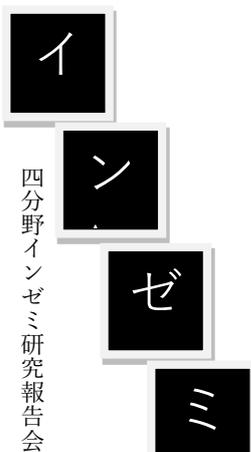


第 17 期生三田祭論文プロジェクト紹介



HYBRID OF CERTAIN AND UNCERTAIN INCENTIVES: THE REINFORCING-UNCERTAINTY EFFECT REVISITED

確定インセンティブと不確定インセンティブの複合
——不確実性の行動促進効果の再検討——

Generally, there are two types of incentives provided by firms for their customers when they conduct a sales-promotion: one is certain incentives, with which customers gain certain amount of utility (for example, if you buy five, you can get two more for free), whereas the other is uncertain incentives, with which customers gain a utility with a certain probability (for example, if you buy five, you may get two with a 50% possibility). Most researchers have claimed that certain incentives are preferred to uncertain incentives because, psychologically, uncertain incentives are associated with risks, and typical consumers are risk averse about gains. Recently, it has been claimed that uncertain incentives can be preferred though their expected utility is less than that of certain incentives. It is because uncertain incentives provide customers with not only the outcome acquisition utility, but also the uncertainty resolution utility. However, in the real world, there is another kind of sales-promotions with a hybrid incentive that integrates certain and uncertain incentives (for example, if you buy five, you can get one more for free and, in addition you may get another one with a 50% possibility). Is the hybrid incentive more effective than classical alternatives?



韓国で開催された国際学会, KSMS での研究発表



四分野インゼミ研究報告会にて

第 17 期インゼミチームは、国際学会での研究発表を目標に掲げ、日々の活動に前向きに取り組んできました。研究テーマ自体はスムーズに決まったものの、論文執筆が思うように進まないことや、実験デザインも幾度となく再考しなければならず、論文執筆活動は決して順風満帆とは言えるものではありませんでした。校舎が閉まるまで議論が長引くことはザラで、論文活動に明け暮れる日々でした。しかし、小野先生の多大なるお力添えを賜ることで、韓国で開催された国際学会, KSMS での研究発表、ならびに三田祭論文の完成を何とか果たすことができました。また、11月の四分野インゼミ研究報告会においても、自信を持ってプレゼンテーションを行い、小野ゼミの研究のレベルを他ゼミに対してもアピールすることができました。日々論文執筆活動を行い、また未熟ながらも高い成果を挙げることができたのは、的確にご指導くださった第 16 期の方々、大学院生さん、そして私たち英論チームのために、文字通り昼夜を問わず、お力添えくださった小野晃典先生のおかげです。第 17 期インゼミチーム一同、心よりお礼申し上げます。

Introduction

Three types of incentives

- Certain Incentives**
Customers can gain an amount of utility for sure.
- Uncertain Incentives**
Customers can gain an amount of utility with a lottery.
- Hybrid Incentives**
Customers can gain certain incentives and uncertain incentives.

Research purpose

Previous research has compared certain and uncertain incentives. → No research has considered hybrid incentives.

In case of repeat purchase, **Certain incentives is the best!** (Classical research) **V.S.** **The New Type of Incentives is the best!** (Sherp, et al. 2019) **V.S.** **Hybrid incentives**

We explore the effectiveness of hybrid incentives which have been neglected by previous research.

Literature Review

Classical Research regarded Uncertain Incentives as negative.

Uncertain Incentives are psychologically associated with risks, and typical consumers are risk-averse about uncertain status. (not and Guryan(2002); Kahneman and Tversky(1979))

Sherp, et al. (2019) found the effectiveness of uncertain incentives.

The reinforcing-uncertainty effect
Uncertain incentives lead to more repetitions? Which can I win?
In case of repeat purchase, because consumers can expect the uncertainty resolution utility in addition to the outcome acquisition utility derived from uncertain incentives.

When does this effect occur?
In case of repeat purchase, they enjoyed the resolution experience and will find the uncertainty resolution utility.
The condition under which the reinforcing-uncertainty effect occurs
The uncertainty must be resolved immediately.

Hypotheses

We use the utility function to compare three types of incentives.

Hypothesis 1

H₁: In case of initial purchase, consumers prefer in the following order: Hybrid incentives, certain incentives, and uncertain incentives.

Hypothesis 2

H₂: In case of repeat purchase, consumers prefer in the following order: Hybrid incentives, uncertain incentives, and certain incentives.

Hypothesis 3

H₃: The total amount of utility derived from hybrid incentives is lower if the uncertainty is not immediately resolved than if it is resolved immediately.

Study 1

Method

Participants
90 undergraduates (Median age = 21.48%, female)

Group 1: Certain Incentives
They could receive 500 points for sure.

Group 2: Uncertain Incentives
They could receive either 200 or 500 points with a 50% probability.

Group 3: Hybrid Incentives
They could receive 200 points for sure and could receive an additional 300 points with a 50% probability.

Incentive
Fictitious points that could be exchanged for sweets

Task
A series of advertisement evaluation
After evaluating an advertisement, participants received points immediately and were asked to decide whether to continue evaluating another advertisement.

We measured
1. The willingness to answer the survey = the initial behavior → Hypothesis 1
2. The number of surveys each participant completed = the repeat behavior → Hypothesis 2

Results

Hypothesis 1 was supported!
The willingness to answer the survey (Median)

Incentive	Group 1	Group 2	Group 3
Certain	3.84	3.44	3.44
Uncertain	3.84	3.44	3.44
Hybrid	3.84	3.44	3.44

Hypothesis 2 was supported!
The number of repetition (Median)

Incentive	Group 1	Group 2	Group 3
Certain	8.8	8.8	8.8
Uncertain	8.8	8.8	8.8
Hybrid	8.8	8.8	8.8

Hypothesis 3 was supported!
The number of repetitions (Median)

Incentive	Group 1	Group 2	Group 3
Certain	9.77	9.77	9.77
Uncertain	9.77	9.77	9.77
Hybrid	9.77	9.77	9.77

DISCUSSION
**p < .001, *p < .05

Study 2

Method

Participants
60 undergraduates (Median age = 21.45%, female)

Group 1: Exposed to the resolution of uncertainty immediately
Participants were informed of whether additional points were given right after they answered a question correctly.

Group 2: Not exposed to the resolution of uncertainty immediately
Participants were informed of whether additional points were given only after the entire preparation period (10 min) had passed.

Incentive
Fictitious points that could be exchanged for sweets

Task
10 minutes calculation tests
Participants who answered a question correctly could receive 200 points for sure and additional 300 points with a 50% probability. For 10 minutes, participants could answer as many questions as they wanted.

Results

Hypothesis 3 was supported!
The number of repetitions (Median)

Incentive	Group 1	Group 2
Certain	17.9	12.8
Uncertain	17.9	12.8
Hybrid	17.9	12.8

DISCUSSION
**p < .001, *p < .05

Discussion

Theoretical Implication
Our research is the first study that explored the effectiveness of hybrid incentives in comparison with certain and uncertain ones, using the utility function.

Managerial Implication
Sales managers should take hybrid incentives into account in sales promotion. When they adopt hybrid incentives, they should inform customers of results immediately.