Unpacking the interplay between organisational factors and the economic environment in the creation of consumer vulnerability

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Abstract
Access to credit is a key enabler of modern life. Yet many consumers face factors beyond their control which sometimes render them unable to borrow from mainstream lenders. This paper documents how firm-related factors determine lending thresholds and shape who is, or is not, a credit-worthy customer. The impact of the 2008 economic recession on lending decisions is explored, an aspect that has been insufficiently discussed even though recessions are cyclical events. Drawing on semiotics and using multiple case studies, the study captures not only which groups were excluded, but also the reasons why. Empirical support is offered for the notion of vulnerability as a fluid state and the role of the timing of decisions as a source of vulnerability is described.

Summary statement of contribution: The paper addresses calls for research on consumer vulnerability in different contexts. It complements and extends existing research in its focus on the supply side drivers of financial vulnerability. The findings, which show that the policies and practices of lenders are putting consumers at risk, are highly relevant given current trends for consumers to be given greater responsibility for their financial wellbeing.

Keywords: Consumer Vulnerability, Customer Screening, Financial Services, Segmentation, Economic Recession, Credit Crunch

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Introduction

Access to credit is an important enabler of modern life. Such access allows consumers to acquire products that are essential for their well-being and increases their confidence and ability to participate in society (Wickramasinghe & Gurugamage, 2012). It may also bring social and economic benefits, such as access to education, improved health, better socialisation, and reduce the burdens on public health and legal systems (Wilson, 2012). Conversely, failing to access credit limits consumers' ability to acquire products that they need and may cause embarrassment, confusion and mistrust (Jennett, Brostoff, Malheiros, & Sasse, 2012). Financial exclusion may also increase the cost of living, perhaps as result of needing to buy poor quality goods (Ayres-Wearne & Palafox, 2005) or having to pre-pay for basic services (Milligan, 2015); thus acting as a potential multiplier of disadvantage in society (Ramsay, 1995). These challenges can push consumers away from the mainstream financial market and towards exploitative service providers, leading to over-indebtedness (Wilson, 2012), and related problems (Coppack, Raza, Sarkar, & Scribbins, 2015). In other words, lack of access to credit can leave consumers in an extremely vulnerable position. However, unlike other services deemed essential for modern life, such as utilities or education, credit is traditionally provided competitively by the private sector, and with no obligation of universal provision (George, Graham, Lennard, & Scribbins, 2014). Consequently it is critical to understand what prevents certain individuals from accessing credit from mainstream lenders (Stearn, 2012). Given that consumers are increasingly expected to take responsibility for their own financial wellbeing (Carlsson, Larsson, & Åström, 2015; Coppack et al., 2015) and rely less on state

pensions and other hand-outs, the need for a better understanding of these issues is underlined.

The literature discussing access to credit tends to focus on an individual consumer's ability to demonstrate their credit worthiness (see Bhattacharya & Thakor, 1993). This narrow perspective leads to a focus on consumer's circumstances as the cause of vulnerability (George, Graham, Lennard, & Scribbins, 2014), contradicting the view that consumer vulnerability can be caused or exacerbated by the market place and the consumption experience taking place within it (Baker, Gentry, & Rittenburg, 2005). This research augments the current understanding of exclusion from mainstream lending markets by focusing on the supply side. Specifically, the paper explores the role of the policy and practices of mainstream lenders and of the economic environment in generating financial exclusion and, therefore, consumer vulnerability.

The next section unpacks the basis for lending decisions by reviewing the literature on supply-side barriers to access to credit. The discussion reveals that the outcomes, which may vary from lender to lender, are shaped by an economic recession, thus leading to the two research questions that inform this study. As the subsequent section explains, lending decisions are *meaning making* processes, which this paper studies through the lens of semiotics. After elaborating on how semiotics draws attention to what things mean in different contexts (Liu, Sun, & Bennett, 2002), the research framework is presented. The research design section follows, in which the rationale for the choice of cases studies is explained and details of the data gathering and analysis are provided. The findings section then reveals how the criteria and the mechanics underlying lending decisions changed during the period under

analysis. The implications of these findings for the understanding and management of consumer vulnerability are then discussed.

Vulnerability and access to credit

The topic of consumer vulnerability, which is concerned with the social consequences of consumption (Baker, Gentry, & Rittenburg, 2005), has attracted substantial attention among academia, policy makers and the press. In addition to the growing body of research in this area, there are initiatives by governments and NGOs to better understand consumer vulnerability and the factors contributing to it (e.g., OECD, 2010).

Empirical evidence increasingly treats vulnerability as a state that someone may find themselves in, rather than as a personal characteristic that they possess. Baker et al. (2005) define vulnerability as a state of powerlessness over which the individual lacks control of the consumption situation and which is associated with negative consequences. While certain personal characteristics mean that some groups are at a higher risk of finding themselves in a vulnerable position, it is the context rather than personal characteristics that determine vulnerability. For instance, personal characteristics such as physical impairments, ill-health, and being unfamiliar with new technology are all risk factors for vulnerability (Stearn, 2012). Although these factors are all prevalent among older people, this group seems to fare better than other age groups in the context of financial services consumption (Berg, 2015).

At any particular point in time an individual may be in control of some domains of their life, but not of others, meaning that vulnerability is also a fluid state (Baker, Hunt, & Rittenburg, 2007). However, a state of vulnerability in the financial domain, such as not being able to access credit from main stream lenders, may trigger or

accentuate a state of vulnerability in other domains of life (Coppack, Raza, Sarkar, & Scribbins, 2015). The consequence may be significant economic and social problems (Wilson, 2012). Given that an estimated 15% of the adult population of the UK cannot access mainstream credit (FIC, 2015), this is an area where advances in academic research could have a significant societal impact.

Reflecting that '*the policies and practices of (lenders) heavily influence whether consumers are vulnerable in the provision of these essential services*' (George, Graham, Lennard, & Scribbins, 2014, p. 8), this study investigates lack of access to credit by focusing on the policies and practices of mainstream lenders. Previous consumer vulnerability research in this context has shown that product design and marketing communications may lead consumers to choose unsuitable or poor value products (Erta, Hunt, Iscenko, & Brambley, 2013; Henderson & Pearson, 2010). Limited flexibility regarding borrowing amounts and repayment schedules, fear of rejection, or lack of familiarity, can also prevent certain consumers from applying for credit from mainstream lenders (FCA, 2014). When potential borrowers overcome these barriers and apply for credit, however, they may still fail to meet the lenders' credit screening requirements for a loan.

The credit screening process allows lenders to generate information about the loan applicant, in order to determine whether the applicant is 'credit worthy'; that is, whether the applicant is both able and willing to repay the debt (Banerjee, 2005). There is an information asymmetry (as per Stiglitz 1985) in the lending business between the potential borrowers and the lenders, in the sense that the borrower is the only one who truly knows whether they are able to repay the debt. Moreover, as the interests of the borrower and the lender are 'diametrically opposed to one another' (Leyshon and Thrift 1999 p. 400), loan applicants unable or unwilling to repay the

debt are unlikely to reveal that to the lender. Hence, to reduce the likelihood of adverse selection, lenders have studied samples of borrowers that repaid their loans, and borrowers that defaulted, in order to identify the characteristics of credit worthy loan applicants. The specific characteristics used are numerous and have changed over time; for example, lenders no longer use race as a criterion. However, the characteristics will usually include at least the following: the applicant's credit history; their occupation; length of employment; credit rating; marital status; bank account; neighbourhood; collateral; length of residence; income; and gender (Capon, 1982). Points are assigned to each characteristic as the basis for calculating the applicant's credit score. The lending decision therefore involves a process of interpretation that rests on the meaning the lender attributes to observations about the applicant's identity and behaviour.

Not only have criteria changed over time, but so has the process. The credit screening process has become increasingly automated, with lenders collecting data via standard forms, cross-referencing those data with information in external and internal databases, and using software to compute the applicant's credit-score (Leyshon and Thrift 1999). The popularity of automated systems is due to the fact that they are deemed to be less biased than manual screeners (Brydon & Gemino, 2008), although evidence about default rate of loans screened automatically rather than manually does not always support this perception (e.g., Seru, 2008). The observation that the meaning attributed by the lender to the data used for credit screening may vary with time (e.g., race) and the use of automated vs manual processes, shows that we need to study not only the criteria used, but also the context in which the lending decision takes place.

Some criteria used in credit scoring may be difficult to demonstrate or may

penalise certain groups of consumers, thus creating a state of vulnerability. For instance, identification requirements, such as being a permanent local resident or being able to prove identity using a utility bill, effectively bar migrants and travellers from accessing credit from mainstream lenders (deGoede, 2012). Likewise, the requirement to provide a large deposit is a significant barrier for those who do not own property or whose incomes are low (Wang & Tian, 2014). The fact that having a credit card improves credit rating, also penalises consumers who do not use these products for cultural or structural reasons (FCA, 2014). Moreover, credit worthiness is a relative concept that depends on whether the loan applicant's credit score lies above or below the organisation's lending threshold (Capon, 1982). This threshold depends on the lender's willingness to take risk, varying over time, by product, as well as from organisation to organisation (Foss & Bond, 2005). Being denied credit causes fear and embarrassment (Jennett, Brostoff, Malheiros, & Sasse, 2012), so some potential loan applicants avoid main stream lenders and opt for alternative forms of credit such as unsecured debt, payday or doorstep lending (FCA, 2014). These types of credit tend to be available even when mains stream lenders reject credit, albeit at a higher interest rate (Stearn, 2012).

In addition to the organisation's practices and policies, lending decisions may also be influenced by macro dynamic factors such as government policies or industry standards. Periods of temporary economic or social upheaval tend to result in higher premiums and reduced access to credit (Corus & Saatcioglu, 2015; Viruell-Fuentes, Miranda, & Abdulrahim, 2012). Economic recessions are one such temporary, macro factor, which impact on financial vulnerability.

The term economic recession refers to a slowdown of economic activity (Koo, 2009). Even though recessions may be triggered by a number of factors and may vary

in their length and progress, they invariably result in increased unemployment, reduced productivity and a worsening of individual living standards (Vaitilingam, 2009). Loan contraction and stricter customer screening practices are also a feature of recessionary periods (Yuan & Zimmermann, 2004). As such, economic recessions are important contexts for research regarding consumer vulnerability. Moreover, as economic recessions are highly cyclical phenomena (Shaffer & Hoover, 2008), important insights can be gained from studying how lenders change their practices during an economic downturn. As well as advancing the conceptual understanding of the role of context in relation to vulnerability (Baker et al., 2005), these insights also inform the development of public policy and localised interventions.

This review of the supply side barriers of access to credit (i.e., lender-based, as opposed to loan applicant based), reveals the lending decision to be a subjective process. The outcome of this process, which may vary from lender to lender, can be impacted by the economic cycle, leading to the following research questions:

- *How do lending decisions change during an economic recession?*

- *How do those changes shape access to credit and, hence, vulnerability, during and after the economic recession?*

As described above, making a lending decision is a process of overcoming information asymmetries between lenders and potential borrowers, where the former gives meaning to an aggregate of data points about the latter. Therefore, it is appropriate to study this phenomenon through the lens of semiotics, which explores complex issues of meaning and representation by drawing attention to what things mean, and how meanings are made (Liu, Sun, & Bennett, 2002).

Research framework

Semiotics is concerned with the study of signs and their meaning. A sign is '*everything that, on the grounds of a previously established social convention, can be taken as something standing for something else*' (Eco, 1976, p. 228). This definition emphasises that meanings are socially constructed, with the consequence that they are likely to vary in different contexts. Semioticians conceptualise the sign as an entity composed of various parts, which interact to create meaning, as illustrated in Figure 1.

The first component of the sign is the stimulus that is captured by the senses which is deemed to stand for something else. Peirce (1977) called this component the *representamen*. The second component, the *object*, is that which the representamen refers to. For instance, the stimulus colour red - the representamen - might refer to different objects such as 'stop', 'danger' or 'good luck'.

The relationship between the representamen and the object is called the *representation* (Barr, Biddle, & Noble, 2003), the quality of which is affected by the similarity between the representamen and the object. At its most concrete level, the representamen resembles or imitates the object, just as a passport photo is a very close representation of the physical appearance of its owner. At the medium level of abstraction, the object is represented by an instruction, or a cause and effect link, for example, a disease symptom. At the highest level of abstraction, a stimulus stands for a concept only by virtue of convention. Language is one such case: it is only by convention that the word 'chair', for instance, has come to designate a seat for one person, with a back and typically having four legs. The higher the level of abstraction, the greater the ambiguity and the more likelihood there is of misunderstandings (Gudwin, 2004).

As the above examples show, there is no unequivocal relationship between the representamen and the object. That is, the sign is a triadic, rather than a dyadic structure (Peirce, 1977). The third component of the sign, the *interpretant*, is the translation for which the relationship between the representamen and the object is true. This component is essential for meaning making. The interpretant focuses attention through *interpretation* on particular aspects of the representamen, such as the colour, shape or frequency (Barr et al., 2003). Interpretation shapes our understanding of the meaning of the sign (Liu, 2000). For instance, if the meaning-making context is traffic lights, the interpretant translates the representamen 'red' to the object 'stop'; whereas if the context is Chinese New Year celebrations, the interpretant translates the same representamen to the object 'good luck'. Interpretation is affected by how the representamen relates to the object, namely whether this takes place by communicating facts such as body temperature (denotative communication) or by conveying ideas or value judgments such as whether the body is hot or cold (affective communication). Denotative communication is less ambiguous than affective communication and less likely to result in misunderstandings (Stamper, 1973).

In turn, the relationship between the interpretant and the object is referred to as *matching* (Barr et al., 2003). Matching guides the interpreter in deciding which aspects of the object to emphasise in the translation. The quality of matching depends on the pattern of reasoning, namely whether it is based on abduction, induction or deduction. Staat (1993) proposes that a mix of reasoning approaches should be pursued, starting with abduction, followed by deduction and complemented with induction.

In summary, signs are triadic constructs, all components of which need to be studied in order to develop a complete understanding of what they mean and why (Nake, 2002). Moreover, there are certain characteristics of the representation, interpretation and matching relationships that impact upon the interpreters' ability to decipher the sign and agree its meaning (Liebenau & Backhouse, 1990). For these reasons, meanings may vary in different technical and social environments (Liu, 2000), as well as over time (Desouza & Hensgen, 2005).

Meaning making is consequential in the sense that it produces outcomes such as the performance of an action or a change of emotions or perceptions (Sarbo, Farkas, & Breemen, 2011). Consequently, understanding the signs used and how meaning is achieved in different contexts enables the observed consequences to be better understood (Liu, 2000).

Figure 1. The components of the semiotic sign
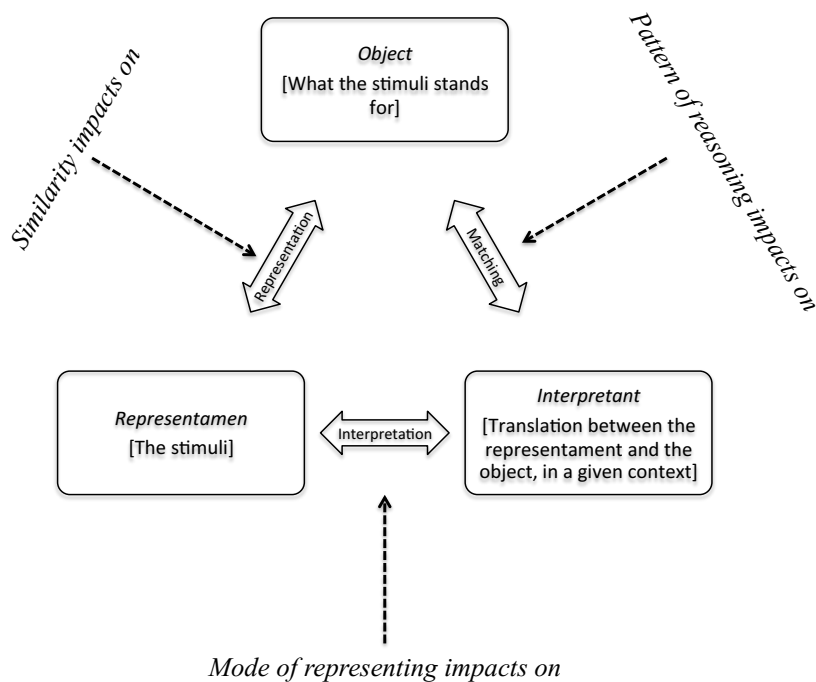
Lending decisions through the lens of semiotics

In this study, the lending decision is conceptualised as a meaning making process. The representamen consists of a series of data points about the applicant's identity, net income and previous credit history (Capon, 1982) obtained by the lender from various internal and external sources (Cary, Wen, & Mahatanankoon, 2003). The object is the potential borrower's credit worthiness, or the likelihood that they will repay the debt (Banerjee, 2005). The interpretant, the lender's credit scoring system, consists of two steps. The first step is the calculation of the prospective borrower's credit score based on the collected data points. For instance, working in the military or in a managerial job is likely to increase the credit score (Capon, 1982), while the lack of a permanent address decreases it (deGoede, 2012). The second step is the comparison of the resulting score with the lender's current threshold for acceptance or rejection of the loan application (Capon, 1982; Seru, 2008). This threshold varies by lender, type of product, and over time (Foss & Bond, 2005).
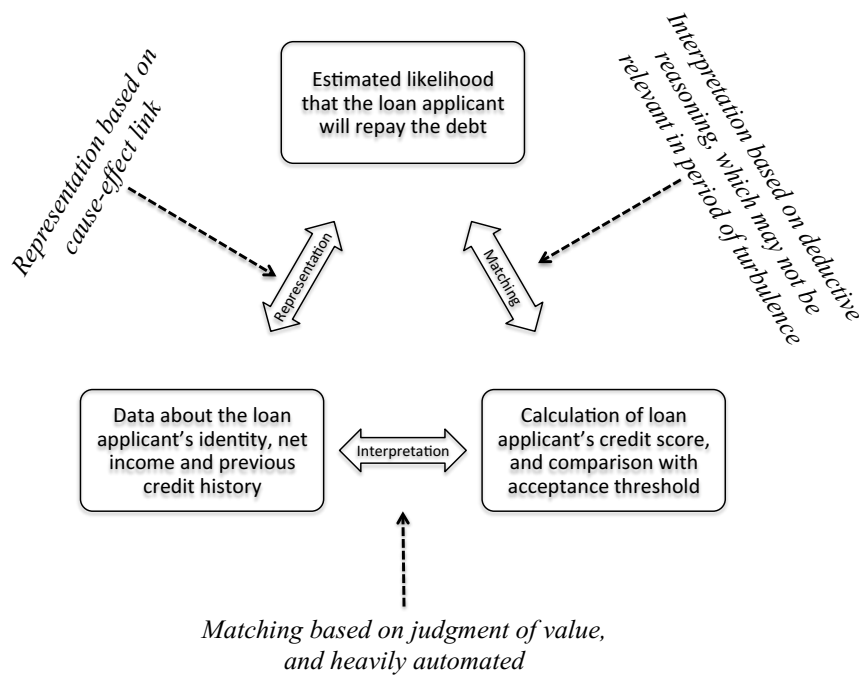
The representation of credit worthiness (the object) through the loan applicant's identity, net income and previous credit history (the representamen), implies a medium level of abstraction (and ambiguity). The reason is that there is an assumed cause and effect link between certain observed characteristics of the potential borrowers and their willingness and ability to repay the loan (Banerjee, 2005). However, certain causes of poor credit worthiness, such as intention to defraud the lender, may be difficult or impossible to observe from the type of data available (Canhoto & Backhouse, 2007).

The matching activity involves a deductive reasoning process, whereby the presence or absence of certain characteristics in the customer's scorecard leads to specific conclusions in the form of a numerical rating (Leyshon, Signoretta, Knights,

Alferoff, & Burton, 2006). The choice of characteristics and the score given for different categories (Capon, 1982) are key for the accuracy of the screening programme. These deductions are informed by past patterns of undesired behaviour that provide insight into the customers' likely future behaviour (Berry & Linoff, 1997). Yet these behaviours may not be relevant in periods of significant market turbulence, such as in economic recession.

Finally, the interpretation that the lender makes is affective in the sense that a judgement is made about whether particular data inputs represent an acceptable probability that the debt will or will not be repaid. As it is not possible to empirically verify the borrower's future financial behaviour at the time of the lending decision, there is ambiguity and uncertainty in this assessment (Schauer, 2003). This uncertainty is particularly relevant for institutions that rely heavily on automated screening processes. While automation reduces subjectivity and overcomes cognitive limitations in the customer screening process (Brydon & Gemino, 2008), there is a higher default rate among loans that are screened automatically than among those where the decision is made by an analyst (Seru, 2008). Figure 2 looks at the lending decision through the theoretical lens of the semiotic sign.

Figure 2. Components and sources of ambiguity in the lending decision process

Representation based on cause-effect link

Estimated likelihood that the loan applicant will repay the debt

Interpretation based on deductive reasoning, which may not be relevant in period of turbulence

Representation

Matching

Data about the loan applicant's identity, net income and previous credit history

Interpretation

Calculation of loan applicant's credit score, and comparison with acceptance threshold

*Matching based on judgment of value,
and heavily automated*

Research design

Even though economic recessions are a highly cyclical phenomenon, marketing practice in a recessionary context is under-researched in the marketing literature (Rollins, Nickell, & Ennis, 2014). A particular shortfall concerns the topic of lending decisions, where existing work that explicitly considers the context of economic recessions tends to originate from the fields of economics and finance (e.g., Shaffer & Hoover, 2008) or from social policy (e.g., Essenburg & Hanson, 2013). Consequently, scant attention is devoted to the issues of consumption and its consequences. Moreover, such research tends to be descriptive in nature, often drawing on historical data to identify relationships or patterns of outcomes. This study goes beyond capturing changes in lending decisions to explore the factors which shape those changes.

A case study was adopted, an approach which is particularly appropriate when studying dynamic issues that are not satisfactorily addressed by extant knowledge

(Rose, Spinks, & Canhoto, 2014). Moreover, the case study approach is recommended when the phenomenon and context are interlinked (Yin & Davis, 2007) because it enables the phenomenon to be studied in depth and in its naturally occurring setting (Yin, 2009). Moreover, the use of multiple sources and types of evidence in case studies helps to overcome the limitations of individual data collection tools, allowing for greater insight into thinking and doing processes (Woodside, 2010).

The unit of analysis is the lending organisation itself and, specifically, how it reaches lending decisions. The empirical study was set in the UK because it is a global financial centre (BMI, 2014). As financial vulnerability is a fluid state (George, Graham, Lennard, & Scribbins, 2014), it was important to consider three data points – 2003, 2008 and 2013 – so that insight could be obtained on lending decisions before, during and after the credit crunch crisis that triggered the economic recession (Birkinshaw & Jenkins, 2009). The study considered both the mortgage and the consumer credit markets. For the purpose of simplicity, unless otherwise specified, the general expressions 'loan', 'debt' or 'borrowing' are used interchangeably to refer to either type of credit product.

Given the very specific nature of the unit of analysis and the absence of logical subunits, a holistic case study design was pursued (see Yin, 2009). Moreover, as advocated by Eisenhardt and Graebner (2007), multiple cases studies were used in order to obtain rich evidence, allow for cross-case comparison, and to increase the accuracy and generalisability of the findings. The six selected case studies are detailed in Table 1. Following the advice of Yin (2009), cases were selected that share the same core conditions, thus enabling literal replication. Specifically, three retail banks with a strong high-street presence were chosen to obtain literal replication: one global

bank, one UK-based bank, and one former building society. In order to support theoretical replication, this first group of cases was complimented with other cases that varied from this group in some non-core aspect. The choice of cases for theoretical replication reflected that while remote or online provision of financial services are increasingly popular, they fail to meet the needs of some customers and may even act as a multiplier of disadvantage (Coppack, Raza, Sarkar and Scribbins, 2015). Therefore, lenders with little to no physical presence were also included for reasons of theoretical replication. These cases comprised one internet-only bank, one lender owned by a multinational retailer business and one provider that is wholly owned by an international financial group but perceived to be owned by a UK retailer.

Preliminary analysis of the data collected in 2008 suggested that theoretical saturation had been achieved, so no further cases were pursued.

Table 1. Overview of the six case studies

Type	Firm	Description
Literal replication cases	A	Global retail bank, among the top 10 largest in the world.
	B	UK-based bank, one of the oldest and largest in the country, with some limited overseas operations.
	C	Former building society, now part of an international financial group.
Theoretical replication cases	D	Internet-only bank, wholly owned by an international financial group, and targeting high-end consumers.
	E	Lender perceived to be owned by a UK-based retailer, though it is part of an international financial group. Targeted the customers of the retailer brand it was associated with. Products are promoted in the retailer's stores, and online
	F	Lender owned by one of the largest multinational retailer businesses in the world. Products are promoted online, and through the chain of supermarket stores owned by the group.

Data collection started in the last quarter of 2008. In-depth interviews lasting between 60 and 90 minutes were conducted with the senior consumer credit manager in each organisation. All interviews were recorded and transcribed. The interviews

focused on the lending decision, with the aim of understanding the social processes by which phenomena assume the form that they do (Denzin & Lincoln, 2012). Specifically, the process and criteria used to make lending decisions at the time of the interview (2008) were considered, how these had changed since 2003, and the rationale for such changes. Even though recall interviews present the risk of inaccuracy and bias (Yin, 2009), they allow the researcher to investigate how the interviewee makes sense of the phenomenon (Rose et al., 2014), thus offering insight into how the organisation perceived the changes in the external conditions, and how these perceptions impacted on lending decisions. The interview data collected in 2008 were triangulated with documentary data provided by each focal firm, including the organisation's financial statements and press releases, as well as external analyst and industry reports, media coverage of product launch and withdrawals, and market data. In addition, historical evidence was collected concerning lending decisions in 2003, consisting of internal and external archival records and documentation, such as press releases, annual reports and industry reports.

It should be noted that we worked with abstract lending decisions, rather than specific loan applications and their subsequent outcomes. Studying specific loan applications, following the decision process in real time, and interviewing or observing the participants involved would have provided rich and interesting insights. However, such an approach would have required the researchers to be embedded in the organisation, which was impractical due to reasons of operational complexity, customer privacy and data protection. There was also the risk that the researchers' presence could have influenced the outcome of the process, by inviting analytic reflection (Robson 2002).

Contemporary evidence was collected at the end of 2013, providing a 10-year overview of the evolution of lending decisions at the six firms. Interviews were sought in 2013, but the interviewees who had participated in the 2008 exercise had all either moved to other positions or other organisations. Given that interviews provide an individual perspective on organisational issues (Yin, 2009), it was felt that conducting interviews with a different set of senior managers from those interviewed in 2008 would produce two bodies of evidence that were not comparable. Therefore, the data gathering in 2013 was confined to documents and archival evidence. Table 2 outlines the main sources of evidence that were used.

Table 2. Sources of evidence

Source	Collected in	
	2008	**2013**
Interviews	6	0
Product information produced by the company – e.g., brochures or 'product' area of the companies websites	9	12
Financial statements, annual reports and other communications with shareholders (available for firms A, B and C, only)	6	6
External communications – e.g., press releases or 'news' area of the companies' websites	9	12
Media articles about product launches	1	5
Media articles about product withdrawals, including partial withdrawals (e.g., product not available to new clients)	11	0
Industry reports published by the financial services regulator, the House of Commons, financial industry bodies, and business intelligence firms	8	5
Analyst reports about specific companies – e.g., business intelligence firms	5	4

The data for each case were analysed individually, before being compared across the various case studies to identify common themes (Eisenhardt and Graebner, 2007). Within each case, the data were first analysed according to the collection instrument (e.g., media articles about product withdrawal), and then across methods (e.g., media articles vs. interviews). This approach helped to recognise converging

findings, minimise bias, and increase the robustness of the analysis (Jick, 1979). The coding process followed the approach outlined in Miles and Huberman (1994), whereby a list of codes developed prior to the fieldwork was augmented with codes emerging from the data. The list of codes captured how the lending decisions changed during the period of analysis, and distinguished between the process itself (namely, the sign components and the meaning making mechanisms in the conceptual framework), and the outcome (see Table 3).

Table 3. Example of coding process

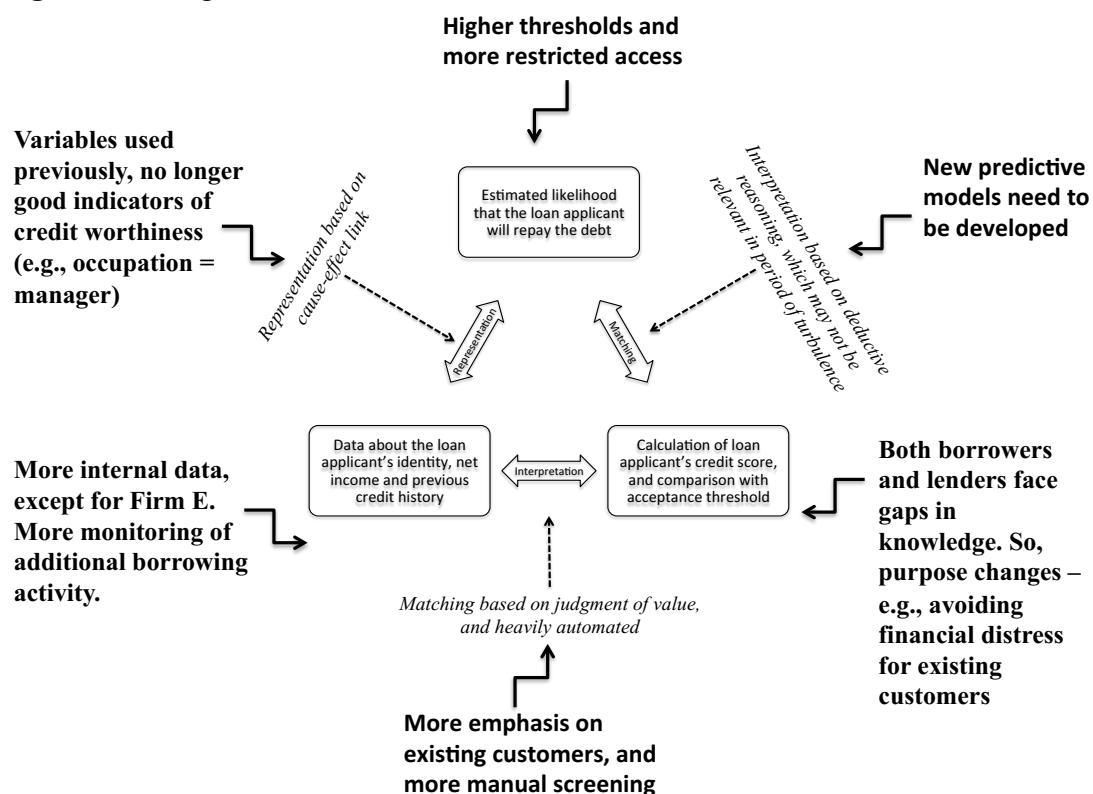| Input *Verbatim Quote* (source)	Stage 1 Component *Labels:* • *Data* • *Credit worthiness* • *Credit scoring*	Mechanism *Labels:* • *Representation* • *Matching* • *Interpretation*	Outcome *Labels:* • *More lending* • *Less lending*	Stage 2 Component *Inductive labels*	Mechanism *Inductive labels*	Outcome *Inductive labels*
'*We try to calculate what you really can afford… it is not easy because people do not have an account just with us (…) The issue is that they are typically responsible customers (but) the problem is when there is extra credit.*' (Firm C - Interview)	Credit scoring	Matching		Role of extra credit from other lenders	Limitations	
'*(Firm C) was the last lender in the UK to withdraw its 100% mortgage (…) new lending in the first quarter of 2008 was (higher than) in the same period of 2007 (…) has access to strong lines of funding and, as such, is increasing its share of the UK mortgage market (…) has recently launched a new credit card (…) one of the most competitive in the UK market (…) reveals a strategy of gaining market share during a time when other competitors are struggling to raise capital'.* (Document 1 - Analyst report)			More lending			Product withdrawal Product Launch Rationale - role of shareholder structure Rationale - strategy

Individual case histories were developed and presented to the research participants to check the accuracy of the findings.

Findings

This section considers how and why lending decisions changed during the period of study. In line with the theoretical lens presented previously, the findings are organised in terms of the lending decision process, including the factors that influence and shape

its outcome, rather than on the various lending organisations. This form of organising and presenting the findings is in line with the recommendation by Hartley (2004) to present findings around themes rather than case narratives. Figure 3 summarises the key findings.

Figure 3. Changes observed as a result of the credit crunch

Higher thresholds and more restricted access

Variables used previously, no longer good indicators of credit worthiness (e.g., occupation = manager)

New predictive models need to be developed

Representation based on cause-effect link

Estimated likelihood that the loan applicant will repay the debt

Interpretation based on deductive reasoning, which may not be relevant in period of turbulence

Representation

Matching

More internal data, except for Firm E. More monitoring of additional borrowing activity.

Data about the loan applicant's identity, net income and previous credit history

Interpretation

Calculation of loan applicant's credit score, and comparison with acceptance threshold

Both borrowers and lenders face gaps in knowledge. So, purpose changes – e.g., avoiding financial distress for existing customers

Matching based on judgment of value, and heavily automated

More emphasis on existing customers, and more manual screening

When somebody applies for a loan, lenders want to measure two types of risk: '*We want to find out two important things: Will the customer be able to afford (the loan), and is he even willing to repay it?*' (Firm A). The collection of data from various online and off-line customer touch points, past transactions, and external agencies enabled this assessment to take place. Interviewees felt, however, that certain data that prior to the credit crunch were deemed to provide a good representation of the loan applicant's credit worthiness, had lost relevance: '*Some (current) customers are getting into difficult circumstances – we can see the situation*

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deteriorating, for instance concerning the payment of their credit card balance' (Firm E).

Specifically, interviewees considered that some types of data previously used to calculate the customers' ability to repay a loan (also referred to as 'affordability') were no longer good indicators. For instance, the cost of living had increased more than anticipated at the time of the loan, which impacted negatively on borrowers' disposable income, thus affecting their ability to repay the loan. Moreover, occupations that had previously been deemed low risk, registered unexpectedly high reductions in income. Those in managerial jobs were particularly vulnerable to losing their bonuses and at risk of redundancy. According to newspaper articles published in January 2009 (e.g., BBC, 2009), for example, two-thirds of the 450 employees made redundant at Jaguar Land Rover in January 2009 were managers.

This set of circumstances represented a customer screening challenge different from the one faced before the credit crunch. Prior to the credit crunch, the aim of screening was to overcome information asymmetries between lenders and borrowers. However, at the height of the credit crunch, the focus for screening switched to overcoming mutual gaps in knowledge. There was a general feeling among those interviewed that the screening models in place did not fit the circumstances being observed in 2008:

> *The (existing) models are based on historic trends, expecting the future to be like the past. (But) this credit crunch affects a different set of people.*' (Firm F), and, thus, '*new models are required.* (Firm A).

This realisation led lenders to revisit the notion of what constitutes a good borrower and to reconsider the data inputs needed to measure their credit worthiness.

Media articles published in the second half of 2008 reveal that all case study organisations withdrew certain products from the market. The withdrawn products included 100% mortgages and secured loans that allowed homeowners to borrow money against equity held in their properties. Analysis of financial statements and market reports also revealed that most lenders closed credit lines for customers whose credit ratings had deteriorated or stopped taking new customers altogether. According to one article published in July 2008: *'[Firm A] plans to stop selling [credit product x] (and) serving new customers next month'* (Document 13). Moreover, all but one lender in our sample (Firm D), said that they had raised the lending threshold levels.

The lenders gave three reasons for these changes. The first was a change in the firm's strategic objectives, for example, in relation to target market share): '*Our strategy changed. We tightened the cut-off scores, lending more conservatively*' (Firm E). Second, the organisations' willingness to take risk decreased: '*Our risk appetite has been tighter*' (Firm F). And third, some lenders were finding it difficult to obtain the necessary funds to lend, partly because deposits and savings had decreased dramatically and partly because they were not able to borrow money in the inter-bank market. These cash flow problems impacted the six case study organisations differently, depending on whether they could access funds privately, or needed to borrow from the market. For instance, according to one report published by a reputed market intelligence company in 2008:

> *(Firm C) has been able to take advantage of the strong position of its parent company, [group name]. While many global banks have been struggling to raise funding in the face of tightening credit markets and the failure of mortgage related financial instruments, [group name] continues to thrive* (Document 1).

As a result of the different shareholder structures and levels of capitalisation, some lenders saw drastic reductions in their lending levels as a proportion of total assets, while others maintained or even increased their market share. These differences are illustrated in Table 4, which was prepared based on information contained in documents 5 and 19.

Table 4. Evolution of the ratio of loans as a percentage of total assets

Firm	Between 2003 and 2008	Between 2008 and 2013
A	-56%	46%
B	4%	5%
C	15%	12%

As a result of the new understanding of what constituted a good borrower, the formulae to calculate the applicants' credit scores were revised to place more emphasis on existing customers. This meant that new applicants would see their credit score go down, even if everything else remained the same. The consequence was: '*… a lower percentage of people able to afford the loans*' (Firm B).

In addition, lenders changed the variables that they monitored. All except for Firm E began collecting more data internally; for instance, monitoring changes in life circumstances, credit card spending, or savings accounts: '*It is a live relationship. Things can change at any time*' (Firm D). While other lenders focused on gathering additional internal information to assess loan applicants, reflecting its small product range and limited pool of internal data points, Firm E increased its reliance on credit bureaux data. All lenders carefully monitored whether existing customers were increasing their debt with other lenders, because getting further into debt would negatively impact the customer's ability to repay the existing loan:

> *We try to calculate what you really can afford… it is not easy because people*
>
> *do not have an account just with us (…) The issue is that they are typically*

responsible customers (but) the problem is when there is extra credit. (Firm C).

Throughout the credit crunch, lenders not only changed the data collected and the formulae used, but they also increased the thoroughness of application screening, placing more emphasis on manual analysis. As one interviewee explained: '*We automatically screen all applications, and then our underwriters look at those in the grey area*' (Firm A). This meant a slowing down of the screening process, due to the increased emphasis on manual screening and the need to develop new models or refine existing ones.

Lenders also increased the frequency with which they monitored the performance of their credit portfolio, paying much attention to early signs of financial distress among existing customers. Such monitoring allowed firms to intervene as necessary, as the interviewee from Firm E explained:'*(Analysts are) looking at our credit portfolio and the behaviour of our books (…) calculate … level of affordability on an ongoing basis*'.

There was also a change in terms of the type of product being sought, such as an increase in demand for store credit, personal loans, and short term loans, as noted by this interviewee: '*We see requests for more short-term loans*' (Firm D).

In summary, it was much more difficult for loan applicants to obtain credit during the credit crunch not only because reductions in net income lead them to score lower on their applications, but also because many main stream creditors changed their lending criteria and practices. Even though some lenders did not decrease their relative lending levels, changes to their product portfolio and lending policies made it difficult for new customers, or those requiring 100% financing or secured loans to obtain credit. In effect, there was a non-price rationing of the credit available. Access

to credit was being controlled not by high interest rates, but by the type of borrower and their product needs. Analysis of product information provided by the six organisations reveals that some of these changes were still in place in 2013.

Discussion

This section considers each element of the conceptual framework in order to unpack how the changes during the credit crunch impacted on credit accessibility and on consumer vulnerability. Starting with the representamen, the findings suggest that most lenders placed increased emphasis on internal data. The meaning making process is consequential in nature (Sarbo, Farkas, & Breemen, 2011). In this particular case, the consequence of the process was that consumers with fewer existing products with a particular lender were likely disadvantaged when applying for a loan. New customers, such as the young, migrants, or those that had stayed away from the mainstream financial services for social or cultural reasons, would have found it particularly hard to secure a loan. As these groups were often already facing social exclusion, they were anyway at a higher risk of marginalisation in private services contexts (Corus & Saatcioglu, 2015). Their situation was being compounded by difficulties accessing financial services. Moreover, the same loan applicant might be able to access credit from one lender or from one type of loan, but not from another. Since the fear of rejection causes anxiety (Jennett, Brostoff, Malheiros, & Sasse, 2012) and is a recognised factor in driving consumers away from mainstream lenders (FCA, 2014), this uncertainty could have accentuated the barriers faced by these consumers.

In terms of the object, there was a narrower understanding of what constituted a good borrower and a higher hurdle to be met, so that even existing customers no

longer had access to 100% funding or secured loans. Moreover, in five out of the six case studies, loan applicants had to obtain higher credit scores than prior to the recession. Consequently, not only did prospective borrowers have access to a smaller pool of products and lenders, but they also faced shifting and more stringent requirements. A potential borrower might see their loan application accepted by one lender but rejected by another, or see the application be accepted one month but rejected a few months later. This type of financial exclusion is in line with the concept of vulnerability as a fluid, rather than an either-or state, as described by Baker, Hunt, and Rittenburg (2007). Either-or states are easier to identify than fluid ones, making it easier to recognise when someone needs help, or when an intervention is necessary to reduce exclusion. While this research project did not examine the support provisions available to the new customer groups that found themselves in a vulnerable position, it is worth noting that initiatives to curb financial exclusion tend to focus on identifiable characteristics rather than on states (see Coppack et al., 2015).

As far as the representation is concerned, only some characteristics of the representamen play a part in representing the object. The causal connection between the observable stimuli and the abstract idea that is assumed by the interpreter is therefore revealed by the emphasis on some elements over others (Atkin, 2013). Cause and effect relationships, however, are based on assumptions and simplifications that may not hold true in all scenarios. For instance, a professional occupation of manager, which previously had suggested a low risk of default, turned out to be high-risk during the crisis. Yet this consumer group is not traditionally deemed to be vulnerable (Corus & Saatcioglu, 2015), lending support to the conceptualisation of vulnerability as a state, rather as a personal characteristic (e.g., Baker, Gentry, & Rittenburg, 2005). What is more, this 'new' group may not be effectively supported

by institutions or charities that traditionally support vulnerable consumers (for instance, by not qualifying for benefits). It is noteworthy that this group is not mentioned in an overview of customers at risk of financial exclusion in the UK (see Mitton, 2008), suggesting that no measures were put in place to support them specifically.

Although screening applications manually slows the process down, the findings showed an increase in this type of screening, which is associated with lower default rates (Seru, 2008). This observation shows that time could also be an important element in understanding and thinking about vulnerability. In other words, vulnerability might arise not just from not being able to get a loan, but also from how long it took for the lender to reach a decision. The cash flow problems arising from delays could increase the loan applicants' cost of living (Milligan, 2015; Wilson, 2012), or lead them to consider payday loans and other forms of high cost credit. For instance, the Christmas of 2009 saw hundreds of thousands of UK families resorting to loan sharks and doorstep lenders (FIC, 2010) to enable them to participate in the usual consumption rituals. The extortionate rates and fees, charged by these lenders often push consumers into further debt (Stearn, 2012), further damaging their credit score and their future ability to obtain affordable credit from a mainstream lender. Given that the financial services regulator is keen to '*be more proactive and to intervene at an early stage, "focusing on the sources of detriment such as product design, governance and incentives*"' (George et al., 2014, p. 76), a policy implication of this study is that the regulator should consider the consequences of the slowing down of decisions on consumer vulnerability. This is not a recommendation for the regulator to impose or even encourage fast approvals of loan applications, as that could result in irresponsible lending or, conversely, the rejection of applications that

might otherwise be accepted following suitable due diligence. Rather, it is an indication that it is necessary to challenge existing assumptions about who the vulnerable customers are, and what constitutes vulnerability.

Analysis of the matching relationship showed that new definitions of credit worthy customers were being adopted, and that deductive models were revised. There was a strong focus on what was known and an aversion to the new; a preference for existing customers and the use of internal data. In-group biases are common in service settings (Walsh, 2009) and it is common for lenders to protect their commercial interests by behaving in a conservative manner during economic recessions (Yuan & Zimmermann, 2004). As noted by George et al. (2014), unlike utilities or other essential services financial services in the UK are exclusively offered by private sector firms that operate in a competitive environment. While this is a heavily regulated sector, regulation is concerned with aspects such as transparency or product risk (CAB, 2012), rather than the non-price rationing of credit.

The findings suggest there is a need to consider new regulation to address the non-price rationing that was seen during the recession. Such regulation could productively focus on ensuring greater access to credit among groups whose characteristics meant they are traditionally disadvantaged by existing screening approaches. Such regulation might also challenge the policies that led to the widespread withdrawal of lending services to new customers. As well as being economically counterproductive by potentially lengthening the period of recovery, such actions are arguably commercially suspect. The role of alternative organisational forms in the provision of such services, such as social enterprises which are not solely governed by commercial objectives, also warrants consideration (Wilson, 2012).

Turning to the interpretant, even though the broad outcomes of this recession such as rising unemployment and worsening living standards were similar to previous ones, there were also distinctive patterns in terms of which sectors and professions were most affected. The short-term confluence of environment attributes created a temporary scenario (Liew & Sundaram, 2009) that was not compatible with existing assumptions and processes. As a consequence, previously used models were less effective and needed to be revised. Customer screening is designed to overcome asymmetries of information between the agent holding more information (i.e., the borrower) and the agent likely to be affected by adverse selection (i.e., the lender) (Stiglitz, 1985). Yet, at the height of the credit crunch, both the borrower and the lender faced a symmetric situation because both were unable to anticipate the specific impacts of the crisis. Likewise the function of customer screening was no longer to uncover undetectable behaviours that might affect the lender's return (Bhattacharya & Thakor, 1993), but rather to anticipate the impact of temporary environmental factors (Kim, Yang, & Kim, 2008). Although lenders did respond to these issues by reviewing their product portfolios, withdrawing risker products, and reassessing what constituted a 'good borrower', the insights gained during this period should enable them to react more quickly and more flexibly in future economic downturns.

Conclusions

This research investigated access to credit, to identify the factors that create a state of vulnerability. Consumer characteristics traditionally depicted as sources of vulnerability have been shown not to be determinants of financial exclusion (e.g., Berg, 2015), yet policy documents still tend to refer to 'at risk' groups (e.g., Milton, 2008, CAB, 2012). Instead, this study has documented how firm-related factors such

as strategic targets, stakeholder structure, capitalisation structure, or risk appetite determined lending thresholds and shaped who was and was not a credit worthy customer. By focusing on the motives for granting access to credit, a novel insight has been offered into the understanding of financial exclusion. These insights are a useful addition to previous research, which has tended to focus on the outcomes and manifestations of vulnerability, rather than on its sources (Walsh, 2009). In addition, the study has captured how the economic context impacted on firm-related factors. The consequence was that consumers who were already facing higher living costs and struggling to pay for everyday expenses (CFW, 2010), faced additional practical and emotional hurdles as a result of not being able to secure credit from mainstream lenders.

The investigation of the evolving notions of credit worthiness, as well as of the aspects valued by credit screening, showed why the young, migrant and socially excluded groups were at risk of further marginalisation during the recession, expanding the work of Walsh (2009), deGoede (2012) and Wang & Tian (2014). In addition, this investigation showed how customers not traditionally referred to as vulnerable, found themselves in financial difficulties. This observation lends empirical support to the proposition by Baker et al. (2007) and others that vulnerability should be conceptualised as a fluid rather than a static, state.

Financial vulnerability has also been shown to have negative consequences for other domains of the life of individuals (Coppack et al., 2015), and of society (Wilson, 2012). Given that the private sector is neither likely nor able to take sole responsibility for addressing financial exclusion, there are significant implications for policy in relation to the potential role of social enterprise, and for regulation regarding the non-price rationing of credit.

The analysis also noted the consequences of slow decision making. While the notion of vulnerability has been broken down into systematic and transient elements (Commuri & Ekici, 2008), 'time' or 'speed' are not usually considered as a source of financial vulnerability or other kinds of vulnerability. Yet, slow decisions can also be a source of distress and powerlessness in other contexts, such as in delaying access to life saving treatments or social security benefits. Further research should explore the role of time as a source of vulnerability, to further conceptual and practical understanding of the topic.

This study has focused on lenders and on the unit of analysis as the lending decision. While this focus allowed for a detailed exploration of the process and the various factors at play, it failed to consider the perspective of the borrower. For instance, the findings indicated that certain profession may have found it particularly difficult to access support during the credit crisis, but no empirical verification was possible from this study. Given that a thorough understanding of vulnerability needs to consider the individuals in question (Hogg, Howells, & Milman, 2007), more research is needed to explore how different consumer groups experience vulnerability during periods of economic downturn. Such findings would be particularly relevant for consumer interest organisations, which are key stakeholders in matters of consumer welfare (Walsh, 2009).

While this paper has examined the specific setting of consumer credit in the UK within the context of the 2008 credit crunch of 2008, the findings have relevance for practitioners and scholars who are more widely interested in the role of access to credit as a factor in consumer vulnerability. Moreover, the essential role of financial services as enablers of modern life, the cyclical nature of the economic recession, and

the long term consequences of temporary decisions, extend the contribution of this

study beyond merely documenting who was excluded and why.

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