



BETTER BUSINESS CHALLENGE

Concierges to Gwendolyn Hall of the Twisted Branch Tea Bazaar

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ABSTRACT

This semester, we partnered with the Twisted Branch Tea Bazaar in hopes of aiding with the business's sustainability efforts. Our primary goal in this project is to increase the Tea Bazaar's awareness of the opportunities and resources offered by the Better Business Challenge. The purpose of the Concierge Program is to take the weight off of the business owner's shoulders. The concierge is able to devote more time and knowledge to the effort than the business owner. As the concierges, we met with Gwendolyn, the owner of the Tea Bazaar to discuss the opportunities and were pleased to find out that Gwendolyn already had a fairly sustainable business and implemented many environmentally friendly practices in the work place. During the initial meeting, we came up with some great ideas from lighting possibilities and ways to solve the ventilation issues, to composting food and switching to low flow toilets.

After the meeting we did research to follow up on our ideas. We were able to find rebates for the toilets, composting companies and more. We found some ideas to be outside of the budget for Gwendolyn's sustainability efforts. There were obstacles that we encountered when trying to solve the lighting issues due to the unusually humid environment of the Tea Bazaar; and a follow-up lighting assessment would cost money that Gwendolyn was not willing to spend. However our research did lead us to viable opportunities for the Tea Bazaar to reduce water usage and consequently, reduce water bill expenses.

We presented Gwendolyn with our research conclusions. We requested to obtain her electrical bills so that we could look for patterns in energy usage that could give us more ideas when she could save energy. Unfortunately, this proved to be difficult due to a lack of communication. We hope that she has and will continue to consider our ideas and contact us if she has any problems. Although we ran into some obstacles, the Act Locally project was a great way to introduce sustainability in the businesses in our area.

INTRODUCTION

Sustainability is a global movement to reduce human's ecological footprint on the earth while simultaneously improving the quality of life. Many businesses in the Charlottesville area are interested in incorporating sustainable practices into their core model and everyday operations but lack the motivation and time to do so. The Better Business Challenge (BBC), founded by Teri Kent, is a solution to this dilemma by promoting sustainable practices and competition between local businesses. The BBC runs off a point-based scorecard which helps businesses organize their goals into different categories. The categories include energy, transportation, waste reduction, water, purchasing and leadership. Every participating business will take stock of their baseline performance and then create goals for improvement within each of the six categories. Our role in the challenge was to provide the Twisted Branch Tea Bazaar, a BBC participant, with the necessary resources for environmentally friendly and efficient alternatives to different aspects of the business. We have acted as "concierges" to Gwendolyn, the manager of the Tea Bazaar, by researching and implementing new sustainable practices ideal for the business. This will help the tea house earn points in the competition and promote sustainability awareness throughout the Charlottesville community. The stakeholders in the project are Teri Kent aka Better World Betty, the Local Energy Alliance Program (the other main contributor to the challenge), the Twisted Branch Tea Bazaar, its' customers and the entire Charlottesville area.

BODY

Our goal for this project was to initiate sustainable changes within the Tea Bazaar without compromising the comfortable and unique atmosphere. The Tea Bazaar is a local tea house and hookah bar where people go to relax in a nook or on a sofa, meet with a friend or business associate or listen to a live show. Due to its central location on the Downtown Mall in Charlottesville, the Tea Bazaar is an ideal location to implement and advertise the numerous benefits of sustainable business practices.

From our first meeting with Gwendolyn, we found that the Tea Bazaar had already made many efforts to become more sustainable. For example, Gwendolyn purchases recyclable or biodegradable to-go utensils, boxes and cups. In the transportation category, she has gained points because approximately 80% of the employees at the Tea Bazaar walk or bike to work. The tea house also harnesses natural light through the two skylights. Gwendolyn makes sure that all of the lights in the Tea Bazaar are turned off at close and the AC/heat unit is set to 82 degrees. During the first meeting meet with Gwendolyn, we tossed around many ideas and improvements. After much consideration and a briefing with Teri, we decided to focus on just a few easy and affective improvements. When suggesting changes, we kept in mind Gwendolyn's budget limitations, the reality of implementing the project, its overall effectiveness and its' aesthetic in the tea house environment. We want to ensure that the changes make long-term sense and fits nicely into the quirky atmosphere of the tea house.

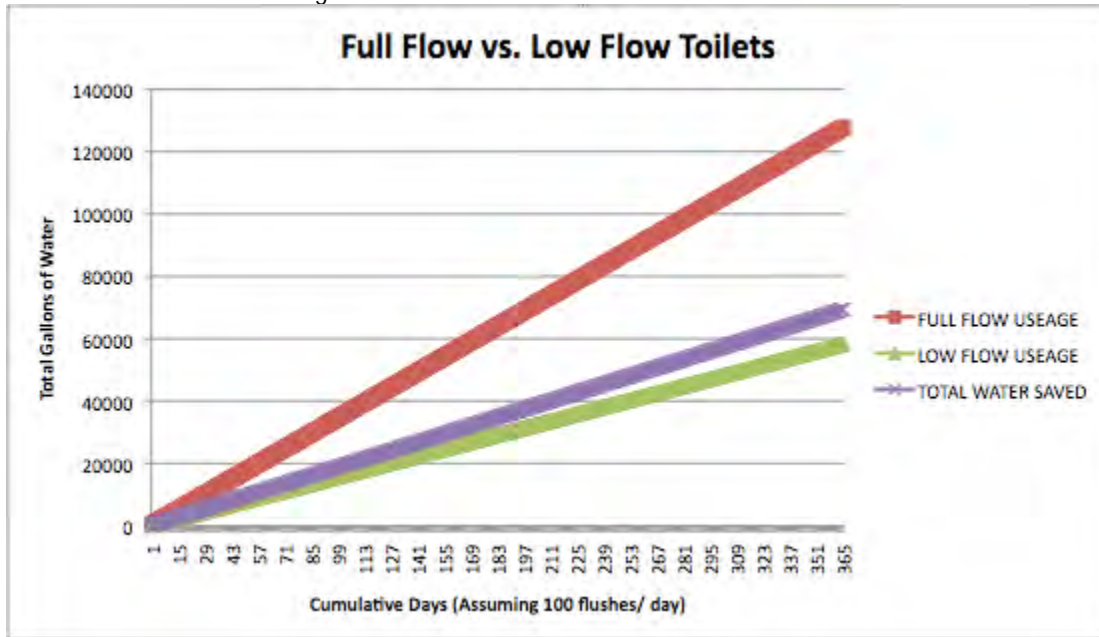
The BBC website (cvillebetterbiz.org) "resources sections" has an array of local resources, tools and links to relevant websites. For example the energy section has a lighting assessment template, list of Dominions lighting rebates, a temperature settings calendar, and much more sustainability advice only a click away. This site helped us convey the rebates available for the Charlottesville area, companies willing to help pick up recycling and compost and BBC participants available to conduct lighting assessments. This website, and our contact with Teri Kent, helped us prioritize projects and save time and effort when researching. Also, we attended a beneficial "Lunch and Learn" BBC event on Energy Savings, which provided helpful information to relay to Gwendolyn. This information includes simple and cheap fixes, such as installing occupancy sensors (which can save 10-20% energy), setting company computer to sleep mode rather than a screen saver (saves 70% energy) and using surge protectors, a simple way to turn everything off at once and prevent wasted electricity.

We narrowed down the ideas into five main concerns; Water saving toilets, efficient air conditioning unit, composting, light bulb replacement and a green roof option.

1) Water Savings Toilet

Currently, the Tea Bazaar has two full-flow toilets, which use 3.5 gallons per flush. Gwendolyn hopes to switch these toilets to low flow (1.6 gallons per flush). Low flow toilets save approximately two gallons per flush compared to full flow toilets, so switching both toilets in the Tea House to low flow would save approximately 7,000 gallons of water a year (if 100 people use the restroom per day). Not only does this conserve water, but it also saves money on the water bill. The Charlottesville City Rebate Program will rebate \$60 for each toilet costing up to \$100 and \$80 for toilets costing over \$100. These rebates are effective for up to two toilets, so the Tea Bazaar would be able to replace both toilets with rebated prices. There are also other alternative to regular toilets that save water. We are considering dual flush and waterless toilets which are also eligible for the Charlottesville City Rebate Program.

The below graph shows the total gallons of water used by a full flow and low flow toilet, and also the amount of water saved when switching from full flow to low flow.



2) Efficient Air Conditioning Unit

Gwendolyn wants to improve the ventilation in the Tea Bazaar. The building gets extremely hot during the summer time due to the minimal windows, inefficient AC units and the sun-heated roof. However, the landlord is resistant to a costly replacement of the AC unit. Gwendolyn hopes to improve ventilation in the main room of the Tea Bazaar. She says it the room is self-heating and she rarely has use the central heating system. The heat from the tea and the skylights contribute significantly to the warmth of the Tea Bazaar. To offset this heat, Gwendolyn has already installed an insulation blanket around the water heater. Unfortunately, the electric bill increases \$150 per month in the summer indicating high AC usage. A better HVAC system can significantly increase the comfort and decrease the energy usage of the Tea Bazaar. The Dominion Rebate offers significant refunds for HVAC systems. At the first meeting, we discussed this with Gwendolyn and she is in the process of collecting energy bills and the information about the air conditioning unit that will help us determine if this is a feasible option.

3) Composting

Composting is often known as “the backbone of organic gardening” and is a nutritious and environmentally friendly method of improving soil structure. Decomposition is a natural process that attracts beneficial microorganisms that increase the health of the soil. Composting is a great way for companies to reduce waste and increase recycling and sustainable practices.

Gwendolyn has expressed interest in composting food and tea waste. She has previously composted all food waste including post-consumer waste. She has taken this compost home for her own personal use. However food codes prevent a large composting initiative. Panorama Paydirt has been known to collect pre-consumer waste from restaurants around Charlottesville. They usually target chain businesses that prepare huge amounts of food then end up with leftovers.

If the tea house can start to keep track of teabags and any pre-consumer waste they create, they might have enough waste to attract the interest of Panorama Paydirt. However, the Tea Bazaar does not have large quantities of pre-consumer waste because they make the food when ordered.

Another composting option for the Tea Bazaar is Black Bear Composting. This composting company is located further away than Panorama Paydirt, but does offer commercial post-consumer collection. Black Bear Composting gives businesses with collection equipment and training of the key staff on identifying compostable and non-compostable items. We provided Gwendolyn with the contact information for Black Bear Composting and hopefully she will follow through with this opportunity to recycle the Tea Bazaar's waste.

4) Lighting

A compact florescent light (CFL) is designed to replace an incandescent lamp, by using less power (typically one-fifth) and having a longer rated life (six to ten times average). CFLs are a quick way to save energy and cut down on the electricity bill

The Tea Bazaar is in the upstairs of a building downtown which only allows for a few windows on the front and back sides. There are two skylights that also provide natural light and Gwendolyn is also considering sky tubes. She has tried using CFLs but they die just as fast as the regular incandescent bulbs she has used previously (and has returned to using because of this issue). It is possible that the reason the CFLs burn out so quickly is because the air in the tea house is humid. Due to these unique circumstances, we have called upon an expert to do a lighting assessment. We have reached out to Tom Cassidy to ask for his opinion. Tom Cassidy recommends Timberlake lighting, a lighting wholesaler, to conduct a lighting assessment for a small price.

The photo below is of the main room in the Tea Bazaar. Notice the dimly- lit atmosphere and absence of central overhead lighting. The multiple 60 Watt incandescent light bulbs waste more money and electricity than if the teahouse switched to CFLs.



5) Green Roof Option

Currently the Tea Bazaar has a mini employee-run garden on the roof of the building, where fresh basil, mint, rosemary and other herbs are grown and used in the tea on a daily basis. However, the garden is located on a neighboring roof and doesn't provide the teahouse with the insulation benefits of a green roof. Green roofs are beneficial because they reduce overall heating of the building, absorb storm-water runoff, increase agriculture space and also insulate the building from sound. We do not plan on installing a full green roof but we hope that by moving the plants to the roof over the tea house, the plants will cover part of the roof and prevent the sunlight from heating the building in that area of the roof. Unfortunately, moving the potted plants to the roof of the teahouse would hinder

the employee's ability to access the garden and properly tend to it.

Throughout our project we constantly updated Gwendolyn on information we compiled and the next steps for her to take. We addressed all of the major concerns we discussed with Gwendolyn and hope she will take action and utilize our intensive research to better her business. We made ourselves available for her to contact at any time with further questions or new sustainable ideas. We wish Gwendolyn luck in the BBC and in transforming her business to an even more sustainable icon in the Charlottesville community.

CONCLUSION

Sustainability helps save money and also encourages beneficial environmental practices throughout the Charlottesville community. We have been grateful to have the opportunity to assist in the Better Business Challenge and believe it sends a great local message to business managers and members of the community. We have outlined a detailed plan for the Tea Bazaar that will not only help the business advance in the Better Business Challenge but also minimize its long-term ecological impact.

At the first meeting, Gwendolyn had numerous sustainable project ideas, on both a large and small scale. Gwendolyn has expressed how the landlord is resistant to modifying the building structure unless the changes are necessary, so we discounted the initial ideas to implement new tube skylights and alter the kitchen layout. We do hope Gwendolyn will execute these projects and make the proper negotiations with the landlord.

Due to Gwendolyn's (and our own) time and budget constraints we decided to focus on smaller-scale projects that would provide maximum results. We pursued areas of the Tea Bazaar that were easier to address. Switching from full flow to low flow toilets is fairly low cost (due to Charlottesville Rebates) and high water conservation results. We have provided the proper facts to entice Gwendolyn and the landlord to switch to low flow and the next steps for this project are in the hands of her and the landlord. Also, the burnout of CFLs is a major electrical issue for the teahouse. If Gwendolyn pursues the lighting assessment (from the contact information we provided) and is able to determine why the life of the CFLs is dramatically shorter than the marketing life, then the Tea Bazaar will have the opportunity to reduce electricity use, cost of light bulbs, and waste of used light bulbs. Hopefully this will be an easy fix to achieve a more sustainable business.

We documented our work in the various papers and projects due for the Global Sustainability class at UVA. Also, we provided Gwendolyn with outlines of contact information and research that we had collected and organized. We learned that working with a business, specifically a restaurant is difficult due to the busy schedule of the managers and employees. It was difficult to coordinate schedules between Gwendolyn and both of us.

FUTURE WORK

Due to the difficulty of getting in contact with Gwendolyn, both of us have decided not to pursue this project. If Gwendolyn does respond through any means of communication, we are willing to share our advice and suggestions of how to succeed in the Better Business Challenge. However, we do not want to continue to pester her if she does not have time for the Concierge Program and is no longer interested. We have outlined our suggestions for her and sent them in a conclusive email. Hopefully she will look into some more ways to become sustainable and contact us if she needs help again.

If Gwendolyn requests our help as concierges, we would help her follow through on the above projects as well as help her address larger-scale concerns, such as implementing two new tube skylights over the kitchen and central area. This project would increase the natural lighting in the central area, and consequently decrease the electricity usage and bill. Gwendolyn had a keen awareness on sustainability and ways her business could become a leader in the green movement.

LESSONS LEARNED

There are many constraints, primarily monetary, when formulating any kind of plan for a business. We had to think inside a reasonable budget when formulating ideas for the Tea Bazaar, causing us to veto ideas that required expensive purchases. A new HVAC system is extremely costly and although it would solve the air drafts and ventilation problems, the building owner was not willing to pay for the upgrade. Gwendolyn also did not have the money to pay for the new system. Also, many eco-friendly products are more expensive than generic brands, thus switching cleaning supplies to eco-friendly or food to organic can have a monetary toll on the business's budget. New sustainable technology such as occupancy light switches, outlet self-timers or even CFL light bulbs are expensive and have a long-term payback.

We did conduct a fair amount of research but found that many of the steps to sustainability are not possible for the Tea Bazaar. For example, composting post-consumer waste violates health regulations. A lot of our research proved that the technology and design upgrades for the Tea Bazaar is very costly and not in the budget allocated for sustainable initiatives.

The biggest obstacle we faced was the difficulty of communication. It took a couple of tries for us to get in contact with her for the first meeting. The first meeting went very well and Gwendolyn gave us a good amount of her time to overview the BBC scorecard and new sustainable options for the business. We left the meeting with great ideas and many research topics. However, that was the last we heard from her. Gwendolyn didn't respond to the various emails of suggestions, questions and resources we sent to her. Also, we tried to set up a meeting and left a few messages on her phone and kept waiting for her to call or email us back. We started to feel like we were being too aggressive and didn't want to continue to pester her. This is a missed opportunity for her to have help with becoming more sustainable. It was a let down for us too because we would have like to see that we had made a change.

If we were to do this project again, we would do many things differently. We would first ensure that our business partner was committed to the Better Business Challenge and make sure she had goals in mind. We should have gotten an estimate of what she expected from us and set up biweekly meetings. Meeting every two weeks would have been ideal to ensure that we were making progress.

However, this project was very educational and introduced us to the advantages of incorporating sustainability into a business as well as the obstacles when working with a business. The purpose of a sustainable business is to lessen the impact on the environment while simultaneously advancing the economics and equity of the company.

APPENDICES

Bibliography:

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Acknowledgements:

We would like to thank Teri Kent for organizing the Better Business Challenge and the concierge program. She has answered our questions and helped us to resolve problems that we have faced over the course of the semester. Whenever we had questions about who to contact for more advice, Teri was able to point us in the right direction. We also must acknowledge Tom Cassidy for recommending lighting resources and a company that can do lighting assessments. Finally, we would like to acknowledge Gwendolyn's commitment to sustainability. Her previous efforts and interest in the Better Business Challenge has made her an environmental steward in the Charlottesville community. We wish the best for her business and the continuation of sustainable practices.