



U Market Services



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Company Background

U Market Services (UMS), in its current capacity, began in 1983, with the goal of streamlining how deliveries are made on the University of Minnesota – Twin Cities campus. U Market Services manages the entire supply chain experience for the University. Making over 240,000 deliveries annually, the company plays a key role in ensuring orders made by university personnel are delivered in a cost efficient, secure, and timely manner.



U Market Services

UNIVERSITY OF MINNESOTA

"This internship gave me a sneak-peak at what it would be like to have a career in environmental policy. I learned so much about myself, my abilities, and sustainability. I am forever grateful to MnTAP for their support throughout the summer and for providing me with this amazing opportunity." ~ HW

Project Background

U Market Services purchases around 20,000 cardboard boxes annually, weighing approximately 13,000 lbs. These boxes cost UMS over \$15,000 every year and serve as tertiary packaging for items ordered by university personnel from U Market Services storage, Facilities Management stock, and/or PAR-Level supplies. PAR stands for Periodic Automatic Replenishment; it is a type of inventory system that determines the amount of product an organization should have at all times. Costs for additional packaging supplies including tape, packing list envelopes, labels, and transfer ribbon total approximately \$14,500 annually. With packing materials being essential to their operation, the type of packaging used by U Market Services has become increasingly important for managing operating costs and environmental performance.

Incentives To Change

As campus returns to full activity, the quantity of packaging materials needed may rise. The higher volume, coupled with increases in prices per unit, will result in higher material use and overall costs for U Market Services.

U Market Services is also always looking for opportunities to improve in an effort to support the University of Minnesota's sustainability goals. Reducing the packaging waste created by UMS aligns with the University of Minnesota's goal to eventually replace 90% of its municipal solid waste (MSW) with options that are recyclable, compostable, or reusable. Evaluation of reusable packaging for U Market deliveries will be an important component to improving the sustainability of their operations.

SOLUTIONS

Reusable Bins for PAR-Deliveries

The primary change suggested by this project is a switch from cardboard boxes to reusable bins for PAR-Level deliveries. Reusable transport packaging has been successfully implemented in several industries. U Market Services is well positioned to consider reusable transport packaging alternatives because the company makes frequent, localized shipments with minimal seasonal fluctuations, has control over their shipping process, and has demonstrated an effort to improve their sustainability. Transitioning from purchased cardboard delivery boxes to reusable delivery totes will save the University 13,000 lbs of cardboard waste and reduce purchase costs for U Market Services by \$15,000.

Recyclable Label Liners

A waste sort conducted over the summer indicated 20% of the trash generated at the site was the liner material that serves as the backing for labels, stickers, and other adhesive products. Through research, labels with curbside recyclable liners were found. Switching to this recyclable product would save little over \$5,000 in product cost and redirect 620 lbs of waste away from the trash stream to a recycle stream annually.

Stickers, used on boxes to indicate special handling or hazard for a package, also contributes to the generation of liner. Replacing the stickers used in high volume with stamps can eliminate 3% of the label waste generated.

Solutions

Waste Stations

The waste sort results also indicated that almost 25% of the waste disposed of in the trash stream is recyclable materials. To capture more of the recyclable material being sent to waste, inspection of waste and recycling bins around the facility was conducted to identify contaminants, moving materials to their proper stream when possible. New waste stations were established in various parts of the warehouse to provide immediate access to the correct disposal bins. Training materials were developed to ensure UMS staff understood how to use the waste stations and the value of properly disposing of their waste. Continued inspection of the waste systems showed improvements in contamination levels after the installation of new waste stations. Optimizing waste management systems can result in reduction of 760 lbs of material from the trash and save \$30 in disposal fees.



"This was our first time working with MnTAP and the experience exceeded our expectations. Our intern was committed, observant, productively critical and a real pleasure to work with! She identified opportunities that we had not addressed previously or had not noticed. Our intern brought new energy to our sustainability practices which will bring value long after her time with us."

*~ Dave Saniti, Campus Operations Manager
U Market Services, University of Minnesota*

Recommendation	Annual Reduction	Annual Savings	Status
Reusable bins	13,000 lbs	\$15,000	Implemented
Direct thermal recyclable labels	690 lbs	\$5,000 + end of life management	Implemented
Stamps replacing stickers	20 lbs	\$110	Further evaluation needed
Recyclable packing list envelopes	290 lbs	\$20 + end of life management	Implemented
Reorganize waste stations	760 lbs	\$310 in end of life management	Implemented

MnTAP Advisor: Laura Babcock, Director