David Stone

Freelance strategic mobile marketing consultant. Founder of MobileBigDot. He works for a leading retailer and is involved in various promotions projects. He holds over 20 years integrated marketing communications management experience. He has a masters degree in marketing and a CAM diploma in advertising. His expertise embraces various business sectors, including retail, to business to business and print media services. He has broad experience of devising and implement creative marketing campaigns for many high profile enterprises. He has also lectured in marketing and media for university and higher level education providers. He is a Fellow of the IDM and a member of Mobile Monday.

Opinion Piece

Mobile — More than a magic moment for marketers?

David Stone

Abstract

Since the year 2010, the adoption of 'smart mobile devices' by consumers in the United Kingdom has increased dramatically. The mobile phone is ubiquitous. More mobile phones exist than personal computers. The interactive digital capabilities of smartphones, and more recently tablet computers, to connect not just socially but to engage and transact directly with brands and retail services through the mobile internet, is a new dimension for consumers, brands and services. Mobile commerce (m-commerce) in the United Kingdom has in the past been littered by many 'false dawns'. This has been due to slower-than-expected diffusion of mobile technologies and unrealistic aspirations by the telecommunications and marketing industries. The supply chain driving the mobile ecosystem has wrestled with competing legacy issues to generate revenue, while seeking to leverage mobile consumers' access to the most advanced technologies. Smartphones are now able to empower consumer uses, expression and purchasing decisions, almost anywhere. The 'tipping point' for consumer adoption of m-commerce is evident. This has radical implications for brand relationships and the evolution of multi-channel digital strategies. The mobile internet is becoming a powerful purchasing tool in the hands of consumers. But equally, consumers want to be able to trust the technology. They need to understand the relevance of product benefits to their expectations and situation. Brands need to leverage relevant engagement via the mobile if they are not to be left behind.

Smartphones are taking brand selection to a new level

David Stone
Tel: +07 780 780830
E-mail: MobileBigDot@gmail.com

Introduction

Smartphone adoption

The 'tipping point' for the adoption of smartphones was reached in the year 2010. Penetration in the United Kingdom, France, Germany, Spain and Italy grew in 2010 to reach 31.1 per cent of mobile users. Source: Comscore.[1] The landscape has been shaped by the move away from the largely Nokia-driven Symbian operating system to the

Google Android and Apple-based operating systems. Subsequently, in September 2011, research analysts IDC[2] reported in Quarter 2 that more smartphones entered the sales channel than feature phones. Shipments of feature devices declined by 29 per cent to 20.4 million units, while smartphones grew by 48 per cent to 21.8 million units.

Smartphone owners tend to access more data, download applications and access more media content compared with traditional mobile phone users. This represents a significant 'step change' in consumer behaviour. The internet experience is now within the reach of shoppers on the move. Why wait to look things up at home when it can be done in front of the product in the store or almost anywhere within touching distance of the mobile? Equally, the consumer needs to have to be able to trust the smartphone to make payments and have confidence in the brand and services available. Access is an issue on the mobile; if the information or the brand cannot be found with the touch of a finger, then the user will look and find alternatives elsewhere.

Trust is the result of trial over experience. It is hard to win and is easily lost, if the message and understanding of the mobile situation is misplaced. Mobile consumers carry their phones almost everywhere they go, to the point where they sense loss, if they do not have it on them. They do not want to be 'invaded' by 'spurious marketing offers', and they have an absolute right and reason not to volunteer personal details without giving express permission. Mobile users, due to the intimacy of the device, are more conscious of such intrusions. If they are to forego privacy, they seek sovereignty over appropriate offers, rewarding benefits and experience and the right to exclude when necessary.[3]

Consumers are increasingly using mobile device as a search and purchase tool

The mobile has advantages for consumers to research and socially reference product selections; it is more powerful with the addition of locally driven offers. Mobile operators such as O2, with their 'Priority Moments',[4] are starting to exploit such opportunities.

The adoption of mobile commerce (m-commerce) has in the past been dissipated due to lack of technological capabilities and limitations in service delivery. But this has not deterred mobile consumers (Figures 1 and 2).

Purchases of personal home computers are beginning to lose ground to tablet computers. The mobile smartphone is the ever-present device carried all day everywhere as the primary point of contact and immediate source to solicit information. Mobile web search is a powerful tool in the hands of confident smartphone users to research information, find intuitive content and complete purchases. A total of 13.4 per cent of web searches are now done via the mobile.[8] The future is not just the PC, it is mobile too.

Consumers constantly seek faster, more powerful unified digital solutions to facilitate their lives. In the 'screen age', consumers are increasingly 'snacking' between media on the fly, and up to 70 per cent multitask mobile with 'Media Mashing'.[5] Fragmentation changes the balance, as mobile services increasingly seek to adopt internet-optimized
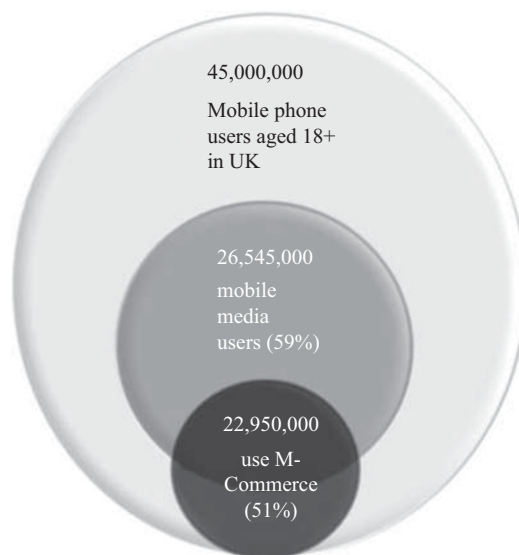
Figure 1: UK penetration of m-commerce
Source: IAB consumer m-commerce study
October 2010, Comscore August 2010. Base = all mobile users (1039). IAB m-commerce study September 2011
base 1046 users

M-commerce is gaining traction

Figure 2: Over the year October 2010 – September 2011
Source: IAB consumer m-commerce study
October 2010, Comscore August 2010. Base = all mobile users (1039). IAB m-commerce study September 2011
base 1046 users

content for the mobile. It is the 'glue' that gels digital consumer media interactivity (Figure 3).

Digital strategy

First impressions count more

The presence of the mobile is a new dynamic in the hands of digitally confident consumers:

- It is the essential link between the consumer and their immediate environment.
- It is the first direct bridge and the barrier to understanding brands and communications.
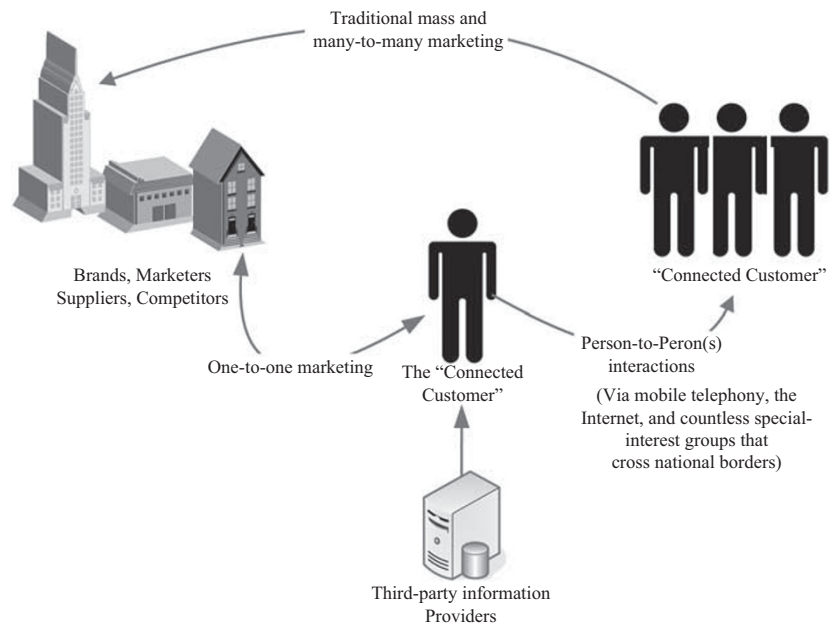
Figure 3: 'The connected customer' relationships' (adapted from marketing science institute, 2006)
Source: M.J. Becker, Managing Director, North America, Mobile Marketing Association

The mobile users' situation mitigrates experience

- The digitally connected consumer expects unity of brand experience and instant connection through all customer service touchpoints.
- The mobile potentially gives consumers more power to instantly research, interrogate, compare and make informed product choices.
- Brands cannot offer a second best experience on the mobile and expect continued loyalty. Consumers can more readily cross-reference with peer groups, product prices and performance histories.
- The instantaneous nature of mobile phone inherently limits the scope to absorb complex information and thus reduces the time interval in which to make purchase decisions.

Where to choose and where to buy? (Figure 4)

Mobile technology is becoming more powerful and easier to use. Our daily lives become ever more dependent on fast solutions to facilitate increasing needs and expectations.

So using the mobile to navigate situations and make direct purchases is a natural progression, as it can also compare outlets and special offers-in-store. Location and contextual experience are key brand enhancements. Quick response (QR) codes potentially add richness to the consumer enquiry and for brands to differentiate product values. Take-up in this area is dependent on the availability of more QR-coded products and their resonance for mobile users.

M-commerce

Mobiles devices need an NFC (near-field communications) chip set pre-installed in the handset for a special reader to complete transactions by contactless payment or via an encoded payment card. The mobile
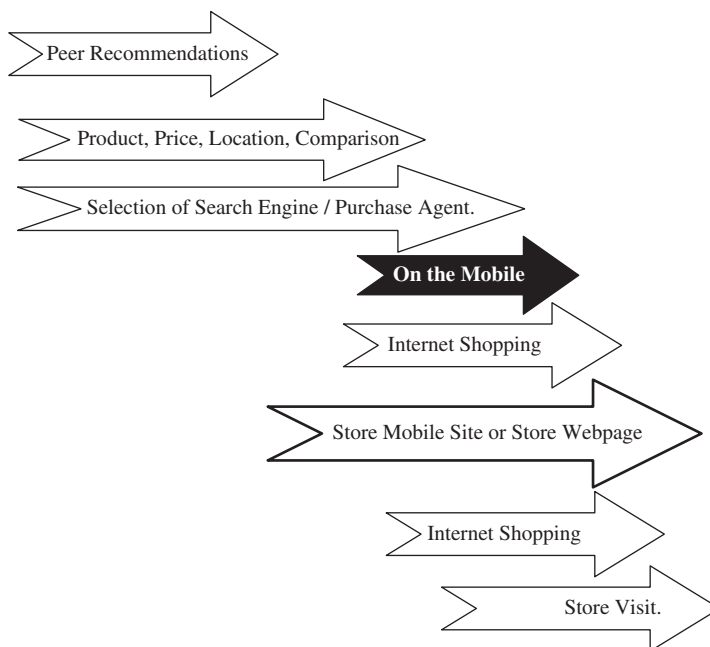
Figure 4: Purchase from a single channel or multi-channel experience?

wallet will be the credit card of the future in the move to a cashless society.

Contact less payment is still a nascent technology

Mobile phone users need the capability to transact 'smart money' directly via the mobile and make direct mobile wallet purchases. These are key m-commerce cornerstones, if the mobile eco-system is to gain complete validity. The number of available NFC-enabled handsets is increasing, and operators and vendors in the United Kingdom are combining forces to introduce m-money services.[6] According to the 'Drum', Orange and Barclaycard have announced the launch of the second Quick Tap contactless payments-enabled handset: the Samsung Wave 578. The phone uses Samsung's operating system Bada. Users will be able to make payments of £15 or under using the handsets' NFC capability at over 50,000 stores nationwide.[7]

The number of consumers using m-commerce has increased 10 per cent in 2011, compared with the year 2010. In 2011, 24 per cent made purchases using their mobile phones.[8] According to an IAB survey in September 2011, 74 per cent think NFC is a good idea when asked the question: 'You may know that some mobile phones have a chip installed which allows the owner to buy items using their phone by simply swiping the phone in front of a special reader, much like an Oyster card. What is your initial reaction to this …?' (See Figure 5).

Brands need to understand the interaction context with selected mobile consumers and the phase in the purchasing cycle they are engaged in to deliver added value. The location and time of day affects the context in which the mobile user is able to access and respond to information via the mobile (Figures 6 and 7).
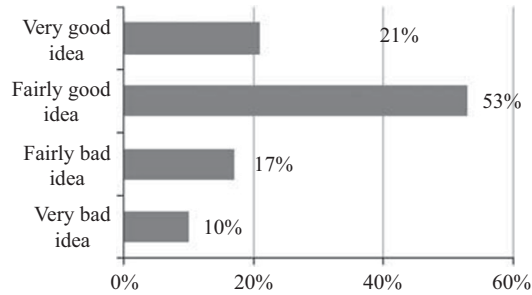
Figure 5: Consumer smartphone consumption
Source: IAB consumer m-commerce study, September 2011

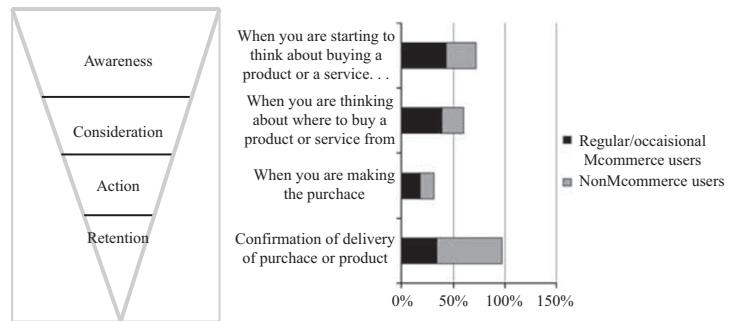**Convenience and ease of use drives uptake**

Figure 6: People see a role for mobile through the purchase funnel
Source: IAB consumer m-commerce study October 2010. Base = non; M = commerce users (508), regular/ occasional m-commerce users (466)

Mobile Research	Experience Enhancement	Purchasing Direct To Bill	Purchasing Card/ Bank Details
You were out and about **68%**	It was the easiest way of doing it **53%**	It was a spontaneous impulse decision **38%**	You were out and about **37%**
It was the easiest way of doing it **40%**	It provides me with information that is useful **37%**	It was the easiest way of doing it **36%**	It was the easiest way of doing it **37%**
You didn't have any other online access **36%**	I don't have to carry so much stuff with me **33%**	You were out and about **32%**	It was a spontaneous impulse decision **27%**
It was a spontaneous impulse decision **35%**	Experimentation **29%**	Experimentation **22%**	You didn't have any other online access **26%**

Figure 7: What is driving different types of m-commerce usage?
Source: IAB consumer m-commerce study October 2010 and September 2011. Base: all researchers
2010 = (447), 2011 = (471)

Qualitative research by the writer[3] found mobile users are wary of trusting new technology; Mature users need help to be shown how to best use it. They do not want to get left behind by younger peers.

Smartphone users are not adverse to mobile advertising. The 'call to action' needs to be specific to the users' interests, for example, special

content or appropriate vouchers value rewards and experiences in return for calls to action. Customers are using the mobile to access bank details, research shopping choices and prices, and determine purchase decisions, which save time, add value and convenience to the customer service experience.

The mobile provides utility according to the users' situational needs. Mace, M., 2007, identified the following in Figure 8:

The mobile is also a medium that enables users to be entertained during idle moments. Apple iPhone App store metrics insights reflect this experience (Table 1).

The richness of the mobile device experience, combined with advances in availability of m-services, tends to intensify user involvement from casual use to consistent involvement, combined with connection to socially related activities, such as Facebook, Twitter and eBay. The main perceived barriers to adoption are the cost, lack of mobile internet-enabled access and established preference for using a laptop or personal computer (Table 2).

Leading retailers have been slow to fully engage with consumers via the mobile, but the picture is changing. M-commerce is taking shape.

Mobile marketing

Mobile device user needs

Mobile marketing has been an established discipline for over 10 years. Typical mobile mechanics are: SMS texts, MMS pictures, coupons and tactical promotions to evoke responses to short codes from 'opted-in' mobile phone users. Mobile internet and m-commerce provide additional relevance and interactivity.

Mobile advertising spend in the United Kingdom, according to the IAB, increased 157 per cent to £203.2m in 2011[8] compared with a 32 per cent
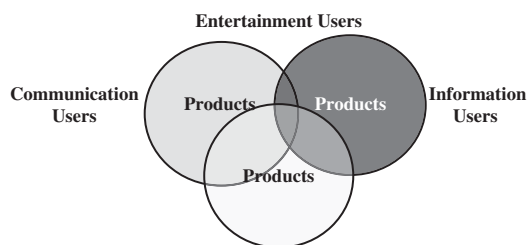

Figure 8: Three different potential smartphone user segments
Source: http://mobileopportunity.blogspot.com/2007/01/shape-of-smartphone-and-mobile-data.html

Table 1: iPhone research

Most popular iPhone app store categories		
1.	Games	(77,566 active)
2.	Books	(56,884 active)
3.	Entertainment	(48,650 active)
4.	Education	(42,805 active)
5.	Lifestyle	(35,710 active)

Source: http://148apps.biz/app-store-metrics/ September 2011.

Table 2: What do you think are the barriers to growing the m-commerce market in the next 12 months?

	Sector 1 (%)	Sector 2 (%)	Sector 3 (%)
Retailers not having a mobile site or mobile presence	46	55	45
Consumers not ready	39	34	35
Budget restraints/perceived lack of ROI	37	51	29
Technology — Legacy systems not able to cope	35	36	24
Lack of time/too much else to do	30	11	20
Lack of internal talent to drive the technology within agency/suppliers	28	30	33
Perceived security issues for consumers	26	45	24
Limited smart mobile coverage/usage	24	30	12
Time taken to pay	13	11	22
Regulation	9	17	33
Revenue share issue	2	15	27
There are no barriers	2	2	2

		Sample profiles		
	Gender	Average m-commerce sector experience	Job title position	Company's location
Sector 1	Female 24% Male 76%	9 months	Director, Head of Marketing, e-commerce Manager, Digital Operations Manager Web Developer e-commerce Administrator	84% UK based 50% South East 21% Midlands
Sector 2	Female 38% Male 62%	16 months	Director/Publishing Director Head of Digital/Mobile Manager Business Development Executive Media Analyst	87% UK based 75% South East
Sector 3	Female 29% Male 71%	21 months	Head of Digital/Mobile Associate Director e-commerce/Development Manager Digital Marketing Executive Web Developer	
				94% UK based 82% South East
SECTOR 1 (e) Retailer Brand Owner	SECTOR 2 Agency Media Owner Content Provider	SECTOR 3 Service Provider Solution Provider		

Source: 'Mobile Commerce Survey Results', IAB/AIME, IMRG, eDigitalResearch.com, July 2010.

growth in 2009. A joint survey[9] by ANA and the MMA found that 88 per cent of marketers intended to use some form of mobile marketing in 2011. Mobile advertising is now appearing higher on the radar of many major brands.

From the marketer's viewpoint, the question in the past has been one of justifying ROI on relatively high costs, given the complexity of developing campaigns to a limited number of opted-in mobile subscribers, using various types of handsets with different operating systems.

Compared with other types of media, the metrics and media purchasing processes between clients, agencies and operator have been more complex to implement and quantify.

**Mobile marketing
industry perspectives**

The GSMA, the mobile operator's trade body, clarified the operator's position: 'The GSMA and mobile operators are working together to benefit the mobile ecosystem. It is in the interest of operators to find new ways to monetise the mobile channel. Mobile advertising is a small, but increasingly important part of the eco-system. They recognise, the way forward, is through giving consumers, choice and control'.

'Operators hold a valuable inventory of mobile subscriber behaviours, they have moved in concert with comScore to provide anonomised irreversibly aggregated data on a quarterly basis. This documents smartphone use-age, transactional engagement and other salient information for mobile marketers. The operators are also developing principles to safeguard privacy of mobile users, to allay concerns about mis-use of data and to provide open standards of operation'.

Looking at the mobile marketing situation from the client viewpoint, Simon Green, Strategic Planning Director at mobile agency Mobile Interactive Group (MIG), cites 'It is necessary to take a wholesale appreciation of the value of the mobile space. Clients are getting to grips with this from a year ago, when without a strategy, they thought let's have an app off the shelf or choose to apply "screen scraping solutions", to looking now for a fully optimised mobile website to integrate in a multi-channel approach'.

What are the differences from the agency viewpoint of purchasing and planning mobile advertising?

Distinct from digital: Apps stores indexed on Google, pay per click campaign paying sites not optimized.

(1) Search campaigns separate from web campaigns.
(2) Plan separately from digital, using current search terms.
(3) From the SEO perspective, performance is better on the mobile.
(4) The algorithms throw up different results.

It is easier to insert tags as with other digital mediums to analyse page viewing, openings and downloads in real time to access customer activity.

In adverse economic times, campaign costs face intense scrutiny to justify ROI. A top-end iPhone app, with video enhancement and integration, could amount to £100,000, depending on the design and intricacy of the branding attributes, database and transactional needs. A modest off-the-shelf solution could cost under £10,000, but the danger with cheaper solutions is in sacrificing and alienating customer experience. Customers expect the same quality relationship and interactivity across all brand platforms. Extending full reach on the mobile requires integration across a multitude of mobile platforms. In a few instances, an Apple iPhone app might outperform an m-website, an example being Pizza Hut, http://www.certext.com/pizza-hut-iPhone-app-provides-successful-mobile-marketing/. However, Android devices early in 2011 have started to overtake Apple in the smartphone battle.

The ideal strategy is to use apps and an optimized mobile website, integrated into a full multi-channel customer-facing presence (Figure 9).

SMS is a core mechanic frequently deployed with effect to drive destination through offers, opt in rewards, prizes and loyalty coupons and benefits. The mobile web enables richer interactive engagement. SMS now faces competition as the user experience moves to the mobile web, and optimized email is gaining traction.

Use and attention time span is shorter on the mobile than the personal computer, so the design and first impression of the mobile web landing page is important to secure retention because the mobile screen is quickly scrolled up or down the open page. It has to be simple, quick to use, with strong visuals and good navigation to secure payment touchpoints.

Retail transactions on the mobile

According to IAB research, in September 2011, consumers are more likely to purchase from a mobile-optimized website than via an app.

Fashion retailer 'New Look', which has 613 stores in the United Kingdom, introduced a fully transactional m-commerce site in April 2011 to fully enhance their customers' multi-channel customer experience. The back-end systems for the mobile site were designed and integrated using Javascript, CSS3 and HTML5 technology platforms. Key mobile site features to simplify the customer journey:

• Fast 'One-Click' checkout for regular users.
• Quick access to home pages with zoom-in functions.
• Easy to browse products in one.
• Two/three-column formats.
• Seamless accordion navigation-reducing page refreshment.
• Social media integration.
• Information on availability.
• Single consumer shopping basket between the website and mobile site.
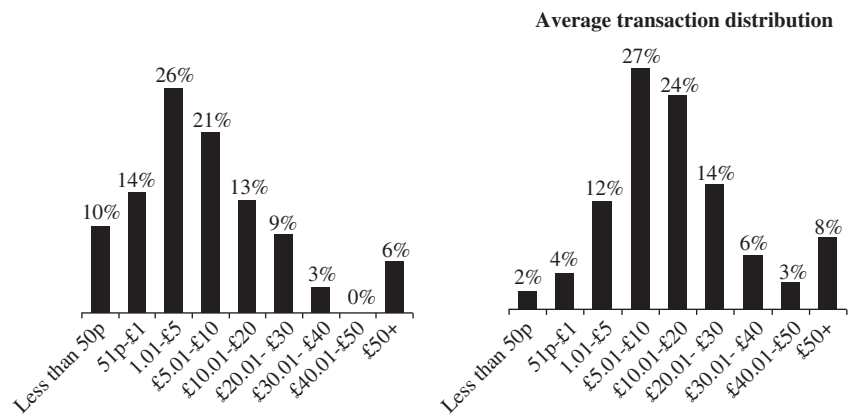

Average transaction distribution

Figure 9:   App research
Source: IAB study: Consumers' view on m-commerce, September 2011. £13.15=average transaction value via an app for purchases made with a card/bank details/paypal. £20.77=average transaction value via a website for purchases made with a card/bank details/paypal

New Look's e-commerce Director, Dom McBrien, commented, 'At New Look our aim is to offer customers an outstanding multi-channel experience. To do this we must offer an easy and convenient shopping experience through a multitude of channels'.

Matt Cockett, Commercial Director, MIG commented, 'We've worked closely with New Look[11] on the design, user experience (UX), the end-to-end build and integration of the site with a suite of API's, provided by New Look's e-commerce software provider ATG, to deliver a future proofed m-commerce site that is connected to all product and customer account systems. Like many online retailers, New Look are seeing a daily increase in shoppers viewing their website via a mobile device, now they're able to give consumers a choice of ordering what they want, how they want and whenever they want'.

Interaction on M-commerce sites and applications

The New Look m-commerce site enables multiple calls to action. (See a separate review at http://econsultancy.com/uk/blog/7372-new-look-launches-mobile-commerce-site). The 'search' bar on the home page allows users to have quick access to relevant products. Users can refine category searches without leaving the page and define how they want to display their product results page and receive notification if stock is running low or out of stock. Mobile shoppers are able to nominate delivery dates and times direct from their mobile device.

To compliment the mobile site, New Look launched an iPhone application, designed by MIG, in October 2011, providing iPhone users access to lifestyle fashion content, special offers that users can share via Facebook and Twitter, style advice and a store locator.

Dom McBrien, in describing this addition, said: 'For New Look, mobile is not simply a bridge between our online and offline properties, but a channel through which we can actually enhance experience, whether online, or in-store'.

'We are excited about the launch of the New Look iPhone app, and feel it complements our m-commerce site excellently. The ability to combine the latest trend information with scan in-store barcodes and order through your mobile takes us another step closer to our vision of providing an exemplary multi-channel customer experience'.

Matt Cockett, MIG's commercial director, for the agency, said: 'New Look really understands the capabilities of mobile for fostering in-store interactivity, which has enabled us to develop a strategy that delivers both reach and revenue'.

'This combined strategy which leverages the strengths of app and a m-commerce site together enables a much greater percentage of customers to purchase goods using their smartphone device, which in turn delivers greater revenue'.

Since the launch of the mobile site (April–July), New Look has witnessed an increase in orders of over 60 per cent together with a revenue increase of over 45 per cent. At times, conversions overtook direct internet transactions.

Year-on-year mobile sales have jumped by over 500 per cent, with mobile site traffic up by over 800 per cent.

New Look has more than exceeded initial KPIs, and shoppers using their mobiles have realized a deeper, richer level of shopping engagement and an open form of transactional experience to suit their varied needs.

Marks and Spencer also included the mobile as a linchpin in their multi-channel digital strategy, 'Shop Your Way'. The strategic brief set clear visual standards aimed at enhancing the transactional online brand experience. The site navigation is straightforward. It has easily defined product categories; products are well illustrated, show prices with customer review ratings, followed by explicit calls to action to complete the customer journey or select further items that the customer buys in advance and collects in-store.

In the first 3 months from launch in May 2010, the site has had 1.2 m unique visitors; 300,000 have made a purchase, including even large ticket items, such as a £3,000 sofa. The site has extended brand reach and Marks and Spencer are learning from it as the customer mobile base evolves.

Basket values hold up with mobile users

Debenhams first used a transactional 'app'. It was selected because of the time scale to market. The e-commerce team under the direction of Harriet Williams, with access to their ongoing online customer consultation group-tested ideas early in 2010, agreed to the strategy in July. This was followed by SMS marketing and coupons. In October 2010, an app for the iPhone was launched to meet the Christmas trade. In-store key store customers are also able to scan products from the phone, check garment sizes, availability and place orders for collection. Results have shown a higher basket value from iPhone app shoppers, and a peak time for phone shopping is at 10 pm when the store is closed, so they have gained incremental sales and extended customer reach.

Debenhams have also experimented with QR codes to further enable 'touchpoints' with mobile shopping customers to gain a rewarding and richer brand experience.

While many retailers recognize the opportunity for m-commerce, few are up to speed in fully integrating it into a seamless customer-focused multi-channel marketing strategy. Many find themselves to be beginners in most parts of m-commerce (Table 3).

Various NFC handsets are coming on stream this year, enabling contactless payment with merchants and banks who have invested in the terminals. The CO-OP and Fast-food restaurant chain McDonald's,[12] with 1,200 outlets, in the United Kingdom, plan to do this for purchases of <£15. Other retailers have yet to commit to NFC payment systems, although many are planning to have transactional apps or mobile-optimized websites. NFC handsets are only available on a few models at present.

Industry consensus suggests that the real explosion of mobile marketing will happen once m-commerce becomes fully transactional with high-street vendors. This requires appropriate investment and joined-up thinking from the mobile operators and banks to offer uniform trustworthy payment mechanisms. Operators have collectively discussed a logo and conducted pilot schemes.

Table 3: How well do you understand the following specific m-commerce mechanisms?

	Beginner (%)	Competent (%)	Expert (%)	Unaware (%)
NFC (contactless) technology	47	7	4	42
Premium voice calls	49	13	4	33
Transact straight to bill from operator's portal	60	2	7	31
Payforit	38	7	4	51
Premium SMS	38	27	11	24
Mobile loyalty schemes	49	24	9	18
Mobile ticketing	61	7	7	25
Coupons/ vouchers	33	43	17	7
Transactional websites	24	30	41	4
Transactional applications	38	44	7	11

Source: Research Study by Internet Advertising Bureau/Association of Interactive Media in Retailing (2010).

Insights: The brand is close at hand

M-commerce-enabled smartphones complete the loop in the multi-channel customer experience.

The future challenge lies in increasing personalization and in adding depth and relevance to the customer experience at the point of purchase. If customers can research products, view and order anywhere, what is there to add difference and value to visit and purchase in-store? The mobile changes the customer relationship. Retail customers are ahead of retail service providers in wanting to implement and adopt m-commerce.

Conclusions

(1) M-commerce-enabled smartphones complete the loop in the multi-channel customer experience. NFC changes the customer relationship, speed and ability to make transactions.
(2) The challenge exists for customer relationship management to implement holistic brand management strategies.
(3) Leverage unified personalization within a multi-channel framework to add depth and relevance for each customer at the point of purchase.
(4) Mobile devices enable customers ease of access to research products and interactively engage with brands on the move view, to order anywhere via the mobile phone. This has significant implications in ensuring retention of customer loyalty.
(5) The mobile changes the customer relationship. Customers want control of choice, time, location and transaction. It has to be quick one click experience. It has to be visual and above all it has to be

easy to do. It has to offer a different and relevant experience. M-consumers will soon lose patience with poor mobile brand communication strategies.

(6) Customers are ahead of retail service providers in wanting to implement and adopt m-commerce. Skeldon[10] points to 2011 as being the year when retailing and mobile came together.

(7) How will consumers respond to managing privacy on their mobiles to filter and select appropriate NFC functions and QR messages? As m-commerce becomes mainstream, will consumers become less sensitive to mobile privacy issues? The option to opt in is essential. Trust is integral to need, relevance and perceived added value.

(8) The advent of 4G operator service provision is the potential 'tipping point' for fully integrated visual mobile marketing and communication services. The shop will come to the customer; will the customer go to the shop?

(9) Trust in the technology is an issue for some customers, but equally customers need to be shown and receive incentives to fully use technology.

(10) NFC-enabled handsets such as the Nexus S are available; further diffusion will tip the balance in 2012. Banks and operators are forming various alliances to deliver contactless payments.[13] It is a game-changing situation for merchants, marketers and consumers. Having the right strategy in place is essential; those who do not will get left behind.

The case for m-commerce has already been proven; larger chains like Debenhams and Marks and Spencer have shown the efficacy of the mobile as a transactional channel. Despite relatively small initial audiences, it will increase significantly in importance; internet shopping is coming of age on the mobile.

Acknowledgments

References and Notes

1. The 2010 Europe Digital Year in Review, http://www.comscore.co.uk/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/layout/set/popup/Press_Events/Press_Releases/2011/2/comScore_Releases_The_2010_Europe_Digital_Year_in_Review.

2. Jerinimo, F., Senior Analyst. 'IDC European Quarterly Mobile Phone Tracker Results: U.K. 2Q11 Analysis'. http://www.idc.com/getdoc.jsp?containerid=Hw8oT.

3. Stone, D. (2008) 'Marketing evaluation – Adoption of mobile marketing by retail consumers?' Unpublished Dissertation, University of Strathclyde.

4. http://www.o2priority.co.uk/moments.

5. Research Study by Internet Advertising Bureau/Association of Interactive Media in Retailing, http://www.iabuk.net/en/1/advertisersneedtothinkmobilefirst020211.mxs.

6. Shields, R. (2011), *New Media Age*, 8 August.

7. http://www.thedrum.co.uk/news/2011/09/23/26450-orange-and-barclaycard-announce-next-phone-with-quick-tap-technology/.

8. Internet Advertising/PwC Mobile Adspend Survey (2011).

9. http://www.mobiadnews.com/?p=5143#more-5143The 'Connected Customer', http://mmaglobal.com/articles/mobile-marketing-research-priorities-roadmap-engaging-%E2%80%9Cconnected-customer%E2%80%9D.

10. Skeldon, P., Internet Retailing, 20 December 2010/European Mobile Phone Tracker, IDC's 3rd Quarterly Analysis, 2010.

11. Charlton, G. (5 April 2011), 'New Look LaunchesMobile commerce site', http://econsultancy.com/uk/blog/7372-new-look-launches-mobile-commerce-site.

12. http://www.information-age.com/channels/comms-and-networking/news/1596448/orange-apple-and-mcdonalds-back-contactless-payment.thtml.

13. http://corporate.visa.com/media-center/press-releases/press1181.js.