

EXPLORING THE SUSTAINABILITY OF THE BARN

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ABSTRACT

The Barn Coffee Shop is currently losing money, thus threatening its economic sustainability. Recognizing that economic sustainability is interconnected with ecological and social sustainability, we believe that enhancing the ecological and social sustainability of the Barn will facilitate improvements in economic sustainability. Using past surveys, conducting our own surveys, using websites and personal interviews, we found that faculty and staff comprise the majority of the Barn's customers, but that students are interested in the up-coming changes. These changes include removal of the grill and offering daily paninis and pastas, incorporating Tim Horton's® coffee and baking, and possibly fostering a partnership with the UBC farm. We assessed sustainability through indicators such as amount and type of waste, profits or losses, and customer satisfaction surveys. Through our strong anthropocentric viewpoint, we recommend improving ecological and social aspects of the Barn to improve the economical sustainability. Primary recommendations include: elimination of Styrofoam, conversion to paper take-out containers, improved advertising for special features, establishment of a partnership with the UBC farm, and education of staff on sustainability issues. Suggestions for future research include measuring indicators once renovations are complete and recommendations are implemented to determine their impact on economic, ecological and social sustainability of the Barn.

A. INTRODUCTION

The Barn Coffee Shop is currently losing money, which is threatening its economic sustainability. Acknowledging that economic sustainability is interconnected with ecological and social sustainability, we believe that addressing the economic aspect alone will not drastically improve the outcome. We feel that by enhancing ecological and social sustainability of the Barn, improvements in economic sustainability will ensue.

There are several issues directly affecting the economic situation of the Barn. Competition with the nearby Bread Garden has reduced sales, and rising maintenance costs of aging equipment have increased expenses.⁶ Combined with high labour costs and elevated levels of theft, the costs of operating the Barn are outweighing the revenue it generates.⁶ Proposed renovations will replace old equipment and therefore minimize maintenance costs, but will also alter the variety of foods offered. In addition, the consideration of introducing Tim Horton's[®] brand name beverages and baking may attract new customers, thereby increasing revenue.

In line with attracting new customers, improvements to the ecological sustainability of the Barn may entice the predominantly environment-conscious agricultural science students from the neighboring building. Although students comprise approximately twenty percent of the Barn's market,⁵ this percentage may be improved if ecologically friendly improvements were made. Some examples include: reducing use of Styrofoam plates and minimizing the disposal of raw waste by initiating a composting system. Furthermore, establishing a partnership with the UBC farm to offer their seasonal produce would be a major attraction for agricultural science students. Therefore, improving the ecological sustainability of the Barn may attract new clientele, provided that these initiatives are sufficiently marketed. This in turn will indirectly improve the economic sustainability of the Barn.

While attracting new customers is important, maintenance of present clientele is equally so. The majority of customers at the Barn are staff from plant operations⁵, and therefore attention to their

preferences is essential for sustaining revenue. Staff members have expressed their desire for a quiet atmosphere where they are able to sit and talk with peers.³ The Barn's upper level eating area attempts to meet this demand, however the effects of the new renovations on atmosphere may impact this social sustainability. While these renovations will affect both the space and the style of the Barn, there will also be improvements to service. Maintaining customer satisfaction is crucial to the social sustainability of the Barn, and thus contributes to economic sustainability by ensuring a continued source of revenue.

B. UNDERLYING VALUE ASSUMPTIONS

From our research, we learned that UBC Food Services is mainly concerned with making the Barn economically sustainable. Since we are primarily focusing on making the food service outlet economically sustainable by identifying profitable ways to make it ecologically and socially sustainable, our group took a *strong anthropocentric* view. We feel that by emphasizing profitability, we are mainly focusing on human needs and interests. Furthermore, our strong anthropocentric value assumptions stem from the fact that customers are an integral part of the Barn and are key for social sustainability. Therefore, our group recognized the importance of customer satisfaction (and thus, customer needs and interests) in maintaining social sustainability.

While we value human needs and interests, we also feel that humans have an ethical responsibility for the natural world. Our group feels that the natural world has inherent value and therefore, should be respected. Since we prioritize human interests over that of the environment, we consider ourselves to be *weakly ecocentric*. While renovations to the Barn will remove the grill improving the ventilation system, the waste management system remains poor.⁷ Reducing waste will not only minimize costs but it will also allow the Barn to be more ecologically sustainable.

Our group agreed that a sustainable operation must be community-oriented. Due to our *community-based* approach, we focused on social relations and social structures at the Barn. Since the Barn is located at the south side of campus, it has distinct customer groups such as Plant Operations staff and Applied Science students. We decided that by evaluating and achieving customer satisfaction, improvements could be made

to maintain the present clientele. By establishing regular customers, the Barn would become a familiar meeting place. Furthermore, our group agreed that the geographical location of the Barn would be ideal for agricultural science students. This new clientele would further add to building the “community” at the Barn. By building a community, a sense of loyalty may be instilled within the customers. However, we recognize the community is not independent of place and ecology. By introducing UBC Farm produce, we can build a strong connection to the university and establish a broader sense of community. As well, keeping the economical aspect in mind, using local produce would keep money cycling within the UBC locality.

C. EXPLORING SUSTAINABILITY

In order to explore the sustainability of the Barn, our group took a step-wise approach. We began by clearly describing our subsystem, choosing appropriate methods of data collection, setting economical, ecological and social indicators and finally, interpreting our results.

I. Description of the Subsystem

In general, the Barn Coffee shop is a food service outlet located at the south end of campus. Although the name implies it is a coffee shop, the Barn actually serves breakfast and lunch in addition to coffee and snacks. In analyzing the Barn as a system, we defined the four necessary aspects:

Boundary: Besides the physical boundary of the Barn, our boundaries included the production process. In the production process, we included the processing, preparation, retail sale and disposal of food items.

Components: The components involved include the physical setting of the Barn, the customers (which include students, faculty members, and plant operation personnel), employees, food (which includes the purchasing, processing, preparation, and disposal) and environment.

Interactions Between the Assigned Components: The following interactions can be observed:

- Physical setting and customers
- Physical setting and staff
- Food and customers
- Food and staff
- Staff and customers

- Food and environment

Goal: The main goal of the food service outlet, as we perceive it, is to be profitable. We do not think that the Barn is concerned with being ecologically friendly; however, we feel that it focuses on maintaining a strong social scene.

II. Methods of Data Collection

Our group used several methods of data collection. We conducted personal interviews with Andrew Parr, director of UBC Food Services and Laura Lowry, supervisor of the Barn Coffee Shop. We used surveys and past studies as provided to us by the Agricultural Science 450 teaching team. In addition, we designed and conducted our own survey of Agricultural Science students and staff. Our survey was based on previous surveys that were conducted to evaluate customer satisfaction. To learn about waste management and sustainability at UBC, we used the university's official web sites on these topics.

III. Indicators

Economical Sustainability: We consider profit (or losses) made by the Barn to be the indicator for economical sustainability.

Ecological Sustainability: To determine the ecological sustainability of the Barn, we focused on waste management practices. We consider the type of garbage (such as recyclable material) and the number of garbage bags disposed of per day to be the indicators for waste management practices.

Social Sustainability: Recognizing that customers are key, we consider customer satisfaction to be the indicator for social sustainability, which is measured through surveys.

IV. Findings

Economic Indicators: The Barn has experienced a net loss of \$10,414 to date for the year 2002.⁵ The costs of labor and food are above desirable levels, contributing to the high expenses faced by the Barn.

Ecological Indicators: There are approximately 550 customers per day visiting the Barn.⁷ Around 7 bags of garbage are collected per day.⁸ Recycling bins for bottles and cans are present, however, unused raw food, unsold prepared food and table scraps are thrown into the garbage. Used Styrofoam plates and cups, as well as paper coffee cups, are also discarded. Although the Barn does support “One Less Cup,” a program promoted by WasteFree UBC to offer discounts for customers using their own cups and containers, it is not well advertised, and not widely used. [REDACTED]

Social Indicators: We have interviewed 38 respondents, which include faculty members and primarily agricultural science students. From our survey, we have found that all of the 38 respondents have heard of the Barn, but that 52% do not go to the Barn, mainly due to unappealing interior, long lineups, bad meals and/or cost. Some comments/recommendations generated in our survey include cheaper prices, more Asian food, and more advertising of special features. We found that the introduction of better recycling (including a reduction of Styrofoam), a partnership with the UBC farm, and offering Fair trade coffee would positively affect 52% of the respondents’ decisions to visit the Barn. Furthermore 73% of the respondents said that the change of menu items would entice them to the Barn. [REDACTED]

[REDACTED]

The decisions of which foodservice operations students attend is important because more than ¾ of students eat on campus at least 2-3 times a week.^{2,4} However, students comprise only 20% of the Barn’s customers, with faculty members and plant operation personnel being the primary customers.⁵ In addition, students are spending less on lunch (\$ 5-10/week), and do not consider the Barn as a place for lunch.^{2,4} In previous surveys, customers have requested more brand names and more variety (including Tim Horton’s®), more nutritious food, cheaper pricing, more advertising, better customer service, and fresher/made-to-order food.^{3,4} It is in response to these demands that

the Barn is considering the incorporation of Tim Horton's® coffee and baking, as well as daily paninis and pasta specials.⁵

D. CONCLUSION

I. Central Findings

Presently, the major problem faced by the Barn is that it is losing more money than it is generating. A major cause for the net loss in income is that it is subject to large expenses.⁶ To make matters worse, incidents of theft further drive up the food costs.⁶ ██████████ Renovations scheduled to take place in May are targeted towards resolving the economic problems.^{5,6} In terms of ecological sustainability, a major finding is that a concrete plan to reduce and manage waste at the Barn does not seem to exist ██████████ In fact, there only seems to be a minimal effort geared towards recycling.^{7,8} While the Barn has distinct customer groups, in order to be socially sustainable the Barn must maintain its present clientele as well as attract new customers. The majority of the customers at the Barn are faculty members and plant operation personnel, not students.⁵ Only around 20% of students frequently visit the Barn and want to spend less money for meals.² Furthermore, surveys show that the Barn was not a recommended place for lunch.^{3,4}

II. Recommendations

Based on our findings, we propose a set of recommendations to make the Barn more sustainable economically, ecologically and socially.

1. Improve the current waste management system

- While we recognize that the Barn must rely on disposable tableware, we recommend that the use of Styrofoam be eliminated.
- While we are aware that UBC Waste Management, does not recycle paperware,¹¹ we feel that using paper plates, wrappers and boxes are more ecologically friendly.
- Furthermore, students perceive food in Styrofoam as stale or mass produced and environmentally unfriendly, and would prefer paper plates.³
- The Barn should employ the *Paper Reduction Tool Box*, developed by the Sustainability Office at UBC.^{10 B} ██████████
- As well, we recommend that the Barn composts raw food wastes. For example, the Pendulum Restaurant at the Student Union Building composts 5 gallons of fruit and vegetable waste per day using two backyard bins.¹¹

2. Offer unique speciality items to make the Barn distinct from other outlets

- ❑ If people do not see any reason to go to the Barn instead of other outlets, then the Barn might not maintain its present clientele or attract the new customers that it needs.
- ❑ While a unique feature of the Barn is that it provides breakfast, it has not been as successful as expected in attracting customers.
- ❑ Offering the proposed paninis and pastas post-renovations will add to specialty items available.
- ❑ We recommend that the Barn cater to the different ethnic groups and thus, ethnic dishes could serve as additional speciality items. The Bread Garden does not serve ethnic dishes, therefore this would provide the Barn with a competitive edge.

3. Form a partnership with the UBC Farm

- ❑ A partnership with the UBC Farm would be effective in drawing in agricultural science students, further adding to the clientele of the Barn.
- ❑ Using local produce would also allow the Barn to serve seasonal items and would enrich the selection of speciality items.
- ❑ A partnership with the Farm would establish a strong connection with the university and may instil a sense of loyalty within customers.
- ❑ The partnership would allow money to cycle within UBC.
- ❑ [REDACTED]

4. Use more advertising

- ❑ We feel that the Barn does a poor job of advertising. Many people are misled by its name (The Barn Coffee Shop).
- ❑ We recommend that the outlet use signs and posters across the campus to let the public know of the items it offers. A simple yet effective idea would be to place a sandwich board outside the facility that lists daily specials.
- ❑ Furthermore, if brand name coffee like Tim Horton's[®] or UBC Farm Produce are offered, these features should be thoroughly advertised.

5. Educate employees about sustainability

- ❑ Many people are not even sure what sustainability means.¹¹ By educating employees through seminars, staff will become aware of the concept.
- ❑ Sustainability in any sense (like economical/ecological/social) will be more easily achieved if each member of the staff and workforce at the Barn made daily contributions geared towards improving quality and sustainability of the Barn in the long run.

III. Future Research Questions and Recommendations

While our group has attempted to answer as many research questions as possible, we generated a list of future research questions and recommendations.

1. The impact of renovations

- Have the renovations made a positive impact economically, socially and/or environmentally?
- Has the incidence of theft decreased?

- Have the renovations cut down on the costs? (e.g. does the new equipment cut down on energy costs and expenditures?)
- Have the numbers of customers changed after the renovations were made?
- Are customers satisfied with the changes that take place after renovations?

2. Evaluate waste management practices

- Have new strategies been implemented?
- Is there a reduction in amount of waste disposed?

3. Examine the degree of partnership formed with UBC Farm and whether it has been beneficial

- Has the partnership attracted new customers?
- Is there an increase in revenue?

4. Perform demographic surveys

- How has the clientele changed since the renovations?
- If our recommendations have been implemented, have they affected the type or number of clients?

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