

Social innovation practices: focus on success factors for crowdfunding

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Abstract

This article explores what are the success factor for interaction with platforms of crowdfunding in Italy. Through a Principal Component Analysis we outline three variables and through a multiple regression analysis we demonstrate that the interaction on crowdfunding is positive correlated with socio-economic propensity and cultural level. The analysis has been conducted on a sample of 316 of projects funded in the Crowdfunding platform Produzioni dal Basso, the first platform born in Italy. We draw on SD logic and relationship marketing to underscore the importance of networks of actors and integration to create a co-creation of value. This view emphasizes the social and economic factors that influence, and are influenced by, crowdfunding.

Keywords: crowdfunding, social innovation, value co-creation, SD logic, relationship marketing, Produzioni dal Basso

Research topic: social innovation / value co-creation and the changing role of suppliers and customers

Article classification: research paper

Introduction

The term crowdfunding (CF) involves “an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes” (Belleflamme et al., 2014). Since 2004, the phenomenon of CF has exhibited growing development on the web promoting a new form of participatory economy to internet users (Dulaurans, 2014, 72). Since the beginning, CF has been characterized by feelings of mutual identification and unwritten social norms of (specific and generalized) reciprocity in building social capital relations among platform members. This encourages members to show support to other members (Colombo et al., 2014, 76).

The nature of social innovation and co-creation value is clear in this innovative funding instrument (Shiller, 2013), and can be considered as a form of social innovation capital (McElroy, 2002), in which the customer is conceived as an active player in the creation value process (Normann & Ramirez, 1993, 65-67; Prahalad & Ramaswamy, 2000, 5-6). Crowdfunding shows peculiar features of social interaction, including:

- the customer has three specificities that may not be found together anywhere else the presence of an enabling organization with which those seeking capital (initiators) and those in possession of capital (sponsors) are affiliated;

- direct interaction between entrepreneurs and investors;
- emergence of social groups among investors and entrepreneurs (Giudici et al., 2012).

CF platforms are created to enable value co-creation for all the various participants through the application of the resources, in order to create a market-oriented and relationship-based product (Gummesson, 2008, 15-17). Crowdfunding, therefore, maximizes the involvement of consumers through the use of new technologies (web 2.0), that allow value co-creation between participants that interact within the internet. Social innovation is primarily a means to an end rather than an anticipated outcome of a given process (Grimm et al. 2013).

In fact, this funding method that works by means of a social interaction between producers and consumers of the CF platform, seems to have an explicit theoretical reference in the SD logic. When “the roles of producers and consumers are not distinct, meaning that value is always co-created, jointly and reciprocally, in interactions among providers and beneficiaries through the integration of resources and application of competences” (Vargo et al., 2008). Moreover, its theoretical framework includes the network theory (Gummesson, 2008), the service logic (Grönroos and Ravald, 2011, 5-7; Vargo et al., 2008), the service science (Maglio and Spohrer, 2008; Vargo & Lusch, 2008), Open Innovation (Dahlander & Gann, 2010), and Social Capital (Leana & Van Buren, 1999, Hansen, 1999).

That being stated, in the SD logic, knowledge and skills are key resources for competitive advantage. SD logic focuses on the action of operant resources, which act upon other resources, such as knowledge and skills (Vargo et al., 2008). It is unclear whether the social and cultural level of individuals in terms of skills and knowledge, may or may not facilitate the inclination to participate in the creation of communities like those realized in the CF projects.

In summary, the question arises as to whether the social and cultural features of individuals represent a factor that allow the participation in crowd-funding projects, and whether this could trigger “multiplying effects” of social interaction, increasing participation in CF projects, and therefore, interactions between citizens, public institutions, and investors.

Literature review

CF is considered a second generation paradigm of crowd-enabled fundraising, since it allows the financing of socio-cultural projects that don't permit investors to have an immediate profit, at least monetarily (Callaghan, 2014, p. 1500).

In this perspective, the connection between investments in CF and the social and cultural value of investors become clearer. It provides them with motivational elements, clearly different from mere monetary returns.

For example, taking into account that the sense of belonging to a city, an essential motivational element in many CF projects (civic crowdfunding projects in particular), can strongly incentivize users to promote their territory (Giannola, Riotta, 2013, 604). Enterprises that look for investors also acknowledge that they have a more complex role and function than one of simple users in order to go beyond the “cultural and cognitive distance-related barriers between for-profit investors” (Lehner, 2013, 290).

As a matter of fact, CF investors are more than a random crowd of users. They are a selected group of consumers, with similar social and cultural values, that express the will of empowerment, the awareness of their cultural identity, and even the social and cultural values of the backgrounds in which they live through crowdfunding (Calveri & Esposito, 2013, 21-22).

On this topic, Zheng et al. (2014, 489) has shown in an empirical study on CF platforms clear cultural peculiarities of US and Chinese investors, so that the “social capital may have different impacts on crowdfunding in different countries”. This shows a cross-cultural perspective of sponsors (Staber, 2006, 189-190) that suggests a geo-cultural segmentation of prospective users, since: “culture has an important effect on an individual’s social life and that people from different cultural backgrounds have different beliefs, attitudes, and behaviors”. In other words, cultural gaps seem to affect the willingness of interaction within the CF platforms. This gives a great importance

to the social and cultural factor when investing in CF.

Other writers have observed a cultural affinity between investors and their artistic and cultural heritage. An analysis of the 875 crowdfunding campaigns in the Kickstarter platform, underline how they, Boeuf et al. (2014, 34), have shown a clear “relationship between donors, entrepreneurs, and the crowdfunding platform in the performing arts (...) the prosocial behavior of the actors involved in the crowdfunding process underscores the affinities between this phenomenon and the spirit of reciprocity that is inherent to the gift economy”. In fact, the willingness to participate in CF projects seems to emerge from a strong interaction “between creators, funders, publics, and online and offline communities” (Bannerman, 2013, 27).

Some studies (Wentz, 2008 et al.), however, show the importance of a cultural behavior in interaction. The social innovation is an essential feature in the success of CF projects. Indeed, “it is from an open and inclusive culture that a social innovation draws much of its strength” (Murray et al., 2010, 74).

The conclusion that emerges from this study is that participation in CF projects depends on the cultural behavior of individuals looking for social interaction.

As stated by Davidson and Poor (2014), there is a link between the cultural value of the projects, “certain social and psychological characteristics and attitudes toward crowdfunding”. This implies a relevant connection between the social and cultural level of the individual and the decision to invest in CF. In this sense, the cultural adjective, associated with crowdfunding, reveals an inclination to social innovation and to co-creation of value that combine innovative financing instruments with a philanthropic concept of corporate social responsibility (Rana, 2013, 1171).

At this point, it would be interesting to see whether socially and culturally more evolved individuals would be more inclined to the realization of CF projects given their tendency to social interaction and to the related stream of knowledge among the various social players involved. This correlation would be very important if it demonstrates that CF projects funding is more likely to appear where individuals show behaviors of higher social and cultural levels. Therefore, let's hypothesize:

HP 1: The inclination of individuals to interact with crowdfunding platforms is positively connected to their social and cultural level.

On the other hand, as already shown, the social and cultural level of individuals must be combined with an inclination to interact with other individuals, and that is shown by a sensitiveness to social interaction.

Consequently, functioning social networking platforms together with the emancipation of the crowd propose interesting opportunities (Drury & Stott 2011; Reyes & Finken 2012). Therefore, the use of networking is typical of CF platforms, because it allows the organization of a network in which knowledge can be shared with external subjects and socialized in a collective dimension of consumption (Genco P., 2007, 28), fostering a direct link between enterprise and customer.

So the prospective sponsors of CF projects must be inclined to social interaction and open innovation, going beyond economic, social and cultural barriers.

The CF platforms allow users “to overcome the *offline barriers* to market transactions as generally identified by the literature, which represented for long time an obstacle to growth and developments of countless areas and neighborhoods” (Miglietta et al. 2013; Choi & Bell, 2010).

In other words, the decisions to invest in CF do not depend on the geographical origin of their sponsors (Agrawal et al., 2011), as far as the cultural and social inclination to interact with other people is concerned (Tidd & Bessant, 2009).

This trend overcomes the feeling of belonging to the same ethnic group, area or gender, and unites prospective users with the same inclination to social interaction.

This interaction aptitude pushes investments in CF projects and creates multiplying effects inside the CF community. Networking theory has already proven to be highly predictive in modeling the flow of various resources, but also more generally capabilities, information and opportunities in various situations (Lehner, 2013; Dobrow et al. 2011; Mahmood et al. 2011).

Therefore, the individual trend to social interaction is an aptitude to relate to others. In fact, his trend develops itself in a faster way in favorable backgrounds. The more economic players are involved in social networks like CF platforms, the more social interaction situations increase, the more there will be an inclination to invest in CF platforms. This is the consequence of multiplying effects in the social network, that increases the aptitude to relate to others. Therefore, on the basis of the above mentioned statements it is hypothesized that:

HP 2: The inclination of individuals to interact with crowdfunding platforms is positively connected to their social aptitude to relate to other people.

As seen before, the social and cultural level of individuals and their inclination to relate to other people may determine the decision to invest in CF. Both factors highlight the peculiarity of CF projects, that is the importance of social innovation and co-creation value for their effective implementation. In other words, there seems to be a positive connection between CF projects, network creation and social and cultural level of individuals.

Actually, crowdfunding uses innovating instruments such as social media web 2.0, that simplify an interaction before, during and after the consumption phase (Breidbach et al., 2013).

A service-centered view, in recognizing that the consumer is always a co-producer suggests that businesses should try to maximize consumer involvement in the customization to better fit his or her needs (Barile & Polese, 2009).

The use of ITC instruments may depend on the individuals's spare time availability, as well as their cultural value, that would encourage them to use (more than other less culturally and socially developed individuals) these kinds of instruments.

In this regard, we talk about the digital natives¹, with a peculiar aptitude to relate themselves by means of these instruments of open innovation, that not only inspires ideas, concepts, products or services, but they also provide a social interaction that enterprises can exploit in different ways, as if these were “asset that inheres in social relations and networks (Leana & Van Buren, 1999).

From this perspective, the CF represents a “laboratory” that creates co-creation value.

The use of web 2.0 and of open innovation instruments seems to facilitate the aptitude of individuals to invest in crowdfunding projects, especially because these instruments allow them a more efficient management of their spare time.

In other words, a virtuous cycle establishes itself, so the use of innovating instruments arises from the need to bring down the time of use, multiplying the positive management of spare time (Resciniti, 2002), and this all together fosters the social interaction.

One example is represented by the *networked generation* use of these kinds of instruments, in order to favor spare time management and to change social connections into virtual social connections (Marinelli, 2011).

Where on one side, society tends to decrease spare time as it considers consumption the ultimate economic activity, on the other side, new instruments of open innovation and the social media allow a better use of cultural and economic activities, placing them in an innovative field of enjoyment (Di Maio & De Simone, 2006).

Therefore, if open innovation instruments and the social media foster the use of spare time, reducing the time and costs, individuals are more inclined to relate to CF platforms. On the contrary, as literature states, those who spend many hours watching television, and allegedly have a bad management of their spare time, are less socially active (Putnam, 2000) and will have few participation within voluntary organizations (Bruni & Stanca, 2006), consequently affecting the overall well-being of the community.

What has been said before, combining the spare time management with the aptitude to social interaction, allows us to suppose that:

¹ This expression coined by Marc Prensky in 2001, describes a person that has grown with digital technologies such as computers, the Internet, mobile phones and MP3 players.

HP 3: The inclination of individuals to interact with crowdfunding platforms is positively connected to their spare time management skill.

Inside the community of a CF project, through social interaction, a new asset is defined, that is “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit” (Nahapiet & Ghoshal, 1998). However, the advantage of investing in CF cannot originate itself merely from social interaction.

For this reason many authors have underlined the social aspects and the co-creation value of CF, for example, talking about co-ideation, co-valuation of ideas, co-design, co-launch, co-investment and co-consumption (Russo-Spena & Mele, 2009, 527-530; Ordanini et al., 2011, 443 ss.; Payne et al., 2008; Grönroos & Ravald, 2011).

One of the motivations to invest in CF, therefore, is the involvement of the sponsor in a wider role, that is not only that of investor, but also that of producer, as a main player in the project itself, as the rewards are not monetary.

This leads us to underline the fact that, according to resource-based theory (Penrose, 1959; Barney, 1991), the competitive advantage of the firm is based on customer’s ability in co-creating value offerings and on the possibility that the customer can become itself a strategic resource.

In the Service Dominant Logic (SDL) point of view, in particular, the value is perceived and co-produced by customers, and doesn’t originate directly from the product itself, but also from its use, transformation and consumption (use value) (Vargo et al., 2008; Gummesson & Polese, 2009, 337-340), so that it allows a mutual satisfaction (producers and users) that generates itself from the co-creation processes (Vargo & Akaka, 2009). It is understood that crowd-funding platforms facilitate the participation of all of the agents involved in value creation. In addition, they represent a collaborative space based on the connection facilities provided by new technologies (Quero et al., 2013, 18-21).

In fact, the relational added value of CF is not limited to the investment and to the supply of financial capital, and explains itself through new perspectives. The creation, enhancement and support phases of the entrepreneurial project modify themselves as new functions arise, at first irrelevant to specific players (Belleflamme et al., 2014). Thus, we can talk about “prconsumption” (Toffler, 1980), to specify those consumers that, having defined peculiarities, participate proactively in the phase of production.

The social innovation processes of CF, therefore, seem to allow a more deep involvement of investors, integrating them in a more complex co-creation value process (Normann, Ramirez, 1993). This connection is so pervading that often leads CF projects sponsors to a lower risk perception (Izard, 2010; Haase, Silbereisen, 2011).

In this regard, part of the literature affirms that a low risk perception reduces the multiplying effect of rewards, in particular the economic ones. The CF, being a “pressing social demands, which affect the process of social interactions” (CE, 2013), changes the expectations regarding the rewards that users expect: not only price money, but also, if not exclusively, social and cultural benefits.

In terms of positive impact on their brand image, reputation enhancement and common acknowledgement, socio-economic promotion of their own cultural background, etc. The socio-emotional value of these investment methods has a deep impact on the choice of investment, regardless of the economic aspect of the risk-profit factor (Gasper, Clore, 2000; Russell, 2003).

This is a CF peculiarity, a feature that highlights the social innovation aspect of such a financial instrument, that is founded on the individual's socio-emotional remuneration, rather than on the economic one. Therefore, it is supposed that:

HP 4: The inclination of individuals to interact with crowdfunding platforms is negatively connected to the number of financial rewards.

The great importance of the socio-emotional factor of the CF, which deeply influences users behaviors, should not be underestimated and must be, therefore, supported by a proper

communication level of the socio-emotional aspects of the project. Only in this way prospective sponsors of a CF project can have the necessary awareness of what they support, in order to give a well-balanced assessment (cultural-emotional and economic) of the project's risk/profit.

On the other hand, in a perspective on value creation for business and marketing, as well as of service application of knowledge and skills to resources to support someone's value creation (Grönroos & Gummerus, 2014, 213), the communication/information process of a business project is crucial to make it more attractive to sponsors. Communication is needed to access and develop social capital (Boland & Tenkasi, 1995).

In this point of view, a communication process which focuses on collaborative and open processes involving companies and users, defines itself. (Galvagno & Dalli, 2014). Information systems research belongs to this domain, thus focusing on customer relationship management (Alavi et al., 2012), technological platforms for customer engagement and open innovation platforms (Westergren, 2011). Moreover, a CF platform is an example of service systems, as it is "a configuration of people, technologies, organizations and shared information, able to create and deliver value to providers, users and other interested entities" (Maglio & Spohrer, 2008).

This confirms that information communication technologies address the problems of the world of today in a smarter and more reactive way (Barile & Polese, 2010, 31).

A CF platform, thus, provides online communities areas in which both projects proponents and project sponsors can share informations, in a win-win communication logic: project proponents can test their products and promote them; sponsors receive a social feedback or just have fun with it (Lambert & Schwienbacher, 2010).

In this way a co-production or co-creation behavior develops itself, (Yi et al., 2013) and can be fostered by developing a clear project description to share with the users in a collective manner.

For example, in a crowdfunding platform such as Produzioni dal Basso, entrepreneurs can describe their projects using words, pictures, videos and attaching files.

This underlines the strategic importance, for a CF project, to operate through an information technology platform that allows an immediate, complete and interaction-related communication of informations.

It is precisely because the rewards are often non-monetary rewards, that explanation is needed, for example on what is required for the funding and on what funding is for.

The role of planning communication, hence, turns to be essential in the CF projects.

From the above mentioned statements it can be presumed, thus, a link between the inclination of prospective sponsors to invest in CF projects and the quality and quantity of the informations they can have access to and on which they can take their choices of investment. Therefore, it is supposed that:

HP 5: The inclination of individuals to interact with crowdfunding platforms is positively connected to the number of informations provided to them.

Research methodology

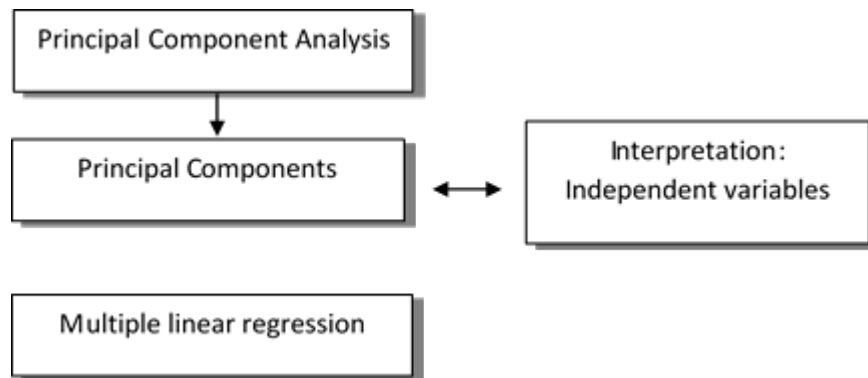
The methodology used in the working environment is that of a research paper. More specifically, a literature review has been created, followed by the validation of hypothesis which are an expression of statistical analysis.

The literature review has based on a comprehensive bibliometric analysis. In particular, the database EBSCO was used to select a set of reviews consistent with the following search items: crowdfunding, social innovation, SD logic, relationship marketing and value co-creation and the changing role of suppliers and customers. Among this sample of reviews, it was made a further screening of the paper within. The chosen articles were those placed in a significant time (2004-2015) and, among them, those who had a strong bearing on the research topics. There were so 182 classified articles, of which 71 extracted and used for the construction of the hypothesis.

The research hypothesis underwent a validation through an empiric analysis made on a sample of projects displayed and funded on the Produzioni dal Basso platform.

For the empirical analysis we acted as follows. A preliminary analysis of the principal components was carried out (PCA, Principal Component Analysis), through the R Project program, unanimously recognized as one of the essential methods for the early exploration of data related to multivariate systems. This is how three out of five independent variables used for the analysis have been found. Then, a multivariate regression analysis was carried out (Anania & Tarsitano, 1995) through the Gretl econometric program, in order to check the connection between the variables and therefore, to validate the research hypothesis.

Fig 1: Design methodology



Dataset

Produzioni dal Basso (PdB) is one of the first crowdfunding platforms born in Europe, and it is also one of the biggest reward-based, donation-based Italian communities of self-production on line, that is, of projects that envisages rewards in exchange for fundings or simple donations (without any monetary reward). PdB gives the opportunity to support different kinds of crowdfunding projects in an horizontal way, transparent and completely free for the sponsor. Unlike other Italian platforms, PdB doesn't envisage projects cataloguing within specific categories, using the single term “tags” in order to define the subject of the proposal to fund.

For this reason the projects selected for our survey sample were about different subject areas: from re-qualification and recovery projects campaigns, to projects related to the cultural and creative sector.

For the samples we proceeded this way:

- Informations on already funded project campaigns (in the specific section) have been gathered from the PdB web-site, for a total of 624 projects;
- Projects have been divided into a period of time from 2005 to 2015;
- From each project has been collected the tag, the name of campaign, the proponent, the place of origin, the required goal, the achieved goal, the campaign status, the number of sponsors, the number of generated comments, the number of expected rewards and the number of files available to prospective sponsors;
- Different projects have been divided on the basis of the proponent's place of origin (in particular, the region).
- Projects that didn't have a defined place of origin were not taken into account,

The resulting ultimate sample is made of 316 crowdfunding projects, that take place in all Italian regions, except of Molise region.

Variables

In order to study the correlation, this kind of multiple regression analysis (OLS) was used for this purpose:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

Where:

- Y: is the dependent variable “inclination of individuals to interact with crowdfunding platforms”;
- X1: is the independent variable “socio-cultural level of individuals”;
- X2: is the independent variable “socio-economic aptitude to relate with other people”;
- X3: is the independent variable “individuals spare time management skill”;
- X4: is the independent variable “number of rewards”;
- X5: is the independent variable “number of informations available for the public”.

Dependent variable

The dependent variable chosen to represent the interaction with the platforms of crowdfunding is the inclination of individuals to interact with them. Interaction, with relationships and networks, represent the core variables to identify the relationship marketing (Gummesson, E., 2002).

In order to assess the inclination to interaction, the “number of sponsors” indicator has been used, an information that can be found in every project².

It is assumed that the willingness of individuals to interact with the CF platforms, that is to support CF initiatives, is related to features both inner and external to subjects. In particular, it is assumed that, if the investors behavior reflects that of the samples, it will be defined by specific aspects – those outlined in the selected independent variables – with the result that there will be a better inclination to interact with CF platforms.

Independent variable

Independent variables are related to those factors that, somehow, can allow interaction between prospective sponsors and the CF platforms. In particular, three out of the five variables taken into account are connected to factors external to the CF platforms; two variables take into account factors inside the CF platforms.

As far as the first group of three variables is concerned (those characterized by factors external to the CF platforms), these have been identified analyzing the principal components.

The Principal Components Technique is a precious instrument, useful to clear linear relationships among the considered indicators. In particular, a data examination was carried out regardless of the specific models (Todeschini, 1998). Therefore, the initial variables (“p” components), at a regional level in Italy, may address to the following aspects:

- Percentage of persons aged 14 and over by level of satisfaction for some aspects of their daily life (financial position, health, family relation, friend relation, free time);
- Population 15 years and over by highest level of education;
- Percentage of persons aged 14 and over who carried out some social activity (meetings of peace, civil rights and environmental associations, cultural meetings, recreational associations or of other type, free-of-charge activity for volunteer groups or associations, free-of-charge activity for an association different from that of voluntary service, free-of-charge activity for a trade union, money given to an association);
- Demographic indicators;
- Tourism indicators.

The data, conveniently standardized, are gathered and elaborated from the Istat database³.

Furthermore, the year 2012 was chosen as reference year, due to the great availability of variables in this period of time. PCA allows you to switch from a description of the system in terms of

2 The inclination to interact may be calculated through the “number of comments” indicator, another information included in every single project. Since the connection between the “number of comments” and the “number of sponsors” turned out to be very high (coefficient 0,98), consequently showing that the information included in one variable was pretty much the same as that included in the other variable, we considered only the “number of sponsors”.

3 <http://dati.istat.it/>

macroscopic original variables (p components) to a description at a higher semantic level, whose role allows you to capture the emergent properties of the system, that are new properties compared to the initial knowledge (Todeschini, R. 1998).

In order to define the number of principal components, we used the criteria of the amount of explained variability from the first “p” components taken into account. An adequate value of explained variability is higher than 70%. For this reason we choose to extract the first three principal components from the 7 potential extractions, considering an eigenvalue greater than 1.

Tab. 1: Eigen Value

EigenValues			
E.values	Perc.	Perc.Cum.	
[1,]	18.4966	44.0395	44.0395
[2,]	7.0812	16.8600	60.8996
[3,]	4.7016	11.1943	72.0938
[4,]	3.0894	7.3558	79.4496
[5,]	2.0429	4.8641	84.3136
[6,]	1.5423	3.6721	87.9857
[7,]	1.4265	3.3964	91.3822
[8,]	0.9927	2.3636	93.7458
[9,]	0.7895	1.8797	95.6255
[10,]	0.4640	1.1047	96.7302
[11,]	0.3123	0.7435	97.4737
[12,]	0.2819	0.6713	98.1449
[13,]	0.2160	0.5142	98.6591
[14,]	0.1735	0.4130	99.0721
[15,]	0.1374	0.3271	99.3992
[16,]	0.0993	0.2363	99.6356
[17,]	0.0837	0.1992	99.8348
[18,]	0.0694	0.1652	100.0000

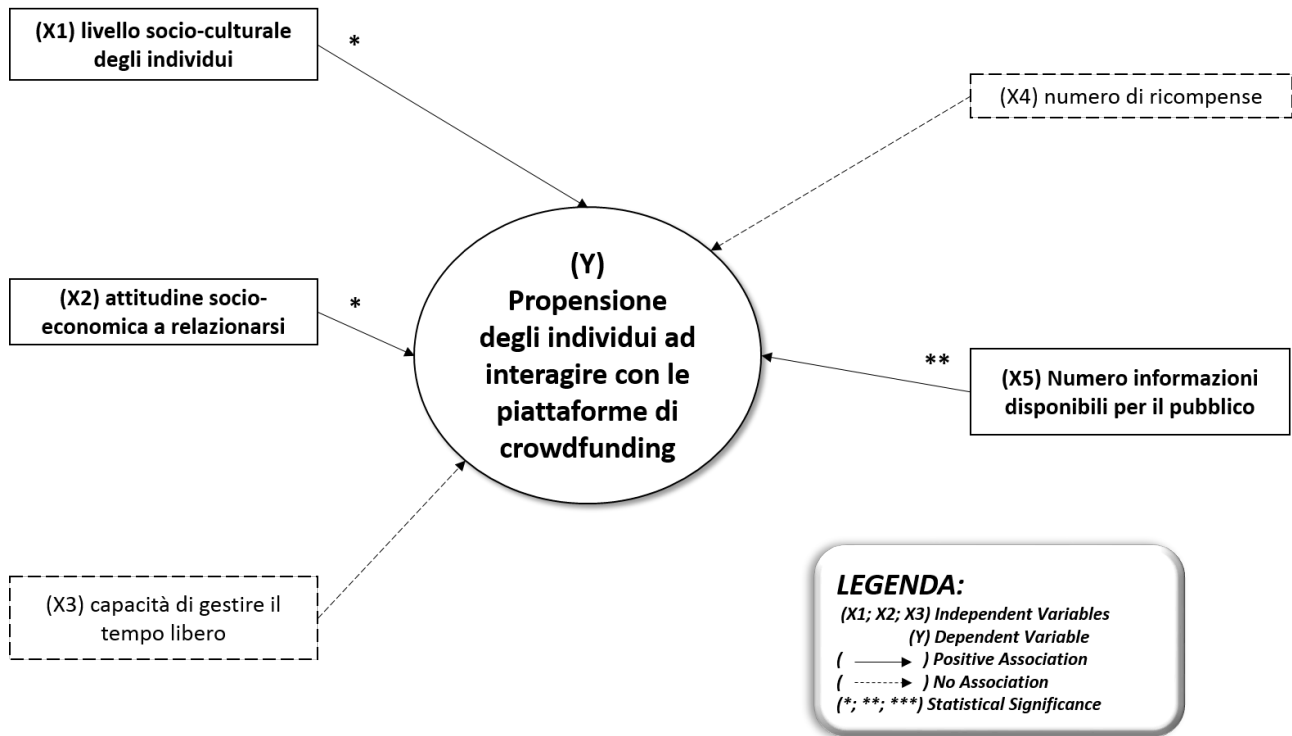
To summarize, the interpretation of principal components (that is, three out of five independent variables) is:

1. *Socio-economic inclination to interaction*, that is to participate in a network or social interaction. This component is extracted from a series of variables: the number of associations in which sponsors have participate; the level of satisfaction of their financial position; the number of unsatisfactory family relationships; the level of financial support to other associations;
2. *The socio-cultural level of the background*. This component is extracted from two variables, the education level of inhabitants and their free time;
3. *Individuals free time management skill*. This component is extracted from two variables, the satisfaction for their own free time and the average stay in a tourist destination.
4. The other two independent variables refer to aspects inside the CF platform. More precisely, they refer to those elements that make sponsors/investors an integral part and co-creators of the project itself (social interaction process and co-creation value). For this reason, we considered that:
5. *The number of rewards given to sponsors*: that can be merely a token or moderate value objects and services, with lower value than the financial contribution received;
6. *The number of informations offered to sponsors*: a project published on a platform must have, in order to attract a greater number of investors, the description of the idea, of the proponents,

and a clear display of informations provided to the investors. This is the reason why it is assumed that a major number of files with clear informations may allow users a better participation to the project.

For a summary of the variables taken into account, see the illustration 2:

Fig. 2 – Hypothesis development



Results

Taking into account the crowdfunding projects sample, the results of the regression analysis showed statistical substantiality and allow the definition of the largely positive connection of independent variables with the interaction inside crowdfunding platforms, that is, the willingness to invest through crowdfunding platforms.

In particular, the regression model seems to be highly significant, with a high value of adjusted R squared, equal to 77%. Therefore, the proportion of variability of Y is explained by the set of independent variables considered. The table below show the results of the regression analysis:

Tab. 2 - Dependent variable: Number of users
Heteroskedasticity-robust standard errors, variant HC1

	<i>Coefficient</i>	<i>Std. error.</i>	<i>t-ratio</i>	<i>p-value</i>	<i>Statistical significance⁴</i>
const	0,0143782	0,118385	0,1215	0,90519	
Level Socio-cultural	0,475701	0,238423	1,9952	0,06742	*
DispositionSE	0,27177	0,140239	1,9379	0,07466	*
ManageFreeTime	-0,257162	0,326996	-0,7864	0,44571	
Rewards	-0,123892	0,316856	-0,3910	0,70213	

4 The asterisks linked to the p-value must be considered as follows: one asterisk (*): parameter different from zero at the significance level of 10%; two asterisks (**): parameter different from zero at the significance level of 5%; three asterisks (***): parameter different from zero at the significance level of 1%; no asterisks: parameter statistically not different from zero.

Information	0,73815	0,337173	2,1892	0,04743	**
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Mean dependent var	0.000000	S.D. dependent var	1.000000
Sum squared resid	2.977683	S.E. of regression	0.478594
R-squared	0.834573	Adjusted R-squared	0.770947
F(5, 13)	11.01123	P-value(F)	0.000262
Log-likelihood	-9.353543	Akaike criterion	30.70709
Schwarz criterion	36.37372	Hannan-Quinn	31.66611

The collected data highlight that:

- The “Level Socio-cultural” variable is positively correlated, with a significance level of 90%. This outcome confirms the hypothesis 1;
- The “Disposition Socio-Cultural” variable, is positively connected to a significance level of 90% (p-value < 0,1), which confirms hypothesis 2;
- The “Management free time” variable is not statistically significant;
- An unexpected outcome may be the negative connection between the number of rewards and the inclination to use crowdfunding platforms. The “Rewards” variable has a negative correlation coefficient, even if it is not important. This result could prove that sponsors motivations in funding a crowdfunding project cannot neglect to rewards, either monetary or not;
- The “Information” variable, eventually, is positively correlated and statistically significant with a value of 95% (p-value < 0,05), showing that, where sponsors have a major availability of informations about CF platforms, they get more involved in and are more incline to take part in the project.

Conclusions

This study highly supports the importance of the use of the “crowd” for the firms to obtain ideas and feedback, to raise awareness about projects and source ideas, to inspire new product development, to improve products or to find solutions in order to develop corporate activities (Howe 2006; Kleemann et al. 2008, Kozinets et al., 2008, 339-340; Prahalad & Ramaswamy, 2004).

However, the cognitive dimension of the social capital (shared language, codes and tales) inside the crowdfunding platforms, boosts exchange and mixture activities and creates a knowledge (value) in the terms of innovation (Tsai & Ghoshal, 1998).

This work confirmed that a CF project has a social and relational content, and we can talk about co-creation value because, in this case, “value is created in a many-to-many logic of reticular interactions strongly affect every activity performed by network’s actors, their satisfaction and their competitive behavior” (Barile & Polese, 2009).

Therefore, it is important to understand the determinants of the success of crowdfunding projects and what factor influences the predisposition to interact with crowdfunding platform. In our forthcoming writing, we showed how touristic and cultural attraction factors of an area are essential to the success of crowdfunding projects (Esposito De Falco et al., 2015).

In this study, we focus on the role of behavioral and cultural factor of Italian people that could affect interaction in the crowdfunding platform. We processed data referring to 316 projects posted in Produzioni dal Basso, the first crowdfunding platform in Italy.

According to our initial hypotheses, we find the importance of value co-creation and social interaction.

In particular there is a correlation directly proportional to the inclination to interaction of individuals and to their socio-cultural level. This confirms our initial hypotheses (HP 1).

The second hypotheses confirms a correlation between the inclination to interact with crowdfunding platforms and the socio-economic inclination to relate to other people, creating a *social interaction* (HP 2).

These two factors are external to CF projects and, depend on the general features of individuals and

background.

The third hypotheses tested on the last external factor taken into account, is unverifiable, because the spare time management is not relevant in the CF projects funding.

To sum up, within our analysis, the social and cultural factors are those who have an influence on individuals and make them interact with CF platforms.

Taking into account internal factors of CF platforms (reward level and information level), the analysis shows different results. It has been confirmed that a major number of informations (files) increases the inclination of individuals to interact with the CF platforms (HP 5). However, as far as HP 4 is concerned, the statistic analysis doesn't seem to be important; the correlation, thus, is negative, but not statistically important; so the hypotheses 4 cannot be confirmed. Certain limitations to the study arise from the research context. We chose to analyse specific project of crowdfunding through the only one platform in Italy. The sampling design could be improved by broadening the number of projects considered and by including other Italian and foreign platform.

Likewise, it would be possible to go into greater depth in the choice of initial factors that influence behavior. Another limitation is in the original choice of the design methodology, since the interpretation, through the PCA, is not univocal and could lead to individual judgement.

The study has implications for practitioners.

As far as platform managers are concerned, the results show the importance that prospective sponsors give to information on CF projects, and how much the satisfaction of their expectations can increase the CF projects support.

Planning communication fosters users participation and involves them within the projects, underlining some of the socio-emotional components that this study highlighted, and show how, in some circumstances, the socio-emotional factors are more essential than economic factors, when evaluating advantages that come from a certain experience.

Both CF platform designers and CF single project proponents, may take account of these suggestions, considering more appropriate marketing strategies that underline the socio-emotional and interaction-related aspect that foster CF funding.

This is a preliminary analysis and we commit to further explore this topic, by more deeply analysing the characteristics of proponents and crowdfunding platforms, and by considering the effect of crowdfunders' response.

Therefore, it would be interesting to broaden the analysis of principal components to data specifically concerning CF projects users; that, up to now, is not possible since there aren't CF platforms (national or international) that give this kind of informations to their own sponsors.

In the future, an ad hoc survey will be arranged and directly delivered to CF projects sponsors.

References

- Agrawal, A., Catalini, C. and Goldfarb, A. (2011), *Friends, Family, and the Flat World: The Geography of CrowdFunding*, University of Toronto August 3, 2011.
- Alavi, S., Ahuja, V. and Medury, Y. (2012), "Metcalfe's law and operational, analytical and collaborative CRM-using online business communities for co-creation", *Journal of Targeting, Measurement & Analysis for Marketing*, Vol. 20 n. 1, pp. 35-45.
- Anania, G. and Tarsitano, A. (1995), "Tecniche di analisi statistica multivariata per l'individuazione dei sistemi agricoli territoriali in Italia", in Cannata G.(a cura di) *I Sistemi territoriali Agricoli italiani degli anni*, 90.
- Bannerman, S. (2013), "Crowdfunding Culture", *Wi: Journal of Mobile Culture*, Vol. 7 n. 1, pp. 1-30.
- Barile, S. and F. Polese (2010), "Smart Service Systems and Viable Service Systems: Applying Systems Theory to Service Science", *Service Science*, 2(1-2): 21-40.
- Barile, S. and F. Polese (2009), "Service dominant Logic and service Science: a contribute deriving from network theories", in *The 2009 Naples Forum on Service: service Science, Sd logic and network theory*, Giannini, Napoli.
- Barney J.B. (1991), "Firm resources and sustained competitive advantage", *Journal of*

Management, vol. 17, n. 1, pp. 99-120.

- Belleflamme, P., Lambert, T. and Schvienbacher, A. (2014). Crowdfunding: Tapping the right crowd, *Journal of Business Venturing*, 29(5), 585-609.
- Boeuf, B., Darveau, J. and Legoux, R. (2014), "Crowdfunding as a New Approach for Theatre Projects", *International Journal Of Arts Management*, Vol. 16, n. 3, pp. 33-48.
- Boland R.J. and Tenkasi R.V. (1995), "Perspective making and perspective taking in communities of knowing", *Organization Science*, 6 (4), pp. 350-372.
- Breidbach, C., Brodie, R. and Hollebeck, L. (2013), "Beyond virtuality: from engagement platforms to engagement ecosystems", paper presented at The 2013 Naples Forum on Service, Ischia, 18-21 June.
- Bruni, L. and Stanca, L. (2006), "Watching alone: relational goods, television and happiness", *Journal of Economic Behavior and Organization*, forthcoming.
- Callaghan, C.W. (2014), "Crowdfunding To Generate Crowdsourced R&D: The Alternative Paradigm Of Societal Problem Solving Offered By Second Generation Innovation And R&D", *International Business & Economics Research Journal*, Volume 13, N. 6, pp. 1499-1513.
- Calveri, C. and Esposito, R. (2013), *Crowdfunding world 2013: report, analisi e trend*, DeRev, in <http://www.derev.com>.
- Choi, J. and Bell, D. (2010), *Preference Minorities and the Internet*, Working paper, Wharton.
- Colombo, M.G., Franzoni, C. and Rossi-Lamastra C. (2014), "Internal Social Capital and the Attraction of Early Contributions in Crowdfunding", *Entrepreneurship Theory And Practice*, 39(1), pp. 75-100.
- Commissione Europea (CE) (2013), *Guide to Social Innovation*, Febbraio 2013.
- Dahlander, L. and Gann, D. M. (2010). How open is innovation?. *Research policy*, 39(6), 699-709.
- Davidson, R. and Poor, N. (2014), "The barriers facing artists' use of crowdfunding platforms: Personality, emotional labor, and going to the well one too many times", *New Media & Society*.
- Di Maio, A. and De Simone, E. (2006), "Alcune riflessioni economiche sulla fruizione dei Beni Culturali", *Web Journal on Cultural Patrimony*, in www.webjournal.unior.it, pp. 164-175.
- Dobrow, S. R., D. E. Chandler, W. M. Murphy and K. E. Kram. 2011. "A Review of Developmental Networks: Incorporating a Mutuality Perspective." *Journal of Management*, 38 (1): 210- 242.
- Doxiadis, C. (1970), *Emergence and growth of a urban region*, Edison, Detroit.
- Dulaurans, M. (2014), "Digital social innovation: the crowdfunding model", *Revista de Comunicación Vivat Academia*, n. 127, pp. 72-82.
- Esposito De Falco, S., Cucari, N. and Volpe. T. (2015), "Civic crowdfunding e valore del territorio: un'analisi empirica attraverso due piattaforme italiane", Special Issue *Esperienze d'Impresa*, forthcoming.
- Drury, J. and C. Stott. 2011. "Contextualising the Crowd in Contemporary Social Science." *Contemporary Social Science*, 6 (3): 275- 288.
- Fox, K.A. (1973), "Delimitation of regions for transportation planning", I. De Salvo (eds), *Perspectives on Regional Transportation Planning*, Lexington, Mass.
- Gasper, K. and Clore, G. L. (2000), "Do you have to pay attention to your feelings to be influenced by them?", *Personality and Social Psychology Bulletin*, 26(6), pp. 698-711.
- Genco, P. (2007), "Il significato del terziario nei sistemi economici avanzati", P. Genco (eds), *Il terziario tra innovazione e tradizione*, Franco Angeli, Milano.
- Galvagno, M. and Dalli, D. (2014), "Theory of value co-creation: a systematic literature review", *Managing Service Quality*, Vol. 24 Iss 6 pp. 643 - 683.
- Giannola, E. and Riotta, F.P. (2013), "Crowdfunding civico: finanziamento collettivo come strategia di innovazione sociale", *Urbanistica DOSSIER*, n. 4, pp. 603-606.
- Giudici, G., Nava, R., Rossi Lamastra, C. and Verecondo, C. (2012), "Crowdfunding: The new frontier for financing entrepreneurship?", *Electronic Journal*.
- Golinelli, G.M. (2011), *L'approccio sistemico vitale (ASV) al governo dell'impresa*, Vol. II, Cedam, Padova.

- Grönroos, C. and Ravald, A. (2011), "Service as business logic: implications for value creation and marketing", *Journal of Service Management*, Vol.22 No.1, pp. 5-22.
- Grönroos, C. and Gummerus, J. (2014), "The service revolution and its marketing implications: service logic vs service-dominant logic", *Managing Service Quality*, Vol. 24 Issue 3 pp. 206-229.
- Grimm, R., Fox, C., Baines, S. and Albertson, K. (2013), "Social innovation, an answer to contemporary societal challenges? Locating the concept in theory and practice", *The European Journal of Social Science Research*, 26(4), 436-455.
- Gummesson, E. (2002), "Relationship marketing in the new economy", *Journal of Relationship Marketing*, 1(1), 37-57.
- Gummesson, E. (2008), "Extending the service-dominant logic: from customer centricity to balanced centricity", *Journal of the Academy of Marketing Science*, 36(1), pp. 15-17.
- Gummesson, E. and F. Polese (2009), "B2B is not an island!", *Journal of Business & Industrial Marketing* 24 (5/6): 337-350.
- Haase, C.M. and Silbereisen, R.K. (2011), "Effects of positive affect on risk perceptions in adolescence and young adulthood", *Journal of Adolescence*, 34(1), pp. 29-37.
- Hansen, M.T. (1999), "The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits", *Administrative Science Quarterly*, 44: 82-111.
- Howe, J. (2006), "The Rise of Crowdsourcing", *Wired Magazine*, 14 (6): 1-4.
- Izard, C.E. (2010), "The many meanings/aspects of emotion: Definitions, functions, activation, and regulation", *Emotion Review*, 2(4), pp. 363-370.
- Kleemann, F., G. G. Voß and K. Rieder (2008), "Un (der) Paid Innovators: The Commercial Utilization of Consumer Work Through Crowdsourcing." *Science, Technology & Innovation Studies*, 4 (1): 5-26.
- Kozinets, R., Hemetsberger, A. and Schau, H.J. (2008). The Wisdom of Consumer Crowds: Collective Innovation in the Age of Networked Marketing, *Journal of Macromarketing*, 28: 339-354.7
- Lambert T. and Schwienbacher A. (2010), *An Empirical Analysis of Crowdfunding*, Available at: <http://ssrn.com/abstract=1578175>
- Leana, C.R. and Van Buren, H.J., III (1999), Organizational social capital and employment practices, *Academy of Management Review*, 24: 538-555.
- Lehner, O.M. (2013), "Crowdfunding social ventures: a model and research agenda", *Venture Capital: An International Journal of Entrepreneurial Finance*, 15(4), pp. 289-311.
- Maglio, P. P. and Spohrer, J. (2008), "Fundamentals of service science", *Journal of the Academy of Marketing Science*, 36(1), pp. 18-20.
- Mahmood, I. P., H. Zhu and E. J. Zajac (2011), "Where Can Capabilities Come From? Network Ties and Capability Acquisition in Business Groups." *Strategic Management Journal*, 32 (8): 820- 848.
- Marinelli, A. (2011), "Socievolezza 2.0. I legami sociali nella network society", *Sociologia della comunicazione*, n. 41-42, pp. 30-50.
- McElroy, M. W. (2002), "Social innovation capital", *Journal of Intellectual Capital*, 3(1), 30-39.
- Murray, R., Caulier-Grice, J. and Mulgan, G. (2010), *The open book of social innovation*, Nesta Publishing, London.
- Nahapiet, J. and Ghoshal, S. (1998), "Social capital, intellectual capital, and the organizational advantage", *Academy of Management Review*, 23: 242-266.
- Normann, R. and R. Ramirez. 1993, "Designing interactive strategy", *Harvard Business Review*, 71(4): 65-77.
- Ordiani, A., Miceli, L., Pizzetti, M. and Parasuraman, A. (2011), "Crowd-funding: transforming customers into investors through innovative service platforms", *Journal of Service Management*, Vol. 22 No. 4, pp. 443-470.
- Payne, A. F., Storbacka, K. and Frow, P. (2008), "Managing the co-creation of value", *Journal of the Academy of Marketing Science*, 36(1), pp. 83-96.

- Penrose E.T. (1959), *The Theory of the Growth of the Firm*, Blackwell, Oxford.
- Pignataro, G. (1999), "Measuring the Efficiency of Museums in Sicily", relazione al workshop *Heritage Conservation in Sicily*, Università degli Studi di Catania, Facoltà di Economia, 11-13 novembre 1999.
- Prahalad, C.K. and V. Ramaswamy (2000), "Co-opting customer competence", *Harvard Business Review*, 78(1): 79-90.
- Prahalad, C.K. and V. Ramaswamy (2004), "Co-creation experiences: The next practice in value creation", *Journal of Interactive Marketing*, 18 (3): 5-14.
- Prensky M. (2001), "Digital natives, digital immigrants", *On the Horizon*, 9(5). Available at: <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Putnam R.D. (2000), *Bowling Alone*, Simon & Schuster, New York.
- Quero, M.J., Ventura, R. and Santoja, A. (2013), "The role of balanced centrality in the creative industries adopting a crowd-funding organisational model", in *Naples Forum on Service*, Ischia, giugno 2013, pp. 1-34.
- Rana, S. (2013), "Philanthropic Innovation and Creative Capitalism: A Historical and Comparative Perspective on Social Entrepreneurship and Corporate Social Responsibility", *Alabama Law Review*, Vol. 64 (5), pp. 1121-1174.
- Resciniti R. (Eds) (2002), *Economia e marketing del tempo libero: profili e prospettive di un'industria emergente*. Franco Angeli, Milano.
- Reyes, L.F.M. and S. Finken (2012), "Social Media as a Platform for Participatory Design." In *Proceedings of the 12th Participatory Design Conference: Exploratory Papers, Workshop Descriptions, Industry Cases-Volume 2*, 89 – 92. ACM, Roskilde, Denmark, August 12 – 16.
- Russell, J.A. (2003), "Core affect and the psychological construction of emotion", *Psychological Review*, 110 (1), p. 145-172.
- Russo-Spena, T. and Mele, C. (2012), "Five Co-s" in innovating: a practice-based view", *Journal of Service Management*, Vol. 23, No. 4, pp. 527-553.
- Shiller, R. J. (2013), "Finance Contributing to the Good Society", *Business Economics*, 48(1), 77-80.
- Staber, U. (2006), "Social capital processes in cross cultural management", *International Journal Cross Cultural Management*, 6 (2), pp. 189-203.
- Todeschini, R. (1998), *Introduzione alla chemiometria*, EdiSES, Napoli.
- Toffler, A. (1980), *The Third Wave*. New York: William Morrow
- Tidd, J. and Bessant, J. (2009), *Managing Innovation: Integrating Technological, Market and Organizational Change*, 4th edn. London: Wiley.
- Tsai, W. and Ghoshal, S. (1998), "Social capital and value creation: The role of intrafirm networks". *Academy of Management Journal*, 41(4), 464-476.
- Vargo, S.L. and Akaka, M.A. (2009), "Service-Dominant Logic as a Foundation for Service Science: Clarifications", *Service Science*, 1(1):32-41.
- Vargo, S.L. and Lusch, R.F. (2008), "Service-dominant logic: continuing the evolution", *Journal of the Academy of Marketing Science*, 36 (1), pp. 1-10.
- Vargo, S. L., Maglio, P.P. and Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European management journal*, 26(3), 145-152.
- Yi, Y., Gong, T. (2013), "Customer value co-creation behavior: Scale development and validation", *Journal of Business Research*, 66(9), 1279-1284.
- Wentz, R.C. (2008), *Die Innovationsmaschine. Wie die weltbesten Unternehmen Innovationen managen*, Berlin & Heidelberg: Springer Verlag.
- Westergren, U.H. (2011), "Opening up innovation: the impact of contextual factors on the co-creation of IT-enabled value adding services within the manufacturing industry", *Information Systems and e-Business Management*, Vol. 9 No. 2, pp. 223-245.
- Zheng, H., Li, D., Wua, J. and Xu, Y. (2014), "The role of multidimensional social capital in crowdfunding: A comparative study in China and US", *Information & Management*, 51, pp.

488–496.