SKU Rationalization – A Simple Guide

Whether you operate a brick & mortar store, ecommerce website or a combination of them, making the right assortment choices generally determines the level of your success. Planning the assortment requires a combination of art and science. The art is picking desirable merchandise and the science is determining whether it will be productive for you- meaning make you money. Studying the performance of your past purchases and how well they sold can help you to continually improve your decision-making capability. As we have already discussed in other chapters in the primer, determining what is "good" or "bad" performance is important. It comes down to the financial plan for the business. How much money will it take to keep your lights on, and how much to fuel your growth? Understanding what number you have to hit is a good starting point. SKU rationalization or optimization, whichever term you prefer is the equivalent of Monday morning quarterbacking. Taking a step back and seeing what plays worked well and which didn't will help you the next time you step on the field. Was there something in common with all the top sellers? Was there a color, size, silhouette, price or other attribute in common with poor performers? A lot of companies conduct an end of season analysis which is very helpful. Rationalization takes it to the next level- comparing how categories compared to each other and how items within categories compared to each other. The analysis shows you what the optimal assortment should have been. "Buying without boundaries" often leads to mounting stagnant inventory which is why we believe so much in adding disciplines in the planning process to constantly try and optimize the assortment.

There are a variety of methodologies and formats that can used to conduct SKU rationalization. More complex rationalization uses a multitude of factors and more advanced algorithms, but even a simple analysis can yield great insights. For our example we will use a simple format and methodology.

Step 1: Determine What Statistics to Include in the Analysis.

The KPI's chosen for the analysis should be based on the retail philosophy. For example, is your goal to sell as many units as you can without regard to profit, selling less but making the most profit or some combination of that? You can make a chart of the key statistics for determining performance and then weight the importance of each. This will be helpful when determining a composite ranking of performance that weights the statistics based on your retail philosophy.

Philosophy	Sales Units	Sales Revenue	Sell Through%	GP$	Total
Traffic Driven	60%	10%	30%	0%	100%
Profit Driven	20%	30%	10%	40%	100%
Middle Ground	30%	30%	20%	20%	100%

In our example, our goal is to simply turn as much product as quickly as possible. So, we will look at sell through- in fact we will weight it 100%.

Step 2: Establish a Baseline.

To get started, we need to set a baseline. The baseline could be a specific level of performance you deem as acceptable, and compare actuals against that, or use the actuals to derive average performance for each category. Because some items may have shipped at different times, we generally like to look at the first 6-8 full weeks of selling for items planned to sell for at least 6 months. For fast fashion first 4 weeks of selling may be more appropriate.

Step 3: Create Quartiles Based on the Average Performance.

For our example below in Jackets, the average sold in the 1st 8 weeks was 56% of stock. Quartiles are then derived from the 56%.

Step 4: Assign Items to a Quartile.

The top quartile represents the best performance. You can see which items fall into which quartile based on their sell through in the first 8 weeks. The Denim Bolero W/Embroidery sold through at 76% which puts it in the 1st quartile, while the Jacket with Contrast Cuffs sold only 8%, putting it in the 4th quartile. Be mindful of the overall performance- maybe even the bottom quartile was still acceptable, or the top performance was not acceptable.

Description	Sales 8 Weeks	Ship Qty	% Sold 1st 8 Wks	Quartile	# Items
DENIM KNICKER W/APPLIQUE	750	1248	60%	1	1
KNICKER W/CROCHET APPLIQUE	558	1668	33%	3	1
Total Capris	**1308**	**2916**	**45%**	**2**	**2**
DENIM BOLERO W/EMBROIDERY	775	1020	76%	1	1
BOLERO W/CROCHET APPILQUE	852	1621	53%	1	1
JACKET WITH CONTRAST CUFFS	9	120	8%	4	1
ACTIVE JACKET W/LACE APPLIQUE & BLING	329	746	44%	2	1
Total Jackets	**1965**	**3507**	**56%**	**1**	**4**
ACTIVE HOODIE W/FOIL	764	2556	30%	4	1
L/S LACE SASH WRAP TOP	295	521	57%	1	1
Total LS Knit Shirts	**1059**	**3077**	**34%**	**3**	**2**
MULTIMEDIA LOW-RISE BOOTLEG JEAN	520	1581	33%	3	1
CUFFED SLIM LEG JEAN	129	339	38%	3	1
CARGO PANT W/EMBROIDERY	961	1756	55%	1	1
JEAN WITH CONTRAST FACING	31	200	16%	4	1
ACTIVE PANT W/ LACE APPLIQUE & BLING	299	694	43%	2	1
Total Pants	**1940**	**4570**	**42%**	**2**	**5**
S/S LOGO TOP WITH SMOCKED SLEEVE	1556	4164	37%	3	1
LACE TEE W/TRICON LINING	2376	3960	60%	1	1
S/S LOGO TOP W/SMOCKED SLEEVE	955	1902	50%	1	1
S/S LOGO TEE W/SMOCKING	94	252	37%	3	1
S/S SASH WRAP TOP	415	978	42%	2	1
FLORAL LACE TOP	736	1296	57%	1	1
S/S LOGO TEE W/EMPIRE SMOCKING	465	1128	41%	2	1
TANK WITH LACE APPLIQUE & BLING	505	1294	39%	3	1
Total SS Knit Shirts	**7102**	**14974**	**47%**	**1**	**8**

Step 5: Generate A Category Analysis

The category analysis shows us how many items fall into each quartile. This helps us understand what percentage of our assortment worked well, and what didn't. For our example we assume that any performance except for 4th quartile performance is acceptable. Of course, you can make your own assumptions based on your business. Our summary breaks down the performance into 3 segments- above average, average and below average. In the above average segment, we determine how many items are optimal by taking the average between the total item count and count of items in quartiles 1,2 and 3. For the average segment, we add 25% to the count of items that fall in quartiles 1,2 and 3. That's because in the optimal mix we would want have wanted more items to fall in the 1st, 2nd and 3rd quartiles. Finally, in the below average

segment, we only want items that fell into the 1st, 2nd or 3rd quartile. The percentage of optimal items is calculated on the total number of items. In this case, the analysis is telling us that the optimal assortment would have consisted of 98% of the above average items, 78% of the average items and 31% of the below average items.

CATEGORY ANALYSIS

ABOVE AVERAGE	Total # Items	# Items > 4th QTL	% of Total Items	OPT # ITEMS	AVERAGE	Total # Items	# Items > 4th QTL	% of Total Items	OPT # ITEMS	BELOW AVERAGE	Total # Items	# Items > 4th QTL	% of Total Items	OPT # ITEMS
Capris	2	2	100%	2	Jackets	4	3	75%	4	Pants	12	5	42%	5
Dresses	1	1	100%	1	LS Knit Shirts	2	1	50%	1	Skirts/Jumpers	5	2	40%	2
SS Knit Shirts	8	8	100%	8	Capris	2	1	50%	1	Jackets	7	2	29%	2
Skirts/Jumpers	3	3	100%	3						SS Knit Shirts	7	2	29%	2
Sweaters	1	1	100%	1						LS Knit Shirts	5	1	20%	1
Dresses	1	1	100%	1						Shortalls	1	0	0%	0
SS Woven Shirts	1	1	100%	1						Sweaters	1	0	0%	0
Pants	5	4	80%	5						SS Woven Shirts	1	0	0%	0
TOTAL	**22**	**21**	**95%**	**22**	**TOTAL**	**8**	**5**	**63%**	**6**	**TOTAL**	**39**	**12**	**31%**	**12**
		% OPT Items to Total->		**98%**			% OPT Items to Total->		**78%**			% OPT Items to Total->		**31%**

Step 6: Visualize the Results

After creating the analysis, we need to display the data in a more visual way. We do this by simply listing each item in the quartiles they were ranked in.

1ST QUARTILE

1st Ship   DENIM KNICKER W/APPLIQUE
1st Ship   DENIM BOLERO W/EMBROIDERY
1st Ship   BOLERO W/CROCHET APPILQUE
1st Ship   KNIT DRESS WITH RUFFLES & VOILE
1st Ship   L/S LACE SASH WRAP TOP
1st Ship   CARGO PANT W/EMBROIDERY
1st Ship   RACHEL LACE TEE W/TRICON LINING
1st Ship   S/S LOGO TOP W/SMOCKED SLEEVE
1st Ship   FLORAL LACE TOP
1st Ship   DENIM CARGO SKIRT W/APPLIQUE
1st Ship   CARGO SKIRT W/CROCHET APPILQUE
1st Ship   SKIRT W/PLEATED BACK
2nd Ship   blazer w/screenprint
2nd Ship   TWILL FLAPPED POCKET JEAN
2nd Ship   KNICKER W/CROCHET APPLIQUE
2nd Ship   KNIT DRESS WITH RUFFLES & VOILE
2nd Ship   L/S LACE SASH WRAP TOP
2nd Ship   ACTIVE PANT W/ LACE APPLIQUE & BLING
2nd Ship   FLORAL LACE TOP

2ND QUARTILE

1st Ship   ACTIVE JACKET W/LACE APPLIQUE & BLING
1st Ship   ACTIVE PANT W/ LACE APPLIQUE & BLING
1st Ship   S/S SASH WRAP TOP
1st Ship   S/S LOGO TEE W/EMPIRE SMOCKING
2nd Ship   CARGO PANT W/EMBROIDERY
2nd Ship   CUFFED STRAIGHT LEG JEAN

3RD QUARTILE

1st Ship   KNICKER W/CROCHET APPLIQUE
1st Ship   MULTIMEDIA LOW-RISE BOOTLEG JEAN
1st Ship   CUFFED SLIM LEG JEAN
1st Ship   S/S LOGO TOP WITH SMOCKED SLEEVE
1st Ship   S/S LOGO TEE W/SMOCKING
1st Ship   TANK WITH LACE APPLIQUE & BLING
1st Ship   CROPPED SWEATER W/CAMI & LEG WARMERS
2nd Ship   DENIM PANT W/FOIL
2nd Ship   BASIC TEE W/FOIL LOGO
2nd Ship   DENIM MINI SKIRT W/FOIL
2nd Ship   ACTIVE JACKET W/LACE APPLIQUE & BLING
2nd Ship   LACE TRIMMED   TUNIC W/CAMI
2nd Ship   SKIRT W/PLEATED BACK

4TH QUARTILE

1st Ship   JACKET WITH CONTRASTCUFFS
1st Ship   ACTIVE HOODIE W/FOIL
1st Ship   JEAN WITH CONTRAST FACING
1st Ship   LACE TRIMMED   TUNIC W/CAMI
2nd Ship   DENIM JACKET WITH FOIL
2nd Ship   BASI TEE W/APPLIQUE HEART
2nd Ship   KNICKERS W/FLAP POCKETS
2nd Ship   BOLERO W/CROCHET APPILQUE
2nd Ship   JACKET W/APPILQUE
2nd Ship   JACKET WITH CONTRASTCUFFS
2nd Ship   ACTIVE JACKET W/EMBROIDERY
2nd Ship   TEE WITH LACE JACKET
2nd Ship   JERSEY TEE W/LACE SLEEVES
2nd Ship   LS TEE W/ LACE TRIM
2nd Ship   L/S RAGLAN TEE
2nd Ship   CARGO PANT
2nd Ship   LOW RISE BOOTLEG JEAN W/BELT
2nd Ship   MULTIMEDIA LOW-RISE BOOTLEG JEAN
2nd Ship   CUFFED SLIM LEG JEAN
2nd Ship   JEAN WITH CONTRAST FACING
2nd Ship   BOOTLEG JEAN W/VICTORIAN LADY
2nd Ship   ACTIVE PANT W/LUREX EMBROIDERY
2nd Ship   BABY DOLL TOP W/VELOUR TRIM
2nd Ship   S/S LOGO TEE W/SMOCKING
2nd Ship   S/S JERSEY TEE W/PUFF SLEEVES
2nd Ship   S/S TEE W/LACE TRIM
2nd Ship   TWILL SHORTALL W/METAL STUDS
2nd Ship   DENIM JUMPER
2nd Ship   CARGO SKIRT W/CROCHET APPILQUE
2nd Ship   SKIRT W/LACE
2nd Ship   CROPPED SWEATER W/CAMI & LEG WARMERS

But an even better way is to replace the text with an image of each item. That way you can visually see if there are specific product attributes that contributed to certain performances. In the example below, it's obvious that tops did better than other product categories. This isn't just useful to buyers and planners, but to designers as well. Visualizing what worked and what didn't helps designers create more products apt to sell, while saving money in sampling and other related product development costs.

1st Quartile   2nd Quartile   3rd Quartile   4th Quartile

Best Performance ←————————————————————————→ Weakest Performance