IJHSR
ijhighschoolresearch.org
RESEARCH ARTICLE

Referring Friends and Earning Rewards: A Survey-Based Analysis of Referral Bonuses in the Context of *Pokémon GO*

Hyunoh Song

Walnut High School, 400 Pierre Rd, Walnut, CA 91789 USA; jakesong0323@gmail.com

ABSTRACT: The purpose of this paper is to investigate how referral reward programs, in combination with tie strength, influence consumers' recommendation intentions in the context of the online game *Pokémon GO*. A 2 (recipient: new friends vs. inactive friends) ×2 (tie strength: strong tie vs. weak tie) experimental design was implemented with 400 consumers recruited through the Prolific worker panel. The authors use analysis of covariance (ANCOVA) to test the proposed hypotheses. This study provides valuable insights into the effectiveness of referral reward programs. The results show that offering RRPs to different types of recipients (new vs. inactive friends) significantly increases referral intention. In addition, tie strength was found to have a significant influence on referral intention. Our findings contribute to the understanding of the effectiveness of referral reward programs combined with tie strength in improving game users' referral intentions.

KEYWORDS: Social Sciences, Marketing, Referral Reward Programs, Tie Strength, Pokémon Go.

Introduction

Referral reward programs (RRPs hereafter) are now widespread across many service industries, as companies seek to boost word-of-mouth (WOM) marketing and encourage customer referrals.[1,2] Schmitt *et al*. define customer referral programs as "a form of stimulated word-of-mouth (WOM) that provides incentives to existing customers to bring in new customers" (p. 47).[3] RRPs can attract new customers,[4,5] improve customer loyalty,[6] and enhance brand advocacy.[7] Much research into RRPs has demonstrated that the usage of these programs is justifiable.[8] Although RRPs have received tremendous attention from marketing scholars and practitioners in various industries, the online game industry has been slow in adopting these RRPs as a promotional tool.

In March 2021, Pokémon GO, one of the most popular augmented reality games, introduced an RRP. This program provided incentives to active players to encourage those who had stopped playing or were new to the game to re-engage. Unlike traditional referral reward programs that focus solely on acquiring new customers, Pokémon GO's RRPs also included customers who had been inactive for the past 90 days as eligible referrals. Therefore, reward programs in Pokémon GO are also offered to customers who have previously played the game.

RRPs also have an impact on other customers. Customers not only consider the potential value that other customers may receive through the RRPs but also take into account the relationship between them. Therefore, tie strength is considered a key factor influencing referral likelihood in many previous studies.[4,9]

This study aims to evaluate the effectiveness of RRPs within the unique context of the online game Pokémon GO. Specifically, it investigates which approach—attracting new users or reengaging former players—is more effective when implemented through RRPs. Furthermore, the study compares the relative impact of tie strength—namely, strong ties versus weak ties—on players' referral intentions. Notably, the relationship between referral rewards and tie strength has yet to be explored in the context of online mobile games that engage two distinct recipient types through RRPs.

To aid understanding of this study, we first review the literature on referral rewards and tie strength to develop hypotheses. We then outline the experimental design and data collection methods, followed by a discussion of the results. Finally, we present the conclusions and limitations.

Literature Review

Referral Reward Programs:

Word of mouth (WOM) has long been recognized as a means of customer acquisition, and companies have introduced RRPs to encourage word of mouth actively. RRPs are considered a form of indirect marketing because they originate from existing customers rather than the company's marketers. According to Biyalogorsky, Gerstner, and Libai, Referral reward programs aim to encourage consumers to share positive word of mouth (WOM) about products or services.[10] RRPs have long been adopted in various industries such as financial services (i.e., Chase Bank), hospitality (i.e., Airbnb), and services (i.e., Uber).

Referral rewards can generally be categorized into two distinct types: monetary rewards, such as cash, gift cards, and free shipping. On the other hand, non-monetary rewards may consist of loyalty points or exclusive branded merchandise. These referral rewards act as extrinsic motivators.[11] When consumers purchase a recommended product, it indicates that RRPs have been successfully executed. Recommenders expect perceived benefits (rewards) in return for their efforts, and firms can provide these referral rewards. Based on extrinsic motivation, Previous studies have shown that customers' likelihood of

DOI: 10.36838/IJHSR86.109

making referrals varies depending on the amount, type, and recipient of the reward,[4] as well as the level of social risk.[12]

As online referral programs have grown, online referral reward programs have also begun to gain attention.[13] Previous studies have examined the effectiveness of online referral reward structures in maximizing word-of-mouth,[14] and one of these studies tested it in the mobile gaming context.[15] In the digital environment, variables related to offline referral reward programs were used for the optimal design of online referral programs; the two types of recipients used in our study were not considered.

Pokémon Go and referral reward programs:

Pokémon GO is one of the most popular mobile games. It ranked in the top 10 mobile apps for total revenue as of January 2021.[16] Previous research found that playing *Pokémon Go* has a positive impact on the level of physical activity that players engage in,[17] as well as positive effects on social interaction from playing the game.[18] Playing Pokémon GO can foster intimate partnerships, strengthen relationships with family or friends, and promote a sense of belonging to a larger community.

Pokémon GO introduced an RRP in March 2021. Centered on social interaction, Pokémon GO maintains a list of friends who play together. While many users pay for items to enhance their game performance, the referral reward program allows them to receive items for free. Rewards include items such as Poké Balls, incubators, raid passes, rare candies, and eggs.

While typical referral reward programs aim to attract new customers (game users), the mobile game Pokémon GO also included players who have previous gaming experience - not just new customers - in its referral reward program. The referral system allows a trainer to refer another trainer, whether they are new or returning. A returning Trainer must have been inactive for at least 90 days to be eligible for referral. Once a Trainer is referred, the referring trainer receives a friend request from them so they can earn rewards together. This represents a new type of RRPs that is rarely seen in the general service industries.

Theoretical background:

This study applies Social Motives Theory to explain consumer referral behavior in the context of RRPs. Social Motives Theory is based on the idea that individuals care about the outcomes of others,[19] and is commonly framed through the lenses of self-interest, altruism, and cooperative behavior.[20] This theory posits that the desire to maintain or strengthen social bonds, such as those with friends or acquaintances, serves as a key motivator for individuals to engage in referral behaviors. Social motives can manifest themselves in an RRP when recommenders give special consideration to their friends' satisfaction with their recommendations. When referrers particularly consider whether their friends will be satisfied with the recommendation, social motives may arise within the framework of referral reward programs.[1] Referral rewards extend beyond the provision of tangible incentives; the act of recommending high-quality new products or services may be interpreted as an expression of concern for others' well-being.

Referrals made to friends who have already experienced *Pokémon GO* may be perceived as more trustworthy, resulting in greater satisfaction compared to referrals directed at new users who have never played the game. Pre-existing relationships facilitate easier referrals, and referrers may anticipate a perceived benefit (reward) in return for their efforts.

When a friend who has never played the game receives a referral reward, they may exhibit low trust in the game and experience resistance. Additionally, suppose the recipient becomes aware of the referral reward. In that case, they may perceive the recommendation as being driven solely by economic gain, which could reduce their likelihood of adopting the recommended game. Based on the social motives framework, this study proposes the following hypothesis:

H1. Game users are more likely to refer the game to an inactive friend who has not played in a while than to a new friend.

Tie Strength:

Prior research has shown that tie strength plays a crucial role in the spread of word-of-mouth (WOM).[4, 22] According to Money *et al.*,[23] tie strength is "a multidimensional construct that represents the strength of the dyadic interpersonal relationships in the context of social networks" (p. 79). Also, there are two types of tie strength: "strong primary (such as spouse) and weak secondary (such as seldom-contacted acquaintances)" (p. 374).[24] Existing studies have found that customers are more likely to accept word-of-mouth (WOM) from strong ties rather than weak ties, as strong ties are perceived to be a more trustworthy and less risky source of information.[25] In addition, tie strength is regarded as a key factor influencing the likelihood of referrals within the context of RRPs. For example, customers respond differently depending on whether the referral comes from a strong tie or a weak tie when a referral reward is offered.[26] In addition, the concept of meta-perception was introduced to explain how tie strength and the size of a referral reward interact to influence referral likelihood.[27]

Referral rewards will motivate consumers to increase the total number of referrals. At the same time, these benefits will encourage consumers to make a higher percentage of their referrals to strong ties, since referral rewards are typically only granted when the referred party accepts the referral. Strong ties are more likely to trust the referrer and, as a result, sign up for Pokémon GO. Thus, we put forth the following hypothesis:

H2: Game users are more likely to refer the game to strong ties than to weak ties.

■ Methodology

Given the objectives of our study, referral rewards and tie strength are the two primary drivers of referral intention. The administration of the experiment follows closely that used in previous studies.[4,28] To test hypotheses, we employed a 2 (recipient: new friends vs. inactive friends) × 2 (tie strength: strong tie vs. weak tie) between-subjects design. A two-way ANCOVA was conducted to analyze the effects of recipient type and tie strength on referral intentions, controlling for prior referral experience.

Recruitment:

In August 2025, the survey was designed using the Qualtrics platform, and its link was then distributed via Prolific, an online survey platform for recruiting participants for behavioral and social science research. Prolific is a rapidly growing crowdsourcing platform that enables researchers to gather high-quality data from a large, vetted participant pool.[29] Four hundred respondents who are 18 years or older were recruited for this experiment. They were randomly assigned to one of the four treatment conditions, each with about 100 participants. After prescreening survey participants - excluding those who did not report having installed and played Pokémon Go on a mobile device, as well as those with missing responses - a total of 392 complete and valid responses remained for further analysis. Respondents received financial compensation for their participation.

Informed Consent:

Before participating in the study, participants were provided with a brief description of its purpose and goals. Participation in the survey was entirely voluntary, and individuals were free to withdraw at any time without penalty. Those who completed the survey received a $2 incentive.

Research Instruments:

Participants were asked to read a hypothetical scenario and imagine that they had signed up for and played a Pokémon mobile game. They were then presented with a message from Niantic (the company behind Pokémon Go) regarding an advertisement for the game, in which they were asked to invite their friends to play. In addition, the message stated that only new trainers or those who had not been active within the past 90 days were eligible to be referred. The scenario for an inactive friend's condition stated that "If you refer one of your closest (weak) friends who's already started their Pokémon Go adventure, you will only be eligible for rewards if your close (weak) friend hasn't logged in for over 90 days." The new friends' condition stated that *one of your closest (weak) friends* who has never started their Pokémon Go adventure is eligible to be referred. To be eligible for referral bonuses, your closest (weak) friends must create their new accounts. Next, we manipulated tie strength by asking participants to write down, using initials, either "one of your closest friends" or "one of your weak ties." In addition, they responded to the referral intention items: My willingness to recommend Pokémon Go to my friends; The probability of recommending Pokémon Go to my friend is measured using a 7-point Likert scale (ranging from "very low" – "1" to "very high" – "7"). These two measures are adopted from Ku *et al.*[30] and are found to have a high validity index (Cronbach's $\alpha = 0.981$). We used the average of these two items as a measure of referral intention. As in Song *et al.*,[8] the question "How many times have you made referrals through an RRP in the past?" was included in the survey form. This measure will serve as a covariate to control for variation in the primary dependent variable, referral intention.

■ Results and Discussion

Demographic results:

Of the 392 participants, 59.4% are male. Among them, 6.4% are between 19 and 25 years old, 60.7% between 26 and 40, and 32.9% over 40. Regarding the frequency of RRP usage, 83.5% of respondents have made referrals to friends through a referral reward program. Additionally, 88.8% have referred to friends at least once, 50.2% more than twice, and 21.3% more than four times in the past 12 months. However, only 35.1% of respondents have used the *Pokémon GO* referral reward program specifically to refer friends. Overall, the survey participants reported that they frequently play or use the Pokémon GO game.

Main results:

To test the hypotheses, we analyzed referral intention with an analysis of covariance (ANCOVA). Tie strength and type of recipient were the two main effects with experience as the covariate ($F(1, 387) = 6.376$, $p = 0.012$). This result showed that greater referral experience led to more referrals. Results are graphically presented in Figure 1. Hypothesis 1 expects that game users are more likely to refer an inactive friend who hasn't played the game for a while than to refer a new user when an RRP is utilized. The result yielded a statistically significant main effect of type of recipient on referral likelihood ($F(1, 387) = 7.156$, $p = 0.008$). Mean referral likelihood to refer inactive friends was 5.11 (SD = 1.32), compared to 4.73 (SD = 1.50) for new friends, lending strong support to H1.

H2 predicted that game users are more likely to refer to strong ties than weak ties. The result yielded a statistically significant main effect of tie strength on referral likelihood ($F(1, 387) = 23.67$, $p < 0.001$). Mean referral intention to refer a strong tie was 5.24 (SD = 1.15), compared to 4.60 (SD = 1.58) for a weak tie, lending strong support to H2.

For further analysis, a two-way ANCOVA with Bonferroni-adjusted pairwise comparison was conducted as a post hoc analysis to calculate the adjusted mean values of the variables, while controlling for covariates. For the type of recipient, the results show the same pattern: referral intention for inactive friends was significantly higher than that for new friends ($M_{inactive} - M_{new} = 0.371$, $p = 0.008$). In addition, for tie strength, referral intention with strong ties was significantly higher than that with weak ties ($M_{strong} - M_{weak} = 0.675$, $p < 0.001$).

We analyzed whether the interaction effect between recipient type and tie strength influenced referral intentions while controlling for prior referral experience. However, the interaction between the two factors was not significant for referral likelihood ($F(1, 387) = 0.318$, $p = 0.573$).

DOI: 10.36838/IJHSR86.109

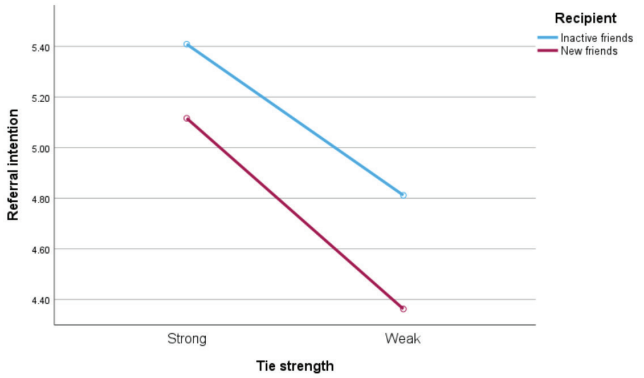

Figure 1: Results of an ANCOVA examining the effects of recipient type and tie strength on referral intentions with prior referral experience as a covariate. Tie strength and recipient type showed main effects; however, no interaction effect was observed between the two factors.

The study showed that game users are more likely to make referrals when the RRPs were offered to friends on their friends list rather than to new friends. As expected, they appeared to prefer receiving referral rewards through friends they already know rather than from strangers. Although there was a significant difference in referral intention between referring to friends on the friend list and new friends through the referral reward program, the intention to refer to new friends was still found to be high. Therefore, firms should provide or continue to provide referral rewards to acquire new friends and use referral rewards to retain inactive game users.

Strong evidence was found that game users are more likely to make referrals to strong ties (close friends) than to weak ties (distant friends) through the referral reward program (RRP). Regardless of whether the friend is on their friend list or a new friend, game users prefer to recommend the Pokémon GO game to close friends and receive rewards. In particular, users showed a high intention to refer close friends on their friend list, whereas their intention to refer new acquaintances they didn't know well was low. Our results on tie strength support the findings of previous studies.[4,9]

Theoretical Implications:

This paper adds to the existing literature on referral reward programs (RRPs). While prior empirical studies have examined consumers' expectations to utilize referral rewards and their motivational responses, this study further contributes by illustrating how the nature of the friend eligible for the reward influences the recommender's referral behavior in the context of an online mobile game. In addition, social motives theory allows us to put forth hypotheses regarding tie strength; that is, a recommender who is concerned with how friends fare through RRPs. This study aims to fill a gap in the existing literature by examining tie strength in the context of RRPs. By integrating these two factors, this study extends and contributes to the literature in both areas.

Managerial Implications:

Our results show that offering a reward increases referral intention to an inactive friend who hasn't played the game for a while more than to a new friend. Niantic should focus more on providing referral rewards to inactive friends. Attracting new customers is important, but retaining existing customers is also crucial. The current RRP criteria, which only allow rewards if a friend has not logged in for over 90 days, should also consider 30- and 60-day periods. The RRPs could be a good way to prevent friends from not playing the game for extended periods. In addition, the referral program has been implemented worldwide and is designed to encourage people to play Pokémon GO. As shown in this study, referring to close friends can provide an opportunity to enjoy the game together. Companies should focus on encouraging referrers to recommend the program to close friends, regardless of whether those friends are inactive or new.

■ Conclusion

This study is the first study that integrates referral reward and tie strength in the context of mobile games. A 2 (recipient: new friends vs. inactive friends) ×2 (tie strength: strong tie vs. weak tie) experimental design to capture the effects of reward and tie strength on referral intentions. The unique game environment of *Pokémon GO*, which allows players to see when their friends last played through the friend list, has shifted the paradigm of referral reward programs. As mentioned above, referral reward programs in traditional service industries have typically served solely as a means of acquiring new customers. However, there is now a need to consider business models that also target former customers - those who previously used the service but are no longer active. In addition, like previous studies on referral reward programs (RRPs), this study also demonstrated that tie strength is an important factor in explaining the effectiveness of RRPs.

■ Limitations

Despite the contributions of this study, several limitations should be noted. First, the effectiveness of the referral reward program was examined within the specific context of an online gaming environment, and the data were based on self-reported measures. As such, the findings may not fully capture consumers' referral intentions in relation to other real-world products and services, thereby limiting the generalizability of the results.

Second, many other factors can impact referrals, such as scarcity,[9] gender,[31] and brand strength.[4] It would be fruitful to incorporate these contextual factors into future research.

Third, another limitation of this study is that representativeness cannot be claimed based solely on a sample of American participants. Previous research has shown significant differences in referral effectiveness across countries.[32] Considering that culture plays an important role in individuals' decision-making regarding referral behavior,[33] further research should be conducted in diverse cultural contexts.

Finally, consistent with much of the existing literature on referral reward programs, this study primarily examines the perspective of the recommender. Future research, particularly within the context of online games, should investigate the effects of referral rewards from the receiver's point of view.

■ Acknowledgments

I am grateful to my mentor, Dr. Wendy Paik, for her support and feedback throughout the research process.

■ References

1. Kornish, L.J.; Li, Q. Optimal referral bonuses with asymmetric information: Firm offered and interpersonal incentives. *Marketing Science* **2010**, *29*, 108-121.
2. Xiao, P.; Tang, C.S.; Wirtz, J. Optimizing referral reward programs under impression management considerations. *European Journal of Operational Research* **2011**, 215, 730-739.
3. Schmitt, P.; Skiera, B.; Van den Bulte, C. Referral programs and customer value. *Journal of Marketing* **2011**, 75, 46-59.
4. Ryu, G.; Feick, L. A penny for your thoughts: Referral reward programs and referral likelihood. *Journal of Marketing* **2007**, 71 (1), 84-94.
5. Garnefeld, I.; Eggert, A.; Helm, S.V.; Tax, S.S. Growing existing customers' revenue streams through customer referral programs. *Journal of Marketing* **2013**, 77 (4), 17-32.
6. Ha, S.; Stoel, L. Designing loyalty programs that matter to customers. *The Service Industries Journal* **2014**, 34 (6), 495-514.
7. Kuang, D.; Ma, B.; Li, X. Acquiring customers via referral reward programs versus advertising: Who is more likely to provide future referrals?. *Journal of Retailing and Consumer Services* **2024**, *81*, 103982.
8. Song, C.; Wang, T.; Hu, M. Referral reward programs with scarcity messages on bank credit card adoption. *International Journal of Bank Marketing* **2019**, 37 (2), 531-544.
9. Ramaseshan, B.; Wirtz, J.; Georgi, D. The enhanced loyalty drivers of customers acquired through referral reward programs. *Journal of Service Management* **2017** *28* (4), 687-706.
10. Biyalogorsky, E.; Gerstner, E.; Libai, B. Customer referral management: Optimal reward programs. *Marketing Science* **2001**, *20*(1), 82-95.
11. Ryan, R.M. and Deci, E.L. Intrinsic and extrinsic motivations: classic definitions and new directions, *Contemporary Educational Psychology* **2000** 25 (1), 54-67.
12. Song, C.; Wang, T.; Lee, H.; Hu, M. Y. The moderating role of perceived social risk in bank credit card referral programs. *International Journal of Bank Marketing* **2020** *38* (7), 1601-1616.
13. Fu, X.; Pang, J. Effect of e-referral incentive programs on referrer loyalty on social platforms. *The Service Industries Journal* **2022**, *42* (15-16), 1234-1255.
14. Wirtz, J.; Orsingher, C.; Cho, H. Engaging customers through online and offline referral reward programs. *European Journal of Marketing* **2019**, 53 (9), 1962-1987.
15. Jung, J.; Bapna, R., Gupta, A.; Sen, S. Impact of incentive mechanism in online referral programs: evidence from randomized field experiments. *Journal of Management Information Systems* **2021** *38* (1), 59-81.
16. Chapple, C. Pokémon GO Catches $5 Billion in Lifetime Revenue in Five Years https://sensortower.com/blog/pokemon-go-five-billion-revenue (accessed July 2021).
17. Althoff, T.; White, R. W.; Horvitz, E. Influence of Pokémon Go on physical activity: Study and implications. *Journal of Medical Internet Research* **2016**, *18* (12), e315.
18. Wang, A. I.; Skjervold, A. Health and social impacts of playing Pokémon Go on various player groups. *Entertainment Computing* **2021**, *39*, 100443.
19. Loewenstein, G.F.; Thompson, L.; Bazerman, M.H. Social utility and decision making in interpersonal contexts, *Journal of Personality and Social Psychology* **1989**, *57* (3), 426-441.
20. MacCrimmon, K. R.; Messick, D. M. A framework for social motives. *Behavioral Science* **1976** 21 (2), 86-100.
21. Wang, Q.; Mao, Y.; Zhu, J.; Zhang, X. Receiver responses to referral reward programs in social networks. *Electronic Commerce Research* **2018**, 18 (3), 563-585.
22. Bansal, H.S.; Voyer, P.A. Word-of-mouth processes within a services purchase decision context. *Journal of Service Research* **2000**, 3 (2), 166-177.
23. Money, R.B.; Gilly, M.C.; Graham, J.L. Explorations of national culture and word-of-mouth referral behavior in the purchase of industrial services in the United States and Japan, *Journal of Marketing* **1998**, 62 (4), 76-87.
24. Reingen, P.H. and Kernan, J.B. Analysis of referral networks in marketing: methods and illustration. *Journal of Marketing Research*, **1986**, 23 (4), 370-378.
25. De Bruyn, A.; Lilien, G.L. A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing* **2008**, 25 (3), 151-163.
26. Wirtz, J. and Chew, P. The effects of incentives, deal proneness, satisfaction and tie strength on word-of-mouth behavior. *International Journal of Service Industry Management* **2002**, 13 (2), 141-162.
27. Wirtz, J.; Orsingher, C.; Chew, P.; Tambyah, S.K. The role of metaperception on the effectiveness of referral reward programs. *Journal of Service Research* **2012**, 16 (1), 82-98.
28. Verlegh, P.W.; Ryu, G.; Tuk, M.A.; Feick, L. Receiver responses to rewarded referrals: the motive inferences framework. *Journal of the Academy of Marketing Science* **2013**, 41 (6), 669-682.
29. Palan, S.; Schitter, C. Prolific. Ac - A subject pool for online experiments. *Journal of behavioral and experimental finance* **2018**, 17, 22-27.
30. Ku, H.H.; Kuo, C.C.; and Kuo, T.W. The effect of scarcity on the purchase intentions of prevention and promotion motivated consumers. *Psychology & Marketing* **2012**, 29 (8), 541-548.
31. Hu, H. H.; Zhang, X. M. Reward design for customer referral programs: reward–product congruence effect and gender difference. *Frontiers in Psychology* **2021**, 12, 644412.
32. Fong, J.; Burton, S. A cross-cultural comparison of electronic word-of-mouth and country-of-origin effects. *Journal of Business Research* **2008**, *61*(3), 233-242.
33. Ye, N.; Teng, L.; Yu, Y.; Wang, Y. What's in it for me?': The effect of donation outcomes on donation behavior, *Journal of Business Research* **2015**, 68, 480-486.

■ Author

Hyunoh Song is a sophomore at Walnut High School in Walnut, California. He aspires to major in business, especially in marketing.

DOI: 10.36838/IJHSR86.109