: Weather cools October IBD sales* . Retrieved January 16, 2013, from Bicycle Retailer and Industry News: Leisure Trends: IBD sales up 7 percent through September

IRS. (2012, December 31). *S corporations*. Retrieved from http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/S-Corporations

Kerfoot, S., Davies, B., & Ward, P. (2003). Visual merchandising and the creation of discernible retail brands. *International Journal of Retail & Distribution Management, 31* (3), 143-152.

Kinney, S.-A. (2010, October 4). *Pacific Northwest Market—Northwest Douglas Fir Log Prices Tracking Downward*. Retrieved February 1, 2013, from Forest 2 Market: http://www.forest2market.com/blog/pacific-northwest-marketnorthwest-douglas-fir-log-prices-tracking-downward

Lazarus, E. (2004). How to play the games. *Marketing Magazine*

League of American Bicyclists. (2009). *2009 American Community Survey Commuter Statistics*. Retrieved February 4, 2013, from Bike League: http://www.bikeleague.org/resources/reports/acs09_commuter_trends_cities.php#

Leavengood, S. (2012, 11). College of Forestry. (Y. V. Sims, Interviewer, & G. 3, Editor) Corvallis, OR, USA.

Lee, H. L. (2010). Don't Tweak your Supply Chain--Rethink It End to End. *Harvard Business Review, 88*(10), 62-69.

Leitner, Y. (2009). Convertible Securities and Venture Capital Finance. *Philadelphia Fed Business Review* , pp. 18-27.

McKenzie, B., & Rapino, M. (2011). *Commuting in the United States: 2009.* U.S. Department of Commerce. U.S. Census Bureau.

Michelmores LLP. (2011, July 1). *Michelmores support Kranium Cardboard Bike Helmet*. Retrieved October 20, 2012, from Michelmors: http://www.michelmores.com/michelmores-support-kranium-cardboard-bike-helmet-news.htm

National Oceanic and Atmospheric Administration. (2012, September 4). *October 2011*. Retrieved January 16, 2013, from National Temperature and Precipitation Maps :http://www.ncdc.noaa.gov/temp-and-

precip/maps.php?ts=1&year=2011&month=10&imgs%5B%5D=Nationaltrank&submitted=Submit
NSAA. (2013). *National demographic survey*. National Ski Areas Association.
O'Connor, Brian. "Choosing a Board to Help Grow Your Business." *Black Enterprise*. 21.11 (1991): n. page. Print.
Patterson, B. (2011). Action and extreme sports - us - march 2011. *Mintel Oxygen*,
Poldner, K. (2012). Veja: Sneakers With a Conscience. *Ivey*, 2-16.
Preston, Susan L. "Angel Financing for Entrepreneurs: Early Stage Funding for Long-Term Success." John Wiley & Sons Inc., 2007.
Pucher, J., & Buehler, R. (2008). Making Cycling Irresistible: Lessons from The Netherlands, Denmark and Germany . *Transport Reviews , 28* (4), 495-528.
Pucher, J., Buehler, R., & Seinen, M. (2011, March 11). Bicycling renaissance in North America? An update and re-appraisal of cycling trends and policies . *Transportation Research* , pp. 451-475.
Red Bull. (2013). *About Flugtag*. Retrieved January 23, 2013, from Red Bull Flugtag: http://www.redbullflugtagusa.com/#/content/about-flugtag
Royal, D., & Miller-Steiger, D. (2008). *National Survey of Bicyclist and Pedestrian Attitudes and Behavior*. NHTSA, Office of Behavioral Safety Research. Washington, DC: U.S. Department of Transportation.
Slepicka, M. (2004, February). Mild to wild with bell helmets. *Dealer News*, 22.
Timmons, J., & Spinelli, S. (2009). *New Venture Creation.* Boston: McGraw-Hill Irwin.
U.S. Census Bureau. (2012, March 26). *Growth in Urban Population Outpaces Rest of Nation, Census Bureau Reports*. Retrieved October 28, 2012, from U.S. Census Bureau Newsroom: http://www.census.gov/newsroom/releases/archives/2010_census/cb12-50.html
USPTO. (2013). *Trademarks*. Retrieved February 1, 2013, from United States Patent and Trademark Office: http://www.uspto.gov/trademarks/index.jsp
Weibe, M. (2010, October 1). European Brands Carve Out Their Piece of the Pie In Head Protection. *Bicycle Retailer & Industry News* .
Wiedmann, K., Hennigs, N. &Siebels, A. (2009, July). Value-based segmentation of high-end consumption behavior. *Psychology & Marketing*, *26*(7), 625-651. DOI: www.interscience.wiley.com
WIPO. (2001, July 22). *Shell Laminated Structure in Helment*. Retrieved October 20, 2012, from World Intellectual Property Office: http://patentscope.wipo.int/search/en/detail.jsf?docId=EP13582966&recNum=2&maxRec=4&office=&prevFilter=%26fq%3DPAF_M%3A%22ARAI+HELMET+LTD%22&sortOption=Pub+Date+Desc&queryString=A42B3%2F06%09&tab=PCTDescription