Lending Institutions as Organizing Systems
Monicah Wambugu, December 2016

1. Overview

Over the centuries, people have been borrowing funds to finance personal and business projects with capital that they would otherwise not have. Lenders provide this credit at an interest to mitigate the inherent risk of default. Different forms of collateral offer a fall back plan to lenders, allowing them to sell such securities in order to recover their funds. In recent years, traditional collateral has been interspersed with social collateral that utilizes network trust (Karan et al, 2009). This was first implemented through microfinance by Nobel Laureate Muhammad Yunus who formed Grameen Bank in Bangladesh. Furthermore, the rise of distributed ledger systems using blockchain technology, makes the case that the future of financial services is decentralized. Inevitably, lenders have to innovate and re-adjust in order to collect alternative data in situations where credit infrastructure is decentralized. Two such innovations are table banking and peer to peer lending.Table-banking, sometimes referred to as 'Merry go round' is a group funding strategy where members of a particular group meet regularly, pool their savings, and loan to each other. Peer-to-peer (P2P) lending is the practice of lending money to individuals or businesses through online services that match lenders directly with
borrowers.(Hu

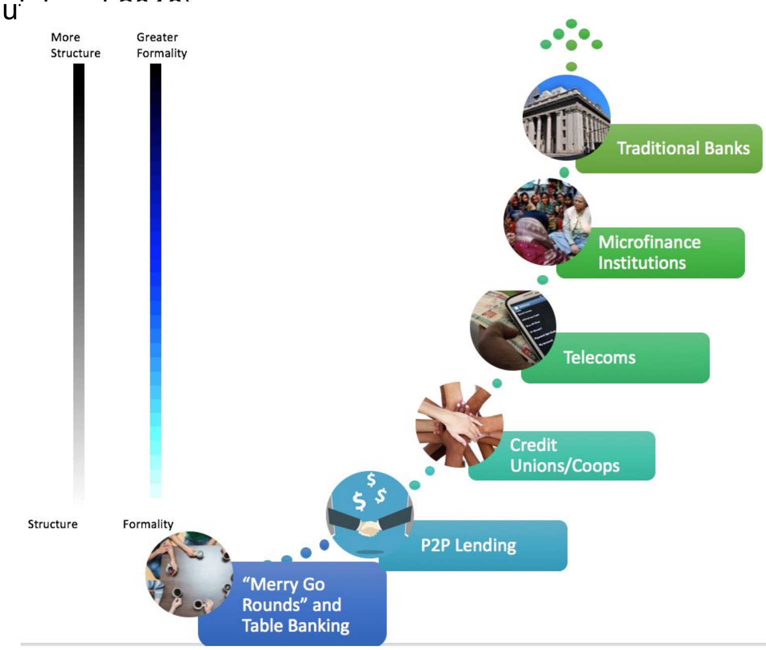

Figure 1: Lending Institutions

2. What Is Being Organized?

The resource being organized by lending institutions is the **people** who are essentially the clients, customers or beneficiaries of the lending institutions. Although this is the same for all lending systems, there is variation in terms of the resource descriptions among lending institutions. Lending institutions that are more informal are content with describing people with demographic information of age,gender etc. More formal and structured lending institutions describe people by capturing behavioral, psychometric and social descriptors. Behavioral data can be how often one saves or whether they pay their bills on time; psychometric data captures the attitudes of an individual and their willingness to pay; and social data looks at how networked a person is e.g. by looking at LinkedIn/social media connections, call data records etc.

3. Why Is It Being Organized?

The interactions in these organizing systems are designed to optimize the objectives of the lending institutions. These objectives can be purely profit-driven, purely social or both profit and socially driven goals.Institutions that have purely profit driven objectives have two slightly overlapping interactions, calculation of a measure of trustworthiness (e.g. a credit score) and matching of users to products. At any particular time, a lending institution needs to evaluate which of its clients qualify for what products e.g who qualifies for a mortgage or a personal loan, at what interest rate, at what repayment period and at what risk to the institution. Some lenders have both profit and non-profit goals e.g. Islamic banks or sharia compliant lenders have religious objectives that transcend their commercial objectives. Instead of charging interest on their clients they focus on ethical investments as a way of making money. On the other hand, institutions that have full social objectives have an added need to evaluate their impact on users, or essentially validate their theory of change. This interaction necessitates the collection of psychosocial data that might not be necessarily financial.

4. How Much Is It Being Organized?

The level of ‘formality’ and the objectives of a lending institution determine the nature and extent of resource descriptions. More formal institutions, who are keen on lending to diverse groups of people, collect a wider range of information and at greater levels of precision. On the other hand, less formal institutions such as those in table banking were founded on some pre-existing level of trust e.g. through referral. As such, the level of precision and scope of collected descriptions is low. Additionally, less formal institutions might not have the means or infrastructure to collect additional metrics or descriptors.

5. When Is It Being Organized?

Resources in organizing systems are organized continuously, where new information e.g. on user behavior is continually added as soon as it is available. Formal lending institutions have an easier time updating information on resources especially when there exists central credit rating agencies. Human beings are bayesian reasoners so the same applies in informal setting such as ‘merry go rounds’ or table banking. Members of the social group continuously update their opinion on the trustworthiness or reliability of a user as more information becomes available. Additionally, since the objective of most profit-making lending institutions is to link customers to products, organization can happen ‘on the way out’, even as the need to match clients to products becomes apparent.

6. Who (or What) is Organizing It?

Most formal lending institutions have digital process where information is captured using management information systems. This allows for the organization to be done using computational processes. In informal settings e.g. table banking, , the credit bureau rating agency is essentially a person’s network and their perception of an individual. Consequently, there could be subjectivity within such social constructs, as well as human cognitive biases.

7. Where is it Organized?

Since most resource descriptions in formal lending institutions are in a digital format, organization of resources happens on the cloud or other technological systems. In informal settings, only partial user information might be captured and most decisions are based on social perceptions of a user. This limits the capabilities of interactions in informal settings to compare, use or scale.

References/Citations

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Artifacts

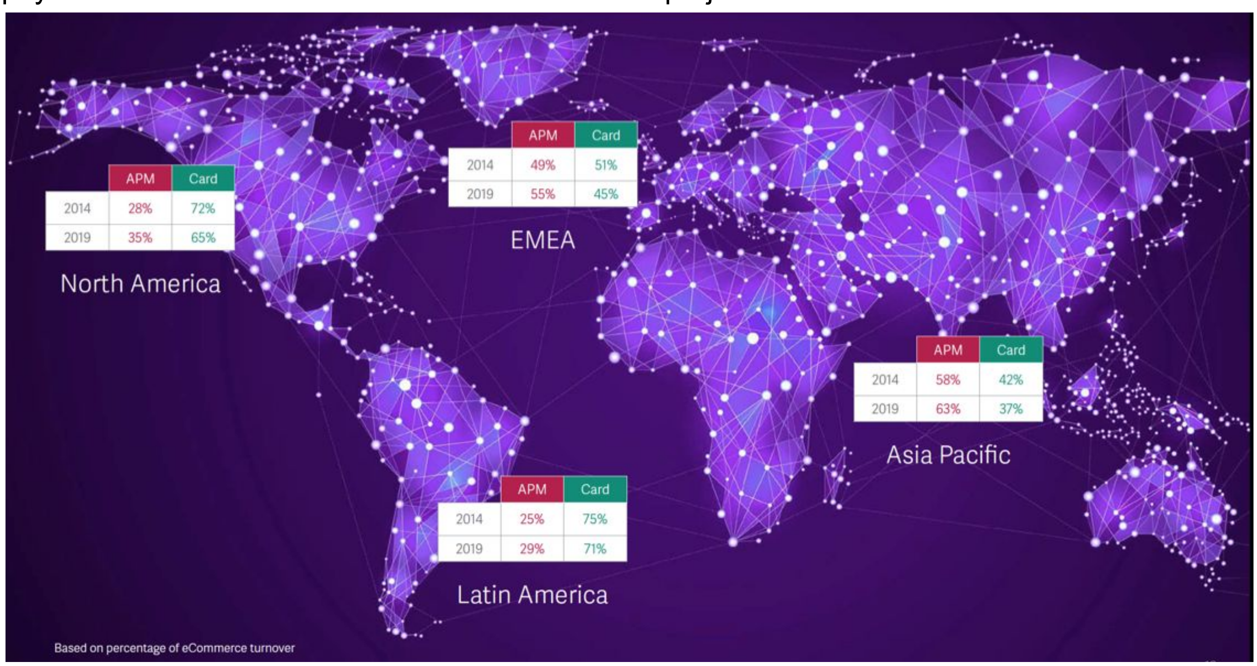
Trends

1. Scope of Resource Descriptions

The scope of user information being organized to enable lenders to calculate the measure of trustworthiness is continuously expanding. The video artifact submitted separately describes the Social Credit System in China which is the largest known system that uses information such as traffic violation and number of visits to see parents, as a measure of trustworthiness.
The video is obtained from Wall Street Journal website here.The system is also covered by BBC News here.

2. Alternative Financial Methods

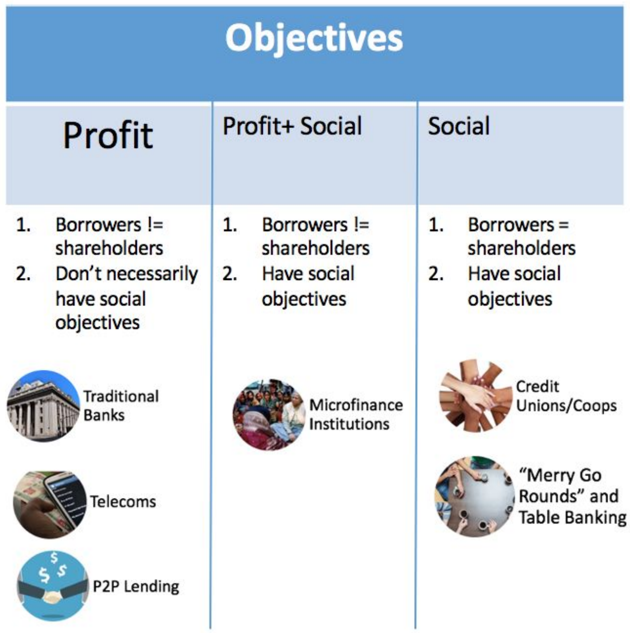
Traditional financial services are gradually being enhanced and sometimes overtaken by innovative alternative financial services as shown by the comparison of card and alternative payment methods across the world in 2014 and as projected in 2019.



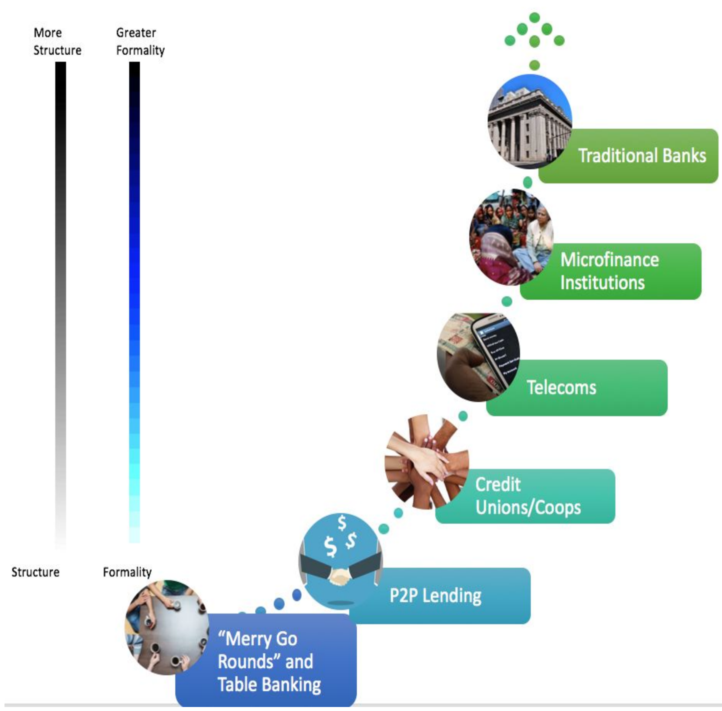
Source: Global Payments Report Nov. 2015

Understanding Lending institutions

Beyond evaluating how lenders organize information about people, lenders themselves can be categorized based on their distinguishing attributes namely their objectives, their level of formality and whether they have open or closed eligibility.



A lender's objectives are determined by who the shareholders are. Lenders who have social objectives sometimes have shareholders that are different from their clients, making it necessary for them to balance profit and social goals.



Traditionally lenders are more formal and more structured.

Some lenders e.g. credit unions have limited eligibility and only consider people in certain geographic locations or employees of specific locations. In table banking eligibility is limited to members' social circles.