Cost Reduction Project at Dunkin' Donuts

An analysis of savings through reusable cups



Why reduce Cost on Cups?

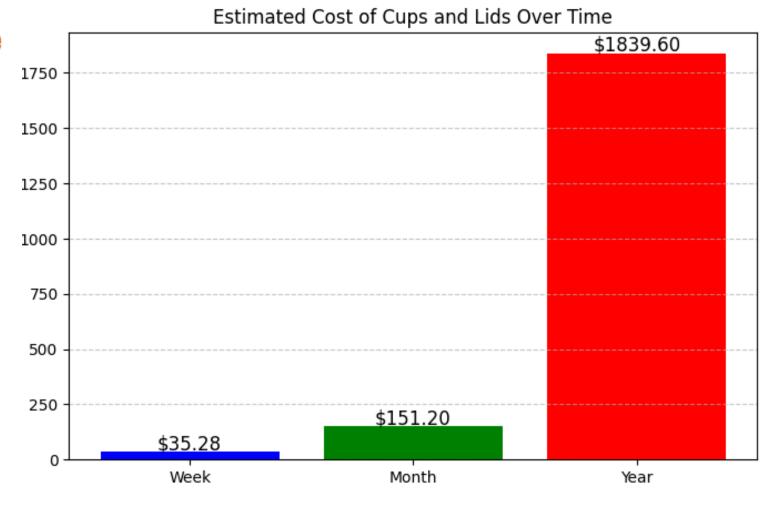
- Context: Dunkin' spends money daily on disposable cups.
- Goal: Implement reusable cups to reduce costs.
- Hypothesis: Investment in reusable cups pays off in a short time.





How Much Do Disposable Cups Costs Us?

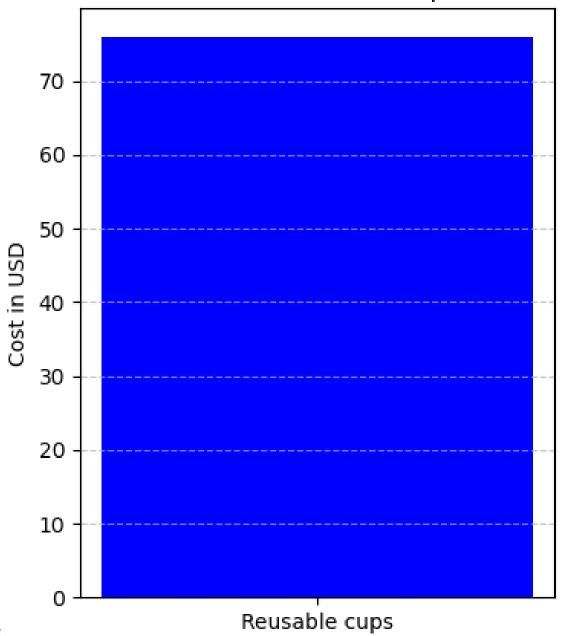
- Medium cup cost = 0.1 \$
- Lid cost = 0.04 \$
- Employess per day = 12
- Cups per employee = 3



What If We Use Reusable Cups?

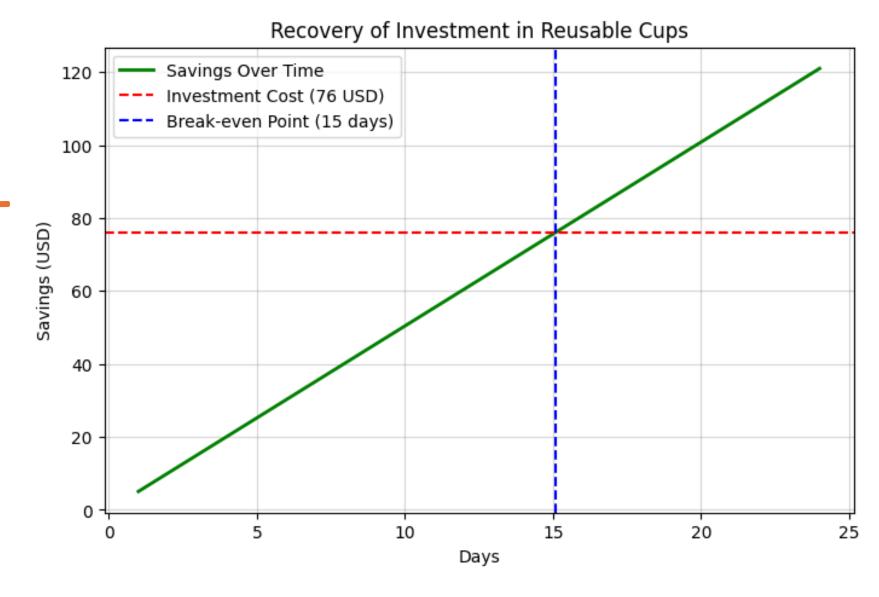
- Approximate cost per cup = 4 \$
- Employees = 19 (schedule)

Cost of Reusable Cups



How Long to Recover the Investment?

- Days to recover = Total cost reusable cup / Total cost of the disposable cups with lids per day
- Savings = Days * Total cost of the disposable cups with lids per day



Final Takeaways

Scenario	Daily Cost	Annual Cost
Before (Disposable Cups)	\$ 5.04	\$ 1839.60
After (Reusable Cups)	\$ 74 (one-time cost)	\$ 0 (after 15 days)
Total Savings (After Payback Period)	\$ 5.04/day	\$ 1839.60/year



Recommendations for Implementation

Welcome Kit for New Employees

Provide each new employee with a starter box that includes:

- Company uniform (T-shirt)
- Personalized reusable cup
- Welcome letter with company values

Rewards for Tenured Employees

- Offer the personalized reusable cup as a recognition reward for employees with a certain tenure.
- This fosters a sense of belonging and appreciation among the staff.

Marketing Benefits

- Employees carrying the Dunkin' branded reusable cup outside the store increases brand visibility.
- A simple but effective word-of-mouth marketing strategy!



Why This Recommendation Works?



- Cost-effective: The initial investment is low, but the long-term benefits (cost savings + marketing) are high.
- Boosts employee morale: Employees feel valued when they receive branded gear.
- **Free advertising:** Every time an employee carries their cup it reinforces Dunkin's brand presence.

Example



Conclusion

Although Dunkin' Donuts manages larger expenses, these seemingly small costs add up over time. By identifying and implementing simple solutions like reusable cups, the company can generate significant long-term savings while also promoting sustainability.

Even if the financial impact of this initiative seems minor in comparison to other expenses, the true value lies beyond just cost reduction. The introduction of Welcome Kits is an excellent way to:

- Motivate employees and make them feel appreciated.
- Strengthen company culture by fostering a sense of belonging.
- Increase performance and retention, as employees who feel valued are more engaged and productive.

By implementing strategies like this, Dunkin' Donuts can create a more committed and satisfied workforce, while also improving cost efficiency in the long run.

Information

All the calculations, cost analysis, and visualizations in this project were done using Python. The full code is available on my GitHub repository:

https://github.com/MathiasOrtiz/Cost-Reduction-Project-DD1

If you would like to modify the pricing values or explore different scenarios, let me know, and I can adjust the code accordingly.