**PAY AND GO**

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**Description**: Pay and go is a digital solution to improve the in-store customer shopping experience. It aims to automate the checkout process eliminating regular registers and self-checkout counters by employing a scan and pay system. The primary goal is to reduce the time spent in the checkout process while extending benefits to consumers.

**MAJOR HYPOTHESES AND ASSUMPTIONS**

1. **For anybody shopping anywhere time is a very important factor are willing to adopt digital solutions to improve their experience**
   1. Long queues are associated with a negative experience
   2. People are willing to pay to reduce the time spent in queues
   3. People use gadgets at stores and connect to store wifi if needed
   4. People have the shortest amount of patience at billing
   5. People don’t account for the billing time when they go shopping
   6. Loading and unloading the cart is a step they want to skip
   7. People want to figure things out on their own with minimal help (Product layout and billing)
   8. Knowing the availability of items beforehand plays a major role in their decision to shop.
   9. New age customers are conscious of the products they are buying (history of the product)
   10. Keeping track of expenses is important.
   11. Customers tend to be honest about their purchases even when there are no security mechanisms in place
   12. All target customers have no technological limitations
   13. Supermarkets billing queues are usually unavoidable and most inconvenient
2. **Retail stores are looking at adopting digital solutions to improve their business**.
   1. People may be willing to spend more time at the shelves if they know they don’t have to wait in line
   2. Willing to give us their inventory and billing data
   3. Switching costs are extremely low
   4. Long term benefits include a reduction in operational costs
   5. Trust factor built into the self-checkout counter is that same trust factor that will come into play in our solution
   6. Stores are willing to trade off a % of the revenue that comes from the products placed near the checkout lines
   7. Stores currently don’t have self-checkout systems because of space and cost constraints

**What will cause our business to fail?**

1. Retail stores not willing to provide their inventory and billing data
2. Unforeseen technological issues
3. Regular occurrences of theft which would flag safety concerns for stores.

**INTERVIEW QUESTIONS**

Based on the hypotheses we framed the following 2 sets of questions. Hypothesis 1 leads us to the questions for individuals (customers) and hypothesis 2 is mainly directed towards store managers.

*Hypothesis 1*

1. What if there is no network? Do you usually connect to the store wifi?
2. Do you account for the billing time when you go shopping?
3. What kind of shopping do you spend the longest in a queue at?
4. Do people want to eliminate the time spent at a billing counter?
5. Have you ever had errors in billing that may/may or not have worked out for you?
6. Do you keep a monthly track of expenses?
7. If you do it (6), how extensive is it, what do you currently use to do it?
8. Will people download an app just to save extra time?
9. When you have a cart full of things, what is a major inconvenience when it comes to billing?
10. How do we ensure safety in terms of data privacy?
11. When do you shop online vs offline?
12. We are willing to solve this problem, would you pay for it?
13. Is the solution we are providing 10x better?
14. Given our solution, are there any features that would make the product better?

*Hypothesis 2*

1. Are retail stores willing to adopt a solution that allows a better customer experience?
2. What factors would go into assessing if a digital solution is a profitable option?
3. Are stores willing to provide real-time inventory data?
4. If 3 is no, would they be willing to share product data?
5. How does the trust factor come into play in the self-checkout process?
6. What is the approximate dollar value of products not accounted for at the self-checkout counter?
7. What are the most common issues faced at the self-checkout counter?
8. What % of your revenue comes from the products strategically placed near the checkout lines?
9. Given our solution, are there any features that would make the product better?
10. (Morton-Williams or similarly sized chains) Why have you not adopted self-checkout yet?

**SUMMARY**

**INTERVIEWEE OVERVIEW**

| **Interviewee** | **Avg. Age** | **Avg expenses (Monthly, excluding rent and utilities)** | **Shopping Distance from home/work (Miles)** | **Avg time spent in a queue (minutes)** | **Satisfactory amount of time spent in queue** | **Frequent user of Apple pay, etc** | **Willing to use Pay and Go** | **Price at which likely to download the app** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mid 30s couple | 35 | 3500 |  | 5 | 5 | Yes | Not really | 0 |
| Barnard Student | 25 | 1500 | 0.3 | 5 | 2 | No | Yes | 0 |
| 2 students at Columbia | 25 | 400 | 0.5 | 5 | <5 | Yes | Yes | <$5 |

| **Interviewee** | **Willing to use Pay and Go** | **Price at which likely to download the app** |
| --- | --- | --- |
| Store Manager - University Hardware | Yes | Similar/lower than regular registers |
| Store Manager - Westside Market | Yes | Similar/lower than regular registers |
| Store Manager - CVS | No | NA |

**OBSERVATIONS**

**Number of counters at the stores -**

| **Store** | **Self-checkout counters** | **Regular Registers** |
| --- | --- | --- |
| Whole Foods | 15 | 6 |
| Rite Aid | 4 | 2 |
| Westside market | 0 | 6 |
| UES | 0 | 3 |

**Rush hour throughput -**

| **Counter** | **Number of people** | **Average Waiting Time (min)** | **Average Billing time (min)** |
| --- | --- | --- | --- |
| Self-checkout | 6 | 2.5 | 3.6 |
| Regular register | 4 | 5.2 | 5 |

**INTERVIEW SUMMARY - END USERS**

| **Questions** | **Interview key points** | **Assumption confirmed/challenged** |
| --- | --- | --- |
| What if there is no network? Do you usually connect to the store wifi? | If the store is in a basement and does not have network, they sometimes connect to the wifi | All target customers have no technological limitations  People use their personal gadgets at stores and connect to store wifi if needed |
| Do you account for the billing time when you go shopping? | The responses were mixed for this question with the majority accounting for the time beforehand whereas others do not. | People don’t account for the billing time when they go shopping (Assumption was challenged) |
| What kind of shopping do you spend the longest in a queue at? | Grocery store shopping since they usually require the items and so decide to wait | Supermarkets billing queues are usually unavoidable and most inconvenient. |
| Do people want to eliminate the time spent at a billing counter? | We unanimously received yes as an answer to this. | People have the shortest amount of patience at billing |
| Have you ever had errors in billing that may/may or not have worked out for you? | Usually very careful about the number of products billed and pricing of each while scanning items. | Customers tend to be honest about their purchases even when there are no security mechanisms in place |
| Do you keep a monthly track of expenses? If you do it (6), how extensive is it, what do you currently use to do it? | Yes, use budgeting apps such as Mint(Intuit app) | Keeping track of expenses is important |
| Will people download an app just to save extra time? | Yes, if it has a reach beyond one store | **For anybody shopping anywhere time is a very important factor are willing to adopt digital solutions to improve their experience** |
| When you have a cart full of things, what is a major inconvenience when it comes to billing? | When it comes to heavy items specially, picking them up to the billing counter is an issue | Loading and unloading the cart is a step they want to skip |
| How do we ensure safety in terms of data privacy? | Already selling data to other applications, not too worried about signing up | Data Privacy is not a major concern provided the utility of the application is established |
| When do you shop online vs offline? | Online also has stock issues(not all items are listed) and there is cost and time factor involved in the delivery | Knowing the availability of items beforehand plays a major role in their decision to shop |
| We are willing to solve this problem, would you pay for it? | Yes, depends on how much but a small amount each month is okay | People are willing to pay to reduce the time spent in queues |
| Given our solution, are there any features that would make the product better? | A way to maybe see information regarding a product, ex: health facts or calories if food products  Should have a wide reach and not for just one store | New age customers are conscious of the products they are buying (history of the product) |

**INTERVIEW SUMMARY - ECONOMIC BUYER**

| **Questions** | **Interview key points** | **Assumption confirmed/challenged** |
| --- | --- | --- |
| Are retail stores willing to adopt a solution that allows a better customer experience? | Store managers at the supermarkets were ready to adopt a solution but the manager at the pharmacy was skeptical. | Retail stores with higher footfall are looking at adopting digital solutions to improve their business while stores with lower footfall and less volatile inventory are hesitant. |
| What factors would go into assessing if a digital solution is a profitable option? | The solution has to be inexpensive, fast, and ensure the privacy of the customer, ease of use. | This confirms our assumptions that switching costs must be low and long term benefits include a reduction in operational costs. |
| Are stores willing to provide real-time inventory data? | Yes, they would have to put us in touch with the software company that currently handles their inventory. | Although this confirms our assumptions that stores are willing to give us their inventory and billing data, we will have to contact the companies that currently handle inventory needs for partnerships. |
| What % of your revenue comes from the products strategically placed near the checkout lines? | This is very less for bigger stores and impulse purchases are more common in smaller stores. | Confirms are assumption that stores are willing to trade off a % of the revenue that comes from the products  placed near the checkout lines |
| Why have you not adopted self-checkout yet? | The reasons were varied, lack of footfall - hence could be handled by cashiers, expensive to install, lack of space. However, the most important one was theft and lack of trust. | Although this confirms that stores currently don’t have self-checkout systems because of space and cost constraints, it also emphasized the distrust in automatic systems. |
| How would you account for the trust factor of an automated solution? | This would have to be handled by the company providing the software. | This debunks our assumption that the trust factor built into the self-checkout counter is the same trust factor that will come into play in our solution. We will have to come up with a unique idea to help factor in trust. |
| Given our solution, are there any features that would make the product better? | There are few concerns they said would make or break the deal.  Dependable - as not getting paid would be a concern, inexpensive, ease of use and customer satisfaction for the product, should address safety, and data privacy concerns. | We will have to ensure our payment gateways are secure and minimize the private information we collect from our users. Come up with a solution to factor in trust and safety. |

**Key learnings:**

1. Our idea should also extend to how we will inculcate the “trust or safety” factor of shopping and billing.
2. We will have to also talk to software companies that do inventory management to better understand how we will keep track of inventory.

| **Customers willing to adopt the solution** | 90% |
| --- | --- |
| **Retail stores willing to adopt the solution** | 60% |
| **End-user price range** | 5 - 10$ |

**MARKET SEGMENTATION**

**BRAINSTORMING**

**Primary Customers (end users)**

* Students
* Gen-Z and millennials
* Urban professionals
* Families

**Secondary Customers (economic buyers)**

Major food shops

Smaller grocery stores

Bookstores

Clothes stores

Wholesalers

Doctors

Gyms

Sports clubs

Restaurants

**MARKET SEGMENTATION WORKSHEET**

| **Industry** | **Large Chain food stores** | **Mid-sized food stores** | **Independent/Small grocery stores** | **Other shops: books/clothes** | **Pharmacy** |
| --- | --- | --- | --- | --- | --- |
| **Lead Customers** | Trader Joe’s  Whole Foods | Morton Williams  Foodtown  H Mart | Deli  Westside Market | Target  Walmart  Costco | Chains - CVS, Walgreens |
| **Well funded?** | Yes | Yes | Can be | Can be | Yes |
| **What does it need to use our solution?** | Yes | Yes | Not sure | Big ones do | Yes |
| **Reason to buy?** | * Make their customer save time * Reduce their salaries * Offer a better experience to their clients * Increase their efficiency | * Make their customer save time * Reduce their salaries * Offer a better experience to their clients * Increase their efficiency | * Make their customer save time * Reduce their salaries * Offer a better experience to their clients * Increase their efficiency | * Make their customer save time * Reduce their salaries * Offer a better experience to their clients * Increase their efficiency | * Make their customer save time * Reduce their salaries * Offer a better experience to their clients * Increase their efficiency |
| **Benefits** | * Cheaper * Reputation * Efficiency | * Cheaper * Reputation * Efficiency | * Cheaper * Reputation * Efficiency | * Cheaper * Reputation * Efficiency | * Cheaper * Reputation * Efficiency |
| **Competition** | Amazon Go | Traditional paychecks | None | Amazon Go | Traditional paychecks |
| **Leverage?** | Yes, if we sign a contract with one major store, we will then be installed in all the shops of this brand. | If the app is widely used among the user base around the store, this could act as leverage | Not really | It might | Yes, if we sign a contract with one major store, we will then be installed in all the shops of this brand. |
| **Consistent with the values / passions / goals?** | Yes | Yes | Yes | Yes | Yes |

**BEACH-HEAD MARKET**

End User - Student population

Economic Buyer - Mid-size markets

1. ***The customers within the market all buy similar products***

The student population generally has a similar need when it comes to grocery shopping

1. ***The customers within the market have a similar sales cycle and expect products to provide value in similar ways.***

The products that they buy are generally predictable and have a set timeline to replenish their stock. This indicates that they will also be out shopping more frequently in mid-size stores closest to home/university.

1. ***There is “word of mouth” between customers in the market, meaning they can serve as compelling and high-value references for each other in making purchases.***

The student community “word of mouth” for stores around the college campus is generally very high.

1. **Is the target customer well-funded? Does the target customer have a compelling reason to buy?**

Since the beachhead market is a necessity for the target customer, the spending on the market will not change based on their economic situation

1. **Is the target customer readily accessible to your sales force?**

Yes, due to the strong ties with the academic community, the target customer can be easily reached

1. **Can you today, with the help of partners, deliver a whole product?**

Yes the various aspects involved are users, stores, and payment gateway integration

1. **Is there entrenched competition that could block you?**

The payment systems that are currently installed at counters could lose business due to our product, they could potentially be strong competitors.

1. **If you win this segment, can you leverage it to enter additional segments?**

Yes, we can expand from the mid-sized supermarket chains to larger chains and then to other segments such as clothing, bookstores, etc

1. **Is the market consistent with the values, passions, and goals of the founding team?**

Yes, the goal is to empower users to handle the end to end process of their shopping and remove the need for third-party interference.

**Number of students vs stores to show ratio (demand and hence need for solution)**

**% of mid size stores that have self checkout (proves that midsize is beachhead)**

**Number of people with small basket size ( <5) 4 stores at least**

**Avg. time at mid sized vs avg time at large stores**

**Observe age groups (split into 4 - 1-21, 21-35; 35-49; 50+)**

**Rfid research - for security reasons**

| **Store** | **Avg no. of people in line at once** | **Number of people with small cart size (<5)** | **Avg time taken in line person** | **Number of individuals in each age group** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | **0-21** | **21-35** | **35-49** | **50+** |
| **Foodtown** | **4** | **2** | **3:41min** | **0** | **6** | **3** | **1** |
| **Gristedes** | **6** | **2** | **5:17 min** | **1** | **4** | **4** | **3** |
| **H Mart** | **6** | **4** | **5:00 min** | **2** | **6** | **1** | **1** |
|  |  |  |  |  |  |  |  |