



Figuring out acquisition models with data: A beginner's approach to analyzing ebooks

By: Whitney Jordan

Abstract

As ebook acquisition models are developed and continue to evolve, how can we evaluate our collection acquisition practices to ensure cost effectiveness? Which metrics will be essential to demonstrate a good return on investment? With title, order, and usage information needing to be acquired from different sources, this is not always a straightforward undertaking. Finding a way to accurately synthesize the data in a meaningful way can seem daunting.

This poster looks at how the library at Western Carolina University assessed their current methods of acquiring ebooks. The poster will detail the scope of the project, how the data was synthesized, the trends and metrics identified, the recommendations made based on the collected data, and the library's future plans for assessment.

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Archived version from NC DOCKS available at: <https://libres.uncg.edu/ir/wcu/listing.aspx?styp=ti&id=32569>.

Figuring out acquisition models with data: a beginner's approach to analyzing ebooks

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Summary

Western Carolina University (WCU) is a medium, regional comprehensive university located in North Carolina. This study looks at three of the primary ebook acquisition models in use at WCU: firm order, DDA, and approval. As monograph budgets decrease and acquisition models continue to evolve, it was important that we look at the predominate methods of collecting and determine their performance overall and within specific disciplines. Our hope is that the data will be used to influence decisions related to vendor profiles for DDA and approval plans and to test new methods for collection development. We purposefully excluded ebook packages, subscriptions, and EBA packages because they are often more interdisciplinary and paid under different funds lines. We also excluded short term loans for DDA titles when a full purchase had occurred.



Methods

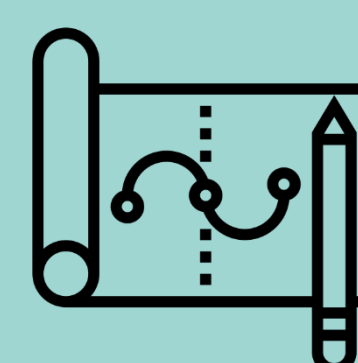
For this project, I was interested in finding a way to break down usage statistics that would provide data specific to each acquisition model and subject liaison in order to offer recommendations based on spending patterns and use in different collection areas. I extracted 2012-18 order data from our ILS and usage statistics from various platforms and synthesized the data in Excel.

Order #	2015/16	2016/17	2017/18	Usage Total	Title	Fund	Vendor	Price	CPU	ISBN
o11584609	9	4	1	15	Treating PTSD in preschoolers :	nurq	dybp	\$ 100.00	\$ 6.67	9781462522378 9781462522330
o11584610	3	9	10	23	Women's rights in the United States :	genmx	dybp	\$ 518.75	\$ 22.55	9781610692151 9781610692144
o11584622	13	2	7	23	Inclusion in the early childhood classroom :	hsq	dybp	\$ 44.14	\$ 1.92	9780807771235 9780807754009
o11584634	3	7	2	13	Observation, assessment and planning in inclusive autism edu	stlq	dybp	\$ 193.75	\$ 14.90	9781317553137 9781138842069 978
o11584646	3	1	3	9	Treating addictions with EMDR therapy and the stages of cha	psyq	dybp	\$ 125.00	\$ 13.89	9780826198747 9780826198563
o11584658	6	3	1	11	Developing reading comprehension :	stlq	dybp	\$ 88.75	\$ 8.07	9781462519781 9781462519767 978
o1158466x	5	0	3	9	Doing a literature review in health and social care :	heaq	dybp	\$ 174.80	\$ 19.42	9780335263080 9780335263073
o11584671	4	0	not found	8	Selfdetermination and women's rights in Muslim societies	lwomq	dybp	\$ 84.49	\$ 10.56	9781611682816 9781611682793 978
o11584683	2	14	13	30	Health care finance, economics, and policy for nurses :	nurq	dybp	\$ 125.00	\$ 4.17	9780826123237 9780826123220

I used this spreadsheet as a starting point to gather quantitative data about cost and usage for ebook purchases, including:

- distribution of cost (highest and lowest cost, average cost, median cost, etc.)
- average cost-per-use
- average use across these three acquisition models

Once this was collected, I used pivot tables to identify disciplinary use and spending trends across the models. Since I was primarily interested in data related to expenditures and use by model, the metrics most helpful were those that showed the distribution of overall expenditures, average cost and use, and percentage of titles with continued or sustained use to determine if these methods of collecting are serving the needs of our patrons while also making the most of our budget.



Results

Firm order purchases account for the majority of expenditures at WCU. They also have the largest percentage of use for the overall ebook collection, followed by DDA, and approval in a distant third (Fig. 1). While firm orders had more drastic outliers in terms of cost than DDA and approval, ebooks purchased on DDA or approval tend to be more cost effective. A possible reason for this could be because there are more options for user limits when making firm order purchases. However, the average usage is higher for ebooks purchased on DDA (Fig. 2). Overall, 16% of our purchased DDA titles were used 10+ times, 9% for firm orders and 6% for approval. Only 35% of ebooks purchased had no use (Fig. 3). Due to the nature of DDA not being purchased unless it is used, it is not represented in the zero use titles. The majority of ebooks represented with no use are firm orders and make up more than half of our total firm order purchases. When we looked at usage by liaison, we were surprised to see high use even in those subject areas where liaisons had not purchased as many ebooks (Fig. 4).

By Acquisition Model		
Model	% of Usage	% of Expenditure
Approval	0.36%	0.74%
DDA	47.78%	40.95%
Firm Orders	51.86%	58.31%
Total	100.00%	100.00%

Fig. 1: Ebook collection breakdown by acquisition model.

At-a-glance			
Overall		DDA	
Titles included	6,769	Titles included	2,772
Total usage	33,422	Total usage	15,969
Average usage	4.94	Average usage	5.76
Average CPU	\$ 39.99	Average CPU	\$ 30.53
Average Cost	\$ 108.94	Average Cost	\$ 73.84
Most Expensive	\$ 14,850.00	Most Expensive	\$ 673.58
Least Expensive	\$ 0.45	Least Expensive	\$ 0.45
Mode	\$ 150.00	Mode	\$ 150.00
Median	\$ 65.00	Median	\$ 44.95
Firm Order		Approval	
Titles included	3,947	Titles included	50
Total usage	16,555	Total usage	119
Average usage	4.26	Average usage	2.38
Average CPU	\$ 56.13	Average CPU	\$ 37.28
Average Cost	\$ 132.42	Average Cost	\$ 61.78
Most Expensive	\$ 14,850.00	Most Expensive	\$ 194.00
Least Expensive	\$ 0.66	Least Expensive	\$ 11.99
Mode	\$ 45.00	Mode	\$ 65.00
Median	\$ 77.95	Median	\$ 49.00

Fig. 2: Combined and individual cost distribution for DDA, firm order, and approval ebook models.

Use by Range		
Usage Total	# of Titles	Percent of Whole
0 Use Titles	2,393	35.35%
1-20 Uses	4,067	60.08%
21-40 Uses	173	2.56%
41-60 Uses	64	0.95%
61-80 Uses	23	0.34%
81-100 Uses	21	0.31%
101-120 Uses	8	0.12%
121-140 Uses	6	0.09%
141-160 Uses	2	0.03%
161-180 Uses	3	0.04%
181-200 Uses	3	0.04%
Over 200 Uses	6	0.09%
Grand Total	6,769	100.00%

Fig. 3: Distribution of use for ebooks.

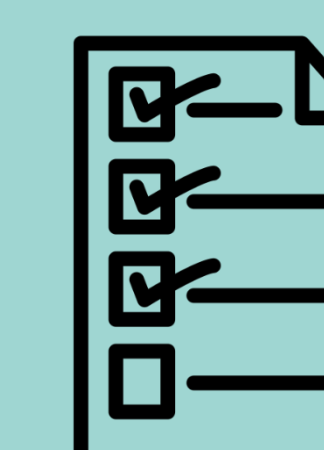
Overall by Fund			
Fund	# of Titles	Total Use	Average Cost
Liaison 1	133	903	\$129.39
Liaison 2	419	1,058	\$125.52
Liaison 3	141	840	\$161.05
Liaison 4	216	1,235	\$109.73
Liaison 5	651	6,532	\$162.20
Liaison 6	255	896	\$103.29
Liaison 7	1932	9,777	\$98.92
Misc.	2037	10,604	\$103.54
Liaison 8	51	289	\$119.20
Liaison 9	929	1,267	\$86.81
Liaison 10	5	21	\$102.74
Total	6769	33,422	\$108.94

Fig. 4: Ebook data by liaison.

Recommendations

Ebook titles purchased using the library's general fund tend to be firm order titles and had the lowest use per title. Because of this, I propose we experiment with assigning this fund to a different collection area each year and, in collaboration with the subject liaison, focus on enhancing that area.

Using the information provided in this assessment, I also propose strategically opening up our DDA profile and reviewing related Evidence based Acquisition (EBA) models for those disciplines in which print purchasing is the default.



Future Directions

- Repeat assessment on these three models in two years.
- Use data from this assessment to tailor our DDA and approval plans.
- Expand assessment to include ebook packages, subscriptions, and recent evidence based acquisition packages.

