DIGITAL IMPACT ON PAYMENTS, CREDIT AND FINANCIAL RISK MANAGEMENT: NEW ETHICAL QUESTIONS?

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Finance in general, and banking in particular, is experiencing another of its periodic revolutions induced by technology. The range of technological developments (including digitalisation) enshrined in the concept of FinTech is transformational in the financial industry. Digitalisation is where diverse forms of information (text, sound, images, voice, etc.) are converted into a single binary code and implies the storing of such images in a form that is suitable for transmission and computer processing. Robots and artificial intelligence can now do increasingly complex activities especially in the area of information management. Digitalisation encompasses activities such as P2P lending, the way that consumers access financial services and communicate with financial services firms, how payments are made, etc.

World-wide there has been a rise in the number of digital banks launched by mobile networks, and the digitalisation of the payments system has been growing apace. Digital firms usually have substantial cost advantages over traditional financial services firms. They may take various forms such as owned by traditional financial services firms, in a partnership arrangement with existing firms, or may be in direct competition with existing firms. In the last-mentioned case, digital firms may exploit and compete away cross-subsiding parts of the value chain in existing firms' business processes. McKinsey suggests that the digital revolution could wipe out up to two-thirds of the earning capacity in some of banks' business products and services.

Technology and digitalisation is transforming the way financial services are searched, chosen, and purchased by consumers. As stated clearly in the Gonzalez-Paramo paper: "the financial sector is at a major crossroads". As with all crossroads, we must decide what direction to take: this is the big challenge arising from FinTech most especially with regard to ethical standards and the underlying culture of financial firms as they embrace the new challenges generated by the digital revolution.

The general theme of Jose Manuel Gonzalez-Parma's paper is how all this is transforming the industry. There is no doubt that it has implications for bank business models, access to, and uses of, information, consumer behaviour, competition and the competitive structure of the financial services industry, and regulation. Above all, it raises important ethical and consumer protection issues.

It is probably no exaggeration to suggest that the Digitalisation Revolution will become the fifth in a line of economic revolutions ranging from: (1) the *Industrial Revolution* (economies became industrialised), (2) the *Technology Revolution* (growing application of advanced technology to all aspects of the economy), the (3) *Information and Communications Revolution* (worldwide web, internet, email etc.), (4) the *Globalisation Revolution* (economic and financial activity becoming globalised with global networks) to (5) the *Digital Revolution.*

Financial technology is expanding exponentially. Digitalisation in particular is transformational in the financial services industry in several ways:

- It is revolutionising the way information is accessed both by suppliers and consumers of financial services,
- The way consumers search for and use information to make decisions,
- The way consumers access financial services firms including the much reduced need for extensive branch networks,
- In some areas it lowers entry barriers to the industry and in the process impacts on the structure and competitive structure of the industry. In some areas it undermines some of the key comparative advantages possessed by existing financial services firms,
- The use of algorithms to guide decision-making: in some areas (e.g. Robo) decisions are effectively outsourced by the consumer to rational algorithms,
- Massively enhanced computing power and algorithms to analyse data relationships, and learning applications learn the habits and behavioural characteristics of consumers,
- It has an impact on the business models of financial services firms,
- It reduces the number of people employed in some of the traditional processes within firms as processes are increasingly digitalised.

We owe a debt of gratitude to the author for producing an excellent overview of the key issues with valuable perspectives and insights that need to be considered by everyone involved in the banking and financial services revolution. Several key themes are raised in the paper and in particular the ethical issues involved, the central importance of consumer trust and confidence in the financial sector and the markets and institutions within it, and the enormity of the changes in the sector that are likely to follow digitalisation. To appreciate the range and enormity of the implications of the transformation, it is worth quoting directly from the Gonzalez-Paramo paper:

> "The number of connections, interactions and information transmissions that we engage in using digital technology is growing exponentially, blurring physical barriers and reducing the cost of accessing information. Mobile technology, social networks, artificial intelligence, block chain, cloud computing and Big Data are the main disruptive technologies to which companies now have to adapt".

A central theme of the paper is that FinTech and digitalisation is transformative in the financial sector and few would disagree with this important insight. However, this must also be considered in the context of a wide range of other pressures on the banking and financial services sectors. It is the combination of pressures that makes the current transformation so big. Other dominant pressures include: new approaches to regulation; the evolution of new bank business models (partly, but not only, due to technology); overcapacity in many parts of the European banking industry; new consumer behaviour patterns including based on technology and digital facilities as consumers become increasingly digitally literate; pressure for greater inclusion; the legacy of the banking crisis; the fact that a large number of banks in Europe are not earning a rate of return on equity equal or above the cost of capital, and currently low market valuations of banks. There are lessons to be learned from other industries that have been subject to a combined mix of a wide range of transformational pressures: in particular, that it creates enormous uncertainty and that it is not necessarily the large incumbents that survive as dominant firms in the industry.

It is impossible to do justice to this wide-ranging paper in a short commentary and this brief note will focus on three issues in particular that arise from the paper: (1) some key consumer protection issues arising from FinTech in general and digital finance in particular, (2) the importance of Trust and Confidence in finance and the implications for this deriving from new technology and digital finance, and (3) the important related issue of culture within financial firms from which all behaviour of financial firms derives, and.

CONSUMER PROTECTION ISSUES

The essential feature of digitalisation focuses upon information: access to it and the ways it can be used in the finance industry. Information and its management are central to all aspects of banking business: banks can be said to be in the information business. Customer information is not only central to bank business models but is also precious to consumers. The information advantage that banks have can be used in the interests of customers but can also be exploited to their detriment and this dichotomy becomes even more central in the digital age. As put in the Gonzalez-Paramo paper: "Data mining, data analytics, and machine-learning algorithms enable value to be extracted from large volumes of information at a high speed."

Bringing the strands of the argument together, several specific consumer protection issues arise in the digital age and may be summarised as follows:

- Whilst a bank's access to customer information is a central feature of banking and can be used to the advantage of customers, privacy is also valued by consumers.
- Equally, the security of information will be demanded by consumers: the incidence of fraud has become a concern.
- Consumers may become concerned at increased remoteness from the suppliers of financial services most especially when there is a shift to algorithms: erosion of relationships could become a concern to consumers.
- The perceived lack of control over how information is used could also become a serious issue. As put in the paper: "Big Data could empower Big Brother".
- In many ways consumers will not fully understand what is happening through digitalisation which raises the important issue of consumer education.
- Consumers need to have assurance that they can invest trust and confidence in new technology and digital processes.

To sum up: central issues with respect to the consumer protection dimension to digitalisation of finance focuses on *who* is using *what* information about *whom* and for *what purpose* and the extent to which consumers are aware. Consumer trust and confidence must also be a central issue as it is in all aspects of finance. We turn to this in the next section.

TRUST AND CONFIDENCE

These consumer protection considerations in the digitalisation of finance give emphasis to the importance of one of the themes in the paper. It is worth highlighting that in many senses consumer trust and confidence are especially essential in retail finance and relates to integrity and competence: both are needed. This is because retail financial transactions are fundamentally different from most other economic transactions. Firstly, consumers often lack confidence in making judgements about financial products and can be nervous when making substantial financial commitments. Secondly, the amounts of money involved are sometimes substantial for individual consumers. Thirdly, consumers need to have confidence that sellers of financial products have the consumer interest at heart and are not simply selling products in order to enhance their own personal income through, for instance, sales-related remuneration incentives. Consumers often have only limited ability to confidently judge the suitability of sometimes complex financial products. Furthermore, as many financial products are not purchased frequently there is limited opportunity to learn from experience and the consumer often has to rely on advice when making decisions in which case principal-agent relationships are established and the consumer needs to have confidence that the agent is working and advising in her interests.

For all these reasons, the paper rightly gives emphasis to the need for consumer trust (which I would extend to include confidence) in the finance industry most especially when dealing with sometimes complex financial instruments and products. Gonzalez-Paramo puts it well: “Trust is the foundation of the banking business. As such, it is a bank’s responsibility to operate in a way that inspires trust between itself and its clients”. This is always necessary. But there are new dimensions to this when considering FinTech and the digital economy: as put in the paper: “trust is the cornerstone of the digital economy....Without trust, digital businesses cannot gather consent from their clients to use and share the data that underpins their operations”. In particular, two dominant principles are data privacy and cyber security.

It might be useful to delve a little deeper into this key issue of trust and confidence. Two dimensions can be identified: Integrity and Competence. Either without the other is of little value and the consumer can be put at risk. When I was a member of the board of the Personal Investment Authority (the regulator of retail investment and advisory services) in the UK we judged that consumer welfare was compromised more by incompetence of financial firms and advisers than by dishonesty. Clearly, both trust and confidence are needed.

And yet trust in the industry has been low and in some cases has been declining in recent years partly as a result of the banking crisis but also major episodes of mis-selling of inappropriate products. The breakdown of trust in financial institutions, and the perceived way they conduct business and interact with consumers, can seriously lower the effectiveness of the financial system (Haldane, 2009). Evidence arises from time to time of a lack of consumer confidence in three dimensions: in the ability to make rational decisions, in the integrity and competence of financial firms, and in the understanding of financial products. There is evidence of a lack of consumer awareness about issues such as the suitability of products, their risk characteristics, the nature of products and their return characteristics, and consumers’ own requirements. This is potentially fertile ground for financial firms to exploit their asymmetric information advantages, and the evidence shows that in some areas they have done so.

CULTURE WITHIN FINANCIAL FIRMS

As with all aspects of bank behaviour, if we are to understand how banks respond to the digital age, and most especially how they behave towards their customers, we need to understand the underlying culture within banks which encompasses four key elements: their values, ethical standards, internal incentive and reward structures, and fairness to customers. The underlying culture of financial firms (including banks) is of central importance because it creates business standards, influences employees' attitudes, and largely determines behaviour. It also has a close link with consumer trust and confidence.

Several high profile scandals in recent years in some countries have indicated that culture in some banks needs to change. This has also been highlighted by the Group of Thirty in its 2014 report:

> "A major improvement in the culture of banks is now a matter of necessity, and is an imperative for regaining society's trust.....The banking industry needs to repair the damage done by failures in culture, values, and behaviour".

A similar point has been made by Ignazio Angeloni of the European Central Bank: "...rules are necessary but not sufficient to restore trust; the underlying ethical behaviour in the financial sector has to improve". Culture also has an important bearing on the degree of consumer trust and confidence in finance. This also raises the issue of whether focussing on maximising shareholder value itself creates a particular culture and incentive structures that may produce hazardous behaviour to the detriment of customers.

In the major reform programme since the banking crisis, regulators have focused on regulatory and prudential issues in the name of systemic stability. Whilst this must be a part of any reform programme, it ignores the over-riding issue of bank culture and incentive structures. There are also problems with regulation: in particular, a voluminous structure of regulation has not prevented scandals arising over the past few years, and it often induces a box-ticking mentality within financial firms.

In practice, and unless regulation is to become draconian, there are limits to what regulation can achieve if the underlying culture and incentive structures within banks are hazardous. There is a limit to what regulation can achieve for consumer protection and the enhancement of consumer interests if the underlying culture is hazardous. In some cases there needs to be a major change in the underlying culture and ethos of banks, and a greater sense of corporate and individual responsibility in the banking industry based on substantive ethical values. These are likely to be even bigger issues in the digital age.

Change in underlying culture is difficult to achieve in any organisation. But an outline of a strategy can be given along the following lines in what might be termed a *cultural mission*:

- Financial firms need explicit ethical standards in their missions based on the general principle of «treating customers fairly».
- Training and Competence regimes within financial firms need to explicitly incorporate such standards.
- Whilst the cultural ethos needs to be established from the top of an organisation, it needs to be «owned» throughout the organisation.
- Ethical standards, and the principle of «treating customers fairly», need to be monitored and clear mechanisms established to enable systematic internal audits to take place.
- Internal reward structures need to be consistent with the ethical standards established within a bank's culture.
- There needs to be systematic and universal mechanisms to investigate the risk characteristics of products, contracts and services and this need to be clearly understood by front-line staff at all relevant levels.
- Credible complaints-handling mechanisms need to be established along with procedures which have the confidence of, and credibility with, customers.

In essence, the desirable culture must be one of strong ethical standards in dealing with customers and which have the principles of «treating customers fairly» as a central guiding principle. In a 2014 ResPublica report, Llewellyn *et al.* proposed that bankers should commit to a Bankers Oath where they commit «...to behave in a manner that prioritises the needs of customers... and to exhibit a duty of care above and beyond what is required by law... to conduct my business in an ethical manner».

ASSESSMENT

The paper by Jose Manuel Gonzalez-Paramo has raised powerful issues about digitalisation and the wider aspects of Fintech. They present formidable challenges with respect to consumer protection, consumer trust and confidence, culture within financial services firms, and ethical standards. The ethical dimension needs to be addressed with some urgency as the finance industry is in the midst of major structural change which is occurring at a fast pace.
