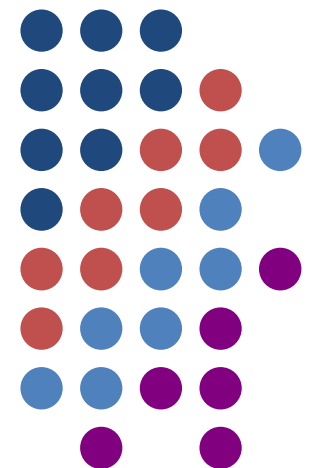


Digital Print Panel-Phase II



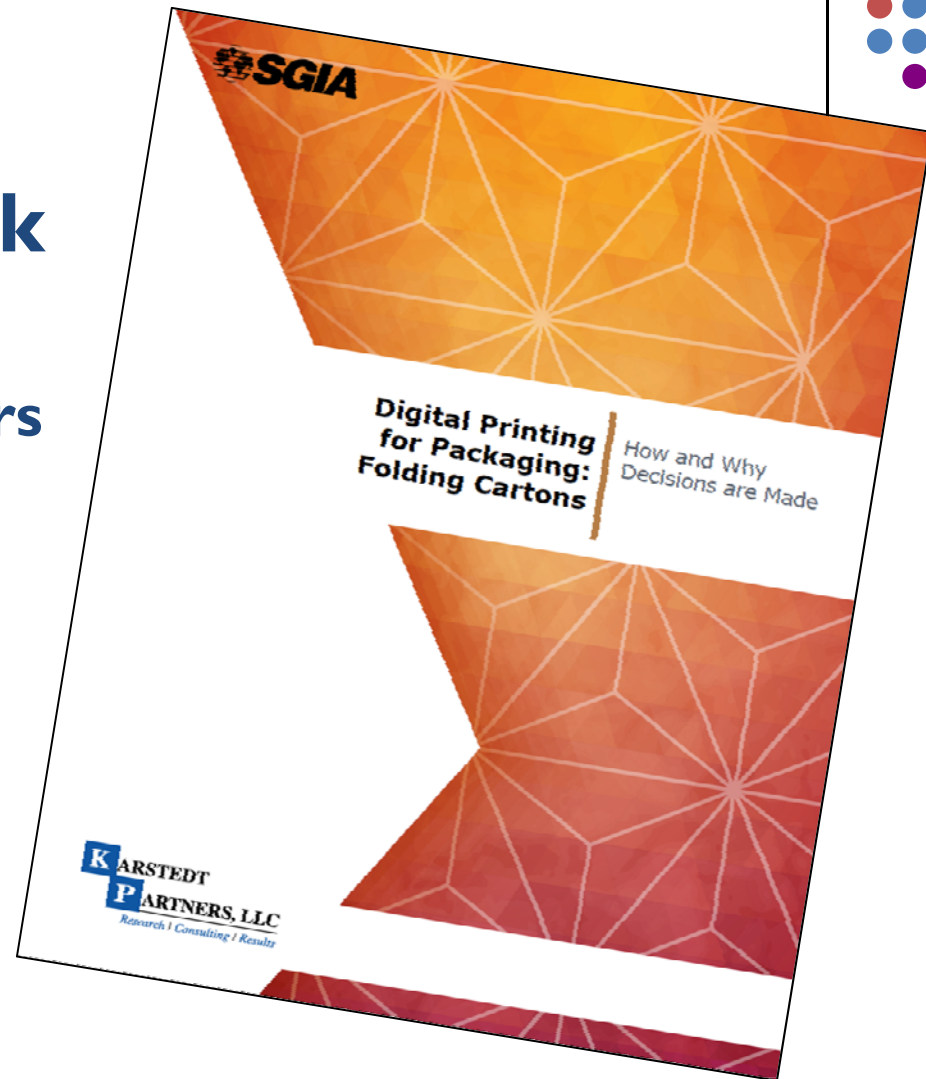
Industry Update
September 26, 2018





Converter Feedback

Thank You AICC Members
for Your Participation



Participant Segmentation- All Interviews



Which statement best describes your participation in the high graphics market? *

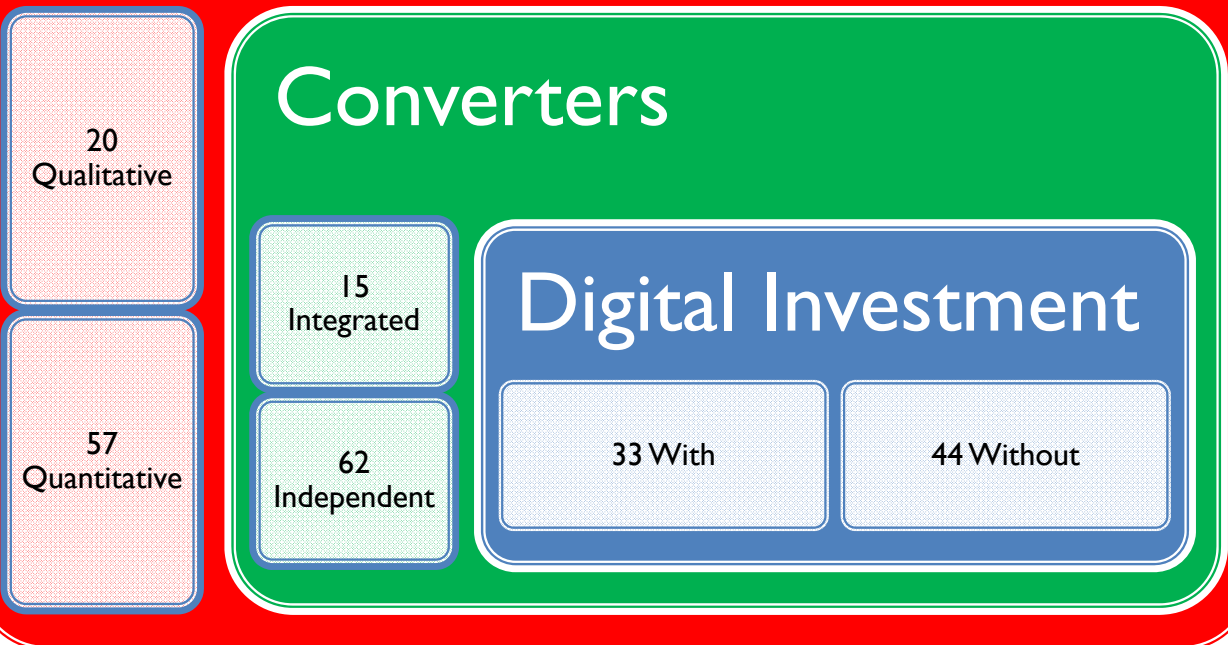
- High Graphics is currently **LESS** than 10% of our volume, and is not a significant focus for our company
- High Graphics is currently **LESS** than 10% of our volume, but is an area of strategic importance for our company
- High Graphics is 11%-50% of our volume, but we **DO NOT** feel we have a competitive advantage vs. other high graphic providers in our market
- High Graphics is 11%-50% of our volume, and we **DO** feel we enjoy a competitive advantage in our high graphic capabilities vs. other high graphic providers in our market.
- High Graphics is **MORE** than 50% of our volume, and is the **PRIMARY** focus of our business
- We are not involved in high graphics

Six initial questions to gauge the level of importance/participation in high graphics

Interview Pool



77 Interviews



Qualitative Interviews HG Participation

No HG	0
<10%	7
11%-50%	11
>50%	2

Quantitative Interviews HG Participation

No HG	4
<10%	14
11%-50%	23
>50%	16

Where is The Business Focus?

Rank the Following From Most to Least Important Impacting Your Participation in High Graphics



1-Customer Base,
2-Converting, 3-Design, 4-
Service, 5-Printing



1-Printing, 2-Converting, 3-
Design, 4-Customer Base, 5-
Service



1-Printing, 2-Service, 3-Converting, 4-
Design, 5-Customer Base



High Graphics Participation- Areas of Importance?



Rank the Importance of the Following for High Graphics Participation



1-Image Quality 2-Total Cost, 3-Lead Time, 4-Color Gamut/Spot Color, 5-Application



1-Image Quality, 2-Lead Time, 3-Application, 4-Color Gamut/Spot Color, 5-Total Cost



1-Image Quality, 2-Total Cost, 3-Lead Time, 4-Application, 5-Color Gamut/Spot Color



“Get Inside the Mind”



What Has Changed Over the Past Year?



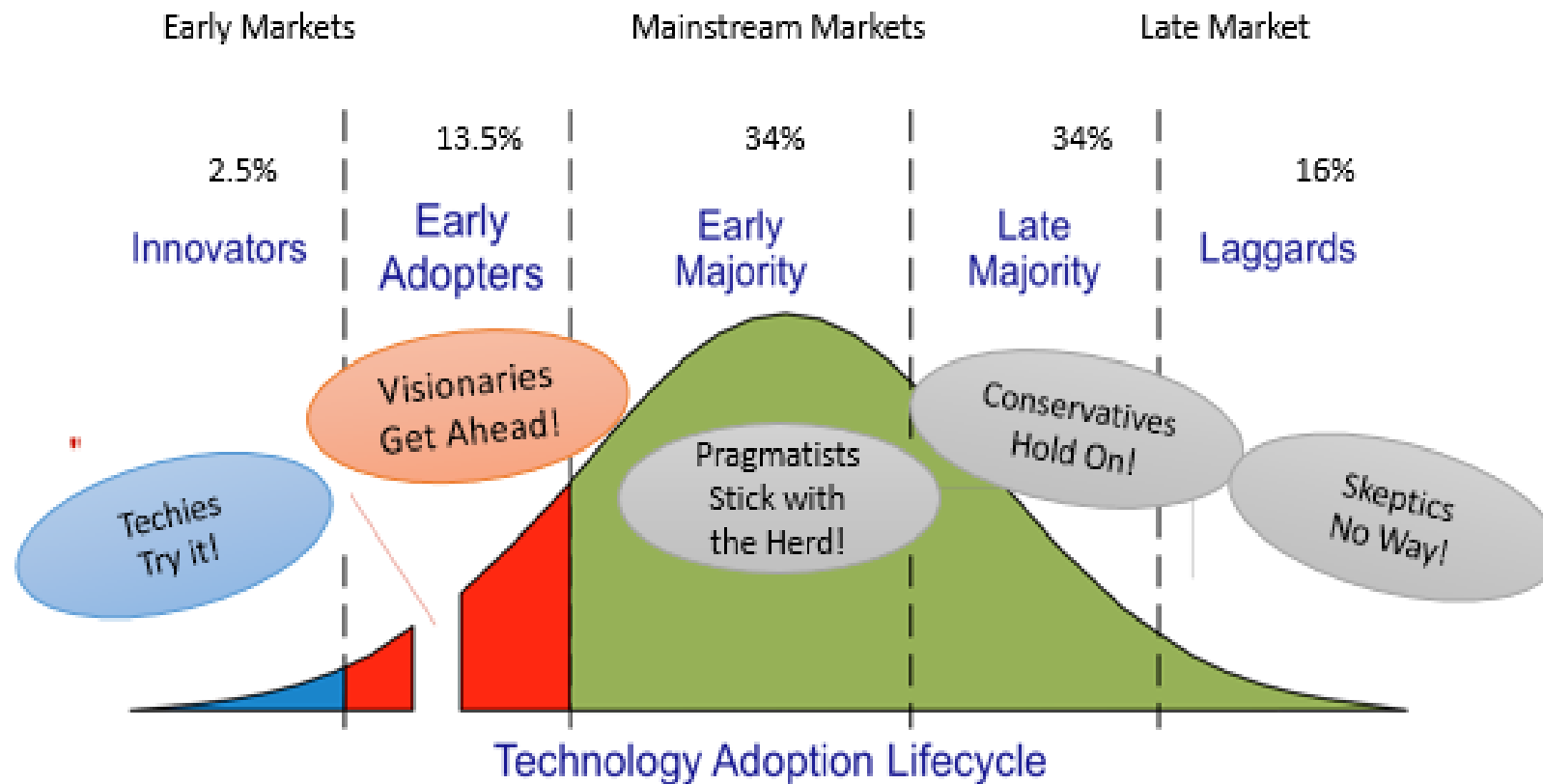
AICC National Meeting-September 26, 2017
“Pathways to Digital”

Key Topics:

- Business Transformation
- Sustainable Competitive Advantage
- Business Valuation



The Developers Challenge

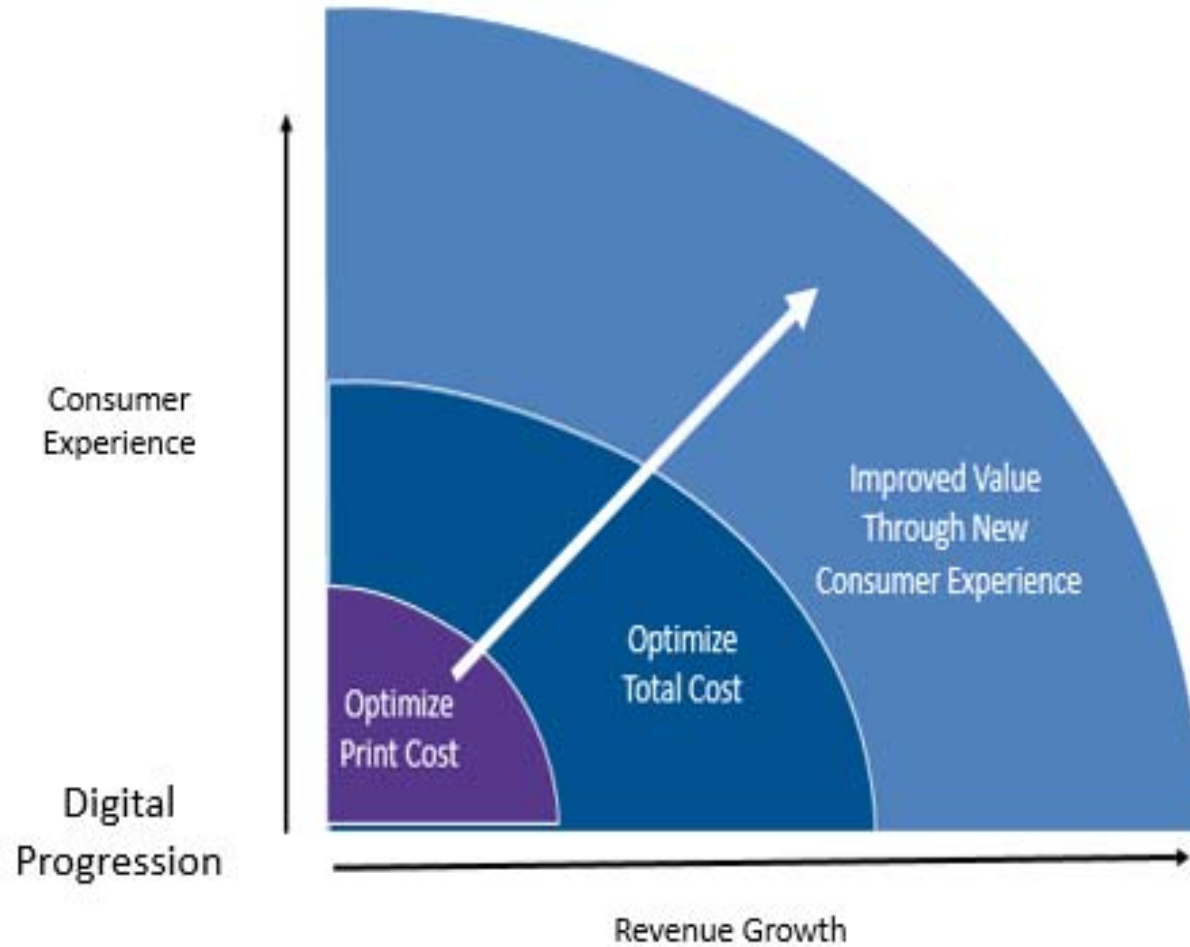
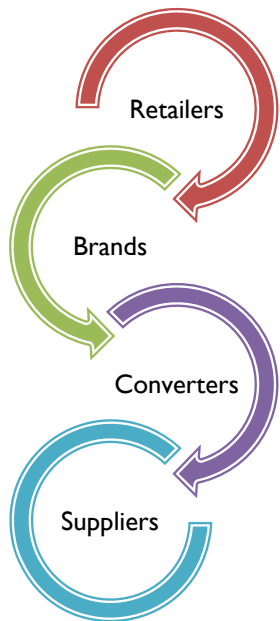


By Geoffrey Moore

The Chasm Concept



Digital Progression



Business Transformation

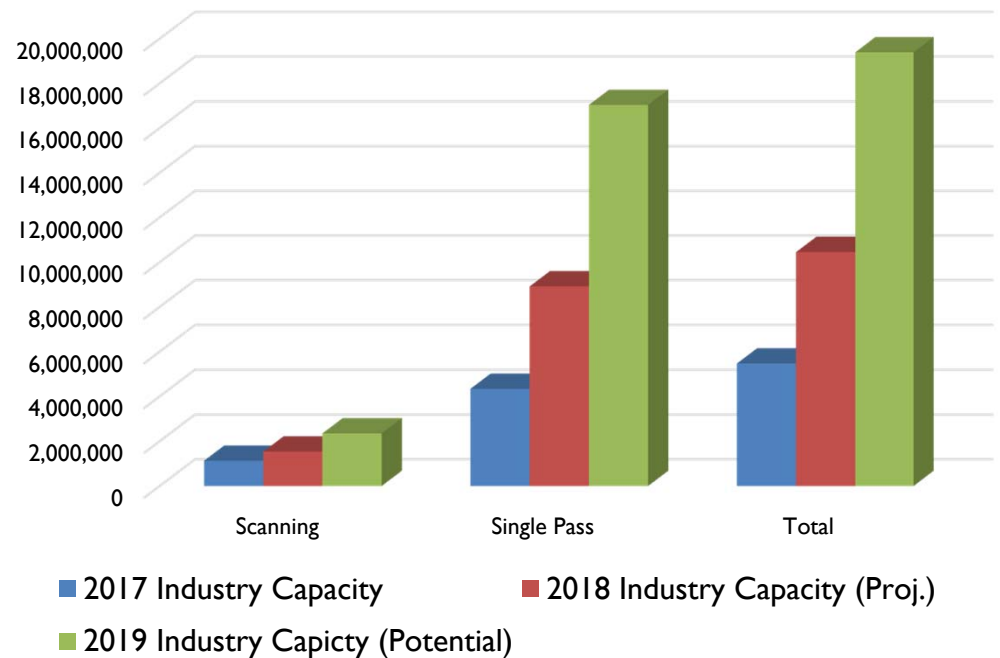


"The Buzz" Industry Capacity	Scanning Systems	Single Pass Systems
Installed Base: 2017	45-50	9
New Installs: 2018	15-20	15
In Negotiation	10-15	10-12
Evaluating	20-25	15-20

•Source: Digital Provider Interviews

•At 2019 Forecasted Levels- Digital Printing can Serve ≈4.5% of Total Industry Volume, and ≈12%-15% of Graphics Volume!

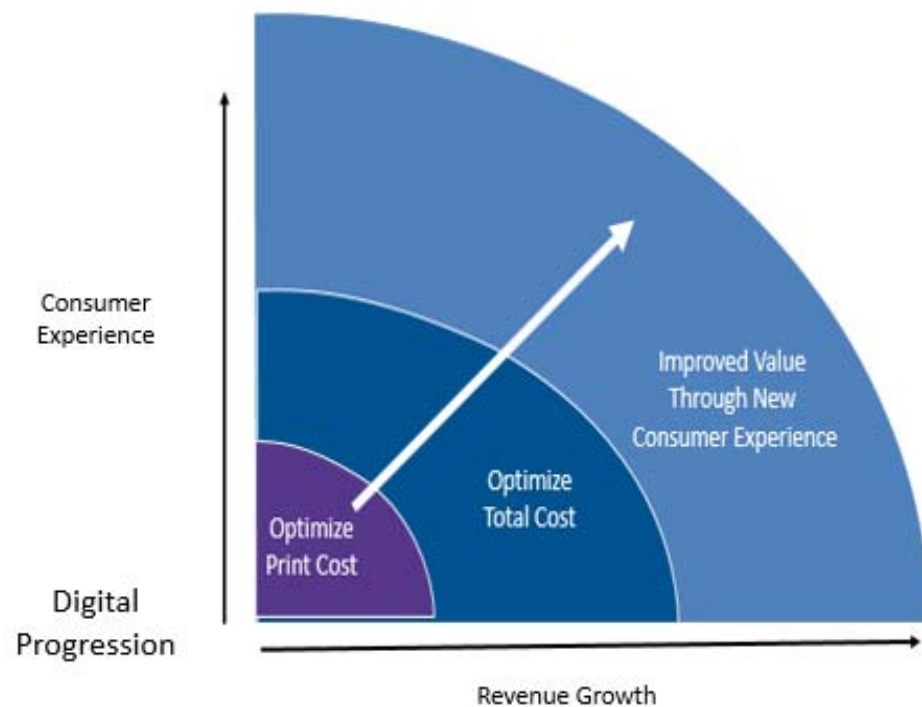
North America Installed Capacity-Digital Printing
MSF



•Averages digital provider offerings. Results for Web and sheet fed single pass technologies were calculated independently, with results combined under single pass. Assumes 2 shift operation, 80% press utilization.



Business Transformation



'When they invented the first clock, how did they know what time to set it?'

Business Transformation- Digital Value



Is digital printing a catalyst driving your growth strategy?

33 Digital Respondents	Yes	No
Which statement best describes your participation in the high graphics market? *	22	11
• High Graphics is currently LESS than 10%	4	2
• High Graphics is 11%-50% of our volume	7	7
• High Graphics is MORE than 50% of our volume, and is the PRIMARY focus of our business	11	2

What value does digital printing provide? (Select all that apply.)

33 Digital Respondents	The ability to offer a differentiated product	A lower cost of entry	Fewer competitors	More samples, more opportunities for production orders
Which statement best describes your participation in the high graphics market? *	25	26	12	19

Business Transformation- Sourcing



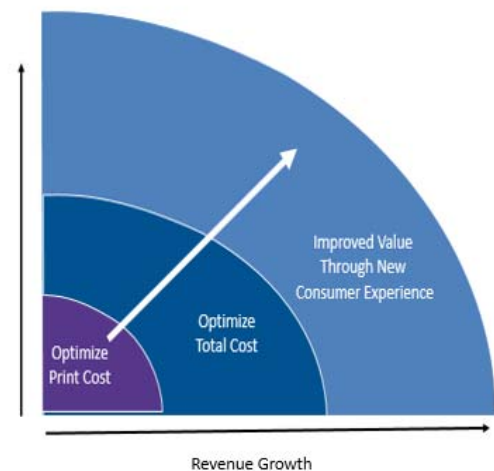
Do you produce all, source all, or a combination of both for high graphics?

53 Respondents	Outsource All	Produce All	Produce & Outsource
Total	6	18	29

Consumer Experience

Why do you source a percentage of your high graphic requirements? (select all that apply)

35 Respondents That Source	Cost	Customer Specifications	Print Requirements	Job Requirements
Total	6	9	13	7



Business Transformation- Sourcing



What is your High Graphics Distribution - Internally Produced vs. Sourced (%)?

53 Respondents	Internally Produced	Outsourced
Which statement best describes your participation in the high graphics market?	w/Digital - 80% w/o Digital - 52%	w/Digital - 20% w/o Digital - 48%

What obstacles or challenges did you have in moving outsourced requirements to your digital press? (select all that apply)

33 Digital Respondents	Digital Capacity	Cost	Throughput limitations	Image Quality	Customer Resistance
Which statement best describes your participation in the high graphics market?	10	18	20	9	4

What percentage of your overall outsourced products have you moved to the digital press?

17 Digital Respondents That Sourced	Litho Label/Lam	Digital brought in-house
Which statement best describes your participation in the high graphics market?	40% Range-5%-90% N=17	55% Range-30%-100% N=5

Business Transformation- Sourcing



As sources of digital printing increase, which process, digital printing or litho label/laminate, which process would be your choice for “short run Jobs”?

17 Respondents That Source	Digital	Litho Label/Lam
Which statement best describes your participation in the high graphics market? *	14	3

Which factor would influence your decision? (select all that apply)

17 Respondents That Source	High Graphics <10%	High Graphics 11-50%	High Graphics >50%
Digital printing may provide greater flexibility on sheet sizes that better align with converting capability	1	0	0
We are set-up to handle lamination, digital printing is a new process for us	3	0	0
Digital printing may provide greater flexibility on sheet sizes that better align with converting capability	1	0	0
Digital printing is an easier process- from design to receipt of printed sheets ready for converting	4	2	0
Digital printing eliminates a process (lamination), improving plant productivity	0	4	1
I may have more material options with digital printing	0	1	0

Ease of Use and Productivity are Key Drivers for Sourcing



Competitive Advantage



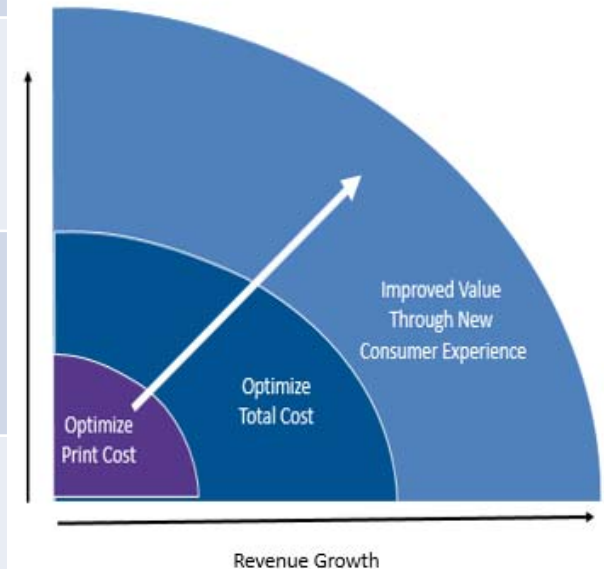
What do you use your digital press for? (Select all that apply.)				
33 Respondents	Sampling, concepts, and trials	To manage low volume production requirements	Improve efficiency of our high graphics analog presses	To better serve our customers
Which statement best describes your participation in the high graphics market? *	23	25	19	17
• High Graphics is currently LESS than 10% of our volume	6	6	1	3
• High Graphics is 11%-50% of our volume	10	11	10	7
• High Graphics is MORE than 50% of our volume, and is the PRIMARY focus of our business	7	8	8	7

Competitive Advantage



Our customers are seeking ways to increase their digital participation

33 Respondents	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Which statement best describes your participation in the high graphics market? *	10	15	7	1	0
• High Graphics is currently LESS than 10% of our volume	1	2	3	0	0
• High Graphics is 11%-50% of our volume	5	5	3	1	0
• High Graphics is MORE than 50% of our volume	4	8	1	0	0



Competitive Advantage- Non Investors



What value does digital printing provide? (Select all that apply.)			
14 Respondents	Average and Number		
	High Graphics <10%	High Graphics 11%-50%	High Graphics >50%
The ability to offer a differentiated product	7	0	6
A lower cost of entry, either through sourcing or direct investment	12	5	5
Fewer competitors	5	2	2
The ability to produce more samples, creating more opportunities for production orders	9	4	4
Other - Write In (Required):	2	0	Flexibility

Business Valuation- Are Converters Making Money?



If you established an ROI target for this investment, what was the target? Are you on track to meet your target? (Yes, No, Too Soon)				
33 Respondents	Total	< 1 year	1-3 years	> 3 years
Which statement best describes your participation in the high graphics market? *	33 (16,2,15)	8	16	9
• High Graphics is currently LESS than 10% of our volume	6 (1,1,4)	2	2	2
• High Graphics is 11%-50% of our volume	14 (10,0,4)	2	8	4
• High Graphics is MORE than 50% of our	13 (5,1,7))	4	6	3

Converters are hitting investment targets!

The Decision Making Process



The Evaluation Process



How did your organization approach the research and selection of your digital equipment?

47 Respondents	Response Total	High Graphics <10%	High Graphics 11-50%	High Graphics >50%
The management team analyzed, evaluated, and made the decision	17 (7*)	3 (1*)	5 (4*)	9 (2*)
A core group of a few individuals was assigned the task of analysis and evaluation. The core team made a recommendation to management.	11 (5*)	2 (4*)	7 (1*)	2
A combination of these	5 (2*)	1	2 (2*)	2
* Evaluated but did not purchase				

The Evaluation Process



What tools did you utilize in your evaluation? (Select all that apply.)

33 Respondents	Response Total	High Graphics <10%	High Graphics 11-50%	High Graphics >50%
Internal cost analysis	26	4	13	9
Vendor support/analysis for ROI	24	3	11	10
Total cost of ownership (TCO) analysis	20	2	8	10
Job run analysis	19	3	7	9
Customer interviews to assess price opportunity	7	2	1	4
Work with industry consultant/expert on the ROI analysis	1	0	0	1

How many suppliers were you initially evaluating?

33 Respondents	One Supplier	Two Suppliers	3 or More Suppliers
Which statement best describes your participation in the high graphics market? *	0	5	28
• High Graphics is currently LESS than 10% of our volume	0	1	5
• High Graphics is 11%-50% of our volume	0	2	12
• High Graphics is MORE than 50% of our volume	0	2	11

The Evaluation Process



How long did your process take until a PO was issued for the equipment?				
33 Respondents	< 6 months	6-12 months	12-18 months	18-24 months
Which statement best describes your participation in the high graphics market? *	10	12	9	2
• High Graphics is currently LESS than 10% of our volume	3	2	1	0
• High Graphics is 11%-50% of our volume	3	2	8	1
• High Graphics is MORE than 50% of our volume	4	8	0	1

The Evaluation Process



What are the major challenges in installing and ramping up your digital operations? (Please evaluate each process, with 1 being the least challenging and 5 being the most challenging.)

33 Respondents	Average ranking of issue by group (5 being most challenging)		
	High Graphics <10%	High Graphics 11-50%	High Graphics >50%
Assessing the capabilities of various digital suppliers	3	3	3
Developing our digital business model	4	4	4
Gauging, evaluating customer acceptance	3	3	3
Integration into other systems (e.g., MRP, financials, business reporting etc.)	3	2	2
Print production, Quality Assurance, Maintenance	3	3	3
Sales training and education	5	4	5
Understanding digital technology	4	3	5
Understanding/developing an accurate ROI model	3	3	2
Workflow and integration issues (Pre-press, customer service etc.)	3	3	3

Key Take Aways!



- Major challenge experienced and expected
 - Getting sales up to speed
- Digital Infrastructure
 - Digital Adoption Increasing Throughout the **Packaging Supply Chain**
 - Suppliers and Converters Finding “Common Ground”
 - Installed Capacity, and “Feet on the Street” Selling That Capacity is Increasing Dramatically
- Print is only part of the equation
 - Design, Material Selection, Converting
 - Software – Workflow, order entry, color management, customer acquisition
- Brands are pragmatic and looking for digital to simplify their supply chain



Thank You
&
Questions?



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