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Executive Summary

The pet accessory market is taking America by storm and there is good reason for it. Pet doors in particular have always been a unique niche. Now that the smart home universe continues to advance, the dog door market does with it. There are smart dog doors now that wirelessly connect to the pet's internal microchip or collar and grant it access to enter. Our FaceID Canine Door brand plans to take smart pet technology to a new level. An interactive app along with a camera pet door that recognizes the dog's face and grants its entrance. It as well will update the owner via the app throughout the day to assure their furry buddy is safe.

The business has a marketing strategy to spread across social media platforms, dog magazines, and streaming services to advance in this fast-growing industry. The company is targeting the North American geographical region, entering initially into the e-commerce marketplace and eventually adding retail into the picture. The initial start-up investment caused the company to be negative in profits for the first two business years. As we figured out better business logistics in having lean operations with sourcing, we were able to turn a positive profit in year 3.

Introduction

Industry Analysis

Canine doors are an offering that fits into the broader dog accessories market that also includes pens and gates. The demand in the industry is increasing, as it is directly correlated with higher adoption rates of pets. There are many options in the American market with an easy online search listing thousands of dog doors. These listings of dog doors include those that are smart and those that are the old-fashioned flap style.

The smart category of these pet doors has taken off, with new technologies emerging at a constant rate. Prototypes with camera facial recognition are starting to emerge from brands like Microsoft. Even though there are many competitors in this pet accessory market, the fast-growing industry leaves room for the FaceID Canine Door company to have strong profitable operations after a business calendar year even containing a minuscule amount of market share.

Market Analysis

The market that the FaceID Canine Door plans to tap into in actuality combines the technology world with the pet industry. In this current generation of pet accessories, there are many options for canine doors to place on a back or side door of a house. These doors are used for dogs to be able to enter and exit as they please. As technology continues to grow in our fast-changing world, doggy doors evolve too. Now on the market exists electronic dog doors that may sense when an animal is near and will open via having some type of connection to the collar of the dog.

Many current pet owners already have pet doors for their furry friends to enter into, some being smartly enabled while others are just normal. The normal doors leave unwanted visitors, or stray animals, to have the ability to enter in. The American Society for the Prevention of Cruelty to Animals describes a prominent pet statistic on their webpage: "6% of dogs" and "27% of cats" are found stray and eventually taken in as pets. This statistic illustrates that there is an issue with roaming animals in neighborhoods. With open and easy access to pet doors, both lost pets and wild animals can easily enter without an invitation.

Marketing Plan

The FaceID Canine Door marketing campaign consists of various advertising channels via social media, magazines, and Hulu along with other streaming services with ads. The "wow" factor of the product will as well provide a foundational word-of-mouth form of advertising. Our current marketing position is to advertise toward technologically savvy users with a love for the smart home. Further in this capstone analysis will be documentation of our marketing goals and strategy. A deeper dive into the competitive market will also be taken to better understand the industry and where is our niche opportunity to succeed.

The company targets the entire Unites States of America geographical region, focusing initially on sales from marketing ads and the digital marketplaces. The unique benefits that the FaceID Canine Door can deliver to customers will create a strong brand positioning in the e-commerce world. We then plan to expand our market and sell the product in Best Buy and Pet stores like Petco or PetSmart. It is a fact that many families consider dogs to be a part of their household, and even spend quite extensively on them. This product is ideal for the geeky, technologically savvy families that love their dogs and love the smart home.

Servicing and Operations Plan

Building a strong brand positioning among our clientele is essential for our continual growth and success. We may have a team of electrical technicians that successfully build the products, but there is more to the company. This is beyond just the initial grab of attention from the product benefits that leads to a sale. The work just begins at this point. Our company needs to deliver on its brand promise of a high-quality and high-tech canine door that is fully functional.

We plan to have a customer service support team that will help with technical problems relating to the app or the functionality of the doggy door. If the problem is not solved by our tech experts, then our expert will then contact a licensed professional in the location of the customer to help fix and service the mechanical issues. We as well will offer a subscription-based service for our premium users.

Financial Projections

The FaceID Canine Door company is predicted to turn a profit after the second quarter. This is due to the large initial capital investment for sourcing and manufacturing the inventory, adding to the Microsoft pet recognition software, along with creating the mobile and computer application software to connect to the door. The marketing campaigns will be costly as there will be multiple marketing channels to build the brand image. The enterprise will turn financially positive after the first four quarters as sales predictions through the various revenue streams prove profitability.

Our goal is to create 5,000 FaceID Canine Door units that are ready for sale before we initiate our marketing plan. This goal will cost the company an up-front investment of $1,312,030. All of the materials combined will have a cost of $989,000. This is including the cost of manufacturing the pet doors with the open component boxes ready for our technical team to install the electronics. Our contracted team of electrical technicians will then finalize all of the pet doors to make sure they are in sync with all the technology which will cost $304,000. Our outsourced app development team that will build the functional connected app will cost $19,030.

Company Overview

The FaceID Canine Door company is set to revolutionize how our furry pets enter and exit the house through next-generation technology. Our mission is simple: we want to attract the tech lovers of the world to upgrade their fury children's way of getting in and out of the house. The traditional way of entering and exiting is via a basic doggy door, which has a flap that opens with the head force of the dog. Now that technology has advanced, there are smart doggy doors that connect to a wireless key on the collar of the pet that will grant access. There are as well prototype door ideas throughout the web with a camera that detects the face of a dog as it is running up to the door and grants access based on the correct facial depiction. As a further discussion will be conducted in the industry analysis section, however, it is quite difficult to find a for-sale pet door that has an integrated facial recognition camera that uses machine learning software to recognize a specific dog based on its physical features and grant it access. This is where the FaceID Canine Door company has found a niche to deliver beneficial value to technology-loving families.

This technology will easily adapt and pick up a dog's movement from a distance, recognize them, and open the door for them. The camera will only be placed on the exterior of the door to recognize the dog coming in from outside the house and exclude unwanted pests from coming in. We are not putting the camera on the interior side as there is no need to recognize what is inside the house already. There as well will be a built-in locking system that can be controlled through the app to have a scheduled pet curfew.

This product will hit home for families that are moving into this digital saga where everything throughout the home is interconnected with Wi-Fi in some way. We even plan on integrating Amazon Alexa compatibility where the homeowner will be able to tell Alexa to

unlock or lock the canine door. The key benefit to the doggy door technology is that it can serve as a security camera as well to record the area where the doggy door is placed. If someone breaks through the back door or even tries to sneak through the doggy door, the smart camera on the dog door will pick up on it and alert the owner.

The value that our company would deliver to customers is safety. It is a lot safer for the dog to be recognized than to have an electronic collar that can connect wirelessly to the doggy door. This electronic collar could malfunction and is a technology of the past. No extra devices need to be added to the dog with the FaceID Canine Door, just the face of the dog uploaded into our easy-to-use app. The app will then have a profile for the dog and will automatically upload the photo feeds each time the dog enters the house. The smart door also gives the added benefit of safety and security for the household. It is more hidden than a Ring doorbell and provides the family with a piece of mind that their dog's safety is not at risk.

The official value proposition statement of the FaceID Canine Company is as follows: "The FaceID Canine Door will keep your dog and house safe, where you can see your furry buddy entering and exiting the house every time, no matter where you are in the world!" This is a short and sweet summary of what our product does along with a core benefit it delivers: being able to visually see the dog. This innovative canine door company will take technology in the pet industry to a new level.

iStock Photos

Industry Analysis

Market Financials

The FaceID Canine Door Company proposes to launch its advanced product that will combine both the pet accessory and smart home world. Future Market Insights is an online market research database that has provided a financial forecasting analysis of the industry from 2021 to 2031 as seen in Exhibit 1.

Exhibit 1: Dog Gates, Doors, & Pens Market Numbers

Based year (2020) Market Value	US$ 4.7 Bn
Current year (2021) Market Value	US$ 4.9 Bn
CAGR% (2021-2031)	6.6%

The pet accessory industry has a massive valuation as it is, and trends prove that it will continue to grow. The above compound annual growth rate (CAGR) illustrates that the industry will grow exponentially throughout the next decade. The market valuation for this 2021-2031 industry timeframe affirms a worth of 8.9 billion dollars. As adoption rates go up, the burning desire for pet doors will continue to grow. The continual growth of the Internet of Things and smart homes will inevitably lead to a heavy-hitting pet door transition into the smart world. Although this segment is highly competitive and concentrated, the fast-growing industry leaves ample room for the FaceID Canine Company to enter and grow when unique benefits are

offered. As illustrated by petdoors.com, Exhibit 2 depicts the top competitor brands in the industry.

Competition

Exhibit 2: Pet Door Industry Competitors

Each of the main competitors holds a unique niche that allows them to differentiate itself from others in the industry. Petsafe is a famous pet product enterprise that runs off a cost-leadership strategy in the market offering doors for any scenario, including many smart doors with pet collar sensors (PetDoors). Endura Flap is another brand that has patents on their weather-strong and high-tech pet doors. High Tech Pet and SureFlap dog doors take it a step

further as they permit access when a pet's microchip or dog collar is in nearby distance to activate.

Windows Internet of Things is the only truly comparable model to the benefits that the FaceID Canine Doors company has to offer. In their project submission called "Cat Door with Pet Recognition" on the software community huckster.io, Microsoft details that the prototype door ensures "that your cat will have exclusive entry access to your home. The door is motion-activated and will unlock only when it detects a cat face." This door although designed for cats holds a similar technology to ours with an online application that connects the cat's image with the on-file image. If these images match, access is granted. This company has yet to create a user-friendly mobile app or boxed product ready for sale. Their prototype is more of a do-it-yourself style of creation.

Exhibit 3: STEEP Analysis

FACTORS	**Considerations Related to the smart Canine Door**
Sociocultural factors	-People are trending to be more technologically savvy and even invest deeply into the smart home. -Customers get influenced by proper word of mouth from fellow users who brag about their new technology. -It may be unorthodox to have a canine door scan the dog's face for entrance. -Client must have a decent understanding of technology with app-connectedness.

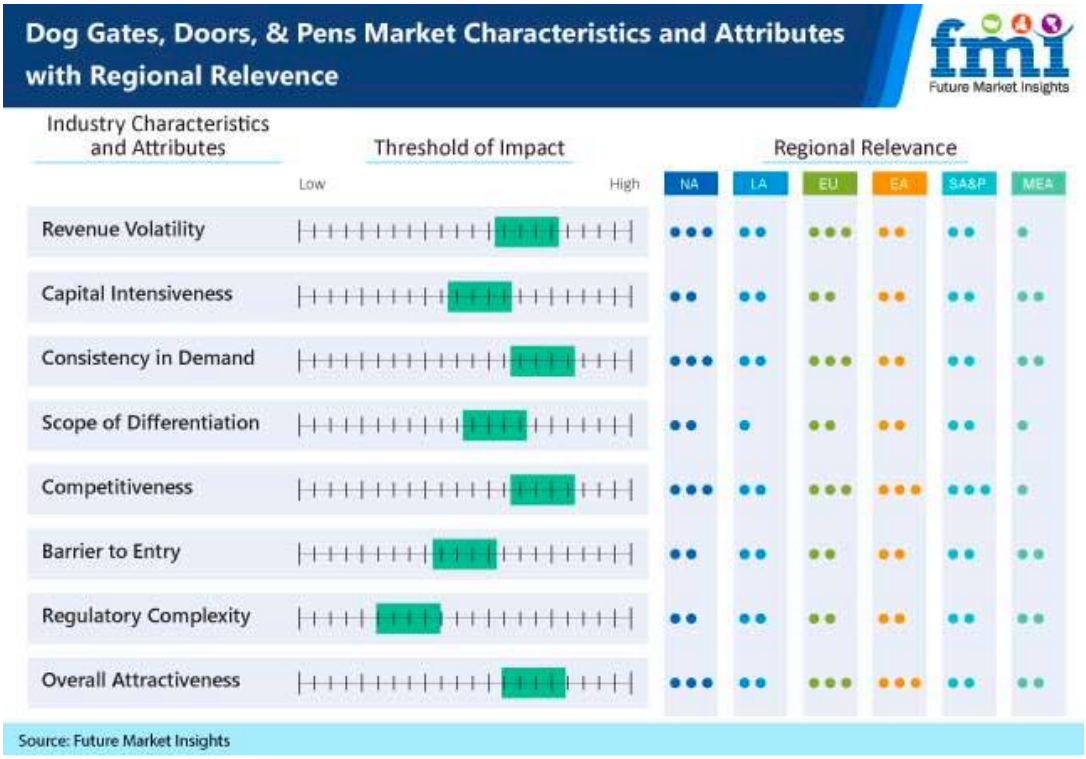
Technological factors	-This kind of technology would disrupt the pet industry. -The idea is also quite ahead of the current reality in the canine marketplace and may scare some users away from being new entrants. -Would be a heavy investment to fund research.
Economic factors	-The smart home customer base is growing with affluence. -Percentage distribution of household income for those that make over 100,000 per year makes up for 33.6% of our population (Statistica Research Department). -The overall real gross domestic product for the United States "decreased at an annual rate of 1.4% in the first quarter of 2022" (Bureau of Economic Analysis).
Ecological factors	-Supply of batteries for the product might be costly, but customers would prefer environmentally friendly materials. -Unwanted animals entering homes can lead to the transmission of diseases -Using sustainable materials that will last a while, could even be made from recycled compost to market towards eco-crowd.
Political and legal factors	-The U.S. Animal Welfare Act is a federal law that "regulates the treatment of animals in research, teaching, testing, exhibition, transport, and by dealers" (USDA). -This act may not include the smart door product in its scope, but the accidents that could happen with the door may pose it in the research category of potential harm.

MARKET ANALYSIS

Market Characteristics and Attractiveness

In Exhibit 4, futuremarketinsights.com portrays the various characteristics of how consumers interact with the market and how companies enter the market.

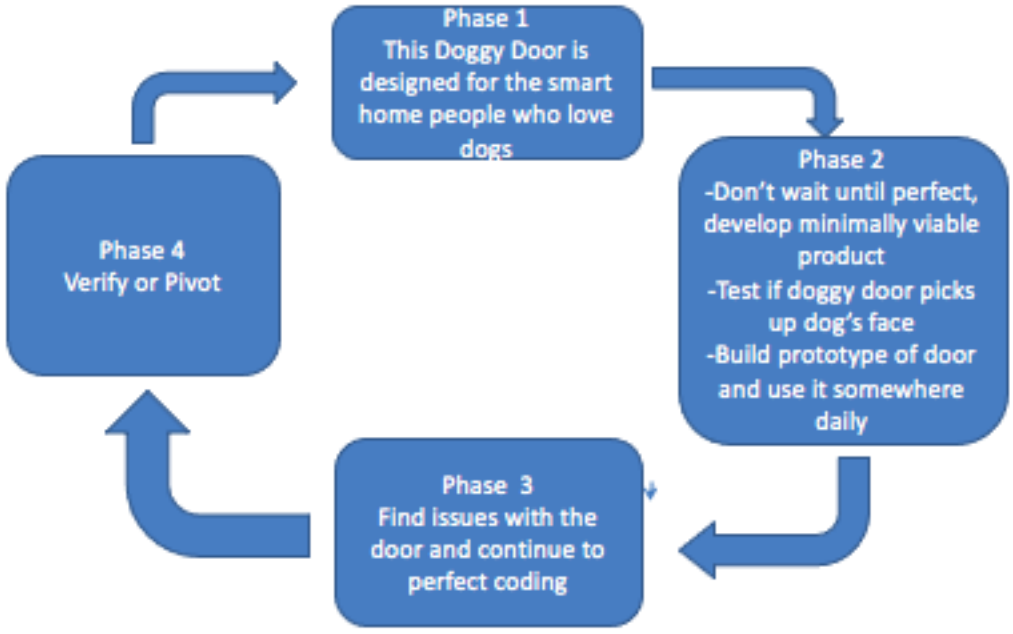
Exhibit 4:



The overall attractiveness of the dog accessory market is very high, and for a good reason. The industry is growing as consumers continue to spend more on their homes, with pets included. The market is quite competitive which intertwines with the medium barriers to entering because many competitors have patents that protect their design and technology. This inspires product differentiation to form new entry companies.

Before diving into the targeted customer base, it is essential to first look at the phases of developing this product to see if it would even be valuable to families in their smart home. The concentration is mainly on the technological side of the idea, with using machine learning to adapt a code that recognizes each dog of the family's household. Below are the various phases outlined in the project to turn the idea into a working reality:

Exhibit 5: Doggy Door Functional Discovery Model



Customer Segments

The target market for the FaceID Canine Door would be the affluent or millennial working family. These families would have a household that owns pet dogs and engages in the smart home world. Our company would provide stellar benefits to those who cannot always let their dog in and out of the house throughout the day.

The big customer characteristics that our design is made for are:

- Families with a smart home desire
- Families who travel a lot
- Families who want to see their dog at work
- Families residing in crime neighborhoods

This canine door also will serve two types of customer segments: mass and niche markets. In the mass markets, customers who frequently love finding the "next big thing" within the consumer electronics sector would get a kick out of this product. It is something new, fun, and exciting that makes it brag-worthy. This willingness for customers to brag about the new technology to their friends is a big deal.

At a more specific level, the FaceID Canine Door caters to the niche segment of people that deeply love their dogs and use smart pet products to help keep owners at ease about the constant well-being of their furry pals. Senior contributor Pamela Danziger details in her Forbes article that dog moms and dads "want nothing more for their pets than for them to enjoy a long healthy, happy life together. The innovative range of smart-pet devices offered by these and other companies make achieving that easier." Smart doors along with other smart pet products provide peace of mind to parents that all of their family is ok. Parents may be able to call their children and extended relatives. However, when it comes time for their pet family this is not possible. That is where our FaceID Canine Door will come in to communicate that their house pets are all right.

Annual Sales Estimation

Due to the pet door market having many competitors, we will be light on our sales estimates to prepare for market volatility. With the high-tech advanced benefits that the dog door has to offer, we are pricing the Face ID Canine Door at $499. Simply catering to the high-tech millennial crowd alone illustrates the big spending on pets. Fortunly.com details that 32% of millennials own at least one pet and that more than half of these owners buy their pets gifts at least once a month. Considering there are 72.1 million millennials in the United States alone, by multiplying this number by both 32% and 50% (pet owners who buy gifts), we are left with 11.5 million millennials that buy monthly gifts for their pets.

This is an enormous amount of people that are willing to spend on their pets. Beyond just stylish gifts, this pet door could make a present for both the pet and the homeowner, with both their lives becoming easier with such a smart product. Each quarter we predict the sale of 750 units. The 750 multiplied by the retail cost of $499 leads to quarterly retail revenue of $374,250. Within a full business calendar year, 3000 units are estimated to be sold, taking .096% of the market share of these millennials that spend monthly on pet gifts. This estimates $1,497,000 in total sales for the first year.

Due to the retail stores on average taking a 30% cut from the sales, it is rather more important to calculate and focus on our wholesale revenue. For each quarter in the first business year, we will bring in $261,975 which results in an initial wholesale annual revenue of $1,047,900. Our overall gross profit margin throughout the first 3 years of business operations is 25.6%.

Marketing Plan

Channels to Deliver Value

The initial channels that the FaceID Canine Door will be accessible are via social media dog magazines and streaming service advertising. The Facebook advertising avenue will be a fantastic opportunity to attract dog groups and blog participants that have a passion for their dogs. Many of the people in these groups consider their furry friends a top priority in their household, even to the point where they are willing to invest in gadgets for them.

Dog magazine marketing is a stellar opportunity to capture the attention of true dog lovers. In all reality, if someone is subscribed to a dog magazine indicates a strong interest in canines. In this sense, the magazine would be a way to illustrate how the life of the dog would be better with our company's smart door. Streaming services allow for longer ads which provide more time to display the benefits. Entrance into the retail market will occur after the first year of sales, as this will provide the company with a better negotiating point with successful sales numbers. The retail market will provide the "wow" factor to a more general audience. In Best Buy, many customers roam around the aisles for inspiration in our fast-paced technology world. Having an eye-catching display is essential to attract new customers to this segment.

Annual Marketing Budget Timeline

First year: $82,920 annual

- $1940 – As per webfx.com, the cost-per-click bidding style of Facebook advertisements dictate that our company will only pay for the ad when someone clicks on it. With the current cost being "$0.97 per click." This budget for Facebook will allow for 2,000 clicks in the initial year's annual budget.
- $30,980 – For the dog magazine advertisements, gaebler.com details that a full-page has an estimated rate of "$15,490.00." This is for a magazine with a high volume of consumers with "approximately 246,000 readers." We will purchase two of these ad placements per year
- $50,000 – Hulu per year rates for advertising is this estimate as designloud.com details that the company takes great value in building relationships with ad agencies.

Second year: $104,980 annual

- $4,000 – Budget for the transition from Facebook to Instagram advertising as webfx.com details almost double the cost per click.
- $30,980 – Continued dog magazine advertisements to further grow brand resonance
- $50,000 – Continue with Hulu advertisements for the year
- $20,000 – Allocated for retail marketing expenses as the company brings products into stores

Third Year: $85,490 annual

- $5,000 – Increasing budget to continue Instagram advertisements and grow brand social media presence
- $15,490 – Cut magazine advertisement allocation in half to enhance other ad methods
- $50,000 – Continue with Hulu advertisements for the year

- $15,000 – Decreased retail marketing expenses as the company has established a store presence, this may be spent on better shelf placement

Pricing Strategy

A simple search on Google shopping will display the prices of smart canine doors ranging from $150-$600. The High Tech and SureFlap brand pet doors are the most similar to the FaceID Canine Door. Both of those brands represent the higher end of this pricing scale. The High Tech Pet Products company in particular has its lowest model priced at $399.

Due to the FaceID Canine Door Company delivering revolutionary technology in its mobile app-connected pet door, we are taking a skimming strategy. This will allow us to price our product higher in the market to recoup production and manufacturing costs as further discussed in the "Servicing and Operations Plan" section. We strive to price the FaceID Canine Door at $499 plus a $75 optional fee if the customer would like installation services as well. Our top priority is to continually sell a product with high quality to build brand loyalty. With time, we will gradually lower the price of the product as sales increase to achieve economies of scale.

Servicing and Operations Plan

Key Partnerships

We have a variety of suppliers and partners that will make our overall operations in sync. Our outsourced manufacturer that makes the hardware with the openings for electronics will be a key partner in delivering high quality yet classy finish. Our partners for each of the materials needed to build the product are essential as we will create pricing contracts with each of the source companies to get the materials at discounted bulk order prices. Amazon, Walmart, Best

Buy, Petco, and PetSmart are key retail channels that can keep a bulk of supply to sell to their customer base.

Lowe's and Home Depot may as well be excellent partners along with our other retail brands, as they can sell the product and even suggest someone to install in-store. Ring doorbell or Nighthawk may be key technology brands that could serve as partners to enhance our brand or buyers with an acquisition to enhance their product line.

Material Sourcing

Exhibit 6 is a display of all the needed materials along with their prices for each unit along with the initial 5,000 units order creation.

Exhibit 6: FaceID Canine Door Materials Cost

.	Cost for each unit	Total cost of 5,000 orders
Rasberry Pi 3 Model B	$ 30.00	$ 150,000.00
Logitech Cameras	$ 90.00	$ 450,000.00
PIR Motion Sensor (generic) x2	$ 1.15	$ 11,500.00
1801 Series Servo Plate A x2	$ 3.75	$ 37,500.00
HS-485HB Servo x2	$ 15.00	$ 150,000.00
Pet Door	$ 30.00	$ 150,000.00
Adafruit 16-Channel 12-bit PWM	$ 8.00	$ 40,000.00
Total		**$ 989,000.00**

Each of these materials was researched with prices that are all sourced on the works cited page. For the Raspberry Pi, we can contact Raspberry corporate directly and receive a bulk order deal since we are buying 5,000 units. We estimate that we will pay $30 for each unit, lower than the $34.29 Newark.com price. Newegg currently has the Logitech cameras for $155 each, but

through directly contacting Logitech and ordering in the bulk of 5,000 units, we estimate to get special made internal cameras for $90 each that will be placed in the center of the doggy door.

Buying a pack of 5 Stemedu motion sensors on Amazon costs $9.99, which breaks down the cost to $2 per module. We need 10,000 of these (because each doggy door will take 2), therefore we will contact the company Stemedu directly and bulk order from them. This will lead to an estimated cost of $1.15 per unit. 10,000 units will also be required for the 1801 Series Servo Plate. Gobilda.com appears to have many in stock, so we will get in contact with the corporate company and negotiate the pricing. Due to such a large bulk order, we estimate the cost of each to be $3.75 while it is currently sitting at a retail price on the website of $4.49.

The Hitec HS-485HB Servo is selling on motionrc.com for $17.39 each. With buying 10,000 bulk orders, we will contact Hitec RCD corporate directly via their Americas Sales division and negotiate a better deal due to the bulk order. We estimate the cost coming down to $15 each.

The FaceID Canine Door company will have an outsourced manufacturing team design the doggy door itself that is similar in design to Exhibit 7. Our outsourced manufacturing team will alter the flap to have a lock on it that can be electronically opened or closed. The white design with the aluminum finish is the correct style, but more colorways will be released as the business continues to grow. There will be an opening in the top center of the doggy door to allow our electronics team to input the camera. There also will be a weatherproof panel box manufactured at the top of the dog door. This box will be left empty so our electronics team will input the correct materials and connect it with the proper software. The projected cost for each unit is $30 with a bulk order.

Exhibit 7: Similar Dog Door Design

Amazon Marketplace

As for the final material, the Adafruit 16-Channel 12-bit PWM, the company website details that if the bulk order is over 100 units it will cost 11.96 for each part. Our sales team will contact Adafruit corporate directly to get a better price on the quantity order of 5,000 units. We estimate that we will pay $8 for each component.

Employee Pay and Training Costs

Our 20 contracted electrical technicians will be working for $20 an hour better than the hourly Tennessee industry average of $19.60 as detailed on zippia.com. As well the enterprise will tack on an additional $10 on the hourly wage to account for taxes and employee benefits. Therefore, the total will be a $30 per hour payout which covers the total wrap-around costs of wages, taxes, and benefits from the corporate standpoint. These technicians will work 40 hours a week until all of the initial startup bulk inventory of 5,000 is built. We initially will allocate $4,000 on training for our 20 contracted employees to each spend 10 hours on training courses to understand the software and integrate it into the pet door.

These electrical technicians are contracted in the United States of America to build the bulk orders. They will not be on the payroll throughout the entire business year. They will however be on contract based on the need for more inventory. When more inventory is needed to be manufactured, they will be contacted again to render another order of a certain bulk amount of the dog doors. As well, there will be contractors in each region of the American market to fix issues in the technology that may pop up.

With each completed dog door taking an estimated 2 hours to install and configure the electronics with the app software, we are looking at a total of 10,000 hours spent to have our bulk inventory of deliverable products ready. 10,000 hours divided among twenty technicians working 40 hours a week along with the initial training costs lead to a total cost of $304,000 in labor expenses. All of the bulk products will be finished with the tech installed 12.5 weeks after receiving the shipment of the doggy door-designed hardware from the outsourced manufacturer.

The closest parallel to our app design is a photo-sharing app. As per dotcominfoway.com, it will take a business about 610 hours to create a photo-sharing app. We will hire an outsourced app development team based out of India called Hyperlink Info System. They charge $23 per hour for projects. If we are estimating 610 hours of work times 23$ per hour, we are looking at $14,030 as a total expense. The FaceID Canine Door enterprise however will add an extra $5000 of leeway for advanced app features like connecting to a doggy door and having dog profiles. The total for the app creation will therefore be an estimated $19,030.

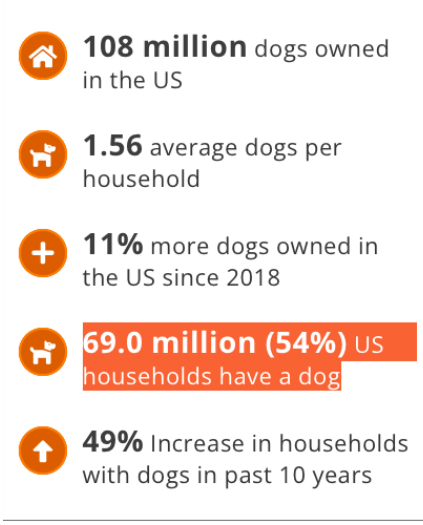
Key Back-End Activities

The manufacturing of the products is quite crucial. We must certify that we are designing a high-strength and weather-resistant canine door that can resist any kind of force a dog may enter with. The downstream supply chain line to get the product from our manufacturing plants into the stores and distribution centers across America is of the utmost importance as well. Maintaining quality relationships with our upstream and downstream channel partners is essential for the profitable success of the company. It also helps to assure that the company does not come across too many unpleasant surprises.

Customer Relationships

The FaceID Canine Door company will be well connected with its customer base, offering them personal customer service care to keep them well satisfied. We will have an outsourced team based out of India via the Hyperlink Info System company that offers "constant support and guidance" for a $7,999.00 quarterly rate that will handle any type of digital issue. As for structural product issues, we will have repair third-party contractors on file for each city to help assure superior quality and satisfaction to customers. The dog market is a huge industry. As we market our products properly, we will tap into this gold mine. An animal statistics website named bestfreinds.org goes into detail about how massive the American dog market is, which can be viewed in Exhibit 8.

Exhibit 8: Dog Statistics in US Households



Prominent streams of revenue include a subscription service, brokerage fees, and lending/renting/leasing the equipment. The subscription service in particular will enhance customer relationships by providing premium features and services to our clientele that hold a high brand loyalty.

Financial Projections

Exhibit 9: Pro Forma Income Statement

Report Item	Quarter 1	Quarter 2	Quarter 3	Quarter 4	End of Year 1	End of Year 2	End of Year 3
			Gross Profit				
Retail Sales	374,250	374,250	374,250	374,250	1,497,000	1,595,802	1,755,382
Wholesale Revenue	261,975	261,975	261,975	261,975	1,047,900	1,117,061	1,228,768
- Cost of Goods Sold	195,000	195,000	195,000	195,000	780,000	831,480	914,420
= Gross Profit	**66,975**	**66,975**	**66,975**	**66,975**	**267,900**	**285,581**	**314,348**
Gross Profit Margin	**25.6%**	**25.6%**	**25.6%**	**25.6%**	**25.6%**	**25.6%**	**25.6%**
			Expenses				
Research and Development	19,030	0	0	0	19,030	5,000	10,000
Customer Support Service	7,999	7,999	7,999	7,999	31,996	31,996	31,996
Social Media Advertisements	485	485	485	485	1,940	4,000	5,000
Retail Advertisements	0	0	0	0	0	20,000	15,000
Dog Magazine Advertisements	15,490	0	15,490	0	30,980	30,980	15,490
Hulu Per Year Rate	50,000	0	0	0	50,000	50,000	50,000
General Admin Costs	10,000	10,000	10,000	10,000	40,000	40,000	40,000
Shipping	6,000	6,000	6,000	6,000	24,000	25,584	28,136
Excess Capacity Cost	500	500	500	500	2,000	800	500
Interest Expense	25,000	21,000	17,500	13,870	77,370	63,250	50,000
= Total Expenses	**134,504**	**45,984**	**57,974**	**38,854**	**277,316**	**271,610**	**246,122**
Operating Profit (Net Income before tax)	**-67,529**	**20,991**	**9,001**	**28,121**	**-9,416**	**4,555**	**68,226**
Taking Business tax out of 22%							
NET PROFIT					**-9,416**	**3,553**	**53,216**
PROFIT MARGIN	**0.000%**	**0.000%**	**0.000%**	**0.000%**	**-0.899%**	**0.318%**	**4.331%**

A key financial aspect of the company income statement is that there is a quarterly interest expense based on the start-up loan taken out to cover inventory. The loan interest rate is 10%, which is split up among the quarters of each business year. This interest is based on the cost of goods sold each quarter. The company will as well be paying a business tax of 22%, this is illustrated in the Profit Margin section where we break even in year 2 and start to go positive in the third year of operations.

In the first four quarters, the company allocated an extra $2,000 for quarters 2 through 4 for any out-of-the-ordinary mishaps with the software or mechanical infrastructure to be fixed. As well we are estimating a 6.6% growth in the company sales as it follows the compound annual growth rate for the industry as previously discussed. The company has an $8 estimation on shipping for each product. By the second quarter, we turn a profit as depicted on the income statement because the initial materials start-up investment of $989,000 is properly dispersed throughout each of the quarters in the Cost of Goods Sold.

Sales for the second year are 3,198 units, with an upfront investment to cover manufacturing the extra 1,198 units. In this second year, we also add a $5,000 miscellaneous research and development fee in case new features are added to the software. Our strategy will be adapted with time to find a more cost-effective approach to minimize inventory costs. In the second business year, the company has projected profit results over the million-dollar mark.

The third business year is when the company predicts to grow ten percent higher than the previous year due to fast-growing brand recognition in the marketplace. This year however we expect demand to hit 3,517 units sold, so we will construct 3,600 units to have a safe amount of excess inventory if necessary. As the FaceID Canine Door company is always finding ways to

grow, we will take this year to invest in added code developers to enhance the software connectivity further. This will cost an extra $10,000 in the research and development category for year three. The third year is also a profitable return to the company executives, although under the previous year's numbers.

With all expenses included, each unit is expected to cost $260 to create. With selling the doors at $499 each, we can see that inventory is very expensive. These high material costs along with marketing expenses are the reasons why year 1 is negative, year 2 is just breaking even, and year 3 is what our company is aiming for as we finally have hit a profit.

Sensitivity Analysis

If the costs went up 20% above projections for the end of year one, the costs of goods sold go from $780,000 to $936,000 and total expenses go from $277,316 to $332,779. Subtracting the End of Year 1 wholesale revenue of 1,047,900 by the new $936,000 cost of goods sold leads to a new Gross Profit of 111,900, a 13% decrease from the original projection. However, this 20% increase changes the End of Year's Total expenses to $443,935. This leads to an overall operating profit for the first year of $340,985, a 59% decrease from the original operating profit projection.

If product prices have to be lowered by 20% due to competition, it would decrease the End of Year 1 wholesale revenue to $1,197,600 and the gross profit would decrease by 78% from original projections to $267,900. The updated operating profit would be -$218,996, over a $200,000 drop from original projections. Lowering product prices by 20% would have a devastating effect on the entire income statement, leaving the company unprofitable after 3

years. To prepare for risks like this, the company will continue to research and invest in leaner operations and lower material costs.

Conclusion

In conclusion, The FaceID Canine Door Business Plan illustrates the ins and outs of this soon-to-be successful company. It will take some dedication and open communication with the partner relationships to implement a continual distribution line. The goal of the company overall is to conjoin a love for dogs with a passion for technology. This product, therefore, is a key step closer for families and their furry pals to having the ultimate smart home.

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