

# BLUE MARTINI SOFTWARE CUSTOMER CASE STUDY

## Blue Martini Business Intelligence At Work: Charting the Terrains of MEC Website Data

“We felt like thirsty people finally getting to water”

- Anne Ford, E-Commerce Project Manager, MEC

### MOUNTAIN EQUIPMENT CO-OP: COMPANY BACKGROUND

Canada has 3,851,809 square miles of North America within its borders, much of it filled with some of Mother Nature’s most beautiful—and challenging—wilderness terrain. Inspired by these surroundings, Mountain Equipment Co-op (MEC) of Vancouver, British Columbia, Canada’s leading supplier of quality outdoor gear and clothing, is dedicated to helping adventurers of all nationalities prepare to explore the world’s great outdoors.



From its modest beginnings in 1971 when six original members established MEC, the company has blossomed into a 1.8 million member co-op. With annual revenues of over \$160 million (CAN), MEC serves its customers through seven retail stores located throughout Canada as well as a remote sales division, also in Canada, that processes telephone and mail orders. In 2001, MEC launched a new e-commerce site powered by Blue Martini’s flagship customer relationship management (CRM) software to complement its current sales channels and also serve the emerging generation of Internet savvy outdoor enthusiasts.

### THE MEC – BLUE MARTINI BUSINESS INTELLIGENCE PROJECT

“We felt that the analysis was very useful and intend to act on what we learned very quickly. It gave us important feedback on a visual redesign we had just begun and initiated a review of the way we present our search functionality.”

-Anne Ford, E-Commerce Project Manager, MEC

In late 2002, MEC turned to Blue Martini Analytic Services (BMAS) for a detailed analysis of its Blue Martini-powered Web site using the reporting, visualization, and analytic capabilities of the Blue Martini Business Intelligence suite. This suite provides a set of comprehensive analysis tools and powerful visualization capabilities that help business users answer critical tactical and strategic questions about their site, their products and services, and their company.

### Key Insights

- The **further away** customers live from an MEC retail store, the **more money** they spent
- Analysis of customer postal codes generated a geographical heat map that revealed "hot" areas for future physical store sites
- A change from free shipping to flat-fee shipping resulted in a **6.5 percent increase** in total sales and **18 percent increase** in average sales per order
- Customers who increased their purchase level from under \$200 to over \$200 accounted for **8.4 percent** of the revenues and had unique identifying characteristics, which will help MEC target future migrators
- Robot/crawler removal revealed that the average human session was **26 percent longer** than the average session

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MEC provided BMAS with information from its Web site databases, including clickstreams, transactions, content, product catalog, and customer information. The Blue Martini team analyzed the MEC data using Blue Martini's Business Intelligence suite and presented a detailed set of findings to MEC. The presentation featured key insights across a broad range of topics:

- From the geographical distribution of current customers to the characteristics of emerging customer segments
- From the performance of top-selling products to the predicted performance of yet-untried product combinations
- From the impact of marketing campaigns to the effectiveness of online search
- From the online browsing behavior of MEC site visitors to the effectiveness of certain pages (or regions) of the site.

The following sections present some of the key insights gleaned from the MEC data using Blue Martini's Business Intelligence suite.

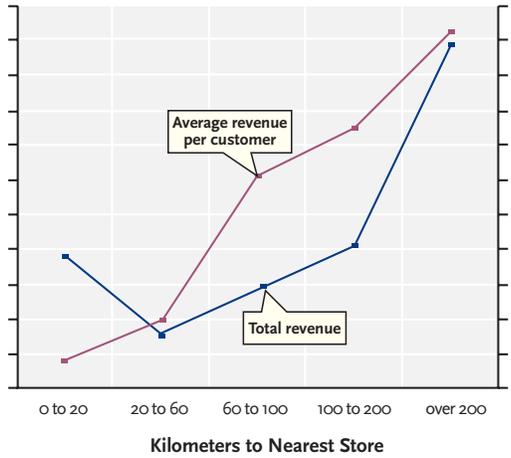
### FROM WHERE DO THEY COME?: A GEOGRAPHICAL BREAKDOWN OF MEC CUSTOMERS

By overlaying Canadian and US latitude-longitude data with customer postal codes, Blue Martini presented a geographical breakdown of MEC customers in Canada and the US. Most customers were clustered in regions around the seven MEC retail stores.



A map showing purchasers' postal codes, ranging from gray (no purchasers) to yellow (few purchasers) to orange and red-hot (many purchasers); stores are shown in black. Such maps can help MEC determine the best locations for new physical stores and help tune direct mail strategies.

This analysis also helped reveal a related compelling trend: customers living further away from retail stores tended to place orders of greater value as compared to those that resided closer to the retail stores. This was despite the fact that the MEC had a flat shipping charge for all orders.



### Key Insights (cont)

- Visits that included a search generated more than **twice** as much revenue as visits that did not; moreover, if the last search in a session was successful (i.e., results were returned), that visit generated almost **three times** as much revenue as visits that included no search at all
- About one in thirty failed searches used one of six keywords
- Revenue per session that included a view of a "For Your Information" text, providing additional product information, was nearly **six times** higher than the average session
- Product affinity analysis identified significant cross-sell opportunities that were not currently offered on the site
- A portion of the site dedicated to visitors advertising used products for sale (Gear Swap) was an island. Revenue per session that included page views from this area was 1/4th the revenue of the average session



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## WHO ARE THE BEST CUSTOMERS?: MIGRATORS, A PRIME TARGET

MEC's online customer base includes a group of customers that retailers are starting to identify and target—the *migrators*. Migrators represent a group of customers who begin their relationship with a retailer with a small initial purchase, but significantly increase their spending over time.

Blue Martini was able to identify a migrator segment within MEC's customer base, which migrated from purchase levels under \$200 CAD over a six-month period to over \$200 CAD in the following six months. To better understand the behavior of these customers, Blue Martini performed a detailed characterization of this segment.

A powerful methodology in the study of customer segmentation and customer behavior is the development of a comprehensive customer signature. The Blue Martini Business Intelligence suite enables users to construct rich customer signatures comprising of hundreds of attributes by combining different sources of information such as purchase history, browsing behavior, and demographic information. In the case of MEC, over 300 attributes were created in the customer signature.

The analysis revealed that migrators, based on their first six months as customers, were likely to:

- Purchase \$70 CAD of merchandise or more
- Purchase at least twice
- Have the largest single order be more than \$40 CAD
- Live far from an MEC retail store (over 60 aerial kilometers).
- Purchase from the product lines, such socks, t-shirts, and accessories
- Not purchase shoulder bags and child carriers

## TO CHARGE (OR NOT TO CHARGE) FOR SHIPPING?: ANALYSIS OF A MARKETING PROMOTION

Online retailers often experiment with shipping promotions in a bid to boost sales. In August 2002, MEC discontinued its free shipping promotion and introduced a flat shipping fee of \$6 CAD for any order, anywhere in Canada. The express shipping policy and costs were not changed.

Although the number of orders dropped nearly 10 percent in the two weeks following the change in the shipping policy (compared to the two weeks prior), the total sales actually went up by 6.5 percent and the average amount per order went up by 18 percent. This indicated that customers were now more likely to bundle several small orders into a single large order, but that the new shipping fee did not deter them from ordering altogether.

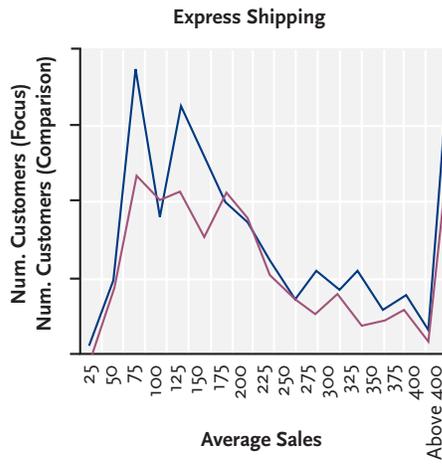
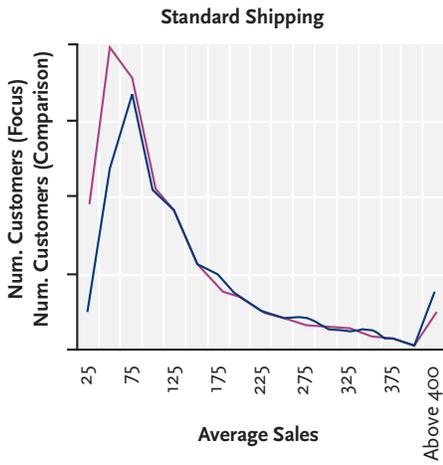
The following two charts illustrate this interesting trend in customer response to the change in the shipping policy. The left chart depicts customers who opted for free shipping before the shipping policy change and also opted for the flat \$6 CAD charge after the shipping policy change. The right chart depicts customers who opted for express shipping in both periods. The reduction in orders with low amounts is evident from the left chart while the right chart shows a significant rise in the number of express shipping orders.

### Bot Filtering

The "bot" filtration algorithm included in the Blue Martini Business Intelligence tools ensures that only true human traffic will be analyzed. Bots are automated programs, sometimes called robots and spiders, launched by search engines, performance monitoring services, and other automated programs. In the case of MEC, bots generated 23 percent of the Web site sessions. In fact, over 50 unique bots were identified (each with multiple sessions). Without filtering the bots, key performance indicators will be skewed. For example, the average session duration at MEC was 5:42 minutes, but, after filtering out the bot traffic, Blue Martini found that the average human session was 7:12 minutes, 26 percent longer!



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The pink curve shows the sales distribution with free shipping, and the blue curve shows the distribution with flat-fee shipping.

## WHICH PRODUCTS SELL WELL TOGETHER?: BUILDING AN EFFECTIVE PRODUCT RECOMMENDER MODEL

Association rules for market basket analysis gained notoriety when a study claimed that beer and diapers sell well together. A possible explanation for this seemingly surprising product association is that men who take care of their babies during sports events often tend to buy beer for themselves and diapers for their babies.

Jest aside, market basket analysis has been used extensively by retailers to determine effective cross-sells. The association algorithm in Blue Martini's Business Intelligence suite identified over 160 significant product associations for MEC. Blue Martini was then able to make enhanced cross-sell recommendations based on the automatically generated association rules to complement the cross-sell recommendations already in place on the MEC website.

Product	Association	Lift	Confidence	Website Recommended Products
Orbit Sleeping Pad 	Orbit Stuff Sack 	222	37%	   Cygnet Sleeping Bag   Aladdin 2 Backpack   Primus Stove
Bambini Tights Children's 	Bambini Crewneck Sweater Children's 	195	52%	  Yeti Crew Neck Pullover Children's   Beneficial T's Organic Long Sleeve T-Shirt Kids'
Silk Crew Women's 	Silk Long Johns Women's 	304	73%	   Micro Check Vee Sweater   Volant Pants   Composite Jacket
Cascade Entrant Overmitts 	Polartec 300 Double Mitts 	51	48%	   Volant Pants   Windstopper Alpine Hat   Tremblant 575 Vest Women's

Product Affinities based on the purchase patterns of the MEC site can help develop additional automated cross-sell recommendations. Blue Martini found that if a customer bought the product on the left, her or she was likely to buy the associated product.

Confidence: 37% of people who purchased Orbit Sleeping Pad also purchased Orbit Stuff Sack

Lift: People who purchased Orbit Sleeping Pad were 222 times more likely to purchase the Orbit Stuff Sack compared to the general population

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## WHERE DO THEY GO?: MEC SITE EFFECTIVENESS

Like any retailer with a Web presence, MEC wanted to learn how customers used the site. And in addition to understanding user behavior, MEC was also curious about the performance of certain site sections and features.

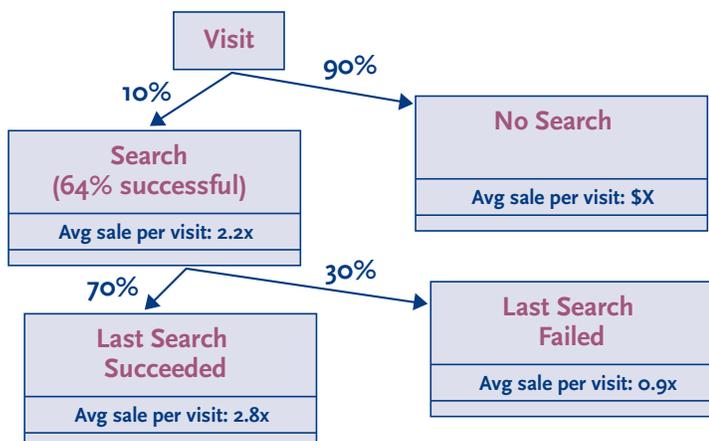
MEC has invested significant resources into developing a content rich site to support the purchasing decisions for its members. They were interested in looking at the return on this investment, and specifically at FYIs—For Your Information pages. Using the built-in Business Intelligence tools, Blue Martini found that sessions where visitors viewed FYIs had significantly higher conversion rates: nearly five times the average session conversion rate. Moreover, sessions in which customers viewed at least one FYI, the average order amount per session was six times higher than the average order amount for a session in which no FYI was viewed.

Beyond the usual new product presentation and order processing activities, the site also offers visitors the opportunity to participate in Gear Swap, a large trading marketplace where members of MEC can post and browse ads for used equipment. Dedicated to an ecologically sound business model, MEC whole-heartedly supports the exchange and re-use of consumer goods through the Gear Swap section of its site. Gear Swap is very popular—14 percent of all site visits go directly to Gear Swap. Of this group, over two thirds leave the site immediately after browsing the section, indicating that used gear is the primary focus of these visitors. Not surprisingly, the BMAS team found that sessions of users who visited Gear Swap were not among MEC's highest-revenue sessions, with a conversion rate well below the average session. However, given the continued popularity and success of the initiative, it is clear that MEC is well positioned to leverage the loyalty of these users as well as the brand equity of the Gear Swap marketplace.

## IN SEARCH OF SUCCESS: ANALYZING SEARCH EFFECTIVENESS

In addition to the wealth of data and analysis prepared for MEC, the Blue Martini team also showed the retailer how one basic feature, the search engine, can significantly affect site performance and revenue. From extensive research on Web sites of companies across different industries, Blue Martini has proven that successful searches convert more visitors into purchasing customers. A visit with a search is sometimes worth 50 percent more to your company than a visit without a search.

Blue Martini found that ten percent of all MEC site visits included a product search. Furthermore, searches were successful 64 percent of the time and resulted in an average order amount per customer that was more than two times the amount of an order for which no search is performed. Even more compelling is the finding that when the last search performed in a browsing session was successful, the customer is likely to spend more than three times the average order amount than if the last search failed (i.e., returned no results).



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The search effectiveness report presented a detailed list to MEC of failed search terms and suggestions for additional search terms for inclusion in the site thesaurus. A periodic review of the top failed search keywords is an effective way for retailers to monitor the latest trends and customer preferences and stock their product inventories accordingly. One of the top failed searches was “gift certificates.” It is interesting to note that MEC was initially not offering gift certificates online, but has since made them available.

## MOVING FORWARD WITH BLUE MARTINI BUSINESS INTELLIGENCE

**“Blue Martini’s statistical analysis provided useful and relevant information for setting strategic direction of our website in 2003”**

**- Peter Robinson, CEO, MEC**

Blue Martini made several recommendations to MEC that go beyond the standard operation of the MEC website. The key recommendations included:

- Consider a tiered shipping charge based on order amount (for example, free shipping on orders above \$100 CAD)
- Implement tighter interconnection between MEC shopping and the Gear Swap section. MEC is now implementing this recommendation
- Use the Blue Martini’s Web site effectiveness measurement functionality to guide site redesign
- Complement existing product recommendations with those automatically identified using association rules (market basket analysis)
- Use the online site as an experimental laboratory to try out new product offerings and study customer response to policy changes or marketing promotions
- Continue to invest in the search engine and monitor failed searches for new trends or changes in customer preferences
- Combine online data with offline data from retail stores to obtain a 360 degree view of the MEC customer
- Consider adding highly searched products to the product offering

The project presents MEC with a comprehensive report card of its online operations and empowers the MEC management team to make well-informed decisions on boosting online sales and enhancing customer satisfaction.

Visit <http://www.bluemartini.com/bi> or send e-mail to [bi-sales@bluemartini.com](mailto:bi-sales@bluemartini.com) to learn more about Blue Martini Business Intelligence.

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