



**Video Platform Performance  
Satisfaction & Loyalty Assessment**

**Prepared for:  
Apollo**

**January 2008**



**STRATA**  
RESEARCH



# ***The Situation***

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In the past two decades, advances in video performance as well as the accessibility of video equipment, to the broader consumer market has increased this product's sales to over \$USD15.6B throughout North and South America, Europe, and Asia.

The primary motivation for this research effort is to develop a deeper understanding and profile of professional videographers (i.e., those whose main source of income is through professional video production). It is intended to highlight what it takes to lead in this segment in terms of portfolio and product, focused from the high end Apollo video line to the Delphi platform. In essence, Apollo wants to understand the total customer experience in terms of awareness and preference, choosing, ordering, learning, installing, using, support requirements, and disposing or upgrading.

*Specifically:*

- ❖ What is the current state of loyalty (as measured by a Customer Loyalty Index (CLI) in this market?
- ❖ What is the current state of Risk (as measured by a Customer Risk Index (CRI) in this market?
- ❖ What are the key drivers of video satisfaction?
- ❖ How does Apollo currently perform on these key drivers?
- ❖ What are key usage and business operations measures that impact video production volume?

## Research Methodology

Telephone interviews were conducted in the United States, Germany, Japan, China, and Latin America (Mexico and Brazil) between August 5 and October 15, 2007.

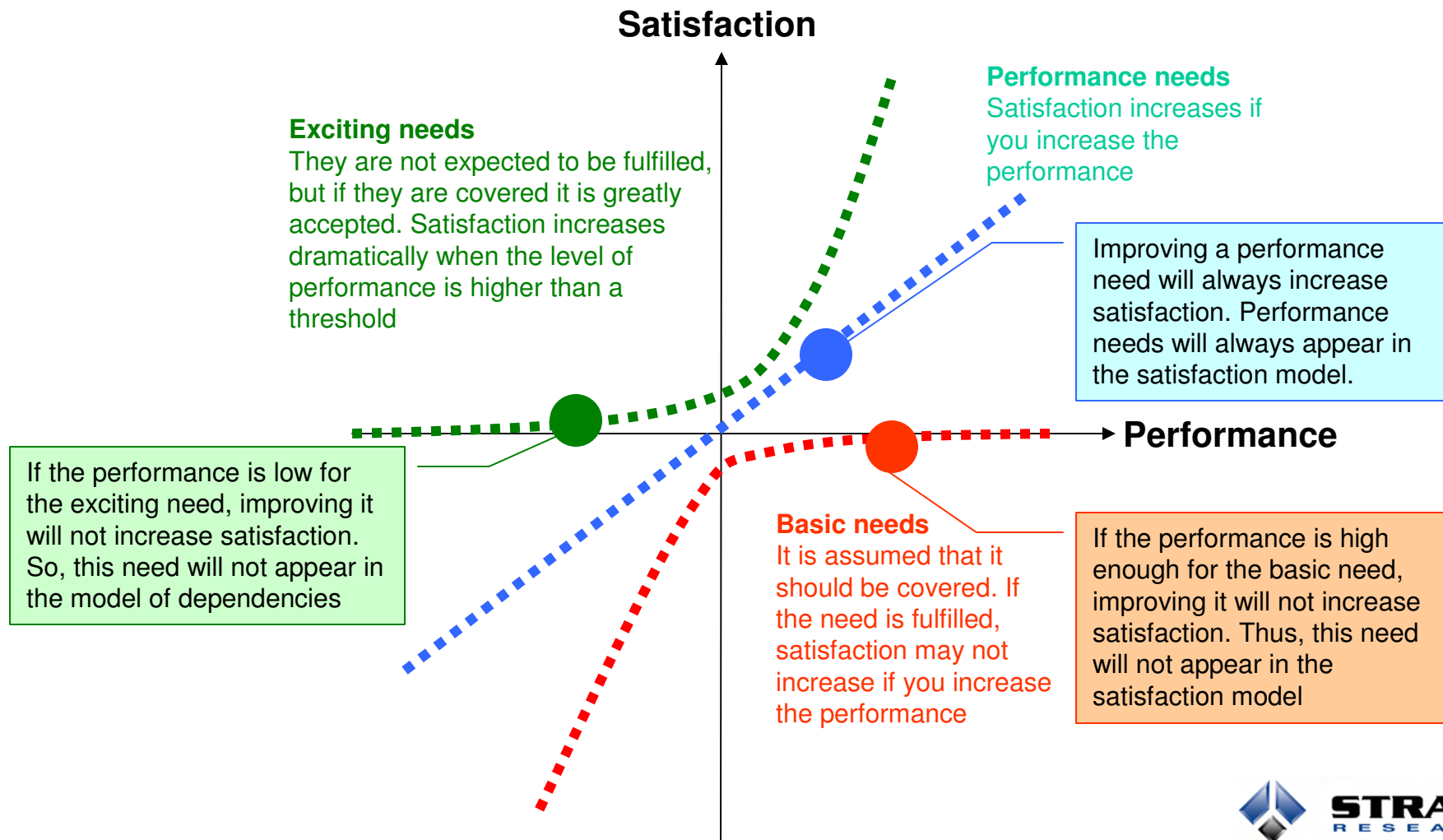
- Each respondent had to:
  - Consider video production to be their main source of income
  - Own a video product capable of install based production
  - Have a gross production revenue of \$USD5.5M or higher
  
- Calculated at the 95% confidence level, the corresponding margins of error ( $\pm$ ) for the various sample sizes (N) are:

Segment	US		Germany		Japan		China		Latin America	
	N	$\pm$	N	$\pm$	N	$\pm$	N	$\pm$	N	$\pm$
Motion Pictures	93	10.2%	135	8.4%	68	11.9%	86	10.6%	16	24.5%
Editorial/Documentary	30	17.9%	34	16.8%	30	17.9%	74	11.4%	11	29.5%
Industrial/Commercial	100	9.8%	38	15.9%	43	14.9%	76	11.2%	14	26.2%
Special Events	131	8.6%	152	7.9%	34	16.8%	84	10.7%	53	13.5%
Fine Arts	29	18.2%	30	17.9%	28	18.5%	62	12.4%	3	56.6%
Other	18	23.1%	11	29.5%	-	-	19	22.5%	8	34.6%
<b>Total</b>	<b>401</b>	<b>4.9%</b>	<b>400</b>	<b>4.9%</b>	<b>203</b>	<b>6.9%</b>	<b>401</b>	<b>4.9%</b>	<b>105</b>	<b>9.6%</b>

# Incorporated Research: Previous Qualitative Data

The methodology used for this research may hide attributes that address basic and exciting user needs which do not appear as significant drivers of overall Video satisfaction.

- Analysis of previous qualitative research is used to classify those non-significant attributes.



# *Key Findings*

# Key Findings

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## ***Overall customer loyalty performance among professional videographers:***

Delphi, Apollo, and Selene do not have significant differences when measuring loyalty. However, Delphi has a higher brand reputation with professional videographers.

- ❖ Overall, customer loyalty of all three brands is weak. This is demonstrated by the fact that for all three brands, the CRI (customer at-risk index) is higher than the CLI (customer loyalty index).
- ❖ Customer loyalty depends on customer satisfaction within the Video channel, similar to other market segments where Apollo sells computers and peripherals.
- ❖ Satisfaction within the video channel and the willingness to recommend or repurchase video products are directly correlated.

## ***Drivers of satisfaction among professional videographers:***

Video satisfaction depends on the following factors:

- ❖ Video quality (including color performance),
- ❖ Video reliability (and dependability),
- ❖ Fit in environment (including aspects such as size, industrial design, and Video versatility),
- ❖ Cost of ownership; and
- ❖ Service and support.

\*\*Improving satisfaction with any of these factors is statistically expected to improve overall Video satisfaction.

Attributes related to ease of use, personal productivity (such as time/effort dedicated to get good color and get a good Video), and connectivity attributes have already reached a level of performance where either customer needs are fulfilled or customers do not have high expectations of them.

\*\*Improving satisfaction with these attributes will not necessarily result in improvement in video satisfaction, unless improvements or degradations in performance are significant.

# Key Findings

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## ***Comparisons between Apollo and Delphi:***

- ❖ Apollo performs worse than Delphi on color durability (longevity/fade resistance/ lightfastness). Delphi owners rate satisfaction with this attribute significantly higher than Apollo users.
- ❖ Apollo performs better than Delphi on gray performance. Apollo owners rate satisfaction with this attribute significantly higher than Delphi owners.
- ❖ Apollo performs better than Delphi on cost of ownership, mainly due to the cost of consumables. For the remaining attributes, differences between Apollo and Delphi are not statistically significant.

## ***Where Apollo and Delphi should focus improvements:***

- ❖ After analyzing which attributes are important and which ones have the weakest performance, the conclusion is that both Apollo and Delphi should improve the following attributes in order to optimize overall Video satisfaction (attributes are ordered by their impact on overall video satisfaction):
  - Gray levels
  - Color consistency under different lighting conditions
  - Capability to match screen colors
  - Frequency/time dedicated to calibrate/maintain/troubleshoot
  - Cost of consumables
  - Quick/effective resolution of problems/questions when needing support
  - Cost of support services
  - Breadth of support services/warranty offerings
- ❖ Apollo should focus on these attributes, as well as on closing the performance gap with regard to color durability (longevity/fade resistance).

# *Detailed Findings*

# ***Customer Loyalty***

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To determine customer loyalty, Apollo's CLI asks the 3 questions considered to be the industry standard for measurement:

- Overall Satisfaction
- Willingness to Recommend
- Likelihood to Repurchase

Using a 'best-of-fit' approach for statistical modeling, Apollo CLI and its individual components were examined:

- Video attributes were examined against overall satisfaction, willingness to recommend, and likelihood to repurchase both the model and the brand.
- Brand-level questions were only asked of a subset of respondents in order to correct wording of the CLI questions that were provided to Strata for the survey.
- The brand-level questions and those asked of the model for willingness to recommend and likelihood to repurchase yielded weak or inconsistent relationships with the Video attributes examined.
- Overall Satisfaction with the model exhibited the strongest and most consistent relationship to the primary attributes, and so was used as the dependent variable for the top-level analysis.

## CLI/CRI by Brand

The loyalty indices illustrated are based on videographers' ratings of satisfaction, likelihood to recommend, and likelihood to repurchase another Video from the same manufacturer.

- Delphi and Selene were the only brands found to have “loyal” customers according to the CLI (Customer Loyalty Index) and CRI (Customer Risk Index) algorithm.

	Delphi	Apollo	Selene
	N=306, ±5.6%	N=25*, ±19.6%	N=54, ±13.3%
<b>Loyal (CLI)</b>	18%	-	4%
<b>Favorable</b>	37%	40%	50%
<b>Vulnerable</b>	14%	8%	15%
<b>At-Risk (CRI)</b>	31%	52%	32%

**Loyalty measures are defined as customers giving the following responses:**

**Loyal (CLI):** Completely satisfied/Very satisfied AND Definitely would repurchase AND Definitely would recommend

**Favorable:** Completely satisfied/Very satisfied/Satisfied AND Definitely/Probably would repurchase AND Definitely/Probably would recommend (AND not CLI)

**Vulnerable:** Completely satisfied/Very satisfied/Satisfied AND (Might/Might not repurchase OR Might/Might not recommend)

**At-Risk (CRI):** Somewhat dissatisfied/Dissatisfied OR Probably/Definitely would not repurchase OR Probably/Definitely would not recommend

## CLI/CRI by Brand: US vs. Non-US

The previously noted lack of loyalty among Apollo owners can be explained by the significant differences in loyalty observed between the US and the rest of the world, in particular

- Delphi's dominance in primarily the US, and,
- The more critical nature of Asia Pacific respondents' answers to CLI/CRI questions.

	US			Germany			Asia Pacific		
	Delphi	Apollo	Selene	Delphi	Apollo	Selene	Delphi	Apollo	Selene
Loyal (CLI)	42%	-	-	8%	-	20%	1%	-	-
Favorable	46%	100%	100%	47%	50%	70%	16%	24%	29%
Vulnerable	3%	-	-	16%	-	-	23%	12%	24%
At-Risk (CRI)	9%	-	-	29%	50%	10%	60%	65%	47%

 Lowest
  Highest

**Loyalty measures are defined as customers giving the following responses:**

**Loyal (CLI):** Completely satisfied/Very satisfied AND Definitely would repurchase AND Definitely would recommend

**Favorable:** Completely satisfied/Very satisfied/Satisfied AND Definitely/Probably would repurchase AND Definitely/Probably would recommend

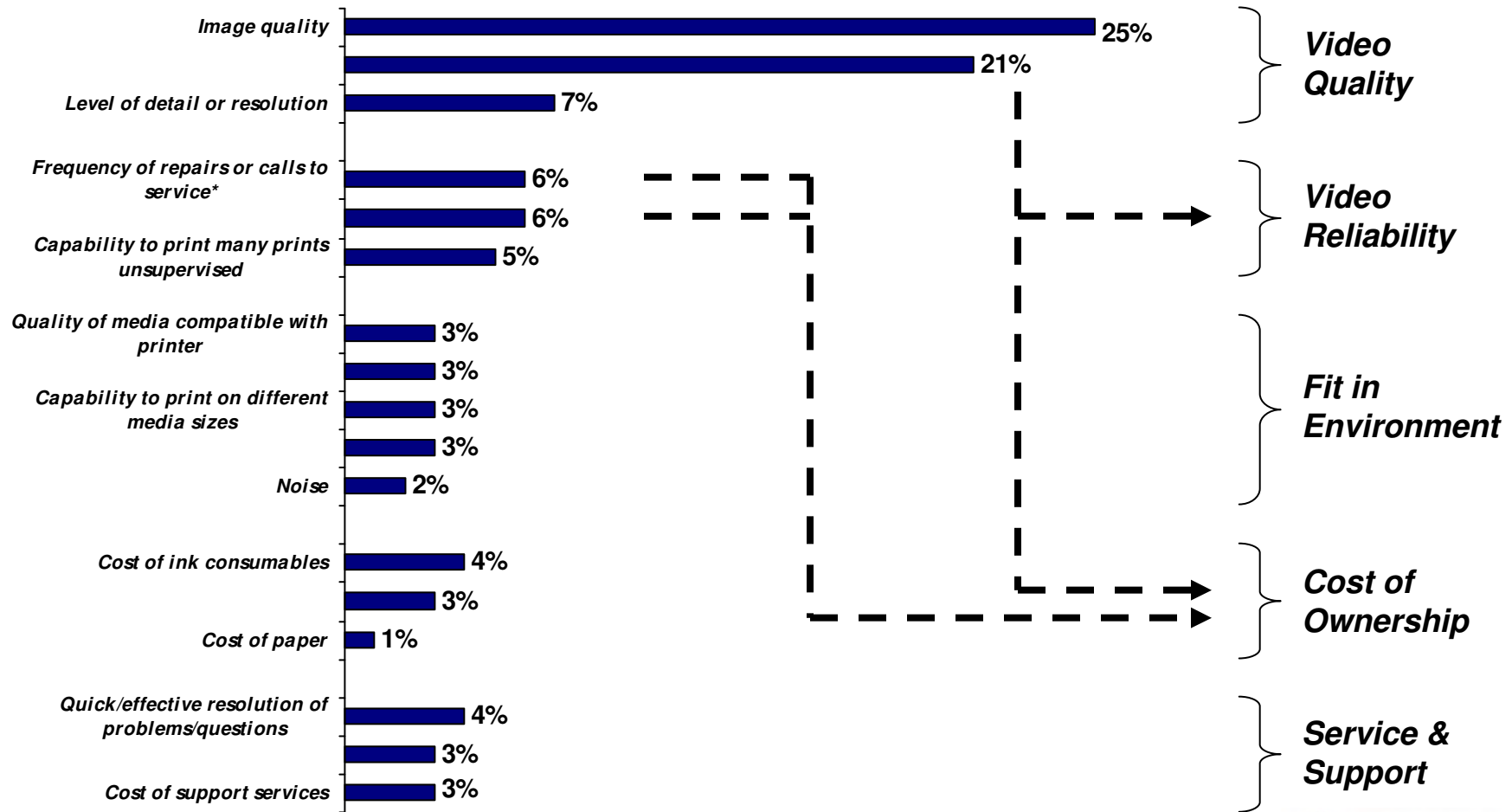
**Vulnerable:** Any satisfaction level AND Might/Might not repurchase OR Might/Might not recommend

**At-Risk (CRI):** Somewhat dissatisfied/Dissatisfied OR Probably/Definitely would not repurchase OR Probably/Definitely would not recommend

# What Drives Video Satisfaction?

Attributes shown below are second-level attributes found to be significant drivers of the top-level attributes on the previous slide, with their corresponding impact on overall Video satisfaction.

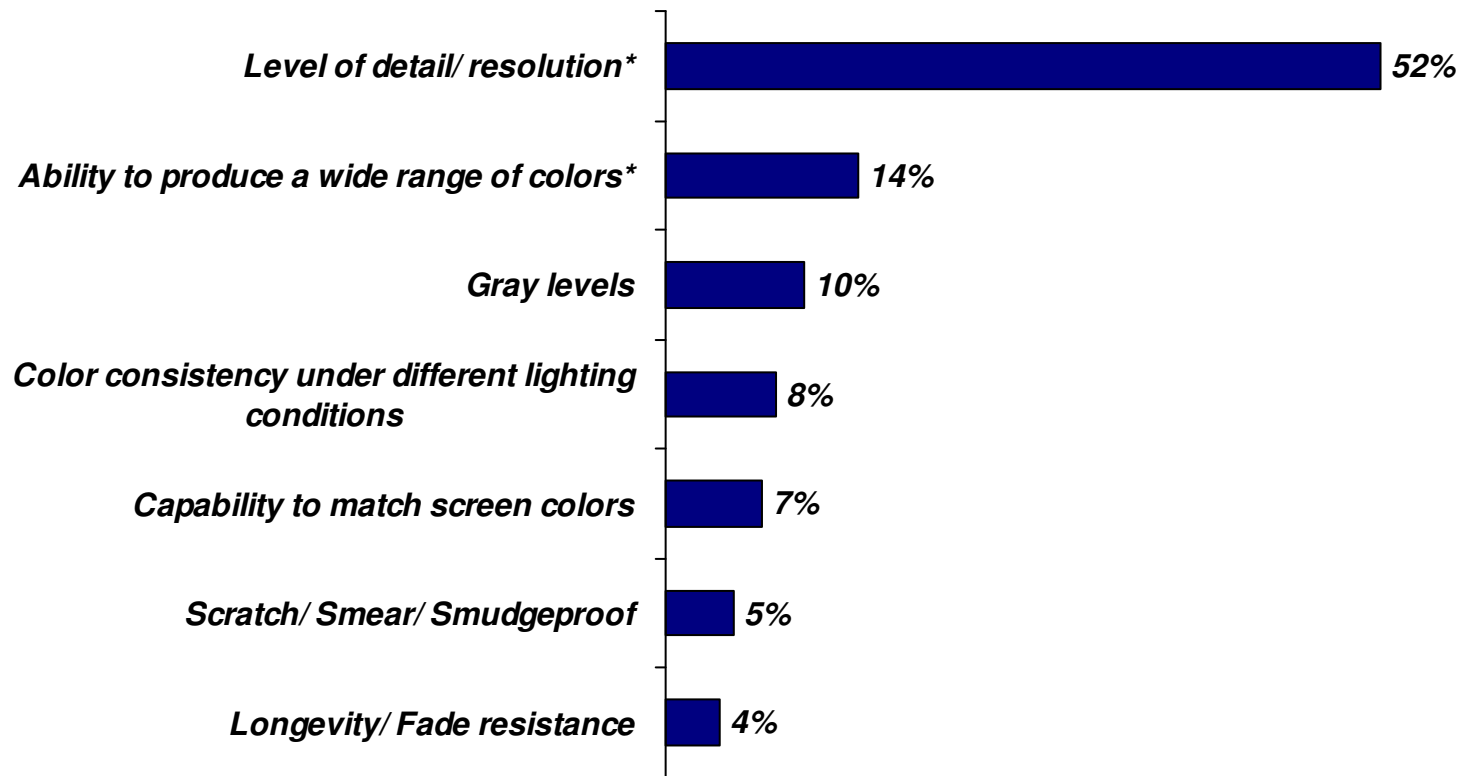
- Among these attributes, image quality is the strongest driver of overall Video satisfaction, followed by the ability to produce a wide range of colors.



Base: All videographers; Dependant variables: Top-level attributes found to be significant drivers of overall satisfaction  
 Note: Brand reputation has removed from driver consideration, as it is viewed not as a driver, but rather an attribute that is driven by satisfaction.

# What Drives Image Quality Satisfaction?

Closer examination of the image quality attribute, the strongest second-level attribute to drive overall video satisfaction, reveals that satisfaction with image quality is driven primarily by satisfaction with the level of detail or resolution.



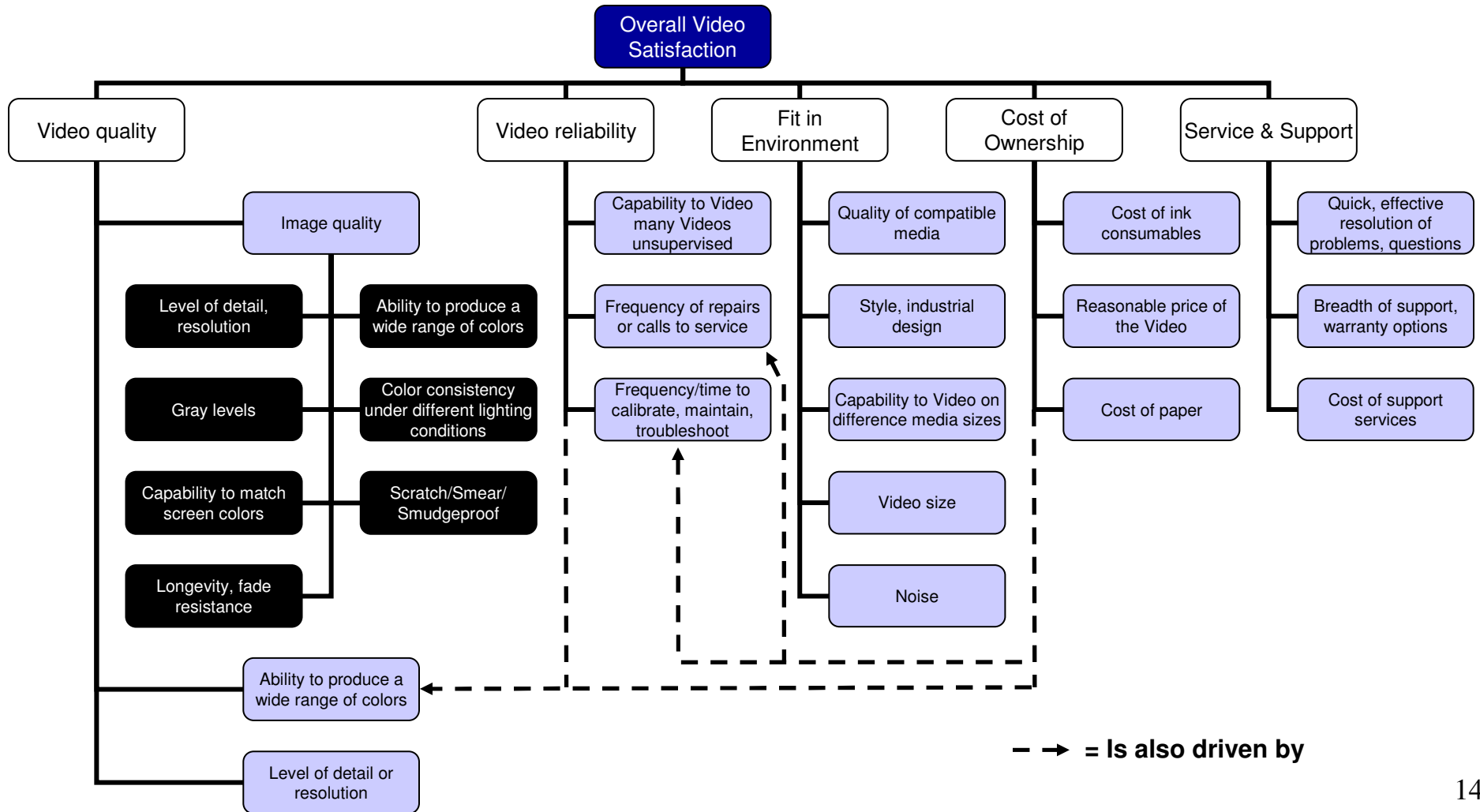
Base: All videographers; Dependant variable: Image quality; R Square = 0.68

Note: Brand reputation has removed from driver consideration, as it is viewed not as a driver, but rather an attribute that is driven by satisfaction.

\* Denotes attributes which were also found to be second-level drivers of top-level attributes.

# What Drives Video Satisfaction?

Below is an overall view of the significant drivers of overall video satisfaction.

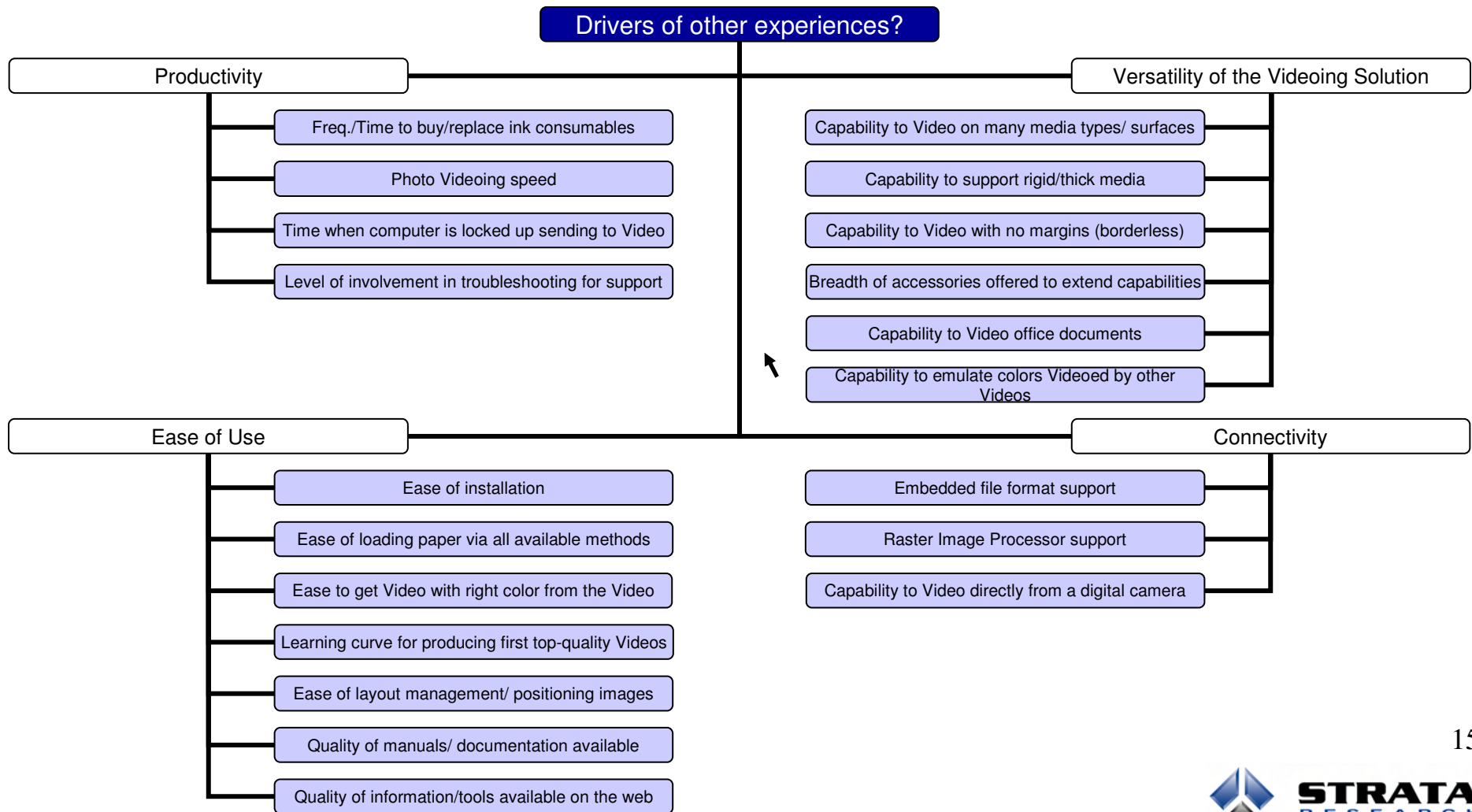


Base: All videographers

Note: Brand reputation has removed from driver consideration, as it is viewed not as a driver, but rather an attribute that is driven by satisfaction.

# Other Video Attributes

While not significant drivers of video satisfaction, the attributes illustrated below are rated important by videographers, suggesting they may very likely drive other aspects of video lifecycles, such as purchase decision.



# Correlation of Satisfaction with Recommend/Repurchase

Pearson Correlations were run to determine whether or not other loyalty questions, the willingness to recommend and/or repurchase a similar Video, were in fact correlated to satisfaction.

- While the correlations between Satisfaction and Willingness to Recommend, and Satisfaction and Willingness to Repurchase, are significant in both cases- Neither correlation is not especially strong. This suggests that:
  - Other factors are taken into account when considering whether or not to repurchase or recommend a Video; and/or
  - There may be non-linear relationships between the satisfaction and the other variables due to the asymmetric nature of the scales (i.e., the midpoint of the satisfaction scale is “Satisfied”, while the midpoints for the other scales are more definitely neutral “might or might not”).

## Pearson Correlation for Loyalty Questions

	Correlation Coefficient
<b>Satisfaction</b>	N=385
Willingness to repurchase	0.41
Willingness to recommend	0.55

**Correlation is significant at the 0.01 level (2-tailed)**

Strength of correlations are comparable to WW TCE Level 1 study:  
Satisfaction and Willingness to recommend,  $r=.56$ ; Satisfaction and Willingness to repurchase,  $r=.53$

## Satisfaction Ratings Among Video Brands

Satisfaction ratings are shown by region or brand in order to compensate for the cultural differences in scores. This is a gauge of Apollo's competitive **advantage/disadvantage**.

- Apollo and Delphi performance on the attributes shown is statistically equal, except that Apollo has the advantage with regard to gray levels, while Delphi has the advantage in longevity and fade resistance.

Stated satisfaction ratings for significant drivers of satisfaction:	US		Germany		Asia Pacific		Apollo
	Apollo	Delphi	Apollo	Delphi	Apollo	Delphi	+/-
<b>Overall Video Quality</b>	8.6	8.7**	8.0	8.4**	7.5	7.5**	
Image quality	8.9	8.8**	8.3	8.5**	7.5	7.6**	
<i>Level of detail or resolution</i>	8.5**	8.8**	8.0**	8.4**	7.3**	7.4**	
<i>Ability to reproduce a wide range of colors</i>	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
<i>Gray levels</i>	8.3**	7.6**	7.6	7.3**	7.4**	7.0**	+
<i>Color consistency under different lighting conditions</i>	8.0	7.4**	7.4	7.4**	7.1	6.9**	
<i>Capability to match screen colors</i>	8.0**	7.5**	7.3	7.2**	6.7**	6.5**	
<i>Scratch/Apolloroof/Smearproof/Smudgeproof</i>	7.0	7.5**	7.2	7.3	6.6	7.0**	
<i>Longevity/Fade resistance</i>	7.1	8.1**	7.5	7.7**	6.7	7.2**	-
Ability to reproduce a wide range of colors	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
Level of detail or resolution	8.5**	8.8**	8.0**	8.4**	7.3**	7.4**	
<b>Video Reliability</b>	8.7	8.4**	7.4	8.1**	7.2	7.2**	
Ability to reproduce a wide range of colors	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
Capability to Video many Videos unsupervised	8.1	6.6	6.8	6.9	7.1	6.7	
Freq. of repairs/calls to service*	7.3	7.7**	6.9	7.0**	6.4	7.1	
Freq./time to calibrate/maintain/troubleshoot	8.6	7.1**	7.1	6.8	6.9	6.6**	

### Key (comparisons are within regions, i.e., US Apollo to US Delphi, etc.):

Satisfaction scores with a **red** background are significantly lower than those with a **green** background.

Satisfaction scores with a white background are not significantly different from other scores shown.

\* Satisfaction is shown only among those indicating that they have used support services.

\*\* Denotes significant differences among a brand between geographies (US vs. Germany vs. AP).

Base: All Delphi owners (N=1058), Apollo owners (N=114)

## Satisfaction Ratings Among Video Brands

Again, Apollo and Delphi perform statistically the same, except that Apollo is stronger than Delphi in overall cost of ownership, specifically the cost of ink consumables.

Stated satisfaction ratings for significant drivers of satisfaction:	US		Germany		Asia Pacific		Apollo
	Apollo	Delphi	Apollo	Delphi	Apollo	Delphi	+/-
<b>Overall Fit in Your Environment</b>	8.8	8.6**	7.9	8.4**	7.5	7.6**	
Quality of compatible media	8.7	8.4**	7.8**	7.8**	7.1**	7.2**	
Style and industrial design	7.8	8.2**	7.8	7.4**	7.1	6.5**	
Capability to Video on different media sizes	8.3**	8.4**	8.0	8.3**	7.3**	7.2**	
Video size	8.7	8.2**	7.6	7.8**	7.0	7.2**	
Noise	8.2	8.0**	7.4	7.4**	7.0	6.9**	
<b>Overall Cost of Ownership</b>	7.6	7.8**	7.0	6.0**	6.7	6.3**	+
Cost of ink consumables	5.6	5.6**	5.9	4.8**	5.8	5.4	+
Reasonable price of the Video	7.7	8.0**	7.8**	7.5**	7.0**	7.0**	
Cost of paper	6.8	6.7**	6.8	6.2**	6.6	6.3**	
Freq. of repairs/calls to service*	7.3	7.7**	6.9	7.0**	6.4	7.1	
Ability to reproduce a wide range of colors	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
Freq./time to calibrate/maintain/troubleshoot	8.6	7.1**	7.1	6.8	6.9	6.6**	
<b>Overall Service &amp; Support</b>	8.2	7.8**	7.4	6.9**	7.2	6.9**	
Quick/effective resolution of problems/questions*	8.0	7.1	7.1	5.9	7.1	7.2	
Cost of support services	8.3	7.0	7.8**	6.7	6.7**	6.7	
Breadth of support services/warranty offerings*	7.5	6.9**	6.7	6.2**	6.7	6.9**	

**Key (comparisons are within regions, i.e., US Apollo to US Delphi, etc.):**

Satisfaction scores with a **red** background are significantly lower than those with a **green** background.

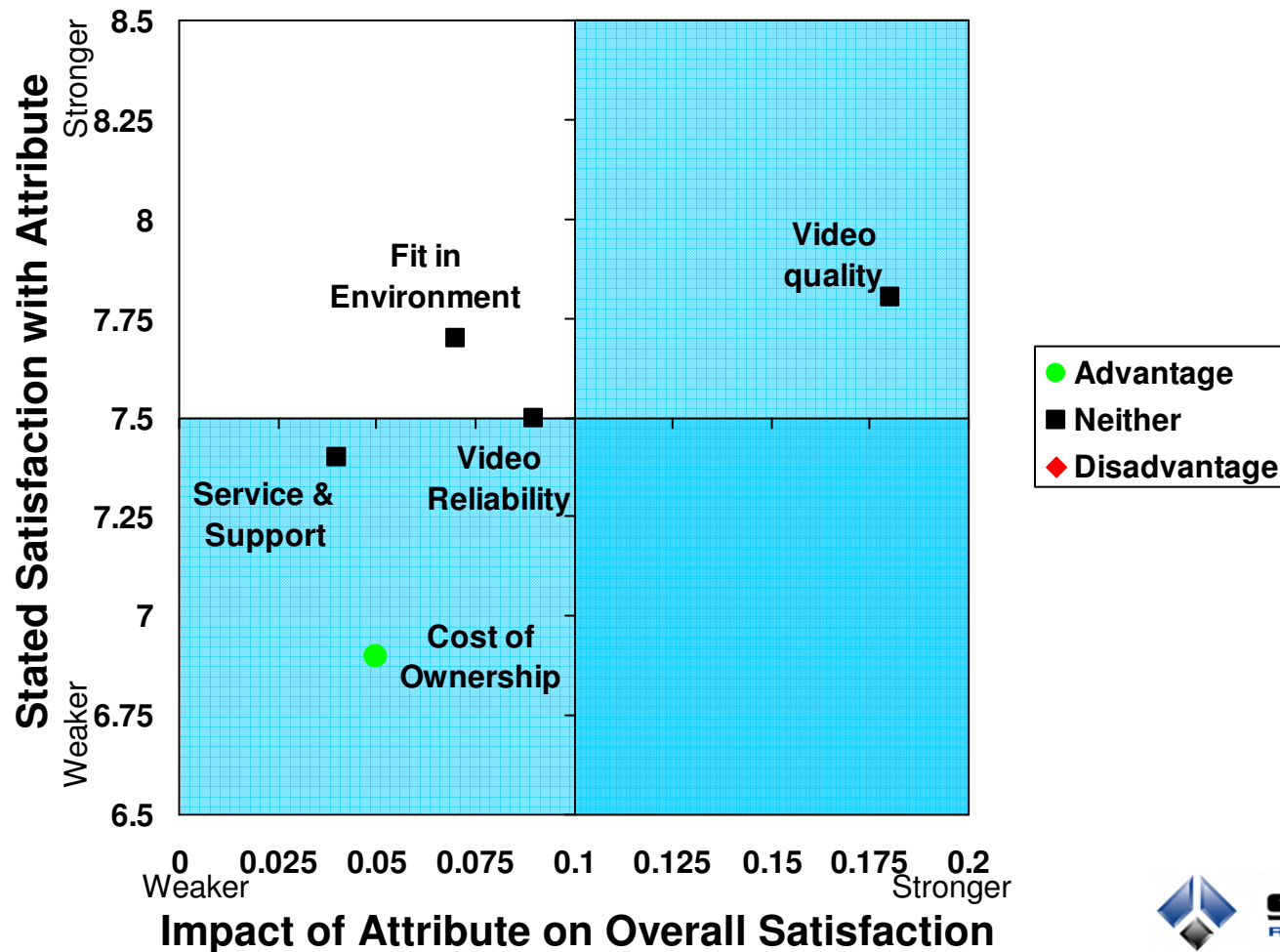
Satisfaction scores with a white background are not significantly different from other scores shown.

\* Satisfaction is shown only among those indicating that they have used support services.

\*\* Denotes significant differences among a brand between geographies (US vs. Germany vs. AP).

# Impact vs. Performance: Top-Level Drivers of Satisfaction

Since both Apollo and Delphi have At-Risk or Vulnerable levels approaching or exceeding 50%, and because both are performing statistically equal on nearly all Video attributes, Apollo should consider focusing on attributes that would give further competitive advantages, while also increasing overall video satisfaction. These are discussed in the next section regarding identifying weakness drivers.



# *Identifying Weakness Drivers*

## Where to Focus Improvements: Apollo Weakness

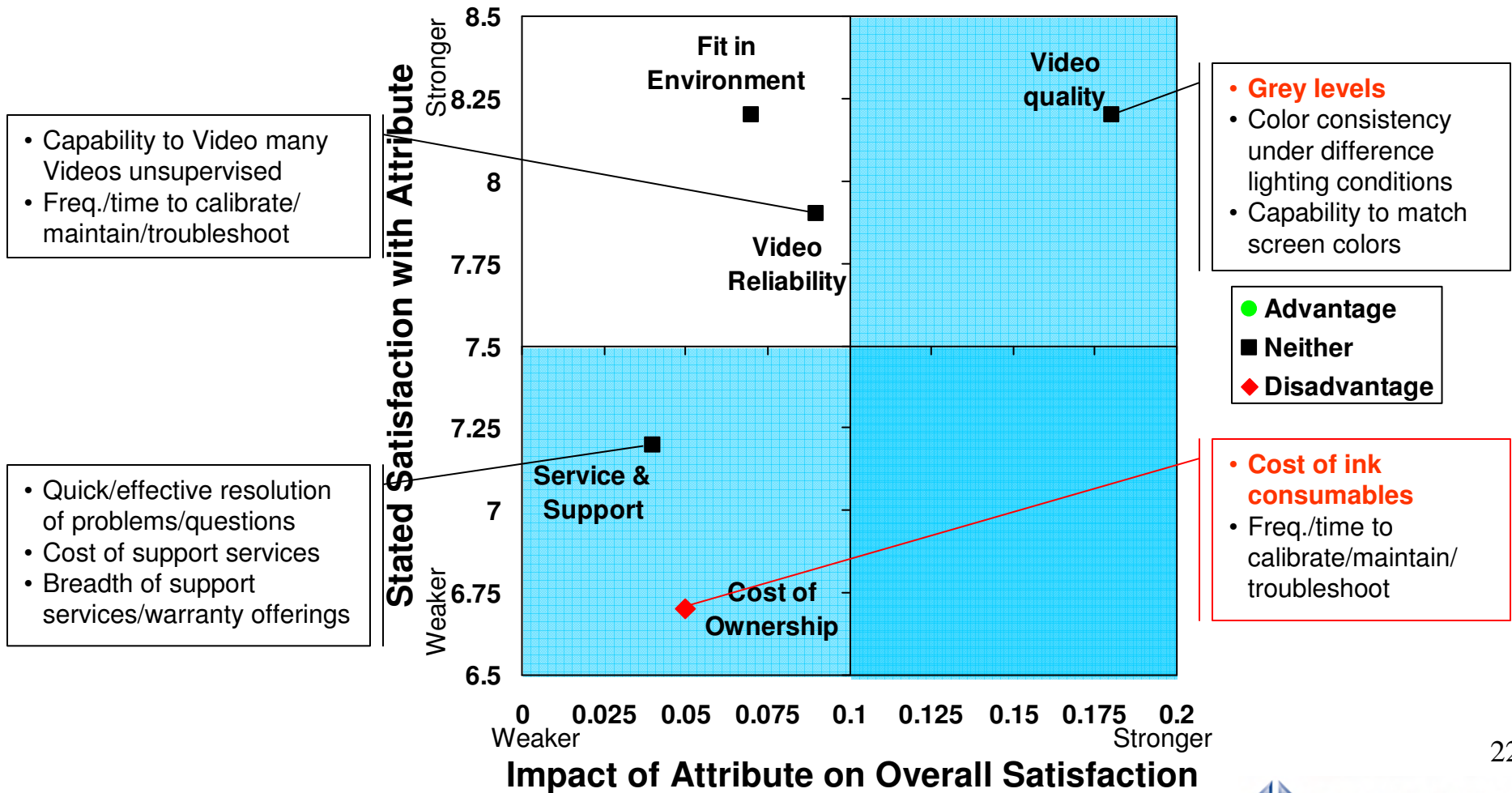
Of the 27 attributes that drive Video satisfaction, the area of longevity and fade resistance is the only attribute for which Apollo has a competitive disadvantage.

- Improvements in satisfaction with longevity/fade resistance should increase satisfaction with image quality, in turn increasing satisfaction with Video quality, which is the attribute that influences Video satisfaction to the greatest degree.

Stated satisfaction ratings for significant drivers of satisfaction:	US		Germany		Asia Pacific		Apollo
	Apollo	Delphi	Apollo	Delphi	Apollo	Delphi	+/-
<b>Overall Video Quality</b>	8.6	8.7**	8.0	8.4**	7.5	7.5**	
Image quality	8.9	8.8**	8.3	8.5**	7.5	7.6**	
<i>Level of detail or resolution</i>	8.5**	8.8**	8.0**	8.4**	7.3**	7.4**	
<i>Ability to reproduce a wide range of colors</i>	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
<i>Gray levels</i>	8.3**	7.6**	7.6	7.3**	7.4**	7.0**	+
<i>Color consistency under different lighting conditions</i>	8.0	7.4**	7.4	7.4**	7.1	6.9**	
<i>Capability to match screen colors</i>	8.0**	7.5**	7.3	7.2**	6.7**	6.5**	
<i>Scratch/Smearproof/Smudgeproof</i>	7.0	7.5**	7.2	7.3	6.6	7.0**	
<i>Longevity/Fade resistance</i>	7.1	8.1**	7.5	7.7**	6.7	7.2**	-
Ability to reproduce a wide range of colors	8.5**	8.5**	7.7	7.8**	7.1**	7.1**	
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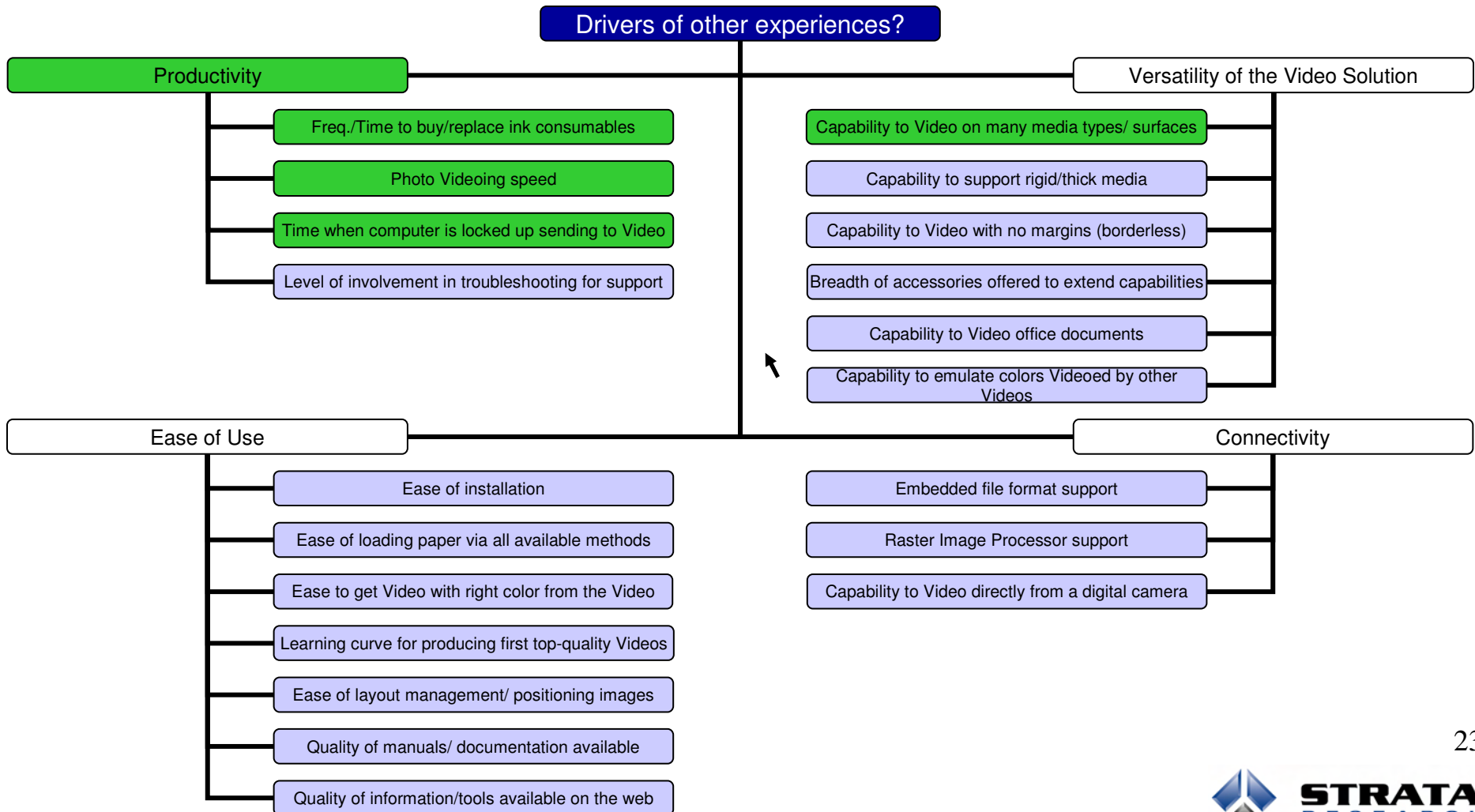
# Where to Focus Improvements: Delphi Weaknesses

The chart and the corresponding call-out boxes below illustrate Delphi weaknesses, areas where they may be focusing improvements, and attributes that Apollo should consider tackling in order to beat Delphi to market with the improvements.



# Apollo Performance on Other Video Attributes

Of the attributes that were not found to be significant drivers of Video satisfaction, the green attributes shown below are areas where Apollo has an advantage in performance; Delphi did not demonstrate a competitive advantage in any of the areas below.



## **Non-Significant Attributes Important to Satisfaction**

Professional videographers already seem to expect the following from a Video Manufacturer:

- Water-proof videos
- Easy-to-install video
- Moderately easy Video to get a good-quality Video
- Moderately easy video to load consumables
- Media flexibility (for a sub-segment)

Professional videographers do not seem to expect from a manufacturer:

- Easy-to-use color management
- Easy-to-use layout management

**These attributes cover basic needs already being fulfilled:**

Moderate improvements in any of these attributes should not yield benefits in customer satisfaction, but worse performance could erode customer satisfaction

**Recommended strategy**

Maintain performance (imitate competitors)

**These attributes cover excitement needs that are not fulfilled today:**

Moderate improvements in any of these attributes should not yield benefits in customer satisfaction; only major improvements will

**Recommended strategy**

Focus on some attributes only to outperform competitors

## **Non-Significant Attributes Not Important to Satisfaction**

Professional videographers do not seem to care about:

- ❑ Online (web) and in-the-box documentation
- ❑ Time spent to capture video
- ❑ Capability to video reel docs (since they use the platform as a specialty video)
- ❑ Frequency of ink cartridge replacement
- ❑ Breadth of accessories to extend the capabilities of the video
- ❑ Embedded file format support

There are no signs that these attributes could influence customer satisfaction somehow

**Recommended strategy**  
Do not focus on these attributes

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