REPORT ON TOOL TIME

Executive Summary

Tool Time is an emerging home improvement chain of stores that is based out of **Essex, Massachusetts**. They currently employ 1500 people out of the 15 stores they currently own across the United States. Tool Time is currently looking to expand their services to **three new locations** in the **New England region** which comprises of **six states**, namely : **Connecticut (CT), Maine (ME), Massachusetts (MA), New Hampshire (NH), Richmond (RI), Vermont(VT).** This report looks to answer four important questions, namely:

- The strategy behind Home Depot and Lowe's Location selection

- The three best counties and zip codes for Tool Time to expand into in the New England Region

- The most effective CRM Strategy and analytical solution for Tool Time

- New Technological innovations, data sources or data pipelines to consider for the business and the CRM solution

Strategy for Location Identification

There are three strategic factors to take into account while considering Tool Time's new locations - namely: Population, Highways present and Property Tax. Post deriving the logic behind store placements of Home Depot and Lowe's, an attempt is made to replicate the same strategy to identify Tool Time's new store locations in the New England Region

Home Depot Overview

- Home Depot is the largest home improvement store in the World employing over 400,000 people in over 2200 stores in three countries - USA, Canada and Mexico.

- The USA houses a majority of 1952 stores in total

Considerations for Home Depot Store Locations

I.Population

- Home Depot's Strategy of introducing new stores is based on the population of a particular place. In 2010, the greater the population, the more the number of stores it has opened in that particular region. The population of a particular area has the highest weightage in terms of location selection.

Inference

- **Counties with the highest population have the highest number of Home Depot Stores**

- **The weightage given to population of a county in terms of identifying a new store location is high.**

State Name	Total Population (2010)	Total Number of HD Stores	County with highest number of stores	Number of Stores	Population that store serves (Approx)	Average annual Income of Population	Range of Population in County with Highest No. of stores
Connecticut	3.5 million	29	Hartford	9	900,000	78,000	2nd Highest
Massachusetts	6.5 million	44	Middlesex	7	1.5 million	96,325	Highest
Maine	1.3 million	11	Cumberland	4	281,000	68,000	Highest
Vermont	625000	3	Chittaden	1	156,000	77,000	Highest
Richmond	1.05 million	8	Providence	4	626,000	62,000	Highest
New Hampshire	1.3 million	20	Rockingham	6	295,000	88,000	Highest

Population in Counties with most number of Stores in New England

Legend — County with highest nu...: Chittaden, Cumberland, Hartford, Middlesex, Providence, Rockingham
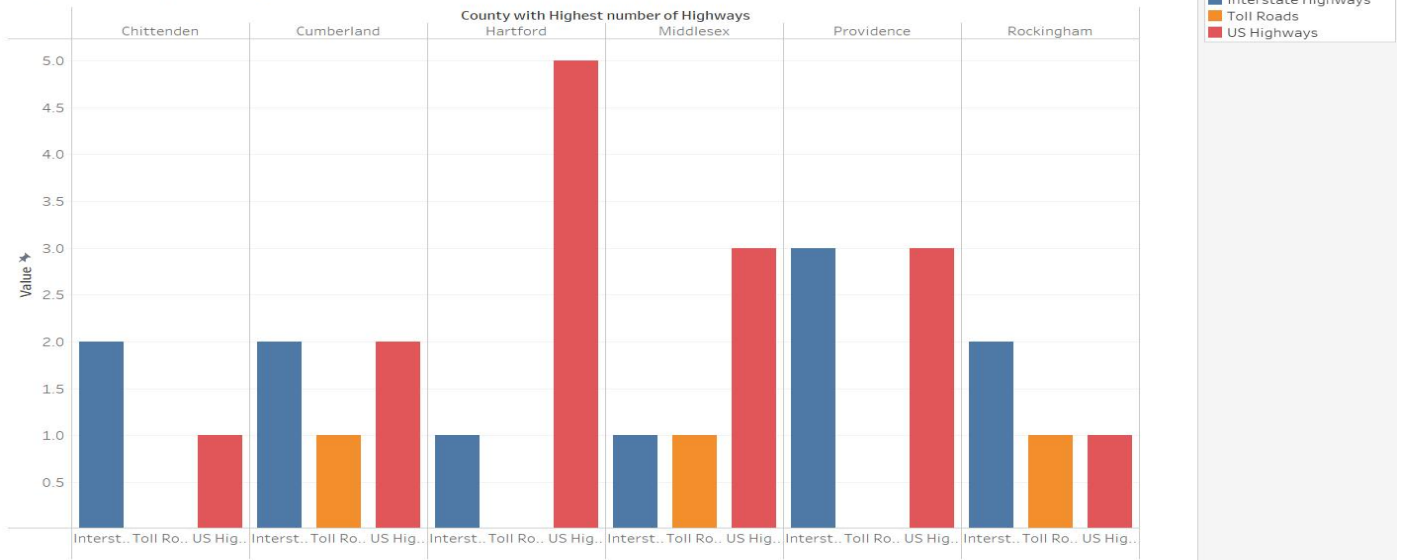
II.Highways

State Name	County with Highest stores	Number of Highways in the Highest Store County	County with Highest number of Highways	Total number of Highways
Connecticut	Hartford	6	Hartford	6
Massachusetts	Middlesex	5	Worcester	8
Maine	Cumberland	5	Cumberland/Aroostook	5
Vermont	Chittenden	1	Caledonia/Orange	4
Richmond	Providence	6	Providence	6
New Hampshire	Rockingham	4	Merrimack/Belknap	5

Note : All Counties marked in Green show: Counties with highest stores also have the highest number of Highways

Highways in Counties with Maximum Home Depot Stores

Inference

- **Presence of Highways in a particular county is crucial in selection of store locations for Home Depot**

- **Selection of Stores for Home Depot revolves around the number of US highways that are present in a particular county. The presence of Interstate Highways takes second priority, whereas presence/absence of toll roads does not make a difference in terms of location selection**

Property Tax

Name of the State (Highest no. Of HD)	Property Tax Range in County that houses maximum HD Stores	Range
Vermont (Chittenden)	3477-3614	Middle Range
Richmond (Providence)	3804	Lower Range
New Hampshire (Rockingham)	6046	Highest
Maine (Cumberland)	3504	Highest
Massachusetts (Middlesex)	5274	Higher Range
Connecticut (Hartford)	5035	Lower Range

Inference

- **Property Tax isn't a large deciding factor in terms of identifying new store locations for Home Depot**

- **This implies that Home Depot would be willing to operate with larger cost of operations**

LOWE'S STRATEGY

Lowe's Overview

- Lowe's is the Second largest home improvement store in the World, 8th largest retailer in the US and 19th largest retailer in the world

Population

| State Name	Total Population (2010)	Total Number of Stores	County with highest number of stores	Number of Lowe's Stores	Population in County	Range of Population	Income of Population in County
Connecticut	3.5 million	29	Hartford	5	900,000	2nd Highest	78,000
Massachusetts	6.5 million	44	Plymouth	6	494,000	7th Highest	65,000
Maine	1.3 million	11	Cumberland	4	281,000	Highest	68,000
Vermont	625000	3	Chittenden	2	156,000	Highest	77,000
Richmond	1.05 million	8	Providence	3	626,000	Highest	62,000
New Hampshire	1.3 million	20	Rockingham	4	295,000	Highest	88,000

Inference

- **Lowe's places high emphasis on the population of a particular county before deciding the location of its new store, very similar to Home Depot**

HIGHWAYS

State Name	County with Highest Lowe stores	Number of Highways in the Highest Store County	County with Highest number of Highways	Total number of Highways
Connecticut	Hartford	6	Hartford	6
Massachusetts	Plymouth	1	Worcester	8
Maine	Cumberland	5	Cumberland/Aroostook	5
Vermont	Chittaden	3	Caledonia/Orange	4
Richmond	Providence	6	Providence	6
New Hampshire	Rockingham	4	Merrimack/Belknap	5

Note : All Counties marked in Green show that the Counties with highest number of stores also have the highest number of Highways

Highways in counties with the largest number of Lowe's Stores
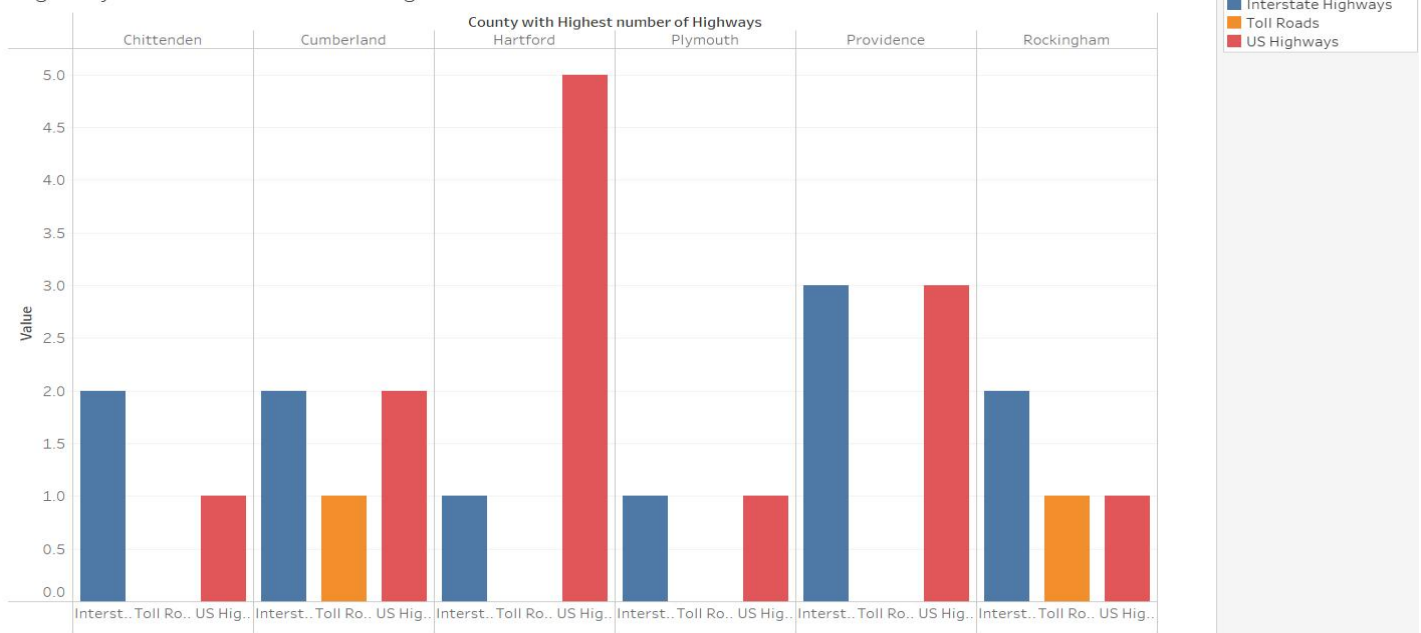
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Massachusetts (Plymouth)	4417	Higher Range
Connecticut (Hartford)	5035	Lower Range

Inference

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- **This implies that Lowe's would be willing to operate with larger cost of operations**

TOOL TIME STRATEGY

TOOL TIME CHARECTERISTICS

- Stores would have to be situated near major Highways across the New England Region

- Stores would feature quality driven customer service along with multiple customer loyalty programs for delighting the customer

Tool Time Store Selection

Store Selection at Tool time should be based on :

- Counties in New England Region that do not have a Home Depot or Lowe's Store

- Counties that have high population and annual income ranging from 60,000$ - 97,000$ per year

- The presence of US highways in the selected county is a must, and presence of Interstate Highways is a prefernce

- Hotness Rank, Hotness Rank within the County, Hotness Rank within CBSA - To identify the exact zip code within the county for placement of the new store

INSIGHTS UPON DATA ANALYSIS

- Richmond has only one county (Bristol) with no Lowe's or Home Depot store, but that county is not supported by any highways

- Massachusetts has two counties (Nantucket, Dukes) with no Lowe's or Home Depot Store, but they are both not connected by any Highways

- Connecticut has Tolland, which has a comparatively much high population (152,691) and a high annual income of $91,048 and is connected by one US Highway

- Washington in Vermont - has the highest population among counties in Vermont that don't have a Home Depot and Lowes. It is connected through 2 US highways and has an annual income of $67885 per year

- Windsor in Vermont - It has the second highest population amidst counties in Vermont that don't have a Home Depot or Lowe's Store. It is connected by 2 interstate highways and 1 US highway. It has the second highest annual income in the state of Vermont with $62730/year.

- Therefore, the selected counties are Tolland (CA), Washington(VT) and Windsor(VT)

Zip Codes in Counties where the Next store can be located

- **Ellington in Tolland, Conneticut** would be an ideal location for hosting the next Tool Time store, since the Demand Score > Supply score by over 14% and the Hotness Rank is 1 within the Tolland County

- **Montpelier in Washington,Vermont** would be an ideal location for the second Tool Time store, since it has a hotness ranking of 2 within the county with the demand score 24% greater than the supply score

- **Perkinsville in Windsor, Vermont** would be an ideal location for the third Tool Time Store since it has a hotness rank of 2 within the county and has a difference of 12% between its demand and supply score

Customer Relationship Management Strategy

Decoding the Customer - Centric Business Objectives of Tool Time

- Intelligent management of customer relationships to ensure that Tool Time's processes, people and strategy are aligned and fully consistent with its goals of expanding in the New England region.

- Increasing Revenues and Net Profits

- Enhancing Customer Experience

Customer Journey

There are three types of customers expected at Tool Time's new stores

- Contractors involved in the construction and repairs of homes

- DIY consumers are homeowners or renters that live in a dwelling

- Finished product consumers – purchase goods completely made by manufacturers

Building Buyer Personas

Sarah Lin

- Profession: Student
- Age : 24
- Home :Rental
- Marital Status : Single
- Income: 10,000$/year

Social Media Usage : High

Social Media Channels :
Instagram, Facebook,
Snapchat, LinkedIn, Twitter,
Reddit

Charecteristics : Follows
multiple Online Bloggers,
Enjoys Shopping and House
Redocoration

Joshua Stevens

- Age : 34
- Gender : Male
- Marital Status : Married with 2 Children
- Home: Owner
- Present on Select Social Media Channels - Facebook, Whatsapp
- Actively uses Email for Personal and Professional Work
- Charecteristics : Enjoys building DIY Furniture at Home, Enjoys repairing products around the house

Gabriel - Contractor

Demographics
Age? Income? Location? Gender Identity?

- AGE : 32
- Income : $65,000/year
- Location : Hartford, Conneticut
- Gender : Male

Identifiers
Communication preferences?
Social media platforms?

- Active on Text Messaging
- Personal Calling
- Coupon Mailers and Own Website
- Social Media : Facebook

Independant Contractor

- Been in Business for 4+ years
- Frequent large scale buyer of Construction supplies, Raw Materials and Tools
- Requires supplier companies to keep him aware of all deals and offers

Goals

- Help refurnish 10+ houses over the next one year
- Construct 3+ houses from ground up over the year

Online(Social Media Integration) and offline purchasing behaviour of Prospects- Contractors

- Would generally purchase in larger scale than other buyers

- Would be aware of the different qualities of materials available at Tool Time

- Not require assistance in purchase from support staff

- They would be price sensitive, in order to reduce their costs yet maintain quality

- Would look for combo offers and discounts, which would drive their customer experience

- Would look to purchase all required products, under a single roof

- Availability of enough number of products of all SKUs must be monitored

- Will be attracted to visit the store through promotions of offers made through email marketing

- Can be made aware of the presence of Tool Time through Trade shows/ Fairs/ Virtual Conferences/Local contractor association events/tapping on preferred communication channels through social media

DIY Consumers - Home Owners/Renters

- Small scale, single product buyers of predominantly furniture related products

- Would be specific with their requirements and would age between 18-55 years

- Will be price sensitive and will look for offers and discounts

- Would require assistance at the Tool Time store and will drive customer experience

- Can be made aware of the presence of Tool Time through online advertising, ranking high on the SEO for different products in Google, Youtube, On-boarding bloggers/influencers to review the product

Finished Product Consumers

- Higher priced products that are not frequently purchased

- Assistance from Tool Time staff is required during installation and will drive customer service

- Quality would be a top consideration for customers

- Quality of product can be assured to the customer, if products are certified (for eg: Energy efficient refrigerators) and customer service can be enhanced if assistance is provided during installation and warranty is provided by the store

- Communication channels (Social Media) can be introduced according to the preferences of consumers

THE PROCESS OF
CRM TOUCHPOINTS

BUILDING LOYAL CUSTOMERS FOR TOOL TIME

1

REACHING THE PROSPECT
- Use First, second and third party data to identify potential customers
- Build Buyer personas and segment market - identify social media channels and communication preferences of target market

ATTRACTING THE PROSPECT
- Build Brand awareness through communication channels, preferred by target audience
- Help target market identify that they may have a problem/opportunity that Tool Time can help solve

2

3

ENGAGING WITH PROSPECTS
- Create Compelling email marketing content to increase footfall in the physical store/traffic on the Tool Time website

FOLLOWING UP WITH PROSPECT
- Consider collecting email address and consent from prospects to receive emails regarding offers, discounts, etc. to attract them to purchase from Tool Time

4

5

NURTURING THE PROSPECT
- Utilize Tool Time's well trained sales professionals to connect, advice and consult prospects on what to purchase at Tool Time, considering their requirements

CONVERTING TO CUSTOMERS
- Enable your prospects to purchase the product and convert them to customers

6

7

RETAIN AND DELIGHT YOUR CUSTOMERS
- Utilize proper CRM software to send automated emails to customers thanking them for all engagement with the store
- Offer personalized discounts and keep them happy and satisfied

Monitoring and tracking of Sales Opportunities

- Sales Opportunities can be tracked using previously billed data. This could bring to light the days of the week that show greatest sales, times of the day that stores are the busiest and most popular products to help in better restocking and inventory management, results of which can contribute to better experience.

- Provision of QR codes on Products : Creation of a Tool Time In-store App to help customers scan QR codes on products and get information like price, methods to use the product, etc. This would help Tool Time in capturing data related to products that customers are interested in buying. This could help in targeted re-advertising of products to customers, gauging of product interests among different customer groups, and will bring to light many insights to further the possibility of making a sale.

- Utilization of available CRM Solution products/building a **customized CRM software** for managing the buyer process across all stores would be wildly beneficial for Tool Time in the long run

Organizing and Engaging with Current Customers

- Using CRM Software - Automating messages/emails to be sent to existing customers will help in maintaining relationships and will recall the brand

- Using CRM Software - Personalized communication for celebrating special occasions and being given offers/discounts for the same will make a customer feel remembered

- Using CRM software - To keep track of all members part of the loyalty program and provide them with benefits as mentioned in the next section

- Using Social media channels that are frequently used by your target group and consistently sharing something of value with your clientele would be helpful in furthering your next purchases with the customer

- Communicating your brand values, social initiatives and activities would give customers a chance to connect with the brand

Developing a relationship with customers

- Creation of a loyalty program for current customers - through a point redemption, accumulation system associated to an email ID given by them at the time of purchase of a product

- Provide store guaranteed warranty for products purchased by customers as part of the loyalty program

- In-store DIY activities for people of different age groups, as part of the loyalty program at no cost

- Creation of a newsletter for a subscribed audience that would talk to their interests and introduce them to products that will help them

- Providing free assistance and consultation in times of repairs and emergency fixing by store staff

Management of Customer Life Cycle

Customer Life Cycle can be managed better and Customer Lifetime value can be increased if Tool Time is keen on developing good customer relationships and incorporating as much effective technology into its daily practices as possible. Setting standard KPIs for effective CRM analysis can help in this process.

Key Performance Indicators for CRM System

- Consistent growth in number of members part of the loyalty program

- Growth in number of consultation requests for DIY and finished products

- Growth in number of new customers

- Growth in number of calls, texts and emails sent

- Increase in Average Order value

- Annual Recurring revenues and products that contribute to it

- Length of sales cycle - From interest generation to conversion

- Customer Acquisition cost

- Customer Lifetime Value

Technical Considerations

Data Architecture - Maintenance and Support, data warehouse and Analytics

- Data is sourced from different systems including CRM Systems, Social Media Channels, Emails and website visits

- This data is sent into the data systems, since transactional data does not possess a lot of value, where it is stored as Data lakes in its raw format

- Extract - Transform- load operations are performed on the data and sent to a data warehouse.

- Data is processed and analyzed to arrive at insightful trends.

- Considering that maintenance of data warehouses are too expensive - infrastructure can use the internet as a tool to share computing resources (Cloud Computing)

- Tool time should use a combination of both On-premise infrastructure and Cloud infrastructure to manage its IT

Cloud/On-Premise Consideration

- The strategy that Tool Time would use would be a mix of both Cloud and On-Premise Infrastructure. For all secondary information to be stored, the facilities provided by a third party cloud service provider such as GCP/Microsoft Azure would be utilized. For sensitive information such as personal details of customers, on-premise infrastructure would be used.

- The processing of data would be done as batch processing, in order to ensure that computing power and costs are reduced. Case to case considerations will be made for new technological innovation for which real time processing is required.

Data Privacy

- Tool time is strictly bound by the privacy requirements of the US Federal Consumer Protection Data Privacy regulations and would not misuse any consumer data in any illegal way.

Analytical Solution

Analytical solutions to predict for the management include : Annual recurring revenue from a new Contractor customer for Tool Time. Depending on the Customers first few orders, Tool Time can extract his average order value, most preferred products and brands, Frequency of purchase, buying habits and also understand the motivations behind his purchase. Through this data, considering the buying habits of other contractors on Tool Time's Database, Artificial Intelligence technologies can approximately predict the value of a contractor customer's purchase over a year.

Technological Innovation

AUTOMATED SHOPPING CART

The shopping cart can be used to make autonomous shopping possible without the need for customers to wait in long queues. The shopping cart carries an RFID scanner, an LCD screen and a button to trigger bill generation. The process behind the shopping cart is as follows:

```
┌──────────────────────┐
│ Product is scanned   │
│ using RFID reader    │
│ before it is placed  │
│ in the cart          │
└──────────────────────┘
          │
          ▼
┌──────────────────────┐
│ Fetches the details  │
│ of the scanned       │
│ product from the     │
│ Central server       │
└──────────────────────┘
          │
          ▼
┌──────────────────────┐
│ Displays the fetched │
│ Details on the LCD   │
│ screen, place in the │
│ cart                 │
└──────────────────────┘
          │
          ▼
┌──────────────────────┐         ┌──────────────────────┐
│ Updates              │         │ Disconnects from the │
│ (Add/Remove) the     │         │ main processor and   │
│ scanned products to  │         │ the overall system   │
│ the local database   │         │ returns to original  │
└──────────────────────┘         │ state                │
          │                      └──────────────────────┘
          ▼                                 ▲
┌──────────────────────┐         ┌──────────────────────┐
│ Push button to       │         │ Trigger the stop     │
│ generate the bill    │         │ button               │
└──────────────────────┘         └──────────────────────┘
          │                                 ▲
          ▼                                 │
┌──────────────────────┐         ┌──────────────────────┐
│ Bill is generated    │───────► │ Final Bill is sent to│
│                      │         │ the cloud server and │
│                      │         │ payment is           │
│                      │         │ processed            │
└──────────────────────┘         └──────────────────────┘
```