

Innovation and Design Thinking-I (1010043291) Log Book

ZERO-WASTE GROCERY STORE

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BRANCH: INFORMATION TECHNOLOGY

SEMESTER: III

ACADEMIC YEAR : 2024-25

GUIDE NAME: PROF. PARVIN BLOCH

Week 1: Understanding the Problem

❖ **Date:** 03/07/2024 TO 06/07/2024

❖ Objectives for the Week

- Understand the scope of the zero-waste grocery store project.
- Research the environmental impact of waste in traditional grocery stores.
- Identify key stakeholders and target audience for the project.
- Define the project's main goals and outcomes.

❖ Activities Completed

- Conducted initial market research on waste reduction in the retail sector.
- Held brainstorming sessions with the project team to outline major pain points in conventional grocery models.
- Scheduled interviews with sustainability experts to gain further insights.
- Started mapping customer journeys in traditional vs. zero-waste shopping experiences.

❖ Key Insights Gained

- Significant portion of waste in grocery stores comes from packaging and single-use plastics.
- Consumers are becoming more aware and supportive of zero-waste practices, but convenience remains a key factor.
- Successful zero-waste stores emphasize education, convenience, and community involvement.

❖ Challenges Faced

- Difficulty in obtaining reliable data on waste in the grocery sector.
- Uncertainty around the exact costs involved in transitioning to zero-waste operations.
- Balancing the need for convenience with sustainability goals

❖ Solutions/Actions Taken

- Partnering with environmental NGOs and sustainability experts for more accurate data collection.
- Exploring grant opportunities and government subsidies for sustainability projects.
- Investigating local suppliers with a focus on bulk buying and refillable options to reduce packaging waste.

❖ Next Steps

- Conduct interviews with store owners and customers to further understand needs and pain points.
- Refine the zero-waste grocery store model based on market research and expert feedback.
- Develop a cost-benefit analysis for the zero-waste transition.

Week 2 : Deep Dive into Market Research and Consumer Behavior

❖ **Date:** 08/07/2024 TO 13/07/2024

❖ Objectives for the Week

- Analyze consumer behavior regarding sustainable shopping habits.
- Identify key market trends in zero-waste grocery stores.
- Research competitors and evaluate their zero-waste strategies.
- Investigate consumer pain points and how zero-waste stores can address them.

❖ Activities Completed

- Conducted surveys and interviews with consumers to understand their attitudes toward zero-waste shopping.
- Analyzed existing zero-waste grocery stores and their operational models (e.g., The Zero Market, Package Free Shop).
- Reviewed social media discussions, forums, and online communities focused on sustainable living to identify emerging trends.

❖ Key Insights Gained

- Consumers are increasingly interested in sustainability, but they prioritize affordability and convenience over waste reduction.
- Many are willing to try zero-waste alternatives if clear cost-saving benefits are highlighted.

❖ Challenges Faced

- Difficulty in finding a large enough sample of zero-waste shoppers for reliable insights.
- Consumer resistance due to misconceptions that zero-waste shopping is expensive or inconvenient.
- Identifying the best strategies for communicating the benefits of zero-waste shopping to different demographic groups.

❖ Solutions/Actions Taken

- Partnered with sustainability influencers and bloggers to promote zero-waste shopping and gather more data from their audiences.
- Launched an awareness campaign on social media to demystify zero-waste shopping and address misconceptions.
- Adjusted focus group questions to dig deeper into consumer pain points and potential solutions

❖ Next Steps

- Develop consumer personas based on the data gathered to better target different audience segments.
- Begin drafting the store's business model, incorporating flexible pricing strategies to cater to different income levels

Week 3: Building the Business Model and Operational Strategy

❖ **Date:** 15/07/2024 TO 20/07/2024

❖ Objectives for the Week

- Develop the zero-waste grocery store's business model.
- Identify key operational strategies for managing inventory, supply chains, and customer service in a zero-waste environment.
- Explore potential suppliers and partnerships to support sustainable sourcing.

❖ Activities Completed

- Created an initial draft of the business model, highlighting revenue streams, cost structures, and customer value propositions.
- Began mapping out supply chain logistics for bulk buying, local sourcing, and refill systems.
- Identified key suppliers for bulk goods, reusable containers, and sustainable packaging.

❖ Key Insights Gained

- Bulk buying and sourcing from local suppliers can significantly reduce packaging waste and transportation emissions, but requires tight inventory control.
- Refill systems present both logistical challenges and a major selling point for customers seeking convenience and sustainability.
- Margins on some products may be lower due to higher upfront costs for sustainable goods, but long-term savings on packaging and waste disposal could offset this.

❖ Challenges Faced

- Difficulty in balancing sustainable sourcing with affordable pricing, especially for niche zero-waste products.
- Complexities in managing refill stations, ensuring hygiene, and maintaining operational efficiency.

❖ Solutions/Actions Taken

- Explored different pricing models (e.g., membership discounts, bulk purchase incentives) to make zero-waste shopping more affordable.
- Researched reusable container systems used by other zero-waste stores to identify best practices for hygiene and efficiency.
- Began discussions with local farmers and small-scale producers to negotiate long-term partnerships and bulk supply agreements.

❖ Next Steps

- Finalize the business model and create a detailed financial plan, including startup costs, operational expenses, and projected revenue.

Week 4: Store Design and Customer Experience

❖ **Date:** 22/07/2024 TO 27/07/2024

❖ Objectives for the Week

- Design the physical layout of the store to optimize customer experience and facilitate zero-waste shopping.
- Incorporate sustainable practices into the store's design, from construction materials to energy usage.
- Create a cohesive brand identity that reflects the store's zero-waste mission.

❖ Activities Completed

- Worked with designers to create a blueprint for the store layout, focusing on ease of navigation, refill stations, and product display.
- Researched eco-friendly building materials and energy-efficient lighting and cooling systems.
- Analyzed successful zero-waste store designs to understand how space can influence consumer behavior and reinforce the store's mission.

❖ Key Insights Gained

- A well-designed store layout, especially around refill stations, can encourage repeat customers by making the process seamless and intuitive.
- Using eco-friendly building materials and energy-efficient technologies adds to the brand's credibility and offers long-term savings despite higher upfront costs.

❖ Challenges Faced

- Balancing the need for sustainability in store design with budget constraints, particularly around construction and energy-saving technologies.
- Determining how much space to allocate to different product categories, refill stations, and educational areas without overwhelming customers.

❖ Solutions/Actions Taken

- Prioritized essential eco-friendly materials and energy systems, while exploring more cost-effective alternatives for non-essential elements.
- Tested various layout options using mockup designs and customer feedback to optimize flow and accessibility.

❖ Next Steps

- Finalize the store layout and begin sourcing materials for construction.
- Develop detailed customer journey maps to ensure the shopping experience is smooth and enjoyable, particularly around refill stations.

Week 5: Finalizing Supplier Relationships and Testing Systems

❖ **Date:** 29/07/2024 TO 03/08/2024

❖ Objectives for the Week

- Finalize supplier agreements and secure partnerships with local and sustainable suppliers.
- Ensure logistical systems are efficient and aligned with the zero-waste model.
- Begin preparations for the store's soft launch, including marketing efforts.

❖ Activities Completed

- Finalized agreements with key suppliers for bulk goods, reusable containers, and eco-friendly products.
- Conducted a pilot run of the refill stations, testing both manual and automated systems for ease of use, hygiene, and efficiency.

❖ Key Insights Gained

- Strong relationships with local suppliers not only support sustainability but also foster a sense of community and trust with customers.
- Refill stations need dedicated staff assistance during peak times to ensure smooth operation and avoid delays, especially for new customers.

❖ Challenges Faced

- Some suppliers were hesitant about committing to long-term bulk agreements due to uncertainty about demand and sustainability of their own operations.
- Testing refill systems revealed challenges with maintaining hygiene and speed, particularly for liquids and more complex refills (e.g., oils, cleaning products).

❖ Solutions/Actions Taken

- Negotiated flexible, trial-period agreements with some suppliers to build trust and gradually increase bulk orders as demand grows.
- Adjusted refill station procedures to include more customer assistance and introduced clearer signage to explain the process.
- Invested in software that integrates real-time tracking of inventory levels and sales to reduce overstocking or stock shortages.

❖ Next Steps

- Finalize marketing materials, including social media campaigns, local partnerships, and influencer collaborations, to promote the store's soft launch.
- Train staff in both customer service and operational procedures for managing refill stations, inventory, and waste reduction processes.

Week 6: Staff Training and Pre-Launch Preparations

❖ **Date:** 05/08/2024 TO 10/08/2024

❖ Objectives for the Week

- Train staff on zero-waste practices, customer service, and store operations.
- Finalize store setup, including product displays, refill stations, and signage.
- Conduct a final review of logistics, supply chain management, and waste reduction processes.

❖ Activities Completed

- Organized staff training sessions covering everything from handling refill stations to educating customers about zero-waste practices.
- Completed the setup of the physical store, including optimizing the layout for customer flow and convenience.

❖ Key Insights Gained

- Staff training is critical for smooth operations, especially around refill stations and educating customers about the zero-waste concept.
- Clear, visible signage plays a major role in reducing confusion around refill stations and bulk purchasing systems.

❖ Challenges Faced

- Some staff found the refill station procedures complex, especially around handling liquid refills and maintaining hygiene standards.
- The test day revealed the need for clearer customer guidance in navigating refill stations and bulk sections.

❖ Solutions/Actions Taken

- Added more hands-on, scenario-based training for staff to improve their comfort with the refill stations and customer interactions.
- Installed additional, easy-to-read instructional signage at refill stations and offered in-store demonstrations.
- Implemented real-time monitoring for refill stations to allow staff to restock quickly and maintain efficiency during peak hours.

❖ Next Steps

- Finalize last-minute details before the soft launch, including inventory checks, staff schedules, and final testing of refill systems.
- Prepare for the soft launch event by organizing community activities, such as demonstrations, workshops, and product sampling.

Week 7: Soft Launch and Customer Feedback Collection

❖ **Date:** 12/08/2024 TO 17/08/2024

❖ **Objectives for the Week**

- Execute the soft launch of the zero-waste grocery store.
- Identify any operational issues that need addressing before the official opening.
- Build community engagement through events and educational activities.

❖ **Activities Completed**

- Successfully hosted the soft launch event, inviting local community members, influencers, and sustainability advocates.
- Offered in-store workshops on zero-waste shopping practices, product usage, and benefits of the refill system.

❖ **Key Insights Gained**

- The community showed a strong interest in sustainable practices, with many attendees expressing excitement about the store's mission.
- Customers appreciated the educational workshops and expressed a desire for more frequent events focused on sustainability.
- Feedback revealed some confusion around refill station procedures, indicating a need for additional staff assistance and clearer signage.

❖ **Challenges Faced**

- High foot traffic during the soft launch led to temporary congestion at refill stations and checkout areas.
- Some staff struggled to keep up with demand, particularly in assisting customers with the refill stations.

❖ **Solutions/Actions Taken**

- Increased staff presence in high-traffic areas during peak hours to assist customers and alleviate congestion.
- Implemented a system for real-time inventory tracking to ensure refill stations were promptly restocked throughout the event.

❖ **Next Steps**

- Analyze customer feedback to identify areas for improvement in store operations, product offerings, and customer service.
- Address operational issues such as refill station congestion and staff training needs before the official opening.

Week 8: Analyzing Feedback and Preparing for the Grand Opening

❖ **Date:** 19/08/2024 TO 24/08/2024

❖ Objectives for the Week

- Analyze customer feedback collected during the soft launch to inform final preparations.
- Finalize marketing strategies and promotional activities for the grand opening.
- Prepare staff for the official launch, focusing on enhanced customer engagement techniques.

❖ Activities Completed

- Reviewed and categorized customer feedback from surveys and comment cards to identify key themes and areas for improvement.
- Held team meetings to discuss feedback and brainstorm solutions, creating an action plan to address customer concerns.
- Adjusted product inventory based on demand observed during the soft launch, increasing stock for popular items and refining the assortment.

❖ Key Insights Gained

- Customers value a personalized shopping experience and appreciate when staff are knowledgeable and available to assist.
- There is a significant interest in locally sourced products, suggesting that increasing partnerships with local producers could enhance customer loyalty.

❖ Challenges Faced

- Some adjustments to product offerings required quick sourcing and negotiations with suppliers, which created time constraints.
- Staff availability for additional training sessions was limited due to scheduling conflicts.

❖ Solutions/Actions Taken

- Worked closely with suppliers to expedite orders for popular products and establish better communication for future stock needs.
- Scheduled multiple training sessions at different times to accommodate staff availability, ensuring everyone received necessary training.

❖ Next Steps

- Finalize the grand opening event details, including special promotions, demonstrations, and community activities.
- Implement changes to store operations based on customer feedback, ensuring a smoother shopping experience.
- Conduct a final inventory check and ensure that all products are in place for the grand opening.

Week 9: Grand Opening and Initial Operations

❖ **Date:** 26/08/2024 TO 31/08/2024

❖ Objectives for the Week

- Successfully execute the grand opening event.
- Monitor initial store operations and customer interactions closely.
- Gather feedback from customers regarding their experience during the grand opening.

❖ Activities Completed

- Held the grand opening event with promotional offers, community activities, and workshops to attract customers.
- Engaged with customers through social media live updates and real-time feedback collection during the event.

❖ Key Insights Gained

- The grand opening successfully attracted a larger crowd than anticipated, leading to high sales and strong community interest.
- Customers appreciated the educational workshops and were more engaged with refill stations when staff were present to assist.

❖ Challenges Faced

- Managing the high volume of customers created challenges in staffing at refill stations and checkout lines, leading to longer wait times.
- Some refill stations ran low on popular items during peak hours, causing minor disruptions in service.

❖ Solutions/Actions Taken

- Increased staff presence at checkout and refill stations during peak hours to help manage customer flow and reduce wait times.
- Set up a quick-response inventory management system to promptly restock refill stations based on real-time sales data.
- Gathered staff feedback post-event to identify specific areas where additional training or resources were needed.

❖ Next Steps

- Analyze sales data from the first week to refine product offerings and inventory management further.
- Continue to engage with customers through social media and in-store interactions to build a loyal customer base.
- Implement additional training for staff based on feedback and operational challenges observed during the grand opening.

Week 10: Evaluating Post-Launch Operations and Customer Engagement

❖ **Date:** 02/09/2024 TO 07/09/2024

❖ Objectives for the Week

- Identify trends in customer purchasing behavior and preferences.
- Strengthen community engagement through follow-up activities and educational initiatives.
- Develop strategies for ongoing customer retention and loyalty.

❖ Activities Completed

- Analyzed sales reports from the first week to identify top-selling products and trends in customer purchasing behavior.
- Conducted a staff meeting to discuss observations from the grand opening week, sharing insights and identifying challenges.

❖ Key Insights Gained

- A significant portion of customers showed interest in local produce and products, indicating a strong market for locally sourced goods.
- Many shoppers appreciated the educational resources and workshops, suggesting that ongoing education could drive customer loyalty.

❖ Challenges Faced

- Some customers reported confusion over the loyalty program and how it works, suggesting the need for clearer communication.
- Ensuring that refill stations are consistently stocked proved challenging during peak shopping times, leading to occasional shortages.

❖ Solutions/Actions Taken

- Improved communication about the loyalty program through in-store signage, staff training, and social media announcements.
- Adjusted inventory management protocols to ensure better stock levels at refill stations, including more frequent restocking during peak hours.
- Implemented a buddy system among staff to provide support during busy times, ensuring that no one feels overwhelmed.

❖ Next Steps

- Continue monitoring sales trends and customer feedback to make data-driven adjustments to inventory and product offerings.
- Plan additional community workshops and events to maintain engagement and support sustainable living practices.

Week 11: Refining Operations and Expanding Community Engagement

❖ **Date:** 09/09/2024 TO 14/09/2024

❖ Objectives for the Week

- Further refine store operations based on ongoing customer feedback and sales data.
- Enhance community engagement through targeted outreach and educational initiatives.
- Implement new strategies for inventory management and customer service training.

❖ Activities Completed

- Conducted a detailed review of inventory management practices, identifying areas for improvement to prevent shortages at refill stations.
- Organized two community workshops focused on DIY zero-waste products, attracting new customers and fostering community spirit.

❖ Key Insights Gained

- Community workshops significantly increase foot traffic and enhance customer loyalty, demonstrating the value of interactive events.
- Collaboration with local businesses can lead to cross-promotion opportunities, benefiting both parties and increasing community engagement.
- Staff feedback indicated that more training and support in refill station operations lead to greater confidence and efficiency during peak hours.

❖ Challenges Faced

- Scheduling conflicts among staff for training sessions made it difficult to ensure everyone received the same level of training.
- Attendance at community workshops fluctuated, with some events attracting fewer participants than expected.

❖ Solutions/Actions Taken

- Offered multiple training sessions at different times and days to accommodate staff schedules, ensuring everyone could participate.
- Promoted community workshops more actively through social media and local community boards to boost attendance and interest.

❖ Next Steps

- Continue refining inventory management practices based on sales data and feedback, ensuring refill stations are consistently stocked.
- Plan additional community events and workshops, potentially expanding topics to cover broader sustainability issues.
- Solidify partnerships with local businesses by coordinating joint marketing efforts and community events.

Week 12: Strengthening Community Connections and Operational Efficiency

❖ **Date:** 16/09/2024 TO 21/09/2024

❖ Objectives for the Week

- Solidify community partnerships and expand outreach efforts.
- Enhance operational efficiency through data-driven adjustments to inventory and staffing.
- Plan for upcoming seasonal promotions and community events.

❖ Activities Completed

- Finalized collaborations with three local businesses for joint marketing initiatives, including cross-promotions and community events.
- Analyzed sales and inventory data from the past month to identify trends and optimize product offerings.
- Conducted a customer satisfaction survey focusing on recent workshops and overall shopping experience.

❖ Key Insights Gained

- Strong partnerships with local businesses can lead to increased foot traffic and customer loyalty, reinforcing the community aspect of the store.
- Data analysis revealed specific products and categories that consistently perform well, allowing for more informed stocking decisions.

❖ Challenges Faced

- Coordinating schedules for joint marketing initiatives with local businesses proved challenging due to varying availability and priorities.
- Some staff expressed feeling overwhelmed with customer inquiries during busy hours, indicating a need for additional support or resources.

❖ Solutions/Actions Taken

- Established a shared calendar with local businesses to coordinate joint marketing efforts, ensuring everyone is aligned on event dates and promotions.
- Implemented a buddy system for staff during peak hours, pairing more experienced employees with newer team members for support.

❖ Next Steps

- Launch joint marketing campaigns with local businesses, promoting both in-store events and community initiatives.
- Continue analyzing sales and customer feedback to fine-tune inventory management and product offerings.

Week 13: Fall Promotions and Continued Community Engagement

❖ **Date:** 30/09/2024 TO 05/10/2024

❖ Objectives for the Week

- Launch fall promotions to attract customers and boost sales.
- Host community events and workshops focusing on seasonal sustainability practices.
- Assess the effectiveness of recent partnerships and marketing efforts.
- Continue to gather customer feedback to refine store operations and offerings.

❖ Activities Completed

- Launched a fall promotional campaign, including discounts on seasonal products and incentives for bulk purchases.
- Held a successful workshop on “Fall Cooking with Local Produce,” attracting both new and returning customers interested in sustainable cooking practices.
- Collaborated with local farmers for a “Meet the Farmers” event, allowing customers to connect directly with producers and learn about sourcing local foods.

❖ Key Insights Gained

- Seasonal promotions significantly increased foot traffic and sales, demonstrating the importance of aligning marketing strategies with customer interests.
- Customers valued direct interactions with local farmers, leading to heightened interest in locally sourced products and stronger community ties.

❖ Challenges Faced

- Attendance at some workshops was lower than expected, indicating a need for improved promotion and possibly different timing.
- Balancing the increased customer volume during promotions with maintaining a high level of customer service created some operational strain.

❖ Solutions/Actions Taken

- Enhanced marketing efforts for workshops by utilizing multiple platforms, including social media, newsletters, and local community boards, to improve visibility.
- Adjusted staff schedules during promotional periods to ensure adequate coverage and support for customer inquiries and checkout processes.

❖ Next Steps

- Continue running successful fall promotions while monitoring inventory levels to prevent stockouts on popular items.
- Plan additional community workshops based on feedback, focusing on practical sustainability practices and engaging content.

Week 14: Analyzing Fall Promotions and Planning for Future Initiatives

❖ **Date:** 07/10/2024 TO 12/10/2024

❖ **Objectives for the Week**

- Analyze the outcomes of fall promotions and community events.
- Gather detailed customer feedback to inform future initiatives and improvements.
- Develop a plan for upcoming seasonal events and workshops for the winter months.

❖ **Activities Completed**

- Reviewed sales data from the fall promotional campaign to assess its impact on overall sales and customer engagement.
- Conducted a comprehensive analysis of feedback collected from workshop participants and promotional customers, identifying key themes and areas for improvement.
- Organized a team meeting to discuss successes and challenges experienced during the fall promotions, encouraging input from all staff members.

❖ **Key Insights Gained**

- Fall promotions led to a noticeable increase in sales, particularly for local produce and bulk items, indicating a strong customer preference for these products.
- Customer feedback highlighted the popularity of hands-on workshops and the importance of practical, applicable skills in sustainability practices.

❖ **Challenges Faced**

- Some products were unexpectedly popular, leading to inventory shortages and missed sales opportunities.
- Variability in attendance at workshops indicated that more targeted marketing efforts were necessary to reach the intended audience effectively.

❖ **Solutions/Actions Taken**

- Implemented a more robust inventory tracking system to better anticipate demand for popular items and ensure adequate stock levels.
- Enhanced promotional efforts for workshops through targeted social media campaigns and partnerships with local influencers to boost visibility and attendance.

❖ **Next Steps**

- Finalize plans for winter promotions and events based on customer feedback and sales trends from the fall season.
- Strengthen collaboration with local suppliers to enhance product offerings for the winter season, particularly focusing on local and seasonal items.
- Monitor inventory levels and sales data closely as winter promotions begin, adjusting strategies as necessary to optimize performance.

Week 15: Launching Winter Initiatives and Community Engagement

❖ **Date:** 14/10/2024 TO 19/10/2024

❖ Objectives for the Week

- Launch winter promotions and events to engage customers and drive sales.
- Monitor the effectiveness of new inventory management strategies and adjust as needed.
- Continue building relationships with local suppliers and partners for future collaboration.

❖ Activities Completed

- Launched the winter promotional campaign featuring discounts on eco-friendly products, seasonal produce, and holiday gift items.
- Hosted the first workshop, "Eco-Friendly Holiday Gift-Making," which attracted a good turnout and positive feedback from participants.
- Collaborated with local artisans for a holiday market event in the store, showcasing handmade, sustainable gifts and promoting local businesses.

❖ Key Insights Gained

- Winter promotions resonated well with customers, particularly those interested in eco-friendly gift options and seasonal recipes.
- The holiday market event successfully drew in new customers, highlighting the effectiveness of community partnerships in increasing visibility.

❖ Challenges Faced

- Some winter promotional items experienced higher-than-expected demand, leading to brief shortages in popular products.
- Coordinating schedules for local artisans participating in the holiday market presented challenges due to varying availability.

❖ Solutions/Actions Taken

- Adjusted inventory ordering processes to ensure that popular items were adequately stocked, and established closer communication with suppliers for timely replenishment.
- Collaborated with local artisans to create a flexible schedule for the holiday market, ensuring their participation while accommodating their availability.

❖ Next Steps

- Continue monitoring sales and inventory levels throughout the winter promotions, adjusting strategies as necessary based on customer demand.
- Plan additional workshops and events leading up to the holiday season, focusing on practical sustainability tips and holiday-themed activities.