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Green Delivery

AN ARBOR DAY FOUNDATION PARTNERSHIP PROGRAM

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Executive Summary

The Arbor Day Foundation (ADF) will partner with online retailers to create a ‘Green-Delivery’ option wherein customers can opt to delay the shipment of their order by a day in exchange for a tree being planted in their name. Each partner would fulfill their donation obligation to the ADF by allocating a portion of the cost savings generated by shipping their orders via a slower service.

Recommendations/Solutions

- Further quantify cost savings from program
- Compile marketing information detailing the benefits of the program to potential partners (financial, brand image, employee engagement, etc.)
- Reach out to retailers with customer bases who are most likely to engage in environmentally friendly business solutions and provide information on the program
- Kick-off program with small group of partners prior to holiday busy season

Rationale of Recommendations/Solutions

Before reaching out to potential partners, ADF must be armed with the data needed to make an effective sales pitch. This predominantly boils down to the financial benefits the ‘Green Delivery’ option provides to prospective partners. Partners would benefit in two capacities. Firstly, there would be the financial benefit of each effected order from a logistical standpoint. Shipping products via a slower method lessens the company’s freight expense on the order (Figure 1) and decreases the load on the company’s fulfillment centers. Secondly, partners would receive the tax benefit of donating funds to ADF from the program. Understanding these variables will be vital when pitching the program to partners. These variables are detailed in the appendix.

We also recommend that, in order to get the program established, ADF reaches out to retailers with environmentally conscious customer bases. While our research leads us to believe that this program will be popular, we feel that the best way for the program to gain traction is to start with B-corporations and other environmentally conscious companies. Finally, we feel that kicking off this program in the months leading up to the Black Friday/Holiday shopping season will give the program the best chance of success. Over 40% of annual e-commerce spending is during the

fourth quarter (Kinasih, 2017). Having the program in place before this time maximizes the chances that the program will get large-scale exposure.

Timeline of Implementation – Major Milestones

Phase 1 (May 2020 – August 2020)

- Assemble a team to further investigate financial impacts of program
- Establish relationships with potential partners

Phase 2 (September 2020 – October 2020)

- Onboard first partners

Phase 3 (November 2020 – October 2021)

- Launch program and begin compiling first-hand data on program for use in growing program to other partners

Results and Takeaways

In order to understand the viability of this program, we drafted a model using Patagonia’s sales statistics from 2018. Using this information and several assumptions (Figure 2), we were able to estimate the annual contributions that potential partners would be making to ADF. Assuming 3% of users choose the ‘Green Delivery’ option, a partner at Patagonia’s level of revenue would generate over \$340,000 in donations to ADF in the first year of implementation alone. We will touch on the reception that we received about our program in a later section, however, we feel that a 3% adoption rate is very conservative. We recommend that ADF moves forward with the program immediately and continues to explore the financial impacts associated with it.

Supporting Analysis

Recent Trends in the E-Commerce Industry

In 2005, Amazon unveiled a revolutionary program aimed at providing two-day shipping to its millions of customers. In the 15 years since, the e-commerce market has exploded with brick-and-mortar retail giants like Walmart and Target developing extensive online channels in order to compete with Amazon. As the many players in the e-commerce market jostle to gain customers, margins have narrowed, and shipping times have dropped. Two-day shipping is now the standard with many retailers offering one-day shipping within the contiguous U.S. These

shipping costs eat into retailers' profitability as freight carriers charge a premium to get items out to customers at such an expedient rate. The costs associated with providing such rapid shipping has challenged profitability within the industry. In mid-2019, Walmart announced it was on track to record a net loss of over one billion dollars in the e-commerce section of its business (Thomas, 2019). This is primarily attributable to the rapid shipping times that are now an industry standard. While rapid shipping has propelled e-commerce giants like Amazon into tremendous earnings, it has left brick-and-mortar stores scrambling to keep up.

Due to the extremely high costs associated with expedited shipping, many companies have sought to find creative ways to cut shipping costs. Target, for example, stopped shipping from its warehouses and has begun filling orders from the back of the store. Many other businesses have changed everything they can, including what tape they use, to lower package weights and costs. Even Amazon has sought to cut costs through its No Rush Shipping program, announced in the summer of 2014. Shipping prices have become one of the largest costs facing every e-commerce site, large or small, and these companies will do anything they can to cut costs in this area.

Opportunity for the Arbor Day Foundation

This is where the Arbor Day Foundation comes in. Through the ADF's reforestation program, they have the unique potential to help many companies cut costs while also benefiting the environment. We propose that e-commerce platforms should offer their customers the option to slow the service of their shipment one day by planting a tree in their name. This would result in substantial cost savings for the e-commerce platform and a low-cost means for Arbor Day to plant more trees. The partner would be responsible for remitting the marginal cost savings per order to the ADF either on a monthly or quarterly basis. In this scenario, the majority of the savings would be donated to the ADF. Partners would still benefit from both the slack our program would inherently create within their fulfillment centers and the tax shield generated through their donations.

The problem then is, will people choose to delay their shipments so a tree can be planted in their honor? To answer this question, we surveyed 118 people and found very positive responses. First, a breakdown of the survey demographics. They ranged in age from 18 to over 76 albeit 72% were in the 18-25-year-old category. 68% of respondents live in either Lincoln or Omaha, however there were responses from residents of 16 different states. From Seattle to Orlando, Dallas to Chicago, our respondents represented a variety of different locations within the US. The survey respondents also varied in how often they shop online. 22% of respondents buy products online once a month, 41.5% purchased products online a couple of times a month, 11.9% purchased products every week and 11% bought products multiple times a week. When asked what online stores they often purchase from, 94.8% of respondents listed Amazon further demonstrating how Amazon has come to dominate the e-commerce space. However, 47% of respondents also listed other stores as places they often purchase from. This highlights the sheer depth of the e-commerce space and how many competitors exist in it. Finally, 57% had never delayed their shipments for a reward, 16% had delayed once and 27% had delayed shipments multiple times. We were especially pleased with the response to our idea. As seen in Figure 3, 33.9% of respondents indicated they would be "extremely likely" to delay their shipment by one

day in order to have a tree planted in their honor. In total, 75.4% of respondents indicated they were more likely than not to opt-in. While these are promising responses, we understand individuals are often more generous in theory than in practice. To account for this effect, we assumed in our model a 3% opt-in rate as opposed to the 75% response rate indicated in our survey.

Program Growth and Diversification

One concern a company may have with this program is whether or not customers will continue to delay shipments over time or if they will only delay once or a couple times. One way we perceive ADF could further incentivize customers to continue to delay shipments long into the future is what we call the “Green Customer Program”. We believe this would be a good initiative to roll out a year or two after the initial delayed shipments program has been created to keep customers interested in planting trees. Under this program, customers would earn “green customer status” by delaying shipments a predetermined number of times. Customers could be incentivized to join this program with the promise of discounts at other ADF-partnered e-commerce retailers upon the completion of the specified number of orders. We believe stores would be likely to offer these discounts as these customers would be much more likely to be repeat customers since they have already proven their commitment to eco-friendly causes. Thus, the question remaining is if the discounts would be enough of an incentive for customers to complete the program. From our survey, it was clear that the incentive is enough. As seen in Figure 4, 27.1% of respondents said they would be extremely likely to complete the program and a total of 70.3% of respondents said they would be more likely than not to complete the program. With such promising initial results, we believe this would be a growth-promoting initiative for ADF to investigate after implementing the initial delayed shipping program.

Target Market

To begin implementing this delayed shipment process, we believe the best approach would be to target Certified B Corporations. B-Corps are known for their corporate integrity and we believe that their customers would be more likely to delay their shipments. Not only this, but B-Corporations already have a proven record of sustainability and care for the environment, meaning their management team would be more likely to possibly implement a program like ours. According to their website, B-corporations are “legally required to consider the impact of their decisions on their workers, customers, suppliers, community, and the environment”. This commitment to considering their impact on others and not just profit makes B-Corps more likely to choose to partner with us. Each year, B-labs releases information on the best B-Corps for each area: governance, workers, community, environment, and customers. We recommend beginning with the 2019 Best for the World: Environment list which lists over 200 companies worldwide that have received the best scores regarding their care for the environment. These companies have shown a commitment to caring for the environment above and beyond even what is required of a B-corporation. Thus, we believe this is the best place to begin seeking partnerships.

Results and Recommendations

Strategic Recommendation Overview

Having considered the multitude of variables involved in e-commerce and shipping, we have created a series of recommendations that would allow the Arbor Day Foundation to provide value to partners while also furthering the mission of planting trees around the globe. Broadly, we recommend that we utilize a small portion of ADF's sales force to secure partnerships with a handful of B-corporations. If the sales team finds that their efforts are met with some success, we recommend operating the program at a small scale for one year to ensure proof of concept; from there, the team could use real figures from partner cost savings to pitch to a much larger pool of potential partners.

There are varying degrees to which Arbor Day could be involved with the execution of these changes on the partner side, which we will delve into more in the next section. Speaking broadly, we recommend that Arbor Day focuses all of their efforts simply into sales. The most important variable of this program from our side is securing partner interest and commitment. Furthermore, focusing solely on sales ensures that our costs remain as low as possible. This will allow the program to scale with relatively low amounts of funds until proof of concept is confirmed via real-world execution.

Potential Challenges

One of the primary variables we considered was whether the Arbor Day Foundation should develop software that potential partners could use to easily update their e-commerce platforms. We anticipated that other firms may be hesitant to invest time and money into significantly changing their checkout pages, as our idea would require partners to have flexible platforms that accommodate the option to donate a tree in exchange for delayed shipping. This kind of change has implications for our partners from accounting, supply chain, and logistical perspectives. After speaking with several Arbor Day employees involved in the supply chain and technical branches, we concluded that it makes the most sense for individual partners to be responsible for their own platforms. Each potential partner has a unique platform that will likely require internal labor to alter, so there is little that we can do to offer a streamlined solution. Thus, as stated previously, sales should be the focus of Arbor Day's activities. If we can secure genuine commitment from partners (via arguments based on both helping the environment and improving their bottom line), they will be glad to make the small but necessary changes to their websites.

A second potential risk that we recognized was the possibility that very few consumers will pick the option to delay shipping. There is no denying that consumers have become highly accustomed to quick shipping times, and survey participants are notorious for claiming that they would act altruistically in a survey and then failing to do so in an actual market scenario. In our models, we used very conservative estimates of consumer participation in an attempt to mitigate this risk. However, should buy-in be even lower than our conservative forecast, there would be very little downside. By not developing an expensive tech product, Arbor Day would not require

a large capital expenditure to begin this initiative. Time would be the only real loss, which, while certainly valuable, is an unavoidable risk in the creation of a new venture.

The third risk we anticipate is that there is a possibility that no potential partners will view the cost savings as significant enough to justify participation. Similar to the last risk, the only real loss in this scenario would be the time spent by the sales team. Once again, this is a valid concern but unavoidable in the creation of a new strategic partnership.

Timeline

From a timing perspective, this program can be started at more or less any time. The lack of development requirements means that there is very little upfront work necessary before the sales team can begin reaching out to potential partners. Obviously, the COVID-19 situation makes the implementation of new programs more complicated. As of now, there are no considerable barriers to the actual execution of the plan: salespeople can still make calls, websites can still be updated, e-commerce retailers are still selling and shipping products. The real barrier is economic slowdown and corporate fear surrounding launching new initiatives during a time of such uncertainty. Ultimately, the timing of our idea should be governed by the consensus of Arbor Day's salespeople who are more in-tune with how their potential partners are feeling.

Whenever we decide to launch, the timeline from there is fairly straightforward. The sales team will likely spend several months securing the first handful of partnerships. From there, several weeks will likely be required to make necessary technical changes that allow our idea to be an option on partner websites. From there, we recommend that one year be spent merely to provide proof of concept: partners actually save money on shipping costs and Arbor Day actually gets funds to plant a significant number of trees. If the first-year yields promising results, the sales team can then utilize the real-world figures to expand to more partners.

Financial Value

There is a significant financial value to our idea for both the Arbor Day Foundation and its corporate partners. As expounded upon earlier, shipping is a significant cost for online retailers and any program that can lower those costs will lead to considerable savings. The Arbor Day Foundation can offer unique incentives that maximize retailer savings while also creating a positive impact on the Earth.

In the interest of making these financial benefits tangible, we constructed a financial model that predicts potential savings and earnings for both Arbor Day and a corporate partner (in our model, Patagonia). Under our assumptions, 3% of consumers opted to delay shipping and plant a tree and the average order size was \$150. After performing some calculations using Patagonia's real data from previous years, Patagonia would receive approximately \$340,000 in savings each year from shipping costs, in addition to a ~\$70,000 tax shield (Figure 5) from contributions to the Arbor Day Foundation. Based on these projections, Arbor Day would receive enough money to plant over 2 million trees in the first 5 years of the program with one single partner at Patagonia's size.

While financial models can never perfectly predict the outcome of a given proposal, these calculations do suggest that there is a significant opportunity both for corporate partners to save a substantial amount of money on shipping costs, and for Arbor Day to plant a significant amount of trees.

Appendix

Figure 1 - Shipping Prices by Speed

Standard Shipping Cost (up to 7 business days)	
Order Amount	Freight Cost
\$0-\$50	\$ 8.50
\$50-\$100	\$ 10.95
\$100-\$200	\$ 12.95
2-Day Delivery	
Order Amount	Freight Cost
\$0-\$50	\$ 23.50
\$50-\$100	\$ 25.95
\$100-\$200	\$ 27.95
Next-Day Delivery	
Order Amount	Freight Cost
\$0-\$50	\$ 28.50
\$50-\$100	\$ 30.95
\$100-\$200	\$ 32.95

Figure 2 – Model Assumptions

Assumptions	
Average order size	\$150
Shipping Breakdown	
Standard	60%
2-Day	30%
Next-Day	10%
% of customers who delay	3%
Price per tree from ADF	\$1
Est. Cost to Implement Program	\$25,000
Implementation Date	11/1/2020

Figure 3 – Survey Results

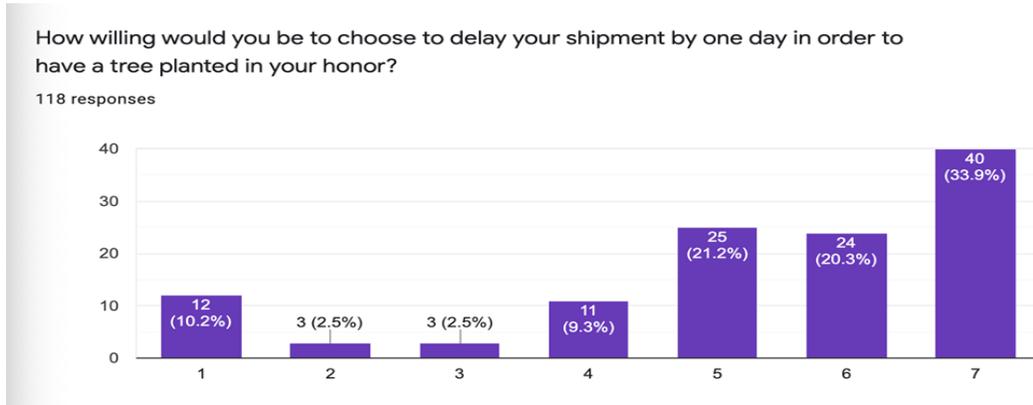


Figure 4: Green Customer Status Survey Results

If you had the opportunity to earn a green customer status in which you received discounts at environmentally-friendly stores upon the planting of 25 trees from choosing to delay your shipments, how likely would you be to complete it?
118 responses

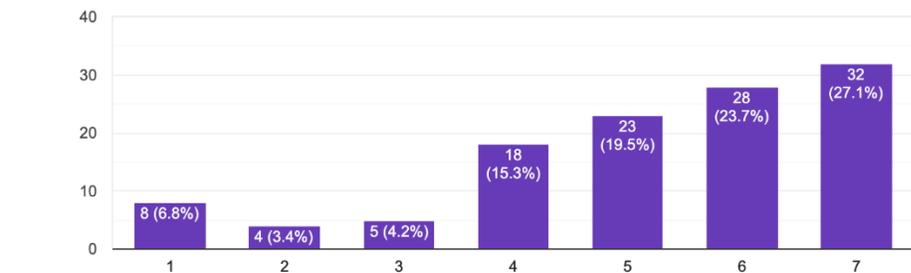


Figure 5 Tax Shield

Year	2021	2022	2023	2024	2025
Donation	\$ 345,166	\$ 388,657	\$ 437,628	\$ 492,769	\$ 554,858
Tax Shield to Partner	\$ 72,485	\$ 81,618	\$ 91,902	\$ 103,482	\$ 116,520
E(WACC)	9.5%				
PV of Tax Shield (Start in Jan 2021)	\$ 72,485	\$ 74,537	\$ 76,647	\$ 78,817	\$ 81,048
Implementation Costs	\$ 25,000				
NPV of five year program	\$ 358,535				
Trees Planted :-)	2,219,079				

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