

Small Appliance Benchmark Study

I. PROJECT INITIATION

- This project was the result of the last RLEC meeting at Pinehurst.

II. PROJECT PURPOSE

- To compare small appliance return rates in order to set benchmark return rates, thus allowing each participant company to compare its own data to the industry average.

III. PROJECT STRUCTURE

- Three different participants decided to be a part of this Small Appliance Benchmark Study.
- The participants followed the same standard template for product categories that was provided by one of the participants.
- Originally there were 50 different categories in this template; after looking at other participants' categories and removing the non-electric product categories, we came to the common agreement to reduce the template to 39 common categories.
- We sorted all the SKUs into 39 fineline categories.

PRODUCT CATEGORIZATION – FINELINE CATEGORIES

Fine Line Category Name

1. Garment Care
2. Hair Dryers, Electric
3. Hair Curling Irons and Brushes
4. Hair Setters, Electric
5. Beauty Care Accessories
6. Shavers, Men Electric
7. Shavers, Ladies Electric
8. Hair Trimmers
9. Health Care
10. Oral Care

Personal Care Products, Electric

- 11. Can Openers & Sharpeners Electric
 - 12. Food Mixers, Electric
 - 13. Coffee Grinders, Electric
 - 14. Food Processors, Electric
 - 15. Juicers & Juice Extractors, Electric
 - 16. Kettles, Electric
 - 17. Toasters
 - 18. Toaster Ovens
 - 19. Bread Makers
 - 20. Coffeemakers
 - 21. Crock Pots & Slow Cookers, Electric
 - 22. Popcorn Makers, Electric
 - 23. Appliances, Specialty Items, Electric
 - 24. Frying pans, Griddles & Skittles, Electric
 - 25. Deep Fryers & Accessories
 - 26. Microwave Ovens & Brackets
- } Kitchen Heating Appliances, Electric
- 27. Upright vacuums
 - 28. Rechargeable vacuums
 - 29. Stick vacuums
 - 30. Carpet Cleaners and Accessories
- } Floor Care Appliances, Electric
- 31. Fans, Cooling Electric
 - 32. Air Conditioners, room (refrigeration)
 - 33. Air Cleaners, Electric (Ecologizer)
 - 34. Air Cleaners Accessories
 - 35. Humidifier Accessories
 - 36. Humidifiers (Portable)
 - 37. Portable Heaters, Electric, Kerosene
 - 38. Dehumidifiers
- } Home Comfort Appliances, Electric
- 39. Refrigerators water coolers and white goods
- White Goods

IV. AGREEMENTS ON DATA TO BE SUPPLIED

- Merchandise hierarchy for small appliances/product grouping titles
- Basic category level detail for national brands only:
 - Fine line category name
 - Prime vendor number and vendor name
 - Return rate percentage for fine line categories (which should be a weighted average of all products sold in each respective categories)
- *In case no fine line category information is readily available, then basic product level detail:*
 - SKU

- Product description
 - Part number
 - Prime vendor number and vendor name
 - Return rate percentage (units returned/units sold) for individual SKUs
- *Data not to be supplied*
 - *Anything to do with cost, sell, margin, etc.*
 - *Anything to do with sales data (i.e. units sold, units returned).*

V. DATA COLLECTION

- Since one of the participants could only provide data for the time period starting on February 1999 to August 1999, we asked the other two participants to also match this time frame. Later on, we obtained data for a 12 months period from all participants.
- We have now completed the analysis for both the 7 and 12 months time frames. We will only be focusing on the 12 months output.

VI. DATA MANIPULATION

- In order to be able to accurately analyze the different companies for the same category template, we had to carefully classify different SKUs from different departments into the main 39 categories.

VII. ASSUMPTIONS

- Data includes information about active SKUs only.
- Data reflects information about defective claims only (in other words, products that are returned directly to the store's shelves are not included in data).
- Data covers returns for a 12-month time frame.
- Data includes only national brands.
- The vendor given is the "prime" vendor, or the vendor that supplies the majority of the product.

RESULTS

- Average return rates by fine line category:

<i>Fineline Category Name</i>	<i>Average Return Rate</i>	<i>Standard Deviation</i>	<i>Median</i>
Juicers & Juice Extractors, Electric	8.26	1.07	8.26
Bread Makers	6.90	3.19	6.14
Toasters Ovens	6.43	2.58	5.13
Shavers, Ladies Electric	6.34	0.73	6.34
Health Care	6.17	2.59	6.17
Canister Vacuums	6.09	4.67	7.87
Portable Heaters, Electric, Kerosene	6.02	1.88	5.89
Humidifiers (Portable)	5.75	2.67	5.37
Garment Care	5.62	4.49	3.99
Carpet Cleaners & Accessories	5.51	0.45	5.62
Shavers, Men's Electric	5.41	2.96	4.07
Upright Vacuums	5.32	4.19	4.06
Stick Vacuums	5.27	1.29	5.27
Hair Setters, Electric	5.15	0.58	5.21
Coffeemakers	4.92	2.53	6.00
Can Openers & Sharpeners, Electric	4.80	1.60	5.50
Rechargeable Vacuums	4.48	1.32	4.80
Blenders, Electric	4.17	1.46	3.73
Food Processors, Electric	3.97	0.64	4.10
Beauty Care Accessories	3.84	1.51	3.84
Toasters	3.74	1.24	4.40
Kettles, Electric	3.47	0.66	3.47
Hair Dryers, Electric	3.35	1.97	2.52
Oral Care	3.18	2.16	3.18
Air Cleaners, Electric (Ecologizer)	3.13	1.52	3.13
Crock Pots & Slow Cookers, Electric	2.92	1.19	2.29
Hair Trimmers	2.86	1.71	2.50
Popcorn Makers, Electric	2.82	0.71	2.70
Hair Curling Irons and Brushes	2.71	1.55	2.71
Appliances, Specialty Items, Electric	2.68	1.40	1.89
Food Mixers, Electric	2.45	0.67	2.47
Deep Fryers & Accessories	2.44	0.81	2.50
Dehumidifiers	2.40	1.18	2.20
Fans, Cooling Electric	2.19	0.39	2.15
Frying pans, Griddles & Skillets, Electric	2.06	0.51	2.31
Microwave Ovens & Brackets	1.97	1.54	2.30
Coffee Grinders, Electric	1.96	0.79	1.96
Refrigerators, Water Coolers & White Goods	1.57	1.67	0.61
Air Conditioners, Room (Refrigeration)	0.31	0.41	0.31

- Only 2 participants provided us with primary vendor information for this study.

Primary vendor for company B, sorted from highest to lowest return rate, by fineline category:

<i>Fineline Category Name</i>	<i>Primary Vendor</i>
Fans, Cooling Electric	Holmes
Canister Vacuums	Fanton Technology
Portable Heaters, Electric, Kerosene	Holmes
Shavers, Ladies Electric	Remington
Humidifiers (Portable)	Holmes
Hair Setters, Electric	Conair
Carpet Cleaners & Accessories	Bissel Inc.
Toasters Ovens	HouseHold Product
Stick Vacuums	Eureka Corporation
Bread Makers	Salton Maxi
Shavers, Men's Electric	Norelco
Upright Vacuums	Hover
Dehumidifiers	Whirlpool Corp
Food Processors, Electric	Salton Maxi
Rechargeable Vacuums	Royal Appliance
Can Openers & Sharpeners, Electric	Salton Maxi
Blenders, Electric	Salton Maxi
Hair Dryers, Electric	Conair
Deep Fryers & Accessories	Rival
Toasters	Salton Maxi
Crock Pots & Slow Cookers, Electric	Rival
Garment Care	Hamilton Beach
Popcorn Makers, Electric	National Presto
Coffeemakers	Hamilton Beach
Appliances, Specialty Items, Electric	Sun Flowers
Food Mixers, Electric	Salton Maxi
Frying pans, Griddles & Skillets, Electric	Samsung Electric
Hair Trimmers	Continental Con
Refrigerators, Water Coolers & White Goods	Sanyo Fisher Co.
Microwave Ovens & Brackets	Samsung Electric

Primary vendor for company C, sorted from highest to lowest return rate, by fineline category:

<i>Fineline Category Name</i>	<i>Primary Vendor</i>
Garment Care	Household Products
Bread Makers	Salton/Maxim Housewares
Toasters Ovens	Household Products
Shavers, Men's Electric	Norelco Consumer Products
Health Care	Norelco Consumer Products
Shavers, Ladies Electric	Remington Products
Juicers & Juice Extractors, Electric	Salton/Maxim Housewares
Coffeemakers	PHD West
Carpet Cleaners & Accessories	Not Found
Blenders, Electric	Hamilton Beach
Hair Setters, Electric	Conair Corp
Hair Dryers, Electric	Wilton Industries
Can Openers & Sharpeners, Electric	Household Products
Beauty Care Accessories	Salton/Maxim Housewares
Rechargeable Vacuums	The Eureka Company
Oral Care	Braun Inc
Toasters	Salton/Maxim Housewares
Crock Pots & Slow Cookers, Electric	Rival Manufacturing
Appliances, Specialty Items, Electric	Regal Ware Inc
Portable Heaters, Electric, Kerosene	IBM
Air Cleaners, Electric (Ecologizer)	Honeywell Inc
Food Processors, Electric	Conair Corp
Hair Curling Irons and Brushes	Conair Corp
Humidifiers (Portable)	N/A
Food Mixers, Electric	Salton/Maxim Housewares
Kettles, Electric	Wilton Industries
Popcorn Makers, Electric	National Presto Inc
Fans, Cooling Electric	Honeywell Inc
Hair Trimmers	PHD West
Frying pans, Griddles & Skillets, Electric	National Presto Inc
Microwave Ovens & Brackets	Sanyo Electric Trading
Dehumidifiers	White Consolidated Inc
Upright Vacuums	Panasonic Co-Midwest
Deep Fryers & Accessories	Rival Manufacturing
Coffee Grinders, Electric	Braun Inc
Canister Vacuums	Panasonic Co-Midwest
Refrigerators, Water Coolers & White Goods	Sanyo Electric Trading
Air Conditioners, Room (Refrigeration)	White Consolidated Inc

Comparison table, by shared prime vendor, for fineline category:

<i>Fineline Category Name</i>	<i>Prime Vendor</i>
Bread Makers	Salton/Maxim Housewares
Toasters Ovens	HouseHold Product
Shavers, Ladies Electric	Remington
Shavers, Ladies Electric	Norelco
Hair Setters, Electric	Conair
Hair Dryers, Electric	Conair
Toasters	Salton/Maxim Housewares
Crock Pots & Slow Cookers, Electric	Rival
Popcorn Makers, Electric	National Presto
Food Mixers, Electric	Salton/Maxim Housewares
Deep Fryers & Accessories	Rival
Refrigerators, Water Coolers & White Goods	Sanyo Fisher Co.

VIII. CONCLUSION

- The data manipulation task required a lot of communication between the University and all the participants, and we sometimes had to deal with time lag.
- We were only able to calculate average return rates by fine line category. In order to calculate average return rates by **both** fine line category **and** primary vendor so that one company could benchmark against another in negotiating return allowances, a more thorough analysis would have to be done at the line item level. More specifically, we would need to look at return rates for individual UPCs by vendors.