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Information Security and Digital Payments; thoughts about current trends

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- » (ISC)² = International Information Systems Security Certification Consortium, established in 1989
 - » Non-profit consortium of information security industry leaders
 - » Supports security professionals throughout their careers
 - » Global Standard for information security: (ISC)² CBK[®]
 - » Over 150,000 certified professionals; over 170 countries
 - » 260 members in Greece, established in 2015



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COVID-19; security status quo

...here to stay for a long time

- » A state of constant flux; even our home will change [1]
- » Supply chain attacks ballooned by 78% [2]
- » 52% of compliance leaders concerned about third-party risk [3]
- » New regulations to comply with [4], [5], [6], while risk fluctuates
- » Cloud market share over OnPrem ↑ [7], [8], emerging threats [9]
- » Organisations nudge IT personnel towards Cloud certifications like (ISC)² CCSP [10] to confront with emerging threats [11]



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COVID-19, Security and Payments (1)

- » “Cyber risks surpass ... risks that led to the Great Recession in 2008”, US Federal Reserve Chairman Jerome Powell [12]
- » Scientific journals on COVID-19 impact to e-payments [13]
- » “...banks still rely on large co-locations of people ... processing checks ... wire transfer operations”; opportunity to invest in new technologies, processes to make financial institutions more resilient [14]
- » Reluctancy of public to go cashless due to personal data sensitivity [15] diminished after Covid-19 [16]





COVID-19, Security and Payments (2)

- » New vulnerabilities due to COVID-19 [17]:
 - Relaxed measures, e.g. increased contactless limit
 - Increased need for goods lowers consumer diligence
 - Anxiety levels and susceptibility to social engineering
 - Circumstances reduce suspicion of contact from official bodies

- » Digital payment adoption went sky-high, along with pertinent risk; biometrics, tokenization and behavioral analytics expected to counter increased risk [18]





Customer acquisition/churn (1)

- » e-payments customer acquisition/churn rates can be maintained at desired levels [19], depending on:
 - Perceived Usefulness (incl. Security and Convenience) [20], [21]
 - Social Influence (incl. Social Media) [22], [23]
 - Mobility and reachability

- » Risk-averse customers could be nudged into using privacy-intrusive e-payment schemes; type and amount of nudging required: already estimated [24]





Customer acquisition/churn (2)

Balancing act between:

- » *Social Media, Behavioral Economics*
- » *Information Security, Data Privacy*

wrt customer acquisition/churn efforts?





FinTech vs TechFin?

» FinTech stems from the traditional financial world

- Payments' profit margins still relevant (somewhat?)
- Entry barrier for banks: cost of legacy systems [25]?

» TechFin (e.g. GAFA)

- They are not after payment margins; mostly after:
 - Customer data [26]
 - Customer retention; *"Amazon wants payments in-house so users never leave its app"* [27]
- Not very regulated, yet





TechFins: Is Regulation Ready?

- » TechFins in need of personal data for business development
- » Recent regulatory privacy concerns emerged [4], [5], [6]
- » Increased non-regulatory concerns for privacy
 - Privacy as a comparative advantage towards disrupting payment schemes [28]
 - 60% of InfoSec professionals believe a “strong privacy posture” is important to achieving cyber resilience [29]
- » TechFins lobbying to change regulation [30]





G2P Payments and Biometrics

- » COVID-19 technological side-effects on Biometrics
 - Use of contactless biometrics increased [31]
 - G2P digitilisation using biometrics accelerated, e.g. proof of life to keep the digital payment of a beneficiary going [32]

- » Biometrics begins with a (B)ut...
 - Convenience? ✓ [33]
 - Privacy risks? (stolen data [34], abuse of collected information [35], [36])
 - Security risks? (detective controls for Deep fakes? [37])



Thank you !

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