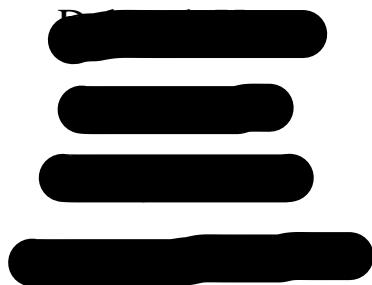


C2 Team 4 Spring 2024



## Swift Shift

“A safe quick clean, for a new shiny gleam!”

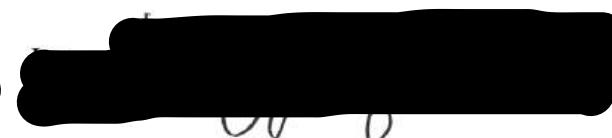
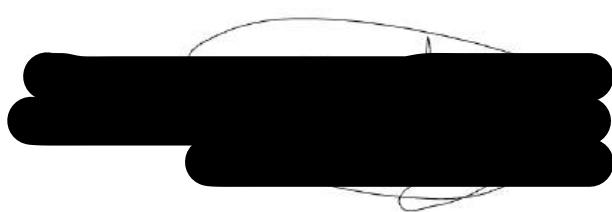
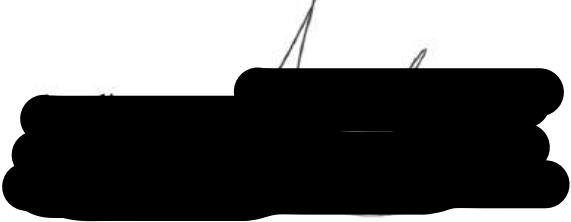


## Authenticity Statement and Intellectual Property Statement

This Pitch Book (and related material) is the original work of the undersigned. All facts and figures are authentic. All contributions from others have been appropriately acknowledged. We have not reviewed or used any past Core plans in any way in the development of our plan. We did not misrepresent ourselves to potential suppliers, potential consumers, or to anyone else who contributed information to this plan. We understand that this core project is for experiential learning purposes only. We also understand that at the conclusion of a course, any student is free to further develop any idea incorporated into their team's project, with or without the participation of other students on the team. BU and its faculty will not be directly involved in any such activity, but organizations such as the BU startup law clinic and Innovate@BU can provide any student(s) advice on issues arising during creation of a new venture.

Deanna

Soukhaseum



# Table of Contents

## EXECUTIVE SUMMARY

Introduction .....	7
Marketing .....	7-8
Operations .....	8
Finance .....	8-9
Analytics .....	9-10

## PITCH DECK

<b>Cover Slide</b> .....	11
<b>Meet the Team</b> .....	12
<b>Marketing</b>	

Description of Swift Shift & Key Benefits .....	13
Industry Overview & Market Trends .....	14
Perceptual Map & Positioning Statement .....	15
Target Market & Purchases Intent .....	16
BASES Model .....	17
ACV Growth .....	18
Demand Curve .....	19
IMC .....	20
Social Media Marketing .....	21
Other Marketing Channels .....	22

## Operations

House of Quality .....	23
Key Competitive Advantages .....	24
Bill of Materials .....	25
Process Flow .....	26
Capacity Analysis .....	27
Factory Layout .....	28

Center of Gravity Analysis .....	29
Outbound Freight .....	30
Inventory Turns & Service Level .....	31
Organizational Chart .....	32
Manufacturing Overhead .....	33
<b>Finance</b>	
Income Statement .....	34
Revenue .....	35
COGS .....	36
G&A .....	37
Statement of Cash Flows .....	38
Declining Perpetuity .....	39
Justification for Liquidation .....	40
Funding Required .....	41
Days Outstanding Comparison .....	42
Return Metrics Comparison .....	43
<b>Analytics</b>	
Sensitivity Analysis .....	44
Qualitative Risk .....	45
Quantitative Risk .....	46
Awareness Simulation .....	47
Direct Materials Simulation .....	48
Combine Simulation .....	49
Salary and Wages Risk .....	50
Risk Analysis Synthesis .....	51
Risk Mitigation .....	52

## EXHIBITS

### Introduction

Exhibit 1: Product Sketch.....	53
Exhibit 2: U.S. Cookware Market Trends.....	53
Exhibit 3: Perceptual Maps of Kitchen Cleaning Products.....	54

### Marketing

Exhibit 4: Partial segmentation tree with conjoint survey findings.....	55
Exhibit 5: Partial BASES model with target market size, units sold, and sales revenue.....	55
Exhibit 6: Total ACV generated by channel.....	56
Exhibit 7: Demand curve with purchase intent plotted against retail price.....	57
Exhibit 8: Amount invested in IMC graphed against awareness generated.....	57
Exhibit 9: Instagram grid showing several post designs.....	58
Exhibit 10: AI generated photos of Swift Shift advertising through trade show booths, packaging, billboards, and transit.....	58

### Operations

Exhibit 11: House of quality.....	59
Exhibit 12: Bill of materials.....	60
Exhibit 13: Factory layout.....	60
Exhibit 14: Map showing the locations of the factory, center of gravity, and distribution centers and images of the industrial space.....	61
Exhibit 15: Bar chart showing amount of inventory by type.....	61
Exhibit 16: Inventory turnover of key materials and averages.....	62
Exhibit 17: Organizational structure in years 1, 3, and 5.....	62
Exhibit 18: Manufacturing overhead and IS expenses charted by type.....	63

### Finance

Exhibit 19: Income statement comparison in years 1 and 5.....	63
Exhibit 20: Chart comparing the major income statement line items throughout the years.....	64
Exhibit 21: Chart comparing COGS per unit broken down by type in years 1 and 5.....	64
Exhibit 22: Hiring schedule of executives and managers, wages, and G&A costs per unit.....	65
Exhibit 23: Cash flow statement, NPV, and IRR.....	65

Exhibit 24: Projected cash flows throughout years 1 to 10.....	66
Exhibit 25: Major income statement line items charted as a percentage of revenues in years 1 to 5.....	66
Exhibit 26: Amount of funding required charted against capital allocation broken down by type.....	67
Exhibit 27: Industry returns plotted against Swift Shift's returns.....	67

## **Analytics**

Exhibit 28: Sensitivity analysis.....	68
Exhibit 29: Qualitative risk matrix.....	68
Exhibit 30: Quantitative risk matrix.....	69
Exhibit 31: Triangular distribution chart of inputs and outputs for awareness simulations.....	69
Exhibit 32: Calculations and summary statistics for awareness simulations.....	70
Exhibit 33: Triangular distribution chart inputs and outputs for simulations of direct materials..	70
Exhibit 34: Calculations and summary statistics for direct materials simulations.....	71
Exhibit 35: Output distribution chart of direct material and awareness simulations.....	71
Exhibit 36: Summary statistics of both variable simulation.....	72
Exhibit 37: Triangular distribution chart of inputs and outputs for simulation of G&A salaries and starting wage.....	72
Exhibit 38: Calculations and summary statistics of G&A salary and starting wage simulation..	73
Exhibit 39: Statistics and tornado chart from sensitivity analysis on all chosen variables.....	73

## **APPENDIX**

### **Marketing**

Appendix 1: Global Cookware Market Trends .....	74
Appendix 2: U.S. Cookware Market Trends.....	74
Appendix 3: Key Benefits and Prices of Competing Products.....	75
Appendix 4: Market Segmentation for All Variables Considered.....	77
Appendix 5: Profile of the Retail Environment Calculations.....	79
Appendix 6: Profile of the Retail Environment.....	80
Appendix 7: Detailed BASES Model.....	80

Appendix 8: ACV Calculations Through Year 1 to 5.....	81
Appendix 9: Adjusted Retail Price Through Years 1 to 5.....	82
Appendix 10: Total Units Sold Through Different Retailers.....	83
Appendix 11: Static Retailer Values.....	84
Appendix 12: Purchase Intent.....	84
Appendix 13: Marketing Survey Analysis.....	85
Appendix 14: Target Segment Preferences.....	86
Appendix 15: Survey data With Adjusted Purchase Intent.....	86
Appendix 16: IMC for Year 0.....	87
Appendix 17: IMC for Year 1.....	87
Appendix 18: IMC for Year 2.....	88
Appendix 19: IMC for Year 3.....	88
Appendix 20: IMC for Year 4.....	89
Appendix 21: IMC for Year 5.....	89

## Operations

Appendix 22: Bill of Materials & Suppliers.....	90
Appendix 23: Production Capacity Requirement.....	90
Appendix 24: Production Line Task Detail.....	91
Appendix 25: Production Line Work Stations Design through Year 1 to Year 5.....	92
Appendix 26: Factory Location Analysis.....	93
Appendix 27: Inventory Service Levels – Inventory Values and Turns.....	93
Appendix 28: Outbound Costs Calculations.....	95
Appendix 29: Organization Structure.....	96
Appendix 30: General and Administrative Salaries.....	97
Appendix 31: Manufacturing Overhead Costs.....	97
Appendix 32: Information System Expenses.....	98

## Finance

Appendix 33: Income Statement Years 1 through 5.....	99
--	----

Appendix 34: Balance Sheet Years 1 through 5.....	100
Appendix 35: Statement of Cash Flows Years 1 through 5.....	101
Appendix 36: Initial Startup Costs.....	102
Appendix 37: Operational Costs Years 1 through 5.....	102
Appendix 38: Fixed Asset Purchase and Depreciation Schedules.....	103
Appendix 39: Comparable Companies.....	104
Appendix 40: Assumptions and Calculations for Cash in Hand Y0.....	104
Appendix 41: Comparables for Balance Sheet and Income Statement margins.....	105
Appendix 42: Accounts Receivables and Accounts Payable Calculations.....	106
Appendix 43: Breakdown of Initial Investment in Fixed Asset.....	107

### **Analytics**

Appendix 44: Sensitivity Analysis on All Quantitative Risk Variables.....	107
Appendix 45: Awareness Distribution Calculation.....	108
Appendix 46: Input Distribution for Simulation on Awareness.....	109
Appendix 47: Output Distribution for Simulation on Awareness.....	109
Appendix 48: Direct Material Distribution Calculations.....	110
Appendix 49: Input Distribution for Simulation on Direct Material.....	111
Appendix 50: Output Distribution for Simulation on Direct Material.....	111
Appendix 51: Output Distribution for Simulation on Awareness and Direct Material.....	112
Appendix 52: Admin Salary and Wages Distribution Calculations.....	112
Appendix 53: Input Distribution for Simulation on Salary and Wage.....	113
Appendix 54: Output Distribution for Simulation on Salary and Wage.....	114
Appendix 55: Tornado Charts on All Chosen Variables from Simulations.....	114

### **WORK CITED**

Sources.....	115
--------------	-----

## Executive Summary

We are a team of individuals who, among many others, are frustrated with the tediousness, and difficulty involved with the kitchen cleaning process. Our team is determined to transform the way we clean pesky dishes and sharp utensils. This is why we created the Swift Shift; a revolutionary cleaning tool which delivers a convenient and effortless cleaning experience to our users. Through the Swift Shift's unique adjustable bristle walls, sponges, built-in soap dispenser, and compressible feature, we provide a unique value proposition through our versatility, effective cleaning paired with tool preservation, and significant time saving capabilities which other competitors in the industry fail to offer.

Our product operates in the rapidly growing U.S. Cookware Market, which is valued at \$3.8 billion in 2022. We have narrowed down our target market to American households 25-50 with a household income of over \$35,000 who cook at least three times a week. This represents a target market of 29 million households. Our marketing survey has suggested that young individuals who have recently begun cooking are looking for ways to make the experience more enjoyable. Their relative lack of experience means they are open to try new tools and gadgets aimed at improving cooking.

To successfully service our target market, we aim to implement several retail channels and charge a competitive price. As our product grows and we gain more notoriety we plan on expanding to department stores, chain stores, and ultimately mass merchandisers such as Target in year 5. This coupled with a competitive retail price of \$33, that garners a high purchase intent, means we can adequately provide value to our customers.

We plan on implementing several marketing techniques to inform, persuade, and remind our customers about Swift Shift. One key component of this strategy is a strong social media presence. Our social media marketing evokes cleanliness and good quality in addition to our mascot Squeak the Duck that appeals to young audiences. This provides a great opportunity to regularly interact with customers and build positive relationships. Beyond social media, we plan on growing awareness of our product through trade shows, vibrant packaging, billboards, and transit ads. Overall, our strategy allows us to provide congruent messaging to the target market.

By surveying potential customers, we have gained the insight that our target market prioritizes versatility, time-saving capabilities, and tool preservation while effectively cleaning. We have set up our operations and designed our product in order to maximize these factors. In

order to execute on our planned requirements, our team has designed our supply chain, production process, and strategical planning to deliver on our core capabilities while remaining profitable. This is done through efficient and lean operations, resourceful expenditures and cost planning, and a wholistic approach to framing our business strategy. Doing so allows us to grow our business and increase revenues, while maintaining a sustainable competitive advantage for the first five years of operation.

Our sourcing strategy was developed based on two main considerations. We aimed to keep our costs generally low, while also keeping our core capabilities within our ownership. By outsourcing our supplies for less crucial components, such as our sponge, soap dispenser, and ball bearings, we can significantly reduce our raw materials costs by sourcing from overseas suppliers. Comparatively, we have decided to maintain control over our injection molded frame, as well as our unique detachable bristle plate. This supports our product differentiation which provides our unique value proposition within the competitive industry.

Within our process design, we aim to increase our capacity proportionally with our sales projection growth and only spending more when deemed absolutely necessary. As our awareness generated by marketing and distribution reach increase, our demand increases by over 4.5x from year 1 to year 5. To account for this growth, we gradually increase our direct labor and capital expenditures to satisfy demand yearly while maintaining high efficiency and capacity utilization.

We also plan to reduce other semi-fixed and fixed costs through cost efficient planning. By locating our factory within Sikeston, Missouri, we are located within the center of gravity for both our target market density and retail distributors. This location allows us to minimize transportation and logistics costs as we fulfill orders across our entire target market. We are also able to efficiently scale other semi-fixed costs, such as general and administrative salaries, utilities, inventory investments, and information systems expenses. These operational costs grow at a proportional rate to support our company's development over our product life cycle.

There are many factors that make Swift Shift an attractive investment, the first of which is that we are profitable every year of operations. Starting in year 1 with a net income of \$20,355, we grow all the way to a net income of \$1,548,218 in year 5. Three primary factors drive this success in our business from year 1 to year 5. The first is significant revenue growth. The second operating expenses decrease as a percentage of revenues. Finally, the combination of these two factors leading to profitability.

Our revenues grow extremely quickly during our period of operations. From year 1 to year 5 we experience a revenue compounded annual growth rate of 31%. This is primarily caused by two reasons, the first of which being our increased ACV. The second large contributor to revenue growth is our increase in awareness. As our product becomes more popular, and we continue to invest in effective marketing, our awareness grows. Both of these factors allow us to capture a greater share of our target market and unlock more revenues.

Another key contributing factor to profitability is our operational effectiveness. This is demonstrated through cost of goods sold (COGS) as we are able to bring down our COGS every year of operations. Additionally, by scaling managers and executives with growth we are also able to bring down our G&A per unit each year. Both of these factors mean we can take more advantage of our revenues as a result of our lean operations.

The Swift Shift has the ability to provide handsome returns to our investors with a strong net present value (NPV) of cash flows and internal rate of return (IRR). Thanks to our positive income, depreciation, and delaying capital expenditures until needed, our company project positive cash flows every year of operations. We yield an NPV of \$657,765 which represents a return in excess of our 22.59% discount rate. This also means we have a strong IRR of 35%. Part of this calculation is based on the premise of liquidating our business in year 5. As a result of increased competition taking revenues, we reach a stable state in our business that we expect to be followed by a decline post-year 5. In order to begin operations and realize this gain, Swift Shift requires \$1,046,256 in external funding to begin operations.

The return that our company can provide to our investors is much larger than that of industry competitors. This is evident in our margins and return measures. Our return on equity (ROE), return on assets (ROA), and return on invested capital (ROIC), are all significantly higher than our industry comparable companies. Moreover, we have a significantly lower cash conversion cycle (CCC) than competitors, meaning we can turn resources into cash more quickly than the rest of our industry. These factors point to Swift Shift being a strong investment.

Despite our company's market position and operational effectiveness, the Swift Shift is still subject to risks presented by the environment. For example, consumer demand might fluctuate and people might no longer be interested in our product. We may lose brand awareness or even be subject to competitive pressure that could drive us out of the market. In terms of

operational risks, we could face international shipping delays of our parts or product due to geopolitics, trade sanctions, or a natural disaster. Even within our own factory, we could suffer an equipment failure which would cause our production line to fail.

In our risk assessment framework, we have differentiated potential risks into qualitative and quantitative categories and evaluated their probability and impact. Focusing first on qualitative risks, our dependency on sourcing raw materials from international suppliers introduces several vulnerabilities. These include impacts by market conditions in both countries, with fluctuations in foreign exchange rates, increased lead times and shipping costs. Such variabilities in raw material costs are critical as they directly affect our profitability as we rely on high margins to recover substantial fixed costs. Additionally, considering our wage and administrative costs, and the fact that our salaries are currently at the lower end of the scale in Missouri—where our factory is located—there is a likelihood of wage and salary variances due to potential labor union activities or strikes. These factors are tightly linked to our overall financial performance.

From our sensitivity analysis for quantitative risks, the elasticity provides clear insights about risks that have high impact on NPV. Sourcing materials from China lower our costs, but it also brings up uncertainty related to unstable supplier relationships or longer lead time. Since our segment is targeted in a huge size, it can be difficult for us to reach the expected awareness, which might further affect the purchase intent. Competition is expected to come in starting in year 3. However, it could come in sooner due to our positive cash flow for all five years, and that could also impact our NPV.

To help mitigate any potential risks, we plan to do the following: (1) Analyze customer data to understand their behavior and establish loyalty programs, which will help us keep our customer base. (2) Negotiate long-term contracts with suppliers and invest in employee training, so that we can keep our costs stable. (3) Increase efforts to utilize social media platforms such as Instagram, so that we can improve brand awareness, expand our customer reach, and increase our market share. (4) Conduct regular analyses to assess the impact of financial factors and adjust investment strategies accordingly, to minimize risks in the financial markets.



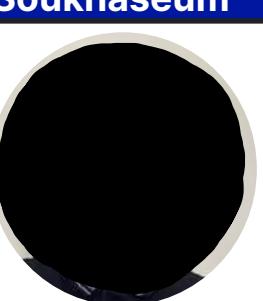
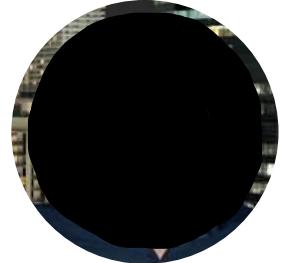
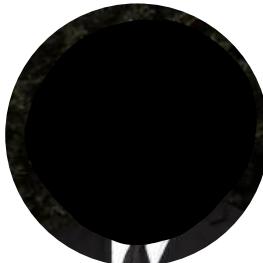
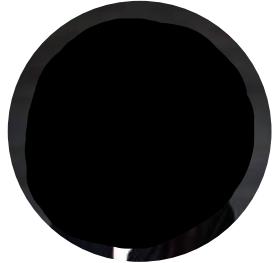
# Swift Shift

Deanna Soukhaseum



# Meet the team

---



Deanna  
Soukhaseum



# The Swift Shift streamlines kitchen cleanup with our seamless, safe, and swift utensil cleaning solution

## Enhanced Features for Innovative Cleaning Tool

- The box design **features adjustable walls** for a thorough clean and easy **suction attachment** to sink wall
- **The removable bristle walls** on the interior help quickly clean all the surfaces and grooves of various tools
- The built-in **soap compartment** stores and dispenses directly into the cleaning chamber, saving the consumer time
- The **swappable bristle/sponge plates** provides a **more customized** cleaning experience and ease of maintenance
- The **compressible walls** allows for **greater versatility** with the types and sizes of tools that can be cleaned

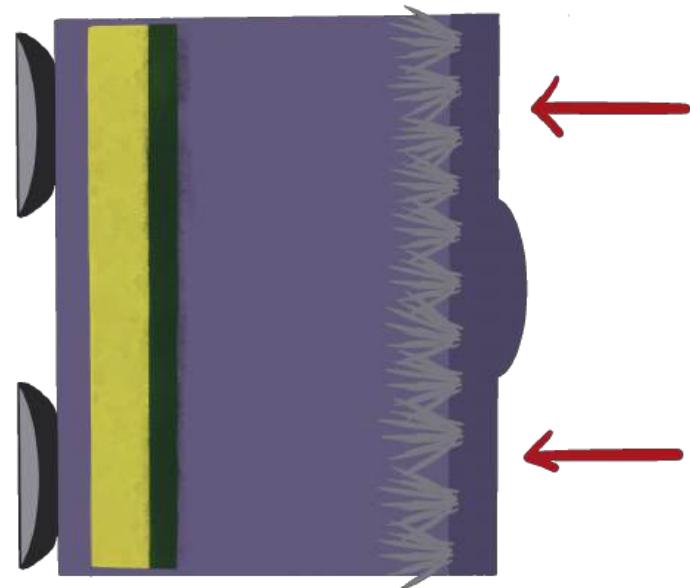


Exhibit 1: Product sketch



# We take advantage of rising demand for efficient cookware and cleaning products driven by urban lifestyles and emphasis on convenience

## Industry Overview

- The global cookware market valued in 2023 at **\$31 billion**
- The United States cookware industry was valued in 2022 at **\$3.8 billion**
- Busy lifestyles resulting from urbanization create the need for more efficient tools in order to make food preparation more convenient.

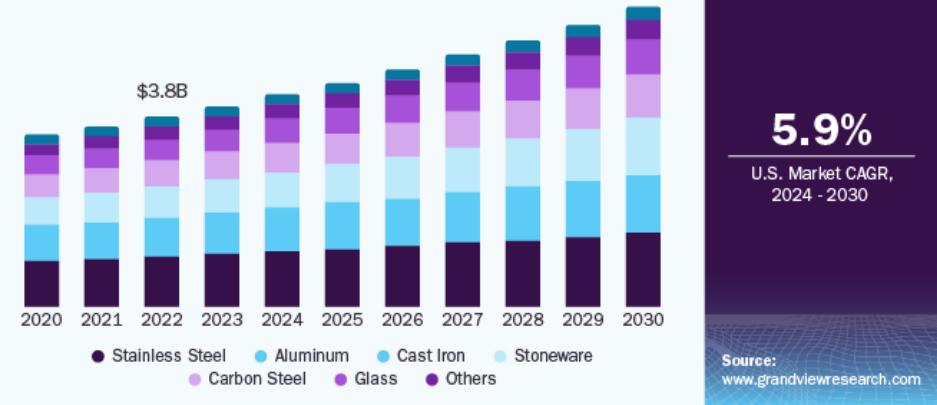
## Market Trends

- Increasing emphasis on **cleanliness** drives demand for **safe and efficient** cleaning products
- People shift towards **time-saving** solutions to accommodate busy lifestyles
- Demand for **multipurpose** cleaners with innovative features increases due to comprehensive cleaning

Exhibit 2: U.S. cookware market trends

### U.S. Cookware Market

Size, by Material, 2020 - 2030 (USD Billion)



"Cookware Market Size." Global Market Insight. Mar 2024.

<https://www.gminsights.com/industry-analysis/cookware-market>

"Cookware Market Size, Share & Trends Analysis Report." Grand View Research. 2018 - 2023

<https://www.grandviewresearch.com/industry-analysis/cookware-market>



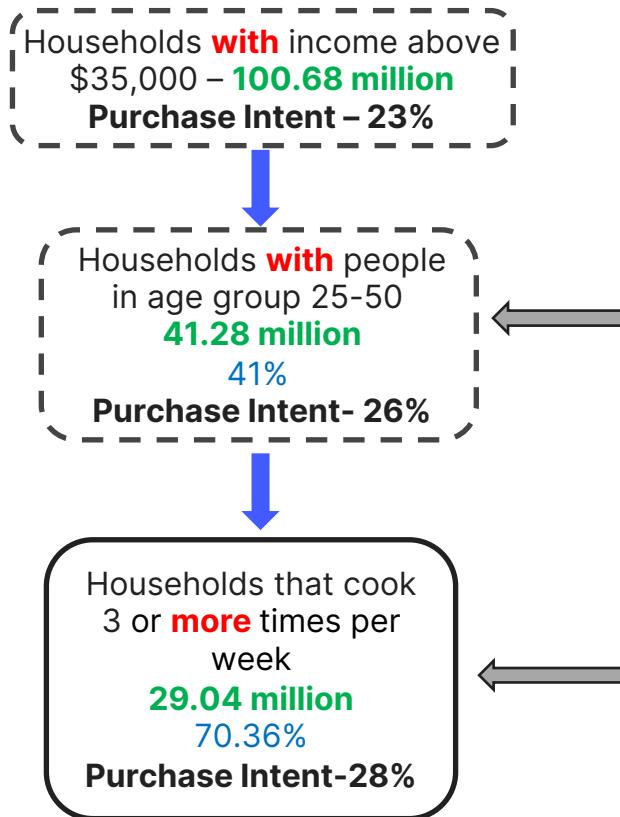
# The Swift Shift fits in the market as a versatile cleaning tool that delivers value through an efficient cleaning experience while preserving utensils



## Positioning Statement

- The Swift Shift is a utensil cleaning gadget targeted towards individuals that cook frequently but don't like cleaning
- Its **compression mechanism** and the **swappable bristle/sponge plates** makes the cleaning process **more efficient**, allowing for use on a **greater variety of tools** and **preservation of tools** with a more customizable process
- Competitors like the Scrubbie have focused on providing a contactless cleaning experience but we want to outperform them on **versatility, time saving capabilities**, and **greater ability to preserve** the state of kitchen tools

# Our positioning strategy targets middle-aged households who cook frequently in order to achieve the highest purchase intent



## Target Segment: Cooking Connoisseurs

- We selected our target market based on our survey results
- Middle-aged people who cook frequently showed the most interest in our product
- Individuals in our segment enjoy trying new cooking techniques, so they would be more open to trying our product
- Our segment seeks products that help them minimize time and effort spent on day-to-day tasks

# Swift Shift projects consistent revenue growth over our product life cycle, delivering a promising return on investment

Exhibit 5: Partial BASES model with target market size, units sold, and sales revenue

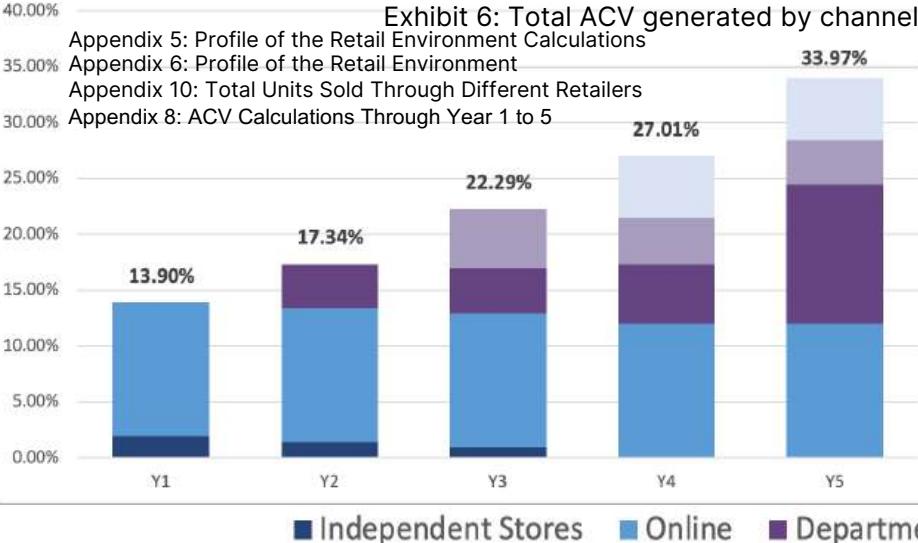
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Target Market Size</b>	<b>29.04 million</b>	<b>29.28 million</b>	<b>29.45 million</b>	<b>29.55 million</b>	<b>29.57 million</b>
<b>Total Units Sold</b>	<b>104,132</b>	<b>190,238</b>	<b>252,116</b>	<b>332,284</b>	<b>451,578</b>
<b>Manufacturer's Sales (Revenue)</b>	<b>\$2,061,814</b>	<b>\$3,647,931</b>	<b>\$4,699,989</b>	<b>\$5,931,998</b>	<b>\$7,987,418</b>

Our sales take into account many important variables

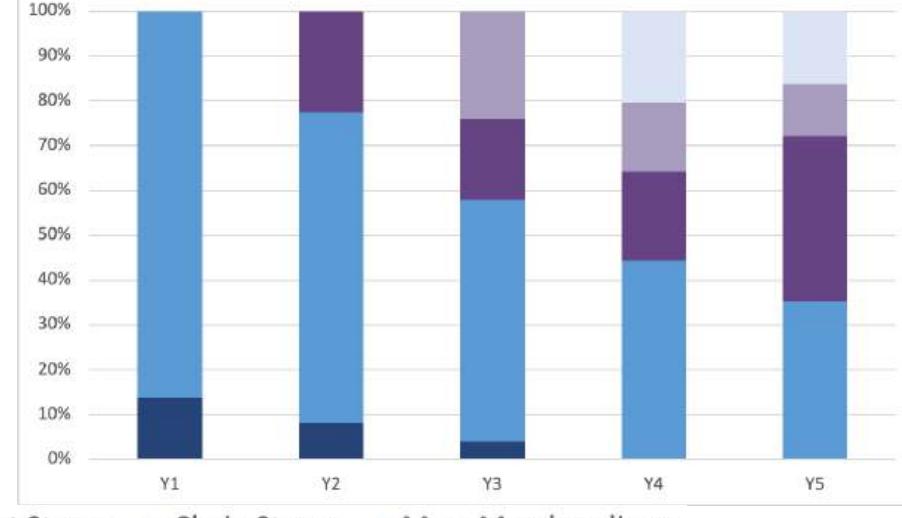
- Our target market size is based on a 1.2% growth rate and previous users are subtracted from the market size
- When forecasting our sales, we calculated based on adjusted purchase intent, awareness, ACV, repeat units, and an adjustment to account for competition
- We estimate that our customers will repurchase every two years, which was taken into account in the number of repeat units
- Although we're profitable for all five years, we don't make enough revenue for competition to enter until year 3

# The Swift Shift expands its distribution reach to various channels, increasing our availability to customers as our company approaches maturity

## Total ACV Generated by Distribution Reach



## Distribution Reach Proportions



By diversifying our retailer channels and entering larger retailers in later years, we expand our ACV

- Our **ACV grows** as our distribution reach **expands** to retailers such as Target / Kroger, growing from ~14% to 34%
- ACV as a % of sales generated through initial channels decrease through the years as we diversify our distribution channels, **allowing us to constantly increase our distribution reach**
- As we enter larger retailers with lower pricing strategies, our **weighted average retail price decreases** each year

# Our purchase intent is based on our retail price, which decreases through Y1 and Y5

Appendix 9: Adjusted Retail Price Through Years 1 to 5  
Appendix 11: Static Retailer Values

Appendix 12: Purchase Intent  
Appendix 13: Marketing Survey Analysis

Appendix 14: Target Segment Preferences  
Appendix 15: Survey Data With Adjusted Purchase Intent

$$\text{Cumulative PI} = -0.0104 * \text{Price} + 0.5157$$

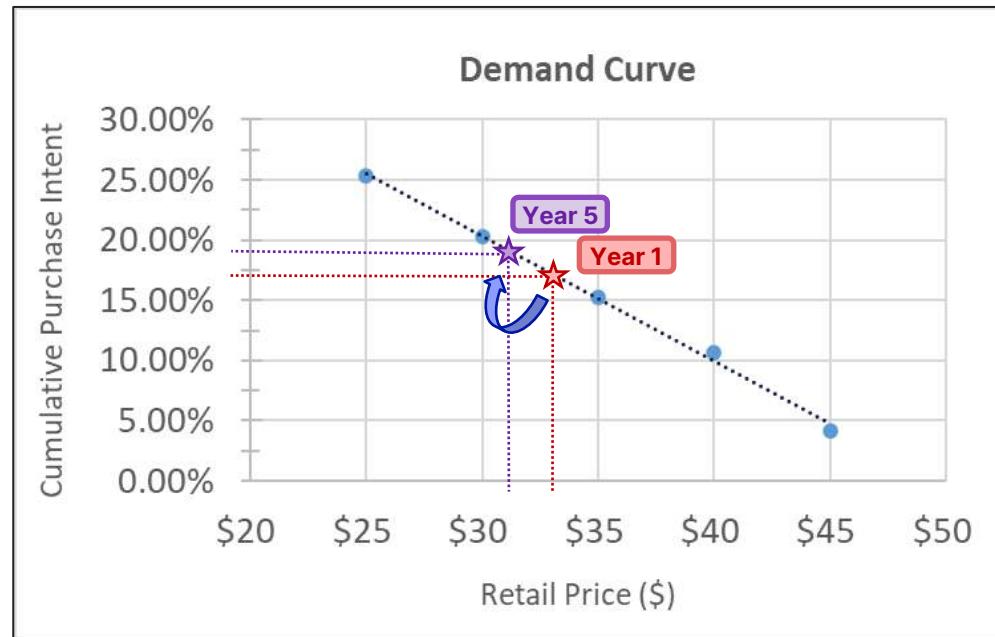


Exhibit 7: Demand curve with purchase intent plotted against retail price

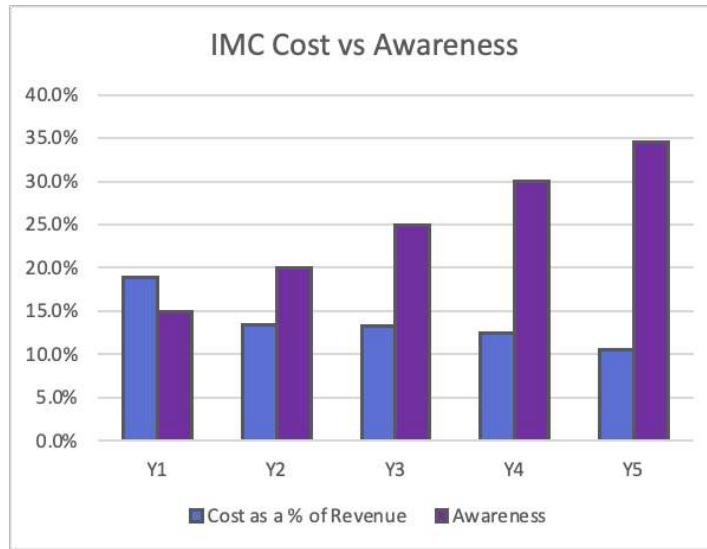
## Average weighted retailer selling price

- Year 1: \$33.00 → 17.25% purchase intent
- Year 3: \$32.16 → 18.13% purchase intent
- Year 5: \$31.54 → 18.76% purchase intent

## Our average retailer selling price decreases annually, resulting in rising purchase intent and sales

- Purchase intent is calculated based on the percentage of survey respondents who would definitely or probably buy at different prices
- Our retail price takes into account the price our target market is willing to pay and the price required to maximize profits after retailer margins and production costs

# We integrate various channels into our marketing plan, with social media being the most relevant to our target market



### Heavily investing in social media increases awareness

- Costs and awareness steadily grow simultaneously from Y1 to Y5 as our company expands its reach
- Awareness steadily increases from **14.95%** to **34.5%** as more advertising budget becomes available
- Costs as a percentage of revenue decreases from **18.9%** to **10.5%** as we continually earn more money than we spend

# We align our social media marketing to our target market's shown preference towards a youthful and fun aesthetic with color scheme and mascot



@swiftshift.us on Instagram

"A safe quick clean, for a new shiny gleam!"

**Our social media embodies our playful brand to communicate with and appeal to our target market**

- Blue and purple color scheme to evoke "clean" and "good quality" connotations
- Fun, playful theme featuring our mascot Squeak the Duck to appeal to our younger target market
- Interactive posts such as quizzes, fun facts and holidays to engage on a more personal level and encourage activity
- Use social media as a platform to announce big events such as sales, or releasing into new retailers



Exhibit 9: Instagram grid showing several post designs

# Aside from social media, influencer marketing and transit advertising generates the most awareness



Trade Booth



Packaging



Billboard



Transit



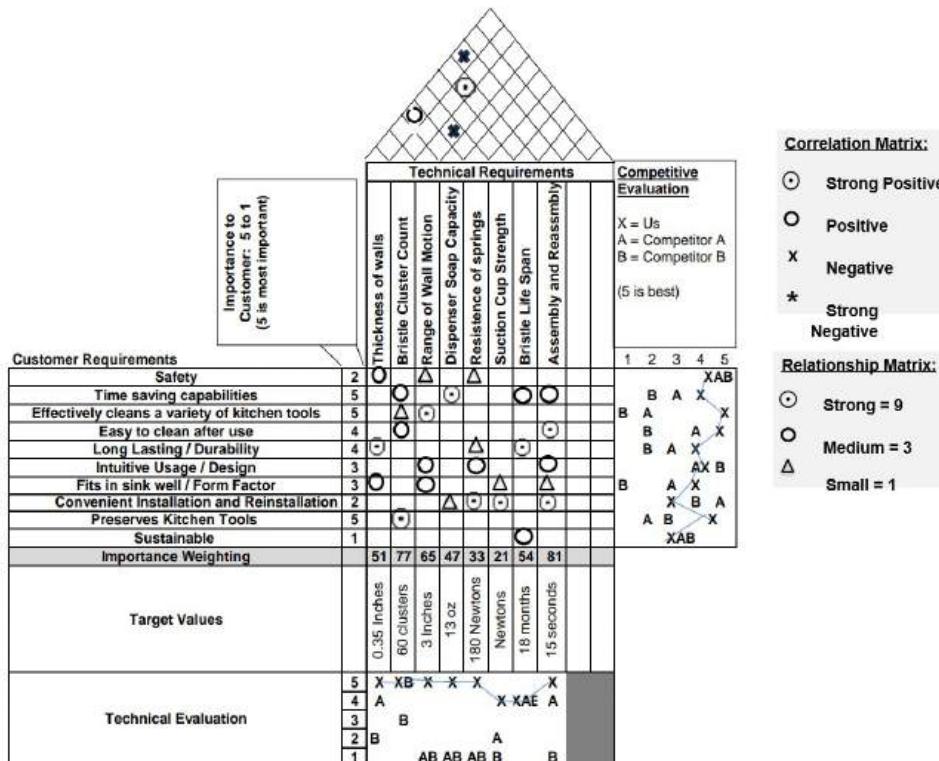
Exhibit 10: AI generated photos of Swift Shift advertising through trade shows, packaging, billboards, and transit

## The Swift Shift will use a variety of marketing strategies to diversify our reach

- Attend 2 trade shows in Year 1, then gradually decrease to devote resources to avenues with larger reach
- Aesthetic blue, purple, and white colored packaging **evokes clean and reliable psychology**
- Our mascot Squeak the Duck **appeals to a younger audience** and enhances our brand image
- Our billboards are easy to understand and are located in high-population areas for high-exposure
- Transit ads in 2 locations per city; 3 times per year in 20 cities total

# Our design is heavily influenced by customer preferences by delivering on versatility and efficiency, without damaging kitchen tools

Appendix 14: Target Segment Preferences



Our target market believes that the most important features of our product are the swappable components and stiffness of bristles

Static walls part-worths: **-0.497** (31.8% importance)  
Stiff walls part-worths: **-0.128** (8.2% importance)

Our customers care about our product's versatility, time-saving capabilities, and preservation of tools

- 72% of respondents prioritize versatility, 56% of respondents prioritize time-saving capabilities, and 38% of respondents prioritize preservation of tools in utensil cleaners
- The most important house of quality technical requirement (**assembly and reassembly time**) aligns with customers' interest in a tool that can save them time

# We are aiming to maintain our distinguished value proposition by investing in our promises for reliability, performance, and unique cleaning features



Performance



Reliability



Special Features

## Competitive Advantage

Enhanced performance means cleaner dishes with less effort, which directly relates to satisfied customers and repeat purchases.

## Modification & Process Design

Invest in research and development to improve the formulation of the Swift Shift.

## Competitive Advantage

Reliability fosters customer trust and reputation through consistent performance while minimizing the risk of product failures.

## Modification & Process Design

Invest in quality control measures during manufacturing to maintain product integrity and reliability.

## Competitive Advantage

The adjustable walls and the removable bristle walls offer unique benefits that address specific customer needs.

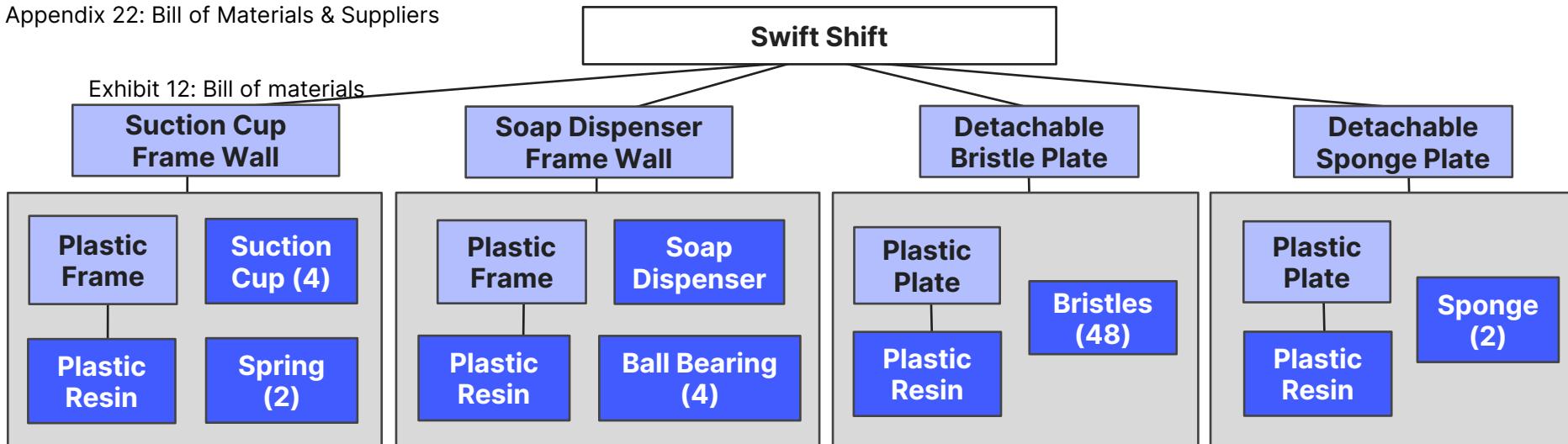
## Modification & Process Design

Focus on optimizing functionality of special features and conduct user feedback for improvement in the product design.

# To minimize our costs, we utilize international sourcing strategies while keeping our core capabilities in house

Appendix 22: Bill of Materials & Suppliers

Exhibit 12: Bill of materials



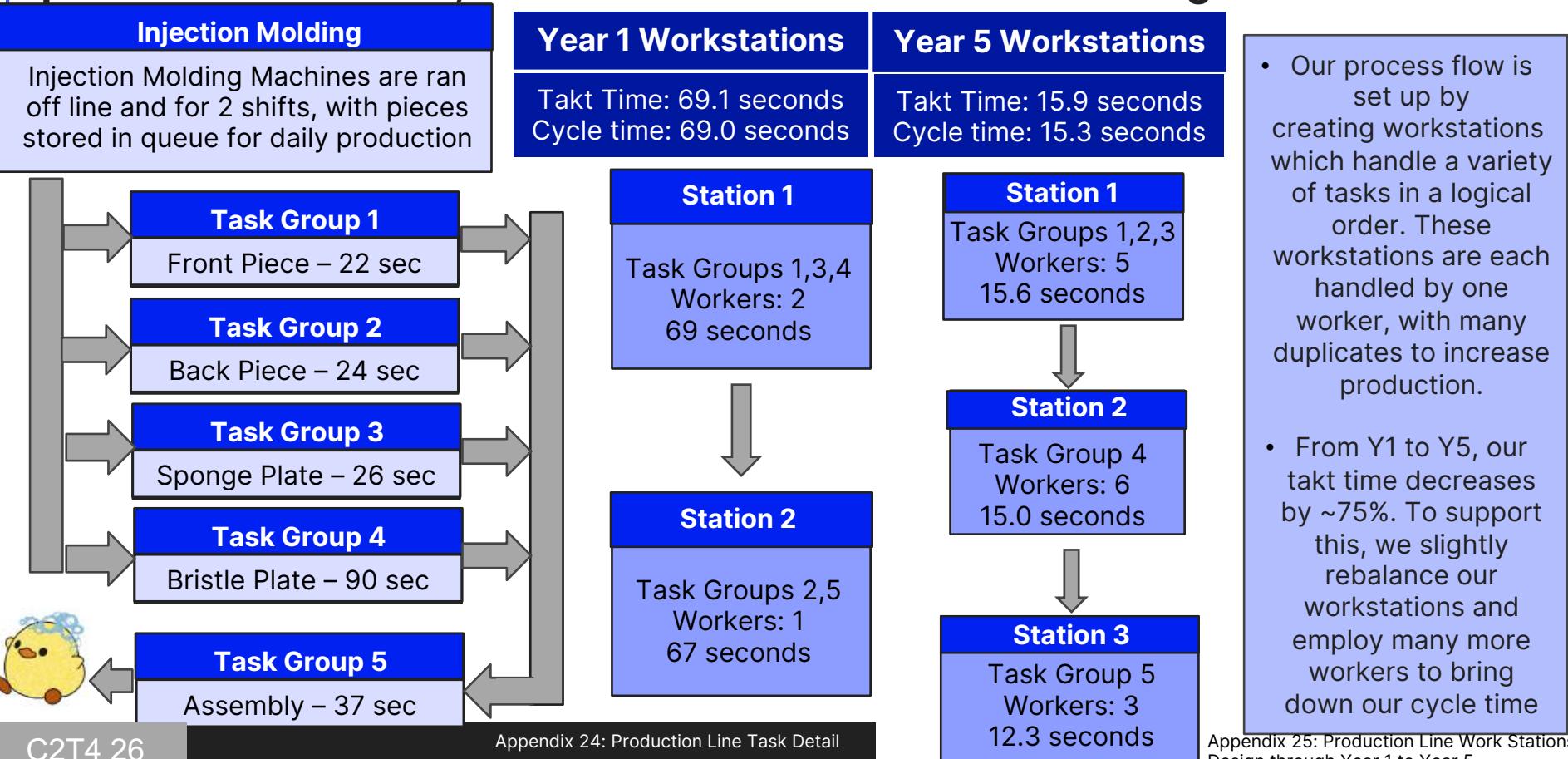
## Our Core Capabilities

Our innovative design of our **detachable plates** and **injection molded** frame are manufactured in house, allowing us to maintain a competitive advantage and deliver unique value to our customers

- Soap dispensers, ball bearings, springs, bristles, and sponges are sourced from offshore suppliers to reduce raw materials costs
- Suction cups and plastic resin (our most important components) are sourced from domestic suppliers to reduce lead times and ensure quality over lower costs

Manufactured materials  
Purchased materials

# Tasks within our process flow are organized by production components and split into workstations, which are scalable to meet increasing demands



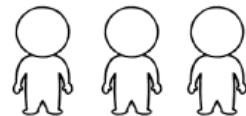
# By adding labor and capital expenditure only when necessary, our business is able to scale efficiently to meet demand and maximize cash flow

## Year 1 Capacity Analysis

Factory Capacity: **418**  
Units demanded: **417**

+1 unit

Capacity Utilization: **99.8%**  
Efficiency: **99.0%**



**2** Inj. Molding  
Machines

**3** Direct Labor  
Workers

Production Line Capacity: **418**  
Injection Molding Capacity: **420**

**1**

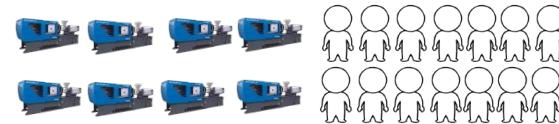
As our business grows, we scale our operations to meet demand

## Year 5 Capacity Analysis

Factory Capacity: **1846**  
Units demanded: **1806**

+40 units

Capacity Utilization: **97.8%**  
Efficiency: **93.9%**



Additional injection molding machines and production line workers are only employed during years when necessary

**2**

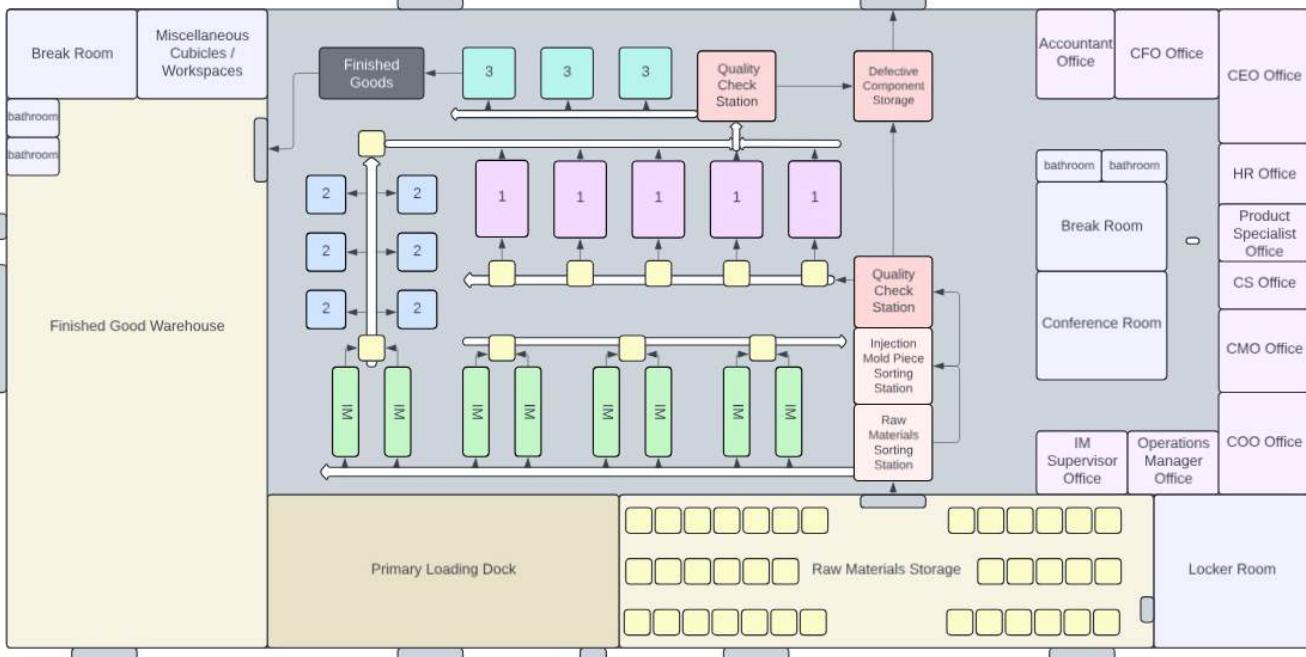
There is built in slack within our workstation times to enable variance and error

**8** Inj. Molding  
Machines

**14** Direct  
Labor Workers

Production Line Capacity: **1846**  
Injection Molding Capacity: **1920**

# The Swift Shift's factory layout facilitates lean operations with dynamic workstations and an efficient process flow design



With the lack of a flex space option, we rent the entire 200 ft by 100 ft space and build out to full utilization in Y5

Quality Control stations (red) are implemented, which will also serve as a convergence point for production process components

We utilize warehouse personnel to ensure an efficient process flow between our workstations

Exhibit 13: Factory layout

Appendix 24: Production Line Task Detail

# Our center of gravity was determined by distributor warehouse locations and demand density, leading us to choose a factory in Missouri

Our factory is 19.7 miles from our center of gravity

## Center of Gravity

New Madrid, MO (36.626, -89.415)

## Factory Location

Sikeston, MO (36.889, -89.549)

Our factory's rent costs are on the lower end of the average range in Missouri

Total Space: 20,000 sqft  
Rent per sqft: \$4.80  
Yearly Rent: \$96,000

Average Rent for Industrial Space in MO:  
\$4 to \$9 per sqft per year



To locate our center of gravity, we used...

- 25 states with the largest population of our target households (represents 80% of our sales)
- 5 retailers with the largest ACV (retailers where we distribute the most units)

We found our center of gravity by finding the weighted average of the locations of the closest distribution center in each state for each retailer

Appendix 26: Factory Location Analysis

# Being located in the Midwest, our transportation costs are relatively inexpensive while becoming more efficient as our company matures



We are using FedEx trucks for outbound transportation due to low and reliable costs

- Outbound transportation costs are consistent and reliable → FedEx rates are fixed based on freight zone (distance) and Amazon has fixed costs per unit
- Lower costs using FedEx trucks compared to other modes of transportation

Total Inbound Transportation Costs		
Year 1	Year 3	Year 5
\$30,710	\$73,686	\$131,983
Total Outbound Transportation Costs		
Year 1	Year 3	Year 5
\$97,747	\$194,128	\$297,306
We used three different methods to determine transportation costs		
<ul style="list-style-type: none"><li>Online → Amazon has fixed costs of \$0.99 per unit sold</li><li>Units sent to all other retail channels will be transported via FedEx trucks</li><li>Assumed inbound freight costs are 10% of total raw materials cost</li></ul>		

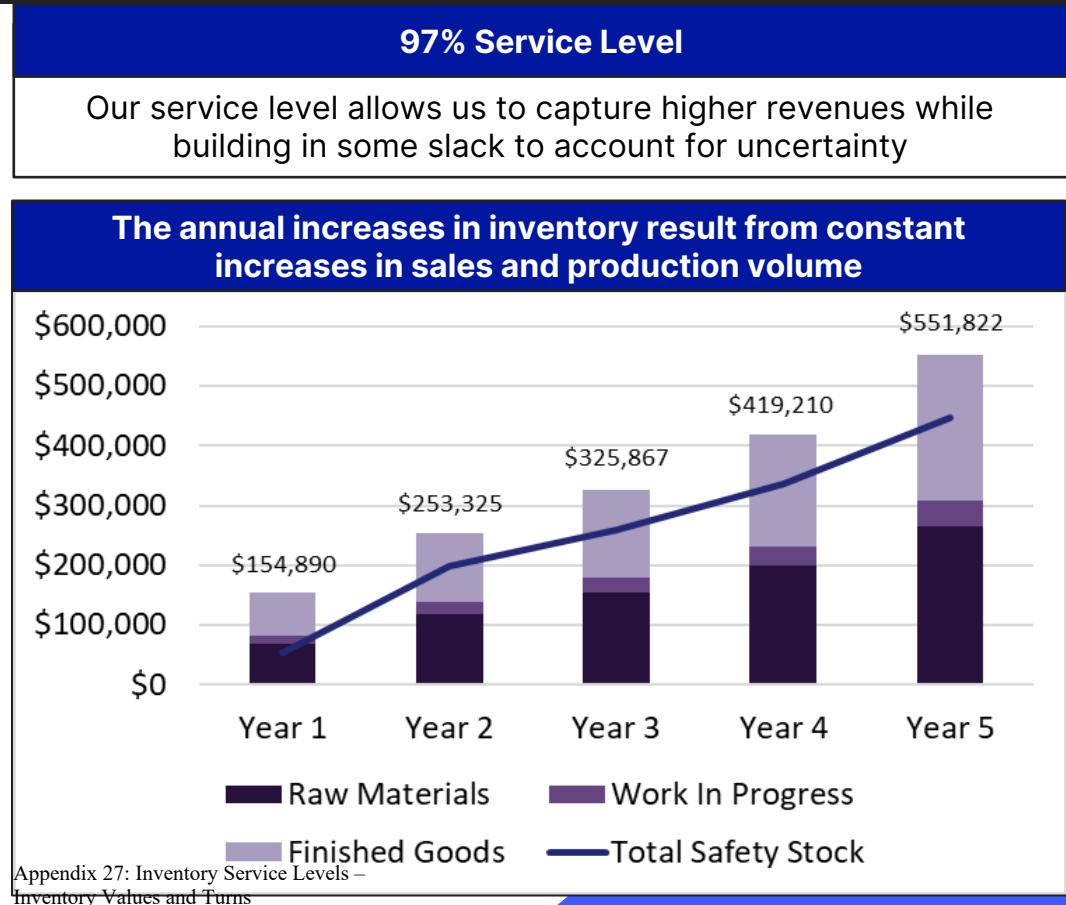


# Our inventory investment increases with sales, while we operate at a service level to balance our costs, warehouse space, and realized revenue

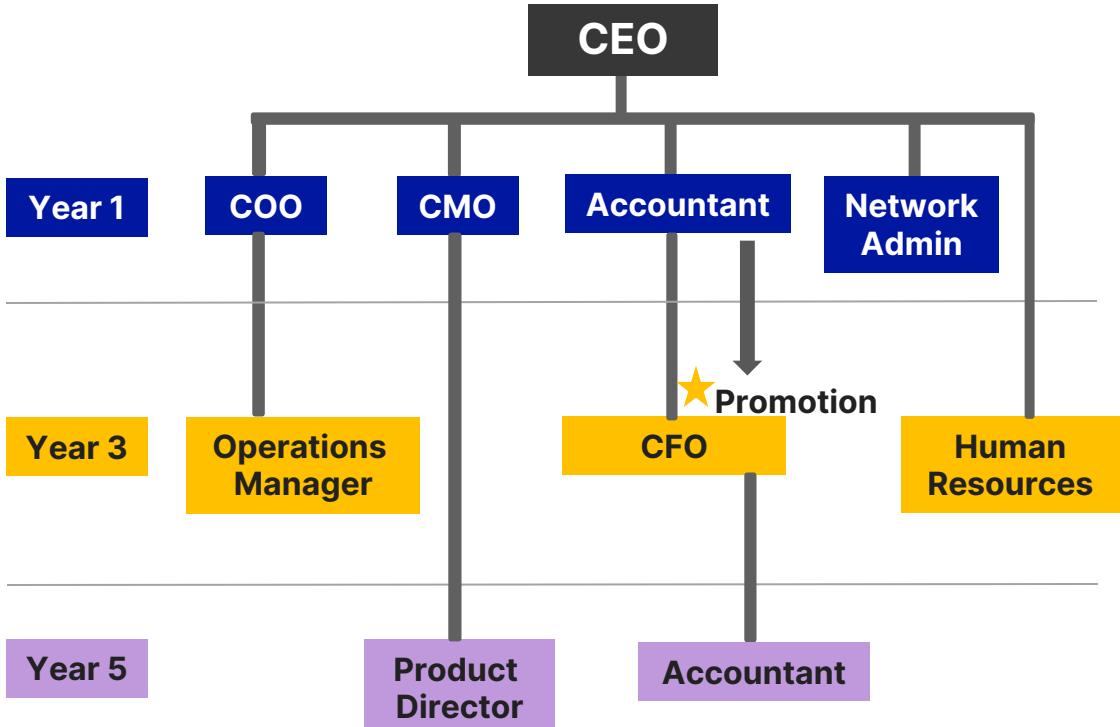
Inventory Turnover	Y1	Y3	Y5
Plastic resin	9.51	13.27	14.15
Suction cups	14.54	15.08	15.65
Average of all raw materials	7.46	9.64	9.98

Exhibit 16: Inventory turnover of key materials and averages

- Most of our inventory consist of safety stock and increases with total inventory, acting as a buffer against surges in demand and uncertainty with overseas suppliers
- The most important components for our product have high inventory turnovers due to our decision to source them domestically, causing lower lead times. These inventory turnover rates increase over time .



# As our startup expands, we've added crucial roles to support expanding ►►►► operations and enhance financial management



## The additions of roles compensate for the growing responsibilities during expansion

- At our launch, we only include roles that are crucial to our operations (CEO, COO, CMO, Accountant, and Network Administrator)
- With expansion, increasing machines and production lines require additional roles like operations manager to manage these functions with HR serving to recruit new employees
- As our operations and finances expand in later years, we require the addition of our CFO to oversee our overall financial strategy

Exhibit 17: Organizational structure in years 1, 3, and 5

# Scaling allows us to increase our operational efficiency as our fixed costs stay constant

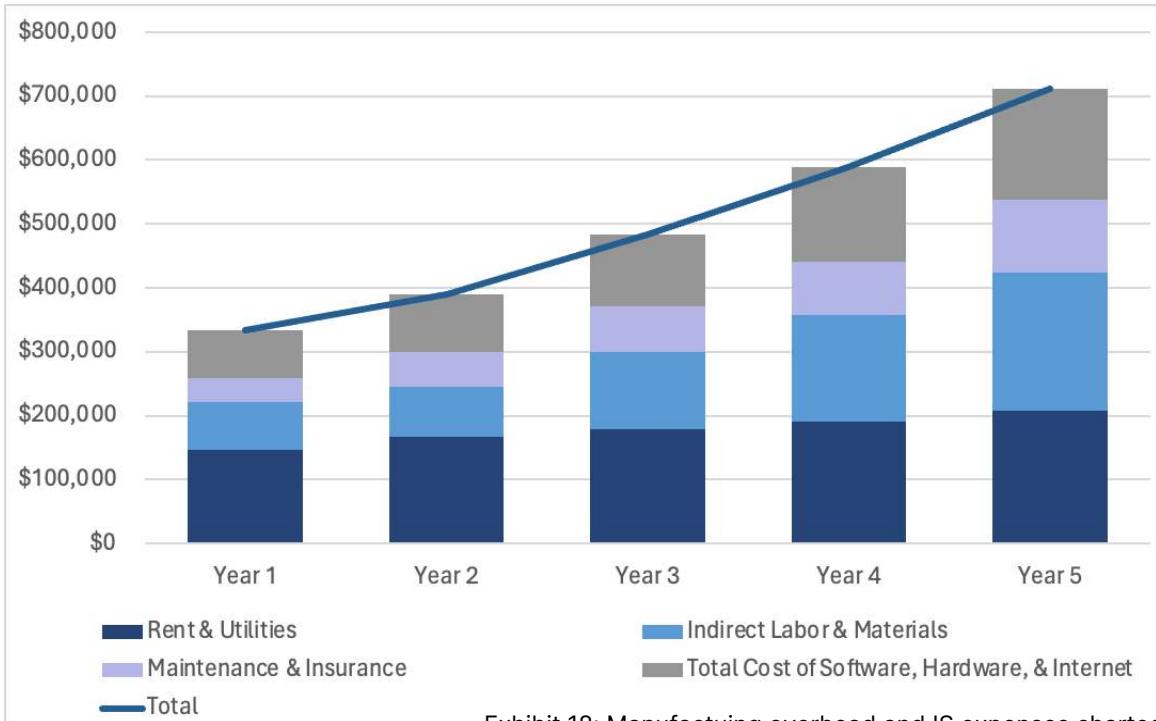


Exhibit 18: Manufacturing overhead and IS expenses charted by type

Appendix 31: Manufacturing Overhead Costs

Appendix 32: Information System Expenses

**Our IS and MOH costs are all necessary for an efficient process and quality product**

- Our reliance on a single facility allows rent to remain stable across the years despite increases in all other costs
- Our other manufacturing overhead costs include waterproof adhesive (indirect material), product liability and equipment insurance (as a precaution against potential risks), and warehouse personnel
- These other MOH costs increase due to the increasing scale of our business (the increases in production volume and inventory)
- Increasing production volume and employees require greater investments in Information Systems



## Our company achieves profitability early on and is able to gain scale in operations and COGS

### Comparison of Income Statement Y1-Y5

Income Statement	Y1	% Revenues	Y5	% of Revenues
Revenues	1,999,959		7,747,796	
COGS	859,369	43%	2,838,964	37%
Gross Profit	1,140,590	57%	4,908,832	63%
G&A	575,932	29%	1,297,116	17%
Marketing Expense	417,147	21%	1,323,668	17%
Depreciation	119,627	6%	167,201	2%
Pre-Tax Income	27,884	1%	2,120,847	27%
Taxes	7,529	0%	572,629	7%
Net Income	20,355	1%	1,548,218	20%

All major line items decrease as a % of revenues

Net Income stays positive and significantly grows

### Drivers of company success

- Revenues grows significantly from Y1-Y5**
  - As a result of improved marketing effectiveness, our revenues grow during years of operation
- Operating expenses decrease as a % of Revenues**
  - Through our growth we gain scale in operations reducing their impact on profitability
- Our company achieves profitability Y1-Y5**
  - Starting in Y1 our company is profitable and this grows each year of operations



# A strong component of our company's success is our ability to increasing capture our target market, leading to revenue growth

## Drivers of Revenue Growth

1

### ACV Growth

Increasing our ACV from **13%** Y1 to **33%** Y5 allows us to bring in more of our segment. We achieve this by entering new retail channels.

2

### Awareness

Our awareness grows from **15%** in Y1 to **35%** in Y5. As our customers become more aware of our product we bring in more revenue.

## Major Line items YoY

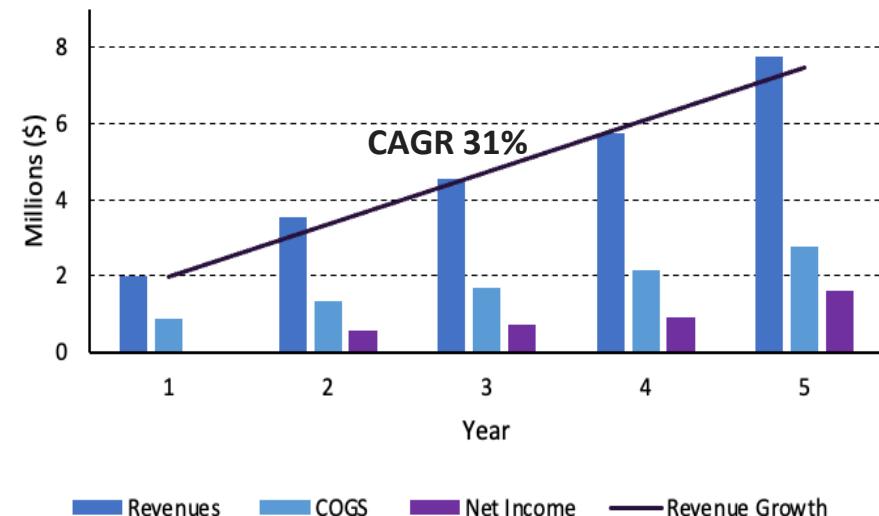
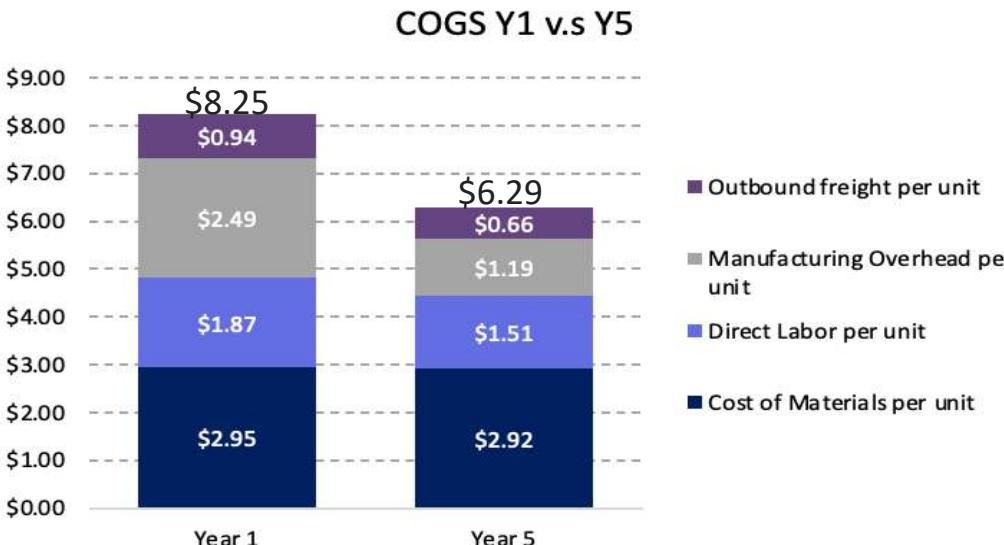


Exhibit 20: Chart comparing the major income statement line items throughout the years

# As a result of our efficient operations, we're able to bring down COGS per unit each year

## Comparison of COGS per unit



## How we bring down COGS

### Outbound Freight

- Freight is strongly tied to scale, by growing we gain cheaper prices per unit

### MOH

- As we sell more units the cost of rent, utilities, machine repair, etc. becomes more distributed

### Direct Labor

- By having only one machine supervisor we can grow our direct labor for cheaper

### Direct Material

- We gain \$0.03 per unit of price breaks on our bristles which positively impacts DM

Exhibit 21: Chart comparing COGS per unit broken down by type in years 1 and 5



## Despite expanding the number of executives & managers, our G&A per unit decrease year-over-year

Employee	Year 1	Year 2	Year 3	Year 4	Year 5
CEO					
CMO					
COO					
CFO					
Product Director					
Accountant					
Human Resources					
Operations Manager					
Customer Service					
Network Admin					
<b>Total Wage</b>	<b>\$501,000</b>	<b>\$615,855</b>	<b>\$811,644</b>	<b>\$991,653</b>	<b>\$1,126,150</b>
	10	19	25	33	45
Units Sold	4,132	0,238	2,116	2,284	1,578
<b>G&amp;A Per Unit</b>	<b>\$4.81</b>	<b>\$3.24</b>	<b>\$3.22</b>	<b>\$2.98</b>	<b>\$2.49</b>

In Y3, we promote our accountant to CFO and hire another in Y4

Total Comp grows by 2.2x Y1-Y5, revenue grows by 3.9x during the same period

Our G&A per unit goes down every year

Exhibit 22: Hiring schedule of executives and managers, wages, and G&A costs per unit

The number of units we sell is growing at a faster rate than the cost of G&A, including wage growth, which results in a decrease of G&A per unit annually

# Our company returns positive cash flows starting in Y1, leading to a strong NPV and IRR

Exhibit 23: Cash flow statement, NPV, and IRR

Cash Flow Statement	Start-up	Year 1	Year 2	Year 3	Year 4	Year 5	
Initial Investment	975,						
Net Income	650						
Depreciation	-97,453	20,355	572,343	700,604	868,696	1,548,218	
Change in NWC	0	119,627	119,627	143,294	203,156	167,201	
Change in Fixed Assets	-223,153	-25,002	-244,431	-216,641	-243,315	-323,973	
Net Free Cash Flow	0	0	-345,000	-381,150	-181,150	-751,150	
Terminal Value	-1,296,256	114,980	102,540	246,107	647,387	640,297	
Total Cash Flow	-1,296,256	114,980	102,540	246,107	647,387	3,798,006	
Net Present Value	\$657,765		Terminal Growth Rate		-50.00%		
IRR	35%		Discount Rate		22.59%		

## We can provide strong returns to investors

- Our positive NPV means that our **investors can expect a 22.59% return** on their investment per year, **plus \$665,765**
- Our strong net income and large depreciation lead to positive cash flows starting in Y1
- Additionally, our company has an **IRR of 35%** as a result of strong returns

## Contributors to positive NPV

### 1. Delaying Capital Expenditures

By running a **lean operation** that only grows when needed, we are able to **delay negative impact of CapEx** on Cash Flows

### 2. Strong Net Income

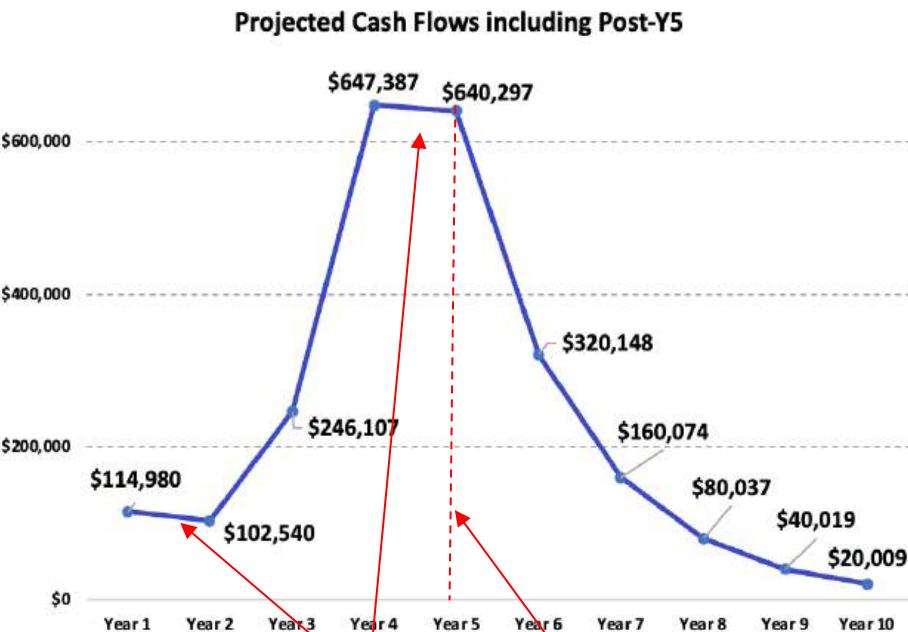
Our **positive net income each year** provides a cushion for strong cash flows

### 3. Large Depreciation

Each year we gain a **large cash benefit** from having significant depreciation

# As a result of our expected declining cash flows after Y5, we liquidate the business for a significant sum

Exhibit 24: Projected cash flows throughout years 1 to 10



The dips in CF is caused by an increase in CapEx

Calculated using Growing Perpetuity

## Product Life Cycle

- Based on similar products in our industry, we expect our **product lifecycle to be <10 years**
- We use a **declining perpetuity of -50%** to reflect the fact we expect our CF to decline following Y5

## Discount Rate

- Our discount rate was calculated using an **industry median Beta of 1.08**
- Adding a 11% premium for micro companies, we arrive at a **discount rate of 22.59%**

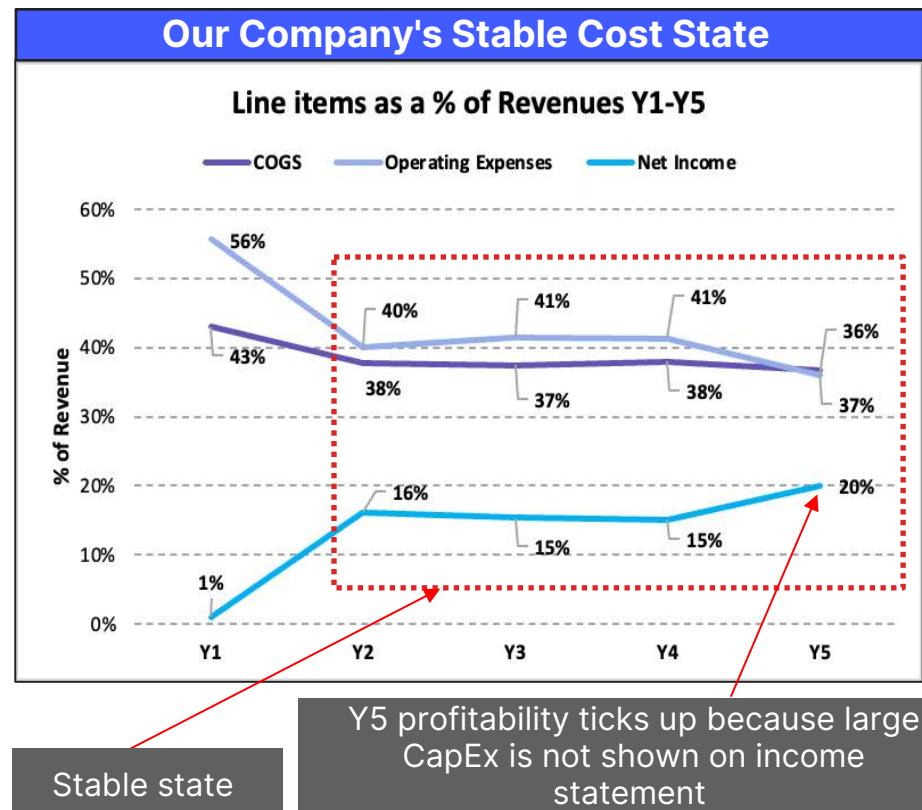
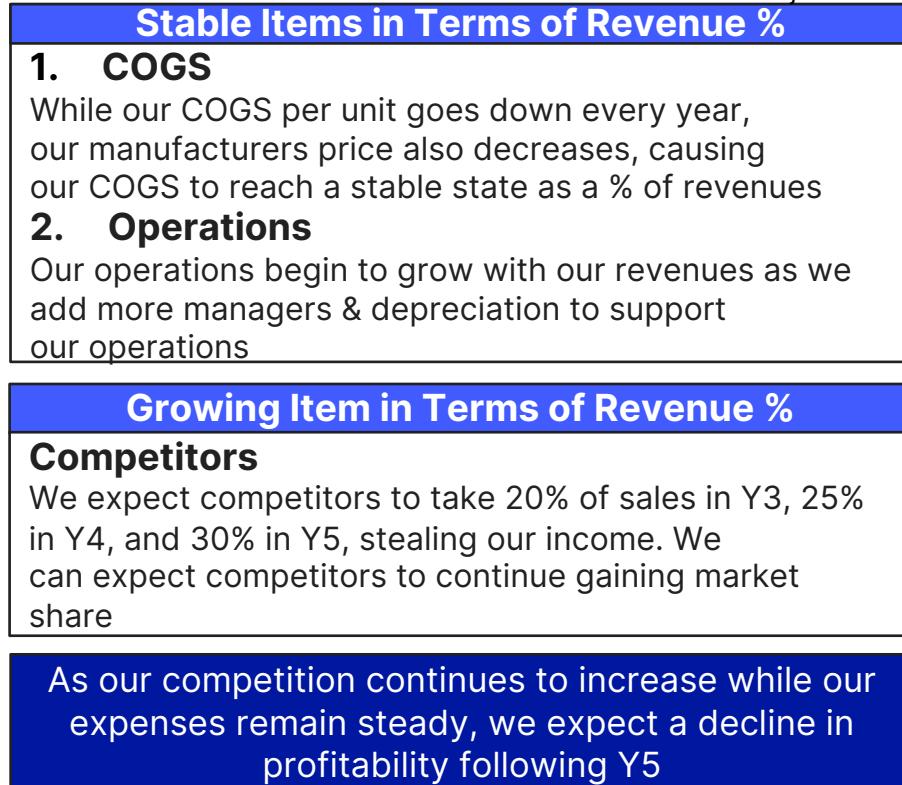
## Terminal Value (TV)

**Perpetuity TV of \$718,513 V.S. Liquidation TV of \$3,157,709**

- As a result of our expected declining CFs using a declining perpetuity, we instead liquidate in Y5
- This means we subtract our Liabilities from Assets to derive TV

# Following Y1 our costs grow according to size at a stable rate, however with competitors entering the market we expect profitability to decline

Exhibit 25: Major income statement line items charted as a percentage of revenues in years 1 to 5





# We require \$1,046,356 of external funding during our startup to begin operations

## Timeline of Required Funds

- Due to our positive cash flows every year of operations, we only require capital during the startup period

## Breakdown of Capital Allocation

### Capital Expenditures

- In Y0, we purchase a number of machines used in our manufacturing process
- Additionally, we purchase computers and other IS equipment

### Working Capital

- We require \$210,523 in cash to run operations until our first sale
- In Y0, we build up \$28,815 of inventory

### Operating Expenses

- We need \$97,453 for rent, salaries, utilities, etc.

## Funding Required for Startup

### Funding Required & Capital Allocation

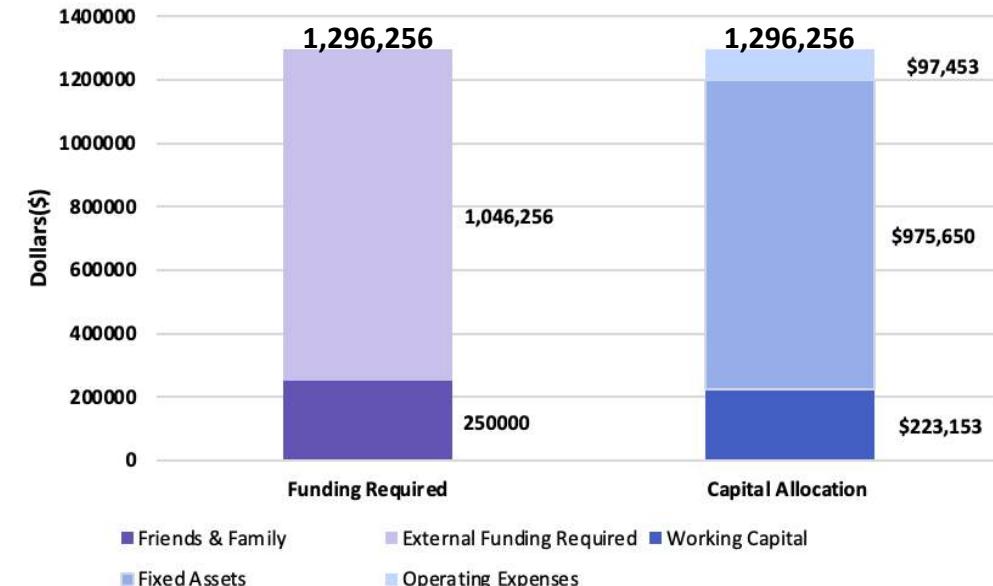


Exhibit 26: Amount of funding required charted against capital allocation broken down by type



## Despite our lower account payable days, Swift Shift has a more favorable cash conversion cycle than our industry median

Days	Industry Median	Swift Shift (Y5)	Explanation	Impact
Accounts Payable	66	28	As a result of being a smaller purchaser of raw materials, we receive less favorable terms from suppliers	We have lower cash on hand as result of paying suppliers quicker
Accounts Receivable	48	29	Due to a <b>larger portion of sales being online</b> , we have lower accounts receivable days than competitors	We have <b>more cash on hand</b> as customers pay us quicker than competitors
Inventory	142	71	As a result of being a <b>leaner operation</b> than competitors, we don't require as much inventory on hand	Our <b>inventory is turned to cash quicker</b> , which means we have more cash on hand than competitors
Cash Conversion Cycle	124	72	Our favorable account receivable and inventory days mean we can turn resources invested into cash more quickly than the industry median	

Calculated by weighted average of foreign and U.S. suppliers

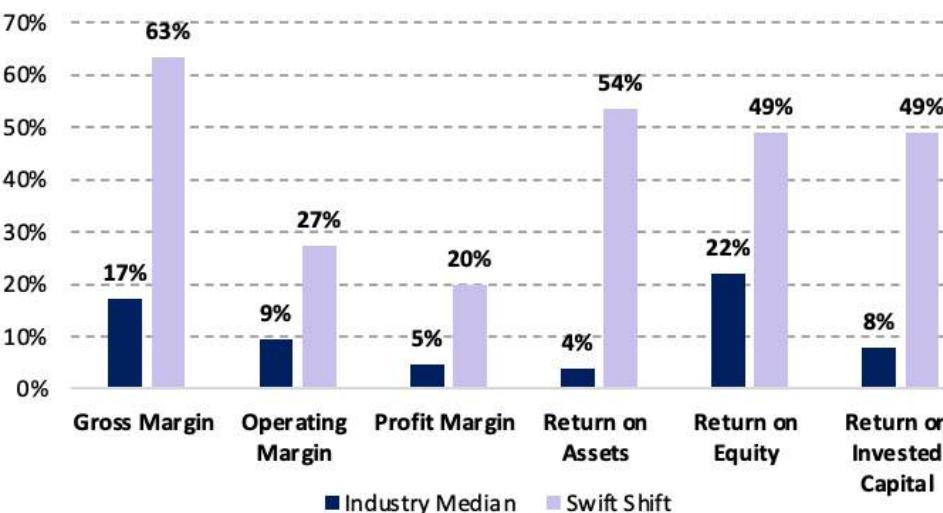
Calculated by weighted average of online and all other sales



# Swift Shift is able to beat the industry median on every major return metric, providing a positive outlook for investors

## Swift Shift Return (Y5) vs. Industry

### Return Comparison- Swift Shift and Industry



## Margins

- Due to running a leaner operation, growing employees when need, and having only one product, we have significantly **better margins than competitors**

### Return on Assets (ROA)

- As a result of having **fewer fixed assets than our competitors**, including not owning our own facility, we can provide an extraordinary **ROA of 54%**

### Return on Equity (ROE)

- We can provide a **ROE 27% better than the industry average** to our equity investors

### Return on Invested Capital (ROIC)

- Thanks to our efficient operations that necessitate a smaller investment for return, we're able to gain an **ROIC of 49%**

Exhibit 27: Industry returns plotted against Swift Shift's returns

Our lean operation, which requires a smaller investment for a larger return, allows us to gain back more of our investment and return more money to investors than competitors

# Ensuring awareness and direct materials cost stay close to expectations is important for our business success

Exhibit 28: Sensitivity analysis

	Breakeven % Change	Elasticity	Impact	Probability
Segment Size	-17%	8%	High	Medium
Purchase Intent	-14%	9.3%	High	Medium
Awareness	-14%	9.3%	High	High
Competition	51%	-2.5%	High	High
DM / Unit	47%	-2.1%	High	High
Starting Wage	62%	-1.6%	Medium	High
Admin Salary	42%	-2.4%	High	Low
Capex	73%	-1.4%	Medium	Low
Discount Rate	54%	-2.4%	High	High

**High sales are needed due to Impact of awareness and raw material**

- Given our large target segment, our target awareness will be difficult to achieve and has a major impact on our profits
- Changes in our raw material costs also have a high impact on our profitability because we need high margins to recover our high fixed costs
- Our NPV is more sensitive to marketing variables because our business model depends on being able to sell high quantities

# While facing several other qualitative risks, sourcing materials from China makes us vulnerable to several supply-chain related challenges

Exhibit 29: Qualitative risk matrix

<b>HIGH IMPACT</b>	Technology Risks	Labor Unions/Strikes
	Natural Disaster Risk	Market Acceptance
	Trade Restrictions / Tariffs	Supplier Stability
	Supply Chain Disruptions	Foreign Exchange Rate Fluctuations
<b>LOW IMPACT</b>	Weather Risk	Environmental Impact Concerns
	Equipment Malfunctions	Regulatory Environment
	Transit Losses	Project Management Errors
	Macro-Economic Conditions	Transportation Time Fluctuations
	<b>LOW PROBABILITY</b>	<b>HIGH PROBABILITY</b>

## Wages, uncertainty, and sourcing affect profitability

- Wages and salaries have a high impact on our profitability, and wages in Missouri are low relative to national average, making them likely to change
- As we are selling a completely new product there is some uncertainty relating to how the market will respond to the product
- Sourcing raw materials from China adds several risks to our business as we would be impacted by market conditions in both countries
- Our location has a relatively low risk of losses resulting from natural disasters, harsh weather etc.

# Our marketing variables pose a large impact on our profitability due to our low cost structure and profits being primarily driven by sales volume

Exhibit 30: Quantitative risk matrix

HIGH IMPACT	Admin Salaries Segment Size Capital Expenditure	DM Cost/Unit Discount rate Purchase Intent Awareness Starting Wage Competition
LOW IMPACT	Wage growth rate Number of months of Cash Reserves Tax Rate Manufacturer's Rep Commissions Direct Labor	Rent Utilities Expense Inbound Cost
	LOW PROBABILITY	HIGH PROBABILITY

## Sourcing, segment, competition affect profitability

- Sourcing our materials from China lowers our costs, but adds uncertainty which could have a high impact on our profits
- Our large target segment makes it difficult to accurately estimate awareness and purchase intent, both of which have a significant impact on our revenues
- We expect competition to come in starting in year 3, however given our positive cash flows for all five years they could come in sooner
- The timing of our capital expenditures would also have a large impact on our NPV and might change as we grow

# Given our business strategy, marketing awareness will have a high impact on our sales volume and our profitability

Triangular Distribution		
	Value	Distribution
Min	11.7%	0.78
Most Likely	15.0%	1.00
Max	16.8%	1.12

Exhibit 31: Calculations and summary statistics for awareness simulations

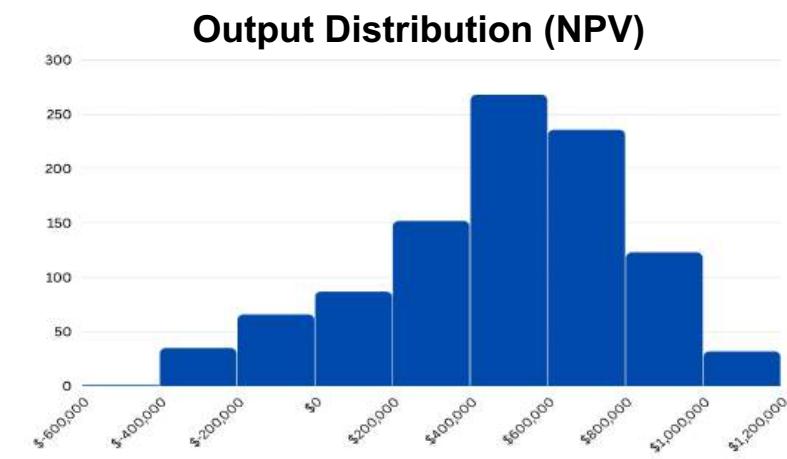
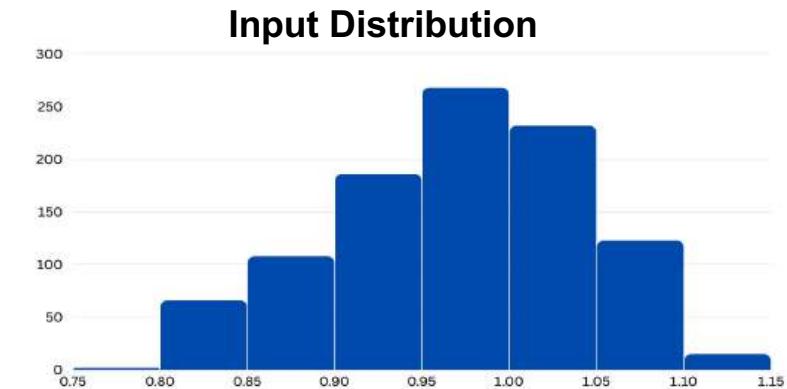
Appendix 45: Awareness Distribution Calculations

Appendix 46: Input Distribution for Simulation on Awareness

Summary Statistics	
Average	\$479,523
Median	\$504,126
Standard Deviation	\$322,185
VaR@5%	(\$142,911)
95th Percentile	\$966,409
%NPV<0	10.20%

## Awareness requires constant monitoring

- Minimum and maximum is calculated by changing the number of people targeted per person aware in IMC schedule.
- Input distribution is left-skewed due to large target segment making the effectiveness of marketing strategies uncertain
- Simulation results highlight the need to constantly monitor performance of marketing strategies as variations in awareness could have a significant impact on profits.



# Direct materials being a small portion of our cost structure has a relatively smaller impact on profitability but needs to be minimized for higher profits

Triangular Distribution		
	Value	Distribution
Min	\$2.63	0.90
Most Likely	\$2.92	1.00
Max	\$4.68	1.60

Exhibit 32: Calculations and summary statistics for direct materials simulations

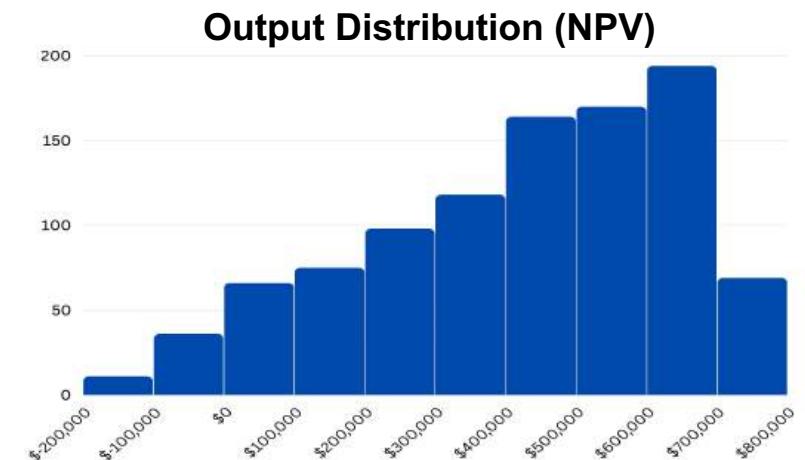
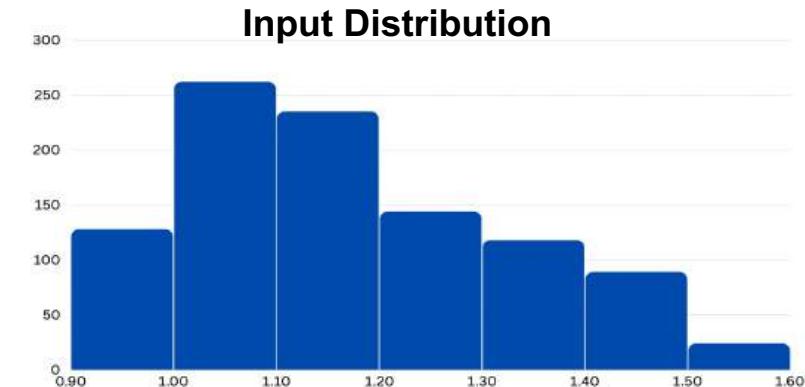
Appendix 48: Direct Material Distribution Calculations

Appendix 49: Input Distribution for Simulation on Direct Material

Summary Statistics	
Average	\$422,100
Median	\$461,668
Standard Deviation	\$221,014
VaR@5%	\$5,706
95th Percentile	\$709,240
%NPV<0	4.7%

## Low priced materials lead to higher NPV

- Maximum represents prices from more reliable suppliers, and minimum accounts for discounts and variations in freight.
- Right-skewed distribution for input since we choose low priced materials in the market, with minimum at 90%.
- The output is left-skewed distribution, which indicates a higher NPV is more likely to occur because materials constitute a small proportion of our costs



# Simulating DM and awareness resulted in negative NPVs in 23% of replications highlighting the importance of monitoring and managing these parameters

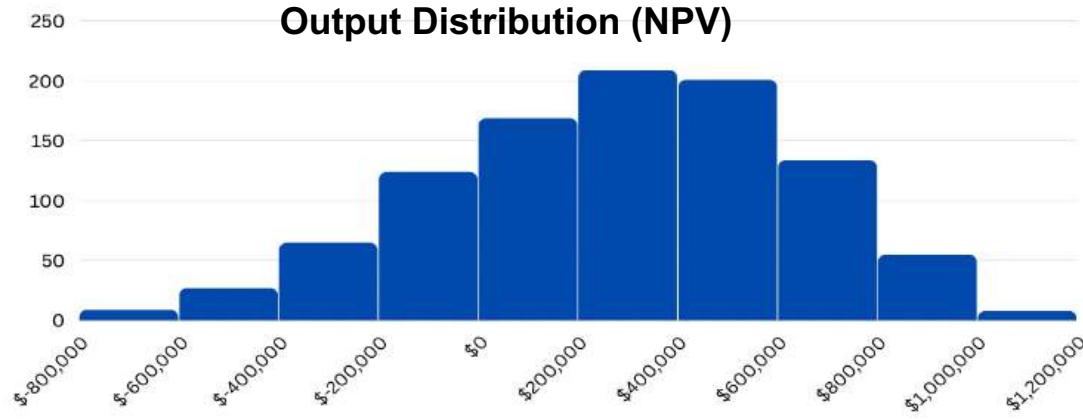


Exhibit 35: Output distribution chart of both simulations

### Left-skewed output emphasizes risk mitigation policies

- When both direct material and awareness are varied, the simulation results in a slightly left-skewed output
- The high percentage of negative NPV replications highlight the need for effective risk mitigation policies
- Highly negative VaR@5% shows that failure to effectively manage costs and sales could result in heavy losses
- The results can be explained because both variables can vary beyond their break-even points

### Summary Statistics

Average	\$278,250
Median	\$307,163
Standard Deviation	\$357,666
VaR@5%	(\$335,254)
95th Percentile	\$818,328
%NPV<0	22.5%

# The impact of salaries and wages on profitability may also be of concern if they grow faster than we expect

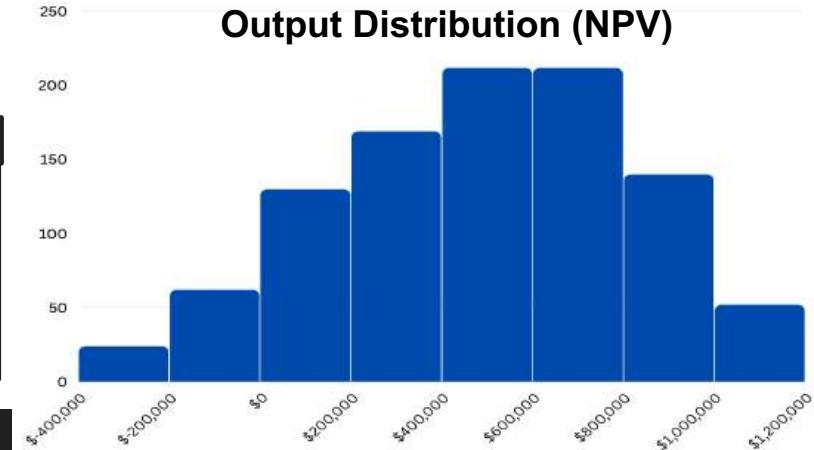
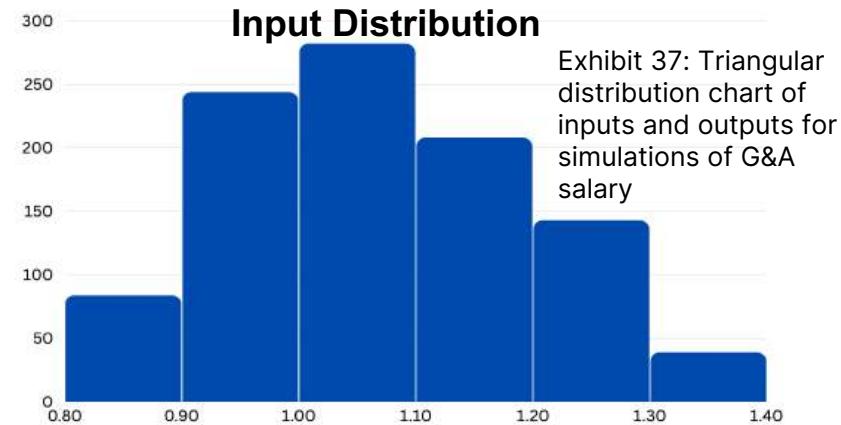
Triangular Distribution		
	Value	Distribution
Min	\$400,900	0.80
Most Likely	\$501,000	1.00
Max	\$701,200	1.40

Appendix 52: Admin Salary and Wages Distribution Calculations

Appendix 53: Input Distribution for Simulation on Salary and Wage

Exhibit 38: Calculations and summary statistics of G&A salary simulations

Summary Statistics	
Average	\$487,949
Median	\$513,715
Standard Deviation	\$331,467
VaR@5%	(\$90,489)
95th Percentile	\$1,002,009
%NPV<0	8.6%

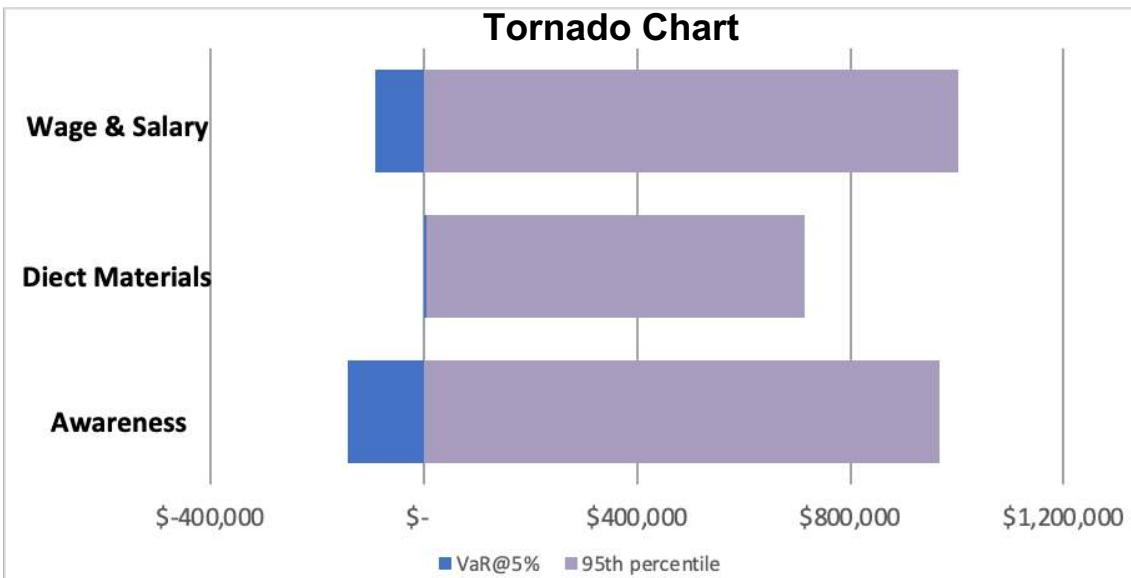


## Low base G&A accounts for unexpected regulations

- Minimum and maximum salaries are based on salary ranges in Missouri. While we are a startup company, our base G&A is set lower than the market average.
- Right-skewed distribution for input, which accounts for unexpected changes due to unions / regulations etc.

# The variations we expect in key variables allow us to remain profitable in most non-extreme scenarios

	Salaries and Wages	Direct Material	Awareness
VaR@5%	(\$90,489)	\$5,706	(\$142,911)
95th percentile	\$1,002,009	\$709,240	\$966,409



## Awareness is the most crucial for profit

- Awareness has the largest effect on profitability.
- Our large gross margin makes it difficult for direct materials to have a significant impact on profitability
- Consistently sourcing materials and labor at low costs will be key to higher profits
- If awareness falls below expectations it could result in large losses

Exhibit 39: Statistics and tornado chart from sensitivity analysis on all variables

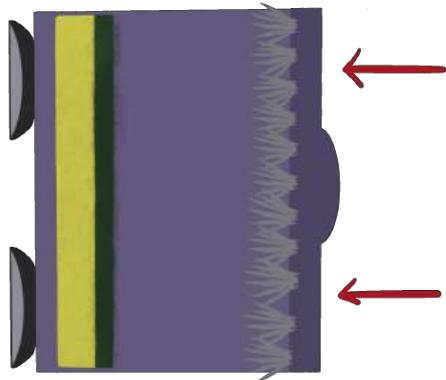


Appendix 55: Tornado Charts on All Chosen Variables from Simulations

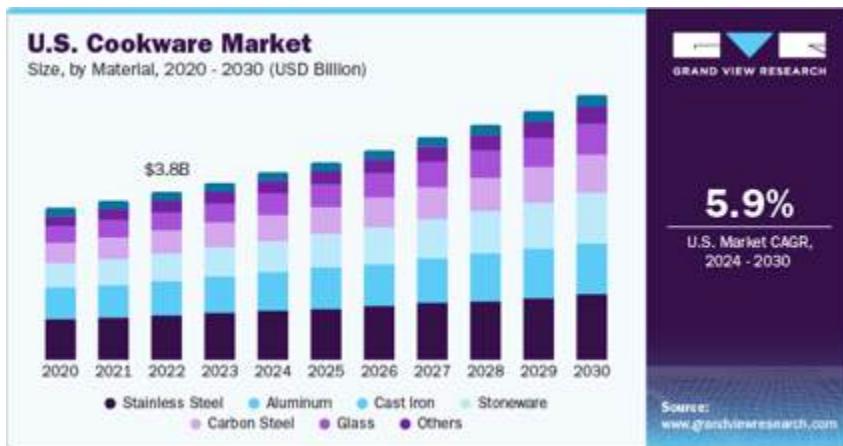
# We aim to take the following measures to minimize the risks associated with our company

Strategy	Benefit	Cost	Change Input
Analyze customer data to understand their behavior and establish loyalty programs	Retain existing customers and mitigate the impact of segment size fluctuations	Costs associated with market research, expansion efforts, and system development	Segment size Purchase Intent
Negotiate long-term contracts with suppliers and invest in employee training	Secure stable pricing and minimize cost fluctuations and improved labor productivity	Costs associated with sourcing from multiple suppliers/negotiating contracts and training program	Direct Material Cost / Unit Direct Labor Cost / Unit
Increase efforts to utilize social media platforms such as Instagram	Improve brand awareness, expanded customer reach, and increased market share	Costs associated with marketing campaigns and social media management	Awareness
Conduct regular analyses to assess the impact of financial factors and adjust investment strategies accordingly.	Minimize risks and uncertainty in financial markets for stabilizing discount rates	Costs associated with conducting risk analyses, implementing risk management strategies, and monitoring potential risks.	Discount rate

### Exhibit 1: Product Sketch



### Exhibit 2: U.S. Cookware Market Trends<sup>1</sup>



<sup>1</sup> "Cookware Market Size, Share & Trends Analysis Report." Grand View Research. 2018 – 2023, <https://www.grandviewresearch.com/industry-analysis/cookware-market>

### Exhibit 3: Perceptual Maps of Kitchen Cleaning Products<sup>2 3 4 5 6</sup>



<sup>2</sup> Scotch-Brite. "Scotch-Brite Non-Scratch Dishwand, Scrubber for Cleaning Kitchen, Bathroom, and Household, Non-Scratch Dish Scrubber Safe for Non-Stick Cookware, 1 Dishwand." Amazon. Accessed April 22, 2024.  
<https://www.amazon.com/Scotch-Brite-Non-Scratch-Dishwand-Household-Non-Stick/dp/B01BUMHHWA>

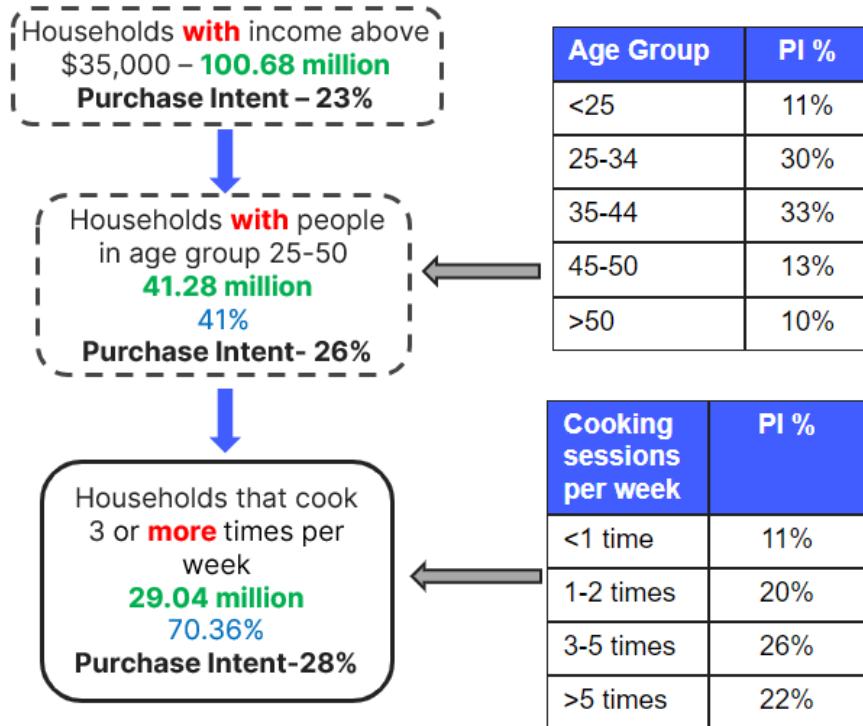
<sup>3</sup> "Wave Safe Clean Knife Scrubber." Khun Rikon. Accessed April 22, 2024.  
[https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad\\_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvlgmAlaAhC-EALw\\_wcB](https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvlgmAlaAhC-EALw_wcB)

<sup>4</sup> Sophisti-clean Store. "1 Pack Cutlery Cleaner, White and Gray." Amazon. Accessed April 22, 2024.  
[https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc\\_df\\_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvponc=&hvptwo=&hvqmt=&hvdev=c&hvdcmdl=&hvlocint=&hvloctphy=9002000&hvtagid=pla-1349030753020&psc=1&mclid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMM04215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHPEALw\\_wcB](https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc_df_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvponc=&hvptwo=&hvqmt=&hvdev=c&hvdcmdl=&hvlocint=&hvloctphy=9002000&hvtagid=pla-1349030753020&psc=1&mclid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMM04215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHPEALw_wcB)

<sup>5</sup> Sink N' Spin. "SINK N' SPIN® Quicker Dishwashing Brush | Double Sided Spin Wash Scrub Brush | Suction in Sink Dish, Plate, Bowl, Knife, Silverware and Cutlery Cleaner, Suctioning or Handheld." Walmart. Accessed by April 22, 2024.  
<https://www.walmart.com/ip/SINK-N-SPIN-Quicker-Dishwashing-Brush-Double-Sided-Spin-Wash-Scrub-Suction-Sink-Dish-Plate-Bowl-Knife-Silverware-Cutlery-Cleaner-Suctioning-Handheld/951685385>

<sup>6</sup> "3 Additional Scrubbie Sponges." The Scrubbie. Accessed April 22, 2024.  
<https://www.thescrubbie.com/collections/frontpage>

**Exhibit 4: Partial segmentation tree with conjoint survey findings<sup>7 8 9</sup>**



**Exhibit 5: Partial BASES model with target market size, units sold, and sales revenue**

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Target Market Size</b>	29.04 million	29.28 million	29.45 million	29.55 million	29.57 million
<b>Total Units Sold</b>	104,132	190,238	252,116	332,284	451,578
<b>Manufacturer's Sales (Revenue)</b>	\$2,061,814	\$3,647,931	\$4,699,989	\$5,931,998	\$7,987,418

<sup>7</sup> “Percentage distribution of household income in the United States in 2022.” Statista. September 2023. <https://www.statista.com/statistics/203183/percentage-distribution-of-household-income-in-the-us/>

<sup>8</sup> “Historical Households Tables.” United States Census Bureau. November 2023 <https://www.census.gov/data/tables/time-series/demo/families/households.html>

<sup>9</sup> Nils-Gerrit Wunsch. “How often do you cook during the week?” Statista. Jun 14, 2022. <https://www.statista.com/statistics/1085251/cooking-habits-in-the-us/>

### Exhibit 6: Total ACV generated by channel<sup>10 11 12 13 14 15 16 17 18 19 20 21 22</sup>



<sup>10</sup> "Annual Report & Proxy." Dillard's. Accessed April 22, 2024. <https://investor.dillards.com/financial-information/annual-report-and-proxy/default.aspx>

<sup>11</sup> "Financial Reporting." Macy's. Accessed April 22, 2024. <https://www.macysinc.com/investors/financials/annual-reports-and-proxy-statements/default.aspx>

<sup>12</sup> "GE CAPITAL MONTGOMERY WARD REVENUE." Zippia. Accessed April 22, 2024. <https://www.zippia.com/ge-capital-montgomery-ward-careers-24335/revenue/>

<sup>13</sup> "2022 Annual Report Target Corporation." Target. Accessed April 22, 2024. <https://corporate.target.com/investors/annual/2022-annual-report>

<sup>14</sup> Thomas Gounley. "Everything Kitchens constructing \$3.3 million warehouse in Republic." Springfield News-Leader. April 16, 2017. <https://www.news-leader.com/story/news/business/2017/04/16/everything-kitchens-constructing-33-million-warehouse-republic/100376206/>

<sup>15</sup> "Chefs Toys Revenue and Competitors." Growjo. Assessed April 22, 2024. [https://growjo.com/company/Chefs\\_Toys#google\\_vignette](https://growjo.com/company/Chefs_Toys#google_vignette)

<sup>16</sup> "Kitchen Outfitters." Zoominfo. Accessed April 22, 2024. <https://www.zoominfo.com/c/kitchen-outfitters/354326393>

<sup>17</sup> "WoodSpoon Revenue and Competitors." Growjo. Access April 22, 2024. <https://growjo.com/company/WoodSpoon>

<sup>18</sup> "SUR LA TABLE REVENUE." Zippia, Access April 22, 2024. <https://www.zippia.com/sur-la-table-careers-40134/revenue/>

<sup>19</sup> "LeRoux Kitchen." Zoominfo. Access April 22, 2024. <https://www.zoominfo.com/c/leroux-kitchen/347255725>

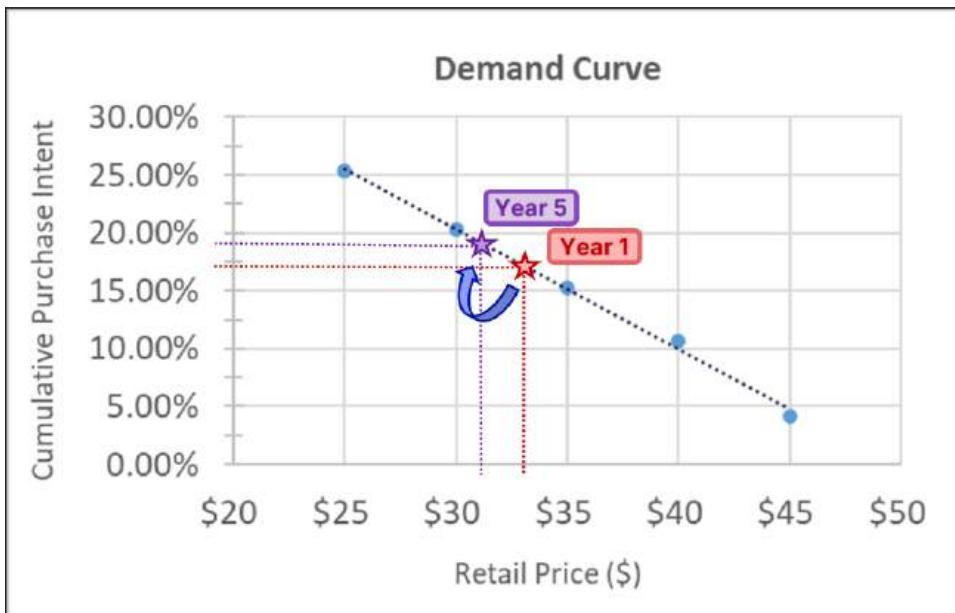
<sup>20</sup> "Le Creuset Revenue and Competitors." Growjo. Access April 22, 2024. [https://growjo.com/company/Le\\_Creuset](https://growjo.com/company/Le_Creuset)

<sup>21</sup> "2022 Annual Report." Kroger. Accessed April 22, 2024. <https://ir.kroger.com/financials/annual-reports/>

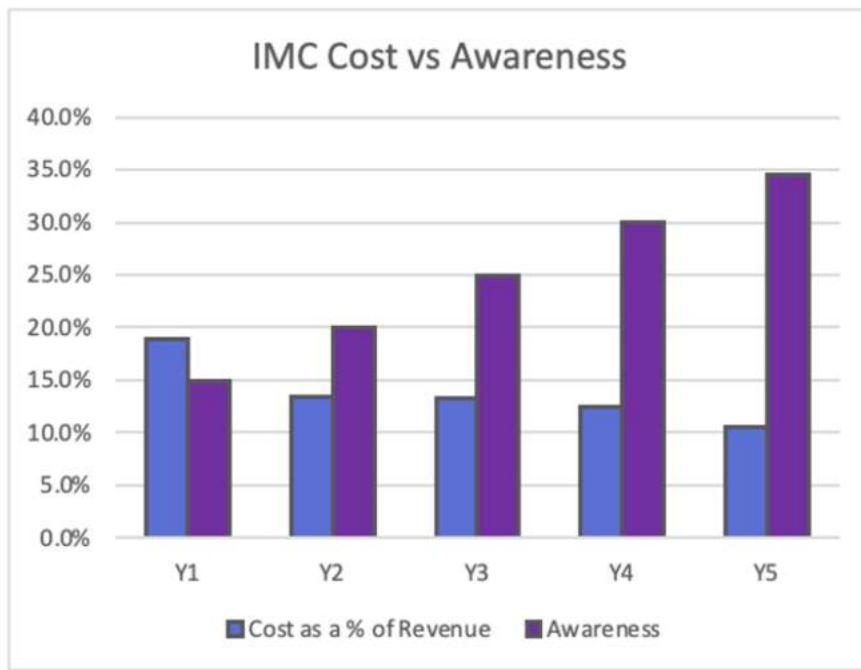
<sup>22</sup> "Williams-Sonoma, Inc. announces record fiscal year 2022 revenues & earnings." William-Sonoma, INC. March 16, 2023.

<https://ir.williams-sonomainc.com/investor-information/news-releases/news-release-details/2023/Williams-Sonoma-Inc.-announces-record-fiscal-year-2022-revenues--earnings/default.aspx#:~:text=%24,-8%2C674%2C417,-100.0>

**Exhibit 7: Demand curve with purchase intent plotted against retail price**



**Exhibit 8: Amount invested in IMC graphed against awareness generated**



**Exhibit 9: Instagram grid showing several post designs**

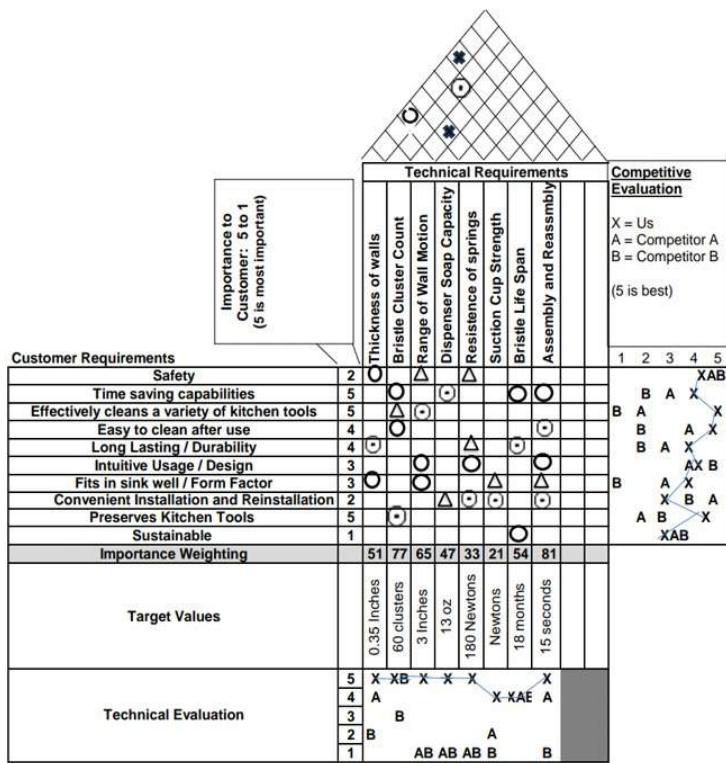


**Exhibit 10: AI generated photos of Swift Shift advertising through trade show booths, packaging, billboards, and transit<sup>23</sup>**

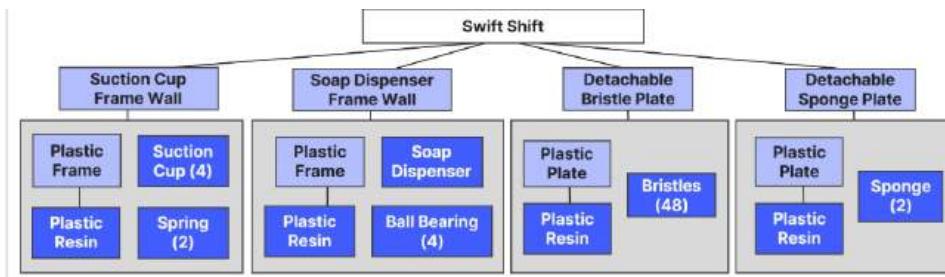


<sup>23</sup> Our team used Microsoft Copilot to generate AI images as a base for our creative marketing pieces. The transit and billboard ads as well as the trade show booth and packaging used Bing.

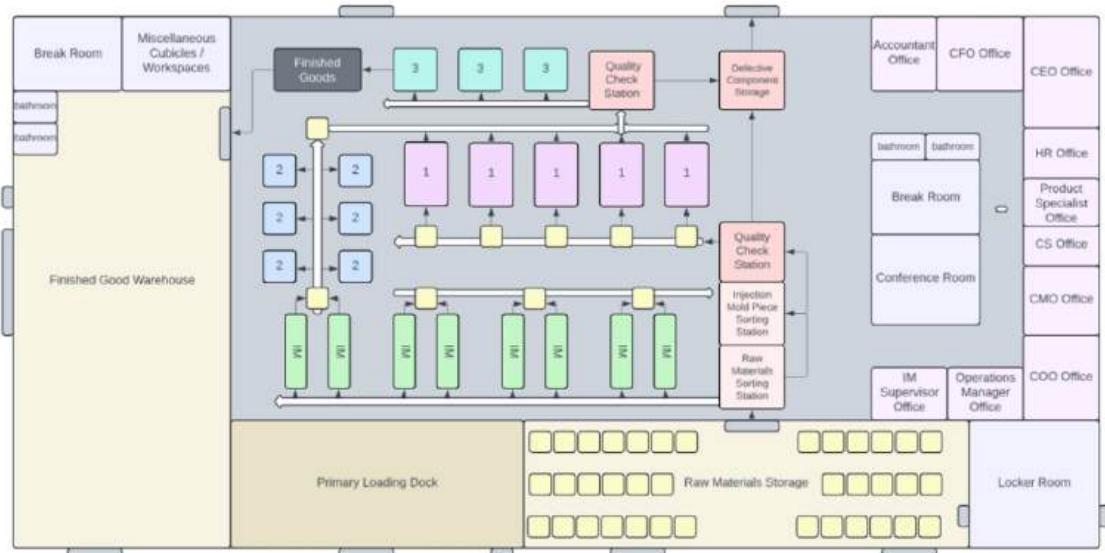
**Exhibit 11: House of quality**



### Exhibit 12: Bill of materials



### Exhibit 13: Factory layout



**Exhibit 14:** Map showing the locations of the factory, center of gravity, and distribution centers and images of the industrial space



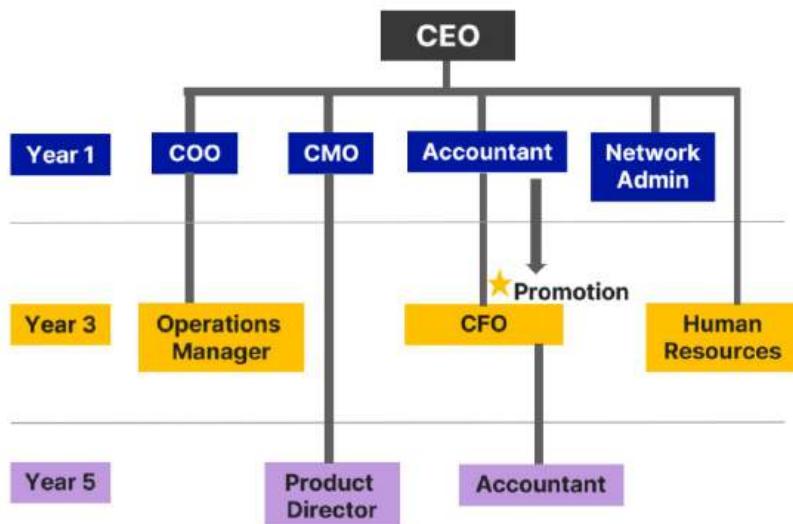
**Exhibit 15:** Bar chart showing amount of inventory by type



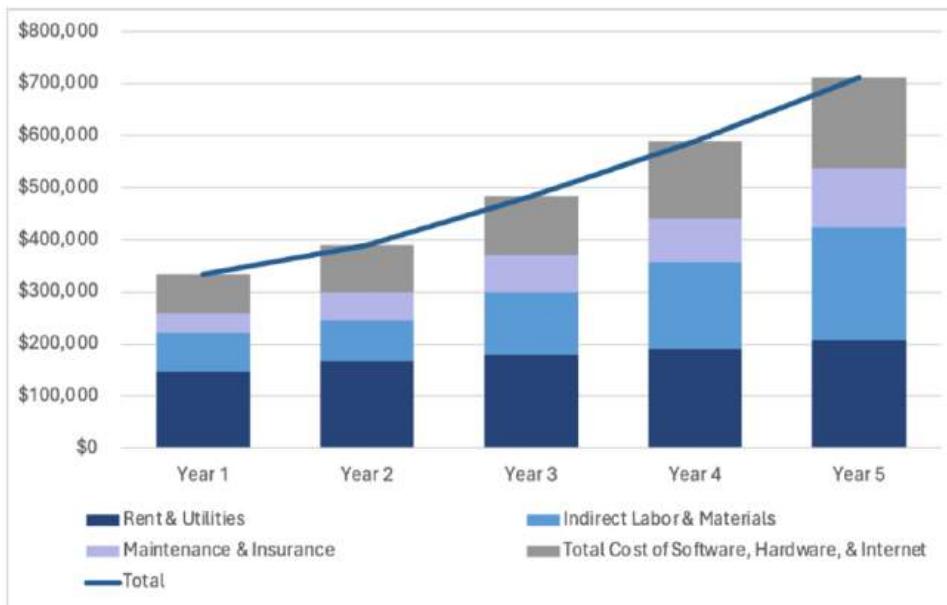
**Exhibit 16: Inventory turnover of key materials and averages**

Inventory Turnover	Y1	Y3	Y5
Plastic resin	9.51	13.27	14.15
Suction cups	14.54	15.08	15.65
Average of all raw materials	7.46	9.64	9.98

**Exhibit 17: Organizational structure in years 1, 3, and 5**



**Exhibit 18: Manufacturing overhead and IS expenses charted by type**



**Exhibit 19: Income statement comparison in years 1 and 5**

Income Statement	Y1	% Revenues	Y5	% of Revenues
Revenues	1,999,959		7,747,796	
COGS	859,369	43%	2,838,964	37%
Gross Profit	1,140,590	57%	4,908,832	63%
G&A	575,932	29%	1,297,116	17%
Marketing Expense	417,147	21%	1,323,668	17%
Depreciation	119,627	6%	167,201	2%
Pre-Tax Income	27,884	1%	2,120,847	27%
Taxes	7,529	0%	572,629	7%
Net Income	20,355	1%	1,548,218	20%

Exhibit 20: Chart comparing the major income statement line items throughout the years

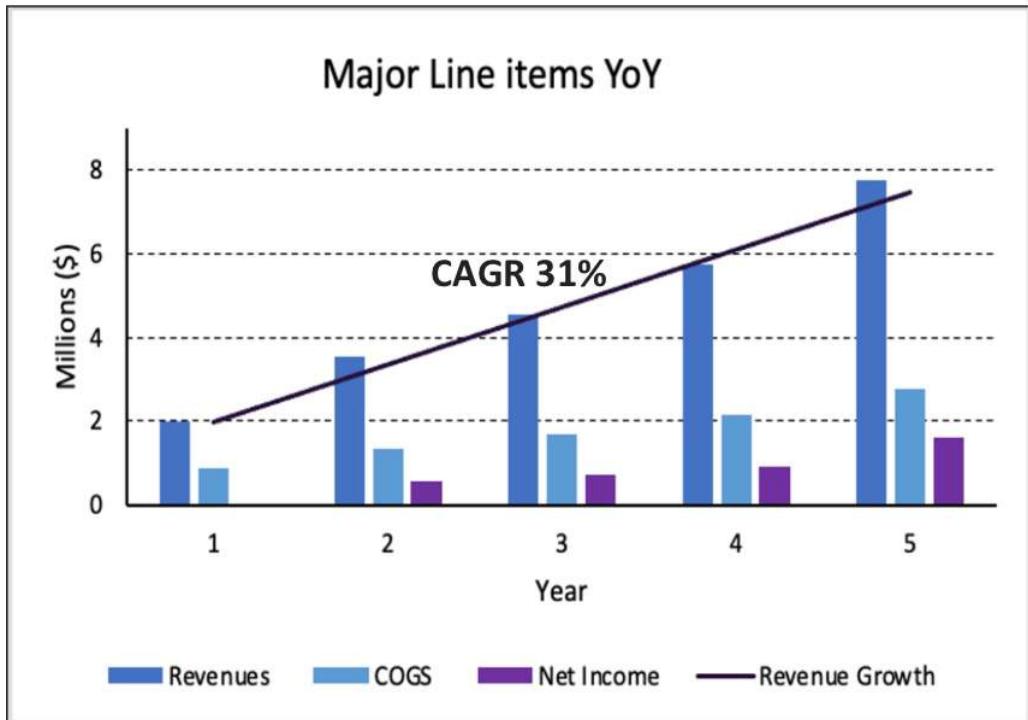
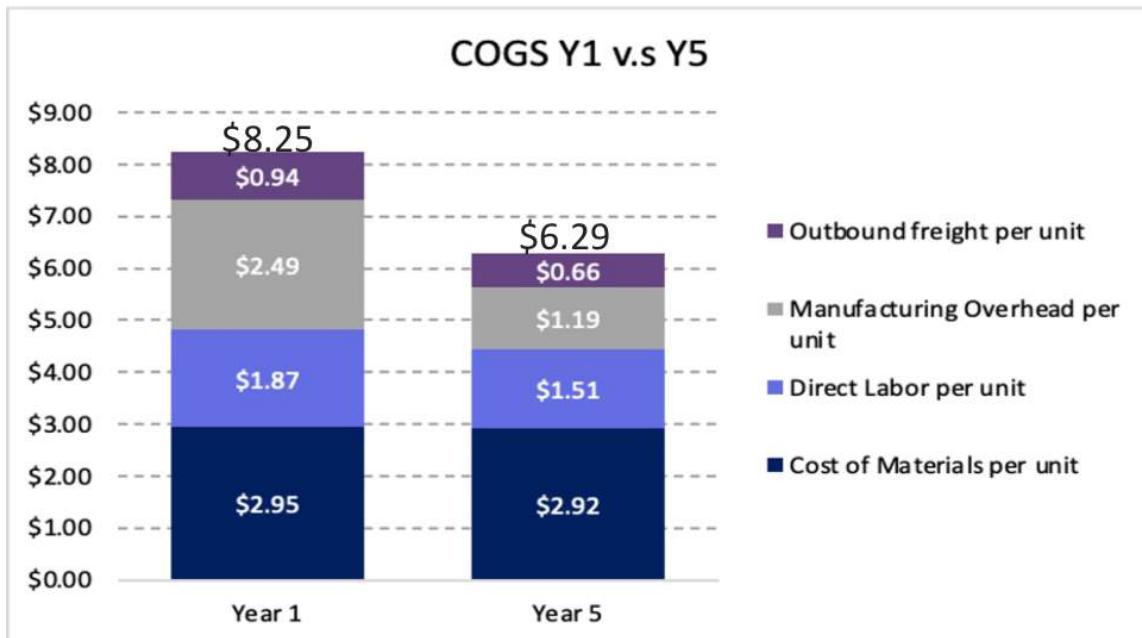


Exhibit 21: Chart comparing COGS per unit broken down by type in years 1 and 5



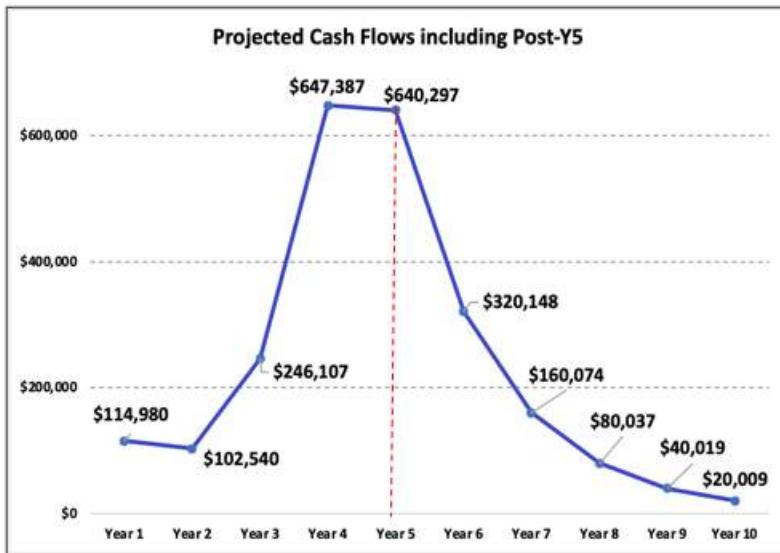
**Exhibit 22: Hiring schedule of executives and managers, wages, and G&A costs per unit**

Employee	Year 1	Year 2	Year 3	Year 4	Year 5
CEO					
CMO					
COO					
CFO					
Product Director					
Accountant					
Human Resources					
Operations Manager					
Customer Service					
Network Admin					
<b>Total Wage</b>	<b>\$501,000</b>	<b>\$615,855</b>	<b>\$811,644</b>	<b>\$991,653</b>	<b>\$1,126,150</b>
Units Sold	104,132	190,238	252,116	332,284	451,578
<b>G&amp;A Per Unit</b>	<b>\$4.81</b>	<b>\$3.24</b>	<b>\$3.22</b>	<b>\$2.98</b>	<b>\$2.49</b>

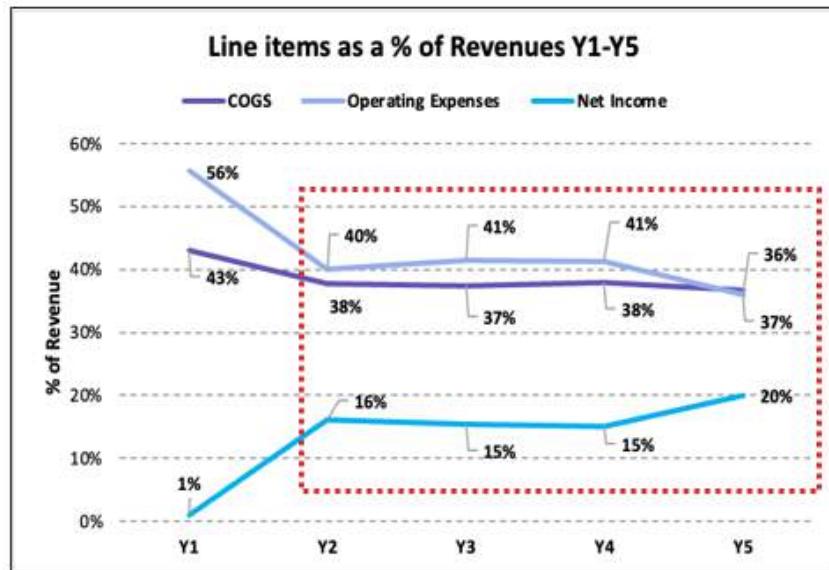
**Exhibit 23: Cash flow statement, NPV, and IRR**

Cash Flow Statement	Start-up	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Initial Investment</b>	975,650					
<b>Net Income</b>	-97,453	20,355	572,343	700,604	868,696	1,548,218
<b>Depreciation</b>	0	119,627	119,627	143,294	203,156	167,201
<b>Change in NWC</b>	-223,153	-25,002	-244,431	-216,641	-243,315	-323,973
<b>Change in Fixed Assets</b>	0	0	-345,000	-381,150	-181,150	-751,150
<b>Net Free Cash Flow</b>	-1,296,256	114,980	102,540	246,107	647,387	640,297
<b>Terminal Value</b>						
<b>Total Cash Flow</b>	-1,296,256	114,980	102,540	246,107	647,387	3,798,006
<b>Net Present Value</b>	<b>\$657,765</b>			<b>Terminal Growth Rate</b>		<b>-50.00%</b>
<b>IRR</b>	<b>35%</b>			<b>Discount Rate</b>		<b>22.59%</b>

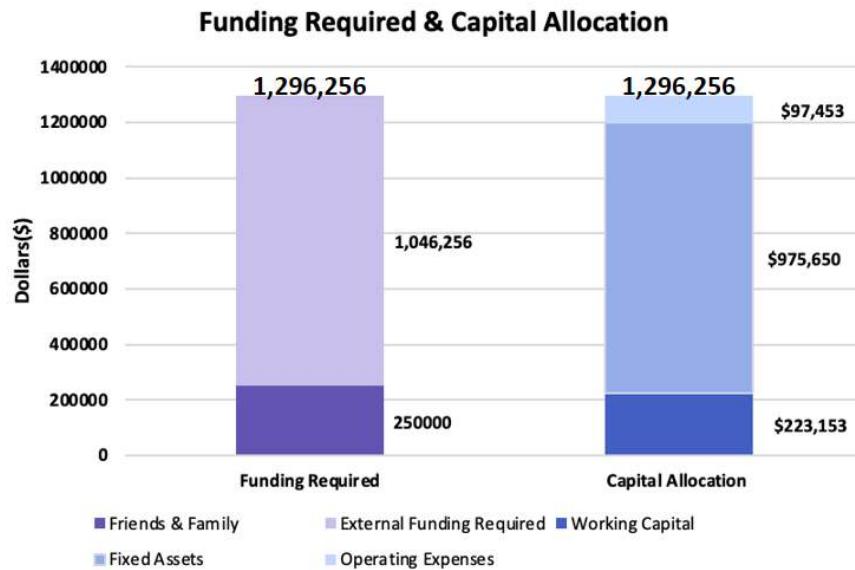
**Exhibit 24: Projected cash flows throughout years 1 to 10**



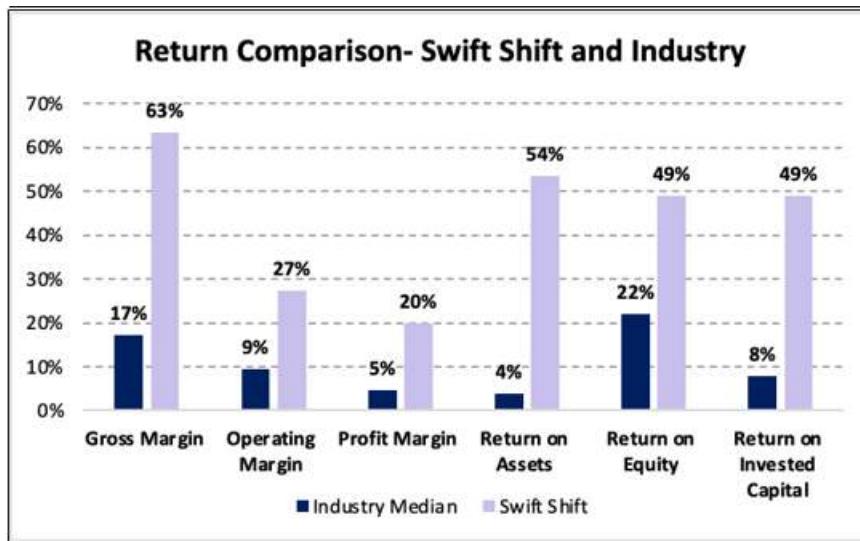
**Exhibit 25: Major income statement line items charted as a percentage of revenues in years 1 to 5**



**Exhibit 26: Amount of funding required charted against capital allocation broken down by type**



**Exhibit 27: Industry returns plotted against Swift Shift's returns**



### Exhibit 28: Sensitivity analysis

	Breakeven % Change	Elasticity	Impact	Probability
Segment Size	-17%	8%	High	Medium
Purchase Intent	-14%	9.3%	High	Medium
Awareness	-14%	9.3%	High	High
Competition	51%	-2.5%	High	High
DM / Unit	47%	-2.1%	High	High
Starting Wage	62%	-1.6%	Medium	High
Admin Salary	42%	-2.4%	High	Low
Capex	73%	-1.4%	Medium	Low
Discount Rate	54%	-2.4%	High	High

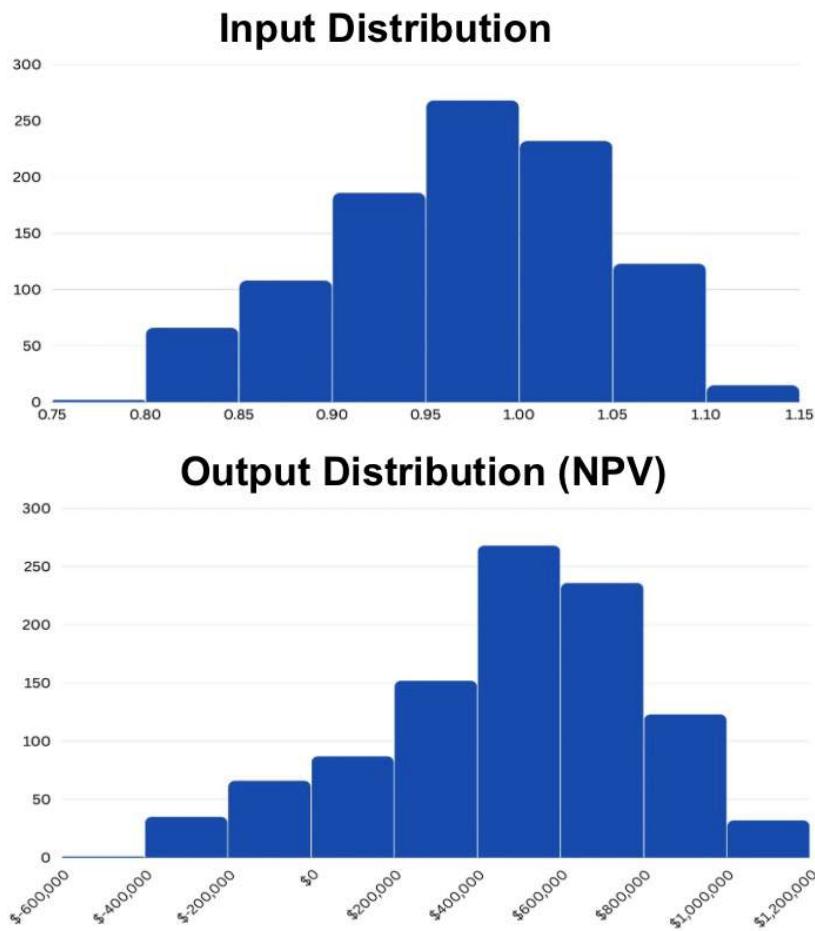
### Exhibit 29: Qualitative risk matrix

<b>HIGH IMPACT</b>	Technology Risks	Labor Unions/Strikes
	Natural Disaster Risk	Market Acceptance
	Trade Restrictions / Tariffs	Supplier Stability
	Supply Chain Disruptions	Foreign Exchange Rate Fluctuations
<b>LOW IMPACT</b>	Weather Risk	Environmental Impact Concerns
	Equipment Malfunctions	Regulatory Environment
	Transit Losses	Project Management Errors
	Macro-Economic Conditions	Transportation Time Fluctuations
	<b>LOW PROBABILITY</b>	<b>HIGH PROBABILITY</b>

Exhibit 30: Quantitative risk matrix

<b>HIGH IMPACT</b>	Admin Salaries	DM Cost/Unit
	Segment Size	Discount rate
	Capital Expenditure	Purchase Intent
<b>LOW IMPACT</b>	Awareness	Awareness
	Starting Wage	Starting Wage
	Competition	Competition
	Wage growth rate	Rent
	Number of months of Cash Reserves	Utilities Expense
	Tax Rate	Inbound Cost
	Manufacturer's Rep Commissions	
	Direct Labor	
<b>LOW PROBABILITY</b>		<b>HIGH PROBABILITY</b>

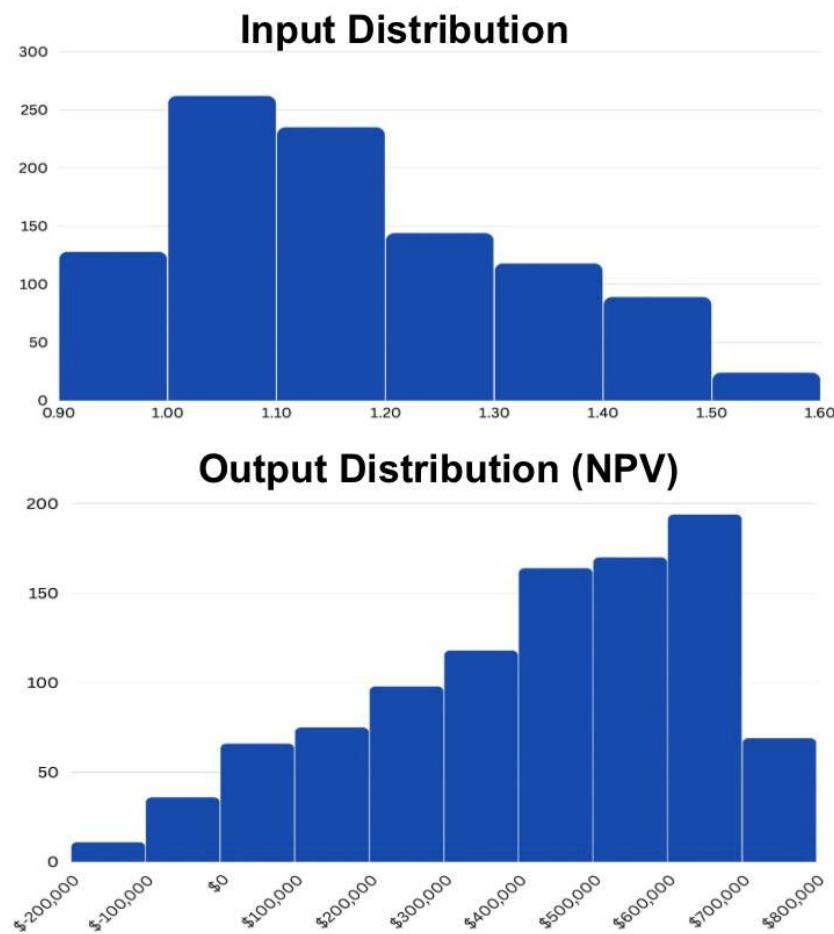
Exhibit 31: Triangular distribution chart of inputs and outputs for awareness simulations



**Exhibit 32: Calculations and summary statistics for awareness simulations**

<b>Triangular Distribution</b>			<b>Summary Statistics</b>	
	Value	Distribution	Average	\$479,523
Min	11.7%	0.78	Median	\$504,126
Most Likely	15.0%	1.00	Standard Deviation	\$322,185
Max	16.8%	1.12	VaR@5%	(\$142,911)
			95th Percentile	\$966,409
			%NPV<0	10.20%

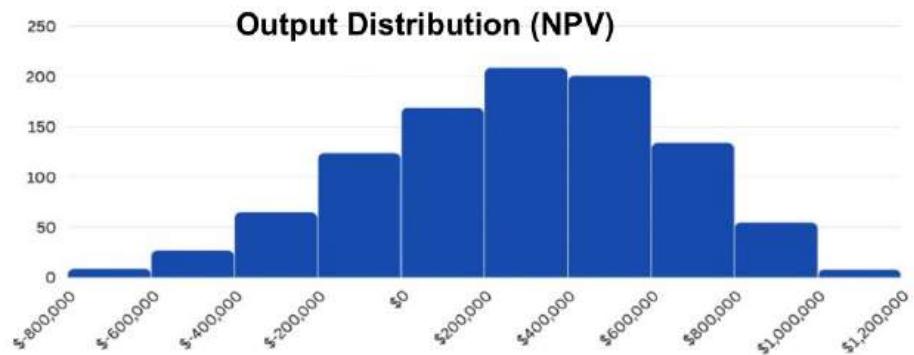
**Exhibit 33: Triangular distribution chart inputs and outputs for simulations of direct materials**



**Exhibit 34: Calculations and summary statistics for direct materials simulations**

<b>Triangular Distribution</b>			<b>Summary Statistics</b>	
	Value	Distribution	Average	\$422,100
Min	\$2.63	0.90	Median	\$461,668
Most Likely	\$2.92	1.00	Standard Deviation	\$221,014
Max	\$4.68	1.60	VaR@5%	\$5,706
			95th Percentile	\$709,240
			%NPV<0	4.7%

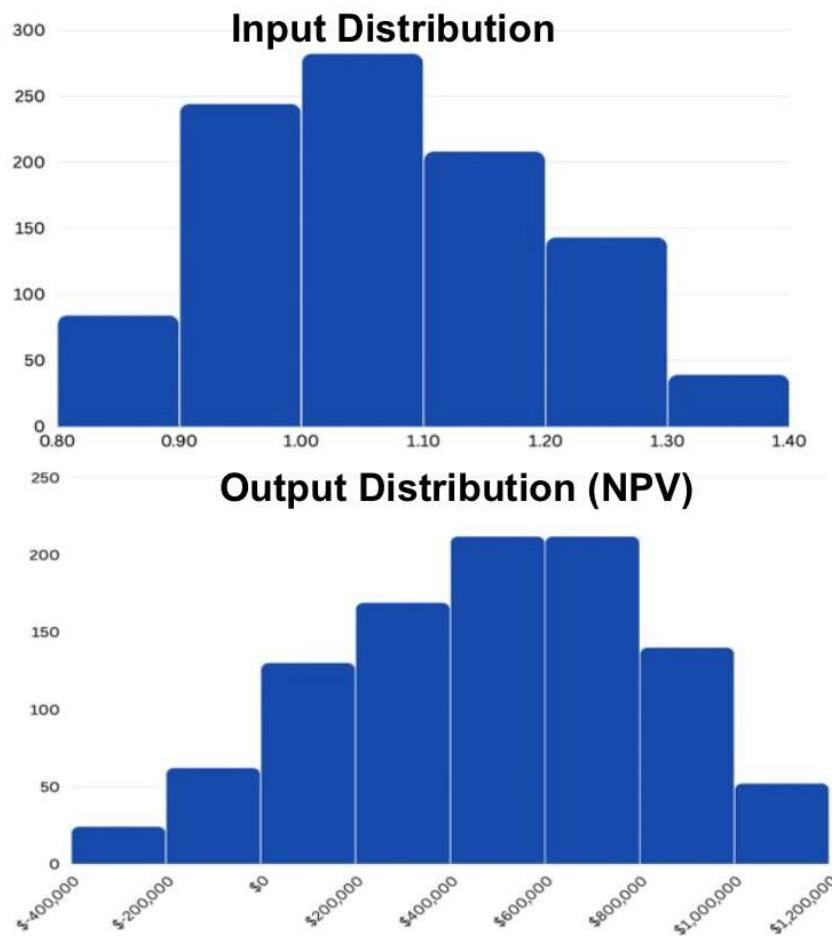
**Exhibit 35: Output distribution chart of direct material and awareness simulations**



**Exhibit 36: Summary statistics of both variable simulation**

<b>Summary Statistics</b>	
Average	\$278,250
Median	\$307,163
Standard Deviation	\$357,666
VaR@5%	(\$335,254)
95th Percentile	\$818,328
%NPV<0	22.5%

**Exhibit 37: Triangular distribution chart of inputs and outputs for simulation of G&A salaries and starting wage**

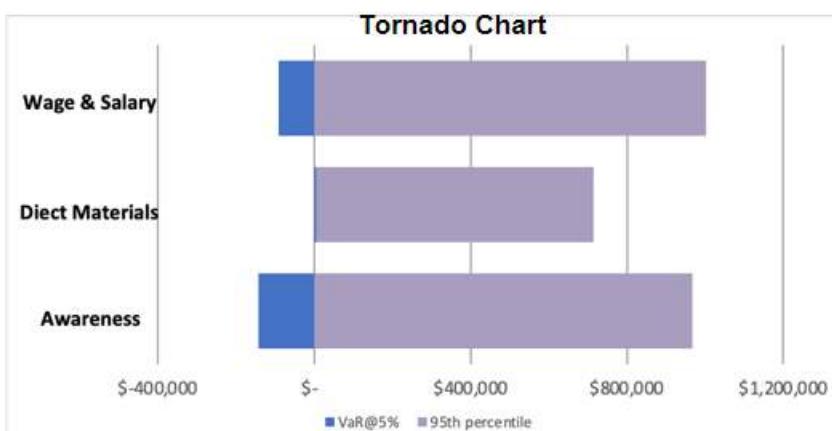


**Exhibit 38: Calculations and summary statistics of G&A salary and starting wage simulation**

Triangular Distribution			Summary Statistics	
	Value	Distribution	Average	\$487,949
Min	\$400,900	0.80	Median	\$513,715
Most Likely	\$501,000	1.00	Standard Deviation	\$331,467
Max	\$701,200	1.40	VaR@5%	(\$90,489)
			95th Percentile	\$1,002,009
			%NPV<0	8.6%

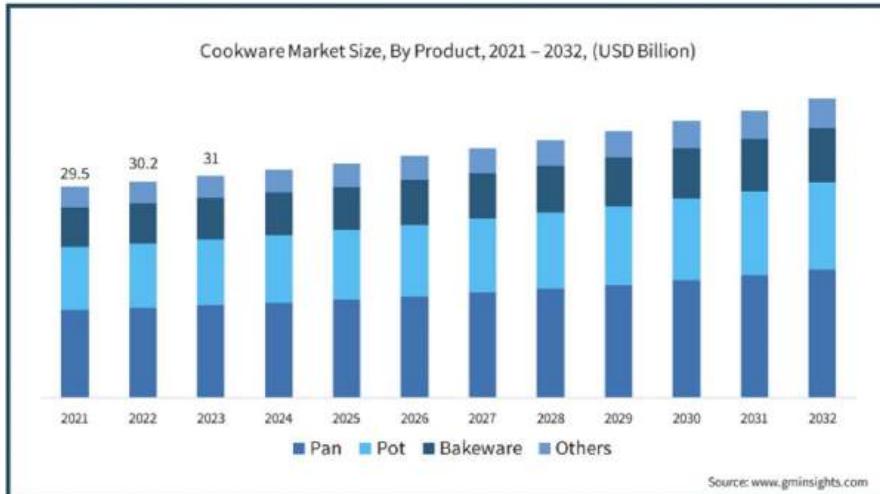
**Exhibit 39: Statistics and tornado chart from sensitivity analysis on all chosen variables**

	Salaries and Wages	Direct Material	Awareness
VaR@5%	(\$90,489)	\$5,706	(\$142,911)
95th percentile	\$1,002,009	\$709,240	\$966,409



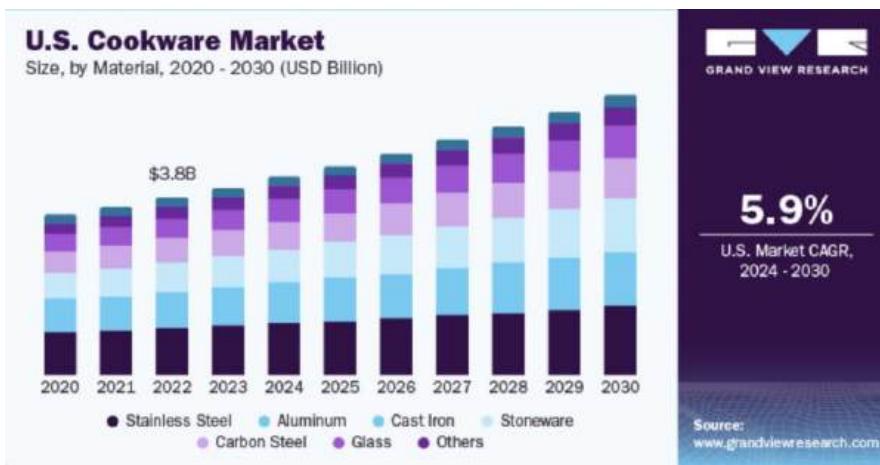
# APPENDICES

## Appendix 1: Global Cookware Market Trends<sup>24</sup>



This graph presents information and forecasting regarding the size of the global cookware market from 2021 to 2032. It offers us an overview of the market's potential, demonstrating steady growth. It also provides valuable insights for marketing analysis.

## Appendix 2: U.S. Cookware Market Trends<sup>25</sup>

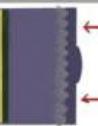


The above graph presents information and forecast regarding the size of U.S. cookware market from 2020 to 2030. It serves the same function as the previous graph in terms of market size. Since our business will only focus on U.S. areas, this graph provides deeper, specific insights for our business. The growth rate is 5.9%, showing large potential of the cookware market.

<sup>24</sup> "Cookware Market Size." Global Market Insight. March 2024. <https://www.gminsights.com/industry-analysis/cookware-market>

<sup>25</sup> "Cookware Market Size, Share & Trends Analysis Report." Grand View Research. 2018 – 2023, <https://www.grandviewresearch.com/industry-analysis/cookware-market>

### Appendix 3: Key Benefits and Prices of Competing Products<sup>26 27 28 29 30</sup>

Name	Image	Key Benefit	Price Point
Scotch Brite Dishwand		<ul style="list-style-type: none"> <li>Intuitive design with sponge attached to a wand</li> <li>Minimizes soap use by storing excess</li> <li>Lacks versatility due to stiff sponge</li> </ul>	3.49
Kuhn Rikon Knife Scrubber		<ul style="list-style-type: none"> <li>Designed exclusively as a knife cleaner</li> <li>Attaches in sinks to allow for convenient cleaning</li> <li>Reviews say stiff bristles can damage knives</li> </ul>	15.00
Sophisti Utensil Cleaner		<ul style="list-style-type: none"> <li>Low cost alternative</li> <li>Attaches in sink to allow for convenience</li> <li>Difficult to clean because bristles aren't removable</li> <li>Only compatible with smaller utensils</li> </ul>	9.52
Sink N' Spin		<ul style="list-style-type: none"> <li>Attaches to sink bottom and provides a range of bristles</li> <li>Uses suction force to create a spinning motion that helps clean bowls and similar objects</li> <li>Reviews comment on stiffness of bristles</li> </ul>	29.99
The Scrubbie		<ul style="list-style-type: none"> <li>Attaches to taps with a garden hose-like mechanism</li> <li>Compatible with most sinks</li> <li>Can be used to clean a variety of tools</li> <li>Reviews say cleaning smaller objects like forks and spoons is difficult</li> </ul>	24.99
Swift Shift		<ul style="list-style-type: none"> <li>Adjustable wall mechanism make it versatile</li> <li>Includes soap compartment for ease-of-use</li> <li>Swappable bristle/sponge plates allow for thorough cleaning</li> <li>Zinc-infused bristles minimize damage to utensils</li> </ul>	33.00

Appendix 3 shows the prices and key benefits of our competing products that are also designed to clean kitchen tools. While we exceed the price of our competitors, we excel in the areas that consumers greatly value in these products: efficiency, versatility, and the preservation of kitchen tools with the aspect of safety falling close behind. Our product has more versatility than many competing brands as the compressible walls allow utensils of various sizes to fit in the frame. Its efficiency comes from the built-in soap dispenser and the suction cups that allow the product to

<sup>26</sup> Scotch-Brite. "Scotch-Brite Non-Scratch Dishwand, Scrubber for Cleaning Kitchen, Bathroom, and Household, Non-Scratch Dish Scrubber Safe for Non-Stick Cookware, 1 Dishwand." Amazon. Accessed April 22, 2024. <https://www.amazon.com/Scotch-Brite-Non-Scratch-Dishwand-Household-Non-Stick/dp/B01BUMHHWA>

<sup>27</sup> "Wave Safe Clean Knife Scrubber." Kuhn Rikon. Accessed April 22, 2024.

[https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad\\_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvlgmAIAhC-EALw\\_wcb](https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvlgmAIAhC-EALw_wcb)

<sup>28</sup> Sophisti-clean Store. "1 Pack Cutlery Cleaner, White and Gray." Amazon. Accessed April 22, 2024. [https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc\\_df\\_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdcmdl=&hvlocint=&hvloctphy=9002000&hvtagid=pla-1349030753020&psc=1&mcid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMMO4215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHPEALw\\_wcb](https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc_df_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdcmdl=&hvlocint=&hvloctphy=9002000&hvtagid=pla-1349030753020&psc=1&mcid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMMO4215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHPEALw_wcb)

<sup>29</sup> Sink N' Spin. "SINK N' SPIN® Quicker Dishwashing Brush | Double Sided Spin Wash Scrub Brush | Suction in Sink Dish, Plate, Bowl, Knife, Silverware and Cutlery Cleaner, Suctioning or Handheld." Walmart. Accessed by April 22, 2024.

<https://www.walmart.com/ip/SINK-N-SPIN-Quicker-Dishwashing-Brush-Double-Sided-Spin-Wash-Scrub-Suction-Sink-Dish-Plate-Bowl-Knife-Silverware-Cutlery-Cleaner-Suctioning-Handheld/951685385>

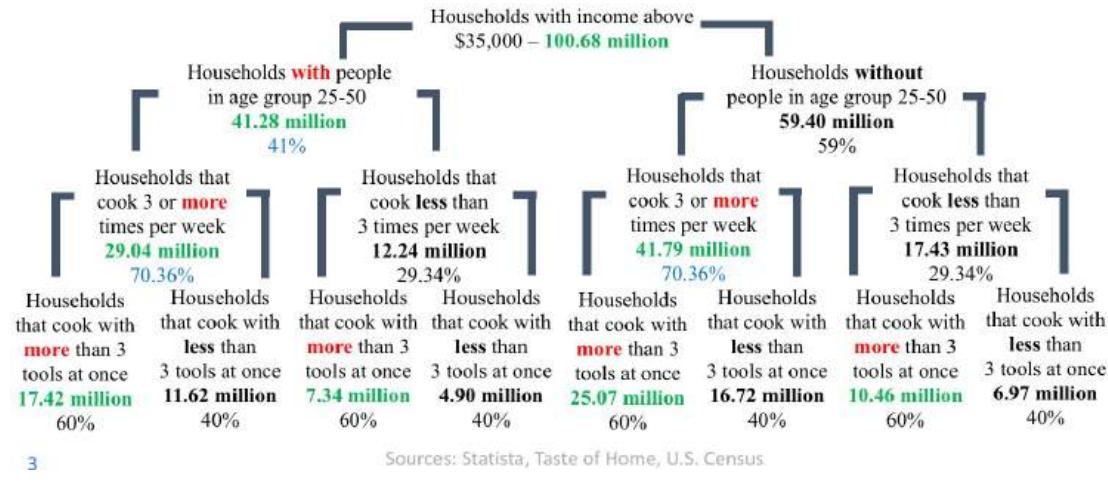
<sup>30</sup> "3 Additional Scrubbie Sponges." The Scrubbie. Accessed April 22, 2024.

<https://www.thescrubbie.com/collections/frontpage>

sturdily attach on the sink to be accessed whenever needed. Finally, the increased safety comes from the minimized contact users have with sharper utensils, and our tool preserves kitchen tools better than competitors due to the stiffness of the bristles we use and through a manual cleaning process by compressing the walls and moving utensils over the bristles. While our competitors' products may have features that meet one or two of these benefits, our product differentiates itself by surpassing our customers in all four of these aspects. By meeting our customer's requirements through our product design and execution that exceeds our competitors, many households in our target market will likely be willing to accept a higher price point.

## Appendix 4: Market Segmentation for All Variables Considered<sup>31 32 33</sup>

### C2T4: Market segmentation for estimated demand



Here is our market segmentation tree for all variables considered in demographic, psychographic and other aspects. Initially, we decided on a household income above \$35,000 since we set our price to be \$35 considering design and materials, which is relatively higher than current competitors in the market, which gives us 100.68<sup>34</sup> million in market size.

From our preliminary interviews, we learned that individuals over 50 years old showed little interest in purchasing our product, likely due to their established cleaning habits and resistance to change. Conversely, individuals under 25 often lack a kitchen or reside in college dormitories. Consequently, we targeted the age range of 25 to 50 years, accounting for 41.28<sup>35</sup> million potential customers.

Given that our product belongs to the kitchen gadget sector, we identified cooking frequency as a significant factor. Those who cook fewer than three times per week are less likely to favor our product, as their cooking habits typically involve simpler meals or rely on food delivery. This insight reduced our target market to 29.04<sup>36</sup> million.

After our target market went down to 29.04 million in size, we then decided on the number of tools to cook with at once because we think people who use more tools prefer our product for efficient cleaning and thus an estimate of 60% on target market, which is 17.42 million.

<sup>31</sup> “Percentage distribution of household income in the United States in 2022.” Statista. September 2023. <https://www.statista.com/statistics/203183/percentage-distribution-of-household-income-in-the-us/>

<sup>31</sup> “Historical Households Tables.” United States Census Bureau. November 2023 <https://www.census.gov/data/tables/time-series/demo/families/households.html>

<sup>33</sup> Nils-Gerrit Wunsch. “How often do you cook during the week?” Statista. Jun 14, 2022. <https://www.statista.com/statistics/1085251/cooking-habits-in-the-us/>

<sup>34</sup> “Percentage distribution of household income in the United States in 2022.” Statista. September 2023. <https://www.statista.com/statistics/203183/percentage-distribution-of-household-income-in-the-us/>

<sup>35</sup> “Historical Households Tables.” United States Census Bureau. November 2023 <https://www.census.gov/data/tables/time-series/demo/families/households.html>

<sup>36</sup> Nils-Gerrit Wunsch. “How often do you cook during the week?” Statista. Jun 14, 2022. <https://www.statista.com/statistics/1085251/cooking-habits-in-the-us/>

However, after deciding our cost structures and retailer margins, the target market size would bring us a relatively low revenue to operate, so we finalized our market segmentation tree without the final layer, focusing on the 29.04 million target segment.

## Appendix 5: Profile of the Retail Environment Calculations<sup>37 38</sup>

<b>Product Category: Kitchen Gadgets</b>	
<b>Sales Revenue</b>	<b>\$17,600,000,000</b>

	<b>ACV</b>	<b>Revenue</b>
<b>Department Stores</b>	<b>11.30%</b>	<b>\$1,988,800,000</b>
Dillard's	0.09%	\$16,490,640
Macy's	3.94%	\$693,000,000
Montgomery Ward	0.10%	\$18,430,000
<b>Online</b>	<b>12.00%</b>	<b>\$2,112,000,000</b>
<b>Mass Merchandisers</b>	<b>49.40%</b>	<b>\$8,694,400,000</b>
Target	5.53%	\$973,150,000
<b>Independent Stores</b>	<b>6.40%</b>	<b>\$1,126,400,000</b>
Everything Kitchens	0.13%	\$22,000,000
Chefs' Toys	0.20%	\$35,000,000
Kitchen Outfitters	0.03%	\$5,000,000
The Wooden Spoon	0.02%	\$3,700,000
LeRoux Kitchen	0.03%	\$5,500,000
Other Independent Stores	1.50%	\$264,000,000
<b>Chain Stores</b>	<b>17.30%</b>	<b>\$3,044,800,000</b>
Sur La Table	1.57%	\$276,800,000
Le Creuset	3.77%	\$663,400,000
Kroger	3.80%	\$669,500,000
Williams Sonoma	4.93%	\$867,441,700
<b>Other</b>	<b>3.60%</b>	<b>\$633,600,000</b>

The broad category of retail channels we intend to enter are department stores, online, mass merchandisers, independent stores, and chain stores. We researched the market size of the kitchen gadget industry and the distribution of broad categories; however, we calculated the ACV of the individual retailers we plan to enter by dividing the latest annual sales revenue in the kitchen gadgets category for each retailer by the overall market share.<sup>39 40 41 42</sup>

<sup>37</sup> "Annual Report & Proxy." Dillard's. Accessed April 22, 2024. <https://investor.dillards.com/financial-information/annual-report-and-proxy/default.aspx>

<sup>38</sup> "Financial Reporting." Macy's. Accessed April 22, 2024. <https://www.macysinc.com/investors/financials/annual-reports-and-proxy-statements/default.aspx>

<sup>39</sup> "SUR LA TABLE REVENUE." Zippia, Access April 22, 2024. <https://www.zippia.com/sur-la-table-careers-40134/revenue/>

<sup>40</sup> "Williams-Sonoma, Inc. announces record fiscal year 2022 revenues & earnings." William-Sonoma, INC. March 16, 2023. <https://ir.williams-sonomainc.com/investor-information/news-releases/news-release-details/2023/Williams-Sonoma-Inc.-announces-record-fiscal-year-2022-revenues--earnings/default.aspx#:~:text=%24-8%2C674%2C417,-100.0>

<sup>41</sup> "2022 Annual Report Target Corporation." Target. Accessed April 22, 2024. <https://corporate.target.com/investors/annual/2022-annual-report>

<sup>42</sup> "Financial Reporting." Macy's. Accessed April 22, 2024. <https://www.macysinc.com/investors/financials/annual-reports-and-proxy-statements/default.aspx>

## Appendix 6: Profile of the Retail Environment



Appendix 6 shows a pie chart of the percentage of units distributed through different retail channels in the kitchen gadgets market. Most channels percentage of ACV came from our research on distribution within our product category. However, these numbers were adjusted to incorporate online sales, assumed to be 12%. Because we decided against selling through warehouse clubs, we added the ACV of that distribution channel to the “Other” category.

## Appendix 7: Detailed BASES Model

Year:	1	2	3	4	5
<b>Target Market Size</b>	29,040,000	29,284,348	29,445,522	29,546,752	29,569,029
Segment growth rate	-	1.2%	1.2%	1.2%	1.2%
Adjusted Purchase Intent	17.25%	17.72%	18.13%	18.62%	18.76%
Awareness	14.95%	19.98%	24.98%	29.95%	34.50%
ACV	13.90%	17.34%	22.29%	27.01%	g
Units at Trial	1	1	1	1	1
Trial Units	104,132	179,825	297,163	444,976	650,237
Repeat Units	0	10,413	17,983	29,716	44,498
BASES Sales Unit	104,132	190,238	315,145	474,692	694,735
Competition Adjustment	0%	0%	20%	30%	35%
<b>TOTAL UNITS</b>	<b>104,132</b>	<b>190,238</b>	<b>252,116</b>	<b>332,284</b>	<b>451,578</b>
Manufacturer's Selling Price	\$19.80	\$19.18	\$18.64	\$17.85	\$17.69
<b>Manufacturer's Sales (rev)</b>	<b>\$2,061,814</b>	<b>\$3,647,931</b>	<b>\$4,699,989</b>	<b>\$5,931,998</b>	<b>\$7,987,418</b>

We derived our sales projection from our BASES model with our initial target market of 29.04 million with 1.2% annual growth rate narrowed down by calculated purchase intent, awareness, and ACV, therefore we determined our trial units. We also decided to have repeat units which is 10% of previous years trial units as our product used per house/kitchen and get the BASES sales unit. As we grow in sales and revenue, competition is expected to come in year 3 starting at 20% units loss to sale up to 35% in year 5, leading to a loss in revenue from year 3 to year 5 compared to BASES and trial units.

### Appendix 8: ACV Calculations Through Year 1 to 5

ACV Calculations	Units Y1: 104,132			Unit Y2: 190,238			Units Y3: 252,116			Unit Y4: 332,284			Unit Y5: 451,578		
Retailer	ACV	% of Sales	Units Sold	ACV	% of Sales	Units Sold	ACV	% of Sales	Units Sold	ACV	% of Sales	Units Sold	ACV	% of Sales	Units Sold
<b>Independent Stores</b>	<b>1.90%</b>	<b>13.70%</b>	<b>14,263</b>	<b>1.40%</b>	<b>8.10%</b>	<b>15,408</b>	<b>0.90%</b>	<b>4.06%</b>	<b>10,232</b>	-	-	-	-	-	-
Everything Kitchens	0.13%	0.90%	936	0.13%	0.72%	1,371	0.13%	0.56%	1,414	-	-	-	-	-	-
Chef's Toys	0.20%	1.43%	1,489	0.20%	1.15%	2,181	0.20%	0.89%	2,249	-	-	-	-	-	-
Kitchen Outfitters	0.03%	0.20%	213	0.03%	0.16%	312	0.03%	0.13%	321	-	-	-	-	-	-
The Wooden Spoon	0.02%	0.15%	157	0.02%	0.12%	231	0.02%	0.09%	238	-	-	-	-	-	-
LeRoux Kitchen	0.03%	0.22%	234	0.03%	0.18%	343	0.03%	0.14%	353	-	-	-	-	-	-
Other Independent Stores	1.50%	10.79%	11,234	1.00%	5.77%	10,970	0.50%	2.24%	5,656	-	-	-	-	-	-
<b>Online</b>	<b>12.00%</b>	<b>86.30%</b>	<b>89,869</b>	<b>12.00%</b>	<b>69.20%</b>	<b>131,637</b>	<b>12.00%</b>	<b>53.84%</b>	<b>135,736</b>	<b>12.00%</b>	<b>44.43%</b>	<b>147,642</b>	<b>12.00%</b>	<b>35.33%</b>	<b>159,527</b>
Amazon	12.00%	86.30%	89,869	12.00%	69.20%	131,637	12.00%	53.84%	135,736	12.00%	44.43%	147,642	12.00%	35.33%	159,527
<b>Department Stores</b>	-	-	-	<b>3.94%</b>	<b>22.70%</b>	<b>43,193</b>	<b>4.04%</b>	<b>18.14%</b>	<b>45,723</b>	<b>4.14%</b>	<b>15.31%</b>	<b>50,886</b>	<b>3.94%</b>	<b>11.59%</b>	<b>52,345</b>
Macy's	-	-	-	3.94%	22.70%	43,193	3.94%	17.67%	44,538	3.94%	14.58%	48,445	3.94%	11.59%	52,345
Montgomery Ward	-	-	-	-	-	-	0.10%	0.47%	1,184	0.10%	0.39%	1,288	-	-	-
Dillard's	-	-	-	-	-	-	-	-	-	0.09%	0.35%	1,153	-	-	-
<b>Chain Stores</b>	-	-	-	-	-	-	<b>5.34%</b>	<b>23.97%</b>	<b>60,426</b>	<b>5.34%</b>	<b>19.78%</b>	<b>65,726</b>	<b>12.50%</b>	<b>36.80%</b>	<b>166,200</b>
Le Creuset	-	-	-	-	-	-	3.77%	16.91%	42,636	3.77%	13.96%	46,376	3.77%	11.10%	50,109
Sur La Table	-	-	-	-	-	-	1.57%	7.06%	17,790	1.57%	5.82%	19,350	-	-	-
Williams Sonoma	-	-	-	-	-	-	-	-	-	-	-	4.93%	14.51%	65,521	
Kroger	-	-	-	-	-	-	-	-	-	-	-	3.80%	11.20%	50,570	
<b>Mass Merchandisers</b>	-	-	-	-	-	-	-	-	-	<b>5.53%</b>	<b>20.47%</b>	<b>68,029</b>	<b>5.53%</b>	<b>16.28%</b>	<b>73,506</b>
Target	-	-	-	-	-	-	-	-	-	5.53%	20.47%	68,029	5.53%	16.28%	73,506
<b>Total</b>	<b>13.90%</b>	<b>100.00%</b>	<b>104,132</b>	<b>17.34%</b>	<b>100.00%</b>	<b>190,238</b>	<b>22.29%</b>	<b>100.00%</b>	<b>252,116</b>	<b>27.01%</b>	<b>100.00%</b>	<b>332,284</b>	<b>33.97%</b>	<b>100.00%</b>	<b>451,578</b>

In year 1, we only enter independent and online retailers as we have not developed enough sales history to enter larger retailers. We used the ACV we calculated for each of retailers we intend to enter in order to calculate the ACV percentage we aim to achieve within each retailer category. Adding up the 1.9% ACV of independent stores with the 12% of online stores, we calculated that our total ACV for year 1 would be 13.9%. In order to calculate the number of units sold by each retailer, we multiplied the percentage of our sales that would be sold through each individual retailer (retailer's ACV divided by the total ACV for year 1) by the units sold during year 1 according to our sales projection (BASES model).

In year 2, we slightly expand our distribution channels by entering department stores on top of independent stores and online retailers. While we have some sales history, we are still unable to enter most large retailers (chain stores, mass merchandisers, and certain department stores) as we only have a single year of proven sales history. Because the slight addition to our retail channels, our year 2 ACV increases slightly to 17.34%.

In year 3, we further diversify our retailer channels as we have enough of a sales history to enter chain stores. By entering even larger retailers, we are able to further increase our ACV to 22.29%.

In year 4, we incorporate mass merchandisers into retail distributions as we've had three years of proven success in selling our product. As a result of moving into large retailers, we drop out of our independent retailers as our independent retailers are less willing to compete with larger retailers holding the same products and less ACV is generated from independent retailers. Due to most of our sales being from a variety of large retailers, our total ACV rises to 37.07%. In year 5, our ACV continues to rise as we expand to other large retailers within the same types of retailers, resulting in ACV rising once again to 33.97%.

### Appendix 9: Adjusted Retail Price Through Years 1 to 5

<b>Y1 Adjusted Retail Price</b>	<b>% Manufacturer Total Units</b>	<b>Manufacturer Selling Price</b>	<b>Retailer Margin</b>	<b>Retailer Selling Price</b>
Units into Independent	13.70%	\$19.80	40%	\$33.00
Units into Chain Stores				
Units into Online Stores	86.30%	\$19.80	40%	\$33.00
Units into Mass Merchandisers				
Units into Department Stores				
Average weighted manufacturer's selling price to channel		<b>\$19.80</b>		
Average weighted retailer selling price				<b>\$33.00</b>
<b>Y2 Adjusted Retail Price</b>	<b>% Manufacturer Total Units</b>	<b>Manufacturer Selling Price</b>	<b>Retailer Margin</b>	<b>Retailer Selling Price</b>
Units into Independent	8.10%	\$19.80	40%	\$33.00
Units into Chain Stores				
Units into Online Stores	69.20%	\$19.80	40%	\$33.00
Units into Mass Merchandisers				
Units into Department Stores	22.70%	\$17.05	45%	\$31.00
Average weighted manufacturer's selling price to channel		<b>\$19.18</b>		
Average weighted retailer selling price				<b>\$32.55</b>
<b>Y3 Adjusted Retail Price</b>	<b>% Manufacturer Total Units</b>	<b>Manufacturer Selling Price</b>	<b>Retailer Margin</b>	<b>Retailer Selling Price</b>
Units into Independent	4.06%	\$19.80	40%	\$33.00
Units into Chain Stores	23.97%	\$17.05	45%	\$31.00
Units into Online Stores	53.84%	\$19.80	40%	\$33.00
Units into Mass Merchandisers				
Units into Department Stores	18.14%	\$17.05	45%	\$31.00
Average weighted manufacturer's selling price to channel		<b>\$18.64</b>		
Average weighted retailer selling price				<b>\$32.16</b>
<b>Y4 Adjusted Retail Price</b>	<b>% Manufacturer Total Units</b>	<b>Manufacturer Selling Price</b>	<b>Retailer Margin</b>	<b>Retailer Selling Price</b>
Units into Independent				
Units into Chain Stores	19.78%	\$17.05	45%	\$31.00
Units into Online Stores	44.43%	\$19.80	40%	\$33.00
Units into Mass Merchandisers	20.47%	\$15.00	50%	\$30.00
Units into Department Stores	15.31%	\$17.05	45%	\$31.00
Average weighted manufacturer's selling price to channel		<b>\$17.85</b>		
Average weighted retailer selling price				<b>\$31.68</b>
<b>Y5 Adjusted Retail Price</b>	<b>% Manufacturer Total Units</b>	<b>Manufacturer Selling Price</b>	<b>Retailer Margin</b>	<b>Retailer Selling Price</b>
Units into Independent				
Units into Chain Stores	36.80%	\$17.05	45%	\$31.00
Units into Online Stores	35.33%	\$19.80	40%	\$33.00
Units into Mass Merchandisers	16.28%	\$15.00	50%	\$30.00
Units into Department Stores	11.59%	\$17.05	45%	\$31.00
Average weighted manufacturer's selling price to channel		<b>\$17.69</b>		
Average weighted retailer selling price				<b>\$31.54</b>

In year 1, we began with a retailer margin of 40% of online and independent stores since independent retailers tend to take smaller margins from the sales revenue than larger retailers. From our previous calculations, we used the percentage of our sales sold through each type of retailer channel as our percentage of manufacturer's total units. To find the manufacturer's selling price (the revenues that we would receive per unit sold), we took 60% of the retailer's selling price we determined, which is the amount that would be left over after the retailer takes their margin. We determined our retailer selling price to be \$33 as the retailer selling prices in department stores, mass merchandisers, and chain stores range from \$30 to \$31, and larger retailers would not likely agree to distribute a product that can be found for a lower price elsewhere.

In year 2, we predicted that our retailer's selling price for department stores would be \$31 while the retailer margin would rise to 45% as it's likely that department stores would only agree to put our product on their shelves if they are offered a lower price and a higher share of the profit. This brings down our manufacturer's selling price to \$19.18 as department stores take a larger portion of sales revenues as represents a large portion of units sold (22.7%).

In Year 3, we enter chain stores and since they're a larger retailer than independent stores, they demand a lower manufacturer's price and a higher retailer margin. As a result, we predict our retailer selling price to be \$31 at a 45% retailer margin, similar to department stores.

In year 4, we include mass merchandisers as a retailer. Behind online stores, they account for the most units. They also have the most bargaining power and sell to consumers at the lowest price so they demand the lowest manufacturer's price and sell at the lowest price in stores. Along with this, they also take the largest margin amongst all retailers.

In year 5, while we work with the retailer environment as the previous year, we move to Williams Sonoma and Kroger in place of Sur La Table as they have higher market share, leading to 12.50% in ACV and 36.8% in sales. We also stop selling to Montgomery Ward and Dillard's<sup>43</sup> in department stores as they contribute little in sales and ACV

#### **Appendix 10: Total Units Sold Through Different Retailers**

<b>Total Units Y1 - Y5</b>		
<b>Retailer</b>	<b>Total Units</b>	<b>% Total Units</b>
Dillard's	1,153	0.09%
Macy's	188,522	14.17%
Montgomery Ward	2,473	0.19%
Amazon	664,411	49.94%
Target	141,535	10.64%
Everything Kitchens	3,721	0.28%
Chefs' Toys	5,920	0.45%
Kitchen Outfitters	846	0.06%
The Wooden Spoon	626	0.05%
LeRoux Kitchen	930	0.07%
Other Independent Stores	27,859	2.09%
Kroger	50,570	3.80%
Sur La Table	37,140	2.79%
Le Creuset	139,121	10.46%
Williams Sonoma	65,521	4.93%
<b>Total</b>	<b>1,330,348</b>	<b>100.00%</b>

<sup>43</sup> "Annual Report & Proxy." Dillard's. Accessed April 22, 2024. <https://investor.dillards.com/financial-information/annual-report-and-proxy/default.aspx>

The table above summarizes total units sold with percentage for different retailers through year 1 to year 5. Amazon, as an online retailer, contributes almost half percentage of total units, followed by famous department store and mass merchandiser.

### Appendix 11: Static Retailer Values

Static Retailer Values	Price	Margin
Units into Independent	\$33.00	40%
Units into Chain Stores	\$31.00	45%
Units into Online Stores	\$33.00	40%
Units into Mass Merchandisers	\$30.00	50%
Units into Department Stores	\$31.00	45%

Appendix 11 shows the prices we want our product to sell at different retail channels. We expect lower channel margins from online and independent retailers while once we get into mass merchandisers, chain and department stores the margin will increase and our retail price would go lower.

### Appendix 12: Purchase Intent

Year	Price	Cumulative PI
Year 1	\$33.00	17.25%
Year 2	\$32.55	17.72%
Year 3	\$32.16	18.13%
Year 4	\$31.68	18.62%
Year 5	\$31.54	18.76%

Appendix 12 shows the corresponding adjusted purchase intent for the weighted average retailer prices calculated for each year. The adjusted purchase intent was found by inputting the price as “x” in our demand curve equation, resulting in the y-value (purchase intent) that would place the point on the trendline in our demand curve.

### Appendix 13: Marketing Survey Analysis

Purchase Intent target segment vs not in target segment									
Segment	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
Target	1	14	19	30	17	81	37%	21%	28%
Not in Target	4	12	16	15	4	51	29%	8%	15%
Overall	5	26	35	45	21	132	34%	16%	23%
Purchase Intent amongst respondents by age group									
Age Group	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
Under 25	3	4	5	3	1	16	19%	6%	11%
25-34	1	6	12	26	11	56	46%	20%	30%
35-44	0	5	3	9	6	23	39%	26%	33%
45-50	0	9	7	5	2	23	22%	9%	13%
51+	1	2	8	2	1	14	14%	7%	10%
Purchase Intent amongst respondents by number of times cooking at home									
Cooking Frequency	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
less than 1	1	4	3	1	1	10	10%	10%	11%
1-2 times	1	5	5	11	2	24	46%	8%	20%
3-5 times	3	13	14	23	13	66	35%	20%	26%
5+ times	0	4	13	10	5	32	31%	16%	22%
Purchase Intent amongst respondents by number of tools used per cooking session									
Tools	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
1	0	4	2	2	1	9	22%	11%	16%
2	3	7	11	14	8	43	33%	19%	25%
3	1	13	22	26	12	74	35%	16%	24%
4	1	2	0	3	0	6	50%	0%	15%
Purchase Intent amongst respondents by gender									
Gender	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
Male	4	3	13	18	9	47	38%	19%	27%
Female	1	22	22	24	11	80	30%	14%	20%
Prefer not to say	0	1	0	3	1	5	60%	20%	34%
Purchase Intent amongst respondents that own a dishwasher vs do not own a dishwasher									
Dishwasher	Definitely Not	Probably Not	Not Sure	Probably Buy	Definitely buy	Grand Total	PB %	DB%	Adj PI
Yes	1	21	31	32	12	97	33%	12%	20%
No	4	5	4	13	9	35	37%	26%	32%

Appendix 13 shows how different segments responded to our survey. We found were that purchase intent was significantly higher amongst non-users of dishwashers. Males were more interested in our product than females. Interestingly people who used a moderate number of tools

were the most likely to purchase, vs those that had a very high or low number. The survey confirmed our assumptions about our target segment and people in our segment had almost twice the purchase intent of those outside the segment

#### Appendix 14: Target Segment Preferences

Target Segment Preferences											
Preference	Most Important	%	Very Important	%	Somewhat Important	%	Slightly Important	%	Not Important	%	
Preservation of tools	22	27 %	9	11 %	15	19%	20	25%	15	19 %	
Time-saving	17	21 %	28	35 %	14	17%	15	19%	7	9%	
Cleaning ability	32	40 %	26	32 %	14	17%	7	9%	2	2%	
Safety	9	11 %	12	15 %	25	31%	20	25%	15	19 %	
Sustainability	1	1%	8	10 %	13	16%	19	23%	42	51 %	

Appendix 14 shows our findings from our marketing survey. The results show that the cleaning abilities of our product are the most important to our customers, followed by ensuring minimal damage to utensils. Sustainable was the least prioritized attribute.

#### Appendix 15: Survey data With Adjusted Purchase Intent

	Survey Data					Adjusting Purchase Intent					Purchase Intent Calculation		
	Price	Def Not (1)	Prob Not (2)	Mayb e (3)	Prob Yes (4)	Def Yes (5)	Prob yes (4)	Def Yes (5)	30% Adjust (4)	80% Adjust (5)	Sum	Total Sampl e	% PI
\$25	1	2	6	5	5	38	20	11.4	16	27.4	108	25.37 %	
\$30	0	3	4	10	3	33	15	9.9	12	21.9	108	20.28 %	
\$35	0	4	8	6	4	23	12	6.9	9.6	16.5	108	15.28 %	
\$40	1	4	4	10	5	17	8	5.1	6.4	11.5	108	10.65 %	
\$45	0	7	6	7	3	7	3	2.1	2.4	4.5	108	4.17%	

Price was calculated to be the most impactful variable on our consumers purchase intent. From our survey of 108 individuals, we found that as price went up, purchase intent went down. Purchase intent decreased at around 5% per every \$5 increase in price.

## Appendix 16: IMC for Year 0

Year 0													
Push	January	February	March	April	May	June	July	August	September	October	November	December	Total Cost
One-Time Booth and Setup Costs													\$7,000
Atlanta Home Show													\$6,000
Kitchen Bath Industry Show													\$6,000
<b>Total Push</b>													<b>\$19,000</b>
<b>Production Costs</b>													<b>\$20,000</b>
<b>TOTAL IMC BUDGET</b>													<b>\$39,000</b>

Our Year 0 costs take into account the one-time booth and setup costs required to participate in trade shows during that year, along with all future years. Although we will not be entering the market until Year 1, we plan to participate in two trade shows, the Atlanta Home Show and the Kitchen Bath Industry Show, in order to introduce potential customers to our product before our product launch and begin generating some awareness. Production costs are incorporated in year 0 as we begin to generate our marketing materials.

## Appendix 17: IMC for Year 1

Year 1														
Pull	January	February	March	April	May	June	July	August	September	October	November	December	Total Cost	Awareness
Paid Media													\$78,706	3.23%
Meta Advertising													\$94,092	4.42%
Tik Tok Ads													\$77,290	3.47%
Youtube Ads													\$33,835	0.09%
Google Search													\$10,000	1%
Influencer Marketing													\$15,933	0.48%
Other Paid Media													\$5,775	0.11%
Bus Stop Advertising													\$3,850	0.05%
Podcast(Pre-recorded)													\$3,850	0.08%
Podcast(Hot Read)													\$5,775	0.02%
Streaming TV Ads													\$15,000	0%
Amazon													\$0	1%
Owned Media													\$0	0%
Website													\$5,000	1%
Earned Media													\$349,106	14.95%
Social Media Amp														
Word of Mouth														
Public Relations														
<b>Total Pull</b>														
<b>Push</b>														
Atlanta Home Show													\$6,000	
Kitchen Bath Industry Show													\$6,000	
The Inspired Home Show													\$6,000	
Home & Design Magazine													\$1,800	
<b>Total Push</b>													<b>\$19,800</b>	
<b>Production Costs</b>													<b>\$20,000</b>	
<b>TOTAL IMC BUDGET</b>													<b>\$388,906</b>	
<b>IMC as a % of sales</b>													<b>18.86%</b>	

In year 1, we officially enter the market. Online marketing is our priority because of high awareness and low difficulty to use, so the costs will cover the whole year. We want to participate in three shows, adding one more than previous year and cooperate with Home & Design Magazine to continuously increase exposure.

## **Appendix 18: IMC for Year 2**

In Year 2 we increase the budget of all marketing strategies. We extend our inclusion in the Home & Design magazine to increase awareness amongst our older market, as well as devote significantly more capital to social media to increase awareness amongst our younger audience. Overall, our awareness increases by 5.03%

## **Appendix 19: IMC for Year 3**

In Year 3 our spending increases in all marketing strategies, except we withdraw from The Inspired Home Show as it comparatively does not generate as much awareness, and instead devote those resources into social media. We introduce mid-tier influencers to compliment the increase in spending on social media.

## **Appendix 20: IMC for Year 4**

In year 4, we remain investing in all marketing strategies. We add back the inspired home show and withdraw the kitchen bath industry show in order to diversify. Online marketing continues improving our total awareness. We also add a macro influencer as influencer marketing budget expands.

## **Appendix 21: IMC for Year 5**

In Year 5 we continue to devote more capital into social media marketing, as well as increase our Google Search budget. This is along with the assumption that as our company matures, more consumers will be already aware of our product and will search for it in order to convert into an actual purchase. We also introduce macro-influencers to our influencer marketing.

## Appendix 22: Bill of Materials & Suppliers

Material	Price / Order	Units / Order	Units	Price / Unit	Units / Swift Shift	Price / Swift Shift	Lead Time (days)	Supplier Location	Supplier Name & Link
Plastic Resin	\$541	500	Lbs	\$1.08	0.5	\$0.60	4	Cedar Grove, NJ	Emco Industrial Plastics
Waterproof Springs (1.75 inch)	\$260	1000	Springs	\$0.26	2	\$0.57	4	Wilder, KY	WB Jones
Suction Cups	\$28	100	Suction cups	\$0.28	4	\$1.23	4	Allentown, PA	Uline
Ball Bearings	\$90	3000	Ball bearings	\$0.03	4	\$0.13	30	China	Alibaba
Bristles	\$4,000	1000	Kgs	\$4.00	0.02	\$0.09	30	China	Alibaba
Bristles	\$8,400	3000	Kgs	\$2.80	0.02	\$0.06	30	China	Alibaba
Sponge	\$60	1000	Sponges	\$0.06	2	\$0.13	30	China	Enworld
Soap Dispenser	\$540	3000	Dispensers	\$0.18	1	\$0.20	30	China	Alibaba

This table includes details for all our raw materials including prices, suppliers, lead times, order quantities and units needed per finished good. This information was used to calculate our direct materials cost.

## Appendix 23: Production Capacity Requirement

Year:	Y1	Y2	Y3	Y4	Y5
Total Units Demanded	104,132	190,238	252,116	332,284	451,578
Work hours per day	8	8	8	8	8
Work days per year	250	250	250	250	250
Working hours per year	2000	2000	2000	2000	2000
Demanded Units per day	417	761	1008	1329	1806
Demanded Units per hour	52	95	126	166	226
Takt Time (seconds)	69.1	37.8	28.6	21.7	15.9
Required Labor and Machinery	Y1	Y2	Y3	Y4	Y5
Production Line Employees	3	6	8	11	14
IM Supervisor Day	1	1	1	1	1
IM Supervisor Night	1	1	1	1	1
w# Injection Molding Machines	2	4	5	6	8
# Bristle Machines	2	3	4	5	6
Capacity Utilization	99.79%	98.64%	99.80%	88.61%	97.84%
Efficiency	99.03%	91.52%	89.91%	97.06%	93.86%

This table shows an overview of our production capacity requirements. This table utilizes units demanded, which is derived from the BASEs model appendix item. Based on our assumed normal work hours, we were able to calculate our daily demand and takt time. We are required to acquire a certain amount of injection molding machines and hire a certain number of direct labor

employees to produce enough units to meet demand. Our injection mold capacity is based on our assumption that our machines have a 60 second cycle time, and that we need 4 distinct pieces per unit we produce. These machines will be run for two shifts: one supervisor for all the machines during the day shift and one more for the night shift so that we are able to reduce our capital expenditures. We determine how many direct labor workers we need by dividing our throughput time by our takt time. In years 4 and 5, with our takt time being so low, we need to utilize one extra worker in order to effectively balance our line. Further information about workstation structures from year to year are detailed in later appendices.

#### **Appendix 24: Production Line Task Detail**

Task	Time (sec)	Description
A	60	Injection molding - front piece
B	60	Injection molding - back piece
C	60	Injection molding - soap plate
D	60	Injection molding - bristle plate
E	10	Soap Dispenser Assembly - Front Piece
F	12	Attach Soap Dispenser - Front Piece
G	24	Glue Suction Cups - Back Piece
H	8	Cut Sponge - Sponge Plate
I	18	Glue Sponge - Sponge Plate
J	6	Cut Bristle Wire - Bristle Plate
K	90	Bundle and Insert Bristles - Bristle Plate
L	15	Attach Detachable Sponge Plate - Assembly
M	8	Attach Detachable Bristle Plate - Assembly
N	6	Insert ball bearings - Assembly
O	8	Fit and lock pieces together - Assembly
<b>Throughput Time (secs):</b>	<b>445</b>	
<b>Throughput - IM (secs):</b>	<b>205</b>	

Appendix 24 displays our individualized tasks within our production process, including a description of the task and an estimate on task duration in seconds. These tasks are categorized into 5 distinct categories – one for each of our unique components along with a final assembly. Our final throughput time is 445 seconds, but since we are handling injection molding offline and on a different shift schedule, we mainly consider our throughput time without injection molding for our process design. We also do not include it within our workstations. Within our workstations and process design, which are detailed in a later appendix, we group these tasks based on predecessors and similarity in order to create dynamic workstations. With our takt time consistently decreasing, we utilize additional workers performing the same tasks to bring our effective throughput time down to meet demand.

## Appendix 25: Production Line Work Stations Design through Year 1 to Year 5

Year 1										
Takt Time (sec)	69.1	Cycle Time (sec)	69							
Workstation	# workers	Task Group	Task	Time (sec)	Utilization					
Station 1	2	Front Piece	E	10						
			F	12						
			H	8						
		Bristle	I	18						
				66.67%	Total 69 100.0%					
Station 2	1	Back + Cut	G	24						
			J	6						
		Assembly	L	15						
			M	8						
			N	6						
			O	8						
				33.33%	Total 67 97.1%					
Injection Molding										
# of machines		IM Supervisors		Summary						
# of worker		4 Day		1 Total prodline						
# of hours		1 Night		0 Total Workers						
		8 Hours day		8 Capacity						
		Hours night		0 Demanded						
				417 Efficiency						
Year 2										
Takt Time (sec)	37.8	Cycle Time (sec)	37							
Workstation	# workers	Task group	Task	Time (sec)	Utilization					
Station 1	3	Front Piece	E	10						
			F	12						
			K	90						
				50.00%	Total 37 100.0%					
Station 2	3	Sponge Plate	H	8						
			G	24						
		Assembly	J	6						
			L	15						
			M	8						
			N	6						
			O	8						
				50.00%	Total 31 83.0%					
Injection Molding										
# of machines		IM Supervisors		Summary						
# of worker		6 Day		1 Total prodline						
# of hours		1 Night		0 Total Workers						
		8 Hours Day		8 Capacity						
		Hours Night		0 Demanded						
				761 Efficiency						
Year 3										
Takt Time (sec)	28.6	Cycle Time (sec)	29							
Workstation	# workers	Task Group	Task	Time (sec)	Utilization					
Station 1	2	Front Piece	E	10						
			F	12						
			H	8						
				25.00%	Total 27 94.7%					
Station 2	4	Back Piece	G	24						
			K	90						
		Assembly	L	15						
			M	8						
			N	6						
			O	8						
				25.00%	Total 25 100.0%					
Injection Molding										
# of machines		IM Supervisors		Summary						
# of worker		6 Day		1 Total prodline						
# of hours		1 Night		0 Total Workers						
		12 Hours Day		8 Capacity						
		Hours Night		0 Demanded						
				1011 Efficiency						
Year 4										
Takt Time (sec)	21.7	Cycle Time (sec)	26							
Workstation	# workers	Task group	Task	Time (sec)	Utilization					
Station 1	2	Front Piece	E	10						
			F	12						
			G	24						
				25.00%	Total 26 100.0%					
Station 2	1	Sponge Plate	H	8						
			I	18						
		Assembly	L	15						
			M	8						
			N	6						
			O	8						
				62.50%	Total 25 97.7%					
Injection Molding										
# of machines		IM Supervisors		Summary						
# of worker		6 Day		1 Total prodline						
# of hours		1 Night		0 Total Workers						
		16 Hours Day		8 Capacity						
		Hours Night		1329 Demand						
				98.6% Efficiency						
Year 5										
Takt Time (sec)	15.9	Cycle Time (sec)	20							
Workstation	# workers	Task Group	Task	Time (sec)	Utilization					
Station 1	4	Front Piece	E	10						
			F	12						
			G	24						
				36.30%	Total 20 100.0%					
Station 2	5	Bristle	H	8						
			I	18						
		Assembly	L	15						
			M	8						
			N	6						
			O	8						
				18.18%	Total 19 94.9%					
Injection Molding										
# of machines		IM Supervisors		Summary						
# of worker		8 Day		1 Total prodline						
# of hours		2 Night		0 Total Workers						
		16 Hours Day		8 Capacity						
		Hours Night		1806 Demand						
				95.6% Efficiency						

Appendix 25 displays our year-by-year workstation and production process designs. By dividing our tasks based on their corresponding piece of our product and assigning multiple of these entire pieces to our workbook, we are able to reach high-capacity utilization and efficiency, which increases our cash flows greatly. In Year 1 we are utilizing 3 production line workers and 2 injection molding machines. In Year 2, we increase our total production line workers to 6, and have 4 injection molding machines in order to meet demand. Our workstations remained relatively similar, except with our sponge plate moving to the second workstation. We will have 3 of each of these workstations operating to achieve an optimal cycle time. In Year 3, our total production line workers increase to 8, while our injection molding machines increases to 5. We have now divided into three workstations with different pieces being handled across each, and a distinct final assembly workstation. In Year 4, we are utilizing 11 total workers, and 6 injection molding machines. Workstations remain very similar, with one task being switched around our first two stations. More workers and multiples stations allow us to achieve a low takt time. In Year 5, we utilize 14 total workers and 8 injection molding machines to achieve a cycle time lower than our takt time, which is 4 times faster than our original takt time. Our bristle machine station is independent, with 6 total workers. This efficient balance of tasks allows us to produce

enough units to reach demand, while not spending extra unnecessary amounts on capital expenditure.

## Appendix 26: Factory Location Analysis

Summary of Distribution Center Locations by Retailer and State												
State	Weight	Amazon		Williams Sonoma		Target		Le Creuset		Kroger		
		Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	
California	13.38%	34.08	-117.61	34.012	-117.615	34.154	-117.432	35.053	-89.905	33.899	-118.167	
Texas	11.53%	29.92	-95.43	32.660	-97.071	32.446	-97.043	35.053	-89.905	29.784	-95.271	
Florida	7.04%	25.45	-80.45	34.113	-83.762	25.921	-80.362	35.053	-89.905	33.748	-84.387	
New York	7.01%	43.12	-76.21	40.314	-74.465	40.527	-74.255	40.756	-73.499	39.103	-84.512	
Illinois	4.65%	41.87	-87.65	35.053	-89.905	41.922	-87.960	40.756	-73.499	41.511	-87.953	
Pennsylvania	4.52%	39.93	-76.84	40.314	-74.465	40.524	-74.260	40.756	-73.499	39.103	-84.512	
Ohio	4.20%	39.93	-82.68	35.053	-89.905	39.950	-83.341	40.756	-73.499	39.103	-84.512	
Georgia	3.87%	33.57	-82.31	34.113	-83.762	33.394	-84.587	35.053	-89.905	33.748	-84.387	
North Carolina	3.85%	35.72	-78.59	34.113	-83.762	35.625	-81.312	35.053	-89.905	33.748	-84.387	
Michigan	3.38%	42.44	-83.12	35.053	-89.905	42.275	-85.383	40.756	-73.499	42.681	-82.736	
Washington	3.29%	38.98	-77.02	40.314	-74.465	38.869	-76.731	40.756	-73.499	37.293	-80.054	
Virginia	3.23%	38.99	-77.44	40.314	-74.465	36.707	-76.665	40.756	-73.499	37.293	-80.054	
New Jersey	3.16%	40.20	-74.58	40.314	-74.465	40.527	-74.255	40.756	-73.499	37.293	-80.054	
Colorado	2.62%	39.81	-105.00	32.660	-97.071	38.966	-95.693	35.053	-89.905	39.739	-104.991	
Tennessee	2.61%	36.13	-86.69	35.053	-89.905	41.922	-87.960	35.053	-89.905	35.117	-89.971	
Massachusetts	2.58%	42.43	-71.02	40.314	-74.465	40.527	-74.255	40.756	-73.499	37.293	-80.054	
Arizona	2.57%	33.43	-112.16	34.012	-117.615	32.090	-110.803	35.053	-89.905	33.45	-112.259	
Indiana	2.47%	39.75	-86.29	35.053	-89.905	39.749	-86.295	35.053	-89.905	39.521	-85.776	
Minnesota	2.28%	45.12	-93.42	35.053	-89.905	45.100	-93.244	35.053	-89.905	43.176	-89.794	
Missouri	2.26%	38.81	-90.57	35.053	-89.905	38.849	-94.820	35.053	-89.905	38.06	-97.929	
Maryland	2.25%	39.27	-76.55	40.314	-74.465	38.869	-76.731	40.756	-73.499	37.293	-80.054	
Wisconsin	2.22%	44.29	-88.51	35.053	-89.905	43.085	-88.510	40.756	-73.499	43.176	-89.794	
South Carolina	1.80%	33.98	-81.07	34.113	-83.762	34.260	-80.731	35.053	-89.905	33.748	-84.387	
Oregon	1.64%	45.64	-122.77	34.012	-117.615	44.578	-123.310	35.053	-89.905	45.407	-122.57	
Alabama	1.60%	30.51	-88.17	34.113	-83.762	33.394	-84.587	35.053	-89.905	33.748	-84.387	

Weighted Center of States by Target Population		
State	Latitude	Longitude
California	34.168	-114.549
Texas	31.169	-95.224
Florida	28.610	-82.345
New York	41.780	-76.197
Illinois	40.724	-86.461
Pennsylvania	40.071	-76.539
Ohio	39.234	-82.955
Georgia	33.813	-83.823
North Carolina	35.215	-81.454
Michigan	41.178	-83.259
Washington	39.203	-76.502
Virginia	38.962	-76.719
New Jersey	40.047	-74.912
Colorado	38.134	-101.096
Tennessee	36.417	-87.969
Massachusetts	41.243	-73.005
Arizona	33.546	-110.326
Indiana	38.521	-87.174
Minnesota	42.344	-92.156
Missouri	37.776	-91.564
Maryland	39.359	-76.249
Wisconsin	42.304	-87.155
South Carolina	34.130	-82.718
Oregon	42.616	-118.366
Alabama	32.171	-86.964

Appendix 26 shows our calculations for our factory location. We weighted the top 25 states ranked by the number of households that fall in our target market. For each of these states, we located the closest distributor for each of our top 5 retailers with the highest number of units sold. After taking these distributor locations, we found a location central to demand based off of retailer volume. By taking the weighted average of these coordinates we found our center of gravity to be located in New Madrid, MO.

## Appendix 27: Inventory Service Levels – Inventory Values and Turns

	Y1	Y2	Y3	Y4	Y5
<b>Total Value</b>	\$154,890	\$253,325	\$325,867	\$419,210	\$551,822
Raw Materials Value	\$69,133	\$119,008	\$154,133	\$199,115	\$265,341
Work in Progress Value	\$12,151	\$19,728	\$25,465	\$32,884	\$43,321
Finished Goods Value	\$73,606	\$114,590	\$146,270	\$187,211	\$243,160
Raw Materials Quantity	198,581	341,353	441,543	569,759	758,403
Work in Progress Quantity	2,169	3,963	5,252	6,923	9,408
Finished Goods Quantity	8,919	16,294	21,594	28,460	38,678
<b>Weeks of Supply</b>	8.65	9.09	9.16	9.21	9.33

<b>Inventory Turns</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>
Plastic Resin	9.51	12.80	13.27	13.70	14.15
Waterproof Springs	12.27	14.85	15.16	15.44	15.71
Ball Bearings	5.19	6.26	6.28	6.29	6.31
Suction Cups	14.54	14.77	15.08	15.37	15.65
Bristles	1.28	5.25	5.38	5.49	5.60
Sponge	4.82	6.20	6.23	6.25	6.27
Soap Dispenser	4.64	6.06	6.10	6.14	6.18

<b>EOQ</b>					
<b>Materials</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Plastic Resin	5027	6795	7823	8981	10469
Waterproof Springs	10256	13862	15958	18320	21357
Ball Bearings	30193	40809	46980	53934	62875
Suction Cups	9883	13358	15378	17654	20581
Bristles	2615	4224	4863	5583	6508
Sponge	21349	28856	33220	38137	44459
Soap Dispenser	12326	16660	19179	22018	25668

Appendix 27 shows our inventory levels from years 1 to 5, including our total inventory turnovers and economic order quantities. By accounting for demand and utilizing our lead time assumptions for international and national suppliers, we were able to calculate our optimal inventory levels from year to year. Our inventory scales with our revenue. We operate at a 97% service level to capture a high percentage of revenue while remaining conscious about unexpected circumstances. Our weeks of supply and inventory turnovers trend upwards as years progress.

## Appendix 28: Outbound Costs Calculations

Costs By Channel	Y1 Total Units	Y1 Number of Boxes	Y1 Shipping Costs
Department Stores			
Online	89869	89869	\$88,970
Mass Merchandisers			
Independent Stores	14263	37	\$8,776
Chain Stores			
<b>Total Cost</b>			<b>\$97,747</b>

Costs By Channel	Y2 Total Units	Y2 Number of Boxes	Y2 Shipping Costs
Department Stores	15408	40	\$7,960
Online	131637	131638	\$130,322
Mass Merchandisers			
Independent Stores	43193	111	\$26,329
Chain Stores			
<b>Total Cost</b>			<b>\$164,611</b>

Costs By Channel	Y3 Total Units	Y3 Number of Boxes	Y3 Shipping Costs
Department Stores	45723	118	\$23,482
Online	135736	135736	\$134,379
Mass Merchandisers			
Independent Stores	10232	27	\$6,404
Chain Stores	60426	155	\$29,863
<b>Total Cost</b>			<b>\$194,128</b>

Costs By Channel	Y4 Total Units	Y4 Number of Boxes	Y4 Shipping Costs
Department Stores	50886	131	\$26,069
Online	147642	147643	\$146,167
Mass Merchandisers	68029	175	\$28,000
Independent Stores			
Chain Stores	65726	169	\$32,561
<b>Total Cost</b>			<b>\$232,796</b>

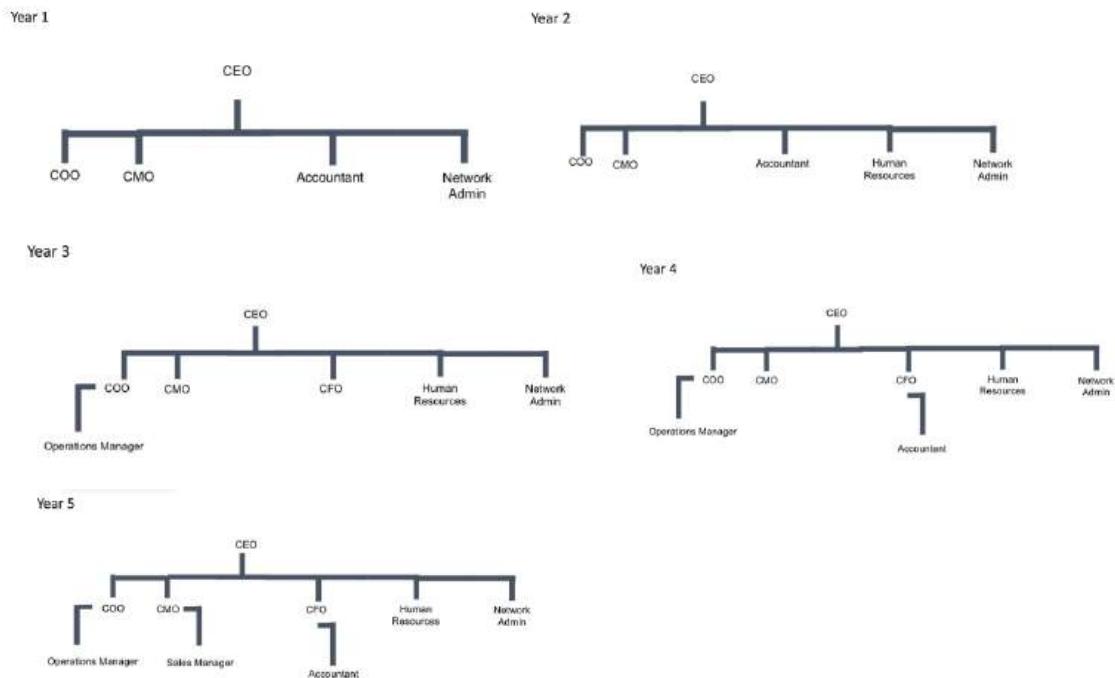
Costs By Channel	Y5 Total Units	Y5 Number of Boxes	Y5 Shipping Costs
Department Stores	52345	135	\$26,865
Online	159527	159528	\$157,933
Mass Merchandisers	73506	189	\$30,240
Independent Stores			
Chain Stores	166200	427	\$82,269
<b>Total Cost</b>			<b>\$297,306</b>

### Calculations

Swift Shift		Cost Calculations (Excluding Online)	
Weight per unit (lbs)	1.5	Department Stores	<b>\$199.00</b>
Length (inches)	10	Dillard's	\$157.00
Width (inches)	6.5	Montgomery Ward	\$220.00
Height (inches)	5	Macy's	\$220.00
Fedex Shipping Information		<b>Mass Merchandisers</b>	<b>\$160.00</b>
Standard freight box base (inches)	1920	Target	\$179.00
Standard freight box height (inches)	64	Krogers	\$141.00
Box capacity	25	<b>Independent Stores</b>	
Units per box	390	Everything Kitchens	\$220.00
Package weight (lbs)	585	Chef's Toys	\$306.00
Transportation Costs By Year		Kitchen Outfitters	\$220.00
Year 1	\$97,747	The Wooden Spoon	\$220.00
Year 2	\$164,611	LeRoux Kitchen	\$220.00
Year 3	\$194,128	<b>Chain Stores</b>	
Year 4	\$232,796	Sur La Table	\$179.00
Year 5	\$297,306	Le Creuset	\$220.00
Online Cost Calculations		Williams Sonoma	\$179.00
Costs Per Unit	Units		
\$0.99	1		

The appendix shows our calculations for outbound costs. For online sales we used Amazon's policy of \$0.99 per unit. For all other retailers, we are using our estimation of 390 Swift Shift units per box. We used rates from FedEx to calculate our shipping cost to distribution centers of all our retail channels and then aggregated it yearly according to the number of boxes we would be shipping to each location.

## Appendix 29: Organization Structure



This appendix shows our organizational chart for each year. It includes all of our management positions and whom they report to. As we add more C-suite positions and managers during years of operations our graph expands.

### Appendix 30: General and Administrative Salaries

Employee	Year 1	Year 2	Year 3	Year 4	Year 5
CEO	\$ 183,300	\$ 188,799	\$ 194,463	\$ 200,297	\$ 206,306
CMO	\$ 105,300	\$ 108,459	\$ 111,713	\$ 115,064	\$ 118,516
COO	\$ 114,400	\$ 117,832	\$ 121,367	\$ 125,008	\$ 128,758
CFO	\$ -	\$ -	\$ 172,396	\$ 177,568	\$ 182,895
Sales Manager	\$ -	\$ -	\$ -	\$ -	\$ 105,348
Accountant	\$ 78,000	\$ 80,340	\$ -	\$ 85,233	\$ 87,790
Human Resources	\$ -	\$ 100,425	\$ 103,438	\$ 106,541	\$ 109,737
Operations Manager	\$ -	\$ -	\$ 88,267	\$ 90,915	\$ 93,642
Customer Service	\$ -	\$ -	\$ -	\$ 71,027	\$ 73,158
Network Admin	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
<b>Total</b>	<b>\$ 501,000</b>	<b>\$ 615,855</b>	<b>\$ 811,644</b>	<b>\$ 991,653</b>	<b>\$ 1,126,150</b>
Units Sold	104,132	190,238	252,116	332,284	451,578
<b>G&amp;A Per Unit</b>	<b>\$4.81</b>	<b>\$3.24</b>	<b>\$3.22</b>	<b>\$2.98</b>	<b>\$2.49</b>

Pictured above is our hiring plan and total compensation, including benefits for executives and managers during years of operation. As our company grows, we add more executives and raise the salaries of existing employees by 3% to provide an attractive workplace and increase retention.

### Appendix 31: Manufacturing Overhead Costs

Manufacturing Overhead Costs					
	Y1	Y2	Y3	Y4	Y5
Rent	\$96,000	\$96,000	\$96,000	\$96,000	\$96,000
Utilities cost	\$50,000	\$70,672	\$82,166	\$95,230	\$112,324
Indirect Labor	\$75,036	\$77,287	\$119,409	\$163,988	\$211,134
Indirect materials	\$937	\$1,712	\$2,269	\$2,991	\$4,064
Maintenance cost	\$19,246	\$26,146	\$33,769	\$37,392	\$52,415
Total Insurance	\$18,214	\$28,552	\$37,153	\$45,016	\$61,819
Product liability	\$8,591	\$15,479	\$20,269	\$26,320	\$35,611
Equipment	\$9,623	\$13,073	\$16,885	\$18,696	\$26,208
<b>Total</b>	<b>\$259,433</b>	<b>\$300,369</b>	<b>\$370,766</b>	<b>\$440,616</b>	<b>\$537,756</b>
Units Sold	104,132	190,238	252,116	332,284	451,578
<b>MOH per Unit</b>	<b>\$2.49</b>	<b>\$1.58</b>	<b>\$1.47</b>	<b>\$1.33</b>	<b>\$1.19</b>

This table summarizes our manufacturing overhead costs per year. Rent stays fixed and is distributed over more units as we grow. Our utilities grow at half the rate our units grow. Our indirect labor increases gradually as we hire one warehouse personnel for 100,000 units. Indirect materials mostly comprise of glue which scales with our units. Maintenance cost and equipment insurance is based on the total value of equipment (at cost). Product liability insurance is based on our production and sales with units.

## Appendix 32: Information System Expenses

	Y0	Y1	Y2	Y3	Y4	Y5
# of Employees	9	9	10	12	15	17
not including direct labor						
<b>SOFTWARE</b>						
Upfront Cost	\$20,000	\$-	\$-	\$-	\$-	\$-
Licensing Fee (Total Monthly)	\$10,800	\$68,040	\$79,380	\$100,019	\$131,275	\$156,217
Licensing Fee (Yearly Fee)	\$540	\$3,402	\$3,969	\$5,001	\$6,564	\$7,811
Microsoft Office Premium	\$396	\$2,495	\$2,911	\$3,667	\$4,813	\$5,728
Shopify Credit Card Processing	\$-	\$995	\$1,045	\$1,097	\$1,152	\$1,210
<b>Total Cost of Software</b>	<b>\$31,736</b>	<b>\$74,932</b>	<b>\$87,305</b>	<b>\$109,785</b>	<b>\$143,804</b>	<b>\$170,966</b>
<b>Hardware</b>						
Management Laptops	\$7,500	\$-	\$1,500	\$1,500	\$3,000	\$1,500
Other Employee Laptops	\$4,000	\$-	\$-	\$1,000	\$1,000	\$1,000
High Speed Printer	\$1,500	\$-	\$-	\$750	\$-	\$750
High end Networking Equipment	\$350	\$-	\$-	\$-	\$-	\$-
<b>Total Cost of Hardware</b>	<b>\$13,350</b>	<b>\$-</b>	<b>\$1,500</b>	<b>\$3,250</b>	<b>\$4,000</b>	<b>\$3,250</b>
<b>Total Cost of Software, Hardware, &amp; Internet</b>	<b>\$45,086</b>	<b>\$74,932</b>	<b>\$88,805</b>	<b>\$113,035</b>	<b>\$147,804</b>	<b>\$174,216</b>

This table outlines our annual information systems costs per year. The costs increase year-over-year as our workers and managers/executives increase, which raises our IS requirements. However, our costs increase at a slower rate than production units improving our overall cost efficiency.

## Appendix 33: Income Statement Years 1 through 5

Income Statement (In US Dollars)	Start-up	Year 1	Year 2	Year 3	Year 4	Year 5
		<i>Notes</i>				
TOTAL REVENUES	-	1,999,959	3,538,493	4,558,989	5,754,038	7,747,796
Variable Costs	-	599,936	1,037,496	1,336,977	1,745,122	2,301,208
Fixed Production Costs (allocated Manufacturing overhead)	-	259,433	300,369	370,766	440,616	537,756
TOTAL COST OF GOODS SOLD	-	859,369	1,337,866	1,707,743	2,185,738	2,838,964
GROSS PROFIT	-	1,140,590	2,200,627	2,851,246	3,568,300	4,908,832
One-time Start Up Expenses	58,453	-	-	-	-	-
Administrative Overhead (salaries)	-	501,000	615,855	811,644	991,653	1,126,150
General operating expenses not already part of COGS	-	74,932	87,305	109,785	143,804	170,966
Marketing Expenses Excluding Mfg Reps Commission	39,000	388,906	489,657	625,551	738,825	840,790
Manufacturer's Sales Reps Commission Expense	-	28,241	104,152	201,242	300,868	482,878
Depreciation on original PP&E	-	119627	119627	119627	115794	65794
Depreciation on new PP&E (purchased after start-up)	-	0	0	23667	87362	101407
Total Depreciation	-	119,627	119,627	143,294	203,156	167,201
Earnings Before Tax	(97,453)	27,884	784,032	959,732	1,189,994	2,120,847
Taxes	-	7,529	211,689	259,128	321,298	572,629
<b>NET INCOME</b>	<b>(97,453)</b>	<b>20,355</b>	<b>572,343</b>	<b>700,604</b>	<b>868,696</b>	<b>1,548,218</b>
<b>Statement of Retained Earnings</b>						
Net Income	(97,453)	20,355	572,343	700,604	868,696	1,548,218
minus cash returned to investors (dividends)	0	114980	102540	246107	647387	640297
Increase (Decrease) in Retained Earnings	(97,453)	(94,625)	469,804	454,497	221,309	907,922
<b>Income Statement Financial Ratios</b>						
COGS % Sales		43%	38%	37%	38%	37%
Gross Margin % Sales		57%	62%	63%	62%	63%
SG&A % Sales		29%	20%	20%	20%	17%
Marketing Expenses % Sales		19%	14%	14%	13%	11%
Net Income % Sales		1%	16%	15%	15%	20%

This is our complete Income Statement from start-up to Year 5. This shows the projected results of our operations during this period. Our company's revenues grow each year, with COGS also growing to compensate for our larger volume. Our operational expenses grow as we hire more managers and executives to manage our company. Depreciation grows as we add more machinery and equipment to compensate for our growing volume. Our Net Income is positive each year of operations, with it growing significantly from Y1 to Y5. Additionally pictured is our statement of retained earnings which shows how much we pay in dividends. We pay dividends to investors every year of operations. Finally, at the bottom are our key financial ratios. These show how our company is becoming slightly more efficient in terms of margins from Y1-Y5.

## Appendix 34: Balance Sheet Years 1 through 5

<b>Balance Sheet</b> (In US Dollars)		<b>Time 0</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
<b>Current Assets</b>							
Cash reserves		210,523	99,998	176,925	227,949	287,702	300,000
Accounts Receivable		-	59,193	164,110	284,922	410,979	638,598
Total Inventory		25,815	154,890	253,325	325,867	419,210	551,822
Current Assets		236,338	314,081	594,360	838,739	1,117,891	1,490,419
<b>Fixed Assets</b>							
Gross Fixed Assets		975,650	975,650	1,320,650	1,701,800	1,882,950	2,634,100
Accumulated Depreciation (cumulative)		-	119,627	239,254	382,548	585,704	752,905
Net Fixed Assets		975,650	856,023	1,081,396	1,319,252	1,297,246	1,881,195
<b>TOTAL ASSETS</b>		1,211,988	1,170,104	1,675,756	2,157,991	2,415,137	3,371,615
<b>Current Liabilities</b>							
Accounts Payable		13,185	65,926	101,775	129,512	165,350	213,906
Current Liabilities		13,185	65,926	101,775	129,512	165,350	213,906
<b>Equity</b>							
Paid in Capital (cumulative)		1,296,256	1,296,256	1,296,256	1,296,256	1,296,256	1,296,256
Retained Earnings (cumulative)		(97,453)	(192,078)	277,726	732,222	953,531	1,861,453
Total Equity		1,198,803	1,104,178	1,573,982	2,028,478	2,249,787	3,157,709
<b>TOTAL LIABILITIES AND EQUITY</b>		1,211,988	1,170,104	1,675,756	2,157,991	2,415,137	3,371,615
Check Total Assets - Total Liabilities & Equity							
Net Working Capital Balance (Current Assets - Current Liabilities)		223,153	248,155	492,586	709,226	952,541	1,276,514
<b>Balance Sheet Financial Ratios</b>							
Accounts Receivable Days Online		5	5	5	5	5	5
Accounts Receivable Days Other		45	45	45	45	45	45
Total Inventory Days DOH (include RM, FPI & WIP categories)		-	66	69	70	70	71
Accounts Payable Days U.S.		30	30	30	30	30	30
Accounts Payable Days Non-U.S.		0	0	0	0	0	0

Pictured above is our Balance Sheet for every year of operations and the start-up period. Starting with cash, we have a large amount of cash on hand in Y0 to support our company through our first sale. Following this, cash begins to grow with revenues. Following this is our Accounts Receivable is pictured, which is calculated using our assumptions of AR Days. As our revenues grow, so do our accounts receivable. This is also applicable to our inventory. We build up \$25,818 of inventory in Y0. All these items represent our Current Assets. Next on our Balance Sheet is our Fixed Assets, which is comprised of machinery and IS equipment. In Liabilities we have our Account Payable, which is calculated using the assumptions for AP Days. Below this we have our Shareholders Equity. This shows our Paid in Capital, the maxim of which represent the funds needed to begin operations. Below this is our Retained Earnings line. Additionally pictured above are our days our days of Payables, Receivables, and Inventory, for each year of operations.

## Appendix 35: Statement of Cash Flows Years 1 through 5

<b>Statement of Cash Flow</b> <b>(In US Dollars)</b>		<b>Start-up</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 5 Adj.</b>
Initial Investment in Fixed Assets		975,650						
Net Income		(97,453)	20,355	572,343	700,604	868,696	1,548,218	1,548,218
+ Depreciation		-	119,627	119,627	143,294	203,156	167,201	150,581
+/- Change in Net Working Capital		(223,153)	(25,002)	(244,431)	(216,641)	(243,315)	(323,973)	(323,973)
- Change in Fixed Assets		-	-	(345,000)	(381,150)	(181,150)	(751,150)	(331,690)
Net Free Cash Flow		(1,296,256)	114,980	102,540	246,107	647,387	640,297	1,043,137
Terminal Value of Business								3,157,709
Total Cash Flow		(1,296,256)	114,980	102,540	246,107	647,387	3,798,006	
<b>Net Present Value: Including TV</b>		\$657,765			Growing Perpetuity		1,358,809	
<b>Internal Rate of Return: Including</b>		35%			Liquidate		3,157,709	
<b>Terminal Growth Rate</b>		-50.00%						

This is our Statement of Cash Flows for each year of operations. In the Start-up period we have a larger expense in Fixed Assets. Additionally, we have a negative Net Income as a result of paying salaries, rent, utilities, etc., during Y0. We also have a large investment in Working Capital, mainly cash, to begin operations. The rest of the years are also pictured, these years include additional investments into Fixed Assets, Changes in working capital, and Depreciation. To calculate our terminal value, we use and adjusted Y5 cash flow as a result of the unusually large Capital Expenditures in Y5. We use a Terminal Growth Rate of -50% to gain the Terminal Value of our company with this method. However, as is pictured our Terminal Value using a perpetuity growth rate is lower than the value of liquidation in Y5. For this reason, we instead choose to liquidate in Y5 and this is added to our normal Y5 Cash Flow to derive total cash flow for Y5. We then discount our cash flows by our Discount Rate of 22.59% to ascertain the NPV of our business. This yields a NPV of \$657,765 which represents a return in excess of our 22.59% discount rate. Our cash flows are also used to yield an IRR of 35%. Both our positive NPV and IRR that is higher than discount rate suggests this investment is worthwhile.

## Appendix 36: Initial Startup Costs

(In US Dollars)

**Start-up**

### Initial Startup Cost

#### INITIAL INVESTMENT IN FIXED ASSETS

Long Term Balance Sheet Items (Can be depreciated - includes IS equip & Factory/office buildout costs)

975,650

#### INITIAL INVESTMENT IN NET WORKING CAPITAL

Cash (Additional Cash required in addition to Start Up costs)

210,523

Raw Materials & Work in Process, Start-Up Period Only (Put Years 1-5 in table Below)

13,547

Finished Goods Start-up Period Only (Put Years 1-5 in table Below)

12,268

#### INITIAL OPERATING EXPENSES (INCOME STATEMENT, TAX DEDUCTIBLE)

Product Development (Prototype, engineer, etc.)

-

Pre-Marketing Expenses (Marketing expenses before Year 1) See Sales Projection Tutorial

39,000

All Other (Miscellaneous non depreciated expenses, additional salaries, Rent etc.)

58,453

#### **Subtotal Start Up Operating Expenses**

97,453

The appendix above is our assumptions for our startup costs. This includes our Fixed Assets which are further broken down in a later appendix. Additionally, we have our cash required to fund operations until our first sale and the inventory we build up in Y0. How we derived this number is also broken down in a further appendix. Finally, we have our operational costs, which includes our overhead and marketing expenses in Y0.

## Appendix 37: Operational Costs Years 1 through 5

Operational Information					
<b>UNITS SOLD</b>					
Units into Independent retailers	14,263	15,408	10,232	-	-
Units online	89,869	131,637	135,736	147,642	159,527
Units Department Stores	-	43,193	45,723	50,886	52,345
Units into chain retailer	-	-	60,426	65,726	166,200
Units into mass merchants	-	-	-	68,029	73,506
<b>Total Units Sold</b>	<b>104,132</b>	<b>190,238</b>	<b>252,116</b>	<b>332,284</b>	<b>451,578</b>
<b>MANUFACTURER SELLING PRICE</b>					
To Independent retailers	19.80	19.80	19.80	-	-
For online sales	19.80	19.80	19.80	19.80	19.80
To Department Stores	-	17.05	17.05	17.05	17.05
To chain retailer	-	-	17.05	17.05	17.05
To mass merchants	-	-	-	15.00	15.00
<b>Average WEIGHTED manufacturer's selling price to channel</b>	<b>19.80</b>	<b>19.18</b>	<b>18.64</b>	<b>17.85</b>	<b>17.89</b>
<b>COST OF GOODS SOLD</b>					
Variable Cost Per Unit (\$/Unit) (Total Direct Cost = Direct Labor + Direct Materials )	4.82	4.59	4.53	4.55	4.44
<b>Total Outbound Freight (\$)</b> (The gross amount, Not Per Unit)	<b>97,747</b>	<b>164,611</b>	<b>194,128</b>	<b>232,796</b>	<b>297,306</b>
<b>Total Variable Costs Including Freight (\$)</b>	<b>599,936</b>	<b>1,037,496</b>	<b>1,336,977</b>	<b>1,745,122</b>	<b>2,301,208</b>
Fixed Production Costs (\$) (Total MOH per year)	259,433	300,369	370,766	440,616	537,756
<b>Total Cost of Goods Sold</b>	<b>859,369.1</b>	<b>1,337,865.7</b>	<b>1,707,742.7</b>	<b>2,185,738.2</b>	<b>2,838,964.1</b>
<b>SELLING &amp; GENERAL ADMINISTRATIVE EXPENSES</b>					
Production costs not included in Cost of Good sold (if any, you may not have any)	-	-	-	-	-
Fixed Administrative Costs	501,000	615,855	811,644	991,653	1,126,150
Marketing Expenses (Push and Pull) Excluding Manufacturers Reps (\$)	388,906	489,657	625,551	738,825	840,790
Manufacturer's Sales Reps Commission Expense (10% - excludes Online Units)	28,241.25	104,151.66	201,241.71	300,868.07	482,877.75
<b>IS EXPENSES</b>	<b>74,932.20</b>	<b>87,304.77</b>	<b>109,784.52</b>	<b>143,804.11</b>	<b>170,965.57</b>
<b>Total SG&amp;A Expenses</b>	<b>993,079.37</b>	<b>1,296,968.19</b>	<b>1,748,220.60</b>	<b>2,175,150.18</b>	<b>2,620,783.65</b>

This Appendix shows our operational information for Y1-Y5. At the top is our units sold for each year and which channel they are sold through. Following this is our Manufacturers Selling Price for each year and channel. At the bottom of this selection is our weighted average selling price. It is important to notice that each year this number decreases as we enter new channels

with lower prices. Below this we have our variable COGS per unit, freight, and fixed production costs. This yields the total Cost of Goods Sold. Finally, we have G&A costs per year. This section includes the marketing expenses, administrative costs, sales representative commission, and information system expense.

### Appendix 38: Fixed Asset Purchase and Depreciation Schedules

Purchase Schedule	Y0-Y1	Y2	Y3	Y4	Y5
Physical Conversion Costs	1	0	0	0	0
Injection Molding Machines	2	2	1	1	2
Injection Molds	4	0	4	0	8
Bristle Machines	2	1	1	1	1
Conveyor Belt	12	0	6	6	6
Management Laptops	5	1	1	2	1
Other Employee Laptops	4	0	1	1	1
High Speed Printer	2	0	1	0	1
High End Networking	1	0	0	0	0

Depreciation on Original PP&E	Y1	Y2	Y3	Y4	Y5	Y6
Physical Conversion Costs	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Injection Molding Machines	\$22,667	\$22,667	\$22,667	\$22,667	\$22,667	\$22,667
Injection Molds	\$50,000	\$50,000	\$50,000	\$50,000	\$0	\$0
Bristle Machines	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Conveyor Belt	\$1,757	\$1,757	\$1,757	\$1,757	\$1,757	\$1,757
Management Laptops	\$2,500	\$2,500	\$2,500	\$0	\$0	\$0
Other Employee Laptops	\$1,333	\$1,333	\$1,333	\$0	\$0	\$0
High Speed Printer	\$300	\$300	\$300	\$300	\$300	\$0
High End Networking	\$70	\$70	\$70	\$70	\$70	\$0
<b>Total</b>	<b>\$119,627</b>	<b>\$119,627</b>	<b>\$119,627</b>	<b>\$115,794</b>	<b>\$65,794</b>	<b>\$65,424</b>

Depreciation on New PP&E	Y1	Y2	Y3	Y4	Y5	Y6
Physical Conversion Costs	\$0	\$0	\$0	\$0	\$0	\$0
Injection Molding Machines	\$0	\$0	\$22,667	\$34,000	\$45,333	\$68,000
Injection Molds	\$0	\$0	\$0	\$50,000	\$50,000	\$150,000
Bristle Machines	\$0	\$0	\$500	\$1,000	\$1,500	\$2,000
Conveyor Belt	\$0	\$0	\$0	\$879	\$1,757	\$2,636
Management Laptops	\$0	\$0	\$500	\$1,000	\$2,000	\$2,500
Other Employee Laptops	\$0	\$0	\$0	\$333	\$667	\$1,000
High Speed Printer	\$0	\$0	\$0	\$150	\$150	\$300
High End Networking	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$23,667</b>	<b>\$87,362</b>	<b>\$101,407</b>	<b>\$226,436</b>

Above is our Depreciation Schedule for our Fixed Assets. Pictured on top is our Depreciation schedule on our original PP&E that we purchase in Y0 to begin our operations. Following this, we have our Depreciation on all new PP&E. The total of these two numbers is used in our Income Statement and Statement of Cash Flows. Finally is our purchase schedule for Fixed Assets. We do not purchase any new Assets in Y1 in addition to those in Y0, thus we have no new PP&E depreciation until Y3 when we can depreciate Y2 items.

## Appendix 39: Comparable Companies

Peer Group Comparison		Metrics										
Company	Company Name	Ticker	Comparison	EV (M)	Market Cap (M)	Revenues (M)	EBITDA (M)	EBIT (M)	NI (M)	Price	P/E	Beta
Berry Global Group	BERY	AP/Margin	15,617	6,809	12,700	1,870	1,100	609	5.81	9.86	1.155	
Signt	SIGN	AP/Inventory/Margin	8,601	4,740	6,000	864	595	325	44.54	13.38	0.825	
Newell Brands	NWL	AR	8,150	2,946	8,300	421	(260)	(388)	7.11	13.85	1.352	
Helen of Troy	HELE	AR/Inventory	3,739	2,945	2,300	272	211	140	124.00	17.61	1.113	
Clorox Company	CLX	AP/AR	21,643	18,694	7,400	733	408	149	150.62	33.44	0.863	
Procter & Gamble	PG	AP	401,502	374,295	82,000	21,000	18,100	14,653	159.51	24.94	0.63	
Lifetime Brands	LCUT	AP/AR/Inventory	531	224	610	61	24	(12)	10.28	18.59	1.012	
Fortune Brands Innovation	FBIN	AR	12,485	10,181	4,600	783	614	405	80.74	21.92	1.373	
SEB SA	SK FP	AP/AR	7,859	5,833	8,000	961	667	386	105.40	15.09	1.078	
Mean			53,347	47,407	14,612	2,996	2,384	1,808	76.45	18.74	1.04	
Median			8,601	5,833	7,400	783	595	325	80.74	17.61	1.078	

Beta Calculations		Market Inputs		CAPM	
75th Percentile Beta	1.155	Risk Free	4.369	75th Percentile Cost of Equity	23.1075
Median Beta	1.078	Market Risk Premium	6.7	Median Cost of Equity	22.5916
25th Percentile Beta	0.863	Micro-Cap Premium	11	25th Percentile Cost of Equity	21.1511

Pictured above is all of our comparable companies, what type of comparison they were used for, and some of their key financial data. All of this information was gathered from the last yearly filing of our comparable companies.<sup>44</sup> <sup>45</sup> We used these companies' Beta's to derive a median Beta for the industry. Additionally, we have market inputs that were used in our Capital Asset Pricing Model to gain our discount rate of 22.59%. Our market inputs from Bloomberg Terminal<sup>46</sup> were the current Risk-Free Rate (current yield on a 10-Year Treasury), and the Market Risk Premium. Additionally, we have a Micro-Cap Risk Premium of 11% which was input from Morningstar.

## Appendix 40: Assumptions and Calculations for Cash in Hand Y0

Assumptions		Manufacturing Overhead		
# Months Operating at Time 0	2	Rent	\$16,000	
# Months of Cash on hand	3	Utilities	\$8,333	
General and Administrative		Direct Labor	\$32,516	
Salaries	\$83,500	Equipment Insurance	\$1,604	
IS Expense	\$31,736	Total	<b>\$58,453</b>	
<b>Total</b>	<b>\$115,236</b>			
Materials		Cash on hand Y0		
	Cost	Quantity		
Raw Materials	\$11,522	33,097	Rent	\$24,000
Work in Progress	\$2,025	362	Utilities	\$12,500
Finished Goods	\$12,268	1,487	Salaries	\$125,250
<b>Total</b>	<b>\$25,815</b>	<b>34,945</b>	Direct Labor	\$48,773
			<b>Total</b>	<b>\$210,523</b>

<sup>44</sup> "2023 Annual Report," Newell Brands, Accessed April 20, 2024, <https://ir.newellbrands.com/static-files/e7254155-f77e-4877-ad15-d91622e06aee>

<sup>45</sup> "FY23 Q4 10-K Final Filed," Helen of Troy, Accessed April 20, 2024, [https://s2.q4cdn.com/117307772/files/doc\\_financials/2023/ar/FY23\\_Q4\\_10K\\_Final\\_Filed.pdf](https://s2.q4cdn.com/117307772/files/doc_financials/2023/ar/FY23_Q4_10K_Final_Filed.pdf)

<sup>46</sup> Bloomberg Terminal, Market Report, February 20, 2024

This appendix covers the numbers behind our assumptions of how we arrive at the required Cash and inventory need for the Start-up period. It takes the total of our overhead, salaries, and expenses and divides by the number of months we expect to require fund before our first sale. This yields our total of \$210,523 which we used in our assumptions for Start-up period. Additionally, this appendix houses our calculations for operating expenses in Y0. We take the total yearly salaries for Y1 and divide by the 2 months we expect to be in operations. This gives our Manufacturing Overhead we need to cover in Y0. Finally, this appendix derives the value of our inventory in Y0.

#### Appendix 41: Comparables for Balance Sheet and Income Statement margins

Accounts Receivable Days Comparison				
Companies	Ticker	Revenues	Accounts Receivable	AR Days
Clorox Company	CLX	7389	688	34
Helen of Troy	HELE	2072667	377,604	66
Newel Brands	NWL	8133	1,195	54
Lifetime Brands	LCUT	727662	141,195	71
Fortune Brand Innovation	FBIN	4626	534.2	42
SEB SA	SK FP	7960	891.5	41
Mean			51	
Median			48	

Return Comparables				
Company	Ticker	ROE (%)	ROA (%)	ROIC (%)
Berry Global Group	BERY	19	3.63	7.83
Silgna Holdings	SLGN	18.07	4.36	7.09 (2022)
Helen of Troy	HELE	10.18	4.99	7.47
Clorox Company	CLX	38.4	2.46	7.98
Mean		21.41	3.86	7.76
Median		22.02	3.92	7.83

Accounts Payable Days Comparison				
Companies	Ticker	COGS	Accounts Payable	AP Days
Berry	BERY	10354	1528	54
Silgan	SLGN	5363690	974,030	66
Clorox Company	CLX	4481	1,659	135
P&G	PG	42760	10,929	93
Lifetime Brands	LCUT	467346	38,052	30
Mean			76	
Median			66	

Berry Global Group Net Income (in millions of dollars)		
Net Sales	12,664	
COGS	10,354	
Gross Margin	2,310	18%
Operating Expense	1,231	
Operating Income	1079	9%
Interest & Other Expe	337	
Pre-Tax Income	742	
Net Income	609	5%

Inventory Days Comparison				
Companies	Ticker	COGS	Inventory	AR Days
Silgan	SLGN	1173316	455,485	142
Helen of Troy	HELE	5363690	769,403	52
Lifetime Brands	LCUT	467346	222,209	174
Mean			123	
Median			142	

Silgna Holdings (in millions of dollars)		
Net Sales	6,411	
COGS	5,364	
Gross Margin	1,047	16%
Operating Expense	446	
Operating Income	601	9%
Interest & Other Expe	127	
Pre-Tax Income	474	
Net Income	304	5%

Above is pictured the comparisons we used for some of our Balance Sheet items and our Income Statement Margin Comparisons<sup>47</sup> <sup>48</sup>. At the top left are companies we used for our Account Receivable Days Comparison, as well as the line items used to yield these numbers. This information was gathered from the last yearly filing of these companies. The same applied to the Accounts Payable and Inventory Days Comparisons<sup>49</sup>. Next to these, is the Return comparable numbers for our industry group. This information was pulled from Bloomberg<sup>50</sup>. Finally, we have margin comparisons of companies in our peer group, pulled from their last yearly filing<sup>51</sup>.

#### **Appendix 42: Accounts Receivables and Accounts Payable Calculations**

	Y0	Y1	Y2	Y3	Y4	Y5
Revenues from online		1,779,401	2,606,414	2,687,571	2,923,318	3,158,641
Revenues from other		282,413	1,041,517	2,012,417	3,008,681	4,828,778
Total Revenues		2,061,814	3,647,931	4,699,989	5,931,998	7,987,418
AR from Online		24,375	35,704	36,816	40,045	43,269
AR from Other		34,818	128,406	248,106	370,933	595,329
Check		5	5	5	5	5
Check		45	45	45	45	45
Total AR Days (Weighted Average)		10	16	22	25	29
Total AR		59,193	164,110	284,922	410,979	638,598
COGS from US		802,096	1,238,257	1,575,735	2,011,754	2,602,518
COGS from Other		57,273	99,609	132,008	173,984	236,446
Total COGS		859,369	1,337,866	1,707,743	2,185,738	2,838,964
AP from Other		0	0	0	0	0
AP from US	13,185.1	65,926	101,775	129,512	165,350	213,906
Check		30	30	30	30	30
Check		-	-	-	-	-
Total AP Days (Weighted Average)		28	28	28	28	28

This appendix shows our calculations for how we arrive at our Account Receivable and Account Payable numbers using the assumptions given. At the top is our revenues for each year, divided by online and all other sources. Using the given assumptions of 5 days for online and 45 for all others, we arrive at the Accounts Receivable for each source and the total Accounts Receivable as well as the weight average Accounts Receivable Days. Below we have calculations for Accounts Payable using the same method and displaying the same information as Accounts Receivable.

<sup>47</sup> "Investor Relations," Lifetime Brands, accessed April 20, 2024, <https://lifetimebrands.gcs-web.com/static-files/375a26cb-ab45-4a2e-811e-acd2a99e8674>

<sup>48</sup> "Investor Relations," Fortune Brand Innovation, accessed April 20, 2024, <https://ir.fbin.com/static-files/7c2d8872-4594-4bc2-a473-5c4d5abd3510>

<sup>49</sup> "2022 Annual Report," Silgan Group Holdings, Accessed April 20, 2024, [https://s29.q4cdn.com/241493639/files/doc\\_financials/2022/ar/2022-Annual-Report.pdf](https://s29.q4cdn.com/241493639/files/doc_financials/2022/ar/2022-Annual-Report.pdf)

<sup>50</sup> Bloomberg Terminal, Market Report, February 20, 2024

<sup>51</sup> "Investor Relations - Financials," Berry Global Group, accessed April 20, 2024, <https://ir.berryglobal.com/static-files/03cfb6b0-5e98-496e-8df1-63ec442016c0>.

### Appendix 43: Breakdown of Initial Investment in Fixed Assets

<b>Breakdown of Intial Investment in Fixed Assets</b>	
<b>Hardware</b>	
Management Laptops	\$7,500
Other Employee Laptops	\$4,000
High Speed Printer	\$1,500
High end Networking Equipment	\$350
<b>Physical conversion cost</b>	
Physical conversion cost	\$400,000
<b>Machinery Purchased</b>	
Injection molding machine costs	\$340,000
Mold costs	\$200,000
Bristle machine cost	\$10,000
Conveyor cost	\$12,300
<b>Total cost</b>	<b>\$975,650</b>

This appendix shows our initial investment in Fixed Assets and what this money was spent on. The first section is IS Hardware. This section included management laptops, employee laptops, printers, etc. The next item is physical conversion costs. Finally, we have machinery purchased in Y0 which includes what we need to begin manufacturing our product.

### Appendix 44: Sensitivity Analysis on All Quantitative Risk Variables

Variable Name	Year 1 Value (Base case)	Year 5 Value (Base case)	Breakeven Value (Y1)	Breakeven % Change	NPV with 1% increase	Change in NPV with 1% increase	Elasticities (% change due to 1% increase)	Expected SD	Error check Impact	Probability
<b>Marketing</b>										
Segment Size	29,040,000	29,569,029	24,154,059	-17%	\$ 710,987	\$ 52,323	8.0%	5%	-133.84	high
Purchase Intent	17.25%	18.76%	14.90%	-14%	\$ 719,224	\$ 61,459	9.3%	40%	-127.03	high
Awareness %	14.95%	34.50%	12.92%	-14%	\$ 719,224	\$ 61,459	9.3%	50%	-127.03	high
Competition	20.00%	35.00%	30.29%	51%	\$ 641,531	\$ (16,234)	-2.5%	25%	-126.97	high
<b>Operations</b>										
DM/unit	\$ 2.95	\$ 2.92	\$ 4.32	47%	\$ 643,631	\$ (14,134)	-2.1%	60%	-100.00	high
Total DL	\$ 195,093.60	\$ 684,075	\$ 1,006,925	416%	\$ 656,184	\$ (1,581)	-0.2%	20%	-100.00	low
Admin Salary	\$ 501,000.00	\$ 1,126,150	\$ 709,402	42%	\$ 642,168	\$ (15,596)	-2.4%	20%	-98.63	high
Capex	\$ 962,300.00	\$ 751,150	\$ 1,665,026	73%	\$ 648,757	\$ (9,007)	-1.4%	30%	-100.00	medium
Rent Price/Square Foot	\$ 4.80	\$ 19.20	\$ 300%	300%	\$ 655,573	\$ (2,192)	-0.3%	5%	-100.00	low
Starting Utilities Expense	\$ 50,000.00	\$ 242,927	\$ 386%	386%	\$ 656,063	\$ (1,681)	-0.3%	10%	-98.63	low
Starting Wage	\$ 14.43	\$ 23.31	\$ 62%	62%	\$ 647,078	\$ (10,687)	-1.6%	15%	-100.00	medium
Wage growth rate	\$ 0.03	\$ 26.85%	795%	795%	\$ 657,112	\$ (553)	-0.1%	50%	-78.87	low
<b>Finance</b>										
Tax Rate	27.00%		54.89%	103%	\$ 651,397	\$ (6,367)	-1.0%	10%	-100.00	low
Inbound cost as % of cogs	10.00%		59.19%	492%	\$ 656,427	\$ (1,338)	-0.2%	50%	-100.03	low
Discount rate	22.59%		34.69%	54%	\$ 641,933	\$ (15,632)	-2.4%	10%	-128.88	high
Commissions paid to manufacturer's representatives	10.00%		27.70%	177%	\$ 654,048	\$ (3,717)	-0.6%	20%	-100.00	low
Number of months of Cash Reserves	3		53.87	1696%	\$ 657,377	\$ (388)	-0.1%	50%	-100.00	medium
Base Case NPV										

Appendix 44 provides sensitivity analysis for our chosen quantitative risks. We calculate breakeven value for each variable by changing our NPV to 0. By making sensitivity 101%, we can collect NPV with 1% increase for each input, which indicates the potential impact on the

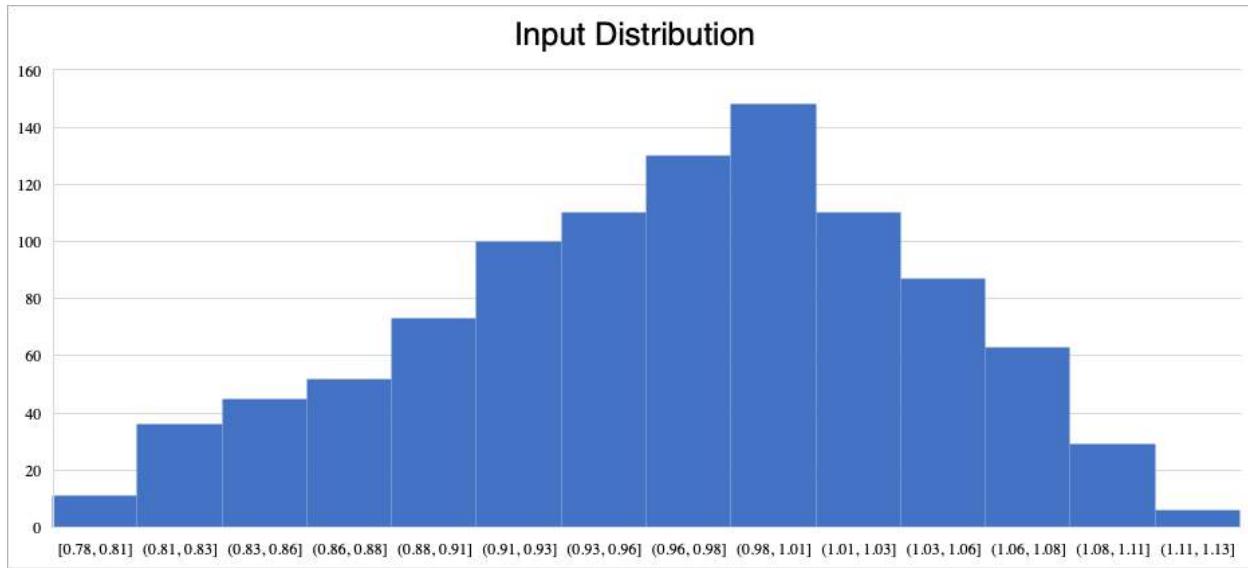
NPV due to a 1% change in a particular variable. Awareness has the highest elasticity since our target awareness can be difficult to reach given that our target segment is large. Direct material costs also have a high impact because we need to sell large volume to recover our high fixed costs. Our marketing variables have a disproportionate effect on variables because we are operating at high-capacity utilization rates and changing our production quantity rebalances the production line and changes our labor and other dependent costs, including the timing of Capital expenditures.

## Appendix 45: Awareness Distribution Calculations

Distribution		\$ spent	CPM/CPC	TARGETED	number of people targeted per person aware	PEOPLE MADE AWARE	Awareness
	Value						
Max	16.83%	1.12				936,976	3%
Most Likely	15.00%	1.00				1,284,004	4%
Min	11.67%	0.78				1,006,381	3%
						43,986	0%
						75,629	0%
						32,083	
						14,807	
						24,062	
						4,678	
						138,811	0%
						290,400	1%
						290,400	1%
						-	0%
						290,400	15%
Min		\$ spent	CPM/CPC	TARGETED	number of people targeted per person aware	PEOPLE MADE AWARE	Awareness
		\$78,705.95	10.5	7,495,805	11	681,437	2%
		\$94,091.78	9.16	10,272,029	11	933,821	3%
		\$77,290.08	9.6	8,051,050	11	731,914	3%
		\$33,835.23	1.3		0.8	35,189	0%
		\$19,249.54				55,343	0%
		\$5,774.86	22.5	256,661	11	23,333	
		\$3,849.91	32.5	118,459	11	10,769	
		\$3,849.91	20	192,495	11	17,500	
		\$5,774.86	0.81		0.8	3,742	
		\$15,933.33	0.03%			138,811	0%
		\$10,000.00	0.10%			290,400	1%
						261,360	1%
						261,360	1%
						-	0%
						11,67%	
MAX		\$ spent	CPM/CPC	TARGETED	number of people targeted per person aware	PEOPLE MADE AWARE	Awareness
		\$78,705.95	10.5	7,495,805	7	1,070,829	4%
		\$94,091.78	9.16	10,272,029	7	1,467,433	5%
		\$77,290.08	9.6	8,051,050	7	1,150,150	4%
		\$33,835.23	1.3		1	43,986	0%
		\$19,249.54				85,765	0%
		\$5,774.86	22.5	256,661	7	36,666	
		\$3,849.91	32.5	118,459	7	16,923	
		\$3,849.91	20	192,495	7	27,499	
		\$5,774.86	0.81		1	4,678	
		\$15,933.33	0.03%			138,811	0%
		\$10,000.00	0.10%			290,400	1%
						319,440	1%
						319,440	1%
						-	0%
						16,83%	

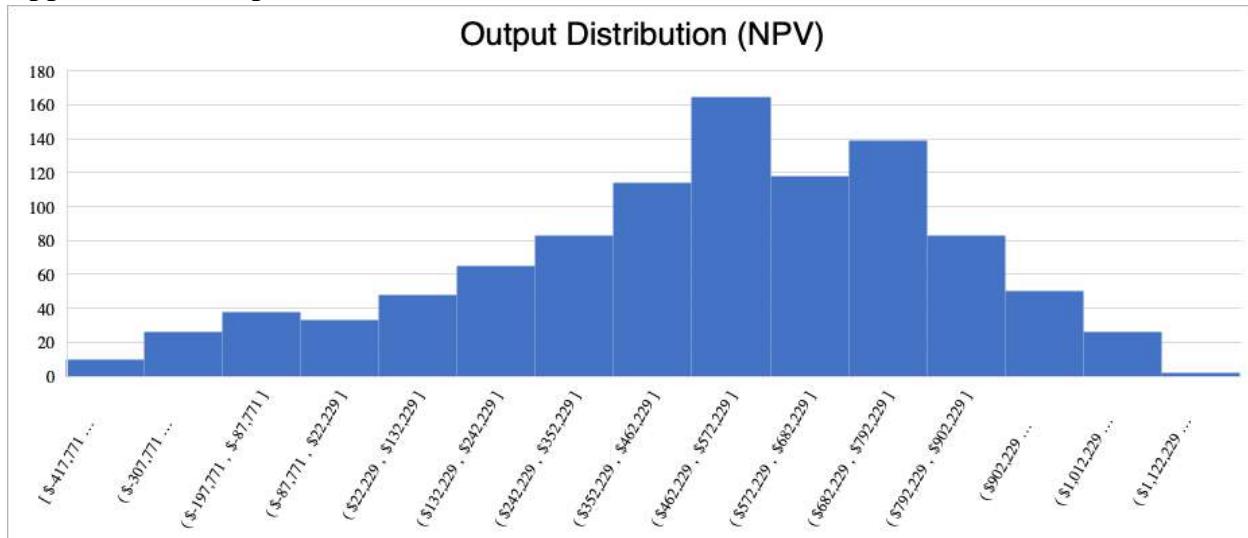
For awareness distribution, we determined the minimum and maximum value in awareness by changing the number of people targeted per person aware in our IMC schedule, resulting a minimum awareness of 11.67% and maximum of 16.83%, which account for 0.78 and 1.12 based on our base awareness.

#### Appendix 46: Input Distribution for Simulation on Awareness



Appendix 46 indicates an input distribution on awareness is left-skewed, as our large target segment making the effectiveness of marketing strategies uncertain and the need on accounting for potential risks on our NPV.

#### Appendix 47: Output Distribution for Simulation on Awareness



Appendix 47 displays the simulation result on awareness, which highlight the need to constantly monitor performance of marketing strategies as variations in awareness could have a significant impact on profits.

## Appendix 48: Direct Material Distribution Calculations

### Direct Material Distribution

[Back to Index](#)

Distribution		
	Value	
Max	\$4.68	1.60
Most Likely	\$2.92	1.00
Min	\$2.63	0.90

#### Base Case

Materials	Price / Unit	Units / Swift Shift	Price / Swift Shift
Plastic Resin	1.082	0.5	\$0.60
Waterproof Springs	0.26	2.0	\$0.57
Ball Bearings	0.28	4.0	\$1.23
Suction Cups	0.03	4.0	\$0.13
Bristles	2.8	0.0	\$0.06
Sponge	0.06	2.0	\$0.13
Soap Dispenser	0.18	1.0	\$0.20
<b>Total DM Cost</b>			<b>\$2.92</b>

#### Max

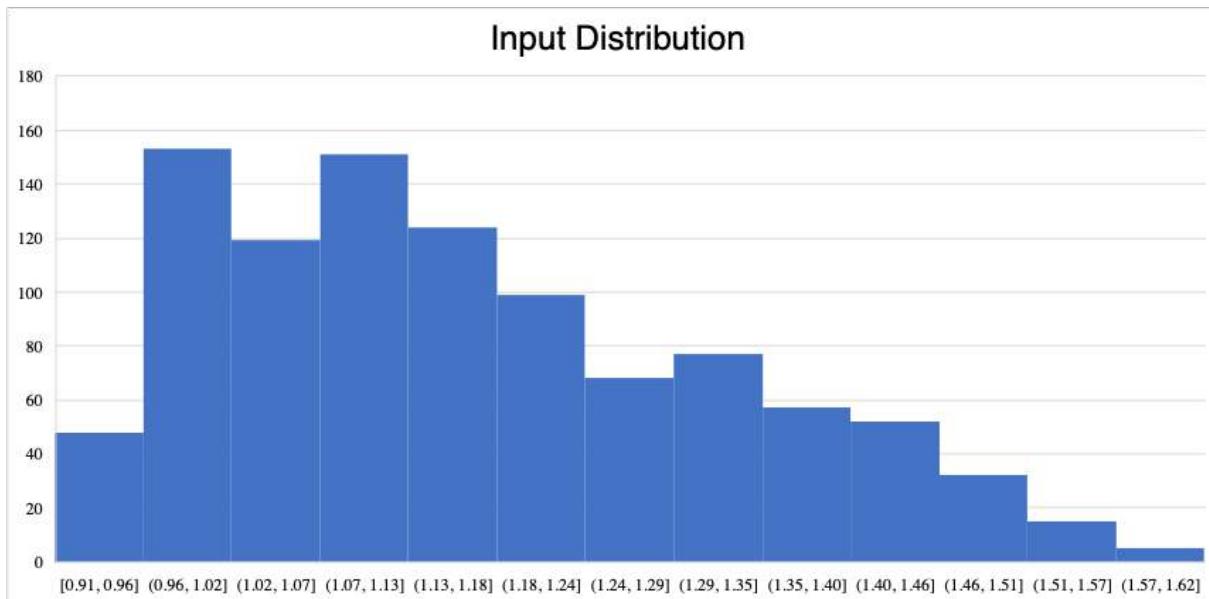
Materials	Price / Unit	Units / Swift Shift	Price / Swift Shift
Plastic Resin	1.20	0.5	\$0.66
Waterproof Springs	0.50	2.0	\$1.10
Ball Bearings	0.48	4.0	\$2.11
Suction Cups	0.05	4.0	\$0.22
Bristles	3.50	0.0	\$0.08
Sponge	0.08	2.0	\$0.18
Soap Dispenser	0.30	1.0	\$0.33
<b>Total DM Cost</b>			<b>\$4.68</b>

#### Min

Materials	Price / Unit	Units / Swift Shift	Price / Swift Shift
Plastic Resin	0.9738	0.5	\$0.54
Waterproof Springs	0.234	2.0	\$0.51
Ball Bearings	0.252	4.0	\$1.11
Suction Cups	0.027	4.0	\$0.12
Bristles	2.52	0.0	\$0.06
Sponge	0.054	2.0	\$0.12
Soap Dispenser	0.162	1.0	\$0.18
<b>Total DM Cost</b>			<b>\$2.63</b>

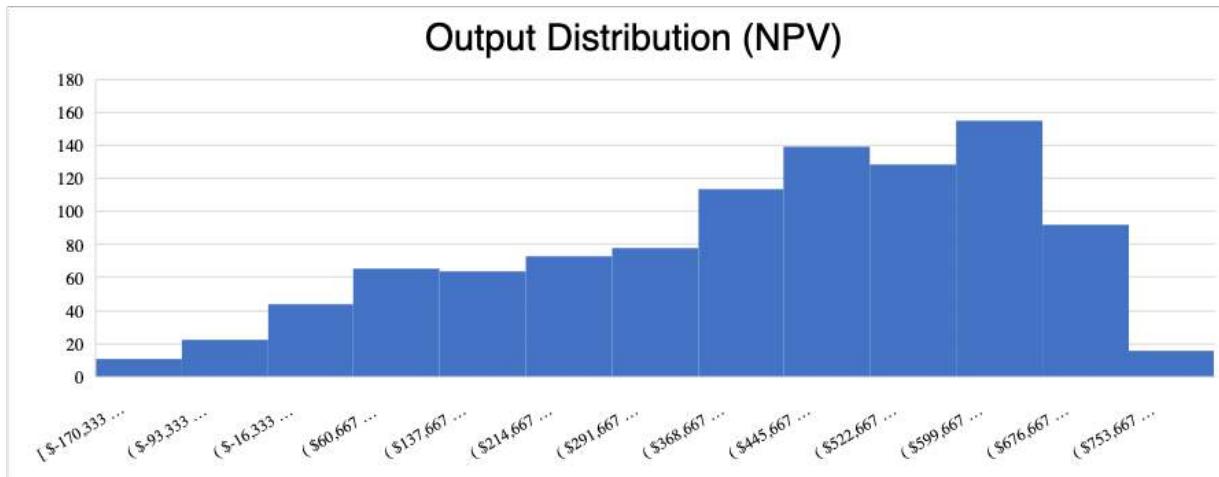
For direct material distribution, while we are already in the lower end for the bill of material costs, we assume the minimum to be 90% of the base costs account for the discounts and variations in freight costs. For maximum value, we collect prices from more reliable and larger suppliers for each material and compare them to our prices, resulting in 160% of the base case. Therefore, we decide on a triangular distribution with minimum of 0.9, maximum of 1.6.

### Appendix 49: Input Distribution for Simulation on Direct Material



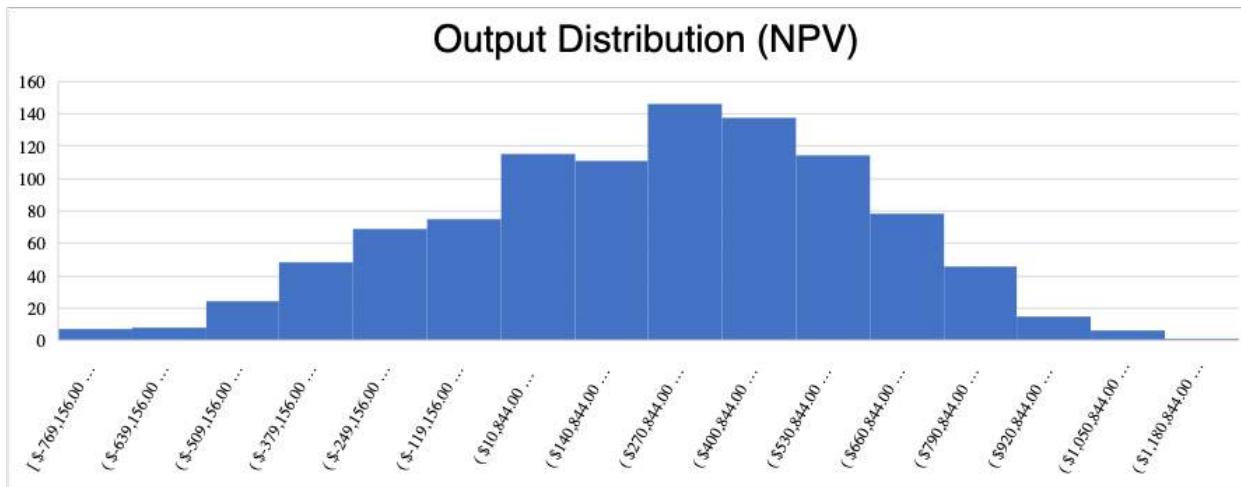
Appendix 49 displays the input for the simulation of the direct material distribution. The simulation is replicated 1000 times with random variables. The distribution is right skewed because we choose lower priced materials from China and switching to more reliable suppliers would drastically increase our material costs.

### Appendix 50: Output Distribution for Simulation on Direct Material



Appendix 50 shows a left-skewed distribution on output, which is our NPV, indicating a higher NPV is more likely to occur because materials constitute a small proportion of our costs.

## Appendix 51: Output Distribution for Simulation on Awareness and Direct Material



Appendix 51 indicates an output distribution on NPV by running simulation on both awareness and direct material. When both direct material and awareness are varied, the simulation results in a slightly left-skewed output. While the percentage of negative NPV increases, it highlights the need for effective risk mitigation policies and can be explained because both variables can vary beyond their break-even point.

## Appendix 52: Admin Salary and Wages Distribution Calculations

Starting Salary Assumptions (MAX)	
CEO	\$ 160,000
CMO	\$ 150,000
COO	\$ 144,000
CFO	\$ 150,000
Sales Manager	\$ 140,000
Accountant	\$ 70,000
Product Manager	\$ 120,000
Human Resources	\$ 130,000
Operations Manager	\$ 120,000
Customer Service	\$ 70,000
Network Admin	\$ 20,000
Public Relations	\$ 110,000
<b>Year 1 Total</b>	<b>\$ 701,200</b>

Salary Distribution		
	Value	% of Base
MAX	\$701,200.00	1.40
Most Likely	\$501,000.00	1.00
MIN	\$400,900.00	0.80

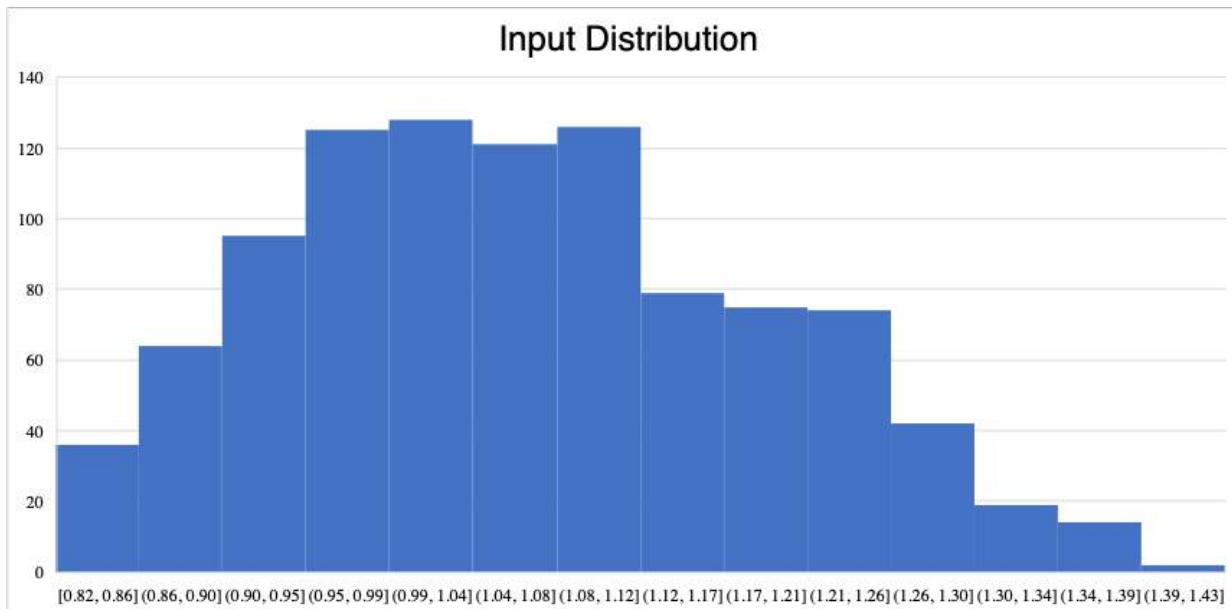
Starting Salary Assumptions (MIN)	
CEO	\$ 95,000
CMO	\$ 80,000
COO	\$ 78,000
CFO	\$ 90,000
Sales Manager	\$ 40,000
Accountant	\$ 60,000
Product Manager	\$ 60,000
Human Resources	\$ 45,000
Operations Manager	\$ 45,000
Customer Service	\$ 43,000
Network Admin	\$ 20,000
Public Relations	\$ 30,000
<b>Year 1 Total</b>	<b>\$ 400,900</b>

Starting Salary Assumptions (base)	
CEO	\$ 141,000
CMO	\$ 81,000
COO	\$ 88,000
CFO	\$ 125,000
Sales Manager	\$ 72,000
Accountant	\$ 60,000
Product Manager	\$ 100,000
Human Resources	\$ 75,000
Operations Manager	\$ 64,000
Customer Service	\$ 50,000
Network Admin	\$ 20,000
Public Relations	\$ 58,000
<b>Year 1 Total</b>	<b>\$ 501,000</b>

For this simulation we decided to simulate our Admin salaries and starting wage to account for

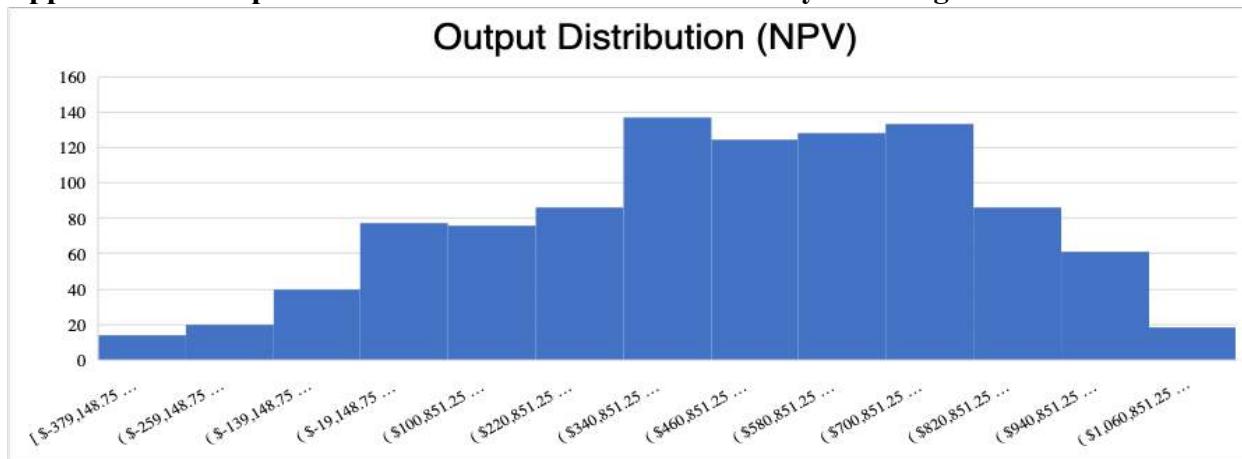
any variations. We chose a triangular distribution because our base case salaries are slightly lower than the averages in Missouri so we wanted to account for any unforeseen increases. We calculated the maximum and minimums by changing the salaries for each position based on the salary range in our factory location, as shown in the tables above.

### Appendix 53: Input Distribution for Simulation on Salary and Wage



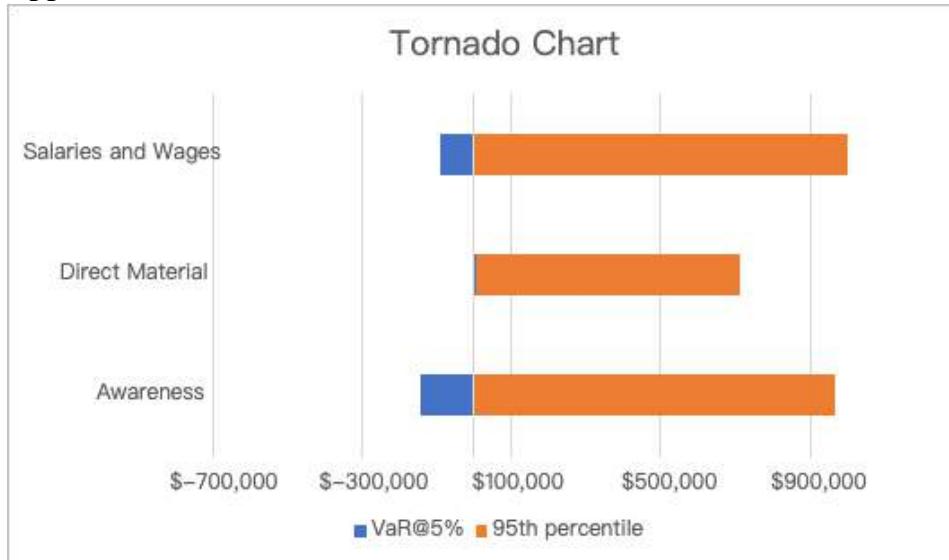
This appendix displays a right-skewed distribution on input since we are operating on a lower wage and salary than national averages, therefore it could account for unexpected changes due to unions or regulations to the higher end.

### Appendix 54: Output Distribution for Simulation on Salary and Wage



The simulation results show a slightly left-skewed distribution of NPV. The median is relatively high which was expected because our most likely value is a lot closer to our Min than our Max. Our Value at Risk at 5% is negative but low in magnitude which indicates that it is very unlikely that we take large losses, due to variations in our salaries and wages.

### Appendix 55: Tornado Charts on All Chosen Variables from Simulations



Appendix 55 displays our tornado chart created based on variables from our simulation: Salaries and Wages, Direct Material, and Awareness. According to the values in value at risk at 5% and the 95th percentile we find that awareness has the largest effect on profitability, therefore if awareness falls below expectations it could result in large losses. Our large gross margin makes it difficult for direct materials to have a significant impact on profitability, but high probability of positive NPV indicates that consistently sourcing materials and labor at low costs will be key to higher profits

## Work Cited

"Cookware Market Size." Global Market Insight. March 2024.  
<https://www.gminsights.com/industry-analysis/cookware-market>

"Cookware Market Size, Share & Trends Analysis Report." Grand View Research. 2018 - 2023  
<https://www.grandviewresearch.com/industry-analysis/cookware-market>

Scotch-Brite. "Scotch-Brite Non-Scratch Dishwand, Scrubber for Cleaning Kitchen, Bathroom, and Household, Non-Scratch Dish Scrubber Safe for Non-Stick Cookware, 1 Dishwand." Amazon. Accessed April 22, 2024.  
<https://www.amazon.com/Scotch-Brite-Non-Scratch-Dishwand-Household-Non-Stick/dp/B01BUMHHWA>

"Wave Safe Clean Knife Scrubber." Kuhn Rikon. Accessed April 22, 2024.  
[https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad\\_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvIgmAIaAhC-EALw\\_wcB](https://kuhnrikon.com/us/wave-safe-clean-knife-scrubber-28304-u.html?gad_source=1&gclid=Cj0KCQjwlZixBhCoARIsAIC745Bj4M--FctaCohHHmStWwrIY6ThgIdXyYW5O2nak7Y07IXuMvIgmAIaAhC-EALw_wcB)

Sophisti-clean Store. "1 Pack Cutlery Cleaner, White and Gray." Amazon. Accessed April 22, 2024.  
[https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc\\_df\\_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcndl=&hvlocint=&hvlocphy=9002000&hvtargid=pla-1349030753020&psc=1&mcid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMMO4215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHP\\_EALw\\_wcB](https://www.amazon.com/Sophisti-clean-Pack-Cutlery-Cleaner-White/dp/B08L6VFY8D/ref=asc_df_B08L6VFY8D/?tag=hyprod-20&linkCode=df0&hvadid=507735921252&hvpos=&hvnetw=g&hvrand=14185398406170901323&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcndl=&hvlocint=&hvlocphy=9002000&hvtargid=pla-1349030753020&psc=1&mcid=35911daad8ad31e5bc027139d05ca893&gclid=Cj0KCQjwlZixBhCoARIsAIC745DHjx0Yw52h8Ycgnp8rMMO4215hF8kIk4Y26GoKNkkjmfCsh5jT9JAaAgHP_EALw_wcB)

Sink N' Spin. "SINK N' SPIN® Quicker Dishwashing Brush | Double Sided Spin Wash Scrub Brush | Suction in Sink Dish, Plate, Bowl, Knife, Silverware and Cutlery Cleaner, Suctioning or Handheld." Walmart. Accessed by April 22, 2024.  
<https://www.walmart.com/ip/SINK-N-SPIN-Quicker-Dishwashing-Brush-Double-Sided-Spin-Wash-Scrub-Suction-Sink-Dish-Plate-Bowl-Knife-Silverware-Cutlery-Cleaner-Suctioning-Handheld/951685385>

"3 Additional Scrubbie Sponges." The Scrubbie. Accessed April 22, 2024.  
<https://www.thescrubbie.com/collections/frontpage>

“Percentage distribution of household income in the United States in 2022.” Statista. September 2023.

<https://www.statista.com/statistics/203183/percentage-distribution-of-household-income-in-the-us/>

“Historical Households Tables.” United States Census Bureau. November 2023  
<https://www.census.gov/data/tables/time-series/demo/families/households.html>

Nils-Gerrit Wunsch. “How often do you cook during the week?” Statista. Jun 14, 2022.  
<https://www.statista.com/statistics/1085251/cooking-habits-in-the-us/>

“Annual Report & Proxy.” Dillard’s. Accessed April 22, 2024.  
<https://investor.dillards.com/financial-information/annual-report-and-proxy/default.aspx>

“Financial Reporting.” Macy’s. Accessed April 22, 2024.  
<https://www.macysinc.com/investors/financials/annual-reports-and-proxy-statements/default.aspx>

“GE CAPITAL MONTGOMERY WARD REVENUE.” Zippia. Accessed April 22, 2024.  
<https://www.zippia.com/ge-capital-montgomery-ward-careers-24335/revenue/>

“2022 Annual Report Target Corporation.” Target. Accessed April 22, 2024.  
<https://corporate.target.com/investors/annual/2022-annual-report>

Thomas Gounley. “Everything Kitchens constructing \$3.3 million warehouse in Republic.” Springfield News-Leader. April 16, 2017.  
<https://www.news-leader.com/story/news/business/2017/04/16/everything-kitchens-construction-33-million-warehouse-republic/100376206/>

“Chefs Toys Revenue and Competitors.” Growjo. Assessed April 22, 2024.  
[https://growjo.com/company/Chefs\\_Toys#google\\_vignette](https://growjo.com/company/Chefs_Toys#google_vignette)

“Kitchen Outfitters.” Zoominfo. Accessed April 22, 2024.

<https://www.zoominfo.com/c/kitchen-outfitters/354326393>

“WoodSpoon Revenue and Competitors.” Growjo. Access April 22, 2024.  
<https://growjo.com/company/WoodSpoon>

“LeRoux Kitchen.” Zoominfo. Access April 22, 2024.  
<https://www.zoominfo.com/c/leroux-kitchen/347255725>

“SUR LA TABLE REVENUE.” Zippia, Access April 22, 2024.  
<https://www.zippia.com/sur-la-table-careers-40134/revenue/>

“Le Creuset Revenue and Competitors.” Growjo. Access April 22, 2024.  
[https://growjo.com/company/Le\\_Creuset](https://growjo.com/company/Le_Creuset)

“2022 Annual Report.” Kroger. Accessed April 22, 2024.  
<https://ir.kroger.com/financials/annual-reports/>

“Williams-Sonoma, Inc. announces record fiscal year 2022 revenues & earnings.” Williams-Sonoma, INC. March 16, 2023.  
<https://ir.williams-sonomainc.com/investor-information/news-releases/news-release-details/2023/Williams-Sonoma-Inc.-announces-record-fiscal-year-2022-revenues--earnings/default.aspx#:~:text=%24-,8%2C674%2C417,-100.0>

"Investor Relations - Financials," Berry Global Group, accessed April 20, 2024,  
<https://ir.berryglobal.com/static-files/03cfb6b0-5e98-496e-8df1-63ec442016c0>

"2022 Annual Report," Silgan Group Holdings, Accessed April 20, 2024,  
[https://s29.q4cdn.com/241493639/files/doc\\_financials/2022/ar/2022-Annual-Report.pdf](https://s29.q4cdn.com/241493639/files/doc_financials/2022/ar/2022-Annual-Report.pdf)

"2023 Annual Report," Newell Brands, Accessed April 20, 2024,  
<https://ir.newellbrands.com/static-files/e7254155-f77e-4877-ad15-d91622e06aee>

"FY23 Q4 10-K Final Filed," Helen of Troy, Accessed April 20, 2024,  
[https://s2.q4cdn.com/117307772/files/doc\\_financials/2023/ar/FY23\\_Q4\\_10K\\_Final\\_Filed.pdf](https://s2.q4cdn.com/117307772/files/doc_financials/2023/ar/FY23_Q4_10K_Final_Filed.pdf)

Bloomberg Terminal, Market Report, February 20,2024

Bloomberg Terminal, Market Report, February 20,2024

"Investor Relations," Lifetime Brands, accessed April 20, 2024, <https://lifetimebrands.gcs-web.com/static-files/375a26cb-ab45-4a2e-811e-acd2a99e8674>

"Investor Relations," Fortune Brand Innovation, accessed April 20,2024,  
<https://ir.fbin.com/static-files/7c2d8872-4594-4bc2-a473-5c4d5abd3510>

"Financial Information and Presentations," Groupe SEB, accessed April 20, 2024,  
<https://www.groupeceb.com/en/financial-information-and-presentations>

# CORE C2T4 Marketing Questionnaire

---

**Start of Block: Screening**

Q1 Does your home have a kitchen?

- Yes (1)
  - No (2)
- 

Q2 How often do you cook at home?

- Less than 1 time a week (1)
- 1-2 times a week (2)
- 3-5 times a week (3)
- More than 5 times a week (4)

**End of Block: Screening**

---

**Start of Block: price1**

The Swift Shift (\$25)

Our product is meant to help people clean specialized and traditional kitchen utensils safely and quickly. The box design attaches to the side of your sink and is open on the top and bottom to allow you to insert kitchen utensils with water flowing through. The movable bristle walls on the interior side of the product help quickly clean all the corners and grooves of various products. Simply push the utensil against the wall and let the bristles clean while removing the risk of cuts and accidents.

This allows households to clean their sharp appliances without having to use a sponge or dishwasher. Instead, they are able to insert some dishwashing soap into the dispenser, insert

# Boston University

any sharp appliance through the top and the adjustable blade cleaner will handle the rest.

The product features:

- Adjustable walls for a thorough and safe clean
- Anti-microbial bristles
- Easy suction attachment to sink wall

The product can clean a variety of kitchen tools, including but not limited to: knives, spoons, forks, chopsticks, spatulas, plates, mandolins, graters, etc.

---

Q3 What is the likelihood that you would purchase this product?

- Definitely not purchase (1)
- Probably not purchase (2)
- May or may not purchase (3)
- Probably purchase (4)
- Definitely purchase (5)

End of Block: price1

---

Start of Block: price2

The Swift Shift (\$30)

Our product is meant to help people clean specialized and traditional kitchen utensils safely and quickly. The box design attaches to the side of your sink and is open on the top and bottom to allow you to insert kitchen utensils with water flowing through. The movable bristle walls on the interior side of the product help quickly clean all the corners and grooves of various products. Simply push the utensil against the wall and let the bristles clean while removing the risk of cuts and accidents.

This allows households to clean their sharp appliances without having to use a sponge or

# Boston University

dishwasher. Instead, they are able to insert some dishwashing soap into the dispenser, insert any sharp appliance through the top and the adjustable blade cleaner will handle the rest.

The product features:

- Adjustable walls for a thorough and safe clean
- Anti-microbial bristles
- Easy suction attachment to sink wall

The product can clean a variety of kitchen tools, including but not limited to: knives, spoons, forks, chopsticks, spatulas, plates, mandolins, graters, etc.

---

Q3 What is the likelihood that you would purchase this product?

- Definitely not purchase (1)
- Probably not purchase (2)
- May or may not purchase (3)
- Probably purchase (4)
- Definitely purchase (5)

End of Block: price2

---

Start of Block: price3

The Swift Shift (\$35)

Our product is meant to help people clean specialized and traditional kitchen utensils safely and quickly. The box design attaches to the side of your sink and is open on the top and bottom to allow you to insert kitchen utensils with water flowing through. The movable bristle walls on the interior side of the product help quickly clean all the corners and grooves of various products. Simply push the utensil against the wall and let the bristles clean while removing the risk of cuts and accidents.

# Boston University

This allows households to clean their sharp appliances without having to use a sponge or dishwasher. Instead, they are able to insert some dishwashing soap into the dispenser, insert any sharp appliance through the top and the adjustable blade cleaner will handle the rest.

The product features:

- Adjustable walls for a thorough and safe clean
- Anti-microbial bristles
- Easy suction attachment to sink wall

The product can clean a variety of kitchen tools, including but not limited to: knives, spoons, forks, chopsticks, spatulas, plates, mandolins, graters, etc.

---

Q3 What is the likelihood that you would purchase this product?

- Definitely not purchase (1)
- Probably not purchase (2)
- May or may not purchase (3)
- Probably purchase (4)
- Definitely purchase (5)

End of Block: price3

---

Start of Block: price4

The Swift Shift (\$40)

Our product is meant to help people clean specialized and traditional kitchen utensils safely and quickly. The box design attaches to the side of your sink and is open on the top and bottom to allow you to insert kitchen utensils with water flowing through. The movable bristle walls on the interior side of the product help quickly clean all the corners and grooves of various products. Simply push the utensil against the wall and let the bristles clean while removing the risk of cuts

# Boston University

and accidents.

This allows households to clean their sharp appliances without having to use a sponge or dishwasher. Instead, they are able to insert some dishwashing soap into the dispenser, insert any sharp appliance through the top and the adjustable blade cleaner will handle the rest.

The product features:

- Adjustable walls for a thorough and safe clean
- Anti-microbial bristles
- Easy suction attachment to sink wall

The product can clean a variety of kitchen tools, including but not limited to: knives, spoons, forks, chopsticks, spatulas, plates, mandolins, graters, etc.

---

Q3 What is the likelihood that you would purchase this product?

- Definitely not purchase (1)
- Probably not purchase (2)
- May or may not purchase (3)
- Probably purchase (4)
- Definitely purchase (5)

End of Block: price4

---

Start of Block: price 5

The Swift Shift (\$45)

Our product is meant to help people clean specialized and traditional kitchen utensils safely and quickly. The box design attaches to the side of your sink and is open on the top and bottom to allow you to insert kitchen utensils with water flowing through. The movable bristle walls on the interior side of the product help quickly clean all the corners and grooves of various products.

# Boston University

Simply push the utensil against the wall and let the bristles clean while removing the risk of cuts and accidents.

This allows households to clean their sharp appliances without having to use a sponge or dishwasher. Instead, they are able to insert some dishwashing soap into the dispenser, insert any sharp appliance through the top and the adjustable blade cleaner will handle the rest.

The product features:

- Adjustable walls for a thorough and safe clean
- Anti-microbial bristles
- Easy suction attachment to sink wall

The product can clean a variety of kitchen tools, including but not limited to: knives, spoons, forks, chopsticks, spatulas, plates, mandolins, graters, etc.

---

Q3 What is the likelihood that you would purchase this product?

- Definitely not purchase (1)
- Probably not purchase (2)
- May or may not purchase (3)
- Probably purchase (4)
- Definitely purchase (5)

End of Block: price 5

---

Start of Block: Deepen Understanding of Consumer

# Boston University

Q7 Do you own a dishwasher?

- Yes (1)
  - No (2)
- 

Q8 How crucial of a role does your dishwasher play in your dish cleaning process?

- Not important at all (1)
  - Slightly important (2)
  - Somewhat important (3)
  - Very important (4)
  - Extremely important (5)
- 

Q10 How crucial of a role does a sponge play in your cleaning process?

- Not important at all (1)
  - Slightly important (2)
  - Somewhat important (3)
  - Very important (4)
  - Extremely important (5)
-

# Boston University

Q50 Please rank the following items in accordance to this statement: "When cleaning my kitchen tools I prioritize..."

- Preserving my kitchen tools (1)
- Taking the least amount of time (2)
- Cleaning my tools to their fullest extent (3)
- Safely cleaning sharp objects (4)
- Reduce my usage of water and other materials (5)

End of Block: Deepen Understanding of Consumer

---

Start of Block: Deepen Understanding of Consumer - Rest

# Boston University

Q17 How likely are you to agree with the following statements?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
"I enjoy washing my dishes and utensils." (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"When preparing meals, I tend to cook 2-3 dishes at a time." (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I often cook for two or more people." (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"Cleaning after cooking stops me from cooking." (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
" I use cooking as a calming outlet and or hobby." (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
" I use cooking to connect with people." (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
"I only cook to sustain myself." (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Boston University

Q18 Which of the following tools do you usually use in an average cooking session? (Select all that apply)

- Knives (1)
  - Spatulas (2)
  - Utensils (forks, knives, spoons) (3)
  - Cheese graters (4)
- 

Q19 Please rank the following retailers based on where you purchase your kitchen utensils

- \_\_\_\_\_ Supermarket (1)
- \_\_\_\_\_ Online (2)
- \_\_\_\_\_ Kitchen Specific Store (3)
- \_\_\_\_\_ Wholesale Store (Costco, BJ's, Sam's Club) (4)

End of Block: Deepen Understanding of Consumer - Rest

---

Start of Block: Demographics

Q20 What is your age?

- Under 25 (1)
- 25-34 (2)
- 35-44 (3)
- 45-50 (4)
- 51+ (5)

# Boston University

---

Q21 What is your annual household income?

- (1)
  - \$40,000-\$74,999 (7)
  - \$75,000-\$104,999 (2)
  - \$105,000-\$149,999 (3)
  - \$150,000-\$199,999 (4)
  - \$200,000+ (5)
- 

Q22 What is your gender?

- Male (1)
  - Female (2)
  - Non-binary (4)
  - Prefer not to say (3)
-

# Boston University

Q23 Size of Household

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6+ (6)

End of Block: Demographics

---