

What Do Backers Trust When They Do Not Know Initiators? Crowdfunding Experimentation in India

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Abstract

Purpose - The establishment and sustainability of the transaction depends on the willingness of the actors to meet their commitments. They are usually loyal when they trust. Trust emerges when one party believes that the other party achieves prior commitments without taking advantage of his/her exchange partner, even of the opportunity manifests.

This paper aims to explore how crowdfunding platforms can build trust to simultaneously attract project initiators and contributors and facilitate transactions between them. The focus is put on the third-party sources of trust building: cultural, politico-legal and independent certifying institutions.

Design/methodology/approach - To answer to the research purpose we adopt the method of experimentation with four fictitious, but highly plausible platforms: One platform represents the control reference. Three more platforms are designed according to the three types of third-party trust builders (as independent variables): network of acquaintance (group pressure), label of certification designated by the non-governmental professional organization, and the politico-legal authority.

Findings - The ANOVA analyses reveal unexpected results. While there are significant differences on behaviors of time spent and pages visited across the experimentation websites, the behavior of donation does not present any significant difference at the time of experimentation among the control website and the three other declinations, which are supported by different third-party builder of trust.

The differences in donation behaviors are not however statistically significant. Thus, it can be stated that the different types of third-party trust builders do not alter the magnitude of donation behaviors. They, however, do alter the stickiness behaviors.

Originality/value - Results and insights gained from this research extend the theoretical literature on trust in general and trust building in emerging P2P markets in particular. The findings also provide actionable policies for practitioners in particular in the two-sided markets where platforms need to build trust between different parties. Our results might yield to actionable policies to build trust beyond the sector of crowdfunding, which was our field of research. Consequently, marketers and business responsible managers can proactively contribute to build trust, in order to ease and speed up transactions and exchanges.

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Introduction

Because transaction engages the handover of value between actors, its institution and perpetuation depends on actors' will to honor their commitments. While opportunism, risk and asymmetric information negatively affect actors' willingness to cooperate, trust allows them to gainfully join transactions (Jones and George, 1998). Presence or absence of trust has a bearing on what we can and choose to do (Dasgupta 2000).

To appreciate the value of trust, one might imagine a world devoid of trust; where, actors have to spend a considerable amount of time to make sure that partners could not be taken advantage of them. In such a world, they could not even resort to arbitration, because the third-party arbitrators are not trustworthy (Fukuyama, 1995). General distrust emerges with the suspicion that the disruption of expectations in one exchange is likely to generalize to other transactions (Zucker, 1986). Widespread distrust in a society imposes a kind of tax on all norms of economic activity (Fukuyama, 1995). The social tragedy of lack of trust is that society cannot achieve outcomes in which everyone is better off (Klein, 2001).

The opportunistic behavior is a major source of uncertainty about the partner's trustworthiness and consequently the raise of transaction costs (Williamson, 1991), which is one of the most important transaction inhibitors in virtual and global markets. In the case of trust deficiency, actors spend heavily on monitoring others' behavior to ensure that they respect their commitments. No one might have reliable ex ante knowledge of whether and when, opportunism will occur.

Trust seems to be even more important in our era of globalization and digitization where people from different cultures actually or virtually juxtapose, and consequently dispose opportunities of business only if mutual trust can reduce transaction costs between them offline (Dyer and Chu, 2003) or online (Liu et al., 2004).

Internet in particular has created an unprecedented opportunity of direct interactions and exchanges among individuals as the unstoppable raise of peer-to-peer (P2P) transactions in general, and that of crowdfunding in particular witness. Crowdfunding is a significant example. Peers call on peers across borders for contributing money, knowledge or support, however small they may be, to achieve their individual projects.

However to facilitate transactions on these two-sided markets, crowdfunding platforms need to simultaneously attract project initiators and contributors, and in fine build trust between them. How can they do this in particular when the partners do not know each other? The present paper aims to address this research inquiry. The focus is the third-party sources of trust building. In this perspective, the objective is to compare the impact of the different types of third-party sources on the trusting behavior of individuals. In short, the intention is find out whether different types of third-party trust builders have (dis)similar impacts on individuals' trusting behavior.

After this first introductory section, the remaining of the paper is structured as follows. First, we proceed to a broad review of literature on trust and sources of trust, and put emphasis mainly on third-party sources of trust that constitute the focus of the research on hands. Second, we explain the deployment of our research method of online experimentation on the third-party sources' potential of building trust in the context of crowdfunding. Third, we discuss results and present findings that can contribute to constructing a model of third-party trust that the crowdfunding platforms can adopt. Finally, we conclude and suggest further lines of research and point our perspective of further profitable extensions.

Results and insights gained from this research will contribute to both theory and practice. They extend the literature on trust in general and trust building in emerging P2P markets in particular. The findings also provide actionable policies for practitioners in particular in the two-sided markets where platforms need to build trust between different parties.

The Literature Review of Trust: Origin and Forms of Trust

We begin the analysis of trust by exploring its etymological roots. Then, we explore the specialized literature to study its sources and forms of manifestation.

The word trust originates in trade and exchange. *Traust*, meaning help and confidence, firstly recorded around 12th century in European Nordic countries, is supposedly the origin of the term. At this time, Scandinavia, Holland and the Northern land (Germany) were highly engaged in sea trade (Online Etymology Dictionary). The etymological concept of trust fits with that of

“catalactic”, which derives from a classical Greek word meaning not only “to exchange” but also “to receive into the community” and to turn from enemy into friend (Catallaxis). Trustee came into the picture by early 18th century to describe a person who is responsible for the property of another (Oxford English Dictionary, 2002).

Dictionaries currently define trust as a belief in the honesty, goodness or skill of a person, organization or a thing (Cambridge Advanced Learner’s Dictionary), or reliance on the truth of a statement of a person or strength of something, without examination (Oxford English Dictionary, 2002). Confidence, often considered inadvertently as a synonym, is rather self-reflective and corresponds to a feeling or showing of adequacy and reliance on oneself and one’s powers (The Merriam-Webster Dictionary).

Academic researchers generally agree with dictionaries and define trust as one’s psychological state to accept vulnerability based on positive expectation of another party’s intentions or behavior (Rousseau et al., 1998), or an actor’s subjective (before monitoring or independently of any capacity to do so) assessment of another actor’s performance in a particular action which positively affects his or her own action (Adler, 2001). In this perspective (mis)trust is construal, and akin to the terms knowledge and belief. It is formed because one party thinks that the other party is (un)trustworthy, or the third party can (not) comply with the trustworthy behavior.

In accordance with the above, we define trust as one’s perceptual (subjective) belief that another party respects the integrity of his/her obligations and does not exploit one’s vulnerability by betrayal and opportunism.

While trust is a cross-disciplinary concept, disciplines often tend to privilege one or several specific aspects as origins of trust (Mukherjee and Nath, 2003). Psychological literature mainly highlights one’s personality as source of trust. Management sciences and in particular marketing put emphasis on the competence and reputation of the inspiring trustee, such as brands, for generating trust for the prospects (Samuelson, Nordhaus, 2001). Some economic theories and in particular institutionalists consider that trust is built under the governance of the complying third-parties who regulate the relations between the partners of exchange and conduct them to respect their promises and engagements.

We consider a multidisciplinary literature on trust and review it according to a tripartite model of sources of trust: the one who spontaneously trusts, the counterpart who inspires trust, and the third-party who confides the possibility of a reliable transaction between partners. Other researchers have suggested similar typologies. Zucker (1986) distinguishes personal characteristics, institutions and the process of relationships as modes of trust production. McKnight and Chervany (2000) similarly identify three dimensions that lead to trust: a person’s disposition to trust, institution which provides the needed conditions for a trust, and the other party endowed with reliable traits such as competence, benevolence, integrity, and predictability. Adler also suggests a tripartite model of sources of trust: Familiarity through repeated interaction, assessment of vulnerability and trustworthy values and norms (Adler, 2001).

Truster as the Source of Trust

Trust might reside in trustor’s personality and attitude, rooted in his/her early set of experiences. The personality-based trust is then prior to relationship and depends on an individual’s general inclination or willingness to collaborate and exchange without complete or prior knowledge about others.

Freudian psychologist Erik H Erikson (1902-1994) identified in his 8-stage model, the first stage (between 0-1 year, infancy or the oral-sensory stage), as the stage of psychosocial development of trust. Through the parents’ responses, the newborn learns to trust people as reliable and loving, if the parents’ (and especially mother’s) responses are adequate; otherwise, the infant develops mistrust and will be apprehensive and suspicious about people. In any case since no one can meet all a baby’s needs all the times; the newborn also learns to “mistrust”. Mistrust enables to recognize and respond appropriately to people who are untrustworthy and is a barrier against being hurt.

Both trust and mistrust are crucial for encountering other people later. If the proper balance is well achieved at this stage then the child will develop a sense that the world is trustworthy and even when things are not going well they will work well in the end. Otherwise the infant may develop maladaptation and malignancies, endangering his/her future stages of psychosocial development, composed of autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, ego-

identity vs. role-confusion, intimacy vs. isolation, generativity vs. self-absorption, integrity vs. despair (Erikson 1954).

Other researchers also stress on the idea of pre-disposed psychological determinants such as personality and attitude to explain people's propensity of trust, (Scheier and Carver, 1992; Gleitman, 1995; Olson and Suls, 1998). Extravert, agreeable, open-minded people trust more, while neurotic people trust less. Extravert individuals fear the outside world and fearlessly trust and socialize with other individuals. As a general rule, the more an individual is agreeable and positive about others' values and convictions, the more s/he is trustful. A personality which is keen on trust gets easily ready for transactions irrespective of the ability to monitor the other party, expecting that (s)he will perform the promised action (Mayer, Davis and Schoorman, 1995). Psychological predispositions might sometimes impede trust. Neurotics, emotional instability, pessimism and low self-esteem often perceive their positions in interactions and transactions as unfavorable and consequently avoid trusting (Scheier and Carver, 1992, Gleitman, 1995).

Thus, the personality of the trusting party is ex-ante perception prior to any relationship and can lead to both trust and mistrust. An optimistic disposition about others generally favors trust, while a pessimistic disposition is less inclined to consider others as trustworthy (Encyclopaedia of Ethics).

Trustee as the Source of Trust

A trustor's personality is not the unique source of trust. Trust can also emerge from an individual's perception about a partner's ability, knowledge, expertise and skillfulness (Sitkin & Roth, 1993, Peters et al., 1997, Brainov & Sandholm, 1999).

A perception might drive from both rational reasons and/or affect-based motives (McAllister, 1995). Although, some researchers argue that reason and emotion are separable and partially independent (Zajonc, 1980), we believe that they both contribute to generate a cognitive attitude, and lead, in this case, to the belief about a partner's reliability. Friendship, love, predictable behavior, loyalty, care, warmth, empathy (Organ and Konovsky, 1988, Luhman, 1979, Nooteboom 1996), emotion (Lewis and Weigert, 1985), kinship (Ouchi, 1980) or similarity (Hellreigel et al., 1992, Gulati, 1995, Burt, 1992) are affect-based motives that can

significantly impact the formation of cognitive attitude.

Direct relation and credible reputation can both form an individual's cognitive attitude about a partner's ability and intention to perform according to expectations and refraining from opportunistic behavior. Butler (1991) along with Sitkin and Roth (1993) believe that an organization's trustworthiness depends on its past actions, credible reputation, and the congruence between its communications and actions. Mukherjee and Nath (2003) also consider that a trust is contingent with a brand's foregoing interactions with its market and the strength of its name. Accordingly, we review the literature on how reliable relation and positive reputation can build trust.

Trust is seldom spontaneous. It often starts with minor transactions in which little confidence is required because little risk is involved; and progressively evolves in a slow process in which partners prove their reliability and accordingly engage in lengthy relations and transactions (Shapiro, 1987).

Acquaintance is often the earliest stage in a relationship because people usually consider it inappropriate or even dangerous to interact with total strangers (Luhman, 1979, Baron and Byrne 1991). No significant relationship or trust can develop without familiarity.

A trustor does not accept great risks in the first stage and prefers to keep risks at a lowest level. Initial experiences with a brand habitually constitute a good predictor for a customer's trusting beliefs and further behavior. Satisfied first-time purchasers engage in online transactions three times more than dissatisfied first-time purchasers (BCG, 2000).

Repeated relations provide predictability about parties' upcoming behaviors (Doney & Cannon, 1997) in the vicissitudes of an uncertain future, and foster the emotional assurance about partners' care and responsiveness. Rempel et al. (1985) call this stage "dependability phase" which might finally lead to the stage of faith. The strongest trust is reciprocal when both parties are trustworthy (Encyclopaedia of Ethics).

Depicting trust on a continuum does not imply that all relationships pass through all stages. For example, an observer, in the absence of direct previous relations, might refer to "relational

signaling” (Lindenberg, 2000) that refers to observation of an agent’s treatment of his/her partners.

In relationships between firms, trust is based both on individuals who deal with each other, and on organizations as collective entities. Thus, customers perceive a brand as trustworthy, only if both its affiliate organization and people inspire confidence. However, outward trust relations can hardly exist without inward organizational trust.

Reputation, in absence of personal experience, can also procure trust. In the broadest sense, reputation stands for the spreading of ones’ experiences to others via a network (Granovetter, 1985). In a business perspective, reputation indicates the aggregated evaluation of all aspects of a firm’s image (Dowling, 1994) or the net perception of its ability to meet the expectations of all stakeholders (Fombrun, 1996).

The social trait of reputation engenders trust (Williamson, 1991, Doney & Cannon, 1997). Customers feel secure to acquire and use a brand that other people perceive as fair and just (Anderson and Weitz 1992). A virtuous circle comes out of the satisfied customers who spread positive “gossip” about their preferred brands within online networks (Helm, 2000); and the latter that gains reputation and by the way attract more patrons. The greater is the network that shares the reputation of a firm, the higher is the chance of a potential customer to take notice of it. Online customers do not necessarily choose the cheapest offer on the Internet. They often purchase branded products from renowned retailers at a higher level than the lowest price (Smith et al., 2000).

Spreading the word through opinion leaders, experts and conventional media as credible multipliers of information (Einwiller, 2001), providing opportunity to the satisfied customers for spreading the good words, and relaying messages via peers through chats and virtual communities are the most effective ways of fostering the reputation of a brand online. While positive reputation is a vital source for trust (Jarvenpaa & Tractinsky 1999) in the impersonal environment of electronic commerce (Einwiller, 2001), negative words can harm and even destroy brands.

Institutions of Trust

When individuals cannot trust by internalized motives or inspiring partners, they might look for third parties disposing safeguarding mechanisms,

coercing rules and sanction possibilities (La Porta et al., 1999) for complying reliable behavior between partners. For third party-based trust to occur, three conditions are to be satisfied: an appropriate institution, acceptance of the institution’s authority by exchange partners and the conveyance of signals from the third party institution to the exchange partners.

In the following section, we review the literature on the major third party institutions of trust. They are cultural, politico-legal and non-governmental (professional) organizations.

Trust emerging from cultural values is of considerable economic value because it eliminates the need for formal contracts that are costly to negotiate, write, monitor, and enforce. People internalize beliefs about appropriate and right behavior in the process of socialization. Compliance with cultural norms of non-maleficence is secured by the threat of exclusion or non-inclusion (Kandori, 1992), and by incentives for sustainable benefits in comparison to short-term gains of non-compliance. In high-trust relationships, agents do not even worry about maximizing profits in the short run, because they are confident about regular and future gains (Fukuyama, 1995).

The enforcement costs in an informal network of mutual self-control are less than those in a law-based third-party system (Calvert, 1995a, 1995b). The intuitive idea is that excommunicating non-compliers is cheaper than selecting, training, and maintaining a cadre of experts specifically charged with enforcement responsibilities.

In this perspective, trust is a crucial ingredient of a country’s social capital, defined as the sum of norms and networks that improve the efficiency of coordinated actions for common purposes (Putnam 1993). The more social capital there is, the more productive the economy will be. Knack and Keefer (1997) find that trust is strongly correlated with GDP growth per capita and with the ratio of investment to GDP.

Culture-based trust supports economic growth by reducing transaction costs in particular in countries with less developed legal systems. While some individuals trust according to a common set of cultural norms, some others, in particular when they do not know each other, cooperate only under a system of formal rules that coerce the issuer of promise to do what is committed.

Historically, the economic growth has mainly occurred in countries with reliable institutions of

laws and enforcement mechanism that support and safeguard trust between agents (Lyons & Mehta, 1997). Economies with less developed rules and enforcement systems generally deter exchange. Marakkathand Attuel-Mendes (2015) discuss how the regulatory environment might have a constraining or leveraging impact on the microfinance crowdfunding to achieve social innovation and reduce financial exclusion.

Contract is the symbol of a politico-legal institution. It stands for a tightly written form of agreement between two or more parties according to the codes of law, intended to be legally binding (Lyons and Mehta, 1997:241).

Because consumers transfer the endorser's credibility onto the endorsed brand or organization, firms that obtain the seal of conformance to the standards and principles by legitimacy build customer trust, positively influence consumer trust, attitude, intention and opinions (Sternthal et al 1978, McGinnies & Ward, 1980, Harmon et al. 1982, Moore et al. 1986, Ohanian, 1991). Endorsement of trustworthiness by these self-determining institutions engenders customer trust because they have no direct stake in the reputation of the inspected firms (Sternthal et al., 1978).

Endorsement by the third-party institutions is however gradual and corresponds to different levels of approval. Obviously, when a high degree of endorsement generates trust, a low degree may suggest mistrust (Cook, Luo 2003).

Government agencies and non-governmental organizations such as financial-rating agencies, corporate-conscience agencies, and consumer agencies are all credible for inspecting, testing, and evaluating and delivering certification and endorsement. Clients often trust government and professional institutions without being in a position to check their expertise, standards, procedures or trustworthiness (Lala et al., 2002, Cook, Luo 2003).

As we have already reviewed the impact of state-based institutions on trust building, we focus in this section on the non-governmental professional institutions. Examples abound: Underwriting laboratories which test and grant an approval mark to electronics manufacturers, agencies like Moody which rate public or private organizations, and Web seals, Such as Better Business Bureau, TRUSTe, that promote feelings of trust (Houston & Taylor, 1999; Palmer, Bailey & Faraj, 2000) and influence users' intents to purchase online (Kovar et al., 2000; Mauldin

& Arunachalam, 2001; Wakefield, 2001). Internet users likely assign higher levels of value to seals from endorsing firm that they consider highly credible, trustworthy, or expert (Hoxmeier, 2000).

Research Design of Experimentation on the Internet

The inquiry we started with was to find out whether different types of third-party trust builders have (dis)similar impacts on individuals' trusting behavior on the two-sided markets of online crowdfunding. To answer to this inquiry we adopt the method of experimentation.

The method of experimentation consists of controlling conditions for observing the impact of the independent (experimental) variables' manipulation on the dependent variable's response. If a change in independent variable(s) causes changes in dependent variable, then a "cause-effect" relation is identified between them. All variables are controlled, so that the effect can be attributed to some of them as causes. In this method independent variables are usually designated by X, and dependent variable by y.

Online experiments return similar results -but not identical- to conventional experiments (Krantz and Dalal, 2000) at faster speed and lower cost (Reips 2002). Slater et al. (2006) reproduce the Milgram obedience experiments in the online virtual space and report similar behaviors in virtual and onsite environments. It is worth reminding that the Milgram experiment (1963) aimed to investigate how far people could go in obeying an instruction if it involved harming another person. Kozlov and Johansen (2010) also observe similar behaviors in virtual, lab and field environments.

Researchers progressively exploit the technical possibilities of the Internet for deploying online experiment. Fogg et al. (2001) conduct two online experiments on Web site credibility. They firstly find that Web banner ads reduce the perceived credibility of a Web page's content. They also find that attribution elements such as author photographs affect the credibility of Web content. This is similar to the experiment of Johnson (2007) on credibility of participatory journalism in which ordinary citizens produce content on web sites, such as ohmynews.com. Johnson's experiment (2007) aimed to test whether or not the presence of information about a writer on a participatory journalism web site affects the perceived credibility of the story.

Kamali and Loker (2002) implemented three levels of interactive design involvement on a mock Web site, T-shirt.com, in an online experimentation. Treatment one, the control, simulated a customer's involvement at traditional retail stores or Web sites. It offered five ready-to-wear garments with three pre-designed variables: style, color, and graphic images. Treatment two, limited customization, simulated custom T-shirt shops where customers had a limited choice of components. Participants were able to mix and match from components of style (2), color (5), and graphic images (5) making a total of 50 possible combinations (i.e., $2 \times 5 \times 5$). Treatment three, advanced customization, offered five neckline options, five sleeve options, 20 color options, three bodice lengths, five graphic images, and five placements/sizes or from 37,500 possible combinations (i.e. $5 \times 5 \times 20 \times 3 \times 5 \times 5 = 37,500$). Participants in the limited and advanced customization treatment groups were able to combine a variety of design components and view them using the interactivity of the Web site.

Bainbridge (2007) asserts that the online virtual worlds have great potential for research in the social, behavioral, and economic sciences, as well as in human-centered computer science. Bainbridge (2007) examines a number of research methodologies that scientists explore in the virtual reality of Second Life and World of Warcraft, including formal experimentation, observational ethnography, and quantitative analysis of economic markets or social networks. Kozlov and Johansen (2010) present virtual reality as an ideal space for experiments because it provides a significant level of control and a less contrived context.

Hooley et al. (2012) plot a matrix with synchronous and asynchronous on one axis and text-based and multi-media on the other. Wiersma creates a similar matrix with "lab" particular online environment (equivalent to a conventional lab) and "field" (actual online behavior of individuals) on one axis and "web-based" and "virtual reality" (Second Life and World of Warcraft) on the other.

Mosteller et al (2014) also consider the field of websites to build on fluency theory according to which if people easily comprehend ideas or information, they are more likely to believe them. They examined how perceived fluency of the verbal online information impact on consumers' choice satisfaction with an online shopping task. Their experiment shows that cognitive effort and positive effect influence judgments about the perceived quality of the choice made.

For engaging participants in an experiment, Hooley et al. (2012) suggest to use some kind of payment or incentive. Accordingly, they provide the example of a case study (Suri and Watts 2011), which uses micro-payments to recruit participants.

An experimental design consists of: Identifying independent and dependent variables, Defining levels of experimental treatment, designating test units and their affection into different groups, and finally minimizing (eliminating, if possible) the influence of bias, extraneous and confounding factors, on the results of the experimentation. We adapt all these components to our research. In our study, the independent variable is the third-party source of trust, and the dependent variable is the behavior of granting of qualified people who visit a specialized website to decide to whom the funds should be granted. The dependent variables are the website stickiness that refers to two factors: time spent in general and number of visited pages on a website. For our experimentation, we consider a period of 15 days.

We conducted the experiment in a "natural setting", i.e. out of computer lab. The platforms were evidently fictitious, but highly plausible. Our design considered three different levels for independent variables, knowingly network of acquaintance (group pressure), label of certification designated by the non-governmental professional organization, and the politico-legal authority. Consequently, four different platforms were constructed according to the three source of the third party-based trust:

Website India Donates 1- Plain story

Website India Donates 2- Friends

Website India Donates 3- Government

Website India Donates 4- Regulator certifications.

The objective was to observe the effect of each level of manipulation on the dependent variable (jury visitors' granting behavior). The "test unit" in our experiment is the visitors of a platform specialized in grant distribution. These visitors, as elected and qualified jury members, decide to affect the Website's collected funds to candidates whose cases and/or photos are posted.

Consequently, the experiment was based on observing the behavior of jury members visiting four versions of a touristic website. One version, the control group, is the platforms without any signal of third-party source of trust. The other three versions are each based on a specific signal of third-party source of trust. Except these signals, different versions are all similar.



Figure 1: Platforms of Control and of Experimentation

We Stated Three Hypotheses

H1. People grant more to candidates who are observed in the time of experimentation by acquaintances and relatives than to those who postulate for grants, independently.

H2. People grant more to candidates who are met in the time of experimentation on the websites, which are labeled by the non-governmental professional certifiers.

H3. People grant more to candidates who are met in the time of experimentation on the websites, which are observed by the politico-legal authorities.

Participants were recruited from students of different institutions in three different cities in the state of Maharashtra, India.

- a) Tata Institute of Social Sciences, Mumbai (TISS) : These students are pursuing their Masters degree in Social Sciences and come from various states of India.
- b) College of Engineering, Pune (COEP) : These students are pursuing their Bachelor's degree and come from various districts of Maharashtra State, India.
- c) Sinhgad Institutes, Pandharpur (SKNSBS) : These students are pursuing their Masters degree in either Business Administration or Computer Application and come from Western part of Maharashtra, India.

Participants received emails and were invited to visit the platforms at their convenience within a period of 20 days, from October 14, 2014 to November 3, 2014. Participants were divided into four sets and randomly assigned to different platforms of experimentation. We finally conducted the experiment with about 179 students.

Participants were initially introduced to the purpose of the study by a letter as follows:

India Donates is a specialized crowdfunding website for supporting and assisting young adult students in their basic initial projects of education, entrepreneurship and family building. India Donates helps talented students to get rid of financial needs in perspective of successfully integrating society and achieving their dreams. India Donates plans to be operational on the Internet in the spring of 2015. Prior to launch, the company wants to test its website with potential customers.

Then, participants were asked to visit the assigned website. The online behavior of each participant, in terms of spent time and page views, is automatically recorded. A pilot test was conducted with students to check the manipulations of all variables and questionnaire.

After the visit, participants were invited to fill a short questionnaire where they mainly indicated their gender, origin, age and general feeling about

the websites. This questionnaire contained a few more “distracting” questions to avoid the Hawthorn Effect, an experimental effect that is caused by the participants knowing that they are being watched and not as a result of the experimental intervention directly.

The collected data, analyzed by the software program Google Analytics, offered insights on time spent on each story, the donations received for each story, and page views.

Table 1: Questionnaire at the End of Website Visiting

1.	For me the general visual appearance of the site is... (1 = very unappealing, 5 = very appealing)
2.	For affecting a grant, I find the content displayed on the website (1 = not informative, 5 = highly informative)
3.	Which of the following best describes your reaction to the trustworthiness of the website? (1 = not trustful, 5 = highly trustful)
4.	How do you evaluate the general level of trustworthiness of the student candidates on the Website? (1 = not trustful, 5 = highly trustful)
5.	Has visiting the website have you like crowdfunuding more? (Yes/No/Can't say)
6.	Does the website content help to affect grants? (Yes/No/Can't say)
7.	In your opinion, do the students who receive the funds use them in a proper way as it is announced in their case profile presentation? (1 = very unlikely, 5 = most likely)
8.	Which of the following age groups do you belong to? (<19, 20-25, 26-34, 34-49, 50+)
9.	What do study in higher education?
10.	What is your grade?

Results, Findings and Discussion

For data analysis, we first proceed to the tabulation of frequency distribution of all the assigned variables. We then performed ANOVA (Analysis of Variance) test to explore if there are any differences in the impact of different types of websites on visitors/jury’s behaviors. ANOVA, developed by Ronald Fisher, is a pertinent statistical tool for our experimentation because it allows to find out whether observations on different groupings of independent variables of types of websites bearing different third-party trust builders explain variance in the dependence variable (time spent, pages visits, donation amounts). Accordingly, the two following tables illustrate simple statistical

tabulations of data collected on stickiness (time spent and number of pages visited by visitors), and on amount of donation made per website. We remind that our experimentation lasted over a period of 20 days.

As the table 2 shows the bare-bone website of experimentation control, without any third party witness, is less visited in time and number of pages called on. The websites bestowed by third-party trust builders display different performance.

The rank number one is attributed to the website supported by public authority (government) for the independent variable “time spent”; and to the website supported by friends for the variable “pages

Table 2: Time Spent (in Seconds) and Number of Pages Visited by Visitors on the Websites by Type of Independent Variable

Platform India Donates	# Visitors	Time Spent		Pages visited by visitors	
		Total	Average/visitor	Total	Average/visitor
Control platform	44	12833	291.65	284	6.45
Friends platform	40	12509	312.72	529	13
Government platform	38	14584	383.78	388	10.21
Certifier platform	54	19001	351.87	417	7.72

visited”. For the rank number two, the website certifier stands for the variable “time spent”; and the website government for the variable “pages visited”. The website with the friends’ presence, and that of certifier hit the third place, respectively, for “time spent” and “pages visited” variables.

We continue our data analysis to determine whether time that visitors spend and number of pages they call on are statistically significant among different declinations of the website India Donates.

For the time spent among the four website versions, the hypotheses are:

- H0: There is no difference in the length of time visitors spent on the four websites.
- H1: There is a significant difference in the time that visitors spent on the four websites.

The below table 3 shows that the significance value is 0.0 -so less than 0.05. Hence, the null hypothesis is rejected, and the alternate hypothesis is accepted:

Table 3: ANOVA Test for Time Spent Across the Four Website Versions of India Donates

Sum of Squares	Difference	Mean Square	F	Significance	
Between Groups	142803.876	3	47601.292	8.304	.000
Within Groups	9257589.751	1615	5732.254		
Total	9400393.627	1618			

“There is a significant difference in the time visitors spent on the four websites”.

After the variable “time spent”, we apply ANOVA Test to the variable of number of pages visited. The hypotheses are:

- H0: There is no difference in the number of pages visitors call on among the four websites.

- H1: There is a significant difference in the number of pages visitors call on among the four websites.

Once more, as the table 4 displays with the significance 0.00, the null hypothesis is rejected, and the alternate hypothesis is accepted. Thus: There is a significant difference in the number of pages visitors call on among the four websites.

Table 4: ANOVA Test for Page Views Across the Four Website Versions of India Donates

	Sum of Squares	Difference	Mean Square	F	Significance
Between Groups	1506.857	3	502.286	10.124	.000
Within Groups	80128.528	1615	49.615		
Total	81635.385	1618			

According to the above analysis, we conclude that there is significant difference between these two variables. In other words, the third-party trust builders have significant impacts on the juries’ behavior in terms of time spent and pages visited on the platforms.

Now, the question is whether the impact is the same on donation behaviors. For the simple tabulation, the table 5 plainly displays that the website India Donates-Friends receives the highest

amount of donation for all categories (total, average per website, and average per number of visitors donated), whereas the website India Donates-Control receives the lowest- with a considerable difference of less than the half. Visitors’ behavior for donation is clearly like their behaviors regarding number of pages visited per website.

Our ANOVA Test now considers whether there are statistically significant differences on amounts of donation among the four website versions.

Table 5: Analysis of the Donations (in Rupees) Made by the Jury (Visitors) Per Type of Website (Independent Variable)

Platform India Donates	# Visitors	Total	Average Donation Per Website	Average Donation Per Jury
Control platform	44	61350	632	1394
Friends platform	40	154000	1033	3850
Governmentplatform	38	131800	1021	3468
Certifierplatform	54	116650	948.37	2160

The hypotheses are, thus:

- Ho: There is no difference in the visitors’ donation behaviors among all four websites
- H1: There is a significant difference in the visitors’ donation behaviors among all four websites.

From table 6, it is clear that the significance value 0.181 is greater than 0.05. Hence we reject the alternate hypothesis and accept the null hypothesis that “There is no difference in the visitors’ donation behaviors among all four websites”, even though the previous simple tabulations seemed suggestion that the donation behaviors are different among the experimentation websites.

Table 6: ANOVA Test for Donations Across the Four Website Versions of India Donates

	Sum of Squares	Difference	Mean Square	F	Significance
Between Groups	11310004.748	3	3770001.583	1.632	.181
Within Groups	1140831320.554	494	2309375.143		
Total	1152141325.301	497			

The ANOVA analyses reveal unexpected results. While there are significant differences on behaviors of time spent and pages visited across the experimentation websites (the alternate hypothesis H1 validated), the behavior of donation does not present any significant difference at the time of experimentation among the control website and the three other declinations, which are supported by different third-party builder of trust (the null hypothesis Ho validated).

The differences in donation behaviors appeared in the simple tabulation (table 6) are not statistically significant. Thus, it can be stated that the different types of third-party trust builders do not alter the magnitude of donation behaviors. They, however, do alter the stickiness behaviors.

One plausible explanation is that different thirds-party institutions of trust, friends and relatives (culture), politico-legal organs (state and

Table No. 7: Visiting Behavior

Visiting Behavior				
Website India Donates	Time spent (second) on platform (% , rounded)		Number of visited pages	
	Male	Female	Male	Female
1. Control website	3723 (29%)	9110 (71%)	119	165
2. Friends	7965 (64%)	4544 (36%)	323	206
3. Government	8508 (58%)	6076 (42%)	243	145
4. Certifier	12869 (68%)	6132 (32%)	327	90

governments), and professional certifiers, quickly ensure the visitors to decide whom to donate. So, they indifferently provide trust to donors. The other explanation is that visitors do not need to be supported by third-party sources of trust for donating. In other words, in presence of trust building factors, people with donor mindset explore more profiles to donate.

From Table 4, the significance value of 0.000 indicates that results are statistically significant for different trust factors and the hypothesis H3 stands validated. In other words, when different trust factors are involved people with donor mindset explore more profiles and donate to more

candidates.

From Tables 8 and 9, it was found out that the contribution of males in the total amount of donations was higher than that of females except in the case of Website IndiaDonates 1- Plain story. Women donated more when the network of friends was involved as in the case of Website IndiaDonates 2- Friends while men donated more when the Regulatory certifications were involved in the websites. Similar pattern was observed in terms of time spent by men and women on these websites. Men contributed more to the total time spent on all the websites except in case of Website IndiaDonates1- Plain story.

Table 8: Donation Behavior

Donation Behavior				
Website India Donates	In value, Indian rupees (% , rounded)		Number of time of donating	
	Male	Female	Male	Female
1. Control website	29500(48%)	31850 (52%)	40	57
2. Friends	99150(64%)	54850 (36%)	81	68
3. Government	76750(58%)	55050 (42%)	82	47
4. Certifier	99500(85%)	17150 (15%)	95	28

Conclusion

We began this exploratory research by wondering whether different third-party sources of trust builders,cultural, politico-legal and independent certifying institutions, have different impact on individuals’ trusting behavior. We settled that the different types of third-party trust builders do not alter the magnitude of donation behaviors; however they doalterthe stickiness behaviors.

Our results might yield to actionable policies to build trust beyond the sector of crowdfunding, which was our field of research. Consequently, marketers and business responsible managers can proactively contribute to build trust, in order to ease and speed up transactions and exchanges. In this perspective, the results can support the fours patterns of services innovations in financial institutions that Martovoy and Mention suggest (2016): the bank’s response to a problem, the proactivity-driven innovation, the market emphasis and the strategy-based service generation.

Though quantitative analysis is used, the article leaves unclear some other quantitative aspects of

trust. Different questions relative to measurement and cost of trust building can be raised: what is the relation between the cost of a marketing strategy for building trust and the impact of the created trust on sales? While the causal relation between trust and transaction is self-evident, one should get some interest in exploring regression analysis, between amount of trust and that of marketing outcomes. Other quantitative inquiries can also be considered.

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