Manufacturing on Demand

Voice of Market and Market Approach Project

Delivered to cSquaredE Client

In this Deck

- Project scope, timeline and goals
- Glossary
- Current customers
- Industry analyses for video, games and music
- Retailer research
- Next steps and additional work to be done

Overview

Situation

Over the past 6 years, <client> has sold a number of systems to companies that offer "on-demand" creation of optical discs at wholesale and retail (online, bricks-and-mortar); these discs contain commercial/copyrighted content (e.g, music, movies, software). There is evidence that these business models may now, more than ever, be poised to grow quickly and are solving real problems for retailers and the end-consumers of the content.

Complication

Despite this emerging trend, there is insufficient understanding of the macro playing field / ecosystems in commercial content production, distribution and retailing, as well as trends in consumer behavior. A miscalculated strategy into this realm could be wasteful.

Overview

Hypothesis

<Client> has an opportunity to influence the Manufacturing on Demand market, and create a new, profitable disc publishing product line in one or more Manufacturing On Demand scenarios.

Governing Question

How do we attack the Manufacturing on Demand opportunity?

Issue Tree

Governing Question

How do we attack the Manufacturing on Demand opportunity?

- What are the value chains and ecosystems for commercial content today?
- What are the trends in consumer shopping and purchasing of content?
- Within each value chain, where is a Manufacturing on Demand solution most needed?
- Within the target attack point, who are the best players to provide a Manufacturing on Demand solution?
- Can <client> pull off a coordinated effort with other key players, to accelerate the growth in the Manufacturing on Demand market?

Analysis and Deliverables

Governing Question

How do we attack the Manufacturing on Demand opportunity?

- Voice of customer / voice of market interviews
- Review of market research, analyst reports
- Value chain maps and economics
- Market player tear downs
- Prioritization of value chain attack points, customers, and solution vision

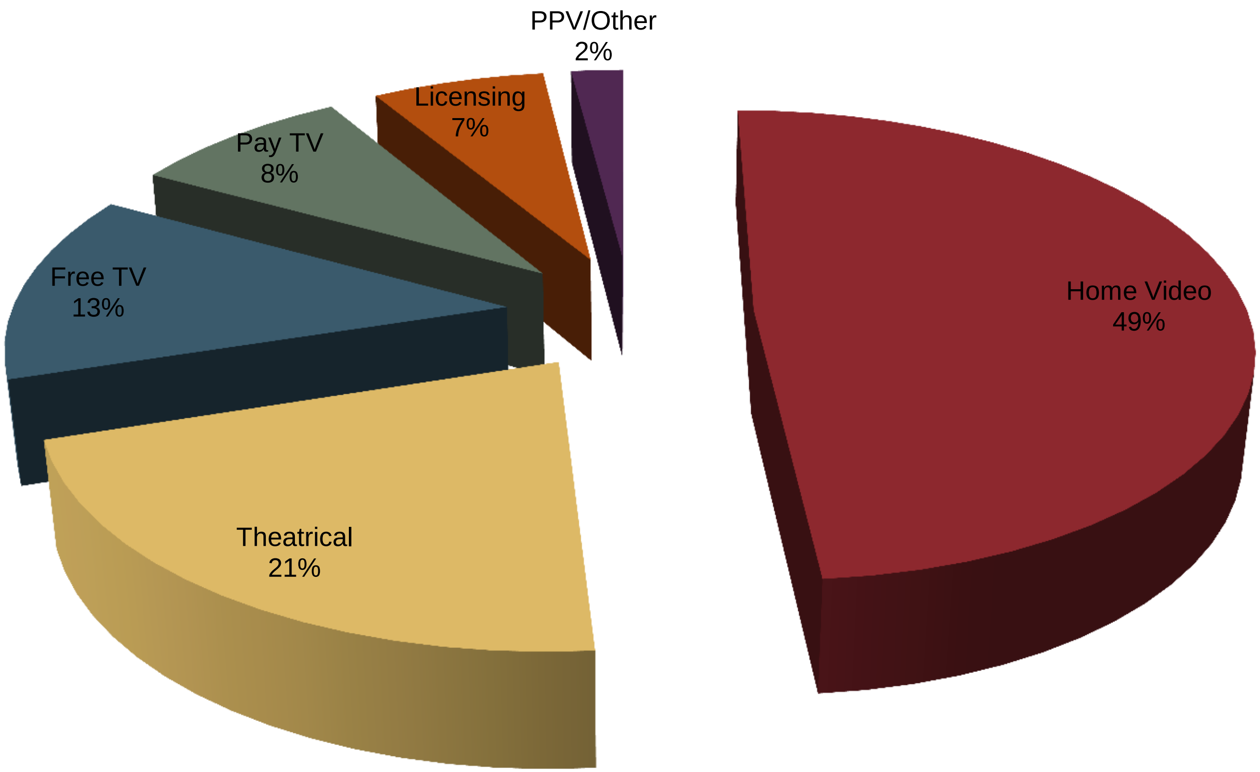
Menu of Possible Strategies

Content Category	<client> Customer	Geographic	<client> Technology
❑ Software ❑ Music ❑ Video ❑ Games ❑ Audio Books	❑ Wholesaler (manufacturer and distributor) ❑ System integrator / Kiosk marketer ❑ Retailer	❑ North America ❑ Europe ❑ APAC	❑ Disc publishing and consumables ❑ Content protection (CSS, Blu-Lock) ❑ Production management with policies ❑ Secure file transfer & management ❑ System integration / kiosk and user interface

Goal: Defined strategy by March 31

Video Industry Analysis

Studio Revenue Breakdown, 2007



Majority of studio revenue comes from Home Video

Typical Studio's Home Video P&L

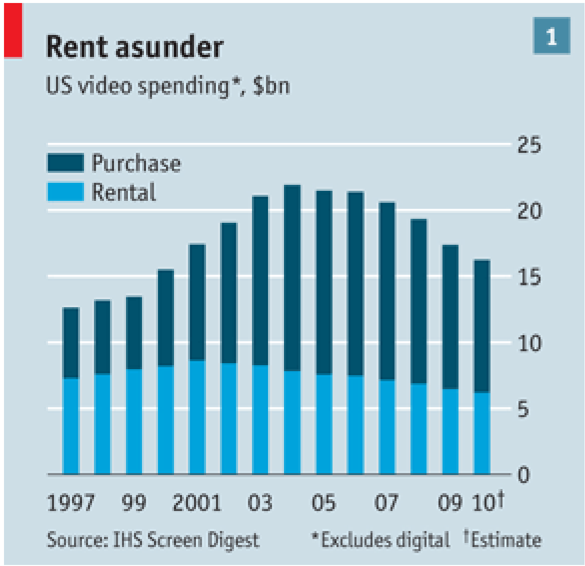
REVENUES			
Gross Units			
Rental	actual number of units shipped into the rental store chain	100,000	
Sell Through	actual number of units shipped into retail via direct accounts or wholesalers	900,000	
		1,000,000	
Gross Revenues			
Rental	simple formula of dealer price of $16, multiplied by number of units	$1,600,000	
Sell Through	simple formula of dealer price of $16, multiplied by number of units	$14,400,000	
		$16,000,000	
Deductions from Gross			
Returns	returns either from defective units, or from accounts with returns rights	180,000	assume 20%
Rebates	POS rebate incentives, or overall adjustments to wholesale price		(of sell through number)
Price Protection	$ credited to lower COGS on unsold retail inventory, enabling price drop		
Net Units			
Rental	units net of returns; units either sold through or not returned/refundable	100,000	
Sell Through	units net of returns; units either sold through or not returned/refundable	720,000	
		820,000	
Net Revenue			
Rental	dealer price multiplied by net units	$1,600,000	assume ~60% SRP
Sell Through	dealer price multiplied by net units	$11,520,000	($16 wholesale price)
TOTAL		$13,120,000	

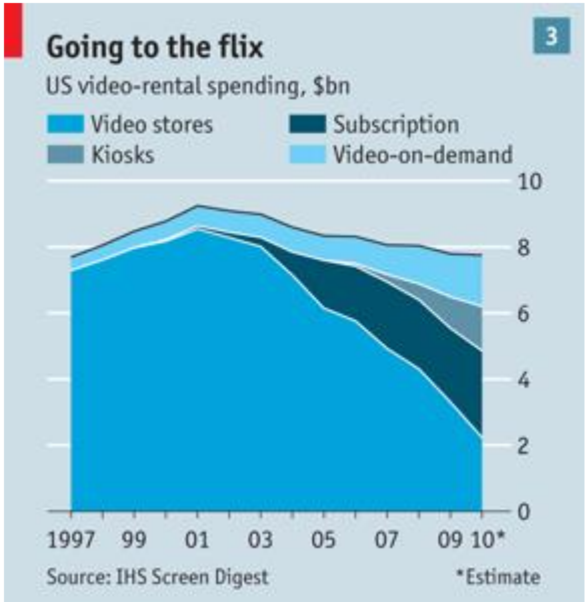
Typical Studio's Home Video P&L

EXPENSES	(exclusive of creation of product and any value added material)		
Manufacturing Expenses			on gross units
Mastering and Menus	Navigation interfaces and menus		
Replication/Duplication	physical cost of creating the DVD disc		
Packaging	the physical cost of labels, paper/sleeves		
Cases and Assembly	the physical cost of the plastic box/case		
Distribution Expenses			
Assemble and sort ("Pick and pack")	supply chain cost of sorting and customizing units for delivery		
Shipping (freight)	physical cost of transport and delivery to customer		
Returns cost	cost of taking back and processing returns back into inventory		
Merchandising	rack jobber costs who manager in-store displays and placement		
		$3,0[illegible]0,000	assume ~$3/unit
Marketing Expenses			
Trade Marketing	marketing to DVD/video accounts (e.g., Best Buy, Wal-Mart, Blockbuster)		
Advertising (sales kits, etc.)	sales materials for the trade		
Point of Purchase (POP)	in store marketing elements, such as standees, counter pieces, posters		
Consumer Marketing			
Advertising (on and offline media)	TV, radio and online spots/banners (cost of creation and placement)		
Promotion and Publicity	Press junkets, PR costs, hard costs of talent/exec travel to promote		
Research costs	Cost of pricing studies, focus groups, etc.		
		$3,200,000	assume ~$3.20/unit
			(20% of $16 dealer price)
Sales Expenses			
Market Development Funds (MDF)	% of revenue allocation to aid retailer marketing and promotion efforts		
Co-op advertising	similar to MDF, but tied to actual media placement (e.g., a retailer ad)		
Trade shows	allocated costs of attending trade shows; advance showing of product		
		$960,000	assume 6% of gross revenues
Total Expenses		$7,160,000	
Net Profit		$5,960,000	45% profit margin

Very profitable line of business … even after giving 50% of net profit to movie producers and talent

Home Entertainment DVD Trends

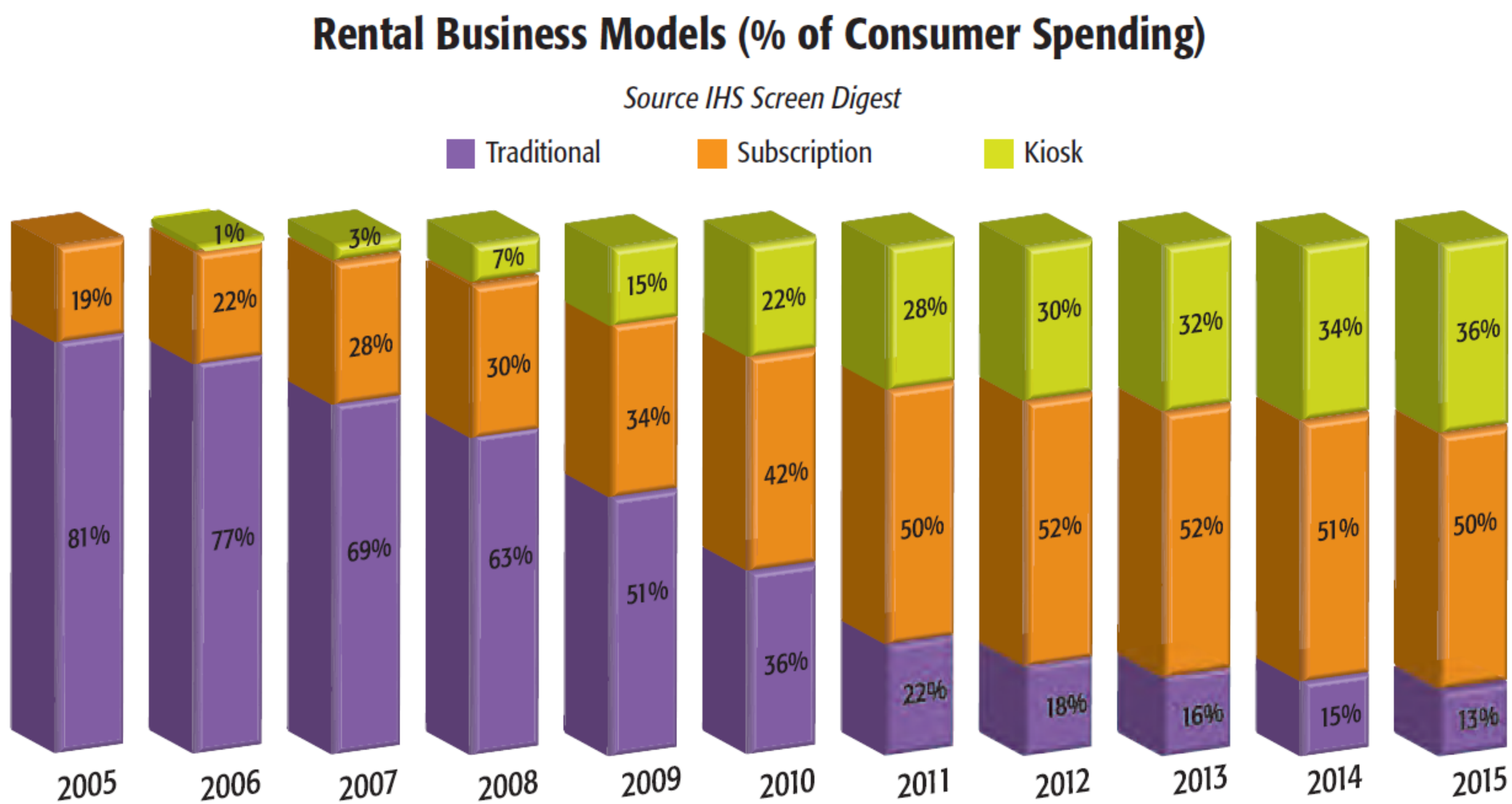




"About one thing the studios are fairly sure. Piracy, which was widely viewed as the greatest danger facing the film business a few years ago, has been eclipsed as a threat. In developed countries, particularly America (by far the biggest home-entertainment market), ***people have switched from buying to borrowing****."*

© The Economist, *Unkind Rewind*, May 17, 2011

Home Entertainment DVD Trends



Given the decline in 'Traditional' models, this leads to there being fewer and fewer brick-and-mortar stores to purchase a video.

Home DVD and Blu-ray Disc Releases

From The DVD Release Report, Feb 9, 2012

DVD & Blu-ray Release Report
Revised: February 09, 2012

For the latest release news or to download past editions
http://www.dvdreleasereport.com

Week Number: 778
Year 15: Week: 50

This Week's Release Activity For DVD & Blu-ray

DVD Titles Released in the Domestic Market Since Inception Period Ending Feb. 10, 2012

134,827 +323

Blu-ray Title Activity Period Ending February 10, 2012

Released	Scheduled
5,573	171

Studio DVD Release Share: By Source - 1997 - 2012*

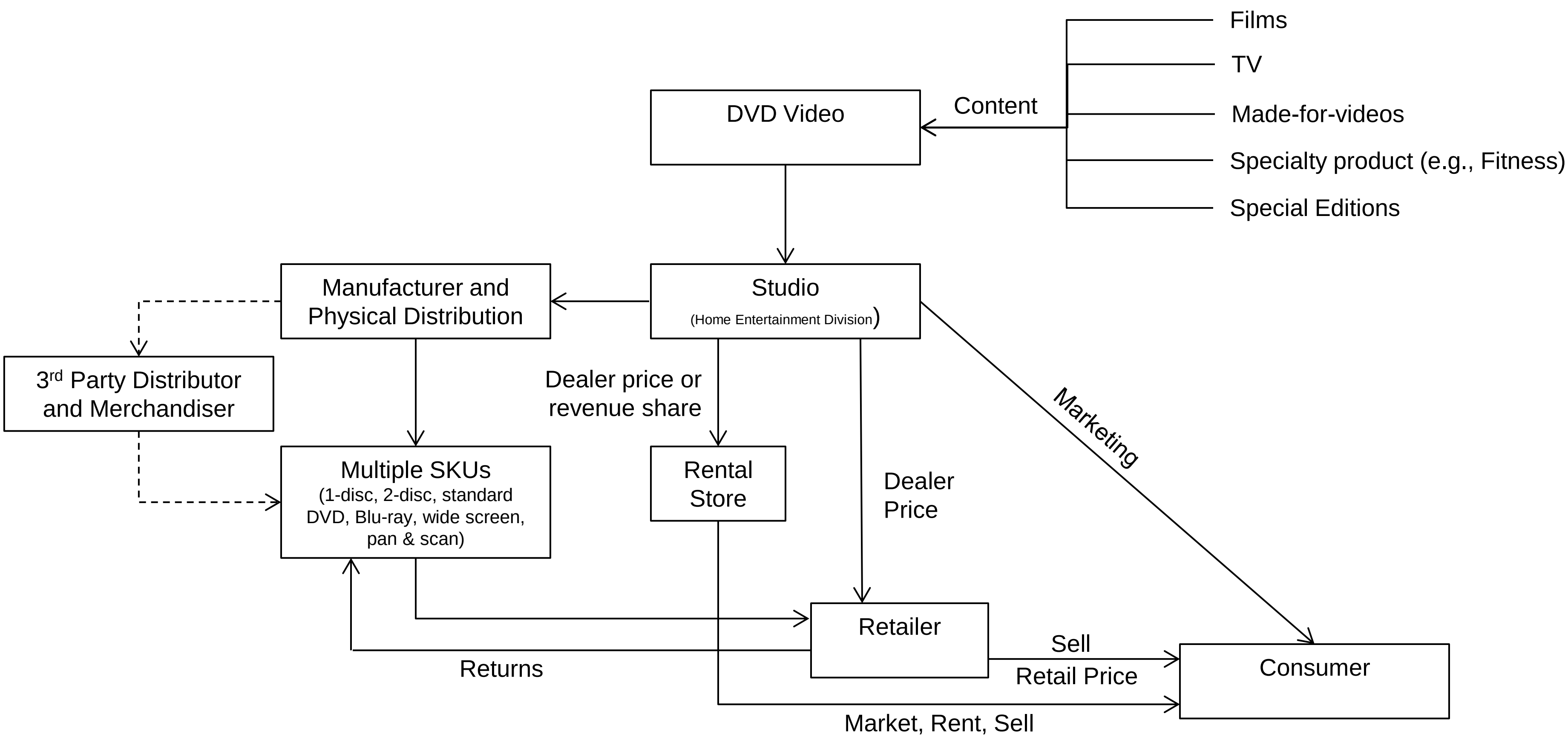
Studio Source	1997-2009	2009	2010	2011	2012	Total
20th Century-Fox	1,730	99	82	82	7	2,000
Dreamworks SKG	173	12	7	8	1	201
Lionsgate Home Ent.	2,169	226	166	146	12	2,719
MGM Home Ent.	1,613	40	8	12	-	1,673
New Line Home Ent.	406	22	10	2	-	440
Paramount Home Ent.	2,126	212	158	132	6	2,634
Sony Pictures	2,275	197	119	95	15	2,701
Universal Studios	1,717	118	92	99	9	2,035
Walt Disney Studios	1,737	128	84	125	4	2,078
Warner Home Video	3,364	728	621	539	48	5,300
Total Studio	17,310	1,782	1,347	1,240	102	21,781

Year-To-Date DVD Release Comparisons: 2006 - 2012

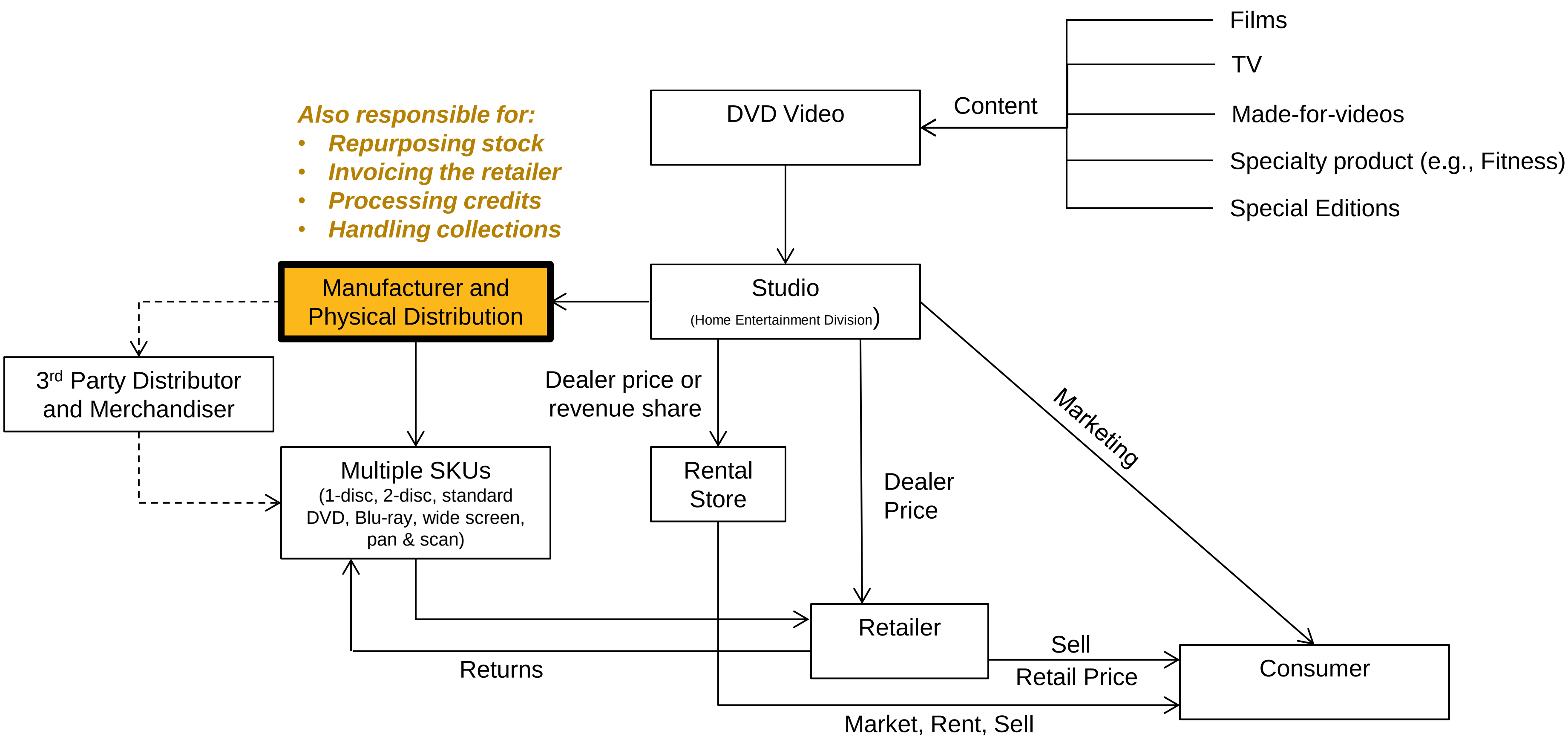
DVD Title Release Category	2006	2007	2008	2009	2010	2011	2012
Anime	74	54	45	45	39	27	18
Adult-Themed, Non-Feature	19	39	44	56	21	20	16
Cartoon Collections	7		3		1	2	2
Children's Programming, Non-Feature	81	62	60	129	87	100	49
Performance: Comedy / Stand-Up	14	10	11	22	19	19	9
Documentary	24	17	30	30	23	21	20
Foreign Language Feature Films	136	124	194	131	125	122	146
Fitness	46	59	62	66	42	30	25
Karoke	2		1	12	1		10
Music	210	137	121	127	91	78	66
Performance: Magic	20	18	23	19	19	27	19
Mini Series	8	5	4	7	11	4	2
MOW (TV Movies)	49	22	36	35	23	29	15
Music: Opera and Stage Performances	13	21	17	24	19	19	16
Religion: Non-Feature	35	29	23	44	40	65	25
Films of the Silent Era				7	9	6	5
Short Subjects	13	11	12	13	10	16	6
Special Interest	346	308	267	261	310	385	213
Sports / Sports Instructional	148	167	89	79	119	101	99
Silent Short Compilations		1	1	1		1	1
Stage Productions (Non Musical)	4			2	1	4	4
Theatrical Catalog (pre-1997)	161	93	113	94	79	149	72
New Theatrical (1997-current)	87	72	77	91	85	56	62
Theatrical Serials (1930 - 1956)	5	1	4	2		6	
TV Series Programming (single disc)	34	18	17	14	16	17	10
TV Series Programming: Multi-Disc Sets	59	41	77	75	85	73	68
Direct to Video Feature Films	118	114	114	141	139	139	113
DVD Releases Through 02/10/12	1,713	1,423	1,445	1,527	1,414	1,516	1,091
Yearly Totals *	14,936	14,080	13,327	12,519	11,533	11,731	9,431
Year-To-Date Percentage	11.5%	10.1%	10.8%	12.2%	12.3%	12.9%	11.6%

"Long Tail" is over 100,000 titles, and major studios makeup only 16% of all DVD's released

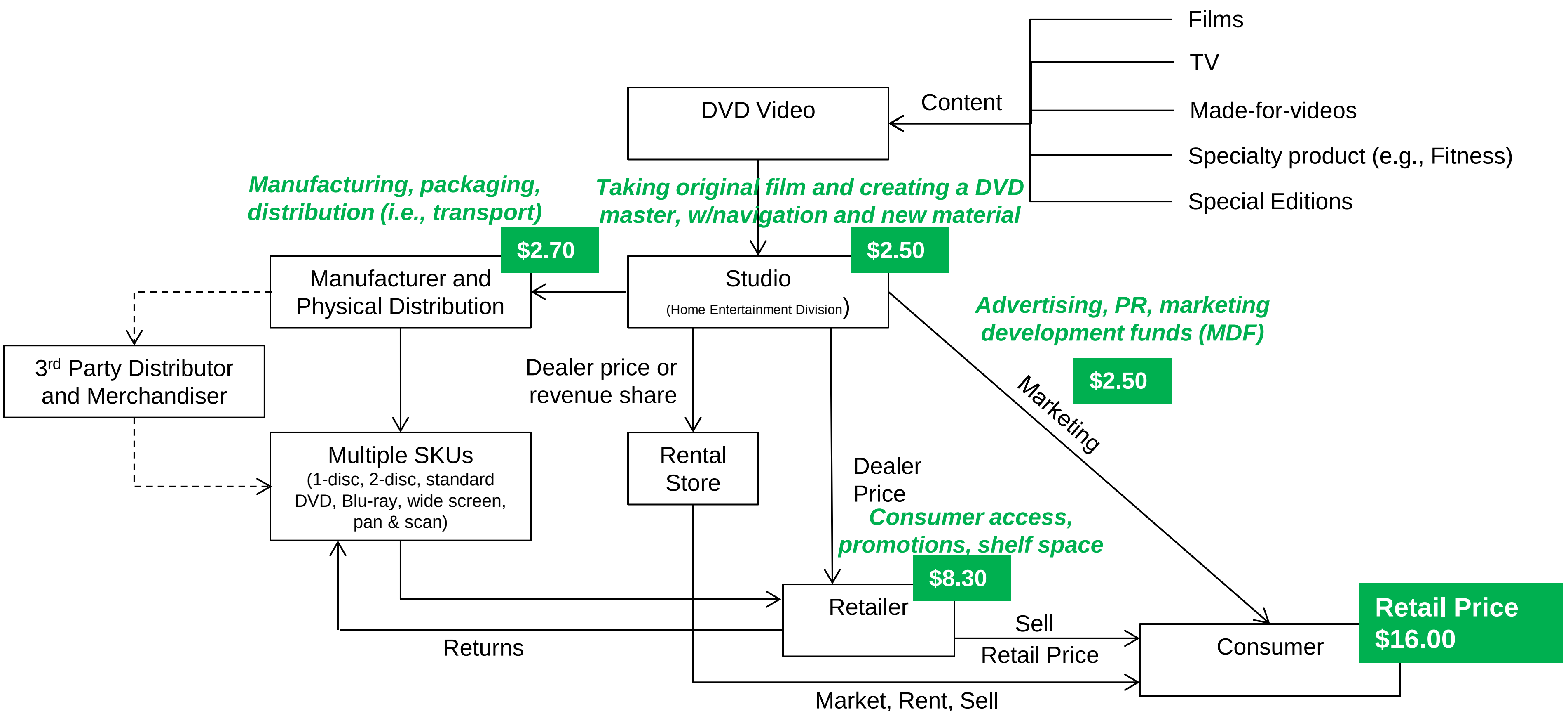
Home Video (DVD) Value Chain



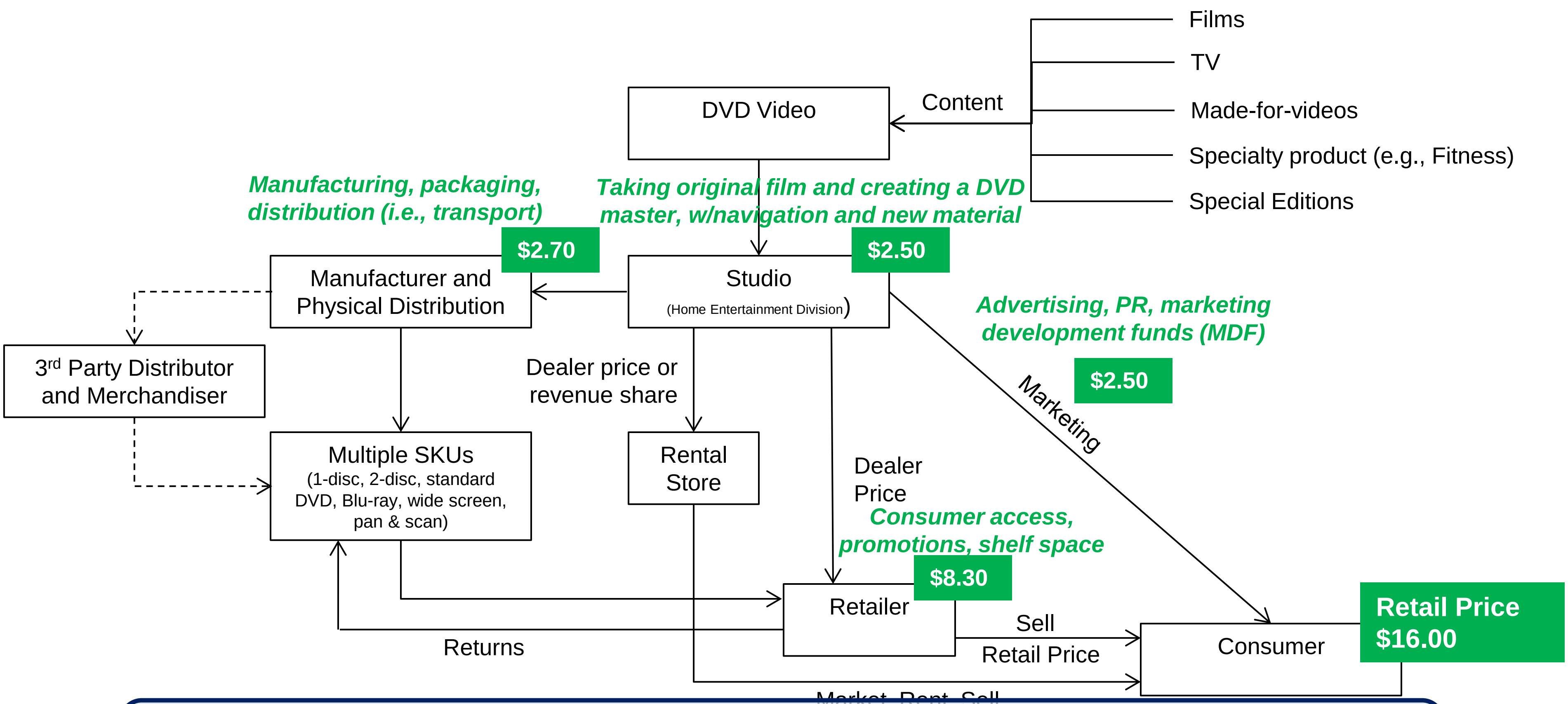
Home Video (DVD) Value Chain



Home Video (DVD) Value Addition



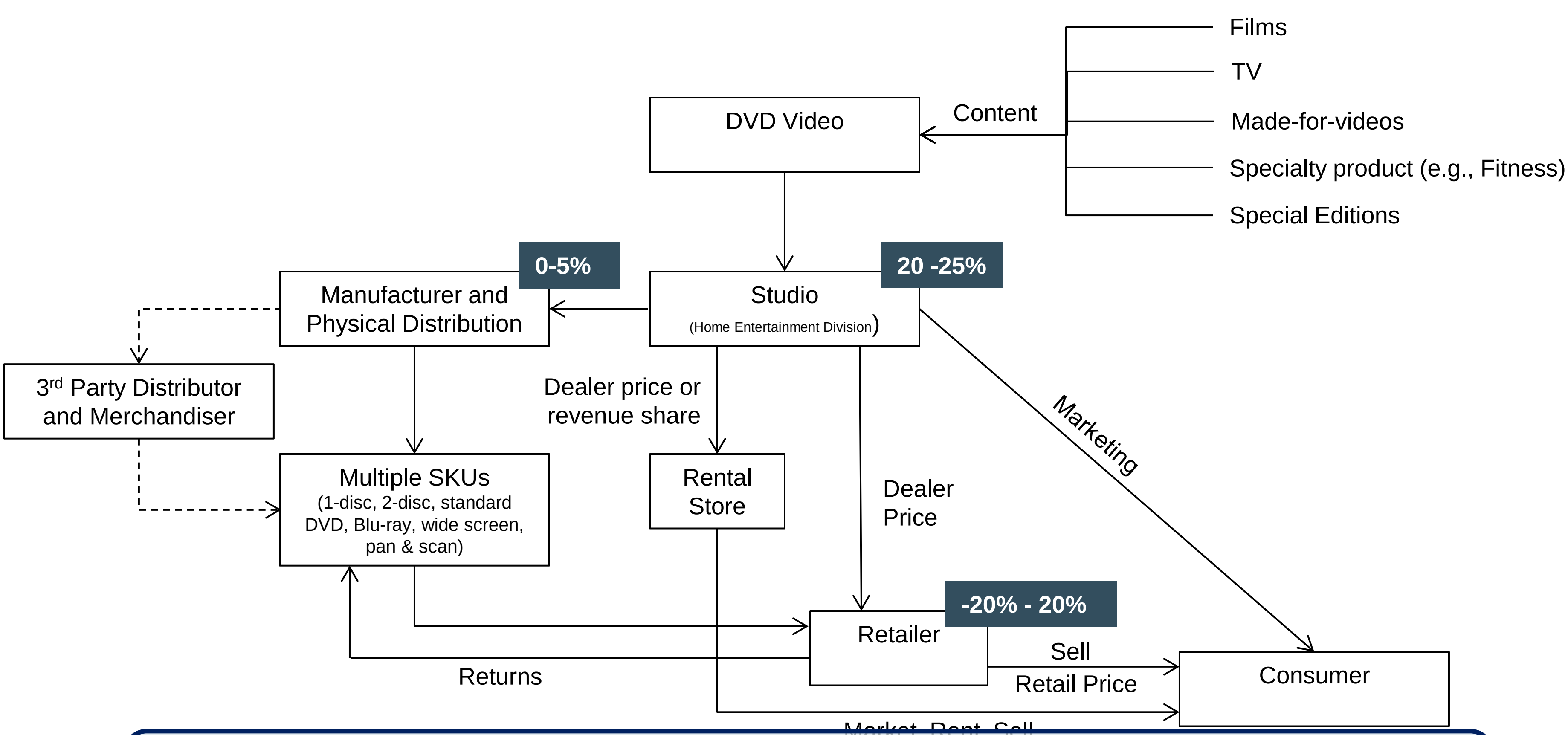
Home Video (DVD) Value Addition



Manufacturing and Distribution Adds the Least Value

Home Video (DVD) Profit Margins

(needs underpinning)



But, Studios Capture the Most Value

Also see www.longtail.com/the_long_tail/2005/08/is_the_tail_mor.html

Other Home Video Observations

- DVD releases typically generate over 50% -- sometimes up to 70% -- of their total sales in the first week
- Many studios have overall long-term deals with disc replicators
- Typical retailer makes 20% margin, but that is just on the disc; when you add in their other costs for marketing and labor, they are losing money

Content Markets: Video

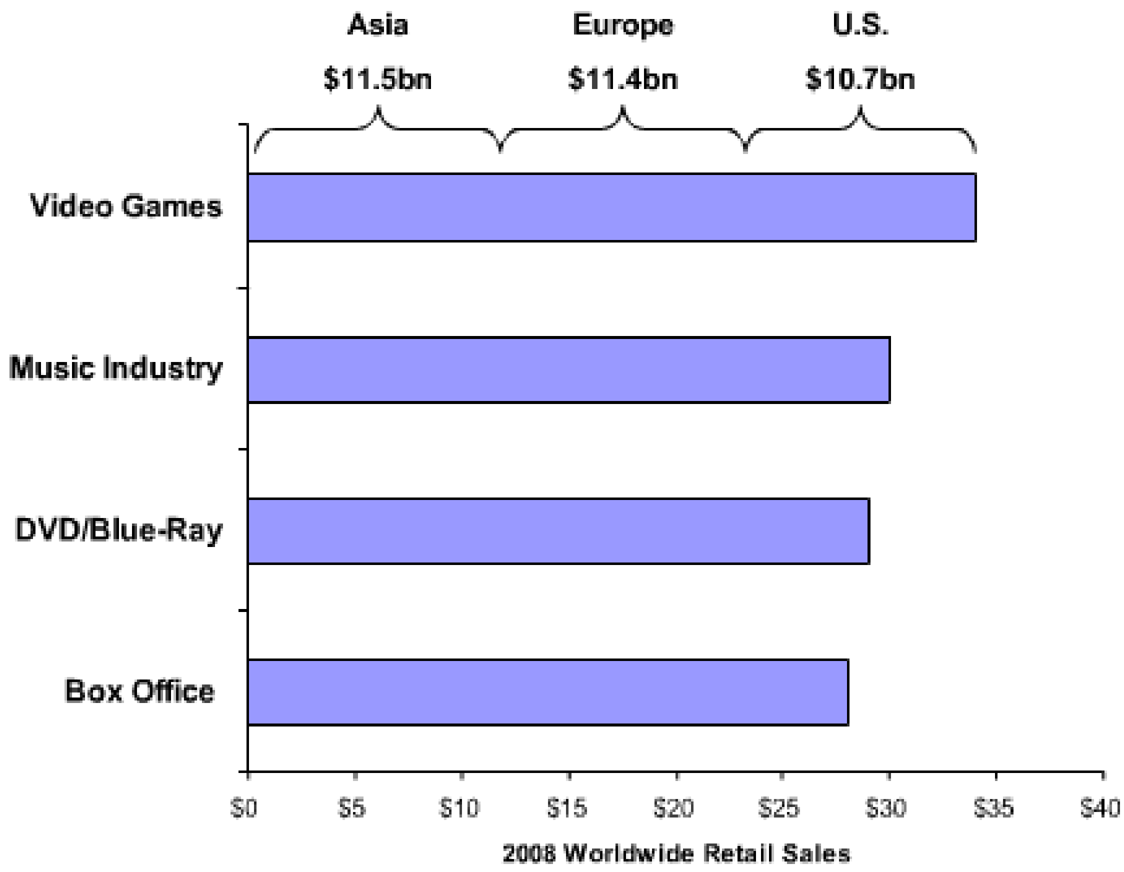
	Packaged Sellthrough (DVD, BD)	Electronic Sellthrough (Downloads)	Packaged Rental (DVD, BD)	Streaming / VoD Rental
Market Size[1]	$8.9 billion	$0.55 billion	$7.54 billion	$2.86 billion
YOY Trend	↓13%	↓19%	↓3%	↑51%
Brick and Mortar Leaders	Walmart (29%) Best Buy (18%) Target (8%)		Blockbuster (<30%)	
Online Leaders	Amazon	Apple iTunes (66%) Microsoft Zune (16%) Vudu (5%) Sony PlayStation (4%) Amazon (4%)	Redbox (35%) Netflix (30%)	Netflix[2] (61%) Comcast (8%) DirectTV (4%) Time Warner Cable (4%) Apple (4%)
Notes	Blu-ray sales ↑20%, reaching $2 billion for first time in 2011	UltraViolet service launched in Q4-2011	Brick and mortar ↓28% Rental kiosks ↑31%	VoD = $1.87 billion Streaming = $1.0 billion

[1]2011 figures, U.S. Market, from Digital Entertainment Group

[2]Share figures are in units (i.e., number of videos), not revenues; from NPD Group

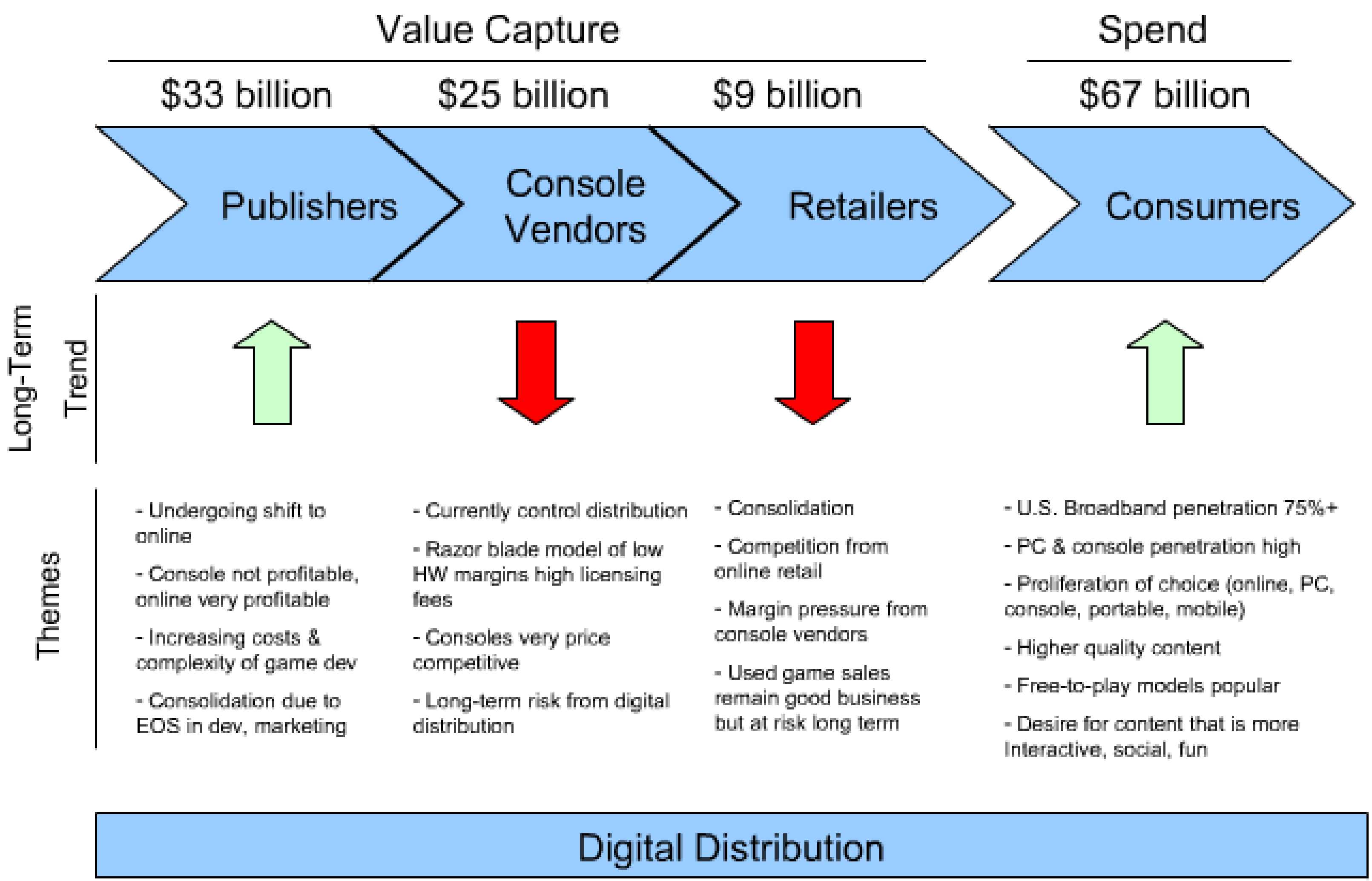
Game Industry Analysis

Worldwide Gaming is Big



Source: Citigroup, NPD, October 2007; ESA 2008

Video Game Value Chain and Trends



Notes on the Video Game Industry, April 2009, Alex Ferrara, Bessemer Venture Partners

Console Game Publishers Face Challenging Economics

Revenue from a $50 Console Game

Amount	Trend	Purpose	Paid By	Paid To
$3 (6%)	↓	Cost of goods	Publisher	Media manufacturer
$7 (14%)	↑	Publishing license	Publisher	Console vendor
$13 (26%)	↓	Retailer profit	Consumer	Retailer
$3 (6%)	↓	Markdown reserve	Publisher	Retailer
$8 (16%)	↑	Development cost	Publisher	Developer
$10 (20%)	↑	Operating cost	Publisher	Overhead, freight, co-op, bad debt, etc…
$6 (12%)		Marketing	Publisher	Ad agencies and media

Once again, the manufacturer adds the least value and has the most pressure on them from the big ends of the value chain

Notes on the Video Game Industry, April 2009, Alex Ferrara, Bessemer Venture Partners

Content Markets: Games

	New Physical Games (Portable, Console and PC)	Used Games, Rentals, Downloads, Mobile	Total Games Content
Market Size[1]	$9.3 billion	$7.0 billion	$16.3 billion
YOY Trend	↓8%	↑7%	↓2%
Brick and Mortar Leaders	Game Stop Toys R Us Walmart Target Best Buy		
Online Leaders	Amazon		
Notes	Hardware sales additional $8.5 billion	Used games ~$1 billion	Online sales expected to surpass physical sales in 2013

[1]2011 figures, U.S. Market, from NPD Group

Music Industry Analysis

Content Markets: Music

	Packaged Sellthrough (CD)	Electronic Sellthrough (Downloads)	Streaming / Subscriptions[2]
Market Size[1]	$11.0 billion	$5.2 billion	$0.5 billion
YOY Trend	↓5%	↑8%	↑50%
Brick and Mortar Leaders	Walmart (17%) Best Buy (14%)		
Online Leaders	Amazon (11%)	Apple iTunes (70%) Amazon (12%)	Pandora Rhapsody Spotify
Notes		Apple has overall 28% market share in music	

[1]2011 figures, worldwide market, from International Federation of the Phonographic Industry (IFPI)
[2]Gartner, *Media IAS Online Music Forecast, 2011-2015: Social Media, Subscriptions and the Cloud,* Sept. 2011

RIAA Shipment Data, 2009-2010

Figures in millions; U.S. only

Digital

		2009	2010	% CHANGE 2009-2010
(Units Shipped)	Download Single	1,138.3	1,162.4	2.1%
(Dollar Value)		1,220.3	1,366.8	12.0%
	Download Album	76.4	83.1	8.8%
		763.4	828.8	8.6%
	Kiosk[1]	1.7	1.7	-3.4%
		6.3	6.4	1.2%
	Music Video	20.4	18.1	-11.1%
		40.6	36.1	-11.1%
	Total Units	**1,236.8**	**1,265.4**	**2.3%**
	Total Value	**2,030.7**	**2,238.1**	**10.2%**
	Mobile[2]	305.8	220.5	-27.9%
		728.8	526.7	-27.7%
	Subscription[3]	1.2	1.5	29.9%
		213.1	200.9	-5.7%
	Digital Performance Royalties[4]	155.5	249.2	60.3%

Physical

		2009	2010	% CHANGE 2009-2010
(Units Shipped)	CD	292.9	225.8	-22.9%
(Dollar Value)		4,274.1	3,361.3	-21.4%
	CD Single	0.9	1.2	31.2%
		3.1	3.3	7.2%
	LP/EP	3.2	4.0	25.9%
		60.2	87.0	44.4%
	Vinyl Single	0.3	0.3	-3.9%
		2.5	2.2	-9.4%
	Music Video	11.8	9.1	-22.6%
		212.0	178.8	-15.7%
	DVD Video[5]	11.2	8.7	-22.4%
		206.9	175.3	-15.3%
	Total Units[6]	**309.2**	**240.5**	**-22.2%**
	Total Value[6]	**4,555.9**	**3,635.1**	**-20.2%**
	Total Retail Units	**271.7**	**212.4**	**-21.8%**
	Total Retail Value	**4,376.1**	**3,518.5**	**-19.6%**

Total Digital & Physical

	2009	2010	% CHANGE 2009-2010
Total Units[7]	**1,851.8**	**1,726.3**	**-6.8%**
Total Value	**7,683.9**	**6,850.1**	**-10.9%**

% of Shipments	**2009**	**2010**
Physical	59%	53%
Digital	41%	47%

Key Takeaways

- Digital took 47% of the market vs. physical in 2010
  - Surpassed physical in 2011, taking 50.3% share
- Sales at kiosks were 0.1% of total music sales
  - Kiosk sales growth basically flat between 2009 and 2010

Retail Industry Analysis

Retailer Review

- During 2011 holiday season, we visited 14 different retailers, studying their selection and dedicated floor space to physical disc products
- Further, each retailer’s website was studied to determine their online selection of discs
- The following tables represent “best guess” estimates, based on eyeballing and pacing the retail stores

Retailer Review

	Video		Games		Music		Software		Audio Books		Total SQFT
	SQFT	Titles	SQFT	Titles	SQFT	Titles	SQFT	Titles	SQFT	Titles	
Best Buy	2,000	3,200	1,000	350	1,000	3,500	100	100			4,100
Barnes and Noble	1,400	2,500			850	3,000	25	10	150	300	2,425
Target	1,000	1,000	720	500	300	1,000					2,020
F.Y.E. (For Your Entertainment)[1]	1,000	700			2,000	8,000					3,000
Wal*Mart	900	500	225	600	900	500	20	50			2,045
Toys R Us	320	350	1,800	1,000							2,120
Costco	400	150	80	150	50	50	40	15	50	20	620
Office Max	40	30	40	60			100	100			180
CVS	5	30			5	10					10
Walgreens	25	12	25	4							50
Game Stop			1,200	1,700							1,200
Microsoft Store[2]			400	200			20	40			420
Apple Store							20	25			20
Electric Fetus					1,800	10,000					1,800
Amazon.com											0
Apple iTunes											0

[1]F.Y.E. store has 300 SQFT dedicated to the Mix 'N Burn touch screens, of which there are 10

[2]Microsoft Store also offer 300 software titles through their interactive touch screen application

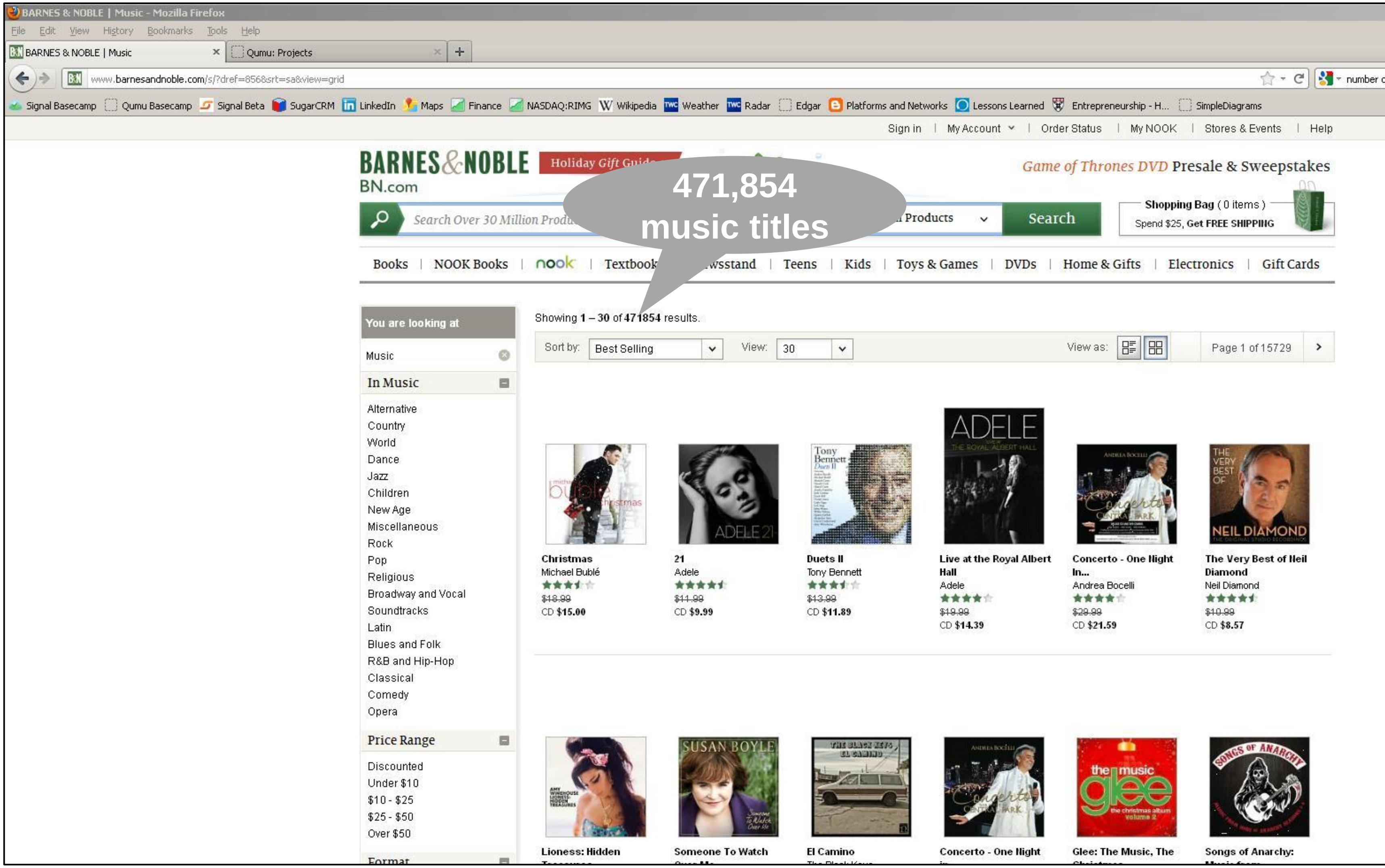
Retailer Review, including Online

	Video			Games			Music			Software			Audio Books		
	SQFT	Titles	Online	SQFT	Titles	Online	SQFT	Titles	Online	SQFT	Titles	Online	SQFT	Titles	Online
Best Buy	2,000	3,200	92,000	1,000	350	1,000	1,000	3,500	360,000	100	100	650			
Barnes and Noble	1,400	2,500	20,000			1,200	850	3,000	471,000	25	10		150	300	136,000
Target	1,000	1,000	40,000	720	500	1,300	300	1,000	71,000						1,300
F.Y.E. (For Your Entertainment)	1,000	700	32,000			300	2,000	8,000	84,000						
Wal*Mart	900	500	51,000	225	600	2,300	900	500	26,000	20	50	550			450
Toys R Us	320	350	800	1,800	1,000	2,000			400						
Costco	400	150		80	150	120	50	50		40	15	50	50	20	
Office Max	40	30		40	60	70				100	100	350			
CVS	5	30					5	10							
Walgreens	25	12		25	4										
Game Stop				1,200	1,700	6,500									
Microsoft Store				400	200	1,400				20	40	150			
Apple Store[1]										20	25	1,150			
Electric Fetus							1,800	10,000							
Amazon.com			530,000			28,000			2.6M			137,000			335,000
Apple iTunes[2]			15,000									2.0M			1,500

[1]Apple (store.apple.com) has ~150 packaged software titles online, but about 1,000 apps in their app store (many of which are free)
[2]Apple iTunes has over 2.0 million songs for sale

A good catalog is 10,000's or 100,000's or millions of titles

Example: BN.com



Retailer Review: Conclusions

- Home video has the most retail space
- Packaged software has the least retail space
- Music still commands a lot of space, and selection in the stores is decent
  - Music has by far the greatest library of content
- More stores carry games than music
- Audio books are a niche; not a mass-merchant (Wal*Mart, Target) store-traffic driver
- Amazon.com dominates all categories in number of titles

Retailer Manufacturing On Demand

- We also talked to three retailers using an in-store “on-demand” solution (with <client> disc publisher in back room or behind the counter)
  - Microsoft Store (at Mall of America)
  - F.Y.E. Store (at Mall of America)
  - Electric Fetus (Minneapolis)

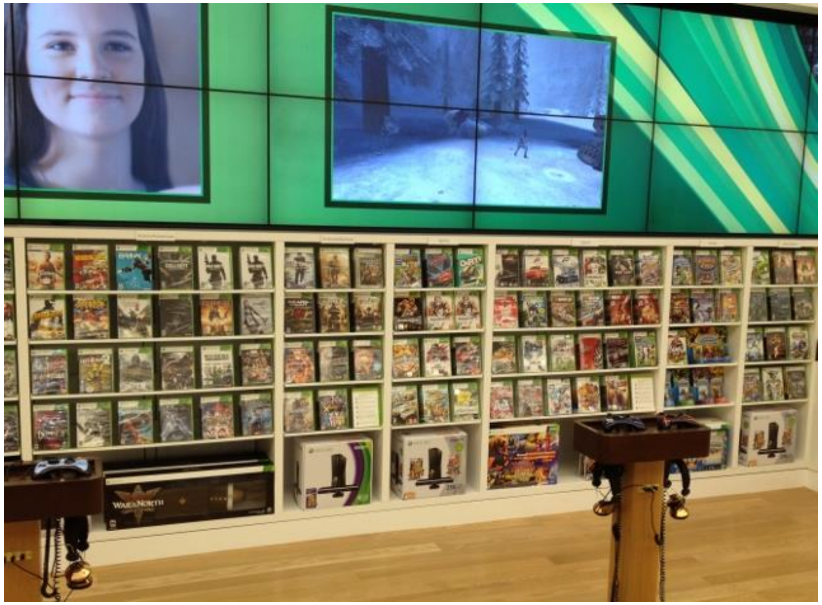
Retailer Manufacturing On Demand: Observations

- Microsoft Store
  - Mainly a laptop, tablet, smart phone and XBOX store
  - Software is clearly an afterthought or an impulse purchase;
    - small shelf display in the back of the store
    - two 22” non-obvious touch screens for software-on-demand
  - Not that much volume, according to store manager

Retailer Manufacturing On Demand: Observations

- Microsoft Store

On-demand Software touch screen



Large gaming area

Retailer Manufacturing On Demand: Observations

- F.Y.E. Store
  - A music and video store “dinosaur”
  - 300 SQFT dedicated to the Mix ‘N Burn touch screens, of which there are 10 normally, 12 during holidays
    - Hip bar stools and leather couches in the middle of the store
  - However, after Jan. 1, they are repurposing the space and placing the touch screens in the aisles with the physical CDs
  - Store manager estimates 80 discs created per week
  - Overall happy, but areas for improvement:
    - Slow response times at the touch screens and to print disc, due to slow internet connection at that store; sometimes 30-minute wait time for disc

Retailer Manufacturing On Demand: Observations

- F.Y.E. Store

In-store banner advertising

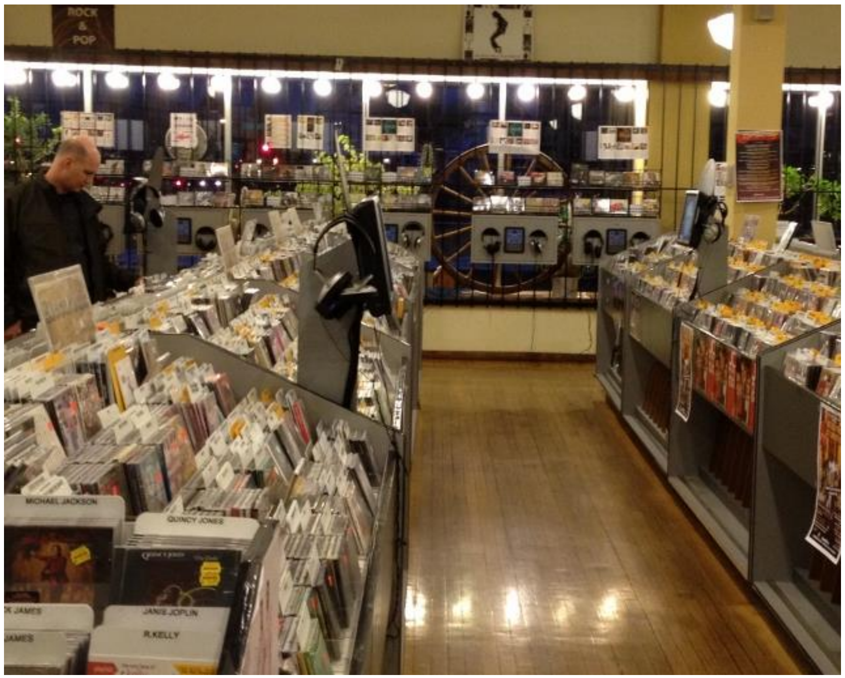
Large space dedication to Mix N' Burn

Retailer Manufacturing On Demand: Observations

- Electric Fetus
  - A super hip, edgy music store, in the city
  - Mix ‘N Burn touch screens located in every aisle of CD’s, 10 screens total
  - Store manager likes it; estimates 10 discs created daily
    - Likes that albums no longer in print or not in stock in the store are “almost always” available on Mix ‘N Burn
    - Says his demographic is good for it, since many people in the neighborhood don’t have high-speed internet or iPhones, so they like the ability to get any song they want onto a disc

Retailer Manufacturing On Demand: Observations

- Electric Fetus



In-aisle touch screens

Behind-the-counter disc publishing

In Summary

Key Conclusions (or, just obvious statements) So Far

- While disc is declining in entertainment markets, it is still a significant percent of the overall market (measured in revenue)
  - 50% in music
  - 45% in video
- “Access to content” means 10,000’s – 100,000’s titles
  - not 100’s
- Retail MOD is still very unproven industry
  - Many variables in the equation: studios, retailers, consumers, technology vendors
  - Lots of “road kill” … many have tried, none have succeeded
- MOD for the “manufacturing & distribution” link in the video value chain is more proven
  - Fewer variables in the equation
  - Definite signs of success at CreateSpace, Allied Vaughn

The End

- Action Items
- Other Key Questions we want answered