



Team Project Report

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Term Project - Written Report

tooltown.com

Introduction

Tool Town came as an idea to solve household problems. We wanted to provide an online marketplace where people could rent and lease out tools as needed. While we had the vision, we needed to do the research to see if our idea could really work in the market. After countless interviews, polls, and tests outside the classroom, we came up with a clear idea of both the product and our consumer base. (More details about our original designs and thoughts can be found in the Appendices)

Vision

For our project, we intend on creating a tool-lending app called Tool Town. Users would have open access to put up any tools or appliances they have on hand and put them out on an open market for rentals. People would then be able to go online and browse different products and rent out tools.

Our hope is that our product would solve several pains in the current market for tools and tool-related services. On the supplier side, we want to give tool owners the ability to take their extra tools taking up space around their house and make use of them during the times that they do not use their tools. In terms of rentals, we want to provide easy access to tools nearby for people who lack them for specific jobs such as tool shop workers or even homeowners nearby. By having our app, these people would have better prices and easier access to the tools they need for any job on hand.

Elevator Pitch

Have you ever had something break around the house but just couldn't find the tool to fix it? Have you ever bought a tool but only ever use it once or twice a year? With Tool Town, you can have fast, immediate access to an online marketplace showing you a wide array of tools being rented out around town. Whether you simply renting a tool for a one time occasion or just wanting to rent out some leftover equipment, Tool Town is the one-stop location to meet all tool rental needs.

Product Description

Users can access our service through either a web page or an app. For the web page, users first enter in on a landing page where they have the options to select a rent button or a lend button at the center next to the company logo.

After pressing lend, users are brought up to a page with areas to fill out. These include people's names, numbers, emails, payment methods, product pictures, product pricing, and other information. After entering the data, users are then able to press a post button to create a new rental listing on the site where the product is visible to both the lender and potential renters.

In the case that the user presses the rent button, they are brought up to a page with different tool listing. Users are able to use a search bar to look up terms to help find more specific tools. Once they click on a tool they find interesting, the user is then brought to a page with more in-depth information on the tool, the location to retrieve the tool, and the option to rent the tool. After they press to rent, the user will then send a notification to the owner and have access to contacting the owner of the tool regarding transporting the tool or any issues in using the tool.

Hypotheses

Green - Our hypothesis was proven

Yellow - Our hypothesis was neither proven true nor failed

Red - Our hypothesis failed

Hypothesis	Type of Hypothesis	How to test (MVPs)	Conclusion
#1 In some scenarios, people want to borrow tools instead of buying tools	Leap-of-Faith Hypothesis:	Online Survey Home Depot Interview Door-to-Door Interview Tool Shop Interview	78.3% of responders on our online survey wanted to borrow tools. 91% of people interviewed in live interviews were interested in tool rentals
#2 People who do not have any use for their tool currently would be willing to lend it out	Leap-of-Faith Hypothesis:	Home Depot Interview	8 people out of the 12 interviewed at Home Depot owned tools and had thought about or were already loaning out their tools when they were not using them
#3 People would be willing to travel short distances to pick up a tool	Problem Hypothesis	Online Interview Tool Shop Interviews	On the survey, 79.1% of respondents were willing to retrieve a tool themselves. 4 people at the tool shop didn't need delivery but said that an option would be useful
#4 People would prefer to use an online/mobile interface to see and look at tools.	Solution Hypothesis	Waltham Interview Home Depot Interview	Person interviewed in Waltham believed it would be more convenient than going to a shop. 11 people at Home Depot said they liked the idea of ordering through a website or app
#5 People would be willing to rent small tools like screwdrivers online.	Solution Hypothesis	Waltham Interview Home Depot Interview Tool Shop Interview	One interviewee said they would prefer to rent larger tools such as outdoor tools and power tools.

			All 8 lenders at Home Depot were offering to lend power tools All 4 people working at the tool shop wanted to rent power tools
#6 Lenders would want some form of insurance to cover damages	Problem hypothesis	House-to-House Interviews	One person interviewed in the house-to-house interviews wanted
#7 Lenders would be willing to pay up to 20% in commission for their rentals	Pricing Hypothesis	Home Depot Interview	1 out of 12 interviewed at Home Depot would pay 20%. The 11 others gave a range from 10% to 15%
#8 Tool shops would be willing to collaborate with us on the app	Customer Hypothesis	Tool Shop Interview	80% (4 out 5) of the customers interviewed at the tool shop thought that the app would be competition to their own operations and were not too keen on being collaborators
#9 People find our website appealing	Solution Hypothesis	In library website test in-person Second Online Survey	88.4% of people surveyed online found it easy to navigate. All 20 people interviewed in the library found no issues with the design
#10 A subscription model is appealing to some of the potential users of the app.	Pricing Hypothesis	Tool Shop Interview Electrician Interview	All 4 people in the tool shop and the 1 electrician were unwilling to pay a subscription
#11 People need information and guides along with their rented tools.	Problem Hypothesis	Door-to-door Interview by Andrew	3 out of 3 people said that they would just look up how to operate the tool
#12 People find that it is easy to go through and navigate the Tool Town landing page	Solution Hypothesis	Library Interview	20 out of 20 people who interacted with the site found it easy to use

#13 People would be more comfortable with how our website worked after seeing a video demo	Customer Hypothesis	Video Demo	100% of the testers felt that they could navigate our website easily, and thought that they knew how it worked after the video
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Value proposition:

ToolTown creates value by meeting the need for one-time usage of tools leveraging other idle tools. The service provides a new form of tool rental market, connects people who have excess tools with those who need tools to complete one-time tasks, and helps the existing tool resources to be better utilized.

Customer segment:

Our customers are in a two-sided market. Lenders (those who lend out tools) and renters (those who rent their tools online). The value of ToolTown is created by connecting individuals who have extra tools with those that need tools to complete a certain one-time tasks.

For lenders, we are targeting people who are DIYers and have a large storage of idle tools purchased in the past. We will help them to make money from their idle tools and save their storage room. For renters, we target people who are young parents or middle age people. They are responsible for the management issues of their house/apartment but do not have a large tool storage, and is open to trying online rental service like us. We chose this target based on our descriptions of the twelve people interviewed at the Home Depot interviews¹

For Renters, we are targeting people who work in tool shops and homeowners in Waltham who need tools for a one-time solution. We believed tool shop workers would be an appropriate target because 4 out of 4 people we interviewed at the tool shop said that they would rent tools out through our app². Additionally, our one response from online tool forums also pointed out that tool shops he knew about often lacked certain power tools. In terms of homeowners, 3 of the people in Home Depot mentioned that their neighbors and other friends who lived in Waltham had asked them for tools to rent³. In the house-to-house interview Andrew did, all two out of three people mentioned that they wanted to use the app to rent tools.⁴

Competition:

For competitors, our group looked at traditional tool rental services such as the rental department of Home Depot. One of the main advantages that Home Depot and Sunbelt Rental.⁵ These services have the advantages of having brand awareness in the market. With Tool Town however, given that it is an open market, rental rates would have the opportunity to reach lower than Home Depot's or Sunbelt Rentals' current rates.

¹ See Appendix E

² See Appendix B

³ See Appendix E

⁴ See Appendix Ibid

⁵ See Appendix D

Also Fat Llama as an existing online rental marketplace can be our competitor. Although they said they are a rental place for everything, most transactions are made on renting Photography equipments like camera lens (<https://blog.fatllama.com/2018/05/09/the-most-popular-film-cameras-in-peer-to-peer-rentals/>). Also by searching we hardly find any tools to rent within the Boston area, and many users complained their guarantee, although is free, did not work(<https://www.producthunt.com/posts/fat-lama>) . Comparing to them we can provide a much larger numbers of tools to rent and a more reliable renting experience.

	Open Market	Rates	Available Tools	Pick-up Distance
Home Depot	No	High	Many	Long
Sunbelt Rental	No	High	Some	Long
Fat Llama	Yes	Fair	A few	Usually long
Tool Town	Yes	Low	Almost any tools	Usually short

Our product also gives users greater convenience in retrieving their tools. Home Depot and Sunbelt do not offer any options for delivery and retrieval of tools is only available at their shop locations. With Tool Town, users would be able to find their tools in their area instead of having to commute to a Home Depot Store or Sunbelt shop.

Interviews and Surveys

For our team we did a series of surveys to determine the viability of Tool Town, what people wanted out of Tool Town, and who exactly wanted to use our app. While we had a basic idea of a tool lending app, we as a group really did not have any idea of how it would work out and whether or not the idea would even be useful to anyone

We started off with an online survey to get interest in the app. We wanted to use the survey to get a general idea if everyday people were interested in the app. While we had gotten positive results, with over 90 responses, we believed that the survey would be insufficient since we had not directed it towards a specific target audience and could not use the data to get an idea of what our consumer base would look like. On-campus interviews proved to be just as disappointing since all of the people we interviewed lived in dorms and had no use or salient interest in ever handling a tool. In order to really reach our audiences, we realized we had to “get out the building”.

We conducted live interviews in several stages to get more reliable data for Tool Town. First, our team went and interviewed a Tool Shop in Waltham about the market for tools which included 4 shop workers. Out of those workers, all were willing to use the app to rent personally but would not want the shop to partner with the app in fear of cannibalizing their own sales. Shop workers wanted to use the app because they were avid DIYers who worked on projects outside of work but were unable to access the tools they needed outside the job. The shop also showed us more of what the target market wanted. All the workers

mentioned that they wanted “larger tools” including items such as send belters and chainsaws. Smaller tools, according to the four workers, were cheap enough that they would rather order them online instead of trying to rent them out. We had to pivot our original idea of just selling a broad market for tools and focus it down to power tools and outdoor tools.

While we got a lot of information at Home Depot, we decided to get more information about the renter market for Tool Town. We went out on two separate occasions to interview people in Waltham and in a town adjacent. For the first door-to-door interview we went to 10 houses near campus and asked for interviews. Two refused with one slamming the door upon hearing that we were Brandeis students. We however got one data point at the end with a Brandeis grad student who lived with her boyfriend who had a large tool collection. They mentioned that they would use the app to help rent out tools and mentioned how several people in the neighborhood were in the market for renting tools. In addition to this interview, Andrew went door-to-door in his hometown, Norfolk MA, and contacted 12 homes with 3 responses. One wanted to rent out tools while the other two were open to the idea of renting tools through the app.

In terms of design, it was not fully necessary to reach our target audience to ask their opinions. We ended up showing our website homepage⁶ to 20 different students, and all 20 of them found it easy to use and well designed. Since our company would love to have a mobile application as well, some of the pages a typical user would interact with were designed⁷, and also shown to 25 students. 100% of the users felt that the interface was well designed, and once again easy to navigate. In order to make sure that everyone understood how our service would work, and how it would look on the website, a short demo video⁸ was created, and shown to 20 more students. All 100% of these students felt that the video was informative, and would understand how to use our interface.

Insurance

For insurance, we plan to offer two kinds of insurance: Liability Insurance and Tool Insurance. In addition to the base insurance, we included up-front costs of \$7,500 as a premium to the insurance company.

Tool Insurance

Definition: Tool insurance refers to an insurance charge used to cover damages of a tool in case the renter damages or breaks the tool being rented out.

Out of our Home Depot Interviewer, all of the eight people who wanted to lend tools through our service wanted to have insurance to cover their tools. One was willing to pay \$10 to ensure their Carpet Cleaner which they wanted to rent out for \$80/Day. The rest wanted the tool insurance to be provided by Tool Town.

Based on the information, we decided that it would be best to cover the tool insurance by taking a cut of our commission fees. To determine the amount of insurance the company needed to pay, we did research over five different rental websites and through Reddit to get an idea of how to determine the costs.⁹ Based off of the data, we determined that most companies took 5% to 15% of rental rates to cover the insurance.

⁶ See Appendix A

⁷ See Appendix B

⁸ See Appendix A

⁹ See Appendix D

Based on the Reddit thread, we determined that around half of the high-end rental rates (at 15%) went to covering the tool insurance with the rest covering liability insurance. We decided to take half of the high-end (15%) as the tool insurance costs per tool. Thus out of the 15% of revenue the company makes from each rental transaction, there would be a 7.5% cut to pay for the tool insurance.

Liability Insurance

Definition: Liability insurance refers to an insurance charge used to cover the renter in the case of harm when using their rented tool

For liability insurance for Tool Town, none of the people who said they wanted to rent tools mentioned liability insurance as a necessity when they rented out tools. In addition, rental companies such as Sun Belt and Fat Llama who operate rental operations make consumers sign agreements that the company itself is not liable for any bodily harm or damage a rental item may cause¹⁰.

Because of our interviews and our analysis of other companies' insurance policies, we would make it necessary for customers of Tool Town to sign an electronic contract stating that the company is not responsible for these harms or damages.

Financial Analysis and Growth

Our team made a financial analysis of the company to determine the company's profitability within a year. Before we would get into making the analysis, our group made several assumptions. One assumption was that the company would pay two people, with a software engineer to run the website and a marketing person to help advertise Tool Town and reach our target audience of DIYers, tool shop workers, and homeowners in and around the Boston area. We decided to offer a salary of \$70,000 per person with all four founders of the group taking no pay for the first year until the company began to see profits. In terms of pricing, we used the average of the prices offered by Home Depot for the most popular tools that people brought up in our live interviews. For revenue, we decided to take 15% of rental fees as revenue for the company based on 11 out of 12 interviewees giving us a range of 10%-15%. ¹¹ We also plan to hire a software engineer and marketing advisor at a salary of \$70,000 each while all four owners take no salary for year one.

For Tool Town, we plan to target our audience base online through running an advertisement through Google Advertisements. Based on the data we collected from the site, with a monthly budget of \$1,520, there would be a net gain of 63 customers per month through running the ad. In addition to working through Google Advertisements, we plan to hire a professional marketer to the team to handle promotion of Tool Town to our target base. We decided that for the sake of the projection that the amount of customer growth from hiring the professional would be determined by multiplying the customer growth from Google Advertisements (63) by the monthly budget (\$1,520) and multiply it by the salaried paid (\$70,000) and divide the new value by 12 to get the first month gain. Then we increased the revenue monthly by a 28% Month on Month (MOM) growth rate which we based off of the average of 10 different startups.¹²

In terms of tactics we plan to employ a mix between a paid engine of growth and a viral engine of growth for Tool Town. With normal use and word of mouth, we expect people in the DIY communities, tool shops, and homeowners to spread information and use of the product to more consumers. In addition there

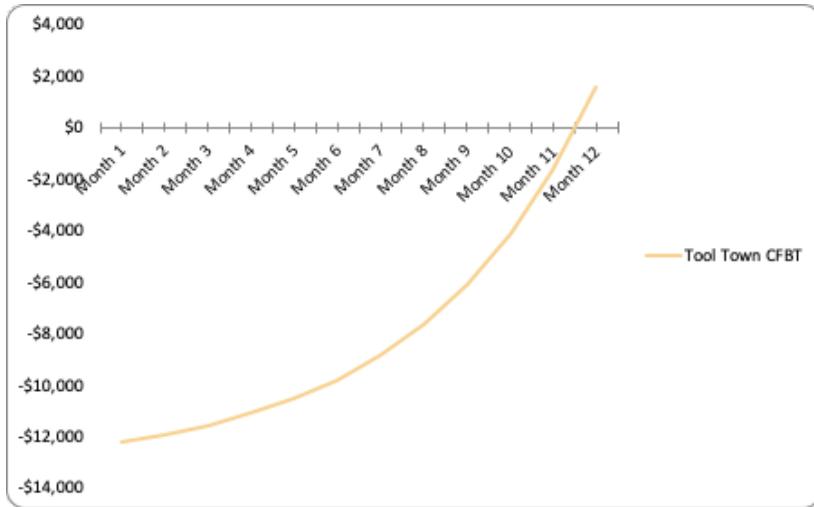
¹⁰ Ibid

¹¹ See Appendix C

¹² Ibid

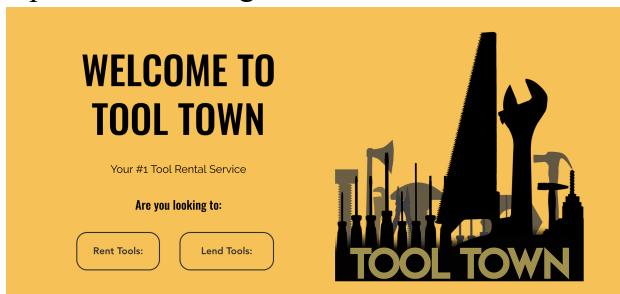
would also be some use of a paid engine of growth seen through regular payments to Google ads and also returns from paying our marketing professional to help advertise the product.

With these assumptions, we made a chart detailing the revenues of Tool Town for the 12 months in the first year of the company. We project the company to reach profitability at the halfway point between month eleven and twelve as seen below.



Appendix A

Updated Site Design





Classic Hammer

[More Info](#)



Millenium Screwdriver Set

[More Info](#)



Workflow Wrenches

[More Info](#)



[Let's Chat](#)

About Us

Tool Town aims to connect users all across your town to give you the best access to the tools you need.

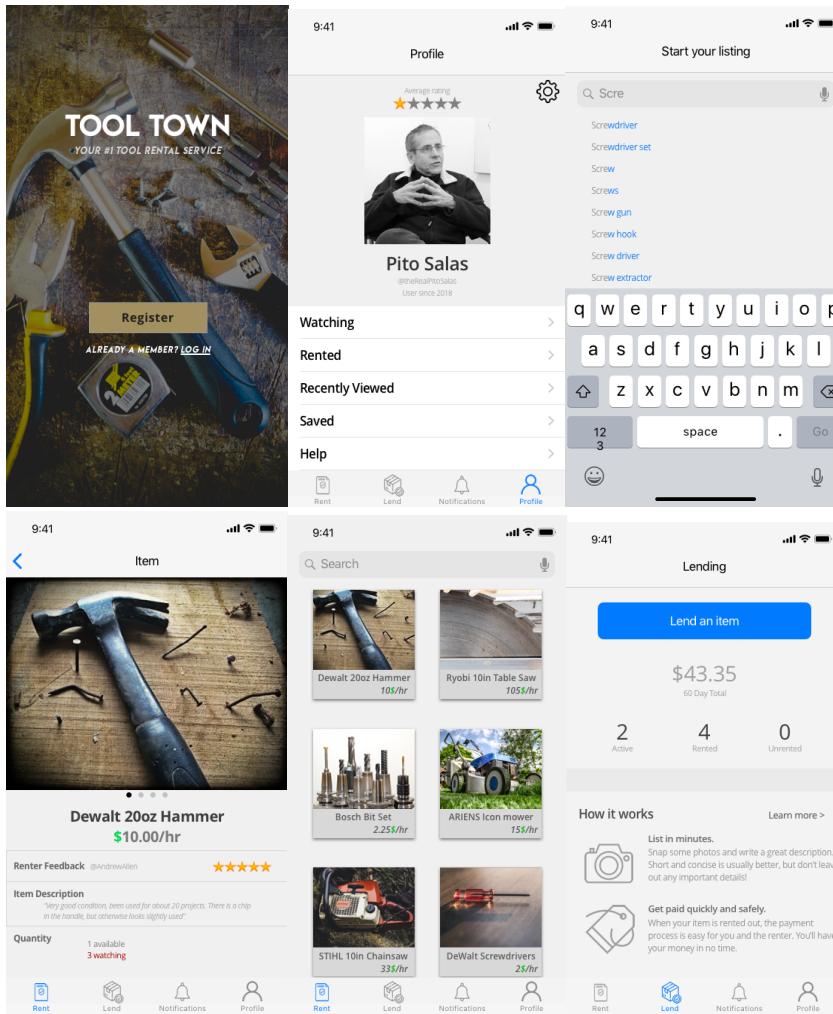
With our service, you will be able to search and rent the tools you need and rent out any tools you have lying around.



https://youtu.be/BfyupE_xttU - Youtube address for our short demo video

Appendix B

Mobile App



Appendix C

<i>Rental Rates for Tools Daily:</i>		
Power Tools		See https://www.homedepot.com/tool-truck-rental/Bolt-Cutter-36/14233/index.html
Bolt Cutter	\$14	\$10
Chordless Drill	\$21	\$15
7" Grinder	\$38	\$27
Belt Sander	\$27	\$19
Chordless Impact Driver	\$21	\$15
Hammer Drill	\$41	\$29
Right Angle Drill	\$25	\$18
Mini Grinder	\$22	\$15
Palm Sander	\$17	\$12
Orbit Sander	\$17	\$12
Rotary Laser Level	\$61	\$43
Electric Door Planer 3"	\$24	\$17
Jamb Saw	\$31	\$22
Electric Jig Saw	\$20	\$14
Electric Reciprocating Saw	\$24	\$17
To Kick Saw	\$32	\$22
Electric Circular Saw 7 1/4"	\$22	\$15
Miter Saw 8.5"	\$32	\$22
Miter Saw 12"	\$49	\$34
Table Saw	\$49	\$34
Average Rental of Power Tools	\$29	\$21
Outdoor Tools		
Aerator	\$92	\$64
Pro Aerator	\$102	\$71
Handheld Blower	\$25	\$18
Backpack Blower	\$43	\$30
Walk Behind Blower	\$68	\$48
Electric Chainsaw 16"	\$48	\$34
Gas Chainsaw 16"	\$57	\$40
Gas Chainsaw 20"	\$67	\$47
1 Man Auger	\$79	\$55
2 Man Auger	\$99	\$69
Towable Hydraulic Auger	\$113	\$79
Lawn Mower	\$33	\$23
Self-Propelled Lawn Mower	\$38	\$27
Power Rake	\$74	\$52
Overseeder	\$84	\$59
Self-Propelled Overseeder	\$114	\$80
Sod Cutter	\$97	\$68
Electric Hedge Trimmer 30"	\$31	\$22
Gas Hedge Trimmer 30"	\$41	\$29
Gas Hedge Trimmer on a Pole	\$55	\$39
Power Pruner	\$57	\$40
String Trimmer	\$45	\$32
Lawn Edger	\$48	\$34
Compact Stump Grinder	\$109	\$76
Hydraulic Bush Hog	\$104	\$73
Stump Grinder 13HP	\$159	\$111
Chipper 2"	\$99	\$69
Log Splitter	\$100	\$70
Light Duty Tiller	\$58	\$41
Mantis Tiller	\$41	\$29
Mantis XP Tiller	\$51	\$36
Mid Tine Tiller	\$72	\$50
Trencher 18"	\$89	\$62
Hydraulic Trencher 18"	\$124	\$87
Electric Pressure Washer	\$41	\$29
2000-2700 PSI Pressure Washer	\$79	\$55
3500 PSI Pressure Washer	\$99	\$69
Average Rental of Outdoor Tools	\$74	\$52
Total Average Rentals	\$58	\$41
Average Rental of Popular Tools (Based On Interviews)	\$62	\$44

Monthly Budget

Budget per month	\$1,520.00
Clicks per month (Range)	1,575
	2100.5

Conversion rate to customer

3%

Employee Wage Per year

Salary paid	\$70,000
Customers from Marketing	242

Insurance Estimation

Breakage Insurance to Cost Ratio Monthly	7.50%
Monthly Breakage Insurance on a Tool	\$4.67

Average Growth Rate in Startup Revenues:

Podozi MOM	40%
Ticktate MOM	31%
Qualio MOM	12%
MentiMeter MOM	14%
RapidAPI MOM	48%
Visiblee MOM	46%
Yoderm MOM	26.52%
TRACEAIR MOM	28%
Transtutors MOM	12%
oddup MOM	20%
AVG MOM	28%

Tool Town Income Projections for the Boston Area	Month 0	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Customers from Google Ads		63	81	103	131	168	214	274	350	447	571	730	932
Customers from Marketing		242	309	395	504	644	823	1,051	1,343	1,716	2,192	2,800	3,577
Total Customer Acquisition	305	389	498	636	812	1,037	1,325	1,693	2,163	2,763	3,530	4,510	
Employees	2	2	2	2	2	2	2	2	2	2	2	2	2
Revenue	\$2,844	\$3,634	\$4,642	\$5,930	\$7,576	\$9,678	\$12,364	\$15,796	\$20,179	\$25,780	\$32,934	\$42,074	
Google Ad Cost	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520	\$1,520
Wage Expense	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667	\$11,667
Insurance Expense	\$7,500	\$1,422	\$1,817	\$2,321	\$2,965	\$3,788	\$4,839	\$6,182	\$7,898	\$10,090	\$12,890	\$16,467	\$21,037
Pre Tax Income		-\$11,765	-\$11,370	-\$10,866	-\$10,222	-\$9,399	-\$8,347	-\$7,004	-\$5,289	-\$3,097	-\$297	\$3,280	\$7,850

Appendix D

We did a survey on insurance policies of several companies who offer online rental service. Two of them (Skiproshop, Wachusett) are ski-equipment rental companies, two of them (Home Depot, Sunbelt) provide tool rental service, while Fat Llama is a online rental platform for all kinds of things.

We summarize the information we got into the table below:

Fat Llama	Not charged separately	Built-in the price
Skiproshop	10%-20% of rental price	Optional
Home Depot	10% of rental price	Optional
Wachusett	5-10% of rental price	Built-in the price
Sunbelt	15% of the rental price	Optional

Combine them we can assume that the insurance price should be around **5%-20%** of rental price.

Tool insurance was based on a quote from r/Insurance on reddit shown below.

“The higher end of that 5-15% range likely includes coverage for the tools themselves as well. The low end is for the liability only.

Generally speaking the insurers that do this thing charge an upfront premium based on the insured's projections, subject to a minimum - usually about \$7500-\$10,000. There's a rate per \$1,000 in receipts, and the policy is trued up at the end of the policy term (usually, but not always, upwards only). So if the deposit premium is \$10,000 based on \$1M in sales (which is a \$10 rate per \$1,000 in sales), and the insured does \$1.5M in revenue during the policy term, the insured would owe another \$5,000 once the audit is done - usually a month or two after expiration.

Source: I literally put that exact deal together yesterday for this exact class of business.

Appendix E

Renters	House-to-House
People Interviewed who would rent	9 Sample Size
Renter Demand including people that Interviewees Knew	15 Sample Waltham
% of people who would rent (Only Interviewees)	41% Sample Andrew
% of people who would rent (Including References)	54% Sample Andrew
Lenders	Renters
People Interviewed	11 Wanted to Rent Tools Online
People Interviewed (With Insurance)	13 Had times where they wanted tools not on hand
% of people who would lend w/out Insurance	50% Knew of people who wanted to rent tools
% of people who would lend w/ Insurance	59% Wanted to Rent Tools Online (including those that had needed tools)
Total Interest	Lenders
People Interested In using Tool Town	Wanted to Lend Out Tools Online
% Interested	3
Tools	General
Chainsaw	Young/Middle-Aged Women
Wood Chipper	6 Young/Middle-Aged Men
Sander	3 Tools
Pressure Washer	2 Belt Sander
Table Saw	3 Table Saw
	1 Lawnmover

Home Depot Interviews		
Total Sample Size		22
Renters		
Sample Size		12
Wanted to rent tools online		3
Knew of people who would rent		3
Estimated Rental Base		6
Tool Shop + Electrician		
Lenders		Renters
Wanted to lend out tools		6
People who did not want to lend without insurance		2
Wanted to lend out tools(with insurance)		8
Insurance		
Wanted Insurance		Wanted Insurance
Wanted Insurance(Renter)		8 Insurance(Lender)
Wanted Insurance(Lender)		0 Insurance(Renter)
Description of Interviewees		Younger/Middle-Aged Men
Commission		
20%		1
15%		4
10%		4
Tools Home Depot		
Tools		Delivery
Power Washer		1 Wanted to Rent
Tablesaw		0
Chainsaw		4
Woodchipper		2 Wood Chipper
Drill		1 Chainsaw
Table Sander		1