Internet Research

Factors influencing pro-social consumer behavior through non-profit organizations
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Received 9 October 2014
Revised 22 October 2014
1 February 2015
12 March 2015
Accepted 18 March 2015

Factors influencing pro-social consumer behavior through non-profit organizations

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Abstract

Purpose – The purpose of this paper is to analyze the major factors in the intention to adopt pro-social behavior through the internet by dividing them into personal factors and internet factors.

Design/methodology/approach – This research uses an empirical model to determine which personal and internet features are significant to consumers' pro-social concerns. Internet factors may also affect pro-social behavior in addition to personal factors that many psychological studies have found to be influential. Through internet survey of 150 responses, the research model was analyzed with the partial least squares method.

Findings – The findings indicate that social influence (SI) and specific internet characteristics generate perceived reciprocity and perceived ease of use of the internet in customers that encourages pro-social behavior.

Practical implications – The findings provide non-profits with a theoretical foundation for their marketing. Many agencies and media reports have pointed out the importance of the internet in social causes. This study offers a thorough model revealing the influential factors in pro-social activities.

Social implications – This study has discovered the influential factors that non-profit organizations must consider in order to persuade their population targets. Organizations striving to capture consumers' attention and purchase behavior (in the form of a social contribution) must facilitate SI and ease of use, as these are highly influential.

Originality/value – Pro-social behavior and internet adoption have been widely studied separately but rarely together. This study analyzes the major factors in the intention to adopt pro-social behavior through the internet by dividing them into personal factors and internet factors.

Keywords Internet, Perceived ease of use, Interactivity, Pro-social behavior, Ease of reach, Perceived reciprocity

Paper type Research paper

Introduction

The internet is being used by many people to help others and support non-profit organizations. Internet media are powerful tools for public communication tasks. Non-profit organizations use them as a powerful tool for engagement, as they have multiplied the ways in which people can act to improve the welfare of society (Hines, 2004). There are many elements to consider when persuading users to adopt pro-social behavior (Bhagat *et al.*, 2012). Social and public marketing is interested in the thoughts and characteristics of its target audience as it strives to stimulate positive consumer awareness and pro-social activities. The internet, as a communications medium, is an important tool of influence (Rowley, 2001).

Comparing between online and offline pro-social behavior shows that offline engagement is continuing to engender the greatest personal impact; however, it implies

Internet Research
Vol. 26 No. 3, 2016
pp. 626-643

1066-2243
DOI 10.1108/IntR-10-2014-0253

a trade-off against the convenience of digital media. Offline donations represent 90 percent of the total (and online donations 10 percent), direct mail accounts for 79 percent, and all the other offline donation modalities make up the remaining 11 percent of the total. However, online giving increased by 34.5 percent in 2010 to more than 20 billion US dollars (Blackbaud, 2011). Edstrom (2012) examined the public perception of and intention to use online tools to contribute to non-profit organizations.

Bhagat *et al.* (2012) reveals the growing digital marketing trend in the fundraising sector, including a huge percentage of non-profit organizations' activities. The impact of online fundraising continues, with a growth rate of 15.8 percent. Excluding special events, an overall rate of 19.7 percent is expected for online fundraising. Thus, the fast-growing use of internet communication by non-profit organizations represents a revenue tool that is more effective, faster, and more measurable than offline methods. However, these strategies must be applied appropriately in order to make customers adopt, trust, and be satisfied with the new methods (Bhagat *et al.*, 2012). Several factors are important in measuring the acceptance of technology; behavioral conceptions determine adoption levels, and certain motivational features must be present to obtain a positive response from the consumer (Venkatesh *et al.*, 2003). Non-profit organizations benefit directly from fundraising and other kinds of donations. Therefore, this study assumes that marketing programs must promote the users' or consumers' positive perceptions (Lichtenstein *et al.*, 2004), and their satisfaction when they perceive that the non-profit institution is fulfilling its responsibilities and can be trusted (Varadarajan and Menon, 1988).

Pro-social behavior is an important concept in this research; it is applied as a theoretical framework for understanding consumers' motivations for supporting social-cause branding activities. Social marketing is oriented toward offering customer value through auto-actualization needs satisfaction in which customers perceive a positive feeling that they helped the most needy and contributed to making their society or community a better place (Fry and Brennan, 2014). As digital transactions are easily recorded and measured, organizations can track the scope of their strategies more easily than ever. Moreover, it is now easier to obtain information from customers, even their thoughts and opinions. Digital tools also allow users to perform tasks once considerable impossible; people can now help from the comfort of their own homes through the internet's capabilities (Chu, 2009).

This study supports the view that the internet is an effective tool for non-profit organizations' marketing activities, and develops a model to measure the importance of certain internet features in addition to personal factors of traditional studies in encouraging pro-social behavior. Our main objective is to analyze the major factors in the intention to adopt pro-social behavior through the internet by dividing them into personal factors and internet factors. This research uses an empirical model to determine which internet features and personal factors are significant to consumers' pro-social concerns.

The rest of this study is organized as follows. First, we review the theoretical background and studies on pro-social behavior and internet adoption. Next, we present the research model and hypotheses development. We then describe the design of our empirical study and present the research results and the discussion. Lastly, we end with the conclusion including the contributions and limitations.

Theoretical development

Pro-social behavior: definition and main concepts

Pro-social behavior is defined as behavior performed to benefit others rather than the self. It often entails risk or cost to the self, such as when someone gives resources to others,

waits in line, or asks for or pays a fair price (Twenge *et al.*, 2007). Supporting or expressing a positive feeling about an institution connected to social causes is considered pro-social behavior, as it represents advocacy for behavior that improves the well-being of society as a whole instead of satisfying self-interest (Basil and Weber, 2006). Pro-social behavior is rational: no one prefers to live in social isolation; rather, people prefer to live in social groups and within cultural frameworks (Twenge *et al.*, 2007).

This study, acknowledging that conceptions of pro-social behavior are contextual, seeks to provide the kind of in-depth analysis that pro-social behavior in the marketing field requires. Similar to the relationship between companies and customers, there is a relationship between non-profit organizations and donors and social consumers, who are all unique. Concerns about justice for others, even though it incurs costs, can facilitate pro-social behavior. Examining customers' justice motivation highlights the extent to which other-orientated concerns often coexist with egoistic ones. Thus, in both theoretical and practical terms, the most useful consideration might be how people take care of their own and other people's needs through their purchase decisions (White *et al.*, 2012).

Social cognitive theory (SCT)

SCT, an important concept in this research, examines the reciprocal cause-and-effect relationships among people, their behavior, and their environment in order to explain their actions (Bandura, 1999). The SCT seeks to explain individuals' capacity to handle the nature and quality of their lives through behavior such as the ethical urge to right a wrong while contributing to the production of their environments.

The SCT posits that portions of an individual's knowledge acquisition can be directly related to observing others within the context of social interactions, experiences, and outside media influences. The SCT model, widely used to understand and predict individual and group behavior, divides individual behavior into three reciprocity components: personal factors, behavior, and environment. Individuals choose their environments while also being influenced by key factors within those environments, such as social pressures (Bandura, 1999).

Theory of planned behavior (TPB)

The TPB (Fishbein and Ajzen, 2005) employs three constructs to determine behavioral intentions to adopt an innovation: attitudes, subjective norms, and perceived behavioral control. The concepts of subjective norm and perceived behavioral factors are the keys to our model.

An attitude is the degree to which people make a favorable or unfavorable evaluation of certain behavior, entailing a consideration of its outcomes and effects. Subjective norms are beliefs about whether most people approve of a behavior and whether peers and others who are important to the individuals think they should engage in it. Perceived behavioral control refers to an individual's perception of the ease or difficulty of performing the behavior.

Technology acceptance model and unified theory of acceptance and use of technology (UTAUT)

The TAM, viewed as an adaptation of the theory of reasoned action (TRA), is one of the most influential and complete models used to explain information technology (IT) and information system (IS) adoption behavior (Park *et al.*, 2007). The TAM focusses on two beliefs – the perceived usefulness (PU) and perceived ease of use (PEU) of an

innovation – which play an important role in innovation acceptance behavior and are important considerations in this research.

Due to the limitations of the TAM model, Venkatesh *et al.* (2003) and later Wu and Wang (2005) extended it and developed the UTAUT (extended) by consolidating previous TAM studies. The UTAUT was designed to explain intentions to use IS and subsequent usage behavior.

The model assumes that there are three direct determinants of intention to use (i.e. performance expectancy, effort expectancy, and social influence (SI)) and two direct determinants of usage behavior (i.e. intention and facilitating conditions). The model also posits that their relationships are moderated by gender, age, experience, and voluntariness of use (Venkatesh *et al.*, 2003).

Empathy and SI

Empathy has been defined in many ways across disciplines and sub-disciplines. Most definitions include the ability to understand someone else's emotions and perspectives, and often, resonating with others' emotional states. Hoffman (2001) and Batson (2014) have defined empathy as an affective response that is identical or similar to what the other person is feeling or might be expected to feel in a given context; empathy is thus a response stemming from an understanding of another's emotional state or condition. For example, if a girl sees a sad boy, realizes that he is sad, and consequently, feels sad herself, she is experiencing empathy. Thus, consistent with many current definitions in social and developmental psychology, an emotional response is a central component of empathy; however, empathy is more than a mere contagion of affect without understanding the source of the vicariously induced emotion.

Numerous researchers have suggested that empathy and sympathetic concern (many early writers failed to differentiate between the two) often motivate altruism (Batson, 2014). For example, Batson (2014) argued that sympathy is associated with the desire to reduce other people's distress or need and is therefore likely to result in altruistic behavior. As mentioned, Batson (2014) further proposed that personal distress, as it is an aversive feeling, is associated with the egoistic desire to decrease one's own distress. Individuals may reduce feelings of personal distress by avoiding contact with needy or distressed others if it is possible to do so without incurring too great a cost (e.g. strong social disapproval). Batson (2014) argued that individuals who experience personal distress are expected to assist others only when this is the easiest way to reduce the helper's own distress.

SIs are the perceived pressures from social networks to make or not make behavioral decisions. SIs are considered a determinant of the behavioral intention to accept and use technology (Lu *et al.*, 2003). Venkatesh *et al.* (2003) employed SI to represent subjective norm in the TRA, TAM, TPB, the social factors in the model of PC utilization, and the image in innovation diffusion theory (DOI). They defined SI as the degree to which individuals feel others' beliefs about whether they should use a technology to be important.

Reciprocity and altruism theories

The concept of reciprocal altruism was proposed to explain the evolutionary advantages of helping unrelated others. According to Penner *et al.* (2005), humans derive some evolutionary benefit from helping unrelated individuals if this favor is repaid in kind. Systematic investigations of reciprocal altruism as an explanatory

mechanism in pro-social behavior have been less frequent and explicit than investigations of kin selection. Some of this research has examined how strangers play zero-sum "prisoner's dilemma" games, finding that reciprocal or "tit-for-tat" strategies, in which individuals respond in kind to their partner's choice in the previous trial, produce greater payoffs for the players than any other strategy (Axelrod, 2006).

Further indirect evidence that reciprocal altruism is a genetic expression is the finding that the norm of reciprocity apparently exists in every culture and that reciprocity provides benefits that might add to a person's evolutionary success. For example, people are more likely to help those who offer help, and offering help increases one's status and reputation among members of one's community (Boster *et al.*, 2001; Hu *et al.*, 2011).

Research model and hypotheses

Drawing from current perspectives on pro-social behavior and relevant theories such as the TPB and UTAUT, we construct our research model to reveal the relationship between the intention to adopt pro-social behavior and internet use.

Pro-social behavior involves a cost-reward analysis of an intention to help (Hawley, 2014). The economic view of human behavior assumes that people are motivated to maximize their rewards and minimize their costs. This perspective further assumes that people are relatively rational and primarily concerned with self-interest (Penner *et al.*, 2005). Researchers have used this economic perspective to argue that certain situational factors make intervention more likely to occur. The cost of helping can be reduced, as when helping appears to be an opportunity for personal development or reaping potential rewards (Hawley, 2014). Thus, this study proposes the research model shown in Figure 1 to validate the factors that combine to form an intention to adopt pro-social behavior.

Our model has six constructs affecting the intention to adopt pro-social behavior, classified into four independent factors and two mediating factors. The independent factors comprise the personal factors and internet factors described by the relevant theories and perspectives on pro-social behavior as well as the TPB's description of personal and systemic factors (Venkatesh *et al.*, 2003). The framework of the model is

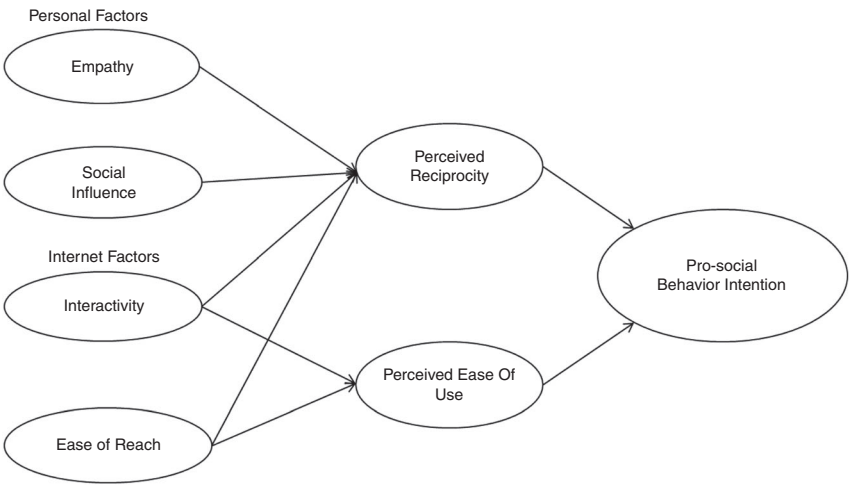


Figure 1.
Research model

composed of a combination of the factors describing how the perception and development of personal factors create positive perceptions of and attitudes to behavior.

Personal factors – empathy

Penner *et al.* (2005) have measured disposal empathy, finding (though not statistically) that there is a correlation between dispositional empathy and informal helping. Batson (2014) argued that empathy and sympathy are associated with the desire to reduce another's distress or need and are therefore likely to lead to altruistic behavior.

In general, then, there seems to be a positive relationship between empathy-related responses, especially sympathy, and perceived reciprocity (PR), particularly in those likely to be relatively altruistically motivated (Pelligra, 2011):

H1. Empathy positively affects PR.

Personal factors – SI

Researchers have argued that subjective norm, acting through SI, can have an important impact on attitudes (Venkatesh *et al.*, 2003); internalizing an influential group can cause individuals to agree with the group under specific social conditions (Zhou, 2011). Therefore, if a group of people adopts a particular behavior, individuals within the group are likely to adopt the behavior as well (Penner *et al.*, 2005).

The perceptions of group members are important factors in behavior adoption. Belonging to a social group provides the altruistic motivation of being accepted and becoming socialized. It is common for humans to adopt social behavior (Batson, 2014). This research considers SI as an external factor by which people develop a reputation among fellow group members when pursuing an intention to adopt pro-social behavior through the internet. According to the SCT (Bandura, 1999), people are likely to harmonize with their environment while helping others. In terms of reciprocity, offering help may improve one's reputation among fellow group members (Boster *et al.*, 2001). We thus propose the following:

H2. SI positively affects PR.

Internet factors – interactivity

Interactive media refers to the integration of digital components, including combinations of electronic text, graphics, moving images, and sound, into a structured digital computerized environment in a context that allows people to interact with data for appropriate purposes (Huang, 2012) – in this case, the intention to adopt pro-social behavior (this research focusses on internet media as a tool for helping unrelated people). Cheshire *et al.* (2010) argued that the internet is certainly the medium that "encourages acts of reciprocity, negotiation and cooperation." Thus, we consider the internet's interactivity as a helping tool that increases PR by exposing others' helping activities. The next hypothesis is thus as follows:

H3a. Interactivity positively affects PR.

Internet interactivity allows people to share their activities through SNS. According to the TAM, PEU motivates behavior based on individual perceptions of a new system or innovation. Interaction media theory argues that interactivity is a dynamic environment that affects everyone and that those directly involved obtain meaning

from messages and content through their perceptions based on the nature of their relationship (Huang, 2012). The TAM model posits that system features and capabilities stimulate users' motivation to use a system and that motivation is based on three main factors: PEU, PU, and attitude to use (Davis, 1989). Therefore, the next hypothesis is the following:

H3b. Interactivity positively affects PEU.

Internet factors – ease of reach (ER)

The internet's ER is a media factor that serves as a motivational stimulus for the adoption of a system, according to the TAM. Starting with the theory DOI, the ER construct comprises a number of the attributes of technological innovations that are believed to influence the rate at which innovation is adopted; these attributes are graded according to their relative advantages over others (Rogers, 2003). This perceived advantage for the user is also perceived as providing an altruistic motivation (Perlow *et al.*, 2002). This degree of reciprocity is tested in the next hypothesis:

H4a. ER positively affects PR.

ER concerns people who are physically beyond reach. The internet's "reaching" feature is an innovation that massively motivates people who consider it better than the old way to reach people (as per DOI theory), a subjective norm that thus either approves or disapproves of the adoption of pro-social behavior. As with interactivity, ER is also considered a feature of the TAM. Given that ER is a stimulus for the PEU, this study proposes the following:

H4b. ER positively affects PEU.

PR

This study performs a micro-level analysis of pro-social behavior from multilevel perspectives and using the norm of reciprocity (Penner *et al.*, 2005). Reciprocity provides benefits that can enhance evolutionary success; for example, offering help may improve one's reputation among fellow group members (Boster *et al.*, 2001). Though pro-social behavior intentions involve helping unrelated people, related people are also likely to find value in such personal intentions. According to the SCT (Bandura, 1999), which concerns social environments, people are likely to harmonize with their environment while helping others. We thus propose the following:

H5. PR positively affects pro-social behavior intention.

PEU

Our understanding of pro-social behavior through the internet is based on the TAM, in which the concept of PEU posits the external factors that may influence personal intention. This study combines those external factors, involving system characteristics and user participation, with the personal factors involved in planned behavior. The PU of a system that also offers ease of use may provide individual resources that might create a strong behavioral intention without forming a specific attitude (Davis, 1989). We thus propose the next hypothesis:

H6. PEU positively affects pro-social behavior intention.

Operational definition of the constructs

Table I provides the operational definitions of the constructs employed in this study and the key-related literature. For all measures, multiple items based on a seven-point Likert scale were used.

Analysis and results

Data collection

This research drew its primary data from internet users, whom non-profit organizations need to incentive to exhibit pro-social behavior. The respondents, all internet users, have internet access and have experienced internet exposure. The questionnaire was distributed using the convenience of the internet, which can manage surveys interactively without requiring anyone's physical presence. The internet also allows a global reach, facilitating data collection in many countries at any time. This study used the Google docs platform to upload the survey. Respondents were given a link to where the survey was uploaded and made available to them.

As the survey was distributed globally and as internet consumers have many different characteristics, respondents' internet usage was used as criteria rather than their demographics (Rho *et al.*, 2011). The study thus selected its respondents randomly. People willing to answer the questionnaire were motivated only by the information provided in the survey itself; thus, completing the survey was a voluntary act designed to contribute to this study.

The link was posted through an academic SNS, whose members were invited to learn about the project and answer the questionnaire. A viral campaign among people

Constructs	Operational definitions	References
Empathy (E)	Defined as an affective response that is identical, or very similar, to what the other person is feeling or might be expected to feel given the context – a response stemming from an understanding of another's emotional state or condition	Pelligra (2011)
Social influence (SI)	Occurs when others affect one's emotions, opinions, or behaviors. Individuals are motivated to internalize a group of reference and share particular interests and agreements that encourage particular behaviors	Zhou (2011)
Perceived reciprocity (PR)	The advantages of helping unrelated individuals. Humans derive some evolutionary benefit from helping unrelated others if this favor is repaid in kind	Penner *et al.* (2005)
Interactivity (IT)	Technology that allows for two-way communication between organizations and users	Huang (2012)
Ease of reach (ER)	The great number of users allows contact with millions of organizations across boundaries	Davis (1989)
Perceived ease of use (PEU)	The degree to which a person believes that using a particular system would be free of effort and more beneficial than it used to be	Davis (1989)
Pro-social behavior intention (PSI)	Defined as voluntary behavior intended to benefit another rather that oneself, motivated by empathy or concern for the other rather than self-motivation for self-gratification and self-interest; looking for altruistic rewards benefitting reputation. On the internet, it works through donations, volunteering, social causes, sharing, and advocacy	Twenge *et al.* (2007)

Table I. Operational definitions of constructs

known by the researchers helped distribute the survey among contacts in various countries. Data collection lasted one month and obtained 150 responses as shown in Table II.

Measurement model

The constructs were tested for two psychometric properties, validity, and reliability, to ensure that the measurements were accurate. These assessments confirm the reliability and validity of the observed variables relative to the respective latent variables. The composite reliability was employed because it provides a better estimate of the variance shared by the respective indicators and a more conservative measurement in partial least squares-structural equation modeling (PLS-SEM) than does Cronbach's α (Hair *et al.*, 1998). The factor loadings, composite reliability, and average variance extracted (AVE) values from the PLS algorithm are shown in Table III.

The reliability of the constructs ranges from 0.85 to 0.91, satisfying the standard criterion of 0.70 suggested by Fornell and Cha (1994). Convergent validity is the degree of consistency or agreement between two or more measures of the same construct, or the degree to which a test of a construct is highly related to another test designed to evaluate the same construct (Carmines and Zeller, 1979). The smart PLS reveals that the factor loadings of each of this study's constructs are greater than 0.6. Therefore,

		%
Gender		
Male	76	51
Female	74	49
Age		
Less than 20 years	1	1
20-30 years	89	59
30-40 years	40	27
40-50 years	8	5
50 years and above	12	8
Education		
High school	13	9
Undergraduate major	67	45
Masters	64	43
PhD	6	4
Monthly income (USD)		
Less than 500	25	17
500-1,000	54	36
1,000-2,000	48	32
2,000-3,000	17	11
More than 3,000	6	4
Level of internet use		
Searching information	97	26
Communication and e-mailing	107	28
Sharing and socializing	81	21
Online transactions (e.g. buying, payments)	68	18
E-business professional management	23	6
None of the above	1	0

Table II.
Demographics of respondents

Construct	Indicator	Factor loadings	Cronbach's α	Composite reliability	Average variance extracted (AVE)
E	E1	0.772094	0.783767	0.873035	0.696863
	E2	0.880147			
	E3	0.848412			
ER	ER1	0.861739	0.854468	0.910659	0.772649
	ER2	0.880523			
	ER3	0.894446			
IT	IT1	0.802514	0.830884	0.897425	0.745114
	IT2	0.894460			
	IT3	0.889524			
PEU	PEU1	0.883097	0.826963	0.896783	0.743582
	PEU2	0.884500			
	PEU3	0.817647			
PR	PR1	0.721062	0.737701	0.850729	0.656451
	PR3	0.857861			
	PR4	0.844688			
PSI	PSI1	0.893944	0.868655	0.91955	0.792237
	PSI2	0.856392			
	PSI3	0.918787			
SI	SI1	0.818930	0.784364	0.8744	0.69898
	SI2	0.865021			
	SI3	0.823427			

Table III. Reliability and convergent validity of the constructs and AVE

our research model has significant convergent validity, as each factor loading exceeds 0.72. Fornell and Cha (1994) established that convergent validity is accomplished when the AVE is greater than 0.5. This study's AVE ranges between 0.65 and 0.79, confirming convergent validity.

Discriminant validity is the degree to which a test of a construct is not highly correlated with other tests designed to measure different constructs (Carmines and Zeller, 1979). Table IV shows the correlations among the study's constructs as determined by the Smart PLS. The values of the diagonal are the square root of the AVE; they are larger than the values of the off-diagonal elements. As Table IV shows, the constructs are confirming the validity of the model.

The goodness-of-fit (GoF) index in Tenenhaus *et al.* (2005) was employed to evaluate the overall fit of the model. According to Tenenhaus *et al.* (2005), GoF indices of 0.1, 0.25, and 0.36 indicate small, medium, and large model fit, respectively. The computation resulted in a substantial value of GoF = 0.5836, indicating that the research model is substantially fit.

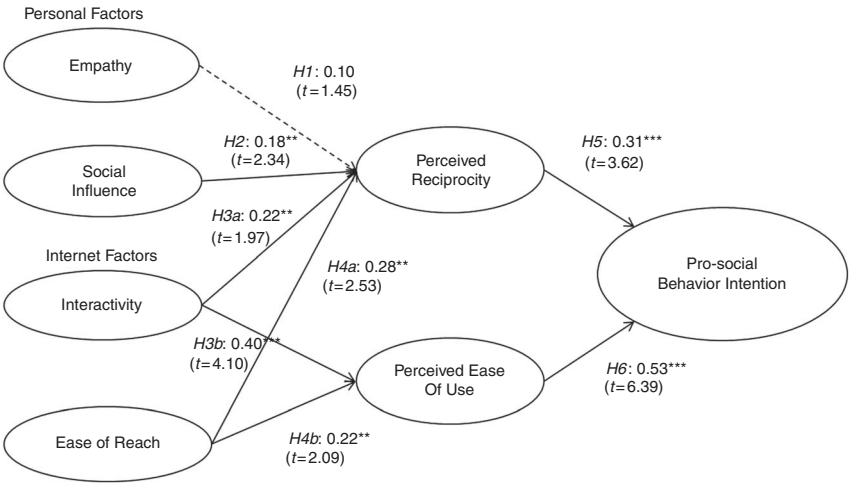
	ER	E	PSI	IT	PEU	PR	SI
ER	1.000000						
E	0.528820	1.000000					
PSI	0.548648	0.370040	1.000000				
IT	0.768047	0.469129	0.626487	1.000000			
PEU	0.538483	0.311328	0.752945	0.580552	1.000000		
PR	0.587418	0.429639	0.683822	0.572574	0.683810	1.000000	
SI	0.403487	0.364733	0.295604	0.426903	0.211038	0.436100	1.000000

Table IV. Construct correlation and discriminant validity

Hypothesis testing

After the reliability and validity tests, SEM with Smart PLS 2.0 was used to test the research model, determine whether relationships exist between the constructs, and confirm the hypotheses. Based on the data analysis, Figure 2 presents the path coefficients of all constructs, and Table V shows the results for the hypotheses.

The findings did not support the theorized relationship between empathy and PR, with (E) $\beta = 0.106$ ($t = 1.465$, $p < 0.05$) being insufficiently significant to establish such a relationship. As Pelligra (2011) argued, empathy is a significant foundation for pro-social behavior; however, this conception is based on several psychological theories unconnected to the internet or any other kind of media. Furthermore, Sargeant *et al.* (2006) have determined that the emotional dimensions of empathy have differential influences on donation decisions and generosity toward charities. Empathic concern positively affects donation decisions, which makes sense because donors with high levels of empathic concern focus on alleviating the suffering of unfortunate others. Thus, neither reciprocity nor the egoistic feeling of altruism is, as Penner *et al.* (2005) argued, the whole motivation for helping others. Many perspectives on genetics, personality, social environment, and psychological attitudes suggest that people will help others regardless of altruistic motivation.



Notes: $^{**}p<0.05$; $^{***}p<0.01$

Figure 2.
Results of structural equation modeling

Path	Path coefficient	*t*-value	Hypothesis
(*H1*) E→PR	0.106	1.415	Not supported
(*H2*) SI→PR	0.187	2.346	Supported
(*H3a*) IT→PR	0.226	1.973	Supported
(*H3b*) IT→PEU	0.407	4.104	Supported
(*H4a*) ER→PR	0.282	2.535	Supported
(*H4b*) ER→PEU	0.226	2.098	Supported
(*H5*) PR→PSI	0.317	3.623	Supported
(*H6*) PEU→PSI	0.536	6.396	Supported

Table V.
Model evaluation results

It was theorized that SI positively affects PR. The SI value was $\beta = 0.187$ ($t = 2.346$, $p < 0.05$), depicting a positive relationship. Much research supports this hypothesis, mainly based on SCT. Thompson *et al.* (1991) also found a positive relationship, focussing on internet adoption. Studies on consumer behavior and internet and online media have also shown a relationship between SI and grades of reciprocity in performing online activities (Hong and Rim, 2010).

Our model established a relationship between interactivity and PR. The IT value was $\beta = 0.226$ ($t = 1.973$, $p < 0.05$), indicating that interactivity is seen to benefit users and that structural-based interactivity helps facilitate the norm of reciprocity (Chan and Li, 2010). Therefore, interactivity integrates a mix of attributes that users identify as value creators (Lowry *et al.*, 2010).

Theories of technology adoption such as TAM have proved a positive relationship between the adoption of a new system and a favorable perception of the innovation (Davis, 1989). The result for *H3b* provided a value for IT of $\beta = 0.407$ ($t = 4.101$, $p < 0.01$). Recent research has suggested that interactivity features motivate a significant degree of ease of use perception (Lee *et al.*, 2006). Interactivity also enhances levels of communication and action, allowing users to assume new roles and tasks or attitudes and behaviors in a proactive way (Ballantine, 2005).

PEU and ER were hypothesized based on the DOI (Rogers, 2003). However, the PEU of the internet was not tested as a factor affecting PR, as many internet factors and features are seen as positively replacing older systems (Davis, 1989). Perceived ER was tested directly as a single construct factor. The PEU value was $\beta = 0.282$ ($t = 2.535$, $p < 0.05$), indicating a positive relationship between PEU and reciprocity; this makes sense because the internet and technology reach across boundaries and require no modification of information or action (Laudon and Traver, 2013), facilitating the performance of tasks around the globe. Other studies have found reciprocity to be an influential factor in the PEU of a system; therefore, those variables are correlated (Sharratt and Usoro, 2003).

We saw that the TAM and UTAUT posited that perceived ER is correlated to technology features. Our research found that ER and PEU were $\beta = 0.226$ ($t = 2.098$, $p < 0.05$), supporting this hypothesis. As many recent studies have found, ER is an added value perceived in marketing strategies; hence, technological properties have a significantly positive effect on reach and ease of use (Rohm *et al.*, 2012). Enabling reach thus encourages attitudes by offering the possibility to perform behavior, save time, communicate needs or wishes, and engage in communities (Leong *et al.*, 2011).

Reciprocity has been determined as an influencing factor in the intention to adopt pro-social behavior. Many psychological theories have proposed that altruistic motivations arise in order to help unrelated others. The value of PR and PSI is $\beta = 0.317$ ($t = 3.623$, $p < 0.01$); accordingly, pro-social behavior may be altruistic from a reciprocity perspective on a spectrum of different grades (i.e. weak, medium, strong; Hawley, 2014). This suggests that the intention to adopt pro-social behavior through the internet occurs when reciprocity is perceived, indicating a positive effect. Meanwhile, SI factors are detected in reciprocity combined with the possibility of information sharing (Güroğlu *et al.*, 2014; Szolnoki and Perc, 2013). PR is an attribute that encourages helping others. The strong correlation found suggests that non-profit organizations should consider this when formulating their marketing strategies.

H6 provides a new contribution to research, by measuring the significance of the internet's PEU and the adoption of pro-social behavior through it. A positive relationship was found among the variables, answering the main objective of this study.

The PEU and PSI value was $\beta = 0.536$ ($t = 6.396$, $p < 0.01$). This strong correlation confirms that internet properties and features are important factors in pro-social behavior. Though few studies have examined the internet's PEU and intentional pro-social behavior, this study draws from theories such as the SCT and TPB. Similar studies on social corporate responsibility through the internet have found positive relationships between customers and their desire to help others by adopting technology to ease their task (Hong and Rim, 2010).

Discussion

Our main objective was to find a relationship between the internet and the intentional adoption of pro-social behavior. After measuring the relevant communication factors, we found that technological systems had a significant influence on the intention to help unrelated people.

Previous research has found a relationship between electronic fundraising and donating and the enabling conditions of technology; however, those studies focus on experienced customers and their level of trust in the internet. This study has tested pro-social behavior within a more complex and broad environment in terms of helping unrelated others regardless of the level of experience, in which single users, independently of their background, are aware of the conditions under which they may adopt pro-social behavior.

Linkage between personal factors and pro-social online behavior

Penner *et al.* (2005) explained pro-social behavior from a social prospective, and Hannah *et al.* (2011) defined individuals as social beings willing to behave according to the social circle of reference in which they want to or already belong to. As social beings, humans need to perform tasks that will enhance their reputation and acceptance among fellow members. Individuals as social beings find more value and comfort when performing as a group. Therefore, adopting pro-social behavior through the internet has more value when a person is not the only one doing it; performing pro-social behavior has perceived beneficial value if the individual can do it together with his or her group of reference, while assuming the role of either leader or follower. This proposition is consistent with Piff *et al.* (2010) and their conception of SI in different social classes.

Though Eisenberg *et al.* (2010) argue for a strong relationship between empathy and pro-social behavior, this study has not found empathy to be an influential factor in pro-social behavior. Empathic concerns are not the main motivation to adopt a technological system and help unrelated people. As Hawley (2014) has pointed out, reciprocity could represent social status when an individual is concerned to help others.

SI may be more determinant than empathy. Furthermore, Pelligra (2011) has related empathy to feelings of guilt more closely than to reciprocity patterns; guilt is an emotional state that leads subjects to avoid the psychological cost associated with feeling it; therefore, the level of PR may be low.

Other research by Cronin *et al.* (2010) has argued that reciprocity is a factor excluded from pro-social behavior; however, this study suggests that individual concerns and motivations may be perceived less intensely than in offline modalities of pro-social behavior.

This study shows that one personal factor (SI) is strongly linked to the properties of the internet; therefore, the internet is an influential motivation in increasing and easing consumers' SI.

Linkage between internet factors and pro-social internet behavior

The adoption of pro-social behavior related to the internet's PEU strongly resonates with Fishbein and Ajzen (2005) theory that individuals will hold a favorable attitude to a given behavior if they believe that the behavior will lead to mostly positive outcomes.

Despite the many researches on technology and communication adoption, few have examined pro-social behavior on the internet Amichai-Hamburger (2013) defined online pro-social behavior as voluntary intentional actions taking place on the internet to benefit others with no expectation of personal reward. Electronic communication has been found to often explicitly encourage newcomers to observe others' behavior (Sproull *et al.*, 2013). These observations are consistent with our finding that SI and PEU are influential factors in intentional pro-social behavior on the internet.

This study finds that communications features are more significant than are personal and psychological factors in intentions to adopt pro-social behavior. This study has produced a high-coefficient value concerning the internet's ease of use, mainly based on its interactivity and ER. Thus, the internet and internet factors in general are perceived as resources for encouraging help. Furthermore, customer perceptions are evolving, especially regarding technological changes. This study shows that customer perceptions of pro-social behavior have changed in recent decades.

ER and interactivity have created a new context in which to help others and support social causes. The accessibility the internet offers has turned empathic concerns into a modality by which to become more aware of the technological resources that can be used to contribute to social welfare. The internet also allows for global integration (Sproull *et al.*, 2013): information flows have greatly increased, and the amount of information now available enhances our understanding of the global context (Lowry *et al.*, 2010). All this suggests that pro-social information has also increased in scope, as have the available ways to reach and engage people in social causes.

Conclusions

Pro-social behavior on the internet is affected by several influential factors, despite the fact that psychological factors may be subjective and feeling can be manifested on different scales according to the context (Vidulich, 1988). In the context of normal human conditions, this study describes the intentional motivation to help others by considering PR based on SI, interactivity (IT), and ER. The study focussed on the internet's PEU as a key factor in the intention to help unrelated people, finding an added perceived value in technological tools rather than solely in empathic and self-motivated feelings of philanthropy.

This study was designed to investigate consumers' pro-social behavior on the internet on the assumption that technology is more involved in people's lives than ever before and that consumer perceptions and pro-social behavior motivations may have subjectively changed. This study has found that people's intentions are proportional to the PEU of helping through the internet and that online resources have a strong affinity with social concerns due to media exposure and the accessibility provided by features such as interactivity (IT) and ER.

Theoretical implications

This research significantly contributes by helping non-profit organizations develop marketing plans that will persuade their population targets. By using marketing conceptions of customer behavior such as the TPB and DOI, this study describes the

influential factors that, together, produce added value for consumers and encourage their pro-social behavior. Consumers experience motivational stimulus as reciprocity and ease of use when helping others; this stimulus is stronger than the former psychological offline factors seen in the intention to adopt pro-social behavior.

This research tested the relevant personal and internet factors, discovering a more modern and technologically aware consumer who is willing to help and see value in electronic communities. Second, this study has discovered a customer who is more integrated into modern communication features and is eager to use them as a tool for helping others and contributing to a better world.

Practical implications

This study has discovered the influential factors that non-profit organizations must consider to persuade their population targets. These factors represent the key advantage that will create a stimulus and a positive consumer perception. Organizations striving to capture consumers' attention and purchase behavior (in the form of a social contribution) must facilitate social sharing and ease of use, as these are highly influential.

Our research model provides non-profits with a theoretical foundation for their marketing by offering a thorough model revealing the influential factors in pro-social activities from the consumer's perspective.

In order to obtain the support of users (i.e. prospective consumers), non-profits must combine attributes in their commercial practices, starting with an internet media platform that provides a two-way communication channel between the organization and the consumer; the platform should have simple features concerning information and tasks, allowing the users to make the contribution they wish.

This platform should also display tools that allow consumers to share and discuss their activities and contributions, as SI is a determining factor in pro-social behavior. The internet is a powerful tool of socialization through SNS; therefore, a campaign in which consumers could find reciprocity in socializing would provide added value, and that added value combined with the internet's interactivity and ER would generate reciprocity and ease of use, thus motivating consumers to adopt pro-social behavior. Finally, non-profits could also use the internet to obtain information on their customers for future marketing research activities.

Limitations and future research

The study's sample comprised internet users with a high level of experience on the internet; however, it is difficult to measure if their intentional pro-social behavior will become real pro-social behavior. Respondents already using e-banking and e-commerce are likely to perform some kind of pro-social behavior, but respondents with only a basic knowledge of the internet will probably not. Moreover, a segmentation of pro-social behavior among different segments would provide new knowledge and deeper contributions.

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