

ASAD: The Anti-Smoking Assistive Device  
Product Plan

Shahin Rafikian  
CCTP 806  
Professor Stephen Minnig

## I. Product Description

### a. Product Name

The name of this product is ASAD, an abbreviation for Anti-Smoking Assistive Device. What's significant about the product name is its meaning – ASAD is an Arabic word meaning “lion.” Lions are currently vulnerable to becoming extinct, and if any action is not taken to protect the existence of lions then they may become extinct.<sup>1</sup> ASAD uses a lion as their mascot, along with a campaign that urges nicotine users to stop themselves from going extinct.

### b. Scenarios

#### Scenario 1

Rania has been a nicotine user for over five years. She has made the switch to using Juul, the e-cigarette industry's leading product, in the past 6 months and hasn't gone back to using a cigarette since. While she's completely cut out cigarette use, she's found herself using her Juul more often than cigarettes due to the socially acceptable nature of Juuling. She's found herself wanting to take the next steps to quit nicotine use entirely, but Juul has made it difficult for her to take the initiative. When using her Juul, she doesn't know the equivalent of how many cigarettes she is having which makes it difficult for her to set goals for herself to monitor and cut down her Juul use. To make matters worse, especially considering how new Juul is to the market, Juul (or any third-party vendor) has yet to create a product that measures the equivalent of how many cigarettes a Juul user is having during an e-cigarette smoking session.

#### Scenario 2

Jon has been addicted to cigarettes for several years now. While being a traditional tobacco user, Jon has noticed all the social buzz about Juul, a sleek and trendy e-cigarette. He's aware of the health complications that come from smoking traditional cigarettes and has always been interested in cutting down. Additionally, marketed as “The Alternative for Adult Smokers,” Juul has been a product of interest for him to use alternatively to traditional cigarettes.<sup>2</sup> He's not a fan of nicotine replacement therapy products, nor does he believe in rehab for his nicotine addiction. Juul could be the perfect product for him, however there is no accompanying product to Juul that helps monitor his nicotine use which is a concern of his that he'd like to address, especially if he is making the switch from cigarettes to Juul to help him cut back on his nicotine addiction.

#### Scenario 3

---

<sup>1</sup> “The King of the Jungle Has One Deadly Predator - Humans” American Wildlife Foundation. <https://campaign.awf.org/lion-poaching/>

<sup>2</sup> “Our Responsibility.” Juul. <https://www.juul.com/our-responsibility>.

For over a decade, Roya has relapsed from her nicotine sobriety close to a dozen times. She was an avid cigarette user, and with that she was a prominent user of nicotine replacement therapy products. She's tried inhalers, gum, patches, and even nasal sprays – They're deemed successful for the first few months, however she resorts back to her favorite pack of Marlboro cigarettes each and every time. She constantly asks herself why FDA approved nicotine replacement therapy products have failed her time and time again. In her times of doubt and trouble, she's been noticing all the hype behind the e-cigarette company Juul. While she notices all the stories of adult smokers quitting cigarettes through the use of Juul, she longs for a way in which she's able to quit nicotine use entirely.

In response to these three scenarios, there is a need for a product compatible with Juul devices that will both estimate and display the equivalent of how many cigarettes a user is having in real time when using the Juul product.

### c. Resources

The solution to this need can be a device that is clipped onto the Juul device, timing the user once they start using their Juul to determine an equivalent estimate on how many cigarettes they've had if they were smoking cigarettes.

This product would be for users of the Juul product. More specifically, this would be for nicotine users who are interested in cutting down the amount in which they smoke, as well as assisting them in quitting smoking entirely. Interviews with Juul lab specialists should be conducted in order to determine the mathematical conversion rate of how much one on-average inhalation of Juul converts to in one on-average inhalation of a cigarette. Additionally, different flavors of Juul may have different on-average inhalation conversion rates than others. The same principle can be said when conducting interviews with cigarette lab specialists to determine, on average, how many inhalations of a cigarette finish the cigarette entirely, as well as whether different cigarette flavors affect those results. Further resources include gathering data from Juul users to determine how much of a need there really is to such a problem. Cigarette users should also be interviewed to determine not only their longing for quitting nicotine use, but also the desire for such a solution to a problem (let alone considering if this really even is a problem). Interviewing health/health care specialists would be beneficial in gathering data to determine if there is such a need out there in the market. Finally, nicotine replacement therapy users should be interviewed to determine both how successful they find nicotine replacement therapy products to be and what they might find to be as a suitable solution to their nicotine addiction.

## II. Product Website Mock-Up



The mock-up features a header with the ASAD logo (Anti-Smoking Assistive Device) and a lion's head. Navigation links include 'home', 'about', 'connect', 'purchase ASAD', and 'know the truth'. The main content area shows a small black device with the quote: "The smallest device to bring the biggest change." — Former Juul user. A large image of Earth from space is accompanied by the quote: "They say that seeing is believing, and we're here to help you with that."

**ASAD**  
Anti-Smoking Assistive Device

home about connect  
purchase ASAD know the truth



"The smallest device to bring the biggest change."  
— Former Juul user

*They say that seeing is believing,  
and we're here to help you with that.*

### III. Story Map



When directing yourself to ASAD's website, prospecting consumers will be presented with a minimalistic home page that displays ASAD's mission statement. It's up to the consumer to delve into the provided website tabs ("about," "connect," "purchase ASAD," and "know the truth") to not only learn more about ASAD, but also decide if they choose to have ASAD assist them on their path for reducing their nicotine intake.

## IV. Target Market and Value Proposition

### a. Market description

ASAD is entering the broad nicotine industry, which includes tobacco competitors, e-cigarette competitors, and nicotine replacement therapy competitors. These three industries, while competitors, are also the target segmentations that ASAD anticipates to have as prospecting consumers.

The vape/e-cigarette industry has a population of roughly 41 million users -- 4.7% of which are youths, 4.2% of which are young adults, 2.8% of which are adults, and 1% of which are elders.<sup>3</sup> Of those 41 million individuals, it's estimated that 32 million of those users are Juul users based on the staggering +70% dominance over the vape/e-cigarette market against other competitors.<sup>4</sup> 25.7% of the 41 million users are reported to be in middle school or high school, while the remainder of the e-cigarette population consists primarily of young adults (college level) and adults.<sup>5</sup> Due to the fairly new nature of Juul, the overwhelming 600% sales increase within the year,<sup>6</sup> and the lack of clear data (brushed up on later within the defined target segmentations), the exact statistical analysis for young adults, adults, and elders is unknown.

With regards to the tobacco industry, there are currently roughly 37.5 million smokers in the United States: 13.1% of which are young adults (18-24 years old), 35.6% of which are adults (aged 25-64), and 8.8% of which are 65 years old or older.<sup>7</sup> These are considered to be active cigarette smokers in comparison to existing data that reflects one-time users.

Nicotine replacement therapy product users consist of scattered data that can only be bundled up by means of estimating the total population. Similarly to the Juul target segmentation, tracking and collecting accurate data that represents nicotine replacement therapy use does not draw a clear picture due to the fluctuating success and failure(s) of nicotine replacement therapy users on an individual level. Knowing that the United States made 900 million dollars in nicotine

---

<sup>3</sup> "E-Cigarette: Facts, Stats and Regulation." Truth Initiative. July 19, 2018. <https://truthinitiative.org/news/e-cigarettes-facts-stats-and-regulations>.

<sup>4</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>5</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>6</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>7</sup> "Current Cigarette Smoking Amongst Adults in 2016." Centers for Disease Control and Prevention. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm)

replacement therapy sales,<sup>8</sup> and by determining the average cost for the five FDA approved nicotine replacement therapy products<sup>9</sup> to be \$116.00, roughly 7.7 million nicotine replacement therapy products were sold. To be safe, and to avoid accounting for potential wholesale purchases, the nicotine replacement therapy segmentation population should be rounded to 7 million.

#### b. Year 0 Sizing

With all of this taken into consideration, the general market size for ASAD is roughly 85.5 million people. Though large, ASAD will only target 20% of that population at year one. The unit of sale will be the individual components of ASAD. It's anticipated that with the Juul target segmentation, there will be a 6.1% annual growth rate over the course of five years, where ASAD will enter the market with 15 million users and close the five year window with 19 million. This target segmentation is the largest of the three based on the fact that ASAD is designed for Juul consumers, and a product like ASAD would be effectively accepted into the market especially when considering the social backlash that has been taking place against Juul. Keep in mind, though, that a larger market involvement from a desired segmentation does not equate to the best annual growth rate. The cigarette target segmentation is predicted to have an annual growth rate of 49.5% annually, in which ASAD will enter the market with a hopeful 1 million cigarette users in year one that will transition from cigarette use to Juul use in order to use ASAD. It's been discovered that 60% of smokers are more willing to switch from cigarettes to e-cigarettes in order to quit smoking.<sup>10</sup> Additionally, Juul's entire motto is to have adult smokers switch from smoking cigarettes to smoking Juul – Their advertising campaigns have been deemed successful, therefore ASAD's projected market involvement throughout the five-year investment plan seems realistic. Finally, nicotine replacement therapy product users would account for 700,000 at year one, maintaining an annual growth of 12% over time. This was determined based on both the nicotine replacement therapy industry's decreasing sales due to increasing e-cigarette sales<sup>11</sup> and anticipated business agreements with health care providers and wholesale distributors on ASAD partnerships to have them recommend ASAD as a new and innovative nicotine replacement therapy method.

#### c. Target Segmentations Defined

---

<sup>8</sup> "Sales of Nicotine Patches and Gums Slow as More Smokers Turn to E-Cigarettes to Quit," Drug Free, January 29, 2015. <https://drugfree.org/learn/drug-and-alcohol-news/sales-nicotine-patches-gums-slow-smokers-turn-e-cigarettes-quit/>.

<sup>9</sup> "Nicotine Replacement Therapy for Quitting Tobacco," January 12, 2017, , <https://www.cancer.org/healthy/stay-away-from-tobacco/guide-quit-smoking/nicotine-replacement-therapy.html>.

<sup>10</sup> "Sales of Nicotine Patches and Gums Slow as More Smokers Turn to E-Cigarettes to Quit," Drug Free, January 29, 2015, , <https://drugfree.org/learn/drug-and-alcohol-news/sales-nicotine-patches-gums-slow-smokers-turn-e-cigarettes-quit/>.

<sup>11</sup> "Sales of Nicotine Patches and Gums Slow as More Smokers Turn to E-Cigarettes to Quit," Drug Free, January 29, 2015, , <https://drugfree.org/learn/drug-and-alcohol-news/sales-nicotine-patches-gums-slow-smokers-turn-e-cigarettes-quit/>.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
<b>Total Market (units)</b>	85500000	94050000	108157500	129789000	162236250	210907125	pieces of ASAD
<b>Growth Rate (% per year)</b>	10%	15%	20%	25%	30%		
<b>Total Market by Segment</b>							
TS1 Juul Users		15000000	16000000	17000000	18000000	19000000	15000000
TS2 Cigarette Users		1000000	2000000	3000000	4000000	5000000	1000000
TS3 Nicotine Replacement Therapy Users		700000	800000	900000	1000000	1100000	700000
Remainder		77,350,000	89,357,500	108,889,000	139,236,250	185,807,125	
<b>Desired Market Share</b>							
TS1 Juul Users		3%	4%	6%	8%	12%	15000000
TS2 Cigarette Users		1%	2.0%	3%	4.0%	5%	1000000
TS3 Nicotine Replacement Therapy Users		2%	3%	5%	7%	9%	700000
<b>Expected Sales by Target Segment</b>							
TS1 Juul Users		450000	640000	1020000	1440000	2280000	15000000
TS2 Cigarette Users		10000	40000	90000	160000	250000	1000000
TS3 Nicotine Replacement Therapy Users		14000	24000	45000	70000	99000	700000

Though 1/4<sup>th</sup> of e-cigarette users are reported to be in middle school or high school, it's hard to determine exactly what percentage of this population is using Juul based on several factors. For starters, purchasing Juul requires consumers to be at least 18 years old (21 in some areas), however Juul's are popularly sold at physical retail locations such as gas stations which lets middle and high schoolers capable of purchasing Juul's without total regulation.<sup>12</sup> Additionally, surveys have indicated that using Juul has sometimes been classified as not a vape or e-cigarette, which can result in inaccurate data that doesn't entirely capture the large Juul population.<sup>13</sup> Users of Juul, a device that's marketed as 'trendy,' has a large population of trendy youths that have even coined the term "Juuling" as an alternative term for vaping or smoking.<sup>14</sup> The Juul device itself is designed in a sleek and modern way that's appealing for both the user and those that are around them. It has become a social status symbol, blurring the lines between a product that's considered to be hype/bandwagon and an actual smoking alternative.<sup>15</sup> Its easy to use and quiet appearance makes nicotine intakes to be both under the radar and uncomplicated for smoking use (in comparison to other e-cigarettes on the market, which is what makes Juul so successful). Additionally, Juul's are deemed more appealing than cigarettes due to the lack of odor it produces and the accessibility of using Juul in places where smoking is typically prohibited. The Juul market consists primarily of young adults either in or fresh out of college.<sup>16</sup>

Target segment descriptions pertaining cigarette users were more quantifiable than Juul users which consisted primarily of qualifiable analyses that were associated from the close-to minimal amount of data available. Cigarette users primarily consisted of men (17.5%) between

<sup>12</sup> "Where are kids getting Juul?" Truth Initiative. May 29, 2018. <https://truthinitiative.org/news/where-are-kids-getting-juul>

<sup>13</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>14</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>15</sup> Bogle, Kemper. "JUUL Use and Advertising Potentially Increasing Nicotine Addiction in Young Adults." The University Daily Kansas. March 26, 2018. [http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article\\_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html](http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html).

<sup>16</sup> "About Electronic Cigarettes (E-Cigarettes)." Smoking and Tobacco Use. [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/about-e-cigarettes.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html).



the ages of 45-65.<sup>17</sup> Research determined that cigarette users populate demographic fields pertaining to lower income, lower levels of education, and high levels of psychological distress.<sup>18</sup> Traditionally known for having more of a history with cigarette use (meaning they are not considered ‘new’ smokers), cigarette users are primarily looking to quit however unable or unmotivated to do so.<sup>19</sup>

Nicotine replacement therapy product users consist of heavy adult smokers. No research exists on the success of nicotine replacement products on users who smoke less than ten cigarettes,<sup>20</sup> which implies the severity of nicotine replacement therapy users’ nicotine addiction. Many nicotine replacement therapy users attempt to quit through said products, but typically fail to do so.<sup>21</sup> Demographical information for nicotine replacement therapy users are not entirely known due to the lack of user follow up and loss of user contact (a result of what can be hypothesized as a users assumption that their “small attempt” is not good enough<sup>22</sup>).

<b>Juul Users: The ‘Juulers’</b>	<b>Cigarette Users: The ‘Traditionalists’</b>	<b>Nicotine Replacement Therapy (NRT) Users: The ‘Dreamers’</b>
Primarily youth – young adults	Primarily young adults - adults	Primarily adults
New or fairly new smokers	Avid cigarette users	Long-term heavy smokers
Introduced to nicotine addiction	Addicted to nicotine	Been addicted to nicotine, longing to cut back on use
Socially accepted	Socially conducted though generally viewed badly	Close to zero social recognition
Status / social status symbol	Statistically affiliated with lower income	No significant economic affiliation
Use Juul as a recreational product (a ‘want’)	Use cigarettes to feed nicotine addiction (a ‘need’)	Use NRT products to fix nicotine addiction (a ‘need’)
No direct link between Juul use and psychological distress	Strong relationship between psychological use and distress	NRT consumers use this product as a result of psychological distress that led to nicotine addiction

<sup>17</sup> "Current Cigarette Smoking Among Adults in the United States." Smoking and Tobacco Use. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm)

<sup>18</sup> "Current Cigarette Smoking Among Adults in the United States." Smoking and Tobacco Use. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm)

<sup>19</sup> "Almost 70 Percent of Smokers Want to Quit, But Few Do." Drug Free. November 11, 11. <https://drugfree.org/learn/drug-and-alcohol-news/almost-70-percent-of-smokers-want-to-quit-but-few-do/>.

<sup>20</sup> "Nicotine Replacement Therapy for Quitting Tobacco," January 12, 2017, , <https://www.cancer.org/healthy/stay-away-from-tobacco/guide-quit-smoking/nicotine-replacement-therapy.html>.

<sup>21</sup> Borland, R., Partos, T. R., Yong, H. H., Cummings, K. M., & Hyland, A. (2012). How much unsuccessful quitting activity is going on among adult smokers? Data from the International Tobacco Control Four Country cohort survey. *Addiction (Abingdon, England)*, 107(3), 673-82. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3909986/>

<sup>22</sup> Borland, R., Partos, T. R., Yong, H. H., Cummings, K. M., & Hyland, A. (2012). How much unsuccessful quitting activity is going on among adult smokers? Data from the International Tobacco Control Four Country cohort survey. *Addiction (Abingdon, England)*, 107(3), 673-82. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3909986/>

Large portion (roughly 27% <sup>23</sup> ) are unaware of how harmful vaping is	Aware of how harmful smoking/nicotine is	Are aware of how harmful smoking/nicotine is
Can be dual users of Juul and cigarettes	Can be dual users of Juul and cigarettes	Are not dual users of Juul and cigarettes

#### d. Market Share and Five-Year Forecast

By understanding the characteristics of ASAD's target markets, the products five year forecast is deemed justified. Juul's desired target market is predicted to grow by 2% each, which is more than safe to assume considering Juul has increased in size by over 600% in one year. More users means more opportunities for ASAD to get to the hands of Juul users. Expected sales would start at \$450,000 at year 1, and end with \$2,280,000 at year 5. In regards to cigarette users, a steady increase in market population involvement and desired market share goal is predicted: 1 million users to 5 million users (an increase of 1 extra million per year), and 1% to 5% market seizure (an increase of 1 extra percent per year) respectively. This steady growth was determined by accounting for three things: (1) with humbling segment and market share increases throughout the five years, ASAD can bet on having that amount (or more) fall into Juul's market segment to purchase ASAD; (2) Juul has been growing at an unbelievable exponential rate, therefore making ASAD's market shares both realistic and promising; (3) such low numbers are acceptable due to the history of nicotine user data – a lot of research and data is often found scattered or not followed up with for research purposes. Finally, expected obtainment of market shares for nicotine replacement therapy users is expected to start at 2% on year 1 and end with 9% dominance by year 5. The start of growth is slow, but increases by every +2% after year 2. This is predicted based on the anticipated business relationships that ASAD will foster with other health care providers and whole sale distributors to consider ASAD as a nicotine replacement therapy product.

Listed in the chart below, these are the anticipated units of ASAD sold annually over the course of the next five years. The steady annual growth rate increases slowly over time, ensuring that ASAD will be in the hands of millions of Juul users five years after an initial investment is made.

<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
474,000 units sold	704,000 units sold	1,155,000 units sold	1,670,000 units sold	2,249,000 units sold

## V. Environment – PEST Analysis

A primary concern for the success of ASAD is the lack of e-cigarettes being approved by the FDA (let alone acknowledged by researchers or society) as a viable nicotine replacement

<sup>23</sup> "E-Cigarette: Facts, Stats and Regulation." Truth Initiative. July 19, 2018. <https://truthinitiative.org/news/e-cigarettes-facts-stats-and-regulations>.

therapy product, despite present day research demonstrating the notable success of e-cigarettes assisting smokers from quitting cigarettes.<sup>24</sup> Considering how new Juul's are to the market and how after their 600% growth, FDA regulations to slow down/tame the company's growth is only now being enacted, approval for ASAD as a recognized nicotine replacement therapy product might take several years of lobbying and societal support. Alternatively, ASAD can be sold without FDA approval and recognition as a nicotine replacement therapy product, however that will then directly impact out third and smallest target segment which are nicotine therapy replacement product users. In regards to this third group, anti-trust laws might be established if ASAD were to attempt to partner with health care providers and whole sale retailers – such partnerships and distributions would be done in order to have nicotine users switch to Juul to use ASAD, however without the FDA approval there won't be any support from these key players. In the case that we do get FDA approval, the anti-trust laws and competition policy laws might be enforced in order to regulate competition practices amongst businesses within the nicotine replacement therapy industry. Currently, the political climate between Juul and the FDA/various other political figures is a bit rocky. Recent FDA disputes against Juul were forwarded in response to the alarming rate of minors both illegally purchasing and using Juul.<sup>25</sup> Though there is tension, we believe that partnering with ASAD will not only help strengthen the relationship with the FDA and society, but also help allude Juul to having a more positive product image in society, rather than having a corrupt image that suggests they promote the use of their product amongst users. ASAD will demonstrate the company's seriousness in address issues of nicotine addiction.

The financial standing of Juul is beyond profitable. Not only is the e-cigarette industry luring traditional cigarette users into their ecosystem,<sup>26</sup> but also Juul is bringing new consumers into their product ecosystem. The long-term economic standing of the e-cigarette industry will prevail for quite some time, as analysts predict the industry will triple in size by 2023.<sup>27</sup> The only concerns regard the success of Juul, the leading e-cigarette in the e-cigarette industry, over time. To alleviate concerns, it's important to note that Juul is too big to shut down. Even with FDA rulings to control the illegal purchasing and use of Juul to minors, Juul has found a way to limit its product to their desired target market of *legal* +18 year old's by removing flavored pods and their product inventory by many physical retail stores.<sup>28</sup> As an investor, this makes ASAD even more profitable based on how more consumer traffic will come directly from online market sales, in which customers will be going on Juul's site to purchase Juul, resulting in them discovering and potentially purchasing ASAD along with it. In another scenario, ASAD can be as accessible as Juul once was in retail stores by having them sold in retail stores, which means

---

<sup>24</sup> "About Electronic Cigarettes (E-Cigarettes)." Smoking and Tobacco Use.

[https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/about-e-cigarettes.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html).

<sup>25</sup> "JUUL Labs, Inc. Warning Letter." U.S. Food and Drug Administration to Mr. Kevin Burns. September 12, 2018.

<https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM620220.pdf>.

<sup>26</sup> LaVito, Angelica. "US Health Officials Flag Increasing Popularity of Flavored E-cigarettes as Concern in New CDC Study." Health and Science. August 23, 2018. <https://www.cnbc.com/2018/08/23/us-health-officials-flag-popularity-of-flavored-e-cigarettes-as-worry.html>.

<sup>27</sup> "E-Cigarette Market Overview." September 2018. <https://www.psmarketresearch.com/market-analysis/e-cigarette-market>.

<sup>28</sup> Abou-Sabe, Kenzi. "Juul to Remove Most of Its Flavored Products from Retail Stores." NBC News. November 13, 2018. <https://www.nbcnews.com/health/kids-health/juul-reveals-plan-snuff-out-e-cigarette-use-among-kids-n935746>.

the sales of ASAD can be strengthened. Labor costs for ASAD should be minimal, considering the cost to make ASAD is under \$3.00 – To strengthen the United States market economy, production and distribution is anticipated to take place within the country (this will then fight back against potential disputes regarding outsourcing and how ASAD fails to support the United States economy).

Much like Juul, ASAD will be seen on the surface level as an assistive anti-smoking product for users that are addicted to nicotine, and/or are looking to quit their nicotine use. However, with the prevalence of Juul use amongst 18 to 24 year old's it's vital for ASAD to direct their attention to raising awareness about the dangers of nicotine use. Once awareness is raised, ASAD can be seen as a beneficial technology to the nicotine addiction epidemic. To rebuttal, it's possible that society will criticize ASAD as being corrupt or 'against the people' based on how it's being targeted as an 'anti-smoking device,' yet at the same time it's supporting the use of Juul, the device that's delivering the nicotine to the user. Backlash against ASAD could consist of arguments pertaining to the uselessness of the device, and how ASAD does not technically assist the nicotine user in any way. In response, ASAD's justification would be that ASAD's goal is to raise awareness to the equivalent amount of cigarette a nicotine user is having through the use of Juul. ASAD works closely with mindfulness practices in the field of psychology – Once the user is made aware of the dangers of nicotine use and the amount of nicotine/number of cigarettes they are having per-Juuling session, the Juul user can make informed and active efforts to set goals for themselves to cut down on the number of equivalent-cigarettes they are having when using their Juul, further cutting down their nicotine intake.<sup>29</sup> This is the power of mindfulness practices – to raise awareness of ones self, ones actions, and assist individuals with self-insight and self-reflection to live a more proactive and promising life.<sup>30</sup> In the defense of ASAD, if a nicotine user were to take the first steps to purchase ASAD, it's a promising notion that they are already mindful and proactive enough to want to not only cut down on their nicotine addiction, but also take future and necessary steps to quit nicotine use entirely. It can also be argued that the creation of ASAD can also promote a more mature image of Juul and Juul users (especially those that use ASAD), which can help the underage Juul-use epidemic. Illegal use of Juul from minors is in response primarily to Juul's appeal and sociocultural status as a cool and trendy device, leading to nicotine use.<sup>31</sup> With ASAD becoming the first product on the market to help control the use of Juul, ASAD might make Juul look like what it really is in the public eye – an alternative smoking device, not a trendy or rebellious device that looks cool.

The technology to produce ASAD requires minimal development or a call for further research requiring thousands of dollars invested to develop the perfect product. Consisting of an LCD display, the technology to track and display general conversion rates, and a plastic housing case that will wrap around the Juul device, the cost of ASAD will start low and decrease over time. The only concern regarding the technology would be if Juul were to completely revamp or recreate Juul's current design. This would result in ASAD developers and producers to repeat initial research and design schematics in order to have ASAD be physically and accurately

---

<sup>29</sup> Davis, Daphne. "What Are the Benefits of Mindfulness." July/August 2017. <https://www.apa.org/monitor/2012/07-08/ce-corner.aspx>.

<sup>30</sup> Davis, Daphne. "What Are the Benefits of Mindfulness." July/August 2017. <https://www.apa.org/monitor/2012/07-08/ce-corner.aspx>.

<sup>31</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>

compatible with up-to-date Juul products. Technology of other products can affect the success of ASAD based on whether technologies (such as televisions, mobile devices, digital advertisements) will promote or ban the promotion of ASAD. This, however, pertains more to issues of anti-trust and competition policies because organizations and institutions are the ones that supervise the promotion of products in today's digital age.

## VI. Competitor Analysis

### a. SWOT Analysis

Juul is the leading e-cigarette company in its market, dominating over 70% of the competitor market.<sup>32</sup> With rapid growth of up to 600% in a year,<sup>33</sup> Juul has proved its industry importance and status in both the market and society. They've become strong enough where political players such as the FDA and policy makers are seeking to control the widespread use of Juul amongst users. Though there is backlash against Juul for the underage use of its product, it's also popular amongst adults and legal users as they are fulfilling Juul's mission statement of assisting users to quit smoking regular cigarettes. Their aggressive social media advertising strategies have been and are deemed beyond successful<sup>34</sup> (which correlates to their prominent sales).

A weakness of Juul, however, is that their social media advertising has negatively impacted society by luring in kids that are under the legal age of nicotine purchase, leading to a more diminished and negative view of the Juul brand as a whole.<sup>35</sup> This has brought a new epidemic, in which anti-smoking organizations are calling Juuling a new smoking epidemic.<sup>36</sup> Additionally, both the company and the e-cigarette industry are fairly new to the market, which results in a few points: (1) there is a lack of fully understanding Juul's impact on their users, (2) there is a lack of understanding the e-cigarettes industry, and (3) there is a lack of understanding the long term/future effects of the e-cigarette industry. These all hold weight when considering the need for substantial research in order to determine legislative rulings and health analyses in relation to the impact of society. An argument can be made against Juul's success in that the company, whose mission statement is to help nicotine users to quit smoking, is just another cigarette/nicotine company rather than a company that's meant to help users quit their nicotine addiction. The easy use and trendy design (both of which are Juul's marketing initiatives that lead to success) have not only benefitted the company with prominent sales, but also hindered

---

<sup>32</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>33</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

<sup>34</sup> Bogle, Kemper. "JUUL Use and Advertising Potentially Increasing Nicotine Addiction in Young Adults." The University Daily Kansas. March 26, 2018. [http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article\\_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html](http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html).

<sup>35</sup> Bogle, Kemper. "JUUL Use and Advertising Potentially Increasing Nicotine Addiction in Young Adults." The University Daily Kansas. March 26, 2018. [http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article\\_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html](http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html).

<sup>36</sup> Office of the Commissioner. "Statement from FDA Commissioner Scott Gottlieb, M.D., on New Steps to Address Epidemic of Youth E-cigarette Use." U S Food and Drug Administration Home Page. September 12, 2018. <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm620185.htm>.

the company by creating an epidemic of their own that leads to political figures closely analyzing the organization and the industry.

Opportunities for Juul consist of room for Juul to take a step forward in the fight against nicotine addiction. Considering how much dominance they have over the e-cigarette industry, Juul has a successful chance of not only helping their multi-million users take the initiative to combat nicotine addiction, but also rebranding their public image to have a more helpful and appealing look. They have the platform, yet they have yet to take advantage of it. Additionally, with more users, there's more reasoning to make a product of theirs that delivers nicotine more healthy and more proactive.

Threats to Juul include political figures or organizations that can stop them in their tracks, such as the FDA and Truth Initiative (an anti-smoking organization). With current pushes for Juul regulation from the FDA,<sup>37</sup> it's hard to tell exactly what will happen to Juul in a few years. The tobacco industry also directly threatens Juul – consumer dedication to cigarettes and their ability to make cigarettes more accessible to users than Juul does with their consumers can threaten Juul sales. Already, Altria, a leading tobacco distributor, has invested and is seeking to further invest in the e-cigarette industry.<sup>38</sup> It's hard to tell why they have done so or what this means for the future of tobacco and e-cigarettes – Maybe it's a call to end tobacco use, maybe it's a call to end e-cigarette use with unfair competition practices. A final threat to Juul is the nicotine replacement therapy industry. The disconnect between Juul and the nicotine replacement therapy industry is already two steps away from each other, considering that nicotine replacement therapy products are associated with (heavy) cigarette use and not e-cigarette use. The industry has the potential to lure Juul users out of the Juul ecosystem and have them either directly enter their industry or the cigarette industry for the nicotine replacement therapy industry, which will ultimately hinder Juul sales.

The tobacco industry as a whole is a direct competitor to Juul. More importantly, Marlboro, owned by Phillip Morris who is the leading global tobacco distributor with over 14% of global dominance, is the leading brand of cigarettes amongst competitors with almost 40% dominance in the market.<sup>39</sup> Marlboro (and the tobacco industry as a whole) is part of a multi-billion dollar industry that has general appeal to users of all ages.<sup>40</sup> They have financial support from large entities such as celebrities, organizations, and industries, which makes the Marlboro brand and the tobacco industry extremely powerful.<sup>41</sup>

Weaknesses to the tobacco industry are no secret. There is constant active backlash against tobacco use, ranging from legislative regulation (e.g. designated areas to smoke), financial regulation (e.g. taxes), and political/organizational fights to end tobacco use (e.g. Truth Initiative organization). Though sales are high, there has been no increasingly notable or significant increase in tobacco sales,<sup>42</sup> which can indicate that tobacco consumption has no more

<sup>37</sup> "JUUL Labs, Inc. Warning Letter." U.S. Food and Drug Administration to Mr. Kevin Burns. September 12, 2018. <https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM620220.pdf>.

<sup>38</sup> Duprey, Rich. "Is Altria Trying to Corner the E-Cig Market?" January 07, 2018.

<https://www.fool.com/investing/2018/01/07/is-altria-trying-to-corner-the-e-cig-market.aspx>.

<sup>39</sup> "Philip Morris: Statistics & Facts." Statista, <https://www.statista.com/topics/4633/philip-morris/>.

<sup>40</sup> "Tobacco Industry Marketing." Smoking & Tobacco Use. May 04, 2018.

[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/tobacco\\_industry/marketing/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/marketing/index.htm).

<sup>41</sup> "Tobacco Industry Marketing." Smoking & Tobacco Use. May 04, 2018.

[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/tobacco\\_industry/marketing/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/marketing/index.htm).

<sup>42</sup> "Market value of tobacco in the United States from 2013 to 2018 (in million U.S. dollars)." Statista, <https://www.statista.com/statistics/491709/tobacco-united-states-market-value/>



room for growth. The growing e-cigarette industry might be a cause of the lack of exponential sales growth. The tobacco industries lack of flavors and appealing look, qualities that the e-cigarette company thrives with, can be pointers that they can note for expectations regarding the future of the tobacco industry.

Relating to the weaknesses, the tobacco industry can take notes from the e-cigarette industry to reshape and reformulate the way they produce and present cigarettes to the public. Mimicking advertising campaigns (e.g. social media advertising), providing different flavors, and revamping the look of the cigarette are all opportunities that the tobacco industry can take hold of to benefit themselves.

A huge threat to the tobacco industry is thematic to the other SWOT points – the ever growing e-cigarette industry. With presenting a new way of consuming nicotine, the e-cigarette industry has the potential of taking customers from the tobacco industry. Political and organizational backlash consistently threaten the sanctity of the tobacco industry in terms of sales and consumer participation within the market. The nicotine replacement therapy industry also directly threatens the tobacco industry based on that industry's focus to take users out of the tobacco industry and into their industry.

The nicotine replacement therapy industry, an indirect competitor to Juul, has significant strengths in the nicotine industry. For starters, there is a high success rate with users when they are actively using the nicotine replacement therapy products.<sup>43</sup> Their industry involvement and accessibility in retail stores correlates with their high sales and allows for their products to be useful for those in need, therefore demonstrating that there are many industry stakeholders in the nicotine replacement therapy industry.

With success comes weaknesses. In response to their high success rate with active use of nicotine replacement therapy products, a large percentage (+50%) of users fail to stay clean off of nicotine.<sup>44</sup> Additionally, nicotine replacement therapy products primarily appeal to users over the age of 35 (average age is 43).<sup>45</sup> The more mature appeal to nicotine replacement therapy products can hinder the ability for nicotine replacement therapy products to grasp various other age groups due to the potential of it seeming unappealing or unnecessary for younger demographics. Additionally, approved nicotine replacement therapy products are typically tailored for users that smoke more than ten packs per day,<sup>46</sup> which can provide less motivation for those who smoke less than ten packs but intake more than one pack to seek nicotine replacement therapy.

Many opportunities exist for the nicotine replacement therapy industry. The industry can take notes from the e-cigarette industry and provide an expansion of products from their traditional line of 5 FDA approved products. For instance, providing e-pens that provide the same amount of nicotine a nicotine gum would provide would revamp the public image of nicotine replacement therapy products. Additionally, the nicotine replacement therapy industry can div into the mobile application industry by providing more resources for nicotine replacement therapy, such as providing virtual support groups and apps that help control the urge for users to smoke.

---

<sup>43</sup> "Selected Quitting Resources." <https://tobaccofree.org/quitlinks.htm>.

<sup>44</sup> "Selected Quitting Resources." <https://tobaccofree.org/quitlinks.htm>.

<sup>45</sup> "Quitting Smoking." Center for Disease Control and Prevention [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/cessation/quitting/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/cessation/quitting/index.htm)

<sup>46</sup> "Nicotine Replacement Therapy for Quitting Tobacco," January 12, 2017, , <https://www.cancer.org/healthy/stay-away-from-tobacco/guide-quitting-smoking/nicotine-replacement-therapy.html>.

## b. Mitigation Strategy

While ASAD will touch base on all three SWOT analyses from these key three players (Juil, tobacco industry, nicotine replacement therapy industry), ASAD will make sure that the threats and weaknesses mentioned above will not directly hinder ASAD's success. ASAD will ensure that its product will be appealing enough to involve users of all ages. Considering that ASAD itself does not provide nicotine, any legal, political, or organizational backlash against the product can not be justified enough for it to be assumed to be delivering nicotine itself. Campaigning ASAD's mindfulness practices will help strengthen such potential threats and backlashes, thereby strengthening the ASAD brand and deeming it less threatening than FDA approved nicotine replacement therapy products that deliver nicotine.

## VII. Marketing Strategy

ASAD's marketing strategy is heavily relied on social media. Much like Juul's heavy investment and focus on social media campaigning,<sup>47</sup> ASAD will do the same to ensure public outreach. ASAD, which means "lion" in Arabic, uses a lion as a mascot to the product. Since lions are vulnerable to become extinct, ASAD's strategy is to convey to nicotine users that they should not threaten to extinct themselves similarly to the lion animal kingdom ("Don't Extinct Yourself... We're Here To Help). ASAD is all about mindfulness for the nicotine user to want to quit smoking. The product has high appeal to Juul users and nicotine replacement therapy product users in that ASAD is a nicotine replacement therapy product designed for Juul. In regards to cigarette users, ASAD's marketing strategy is to appeal to the idea of using e-cigarettes first over conventional cigarettes, and then offer support to users to take initiative to quit smoking cigarettes entirely. With a sage archetype, ASAD is developed and supported by nicotine intake facts pertaining to nicotine's impact on the body, nicotine's relationship with Juul, and nicotine's relationship with cigarettes. These facts are then displayed on ASAD's website for consumers to have the ability to access expertise information about their actions, allowing them to see the quality of ASAD's technology. The brand personality is self-motivated, allowing the user to be accompanied by ASAD on their journey to nicotine recovery, rather than having competing products like cigarettes take control of their lives under competing industry archetypes with outlaw characteristics that are publicly known for only harming users. Granted, the nicotine replacement therapy industry shares the sage archetype as ASAD, however it's ASAD's appeal to the masses and broad age appeal that will win over the nicotine replacement therapy industry.

## VIII. Sales Strategy

ASAD will primarily be sold from its product website. This will allow ASAD to not only get their mission statement across to users, but also gain access to valuable user data that can be used to later track the impact or success of both ASAD and Juul, both on the user and as product entities. ASAD will not enter the retail market in order to avoid harsh societal backlash and FDA

---

<sup>47</sup> Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.



regulatory policies similarly to how Juul has recently been receiving. In year 1, ASAD should be sold strictly online, and then later branch out as wholesale distribution to large corporations or health care providers. Through lobbying, general sales success, and advertising, ASAD will get to the desired product markets successfully. The needs of customers are not significantly different when adapting between a wholesale versus retail strategy – A wholesale strategy ensures product control over ASAD and helps the company to practice self-regulation. Additionally, obtaining vital user data is necessary for future research for ASAD, Juul, and nicotine use. Having a primarily wholesale channel strategy would make it more difficult to track user data, which is evident based on the faults of the nicotine replacement therapy industry.

## **IX. Exit Strategy**

The birth of ASAD can't be the start of something good for nicotine users, only to have it end at it's first generation of creation. Three exit strategies can be predicted for ASAD.

The first exit strategy can be ASAD's partnership with application developers to create an accompanying mobile application that would allow for ASAD's individual user data to be stored onto the application. By doing so, ASAD users can learn to set goals for themselves and create a, for instance, 1, 3, or 5 month nicotine recovery plan with their Juul by using ASAD. Through the application, users can see the progress they've made and where there is room for improvement. The idea of app development can also be expanded one step further by allowing third-party companies to advertise their goods and award ASAD users with coupons or gift cards to their companies, similarly to a rewards program. This idea can not only motivate ASAD users to quit nicotine use, but also increase revenue for ASAD.

Another exit strategy can consist of ASAD developing their own e-cigarette. This can get complicated, especially in regards to finances, considering that ASAD is intended to be a partnering company with Juul/for the Juul product. Introducing a new product to the ASAD product line would, however, benefit the company because it would allow for them to enter a new market and compete with competitors, like Juul, in the nicotine/e-cigarette industry. An ASAD-branded e-cigarette/assistive anti-smoking device would extend the life-cycle of ASAD and further strengthen brand loyalty and sales.

A final exit strategy could be to introduce other anti-smoking assistive products. It is vital to differentiate ASAD's anti-smoking assistive product line from nicotine replacement therapy products because they would be tailored more towards the larger audience of e-cigarette users and tobacco users (rather than nicotine replacement therapy's tailoring of products geared towards heavy tobacco users).

## **X. Pricing**

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
<b>Total Market (units)</b>	85500000	94050000	108157500	129789000	162236250	210907125	pieces of ASAD
<b>Target Segments</b>							
<b>TS1 Juul Users</b>		450000	640000	1020000	1440000	2280000	1500000
Unit Price		\$30	\$30	\$30	\$30	\$30	
Revenue TS1		\$13,500,000	\$19,200,000	\$30,600,000	\$43,200,000	\$68,400,000	1500000
<b>TS2 Cigarette Users</b>		10000	40000	90000	160000	250000	100000
Unit Price		\$30	\$30	\$30	\$30	\$30	
Revenue TS2		\$300,000	\$1,200,000	\$2,700,000	\$4,800,000	\$7,500,000	100000
<b>TS3 Nicotine Replacem</b>		14000	24000	45000	70000	99000	70000
Unit Price		\$20	\$20	\$20	\$20	\$20	
Revenue TS3		280,000	480,000	900,000	1,400,000	1,980,000	70000
<b>Total Revenue</b>		\$14,080,000	\$20,880,000	\$34,200,000	\$49,400,000	\$77,880,000	

ASAD will be priced on a value-based model. ASAD's whole mission statement is based on understanding the value of the product, and how the product will be a tool that nicotine users will use to help *them* take the initial steps to quit smoking. Priced at \$30.00 per unit, ASAD falls right under Juul's average price of about \$35 per unit. We believe that pricing ASAD at \$30 will lure in nicotine users that are serious about smoking, rather than nicotine users that are only users solely for social or status purposes. Additionally, at \$30 per unit, ASAD is significantly cheaper than FDA approved nicotine replacement therapy products, which will most likely bring in consumers from that market into our market. A one time purchase of ASAD will last a user several years, which is ample time for a user to kick their nicotine addiction. We don't expect the price of ASAD to increase over time, unless different models of Juul's are released which would result in ASAD developers to develop ASAD that's cross-compatible. The wholesale price of ASAD is priced at \$15 per unit, and wholesale distribution would be supervised by ASAD to regulate who is purchasing how much of ASAD. By regulating wholesale purchases, we can also ensure that the majority of ASAD sales will be directly from our website.

## XI. Financials

ASAD cost of production will roughly \$2.25 per unit at year 1. This is based on the average cost of LCD timers and computer units based on general Google searches, indicating that small timers retail costs are \$3.00-\$6.00 and computer units being sold through retail are around \$4.00.<sup>48</sup> Producing a small plastic clip (in which case will be used for the timer to wrap around the Juul device) costs only a few cents based on general 3D printing Google searches. Over the course of the next five years, the cost of production should decrease by 5-25 cents over time, which is a prediction based on expected production costs and having access to more advanced technologies to produce ASAD. Labor costs should be minimal, considering how few little parts there are to create ASAD at its first generation.

<sup>48</sup> DigiKey Electronics. [https://www.digikey.com/product-detail/en/adafruit-industries-llc/3435/1528-1917-ND/6817229&?gclid=EAlaIqobChMI24S3IPif3wIVFQOGCh0rrgvbEAQYAIAABEgJ2\\_fD\\_BwE](https://www.digikey.com/product-detail/en/adafruit-industries-llc/3435/1528-1917-ND/6817229&?gclid=EAlaIqobChMI24S3IPif3wIVFQOGCh0rrgvbEAQYAIAABEgJ2_fD_BwE)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Costs</b>						
<b>Initial Investment</b>	\$500,000					
<b>Unit Cost</b>		\$2.25	\$2.00	\$1.90	\$1.85	\$1.80
<b>Units Sold</b>		474000	704000	1155000	1670000	2629000
<b>Cost of Goods Sold</b>		\$1,066,500	\$1,408,000	\$2,194,500	\$3,089,500	\$4,732,200

ASAD seeks a \$500,000 investment, which will turn out to become a 555% internal rate of revenue after five years. \$300,000 of the initial investment will go towards aggressive social media and guerilla marketing strategies,<sup>49</sup> as well as sponsorship/promotional opportunities by figures with powerful platforms (e.g. celebrity figures, wholesale distributors, health care providers). We anticipate for \$5,000 to be spent on prototype development and demos,<sup>50</sup> along with \$12,000 to be dedicated to active up-to-date web design (both at the launch of ASAD and for monthly website monitoring/updates). We anticipate to have \$100,000 spent on lobbying<sup>51</sup> for FDA assertion that ASAD is/can be a nicotine replacement therapy product. We predict \$15,000 to be spent on research for the development of ASAD and for data collection pertaining to Juul, ASAD, nicotine (in relation to ASAD), and ASAD users. The remaining \$68,000 should be divided into necessary sectors for the success of ASAD, such as production cost, employment, and licensing. Keep in mind, this investment is for the launch of ASAD and for spending purposes in year one. As we go by year by year, ASAD may be required to spend more on employment, larger facilities, more productive technologies, licensing, lobbying, research, and (most importantly) advertising. With all that said, ASAD can handle spending this much at year one, as well as handle the increased spending costs over time – this is due to the Advertising costs should slow down once ASAD, as anticipated, grows larger in size over time (similarly to Juul<sup>52</sup>).

SG&A is reported to be around 66.6% based on the SG&A of Phillip Morris, the leading tobacco industry distributor.<sup>53</sup> Taxes for ASAD were determined to be at 25% based on Phillip Morris's tax rate<sup>54</sup> -- Keep in mind that they are a large corporation already, so ASAD's taxes will be smaller in size due to it's early product development stages. ASAD's NPV is extremely positive, at a whopping \$28.3 million dollars. This is without a doubt due to how large of a

<sup>49</sup> DePhillips, Kari. "How much does social media marketing cost?" The Content Factory.

<https://www.contentfac.com/how-much-does-social-media-marketing-cost/>

<sup>50</sup> Monosoff, Tamara. "Creating a product prototype." Entrepreneur. <https://www.entrepreneur.com/article/80678>

<sup>51</sup> "How Much Does It Cost?" Lobby It. <http://lobbyit.com/pricing/>

<sup>52</sup> Huang J, Duan Z, Kwok J, *et al* Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market *Tobacco Control* Published Online First: 31 May 2018. doi: 10.1136/tobaccocontrol-2018-054382

<sup>53</sup> <https://www.macrotrends.net/stocks/charts/PM/philip-morris/selling-general-administrative-expenses>

<sup>54</sup> "Phillip Morris SG&A Expenses 2008-2018." MacroTrends.

<https://csimarket.com/stocks/singleProfitabilityRatiosy.php?code=PM&itx>

market ASAD is entering, as well as how much growth our target segments (particularly Juul) have made in the past few years.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5			
<b>Initial Investment</b>	(\$500,000)								
<b>Revenue</b>		\$14,080,000	\$20,880,000	\$34,200,000	\$49,400,000	\$77,880,000			
<b>Cost of Goods Sold</b>		(1,066,500)	(1,408,000)	(2,194,500)	(3,089,500)	(4,732,200)			
<b>Gross Margin</b>		\$13,013,500	\$19,472,000	\$32,005,500	\$46,310,500	\$73,147,800			
<b>Depreciation</b>		(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	<b>Depreciation Term</b>	5	
<b>Sales, General and Administration</b>		(9,377,280)	(13,906,080)	(22,777,200)	(32,900,400)	(51,868,080)	<b>SG&amp;A</b>	66.6%	
<b>Net Operating Profit</b>		3,536,220	5,465,920	9,128,300	13,310,100	21,179,720			
<b>Other Expenses (list)</b>		\$200,000	\$400,000	\$600,000	\$800,000	\$1,000,000			
<b>Profit before Tax</b>		\$3,336,220	\$5,065,920	\$8,528,300	\$12,510,100	\$20,179,720			
<b>Taxes</b>		(\$834,055)	(\$1,266,480)	(\$2,132,075)	(\$3,127,525)	(\$5,044,930)	<b>Tax</b>	25%	
<b>Profit</b>	(\$500,000)	\$2,502,165	\$3,799,440	\$6,396,225	\$9,382,575	\$15,134,790			
<b>Cost of Capital</b>	7%	Expressed as an Annual Interest Rate							
<b>Net Present Value</b>		\$28,327,093							
<b>Internal Rate of Return</b>		555%							

There is potential for ASAD's expected numbers to become inaccurate based on several situations. For instance, if ASAD lures in 10%-20% less smokers from the cigarette target segmentation, then ASAD can predict an NPV loss of 2 million dollars, and an IRR loss of 10%. This can be a potential outcome if ASAD fails to conduct targeted advertisements directly tailored to cigarette users. Even with this scenario playing out, the NPV is still extremely high and ASAD makes no financial losses.

An extreme concern would be if Juul becomes heavily regulated by the FDA in the future, resulting in customer dissatisfaction and resulting in an extreme drop in target segment population. Assuming that certain regulations are enacted, ASAD could only be obtaining 1 million Juul users in year 1, with a 1 million increase each year – this would result in a severe NPV price drop, bringing it down to roughly 6.5 million, and an IRR of 111%. This is assuming the worst. Realistically, there is no way for the Juul user population to dip below one million people with \$300,000 invested in advertising and over 30 million Juul users.

The final scenario that could potentially affect the predicted NPV and IRR rates would be if ASAD were to never reach over 500,000 nicotine replacement therapy users switching to ASAD by year 5. Even with a reduction of 500,000 users from the original year one prediction, and with an increase of 100,000 each year, ASAD's NPV decreases by only 1 million dollars while the IRR rate remains the same. This is evident considering the nicotine replacement therapy target segment is the indirect competitor, and that ASAD's focus is primarily on Juul and cigarette users.

**WORK CITED:**

Abou-Sabe, Kenzi. "Juul to Remove Most of Its Flavored Products from Retail Stores." NBC News. November 13, 2018. <https://www.nbcnews.com/health/kids-health/juul-reveals-plan-snuff-out-e-cigarette-use-among-kids-n935746>.

"About Electronic Cigarettes (E-Cigarettes)." Smoking and Tobacco Use. [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/about-e-cigarettes.html](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html).

"Almost 70 Percent of Smokers Want to Quit, But Few Do." Drug Free. November 11, 11. <https://drugfree.org/learn/drug-and-alcohol-news/almost-70-percent-of-smokers-want-to-quit-but-few-do/>.

Bach, Laura. "JUUL and Youth: Rising E-Cigarette Popularity." Campaign for Tobacco-Free Kids. November 16, 2018. <https://www.tobaccofreekids.org/assets/factsheets/0394.pdf>.

Bogle, Kemper. "JUUL Use and Advertising Potentially Increasing Nicotine Addiction in Young Adults." The University Daily Kansas. March 26, 2018. [http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article\\_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html](http://www.kansan.com/news/juul-use-and-advertising-potentially-increasing-nicotine-addiction-in-young/article_79cb0e5c-313a-11e8-9d04-4b53ff670adf.html).

Borland, R., Partos, T. R., Yong, H. H., Cummings, K. M., & Hyland, A. (2012). How much unsuccessful quitting activity is going on among adult smokers? Data from the International Tobacco Control Four Country cohort survey. *Addiction (Abingdon, England)*, 107(3), 673-82. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3909986/>

"Current Cigarette Smoking Among Adults in the United States." Smoking and Tobacco Use. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm)

Davis, Daphne. "What Are the Benefits of Mindfulness." July/August 2017. <https://www.apa.org/monitor/2012/07-08/ce-corner.aspx>.

DePhillips, Kari. "How much does social media marketing cost?" The Content Factory. <https://www.contentfac.com/how-much-does-social-media-marketing-cost/>

DigiKey Electronics. [https://www.digikey.com/product-detail/en/adafruit-industries-llc/3435/1528-1917-ND/6817229?gclid=EAiaIQobChMI24S3Pif3wIVFQOGCh0rrgvbEAQYAIAiABEgJ2\\_fd\\_BwE](https://www.digikey.com/product-detail/en/adafruit-industries-llc/3435/1528-1917-ND/6817229?gclid=EAiaIQobChMI24S3Pif3wIVFQOGCh0rrgvbEAQYAIAiABEgJ2_fd_BwE)

Duprey, Rich. "Is Altria Trying to Corner the E-Cig Market?" January 07, 2018. <https://www.fool.com/investing/2018/01/07/is-altria-trying-to-corner-the-e-cig-market.aspx>.

"E-Cigarette Market Overview." September 2018. <https://www.psmarketresearch.com/market-analysis/e-cigarette-market>.

"E-Cigarette: Facts, Stats and Regulation." Truth Initiative. July 19, 2018. <https://truthinitiative.org/news/e-cigarettes-facts-stats-and-regulations>.

"How Much Does It Cost?" Lobby It. <http://lobbyit.com/pricing/>

Huang J, Duan Z, Kwok J, *et al*

Vaping versus JUULing: how the extraordinary growth and marketing of JUUL transformed the US retail e-cigarette market *Tobacco Control* Published Online First: 31 May 2018. doi: 10.1136/tobaccocontrol-2018-054382

"JUUL Labs, Inc. Warning Letter." U.S. Food and Drug Administration to Mr. Kevin Burns. September 12, 2018. <https://www.fda.gov/downloads/TobaccoProducts/Labeling/RulesRegulationsGuidance/UCM620220.pdf>.

LaVito, Angelica. "US Health Officials Flag Increasing Popularity of Flavored E-cigarettes as Concern in New CDC Study." Health and Science. August 23, 2018. <https://www.cnbc.com/2018/08/23/us-health-officials-flag-popularity-of-flavored-e-cigarettes-as-worry.html>.

Monosoff, Tamara. "Creating a product prototype." Entrepreneur. <https://www.entrepreneur.com/article/80678>

"Nicotine Replacement Therapy for Quitting Tobacco," January 12, 2017, , <https://www.cancer.org/healthy/stay-away-from-tobacco/guide-quit-smoking/nicotine-replacement-therapy.html>.

Office of the Commissioner. "Statement from FDA Commissioner Scott Gottlieb, M.D., on New Steps to Address Epidemic of Youth E-cigarette Use." U S Food and Drug Administration Home Page. September 12, 2018. <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm620185.htm>.

"Our Responsibility." Juul. <https://www.juul.com/our-responsibility>.

"Phillip Morris SG&A Expenses 2008-2018." MacroTrends. <https://csimarket.com/stocks/singleProfitabilityRatiosy.php?code=PM&itx>

"Philip Morris: Statistics & Facts." <https://www.statista.com/topics/4633/philip-morris/>.

"Quitting Smoking." Center for Disease Control and Prevention  
[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/cessation/quitting/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/cessation/quitting/index.htm)

"Sales of Nicotine Patches and Gums Slow as More Smokers Turn to E-Cigarettes to Quit," Drug Free, January 29, 2015, , <https://drugfree.org/learn/drug-and-alcohol-news/sales-nicotine-patches-gums-slow-smokers-turn-e-cigarettes-quit/>.

"Selected Quitting Resources." <https://tobaccofree.org/quitlinks.htm>.

"The King of the Jungle Has One Deadly Predator - Humans" American Wildlife Foundation.  
<https://campaign.awf.org/lion-poaching/>

"Tobacco Industry Marketing." Smoking & Tobacco Use. May 04, 2018.  
[https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/tobacco\\_industry/marketing/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/marketing/index.htm).

"Where are kids getting Juul?" Truth Initiative. May 29, 2018. <https://truthinitiative.org/news/where-are-kids-getting-juul>