

# Peer to Peer Lending and Borrowing

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**Abstract** : Peer to peer finance has received increasing attention over the last years not only because of its disruptive nature & its disintermediation of nearly all major banking functions, but also because of its rapid growth & expanding breadth of service. unofficial peer to peer lending and borrowing happens a lot in our day to day life. most of our overall lending & borrowing is unofficial & peer to peer .but it also has many issues regarding it . Aim of the study is to observe the opinion & activities of people in unofficial peer to peer lending & borrowing .to understand respective population , their respective pattern of behaviours and reasons behind . to understand the problem .apply data visualization , data analytics in it & try to find out the entrepreneurial opportunities & solutions to it . Data was collected through google survey form .

**Index Term** : Peer to peer system , finance , decentralize, banking ,lending , borrowing, credit

## Background:

"The real tragedy of the poor is the poverty of their aspiration " - Adam Smith

"No complaint... is more common than that of a scarcity of money " - Adam Smith

"The most important single central fact about a free market is that no exchange take place unless both parties benefit."-Milton Friedman

In our daily life we borrow & lend money & materials to the people we know & trust(!). but the problem is how to successfully recover money within a particular time frame which causes the unwillingness to lend money .

banks only lend to very secured customers thus forbidding very large crowd of population which most of the time doesn't have secure financial credentials .Some time banks may charge very high interest rate which may discourage borrowers to borrow from bank addition to it tiresome , long , frustrating and complex paperwork .because of complex confusing paperwork majority of population especially in developing countries do not use financial institutes & tools thus hampering their individual development. Because of which they borrow through unofficial peer to peer banking also called shadow banking .On other hand people have capital but it's mostly sitting idle .Only few people have significant chunk of their capital in investment .some people are not satisfied with their interest rate with banks .There is huge inefficient paradoxical side existing within system because of social & bureaucratic reasons .But the problem with unofficial peer to peer lending & borrowing of money & other materials is that it is not secure , if borrower defaults then it can cause financial damages to lenders .

Also the ways to recover can be some time unlawful , harassing & sometime can be fatal .but now at present there is facility of internet , digital financial services like digital payments(UPI, card payment , digital wallets) , unique digital identification like aadhar .Well synchronous & connected data bases of a user with very advance analytical technology which can minimize the fraud , can help better understand people to optimize to their needs & fulfill it .Along with emerge of disruptive technologies like blockchain coupled with further enhancement of existing technology like upcoming web 3.0 .

### RBI on peer to peer lending and borrowing -

India's Peer to peer lending and borrowing is projected to reach US\$23 billion .For P2P platform RBI has stated that they should be registered as non banking financial institute and the P2P platform would not do actual lending , it would just facilitate the deal between lenders and borrowers .In the global market there was growth of 3-4 times following regulations introduced in countries like US, UK, Germany, China, Singapore and Hong Kong –leaders in Global P2P lending space. The market share of the North American P2P lending market, for instance, rose from 39% to 43% between 2014 and 2016 when the US government began regulating lending platforms in the country.A well defined rules and regulations would help to develop this industry further with relative ease of doing business .

**Literature Review:**

RBI has written white paper on peer to peer lending and borrowing in 2016 .It recognized it as a upcoming financial industry which will be mostly operated by technology company and somewhat banks using internet platform [1] RBI is taking active interest in regulating it . A peer to peer lending and borrowing platform need to be registered as non banking financial institute which do no actual lending and borrowing but just facilitates a platform for lenders and borrowers.

[2] Pushpa Bv and Phani Satish in their research paper “ Prospects Of Non Conventional Sources Of Credit- A Case Study On Peer To Peer Lending In India” .They studied the possibilities of peer to peer lending in India .

[3] Brian Wolfe and Woongsun Yoo in their research paper “Crowding out Banks: Credit Substitution by Peer-to-Peer Lending” They researched on rural and urban microfinance scenario and role of unofficial and official lending .

[4] “PEER-TO-PEER CROWDFUNDING: INFORMATION AND THE POTENTIAL FOR DISRUPTION IN CONSUMER LENDING “ by ADAIR MORSE in which he explored the possible disruption by P2P lending and also how big data can be used in it .

**Data set Description:**

I had conducted google survey regarding unofficial peer to peer lending which consisted of 16 questions + suggestions . 88 people participated in this survey It consisted of questions from which opinions and practices of people can be identified regarding peer to peer lending .Questions were of multiple choice types and responses are all categorical data .

The screenshot shows a Google Forms data visualization spreadsheet with the following columns: Timestamp, Whats your age (in years), gender, Which type of payment you use, Do you use credit card, Do you lend money to someone, From whom do you borrow, Have you ever lent money, and Your preferred method of payment. The data is organized into rows for each respondent.

Timestamp	Whats your age (in years)	gender	Which type of payment you use	Do you use credit card	Do you lend money to someone	From whom do you borrow	Have you ever lent money	Your preferred method of payment
2/19/2019 20:38:58	above 65	LGBT	cashless	wanted to have credit card	Many time	friends	Maybe	installment
2/20/2019 21:28:05	46-65	Male	cash	have but don't use	sometime	none	Yes	installment
2/20/2019 21:37:37	31-45	Male	cashless	Yes	sometime	parents	No	installment
2/20/2019 22:27:53	18-30	Male	cashless	No	few time	sibling	No	lump sum
2/20/2019 22:28:34	18-30	Male	cash	Yes	Many time	friends	Yes	lump sum
2/20/2019 22:28:36	18-30	Female	cashless	No	sometime	none	Yes	lump sum
2/20/2019 22:29:14	18-30	Female	cashless	wanted to have credit card	sometime	friends	No	lump sum
2/20/2019 22:29:24	18-30	Male	cash	No	sometime	parents	Yes	lump sum
2/20/2019 22:30:08	18-30	Male	cashless	No	sometime	parents	Yes	lump sum
2/20/2019 22:31:47	18-30	Female	cashless	wanted to have credit card	Many time	friends	No	lump sum
2/20/2019 22:35:30	18-30	Male	cash	No	never	parents	Yes	lump sum
2/20/2019 22:38:29	18-30	Male	cashless	No	sometime	friends	Yes	lump sum
2/20/2019 22:52:24	18-30	Male	cashless	No	never	parents	No	lump sum
2/20/2019 23:31:01	18-30	Male	cashless	have but don't use	sometime	parents	Yes	lump sum
2/20/2019 23:35:47	18-30	Male	cashless	wanted to have credit card	few time	friends	Maybe	lump sum
2/20/2019 23:38:48	18-30	Male	cashless	No	Many time	parents	Yes	lump sum
2/21/2019 0:09:45	18-30	Male	cashless	wanted to have credit card	sometime	parents	Yes	lump sum
2/21/2019 0:38:07	below 18	Male	cash	wanted to have credit card	few time	parents	Yes	lump sum
2/21/2019 1:32:23	18-30	Male	cashless	wanted to have credit card	Many time	parents	Yes	lump sum

Fig 1

### Data Visualization:

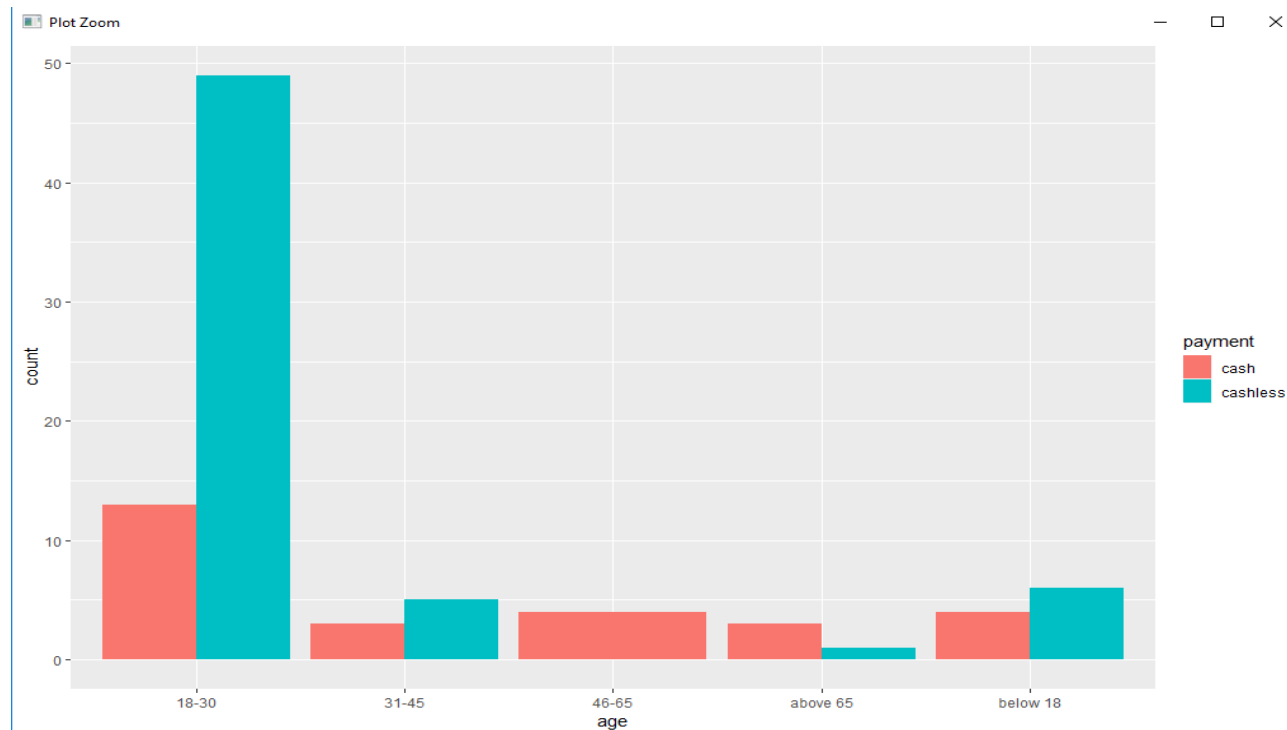


Fig 2

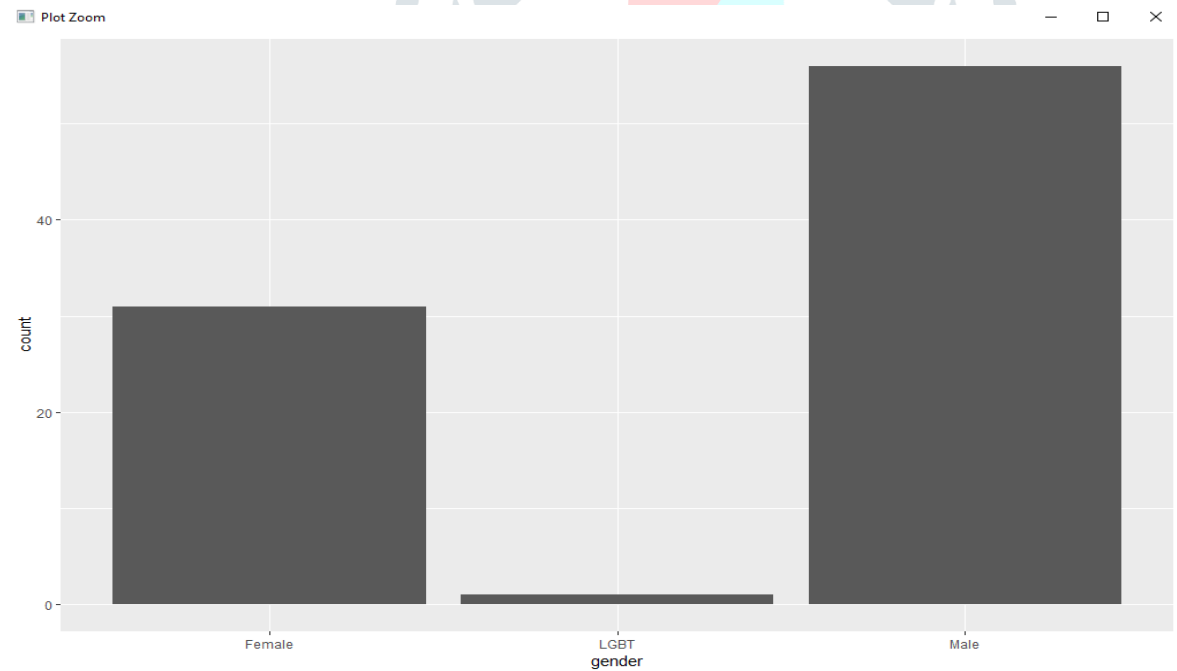


Fig 3

Plot Zoom

— □ ×

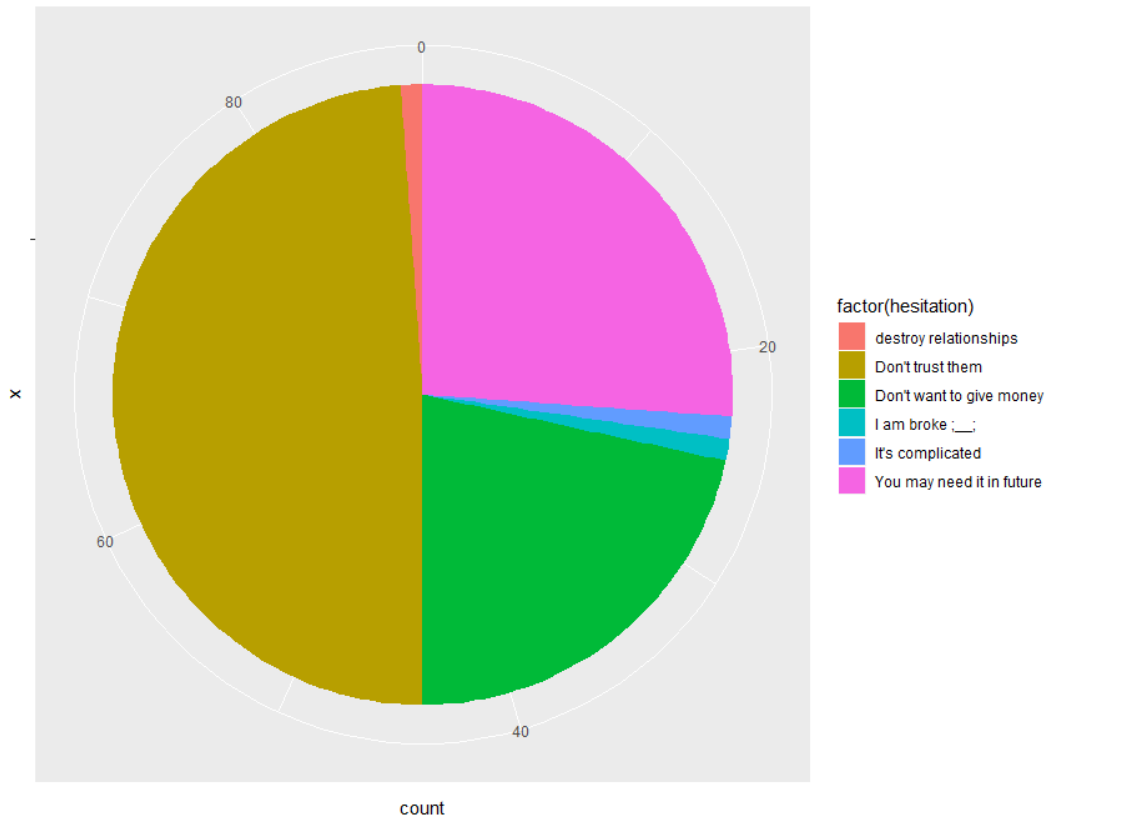


Fig 4

Plot Zoom

— □ ×

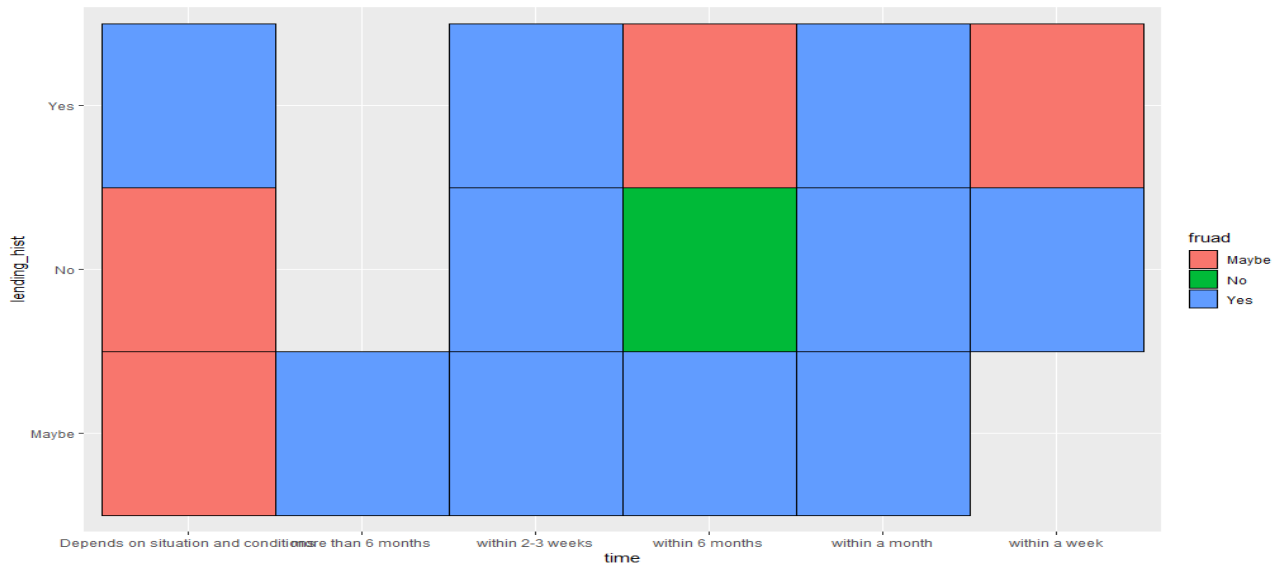
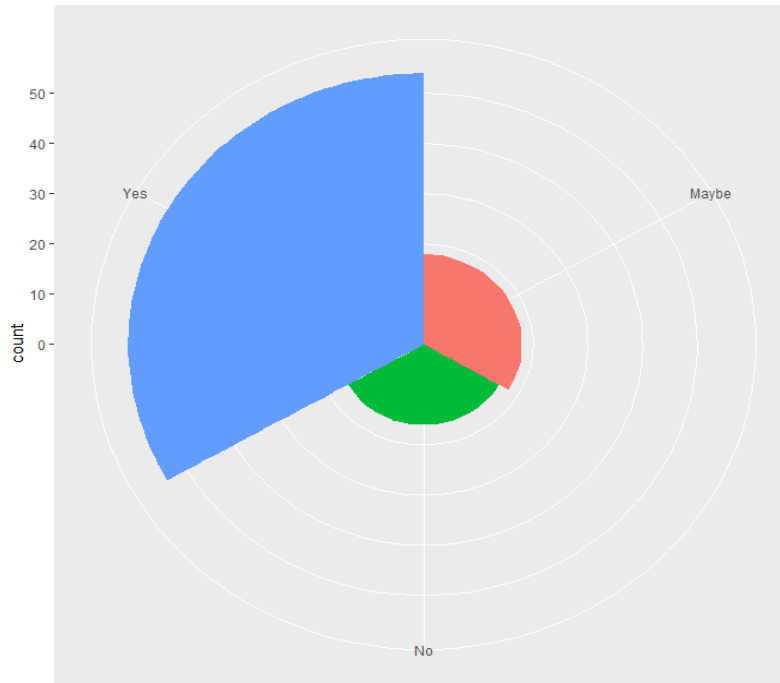


Fig 5

Plot Zoom



fraud

Fig6

Plot Zoom

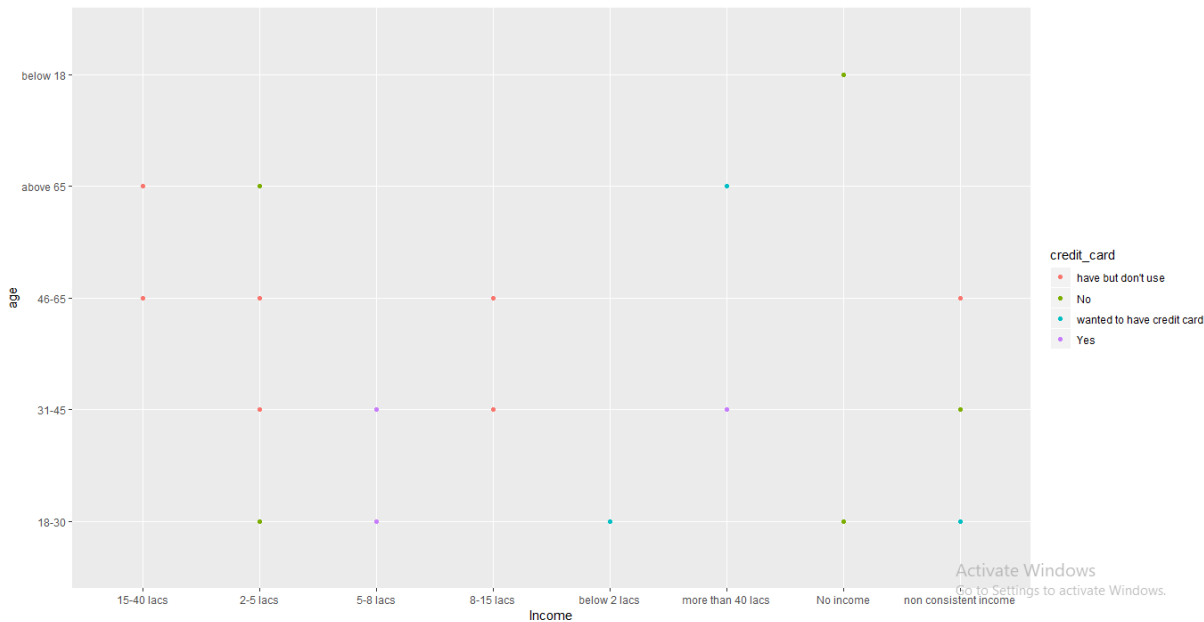


Fig 7

### Conclusion:

- Majority of participants were young adults of which majority of them do unofficial peer to peer lending and borrowing .
- At present there is demand for quick secured loan .
- People who do unofficial peer to peer lending and borrowing of money or materials face problems sometime .
- Because of the problems they faced they hesitate to lend money .
- Majority of young adult have no income,low income or non consistent income.
- Majority of people who had lending history has also experienced fraud .
- Interestingly there is significant population who has credit card but don't use it and there is also such population who want credit card but don't have enough steady secure income .
- People are willing to lend if the return is assured with interest rate higher than interest given by banks .

## Proposed System

To capture a niche of this lending and borrowing phenomenon which has not have been yet captured and has lot of potential entrepreneurial opportunities at present due to emerging technology .There would be a platform (app , website etc ) which would facilitate peer to peer lending and borrowing .There would be facility of making contract between lenders and borrowers .There would be various options of to do lending and borrowing .Like lenders & borrowers would compete with respective lenders and borrowers to lend and borrow money or there can be mutual deal between individual lenders and borrowers .For the minimization of loss by defaults the borrower will borrow money from multiple lenders .There would also be chat facility for negotiation and messaging .It can also be applied for services like newspaper subscription , tiffin subscription, dairy subscription , any stuff which provide service over a period of time and also on lending and borrowing of materials like books, calculator , pen drive etc .

There would be e-kyc of the participating parties , there bank account , Aadhar card , PAN card would be connected to platform . Bases on how well the borrower honour the terms and deadline of the debt payment would be given score which would also add to cibil score , which would improve his chances for future loan application acceptance & would also help lenders to select the among borrowing participants .Already existing financial institutes including existing P2P lending uses data analytics for analyzing the loan applicants' past records and activities before Already it consist of contracts so blockchain can used in it especially its smart contract features .In case of dispute - already all negotiations , contracts are on platform to investigate with chats between lender and borrower it would be relatively easy to settle as compared to informal talks and negotiation which happens in unofficial peer to peer lending and borrowing .A legal framed contract can be made which can be used in the case of disputes which may also include auto withdraw from borrowers' account to lenders' account .

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