

Headquarters

97 Libbey Industrial Parkway
Suite 300
Weymouth, MA 02189
Phone: 781-616-2100
Fax: 781-616-2121
Email:
info@infotrends-rgi.com
www.infotrends-rgi.com

Europe

3rd Floor, Sceptre House
7-9 Castle Street
Luton, Bedfordshire,
United Kingdom LU1 3AJ
Phone: +44 1582 400120
Fax: +44 1582 411001
Email:
info@infotrends-rgi.com

Japan

Hiroo Office Building
1-3-18 Hiroo Shibuya-ku
Tokyo 150-0012 Japan
Phone: +81 3 5475 2663
Fax: +81 3 5475 2710
E-mail: info@gsm.to
www.gsm.to

About Us

InfoTrends/CAP Ventures is the leading worldwide market research and strategic consulting firm for the digital imaging and document solutions industries. We provide research, analysis, forecasts, and advice to help clients understand market trends, identify opportunities, and develop strategies to grow their businesses. Learn more about our company, visit www.infotrends-rgi.com.

Mobile Imaging – Technology Trends, Consumer Behavior, and Business Strategies

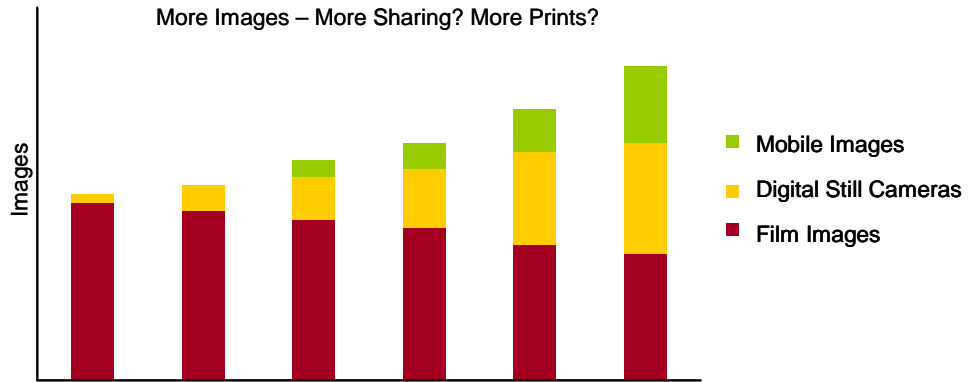
- Understanding Changing Consumer Behavior
- Drivers and Differences by Major Global Markets
- Camera Phone Product Requirements & Pricing
- Impact on Digital Still Cameras
- Opportunities for Photo Printing
- Multimedia Messaging Service Strategies

Introduction

Two of the biggest opportunities in consumer electronics over the past ten years have been mobile phones and digital cameras. Continued advances in technology and data services have created a new category of product, the camera phone. With sales of each product category exploding, InfoTrends/CAP Ventures estimates there will be nearly 300 million digital image capture devices in use worldwide this year. More importantly, there are billions of new images that represent a tremendous opportunity for imaging services and

products that can generate new revenue streams for many vendors.

Despite the success of camera phone handsets and services, this product segment is still evolving.



Equipment vendors and service providers face many significant decisions around price points, feature sets, and form factor that will impact market growth. The optimal combination of features like price, image resolution, optics, video support, and edit controls will differ by market segment and geographic region.

Over the next few years, it is evident that the market will have a variety of mega-pixel camera phones and megabit wireless networks that make camera (and video) phones affordable, practical, and ubiquitous. The value proposition of camera phones will appeal to certain market segments and may change consumer behavior related to capturing, storing, viewing, printing, and distributing images.

Though camera phone sales may ultimately impact low-end digital still camera sales, these devices offer opportunities for digital camera vendors, as well as mobile handset manufacturers, wireless service providers, and photo printing equipment vendors. Vendors need to be in front of this technology adoption curve with products, services, and pricing that help shape the new consumer behavior. Latecomers will likely find themselves shut out of markets and unable to establish profitable revenue streams.

InfoTrends/CAP Ventures has conducted an extensive worldwide study of consumers to understand the opportunities and requirements for mobile imaging equipment and services. The intent is to provide companies with a global perspective built up from insights gained from understanding consumer behavior and vendor strategies in each of the major markets for mobile imaging.

Critical Questions

This study answers key questions on the usage and plans for camera phones from a wide range of consumers in key geographic regions around the world. You will have a global perspective on important issues affecting your product and business planning based on insights gained at the local level.

What imaging features do consumers want and value on their camera phone?

What is the interest level in advanced imaging features (e.g. megapixel resolution, video capture, flash and zoom, editing, Web storage, wireless print)? What is consumer interest in camera functions vs. other features (e.g. video, games, Web access, music)? What are the key tradeoffs that consumers make between price, performance, and style (form factor) when selecting camera phones?

What do camera phone owners do with the images they capture?

How many images do camera phone users capture? Do they store and edit images on the phone, at online photos services, and/or on their PC? To what extent are consumers sending photos over the wireless network in photo messages? Are they printing their camera phone photos?

How does camera phone activity compare to DSC activity?

In what situations do consumers use a camera phone versus a DSC? How will advances in technology (image quality, transmission speed, storage) affect when camera phones and DSCs are used? How many images do users capture, share, store, and print?

How does camera phone and DSC activity change over time?

Does usage of the camera drop off after a certain time period? Do consumers send more or fewer images? Why does usage activity change? Do consumers use other services? Has DSC activity changed since owning a camera phone?

Do consumers want to print from camera phones?

What are their expectations of print quality? Where do they want to print camera phone images (home, online, retail)? What features or services would encourage more printing?

How will camera phones impact the sales of digital still cameras (DSC)?

What are the differences by key geographic regions and market segments? Do consumers own a camera phone and a DSC, or do they choose one or the other? Will camera phones supplement or replace DSCs? When? Why?

What would encourage consumers to print more images?

How will improved image quality and display technology affect the desire to print? What impact will convenience have on printing in the home, via online photo services, at retail locations, and/or at kiosks? What impact will flash memory, Bluetooth, 3G, WiFi, and other initiatives have on camera phone and printer equipment designs and business models? What will be the revenue implications?

What is the interest level in camera phones from non-owners?

What is the profile of non-owners? Why have they not purchased yet? What is their purchasing intent and purchasing timeframe? What would entice non-users to purchase a camera phone sooner? Are camera phone sales first-time mobile phone sales or replacement handset sales?

What are the key regional differences affecting opportunities for mobile imaging?

What impact is created from availability of high-speed wireless transmission, Internet penetration, use of home PCs and photo printers, demographics, and other factors? What key regulatory issues are affecting camera phone usage and design factors?

Where are there opportunities to capture revenue streams from camera phone capabilities?

To what extent will consumers pay for advanced services? Will advanced imaging features drive up average revenue per customer? What pricing strategies should handset manufacturers and carriers pursue? Where are there attractive alliance opportunities to create differentiation and competitive advantages?

Project Objectives

This study is designed to help digital camera and mobile handset suppliers, wireless service providers, and photo printing equipment, and services vendors succeed in this market. The results of this study will provide necessary information to help you:

- Segment and profile the market
- Understand consumer behavior, perceptions, and requirements
- Assess consumer tradeoffs for camera phone features, style, and price
- Assess the opportunity and requirements for printing at home, online, and at retail
- Size and forecast the worldwide market opportunity by key regions
- Estimate the impact on digital still cameras
- Determine pricing and positioning strategies
- Identify cultural and regulatory issues affecting mobile imaging
- Identify product and service requirements and pricing alternatives
- Identify revenue opportunities for mobile imaging features and services
- Participants to this study will gain a global perspective based on insights from understanding the experiences and differences in each of the major geographic markets.

Market Forecast

The report includes a worldwide market forecast for camera phones, services, printing, and related items by key product segments and geographic markets.

Products & Services

- Camera phones (shipments, installed base, revenue)
- Photos taken, shared, and stored
- Photos printed (home, online, retail locations)
- Photo printing revenue
- Wireless data transmission revenue

Region

- North America
- Europe, Middle East, Africa (EMEA)
- Japan
- Asia Pacific
- Rest of World

Market Segmentation

InfoTrends/CAP Ventures conducted extensive research to develop a market segmentation based on customer attributes, attitudes, and behavior. The intent is to provide technology equipment and service providers with new insights on customer requirements, brand positioning, and future opportunities. Elements of the segmentation include:

Demographics

- Age
- Income
- Gender
- Family
- Region

Technology Profile

- Mobile phones
- Digital cameras
- PDAs and other mobile devices
- Internet access
- Wireless home networking
- Wireless services (e.g. Web, photo sharing)
- Digital photo printing
- HDTV and other digital home media

Attitudes and Perceptions

- Interest in technology and wireless products
- Motivating factors for buying new mobile imaging products (e.g. features, price points, events, friends, applications, replacement)
- Perceived value or utility from imaging features and services
- Importance of convenience, value, quality, flexibility
- Brand awareness, perception, and preference

Customer Needs, Interests, and Preferences

The research explores customers' product requirements and interests related to camera phones, photo distribution and management, and printing. The intent is to provide product managers with input on how much consumers value key features and services, and how they differ by various customer attributes.

- Image resolution
- Flash
- Zoom
- Editing
- Multi-shot mode
- Video capability
- Voice annotation
- Memory
- Form factor
- Screen size
- E-mail
- Interoperability
- Picture caller ID
- Storage services
- Web access
- Network speed
- File sharing
- Printing (home, kiosk, online, retail)
- Ease of use
- Pricing plans

Market Research

The research includes an extensive review of existing research and interviews with technology vendors, end-users, and photo service providers across a variety of market segments. Ultimately, the research identifies market segments, critical success factors, customer requirements, usage patterns, purchase plans, and other items that will drive vendors' product, service, marketing, and sales activities.

Secondary Research

InfoTrends/CAP Ventures has conducted extensive research over the last 24 months with technology vendors, service providers, and consumers related to digital imaging. Relevant reports that we can leverage as part of this study include:

- Online Photo Services Forecast
- Worldwide Digital Camera Forecast
- Worldwide Camera Phone and Mobile Imaging Forecast
- Photo Kiosk and Retail Digital Photofinishing Forecast
- European Online Photo Services Market Overview
- Digital Photo Printing in Europe*
- Online Photo Services End-User Survey*
- Digital Photo Printing End-User Study*
- Digital Camera End-User Survey*

**Reports based on at least 500 structured interviews*

We also thoroughly examine existing market information on government regulations, market segments, competitors, and product categories. InfoTrends/CAP Ventures utilized a variety of sources including:

- Industry trade associations
- Published industry reports
- Periodicals and trade articles
- User groups
- Government statistics and regulations
- Industry databases
- Vendor white papers and web sites
- Research reports

Structured Survey with Consumers (6,130)

InfoTrends/CAP Ventures conducted a structured survey with over 6,100 consumers across North America, Western Europe, Japan and China. The end-user research is essential in determining end-user attributes, behavior, product requirements, price sensitivity, brand preferences, and other factors influencing the adoption of camera phone equipment and services.

InfoTrends/CAP Ventures will conduct the interviews in the native language of each country and expects the distribution of interviews to include:

- North America 3,011
- Western Europe 1,464
- Japan 647
- China 1,239

InfoTrends/CAP Ventures interviewed existing camera phone users (2,110) and non-users in each market. The analysis enables comparisons by geography and other important customer attributes.

Analysis and Project Deliverables

There is extensive analysis of the desk research, personal interviews, and structured surveys to develop a comprehensive understanding of the opportunities and issues for equipment vendors and service providers. Clients receive a combination of reports, presentation material, and research data for senior management, product managers and planners, and sales and marketing executives.

The material includes:

- An executive summary that addresses key issues, findings, and overall recommendations.
- A detailed written report (230 pages) with text, charts, and graphs addressing the objectives of the study.
- A set of presentation-style overheads for internal communication of the research results.
- A data book of the survey tabulations for additional analysis of key questions and market segments.

Project Schedule

- InfoTrends/CAP Ventures started the research in September 200 and published the study in December 2004.

Project Fees

The base participation fee is \$15,995 (base study includes data tabs for one region). The price for the full study plus data tabs for all four regions is \$18,995. A personal presentation is available for \$2,000 plus travel expenses.

Clients may have other business units participate in the study and receive a copy of the report at no additional charge. To purchase the report or ask questions please contact InfoTrends/CAP Ventures at 781-616-2100.