Future for printed papers
the influence of changing social, technological and environmental effects on key end use paper demand

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Agenda

• Background
• Overview of the print market - trends and issues
• Direct Mail
• Newspapers
• Office Paper
• Magazines
• Summary conclusions
A changing world!
Consumers are overloaded!

- >500 TV channels
- 19 billion catalogs (2001)
- Thousands of radio stations
- 1.6 trillion pieces of paper in US offices
- 60,000 new books annually
- 225 billion magazine pages
- Billions of sales promotion pieces
- 100 billion direct mail pieces
- 75 million internet hosts
- Millions of outdoor ad sites
- 40,000 SKUs – average grocery store
- 100 million mobile phones
- 100 billion direct mail pieces
- 225 billion magazine pages
- 60,000 new books annually
- 1.6 trillion pieces of paper in US offices
- 19 billion catalogs (2001)
- >500 TV channels

Average consumer receives 50 to 60 hrs/week of various media

Source: Based on J. F. Gillen, Stora Enso NA, TAPPI Papermaking Conference 2005
Printing – major trends

• Growth – but slow
• Break in link with GDP
• Advertising growth
  – Change in media mix
  – Print losing market share
• Impact of the Internet
• POD production by everyone
Print on Demand

Production location

Centralised production (Mass production)
- Offset press
- Skilled operators
- Expensive
- Commercial printers

High speed POD
- Direct digital input
- Expensive
- Centralised

Distributed POD
- Office
- Affordable
- Distributed

Personal POD
- Consumer
- Inexpensive
- Anywhere

1980s 1990s 2000s

Source: CAP Ventures
Factors influencing demand for printing papers

Positive
• Population growth
• Increasing literacy
• Increasing life expectancy
• Reducing media constraints (e.g. China)
• Increasing no. of households
• Improved print quality
• Growth of inserts, flyers, etc
• Increasing pc and copier populations, especially in emerging markets
Factors influencing demand for printing papers

Negative

• Growth of electronic media and communication channels
• Diversion of advertising spend to other media
• Volatility of advertising spend
• Declining basis weights
• Sustainability concerns (reducing paper usage)
• Stagnating population growth in developed countries e.g. Europe & Japan
Paper has often benefited from electronic media.

Source: Jaakko Poyry
Information Trends

The global percentage of total information printed is decreasing

- **Printed**: 30%
- **Digital**: 70%

*but* total volume of accessible information is doubling every 3-7 years
Graphic paper demand by end use

38 M tons
In total

Source: Jyrki Ovaska – UPM – June 2008
Direct mail

• Direct mail (DM) is a means of communication which involves sending individuals information by mail aimed at eliciting a response from both existing and potential customers.

• The response is measurable and the interaction between sender and recipient can be tracked and stored in a database.
Many grades used...

Coated woodfree
• The growth area as campaigns become more targeted

Coated mechanical
• Some grade switching to lower priced SC grades

Newsprint
• More used in CEE for direct mail than in Western Europe
• Substantial use for retail flyers

Envelopes
• Integral to much of direct mail and account for 4% of total direct mailing costs
• Europe consumed over 30 billion envelopes for direct mail
End user preferences

• Despite consumer demand for greater environmental responsibility, specifiers and printers not keen on using recycled paper
• Lower gsm papers preferred as currently cost of distribution driven by weight
• Good bulk and glossy product associated with luxury and sophisticated mailings
• Paper aesthetics and tactility which reflect the products are key attributes
Printing

• Traditional catalogs are distributed less frequently but with more pages
• More targeted mailings mean shorter print runs
• More variable data demand – associated with delivering a personal message
Advertising Media and DM

Advertisers are devoting more budget in developed market to customer retention rather than prospecting = more sophisticated DM

Print advertising share has fallen overall but as a medium it remains attractive and therefore in demand

Although budgets are encompassing internet advertising, there is some evidence that internet stimulates direct mail

Although DM volumes declining in developed markets – nobody expects DM to disappear
Implications for paper manufacturers

• Opportunities to develop and innovate are growing
• Increased postal and other costs are driving reduction in basis weights
• Increased call for use of paper containing recycled fibre
• Papers must be capable of being printed by a range of systems
• Coated mechanical and woodfree will experience highest growth rate – on back of increased targeted addressed campaigns
• Future demands will be for increased array of coated products capable of being printed by array of print technologies
"If present readership trends continue indefinitely the last daily newspaper reader will check out in 2044."

Prof. Philip Meyer – author of ‘The Vanishing Newspaper: Saving Journalism in the Information Age"
Newspapers

Variety of forms:
• Regional
• National
• Daily
• Weekly
• Tabloid
• Broadsheet
• Commuter
• Free
• Supplements

• Although steady decline in overall circulation – rapid demise was not occurring – but this is changing
• Newspapers did account for c. 25% of global print sales
• Shifts have occurred in overall market
• Threat and opportunity from China
Newspapers

New concepts being introduced

e.g. "Metro" globally established - aimed at young, urban commuters

V. successful – Europeans read 19m of 28m free papers
Newspapers

New concepts being introduced
– Tabloid versions – less paper needed
  e.g. Gannett, Knight Ridder in US;
  Times, Independent in UK
Newspapers

However US newspapers grappling with

• A steep drop in print advertising revenue
• Steadily declining circulation
• Migration of readers to free news on-line

Daily average circulation in three months ending Mar 31 declined to 34.4 million from 37.1 million

Similar effects starting to occur in Europe
Newspapers

Technology changes

- flexo impact to remain small – some shifts in local markets e.g. some free newspapers printed flexo in UK
- use of uv drying – trials underway
- digital printing – number of systems available
Technology changes
- digital printing
Kodak Continuous Inkjet – can produce full process color newspapers at rate of 1000x40 page broadsheets per hr
Océ Jetstream – full color output at speeds from 675 to 2020 A4 pages per minute
Oce installation at Spanish publisher, Imcodàvila – will produce 40 titles
Newspapers

Technology changes

Potential for distributed digital printing of newspapers - leading to customised newspapers - small at present but growing. Readers download newspaper onto ebook device with EInk display e.g. trial of ePaper involving De Tijd (Belgium paper).
Office Paper
When will electronic be the victor?
Background

• Much written about the paperless office; the impact of IT; changes in end use; demographic factors, etc.

• Substantial research and analysis required for a proper understanding of this process and its consequences for the paper industry - subject of current Pira research
Impact of Technology

• The role of paper in the office and the impact of new technology is a complex issue with many parallel and at times contradictory trends.

• How people use technology rather than the technology itself will be critical to paper use.
Paper continues to be used

Each new generation more computer savvy but most of us still have an emotional need for hard copies.

- More individual printing of hard copies – text and photos
- Better processing of information on paper than screen
- Availability and trust in power and connectivity
- Age related – paper helps to compensate for declining eyesight
Green factors

• Strong commitment to reducing paper consumption
• Paper = chopping down trees. Recycling = good
• Paper buyers/end users confused as to the greenest option
Market confusion

Greenest Option?
Choice 1- in an ideal world

Recovered fiber

Vs virgin fiber
Choice 2- certified or not?

Recovered fiber vs virgin fiber

Virgin fiber vs Certified virgin fiber
Choice 3 – which certification?

- Recycled fiber vs virgin fiber
- Virgin fiber vs certified virgin fiber
- FSC vs PEFC vs SFI vs Rainforest Alliance
Choice 4 – which source of RF?

- Pre-consumer vs Post consumer waste
- Recycled vs virgin fiber
- Virgin fiber vs Certified virgin fiber
- SFI vs Rainforest Alliance
Choice 5 – where is the RF sourced?

- Locally sourced vs Internationally sourced
- Post consumer waste vs Pre-consumer waste
- Recycled fiber vs virgin fiber
- Certified virgin fiber vs SFI vs Rainforest Alliance
- Virgin fiber vs SFI vs Rainforest Alliance

Virgin fiber vs Certified virgin fiber
Choice 6 – should it be paper based?

- Locally sourced vs internationally sourced
- Pre-consumer vs post-consumer waste
- Recovered fiber vs virgin fiber
- Certified virgin fiber vs SFI vs Rainforest Alliance
- Paper vs electronic communication
- Virgin fiber vs certified virgin fiber
- Pre-consumer vs post-consumer waste
- Recovered fiber vs virgin fiber
- Paper vs electronic communication
Choice 7 – other considerations

- Locally sourced vs internationally sourced
- Pre-consumer vs post-consumer waste
- Virgin fiber vs certified virgin fiber
- Recycled fiber vs virgin fiber
- Certified virgin fiber vs SFI vs Rainforest Alliance
- Paper vs electronic communication
- Carbon footprint
Substitution effects

• At the beginning of the process of paper substitution due to IT development.

• Essential features of technology impacts on the paper sector need to be monitored.
Magazines

• Consumer – more titles, increased churn
• B2B – Internet impact, esp. class. Ads
• Customer magazines – boom sector
• Read by wide age group
• Achieve 10-12% market share of advertising
Magazine Trends

• Digital publishing is expanding but increasingly advertisers regard different media as complimentary – each promotes others.
• Magazines still valued as a personal medium – especially consumer magazines.
• Printed magazines offer tactile and aesthetic experience.
• W Europe and N America mature markets - but has been dynamic growth expected in CEE, Latin America and Asia Pacific.
• Growth of weekly titles predominantly aimed at young women.
Magazine Trends

Growth of special interest magazines for supportive readership. Some examples –

• Celebrity
• Lifestyle and hobbies
• Health and wellness
• Science
• Corporate publishing
Advertising Trends

Global advertising value 2009 (e) $ 453 billion

Fall of 6.9% compared to 2008

Radio -10%

TV -5%

Newspapers -12%

Magazines -10%

In contrast on-line advertising will rise 8.6% in 2009
Production technology

Majority printed heat set web litho or gravure

• Web offset – consumer magazines
• Sheetfed offset – B2B magazines
• Cold set – weekly magazines
• Gravure – big circulation consumer magazines
Gravure – showing a revival

Publication gravure capacities in Europe (1000 t)
Source: European Rotogravure Assoc’n

No. of publication gravure presses in Europe
Source: European Rotogravure Assoc’n
End User Trends

- The internet is not *currently* a threat to the growth of magazines – it is complimentary.
- Asian market optimistic about increased demand for magazines.
- Magazine websites and digital magazines are supplementary/complimentary not replacements for printed magazines.
- People still like to read a hardcopy magazine, especially to look at photos.
- Women's magazines will always be popular for advertising.
- Weekly celebrity magazines have become huge.
- ..but current squeeze on advertising and consumer spending likely to result in a number of titles disappearing.
Technology Trends

• Further growth in digital printed expected
• Greater use of a range of specialty printing techniques on covers
• Use of different ‘papers’ on covers
• More ‘recycled’ content in paper used
Other Trends

• More color; more graphics
• Basis weight reductions – particularly in subscription based products
• Paper grade changes – LWC – SC - WF
• Environmental pressures to reduce over issue
Market Positioning

Challenge for printed grade papermakers is to how to respond and promote the paper medium

Could include:

• improving graphical quality
• refining and improving consumer appeal
• promoting effectively the environmental credibility aspect of the product
• exploiting niche areas
Summary and conclusions

• Printed paper products have and will continue to undergo change

• Change is driven by competing media; necessity to attract customer; technology developments

• No demise of any printed paper product expected in next 5 years but the current economic situation may accelerate changes that reduce paper demand
Summary and conclusions

• Direct mail – expected to survive. More targeted, personalised campaigns will result in greater use of CWF products

• Newsprint expected to decline more rapidly than predicted as a result of falling ad. revenues – but will be minimised in short term by free newspaper demand in some markets

• Office paper use will continue to decline as result of substitution effects – in short term current economic factors may accelerate change

• Magazines will continue but number of titles likely to reduce. Expect greater changes in paper grades and more recycled content
Summary and conclusions

These conclusions are likely to hold through for the near future – BUT beyond this printed paper products maybe in serious decline – “the business of selling words to readers and selling readers to advertisers.....is falling apart” “....newspapers are an endangered species” The Economist Aug 26-Sept 1 2006.

Maybe, however, not only is the newspaper at risk, but also Philip Meyer’s vision will be a reality earlier than anticipated!