Electronic word of mouth

The effects of incentives on e-referrals by senders and receivers

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Abstract

Purpose – The purpose of this work is to test several incentive strategies for attaining new customers via electronic referrals, or e-referrals. The paper aims to examine: the roles of both the magnitude of the incentive offered to the sender and the magnitude of the incentive offered to the receiver; and the effect of equity versus inequity of financial incentives for the two parties.

Design/methodology/approach – The study consisted of a large-scale field experiment conducted with 45,000 members of an online mall. The participants were divided into eight conditions in an incomplete two-factor 4×4 between-subjects design, where not every combination of incentive magnitudes was utilized and the magnitude of the incentive offered the receiver and sender varied in size such that sometimes rewards were equal, sometimes receivers of the e-referral had larger rewards, and sometimes senders of the e-referral s received more. Dependent measures included the number of e-referrals sent, the number of those e-referrals that lead to a new customer registering, and the number of new registrants that converted to buyers from completing a purchase.

Findings – The results demonstrate that both the magnitude of financial incentives, and the relative magnitude of the incentives for the senders and receivers both influence e-referral rates. Specifically, it was found that offering higher incentives to senders and receivers led to an increase in referral invitations sent, new member sign-ups and new buyers. It was also found that the disparity between incentives offered to senders and receivers affected e-referral rates and that inequity should favor the sender to enhance results.

Originality/value – This paper offers marketers valuable insights as to how different combinations of financial incentives to receivers and senders can affect e-referral rates. The findings suggest that potential referrers respond not only to referral incentives but also to the disparity between their incentives and the receivers' incentives.

Keywords Electronic referrals, E-referrals, Word-of-mouth communication, Online referrals, Tell-a-friend, Incentives (psychology), Consumer behaviour, Marketing strategy

Paper type Research paper

Introduction

The trend toward consumers generating their own forms of marketing communication is increasingly taking the power of attracting customers out of the hands of the marketers. In a struggle to hold on to existing customers, as well as maximize new customer acquisition, marketers find themselves challenged with how to best apply new technologies to customer acquisition and retention. This paper focuses on how

existing customers can be used as a tool for increasing the acquisition of new customers with the aid of financial rewards for successful ereferrals.

One of the oldest forms of communication that can lead to customer acquisition is word of mouth (WOM) marketing. Technological innovations have given marketers many new tools to harness electronic WOM for customer acquisition in the form of ereferrals. Overall referrals take many forms in both offline and online environments. Offline referrals can be described as one consumer's promotion of a product or service in offline environments such as in person or by telephone. ereferrals are those referrals that occur online. This study introduces the term ereferrals to describe these online referrals.

Ereferrals can be prompted independently by an individual or by company encouragement. Individuals initiate and then generate ereferrals through direct e-mails, instant messages, blogs, message boards, and social networking sites. Companies may prompt ereferrals through both inbound and outbound mechanisms. Inbound mechanisms for ereferrals include such tactics as hosting a "tell-a-friend" option on a company webpage, or encouraging online product ratings, and hoping they will be positive. Company-prompted outbound ereferral mechanisms include suggesting the consumer proactively pass on information about the company's product or service via direct e-mails or some other form of online communication. Often, this form is accompanied by a financial reward. Yet the size and nature of the rewards vary tremendously.

Harnessing the power of the internet in new forms, such as ereferrals, is of interest to marketers because it is a potentially low-cost customer acquisition strategy that offers the opportunity to recruit high-quality new customers. Compared to traditional advertising and internet advertising, including keyword buys and display ads, ereferrals are likely to be seen as more credible by consumers who receive them.

Important questions for marketers considering an ereferral program include whether to include an incentive, the optimal magnitude of the incentive, and whether to use e-mail prompts to the current customer base to generate ereferrals to potential new customers. Another critical question is whether to give an incentive to the sender (the current customer of the company) or the receiver (the sender's contact and thus the potential new customer of the company) or both.

There is significant variance around the world in how incentive plans are structured in terms of both who gets them, and how much is offered. For example, in the US telecommunications industry, Verizon offers a "chance to win" reward for referring friends (July 2011), Sprint offers nothing (as of July 2011, yet had referral programs in past years offering $25 to both parties for a successful referral) and AT&T offers $25 only for the referring party (July 2011). In Germany, wireless provider O2 allows a choice of referral incentives of either fifty Euros in cash to the referrer or 24 months of unlimited talking time to both parties (October 2011). Incentive magnitudes to the two parties (sender and receiver) in an ereferral situation can also vary within industries. Companies in the same country and same industry can offer very different incentives. For example, leading online US photo services Snapfish and Shutterfly both offer free prints as incentives for successfully referring new clients, but Snapfish offers 20 free prints to just the sender (July 2011) while Shutterfly has offered 30 free prints to the sender and 15 free prints to the receiver (June 2010).

Social networking sites often make an effort to encourage ereferrals when new members register. Upon registration on social networking sites such as LinkedIn,

Facebook, Hi5, or Google + , members are requested to link to others using their e-mail address book. This encouragement often continues each time the member logs in. In these cases, the person who is referred receives an e-mail message referencing the connection and encouraging this nonmember to become a member. This, in essence, creates an ereferral.

The ereferral examples from these well-known companies depict the wide usage of ereferrals as well as the diversity of incentives and tactics employed. While many companies still offer no incentives for ereferrals, this could be due to lack of certainty regarding what magnitude would work best and to whom to offer the incentive. This research attempts to help answer some of the questions by testing different combinations of financial incentive magnitudes to senders and receivers of ereferrals. More specifically, the research presented here examines the effectiveness of differing magnitudes of monetary incentives for senders and receivers of ereferrals, at both equal and unequal incentive magnitudes.

This ereferral research will thus be presented within the framework of the wide-ranging literature on word-of-mouth communications, the less extensive work on ereferrals, and finally how equity theory can provide insights into these ereferrals.

Prior research on WOM marketing
Companies covet positive WOM marketing as a tool to influence their customers for two main reasons. First, WOM through a friend or acquaintance is considered to carry more credibility than an advertisement or promotion from the company itself (Day, 1971). Smith and Swinyard (1982) created a model investigating the effects of advertising compared to direct product experience and found that the latter is more credible. Thus when a person with direct experience influences others through WOM, it is likely to be more credible than advertising. Second, WOM does not usually require the extensive media expenditures typically needed for advertising. Underpinning the importance of WOM is the declining role that advertising plays in influencing consumer decisions (Godes *et al.*, 2005). Today, consumers around the world are inundated with advertising messages, and this inundation has likely contributed to this decline in advertising effectiveness

WOM is often associated with firm-anointed characteristics, such as customer satisfaction, loyalty, retention and trust. Most researchers agree that the element of customer satisfaction is an antecedent to WOM (Anderson, 1998; Dichter, 1966; Sundaram *et al.*, 1998) and that in cases of extreme customer satisfaction WOM occurs more frequently (Anderson, 1998). However, the researchers do not always agree on the role played by customer satisfaction. Some research categorizes customer satisfaction as a necessary component of WOM and the primary reason for the initiation of WOM. Other research shows the presence of customer satisfaction as necessary but not sufficient in itself. They believe that satisfaction is needed, but is not itself the catalyst for the WOM recommendation (Arnett *et al.*, 2003).

Online word-of-mouth marketing taps into the trend of consumers actively creating, modifying and collaborating on content online by making them important message-distribution channel members, leading to great reach potential (Coyle *et al.*, 2011). Often, such online consumer activity revolves around brands. A total of 70 percent of consumers have turned to social media properties for information about a product, brand or company, with 49 percent of these consumers using the information

they gather to make a purchase (DEI Worldwide, 2008). Counter to conventional wisdom, the vast majority of people have moderate-sized social networks and are just as willing to share marketing messages with others as the highly connected are willing to share (Smith *et al.*, 2007). In general, the impact of those assumed to be most influential may be overstated (Watts and Dodds, 2007).

Not surprisingly, online information seekers claim that product and service information provided by other consumers through social media sites is more valuable than when this information is provided by marketers (Greene, 2009). Consumers are adept at differentiating between expert and consumer recommendations online, and they perceive consumer recommendations as more trustworthy than those of experts (Huang and Chen, 2006). This preference for recommendations from friends over recommendations from experts is particularly strong among female consumers (Garbarino and Strahilevitz, 2004), and is true both online and offline (Strahilevitz, 2007). Prior WOM research has found source credibility to be a predictor of sharing information (Richins and Root-Shaffer, 1988), and source credibility is considered a potentially influential factor in sharing information online (Ho and Dempsey, 2010).

One particular source of online information that has been studied is market mavens, who are sources of information about the marketplace in general (Clark and Goldsmith, 2005; Feick and Price, 1987). The need to help others by providing marketplace information can also be seen in work looking at consumers' motivations for expressing their opinions in online consumer opinion platforms (e.g. epinions.com), in which four primary factors emerged: consumers' desire for social interaction, their desire for economic incentives, their concern for other consumers, and the potential to enhance their self-worth (Hennig-Thurau *et al.*, 2004). Most recently, altruism was found to be positively related to sharing online information, in general, (Ho and Dempsey, 2010) though not online advertising specifically.

Acknowledging these new roles of electronic WOM, researchers are studying the effects of more impersonal WOM such as chat rooms and recommendation sites, message boards, reputation systems and online user-generated product reviews. Not surprisingly, Mayzlin (2006) found that promotional chat generated from sources such as online product rating systems benefited firms with products that are considered superior. Liu (2006) studied the use of online message boards for movies and found that WOM volume before a movie's release is more important than after its release. It has been found, again not surprisingly, that user recommendations and star rankings in online reviews influence the sales of books (Chevalier and Mayzlin, 2006).

Lastly, researchers have considered product innovativeness (Sun *et al.*, 2006), how often consumers expect to buy the product, how much money is spent to support the viral campaign (Neff, 2007), and consumer innovativeness (Shoham and Ruvio, 2008) as influencers of online WOM marketing.

Prior research on electronic referrals

Studies of ereferral incentives are few. In general, rewarding existing customers increases WOM (Wirtz and Chew, 2002) and ereferral likelihood, and financial rewards are especially effective in increasing ereferral to weak ties and for weaker brands (Ryu and Feick, 2007). In their analytic model of ereferrals, Biyalogorsky *et al.* (2001) find that ereferral strategies are especially effective when customers are either not very demanding or are moderately demanding. Perceptions of the source of the ereferral

may play a role in ereferral receptiveness as well. In a study of willingness to switch German energy providers, perceptions of ereferral source expertise and similarity influenced ereferral receiver behavior (Wangenheim and Bayon, 2004).

Prior research on equity and incentives

When incentives to both senders and receivers are a component of ereferral activity, equity theory may explain the decision-making activity of the two parties. Intuitively we may think that the person making a recommendation cares only about what incentive is offered to him and not the receiving party, however equity theory suggests otherwise. In general, equity theory can be described as the proposition that individuals seek equity in what they give and what they receive (Walster *et al.*, 1973). So the sender may believe that the receiver should also receive an incentive for efforts made. Equity exists when both parties receive the same incentive, such as $5 for the sender and $5 for the receiver. Inequity is present when the incentive levels to the two parties are of different magnitudes. When the sender receives $10 and the receiver gets $5, there is positive inequity for the sender. When the sender receives $5 and the receiver gets $10, there is negative inequity for the sender.

A person's perception of the equity in a relationship may be altered depending on the assessment of the value and relevance of other participants' inputs and outcomes (Walster *et al.*, 1973). In ereferral situations, the input is the amount of effort required to take action by the sender or the receiver. Senders' inputs can be described as the ereferral attempts that they make in telling others about a product or service. Receivers' inputs can be thought of as a successful referral – the purchase of the referred product or service or the registration on a website. The outcome is the financial incentive provided to the sender or the receiver or utility of the product for the receiver. An example is when the sender receives $10 and the receiver receives $5. It is expected, then, that positive inequity for the sender will result in better ereferral attempts than negative inequity for the sender.

Inequity may be present when the perceived inputs of one person are in opposition to what that person perceives are the inputs of another person (Adams, 1963). When a significant level of inequity exists between two parties, then both participants are likely to feel inequity distress. For a person receiving a larger financial incentive in an ereferral situation, inequity distress could take the form of guilt, or harm to one's sense of being a good and fair person. Most people accept the ethical principle of fairness and equitable dealings with others (Walster *et al.*, 1973).

Hypotheses regarding incentive magnitude

The relationship between incentive size and ereferral success

The field of economics is based on the notion that people are utility maximizers who make decisions in their own self-interest. While the entire field of behavioral economics has shown endless exceptions to this (Ariely, 2010, and (Levitt and Dubner, 2005), it is still assumed that people will be more motivated to do something if you offer them a larger reward for doing so.

As mentioned previously, to prompt ereferrals, a financial incentive can be used. Such an incentive could be offered to the sender and/or the receiver. Larger incentives should be more powerful motivators than smaller ones. We would expect this to hold for both senders and receivers. Thus:

H1a. Larger individual incentives for senders of ereferrals will lead to more ereferrals being made.

H1b. Larger individual incentives to receivers of ereferrals will lead to a higher response rate to ereferrals, and thus more new customers registering.

H1c. Larger individual incentives to receivers of ereferrals will lead to a higher response rate to ereferrals, and thus more new customers registering who become buyers.

Hypotheses regarding incentive equity

Financial incentive offers may be unequal to the two parties, such as $10 to the sender and $5 to the receiver, or vice versa. They can also be equitable with both parties receiving the same amount. *H1a-H1c* suggest that overall ereferral activity, in the form of more suggested referrals as well as results, should increase as each party's individual utility of engaging in it increases. However, not all motivations are so selfish. Some referrers may be more willing to pass something on to a friend or family member if they think it will be of value to that person. Thus, since larger total financial incentives are likely to motivate both the sender and the receiver more than smaller incentives, we expect the following:

H2a. The larger the total financial reward offered to the sender and receiver, the higher the number of ereferrals will be sent.

H2b. The larger the total financial reward offered to the sender and receiver, the higher the total number of people register.

H2c. The larger the total financial reward offered to the sender and receiver, the higher the total number of people who register and become buyers.

H2a-H2c addressed ereferral results for financial incentives when combining the incentives of both the sender and receiver. When ereferral results are deconstructed into the sender's behavior (ereferral attempts) and the receiver's behavior (ereferral conversions of new registrants and then new buyers), then it is anticipated that varying the incentive levels will affect those independent actions.

Inequity distress could lead participants to act differently than they would in an equitable scenario. For ereferrals, consider a scenario that may be affected by inequity distress. In this scenario, the offer combination to the two parties is equal versus a considerably higher incentive to the sender. We have assumed that only senders are aware of both parties' incentives. An example of this is when the offer combination to the two parties is equal, such as $10 to both the sender and to receiver compared to an offer combination of $20 to the sender and $0 to the receiver.

On the sender's side, for example, when a financial incentive offer is an unequal combination of $10 to the sender and $5 to the receiver, more ereferral attempts resulting in increased ereferrals are expected to result. Thus:

H3. In unequal financial incentive offer ereferral situations, those with the sender receiving a higher financial offer than the receiver will yield more ereferral attempts by the sender than when the receiver's incentive is higher.

Research design
This study focused on a large-scale field experiment that was conducted with members of an online shopping mall, Ebates. Ebates provides "cash back" for shopping through its website at more than 1,000 popular online retailers. For example, a member can shop through Ebates at Apple, 1-800-Flowers, or the Gap and receive a percentage of cash back from the purchase. Cash back percentages range from 1 to 25 percent of the sale, and average approximately 3 percent. The cash back accumulates quarterly and then Ebates sends the member a hard copy check or deposits the money directly into an online banking account such as PayPal.

The process of becoming an Ebates customer involves two steps. The first step is to register minimal contact information including name and e-mail address. Once a consumer has completed this step, he/she is now considered a member. The second step is to actually purchase through Ebates, which then begins the accumulation of cash back. Once a member has completed the first purchase, he/she is now considered a buyer.

This two-step process makes Ebates an attractive site for ereferral research. The first step mirrors the membership process required by many online non-commerce sites including content and social networking sites. The second step reflects the purchase process similar to that of most online ecommerce sites.

Participants were randomly assigned from Ebates' millions of buyers who had purchased within a 12-month period and had not opted-out of e-mail communication from the company. The criteria for selection into the experiment included the following:

· Random assignment was used to assign participants to each condition, so there was no bias in who ended up in which experimental group.

· The customers included had all purchased within the last 12 months. This helped confirm validity of the customer's current contact information including the e-mail address, which was required for the experiment.

· The customers recruited for this study did not include any who had opted-out of e-mail communications from Ebates. Excluding customers who had opted-out of contact ensured that Ebates adhered to its commitment not to spam its customers with unwanted communication.

There were 45,000 Ebates buyers who were sent prospecting e-mails in this between-subjects experiment. Of those 45,000 prospecting e-mails sent, 37,601 were actually delivered as measured by Ebates' e-mail software system. Undeliverable e-mails may have occurred due to bad e-mail addresses, a recipient's change of e-mail address, internet service provider address changes and other issues.

Two independent variables regarding incentives were designed and then randomly assigned to one of eight conditions in a two-factor between-subject design. The two factors were:

(1) Incentive magnitudes to senders of $5, $10, $25, or $50.

(2) Incentive magnitudes to receivers of $5, $10, $25, or $50.

The incentive magnitudes varied from $5 to $50 including matching incentive levels for the sender and receiver, larger incentives to the senders, and larger incentives to the receivers, depending on the condition to which participants were randomly assigned.

There were three dependent variables:

(1) The number of ereferral invitation e-mails sent from current members (senders) to prospective members (receivers).

(2) The number of Ebates new members acquired through the ereferral efforts.

(3) The number of those new members that converted to become new buyers.

The ereferral process began by Ebates contacting the current Ebates member (sender) through a prospecting e-mail with one of eight financial incentive combination offers (see Figure 1). The sender then chose whether or not to make an ereferral attempt with a friend, family member, acquaintance or other person (receiver). Senders could have made a single ereferral attempt, multiple attempts to one receiver, single attempts to multiple receivers, or multiple attempts to multiple receivers. If successful, the receiver registered contact information with Ebates and thus became a new member. For both parties to earn the financial incentive offered, the new member must have made a purchase within the ereferral offer expiration period of three weeks. Once this step occurred, the new member's status changed to that of a new buyer.

Ebates' technology systems tracked all of the ereferral prospecting e-mails sent as well as the overall ereferral results. In the prospecting e-mail sent to the sender, the sender clicked on a URL to link to an Ebates' landing page on which he/she entered the receiver's contact information. An example of the first paragraph in the control e-mail message offering $5 to the sender and $5 to the receiver is shown here:

> *Invite your friends* to save with Ebates and for every friend who signs up and makes a qualifying purchase, we will add $5 * *Cash Back* to your Ebates account, and $5 * *to your friend's*! But hurry – you only have until Month Day, Year to receive this special Cash Back offer!
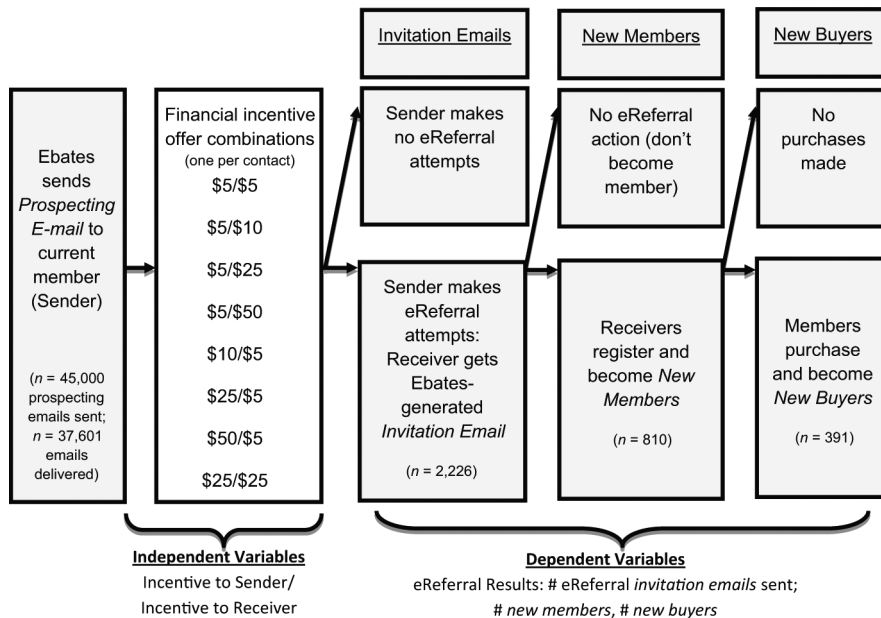

Figure 1.
Field experiment process – depicts communication steps in ereferral process from solicitation through conversion

An example of the first paragraph in the e-mail message that increased the sender's offer to $10 and held constant the $5 receiver offer is shown here. Except for the manipulated variables, the messaging was similar across conditions.

> *Invite your friends* to save with Ebates and for every friend who signs up and makes a qualifying purchase, we will add *$10 * Cash Back* to your Ebates account, and *$5 * to your friend's*! But hurry – you only have until Month Day, Year to receive this special Cash Back offer!

Once a sender provided the receiver's contact information on Ebates referral website page, an invitation e-mail was then automatically generated by Ebates and sent to the receiver. This invitation e-mail referenced the sender's name and was able to be customized by the sender, but also allowed a default e-mail to be generated. All e-mails sent from the sender's Ebates account were tracked and measured. The Ebates' invitation e-mails sent to the receivers provided a unique URL for receivers to link to an Ebates' welcome and introductory page that encouraged membership. The URL "followed" the receiver through the process until he/she became a new member and then later if he/she became a new buyer.

Participants received one set of offer combinations ($X for the sender and $Y for the receiver). However, only the sender was aware of both financial offers for the two parties. The receivers had exposure to their own incentives only (unless the senders independently decided to communicate with the receivers about both incentives). For both parties to earn the financial incentive offered, new buyer purchases must have been made within 3 weeks. No minimum purchase through Ebates was required. Therefore a new buyer could have earned a $5-$50 incentive on a purchase as low as a few dollars or as much as thousands of dollars. The process used in the field experiment, described above, is depicted here in Figure 1.

We tested combinations of these variables. An example of a treatment condition is one that offered $10 to the sender and $5 to the receiver, while another condition reversed that for $5 to the sender and $10 to the receiver. Financial incentive offers were manipulated and included one of eight offer combinations ($ for sender / $ for receiver): $5/$5, $5/$10, $5/$25, $5/$50, $10/$5, $25/$5, $50/$5, and $25/$25.

Field experiment results
A summary of results from the field experiment is presented in Table I, then described further in the following section.

H1 *results*
H1 was tested by comparing the two groups where equal incentives were offered to the sender and receiver. Specifically, these two conditions were $5/$5 and $25/$25. Of the 12,000 e-mails sent from these two conditions, 10,077 were successfully delivered. Undeliverable e-mails may have occurred due to variety of reasons including incorrect e-mail addresses being provided, a change in a recipients e-mail address, or a full inbox.

As expected, in ereferral situations where both the sender and receiver are offered equal financial incentives, the higher the incentive, the more ereferral results were observed (see Table I). As the incentive to senders and receivers was increased from $5 each to $25 each, all three of the dependent variables were positively and significantly

	$ offer combination $ sender/ $ receiver	n	Total $ offer combination for sender and receiver	Ereferral results		
				% Invitation e-mails	% New members	% New buyers
Equal incentive offers	5/5	5,813	10	4.01	1.43	0.83
	25/25	4,264	50	10.04	4.43	2.37
Higher sender incentive offers	10/5	5,815	15	4.63	2.04	1.14
	25/5	4,153	30	7.61	2.94	1.59
	50/5		55	12.73	3.56	2.39
Lower sender incentive offers	5/10	5,807	15	4.82	2.07	0.98
	5/25	5,818	30	4.76	1.15	0.58
	5/50	4,219	55	4.86	2.30	1.19

Note: Results shown are for prospecting e-mails delivered by the company to its current members, for example, which resulted in 4.01 percent invitation, e-mails sent, 1.43 percent new members and 0.83 percent new buyers by purchasing within the three-week offer expiration period

Table I.
Results of the field
experiment – *H1* and *H3*

affected and thus the hypothesis was supported. The percent of invitation e-mails sent increased significantly from 4.01 percent to 10.04 percent ($F(1,661) = 19.9630$, $p < 0.0000$). This measure observes the action of the sender mainly because it is the sender's effort that is required to invite friends via the company website, which sends out the ereferral e-mails after the sender provides the friend's name and e-mail address. The second and third dependent variables are measures of activity by the receiver of the ereferral, as opposed to measures of sender activity. The increase in ereferral results in both of these measures was also significant. The rate of new members increased from 1.43 percent to 4.43 percent per thousand ($F(1,264) = 17.3800$, $p < 0.0000$). The rate of *new buyers* increased from 0.83 percent to 2.37 percent ($F(1,131) = 9.7852$, $p < 0.01$). Thus, *H1a-H1c* were supported.

H2 *results*

H2 was tested by comparing the groups with unequal offer combinations of $5/$10 and $10/$5, $5/$25 and $25/$5, $5/$50 and $50/$5 (unequal incentives to the sender and receiver. There were a total of 33,000 e-mails sent to six offer incentive groups that tested this hypothesis. Of these 33,000 e-mails sent, 27,524 were deliverable, and thus able to be opened by the recipient.

It was anticipated that in unequal financial offer ereferral situations, higher total offer combinations would result in increased ereferral results in all three dependent measures of invitation e-mails sent, new members and new buyers. *H2* differed from *H1* by analyzing "unequal" offer incentives instead of "equal" ones to the sender and receiver.

As expected, in ereferral situations where both the sender and receiver are offered unequal financial incentives, the higher the total incentive, the more ereferral results were observed (see Table II). As the combined incentive to senders and receivers was increased from $15 ($10/$5 and $5/$10) to $30 ($25/$5 and $5/$25) and then to $55 ($50/$5 and $5/$50), the rate of invitation e-mails sent increased significantly from 1.23 percent to 5.95 percent to 7.13 percent ($F(1,1565) = 8.1726$, $p < 0.01$). The second and

third dependent variables are measures of activity by the receiver of the ereferral as opposed to measures of sender activity. The increase in ereferral results in both of these measures was also significant. The rate of new members increased from 1.80 percent to 1.84 percent to 2.60 percent ($F(1,546) = 3.8586$, $p < 0.05$). The rate of new buyers increased from 0.79 percent to 0.91 percent to 1.30 percent ($F(1,260) = 4.4287$, $p < 0.05$). Thus, *H2a-H2c* were supported.

H3 *results*

This hypothesis predicted that in unequal financial incentive offer ereferral situations, those with the sender receiving a higher financial offer than the receiver will yield a higher number of ereferral attempts (results for the number of invitation e-mails sent) than when the ereferral receiver's incentive is higher. There were 33,000 subjects included in this aspect of the field experiment and there were three planned contrasts analyzed. The first was $10/$5 and $5/$10. Of the 14,000 prospecting e-mails sent to participants in these two groups, 11,622 were delivered. The second planned contrast compared the offer combinations of $25/$5 and $5/$25 which had a total of 12,000 prospecting e-mails sent and 9,971 delivered. The third group was the offer combination of $50/$5 and $5/$50 which had a total of 7,000 prospecting e-mails sent and 5,931 delivered. See Table I.

Comparisons were run using a *t*-test. In the $5/$10 and $10/$5 contrast, the number of *invitation e-mails* sent decreased slightly from 4.82 percent to 4.63 percent although the results were not significant ($p = 0.813$). The results from this group did not support the hypothesis. However, as the disparity between offer incentives increased, the results became significant and did support the hypothesis. In the $5/$25 and $25/$5 contrast, invitation e-mails sent increased from 4.76 percent to 7.61 percent ($p < 0.05$). And, in the third contrast of $5/$50 and $50/$5, the number of invitation e-mails sent increased from 4.86 percent to 12.73 percent ($p < 0.000$). Overall, then, *H3* was supported.

Discussion/managerial implications

The results of the field experiment supported some hypotheses yet led to some surprises as well. As expected, in *H1*, the higher the incentives of equal value that were offered to both parties, the more ereferral results were observed. This validates the previous findings by Anderson (1998) that ereferral activity should increase as the utility of engaging in it increases. In the field experiment there were two conditions used in this hypothesis – those with a $5/$5 and a $25/$25 offer. The disparity between these two sets of offers is large (five times higher), and therefore it is not surprising that all three dependent variables of invitation e-mails, new members and new buyers

	$ offer combination $ sender/ $ receiver	n	Total $ offer combination for sender and receiver	Ereferral results		
				% Invitation e-mails	% New members	% New buyers
Unequal offer combinations paired	10/5 and 5/10	11,622	15	1.23	1.80	0.79
	25/5 and 5/25	9,971	30	5.95	1.84	0.91
	50/5 and 5/50	5,931	55	7.13	2.60	1.30

Table II.
Results of the field experiment – *H2*

experienced significant increases. It would be interesting to understand the effects as equal offers were increased, but at lesser incentive intervals such as $10/$10 and $15/$15.

In *H2*, the offer incentives were unequal between the sender and receiver and applied three sets of conditions: $10/$5 and $5/$10 ($15 total), $25/$5 and $5/$25 ($30 total), $50/$5 and $5/$50 ($55 total). Using all three sets with varying degrees of disparity allowed a view into the importance of the size of the offer incentive. In all three sets of conditions, all three of the dependent variables (invitation e-mails, new members and new buyers) showed significant increase between the combined incentive levels. The results from this hypothesis provide additional insights beyond what *H1* offered – that seemingly regardless of the individual incentives to the sender and receiver, as the total-but-unequal combined offer incentives increased, so did all dependent measures.

Unlike *H1*, in which there were only two groups to compare, the three groups in the *H2* data allow us to understand the variable effect of the increase in incentive offers, as depicted in Figure 2. The most dramatic increase in the slope of the ereferral results is seen in the ereferral invitation e-mails sent group, that one which is driven by the sender's behavior. As the offer incentives increase (x-axis), the sender's response (*y*-axis, line with triangles) is more dramatically affected by higher incentives.

We can speculate reasons for this. One reason may be that the offer to the sender that is higher (e.g. $50/$5) is driving the results the most, as opposed to offers in which the sender's offer is lower (e.g. $5/$50). Another reason may be that the receiver's behavior is more driven by the interest in the product or service and its relevance, rather than the incentive for the service. So a conclusion could be that receiver behavior does not change as much as the sender's behavior changes when incentives are manipulated.

However, it seems hard to believe that the unequal incentives, especially those at the higher levels, had no individual effect on the ereferral results. Thus, the second hypothesis was used to analyze sender behavior separately from receiver behavior.

At its most basic level, H2 proposes that senders act in their own best interests. Therefore, in the ereferral activity that the senders control – the invitation e-mails – the prediction was that as the senders' incentives increased, so would the quantity of invitation e-mails sent.

In H3, the hypothesis was supported at the two higher incentive levels of $25/$5 and $5/$25, and $50/$5 and $5/$50, but not at the lower incentive combination of $10/$5 and
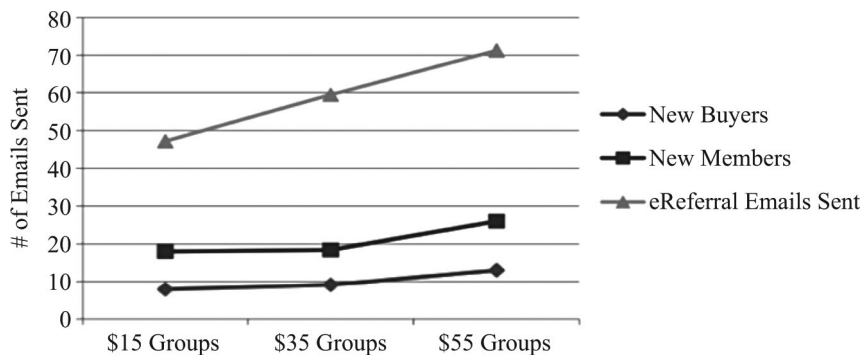

Figure 2.
Graph of *H2* results

$5/$10. Therefore, as the incentive reached a level that apparently interested participants ($25 and $50, but not at $10), senders increased their efforts and sent out significantly more invitation e-mails. At the $10 level, senders sent 46.3 per thousand invitation e-mails. By increasing the incentive from $10 to $25 (150 percent incentive increase) the rate of invitation e-mails sent increased to 76.1 per thousand (64 percent results increase). And, by increasing the incentive from $25 to $50 (100 percent incentive increase) the rate of invitation e-mails sent increased to 127.3 per thousand (67 percent results increase). So while the ereferral results for the sender increased significantly between incentive levels, the payoff for the firm does not track at the same rate.

Interestingly, the rate of invitation e-mails initiated by senders was observed to be a near dead heat at all incentive levels when the sender incentive was held constant at $5.

Although no hypothesis was created for this observation, it is fascinating to note that the sender's actions did not change at the $5 sender incentive level regardless of the receiver's incentive. Combining this information with that of the predicted *H2a* hypothesis then, it can be concluded fairly strongly that the sender acts almost purely in his own best interest and alters behavior according to his own incentive only when his incentive is lower.

The applications of these findings by the practitioner may be accomplished in many ways and would depend on the incentive and referral model. Providing larger incentives overall, appears to motivate the sender to act more. Therefore a manager should test varying levels of incentives to senders at levels appropriate for their business models. There will be a point at which the increased incentive will have diminishing returns for the business as well as reactions by competitors. This can best be determined based on the combination of the business model, its product, the net revenue and then incentive levels.

Regarding the dual incentives to senders and receivers, the practitioner should "spend" more on the sender than on the receiver. It is the sender who will be communicating for the business as a mini sales force, of sorts. Our experiment proved that providing a larger incentive for the sender than for the receiver maximizes results. However, when the incentive disparity is too large, results began to decrease. Therefore a manager should not create such a large inequity that it makes the sender uncomfortable.

In our field experiment, the product (cash back by shopping at your favorite stores online) has general appeal. Receiving a rebate is appealing to most people. Incentivized customers who refer new business can be viewed as a type of sales force. The marketer "pays his sales force" when he rewards them for referring new business. Our results suggest that rewarding senders of ereferrals may be more effective than increasing rewards to new customers.

Limitations and future research

This study had the advantage of measuring actual consumer behavior in a real-world context. However, it was limited to a degree by the inability to analyze equity on the receiver side of the sender/receiver equation. The Ebates' ereferral invitation methodology allowed the sender to have exposure to both the sender and receiver incentives and therefore equity could be observed by the sender of the ereferral. However, the receiver did not see the sender's incentive and therefore was unaware of

any positive or negative inequity for the ereferral. Thus, an important area for future research would involve studying both sender and receiver responses when the receiver is also aware of both parties offer incentives.

Many extensions of this research hold appeal and interest. Regarding the application of incentives to ereferrals, exploring conditions without incentives, or with nonmonetary incentives would broaden our understanding of incentives and ereferral behavior. For example, incentives could take the form of donations to charity or being entered in a lottery. While donations to charity appeal to a very different set of values from receiving money for oneself, research suggests that small donations can be a powerful motivator (Dunn *et al.*, 2008, Strahilevitz, 2010). Due to the results suggesting that the sender's incentive, as opposed to the receiver's incentive, is more impactful on ereferral results, future research can include offering rewards to only the senders or to neither party.

There are other possibilities to extend this research. One area would be to understand the effect of demographics on ereferral behavior. It is likely that gender influences ereferral behavior as prior work has found women to be more easily influenced by WOM (Garbarino and Strahilevitz, 2004) as well as more likely to spread WOM (Strahilevitz, 2007). Other demographic aspects such as culture, age, family status and nationality may also be influential in ereferral behavior. For example, it is possible that in countries with more equitable policies regarding wealth distribution that equity will play a larger role and that inequity will have a stronger negative effect.

In addition to studying incentives and their effect on ereferrals, exploring "how" ereferrals are made is of interest. The ereferral mechanism used in this research was what Ebates was using at the time. After receiving an e-mail from the company, the sender clicks a link in the e-mail and lands on the company's ereferral page. The sender then provides the name and e-mail addresses of receivers after which the company sends invitation e-mails. This process presents at least two obstacles. First, the lack of ease of this methodology could limit ereferrals. Second, because senders are providing contact information of friends and family, the senders could have concerns of privacy for their friends – they do not want them to be spammed by the company or have the e-mail addresses sold to third parties. Introducing new ereferral mechanisms that overcome these hurdles could impact ereferral behavior. For example, we could look at a scenario where the company asks the sender to forward the prospecting e-mail to family and friends. This would eliminate both constraints mentioned above of time and privacy because forwarding an e-mail takes only a couple of seconds and also keeps it private by not providing e-mail addresses to the firm.

Another ereferral mechanism we could examine would be asking senders to post invitations to social networking sites. This could increase the size of the network from just family and friends to that of the often far wider membership and connections on social networking sites. An interesting aspect to this ereferral mechanism is the evolution of a "known" network of family and friends to an "unknown" network and the effect that may have on the equity and inequity of incentives. Since many reviews are posted anonymously on message boards, there is the question of the relative potency of referrals from people one knows to referrals from people one has never met. One might expect equity to play a stronger role when friends, family and colleagues are involved than when strangers are involved.

Finally, we acknowledge that the long-term value of the newly acquired members and customers is of utmost importance to the practitioner. Therefore, a longitudinal study may be considered for studying the effects of the varying incentive levels and their contribution to loyalty.

Summary and conclusion

We began this research interested in learning more about the effect of incentives on ereferral behavior of both senders and receivers. We created a study that varied incentive levels to both parties to examine how incentive size and equity of incentives to both parties affects actual ereferral behavior.

The study was a large-scale field experiment with 45,000 participants. E-mails were sent to participants asking them to refer family and friends. Financial incentives were offered to both the sender and the receiver. Incentive levels varied from $5 to $50 with a total of eight conditions. The three dependent variables (number of invitation e-mails sent, number of new members, and number of new buyers) provided an opportunity to understand ereferral behavior of both senders and receivers. We were able to track the number of new buyers generated within each condition as well, but also the mediating behaviors leading to this, which include both the number of invitations sent by members and the number of referrals that lead to becoming a member, which is required in order to make a purchase.

We believe that the research findings offer unique insights into equity theory between individuals as well as offer implications for managers. Overall it was observed that as the size of incentives increase, ereferral results also increase. This result is not surprising, because as people are offered a higher incentive, it seems logical that they will take more action as either a sender or receiver. And it seems that equity theory has little predictive value in this context.

However, our research suggests that offering more affects the sender's response more than offering the receiver more. This suggests that offering a sender more may "pay off" for a firm. Additionally, it seems that a sender is willing and interested in receiving a higher offer than the receiver, but not too much higher. This suggests that if positive inequity is excessive, it may become emotionally unpleasant to act upon. Thus, it appears that a sender's ereferral attempts have a breaking point at which greater positive inequity, favoring the sender, is no longer motivating.

From a managerial viewpoint, a firm can consider its current members to be its mini-sales force. By allocating its referral budget between the senders (sales force) and receivers (potential new customers), the firm can maximize their results. The results of the research presented here offer initial guidelines for marketers interested in customer acquisition via ereferrals that use incentives. The discussion and suggestions for future research open doors to researchers interested in further pursuing this topic

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