An Exploratory Study of User Perceptions of Payment Methods in the UK and the US

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**Background**

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<th>UK</th>
<th>US</th>
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<td>• EMV (‘Chip-and-PIN’) first introduced in 2004, made mandatory in 2006</td>
<td>• Chip-and-PIN is being gradually rolled out, one of the last adopters</td>
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<td>• RFID-based contactless cards introduced in 2010-11, spending limit initially £20, now £30</td>
<td>• Swipe-and-Sign is the most common way of authenticating a purchase at a Point of Sale (POS)</td>
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Study aims

• Compare experiences of different payment methods in the UK and the US

• Learn how participants have appropriated payment technologies into every-day practices

• Identify any UK findings that help predict challenges for US adoption of Chip-and-PIN
Study set-up

• 40 semi-structured interviews (30 min. duration)
  – 20 participants in London (UK)
  – 20 in Manhattan, KS (USA)
• Demographics
  – UCL: 38.4 years on average (range: 24-65)
  – KSU: 36.5 years on average (range: 20-65)
• Interviews transcribed and coded
  – Codebook developed
Habits and experiences inform behaviours

• Items motivate payment behaviours
• Personal assessment of merchant trustworthiness
  – Both in-person and online
• Changing PINs over multiple cards
• Avoidance of credit cards in order not to go into debt (4 UK, 2 US)
Rewards motivate use of cards

• A prevalent theme for both US and UK participants

• “I heard that […] you have to build credit to buy bigger stuff later…” (P:US01)

• “[…] one month I use one credit card and another month I use the other one. […] I can juggle these around” (P:UK04)

• Rewards also motivate adoption of new cards or technologies
False positives provide feeling of protection

• Feeling of protection, despite inconvenience
  “I travelled a little bit […] entering different countries […] if I crossed a border, again it wouldn’t work and I had to ring them again […] that was a bit of a pain but again quite reassuring that they keep an eye on what I was doing.” (P:UK03)

• Absence of calls from bank seen as a lack of vigilance
Users manage an ‘approximation’ of security

- Approx. 1/3 of US and UK participants used credit cards for online transactions

- “I feel more secure with the credit card because I’ve had my credit card number stolen in the past and I know that […] I can call them and they will, you know, revoke the transaction and I don’t have to worry.” (P:US08)
Attitudes towards Swipe-and-Sign

• Seven UK participants felt Swipe-and-Sign was less secure than Chip-and-PIN

• Signature can be forged easily (3 US, 3 UK)

“well I think the signature thing is completely ridiculous right now… nobody checks it… I think that one is completely outdated and should be replaced somehow.” (P:US11)
Attitudes towards Chip-and-PIN

• UK participants found it acceptable and more secure: “Chip-and-PIN is just a lot more sensible. I think it’s because it’s a lot more encrypted and not so open to abuse. People can always forge signatures.” (P:UK09)

• Lack of experience by US participants: “I don’t know… I honestly don’t know what that chip is for. I don’t know!” (P:US08)
Attitudes towards contactless (UK only)

• Eight participants stressed the convenience factor

• Six participants stressed that not every POS supports contactless

• Two participants emphasised that learning how to use it might be costly since it is easier to make accidental purchases
Experiences of Fraud

• Five UK and six US participants reported having experienced actual fraud
  “they’d spend about £600 at certain stores […] And the bank said that the PIN number had been entered. So I had quite an argument with them.”

• Otherwise participants tended to know somebody who had experienced fraud
  – That somebody would offer advice as well
Summary of findings

- Habits and experiences inform behaviours
- Attitudes about payment cards also informed by purchase situation
- Rewards motivate use of cards
- False positives provide feeling of protection despite inconvenience
- Users manage an ‘approximation’ of security
- Experiences of fraud
Future work

• Conduct similar studies in different cities/countries
  – Including structured follow-on survey
• Use direct observation of log data to capture complex payment behaviours
• Invite participants from a wider range of backgrounds (educational, socio-economic)
• Explore role of choice in payment technologies
  – A great diversity in perceptions in our sample
Conclusions

- Purchasing habits and rewards motivate card use.
- Participants liked being in control of their payment methods – can result in complex payment behaviours.
- Participants preferred to be inconvenienced rather than be insecure.
Thank you!

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