

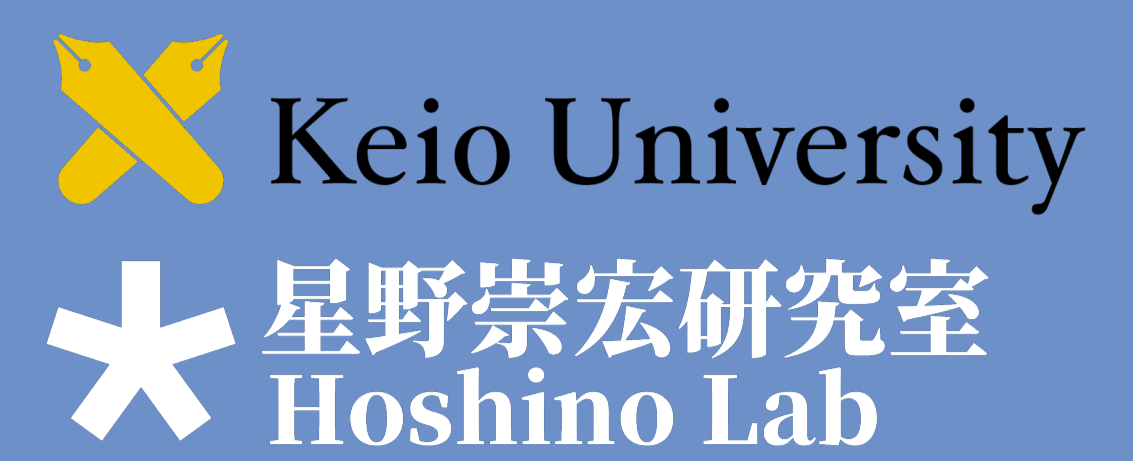
# Understanding the Motivations of Donors: Intrinsic and Extrinsic Factors in Reward-Based and Hybrid Crowdfunding in Japan (92161)

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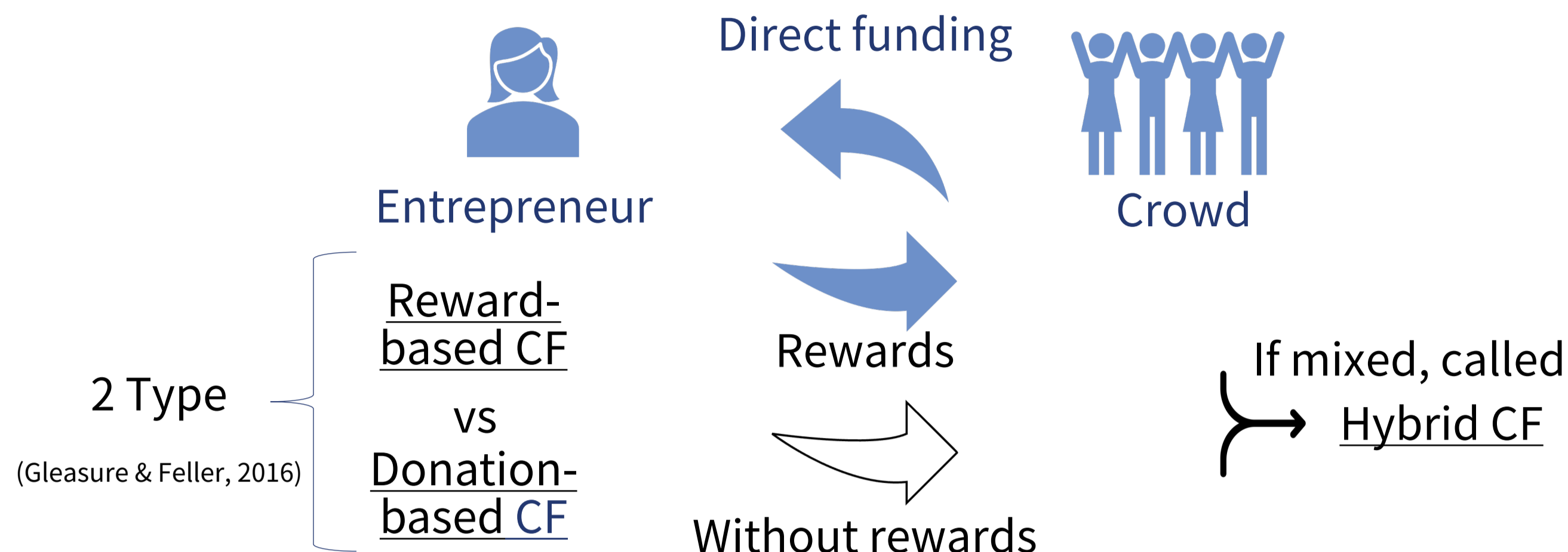
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## INTRODUCTION

**Crowdfunding(CF):** "an entrepreneur's direct solicitation to a large number of individuals" (Short et al., 2017)



## OBJECTIVES

**Research Question**

What is the impact of reward expectations on donor motivation across CF types?

### Prior Study

Most studies on donor motivation are grounded in Self-Determination Theory (SDT)

ex. Bagheri et al. (2019); Allison, Davis, Short, & Webb(2015); Choy & Schlagwein(2016); Zhang & Chen(2019); Chen, Dai, Wang, Yang, Li, & Wei(2021); Hew & Kadir(2016); Cox, Nguyen, & Kang(2018)

Motivation factors are ...

#### Reward-based

- Reward
- Both intrinsic & extrinsic

#### Donation-based

- Non-monetary
- Mostly by intrinsic

Donors' motivation differs between reward-based and donation-based CF (Zhang & Chen, 2019; Pan & Dong, 2023)

**Limitation:** Most platforms specialize in only one type of funding.

Why is this a problem?

- ✓ Different platforms = Different users → Potential confounding.
- ✓ Difficult to determine whether differences arise from platform or CF type.

To overcome the challenge...

Utilize a prominent Japanese platform that includes both reward-based & hybrid CF

## HYPOTHESIS

- H1 Reward-based CF is motivated by both intrinsic & extrinsic motivation.
- H2 Hybrid CF is less motivated by reward than reward-based CF, but more by the other factors of motivation.

## SCALE CONSTRUCTION & PATH DIAGRAM

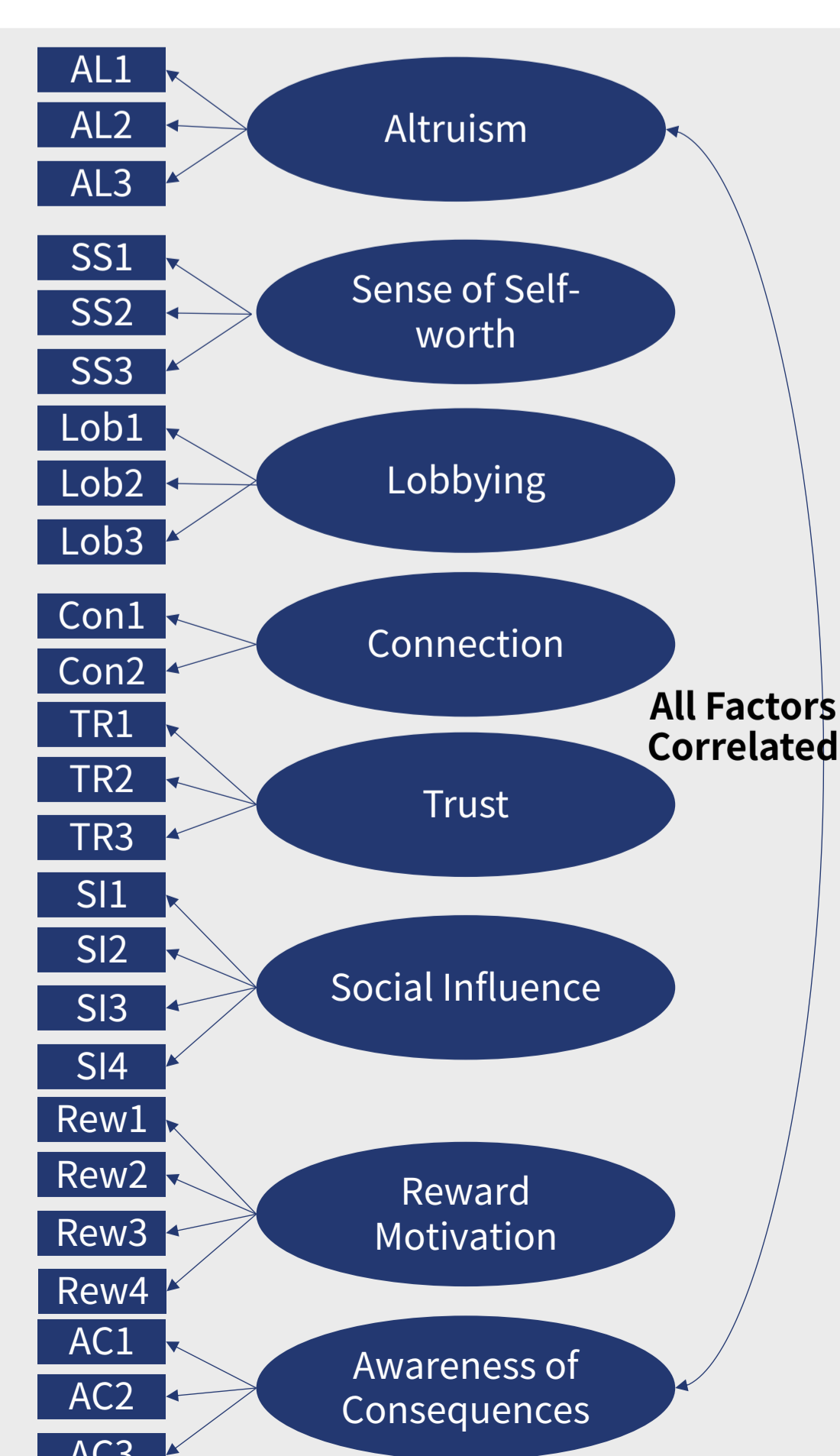
Measurement items were developed based on SDT(Table 1).

**Content Validity Assessment** • S-CVI/Ave < 0.90 (Hew & Kadir, 2016)  
→ Three items with were excluded.

**Table 1. Crowdfunding Donor Motivation Matrix Based on Self-Determination Theory** (Modified from Bagheri et al., 2019 and Chen et al., 2021)

Motivation	Description	Factor Labels (Reference) [Items]
<b>Intrinsic</b>		
<b>Intrinsic Personal</b>	Motivations arising internally, independent of external presence	<b>Altruism</b> (Bretschneider & Leimeister, 2017) [AL1-AL3] <b>Sense of Self-worth</b> (Chen et al., 2021) [SS1-SS3] <b>Lobbying</b> (Bretschneider & Leimeister, 2017) [Lob1-Lob3]
<b>Intrinsic Social</b>	Socially influenced but internally driven motivations	<b>Connection</b> (Self-developed) [Con1-Con2] <b>Trust</b> (Chen et al., 2019) [TR1-TR3] <b>Social Influence</b> (Chen et al., 2021; Shneor & Munim, 2019) [SI1-SI5]
<b>Extrinsic</b>		
<b>Extrinsic Personal</b>	Motivations triggered by explicit outcomes or personal gain	<b>Reward Motivation</b> (Bretschneider & Leimeister, 2017; Wang et al., 2018) [Rew1-Rew4]
<b>Extrinsic Social</b>	Motivations arising from perceived community-level impacts	<b>Awareness of Consequences</b> (Wang et al., 2018) [AC1-AC3]

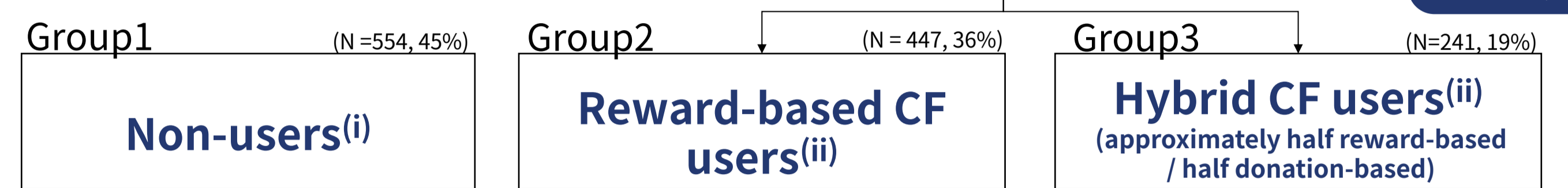
### Path Diagram



## SURVEY DATA

Total respondents: N = 1,242 (January 11 – February 14, 2024)  
Sample sources: (i) Monitor panel (iBRIDGE Corp.) (ii) **Actual CF users** (TRUSTBANK, Inc.)  
5-point Likert scale used

### Japanese CF platform (Hometown Tax Donation)



Largest CF in Japan (Reward-based: \$6.5 billion, Hybrid: \$ 1.2 billion, in 2023)

## RESULTS

### Exploratory Factor Analysis

- Separately for Group 1 to Group 3
- 8 factors
- Principal Axis Factoring (PAF)
- Promax (oblique) rotation.

All groups shared the same factor structure.

### Internal consistency reliability Test

- Cronbach's  $\alpha > 0.70$  (Hew & Kadir, 2016)
  - Composite Reliability > 0.70 (Shneor & Munim, 2019)
- All factors OK

### Validity Assessment

- **Convergent Validity**
  - Average Variance Extracted(AVE) > 0.5 (Shneor & Munim, 2019)
  - **Discriminant Validity**
  - AVE > the squared correlations with other factors
- All factors OK

**Table2. Exploratory Factor Analysis(Group2)**

	SI	TR	AC	Lob	Rew	SS	AL	Con
AL1	-0.15	0.09	-0.05	-0.02	-0.11	0.12	0.78	-0.02
AL2	0.08	0.00	0.06	-0.11	0.02	0.07	0.84	0.02
AL3	0.02	-0.07	-0.05	0.07	0.07	-0.07	0.89	-0.05
SS1	-0.09	-0.01	0.06	0.05	0.05	0.84	0.07	-0.01
SS2	-0.01	0.02	-0.02	0.01	-0.05	0.90	0.02	0.00
SS3	0.17	-0.05	-0.05	0.05	-0.01	0.79	-0.01	0.02
Lob1	-0.02	0.01	0.00	0.91	-0.02	0.01	-0.01	0.05
Lob2	0.02	0.05	0.06	0.92	-0.05	-0.05	-0.05	-0.01
Lob3	-0.05	-0.02	-0.05	0.89	0.05	0.09	0.00	-0.02
Con1	0.06	-0.05	-0.02	0.04	0.05	-0.01	-0.01	0.91
Con2	-0.07	0.05	0.02	-0.05	-0.05	0.02	-0.02	0.95
TR1	-0.07	0.91	0.04	-0.01	0.05	0.05	0.05	0.00
TR2	0.05	0.96	-0.02	0.04	0.01	-0.06	-0.01	-0.05
TR3	0.08	0.88	-0.02	-0.02	0.00	0.05	-0.02	0.05
Rew1	0.02	-0.01	-0.02	0.05	0.80	-0.01	0.22	0.06
Rew2	0.09	-0.01	0.00	0.06	0.84	-0.08	0.07	0.05
Rew3	-0.05	0.05	-0.05	-0.05	0.81	0.01	-0.11	-0.05
Rew4	-0.11	0.01	0.06	-0.13	0.64	0.10	-0.20	-0.04
SI1	0.68	-0.04	-0.02	-0.05	0.07	0.29	-0.15	-0.01
SI2	0.83	0.06	-0.04	-0.01	-0.08	0.05	0.00	0.01
SI3	0.91	-0.02	-0.02	0.09	0.05	-0.06	0.05	-0.07
SI4	0.86	0.02	0.08	-0.07	-0.02	-0.14	0.06	0.04
SI5	0.04	0.01	0.95	0.00	0.01	0.00	-0.01	-0.01
AC1	-0.01	-0.05	0.96	-0.01	-0.05	0.01	0.01	-0.01
AC2	-0.01	0.02	0.86	0.04	0.02	0.01	0.01	0.02
AC3	-0.01	0.02	0.86	0.04	0.02	0.01	0.01	0.02

\* Darker background indicates higher factor loadings.

### MGCFA (Multi-Group Confirmatory Factor Analysis)

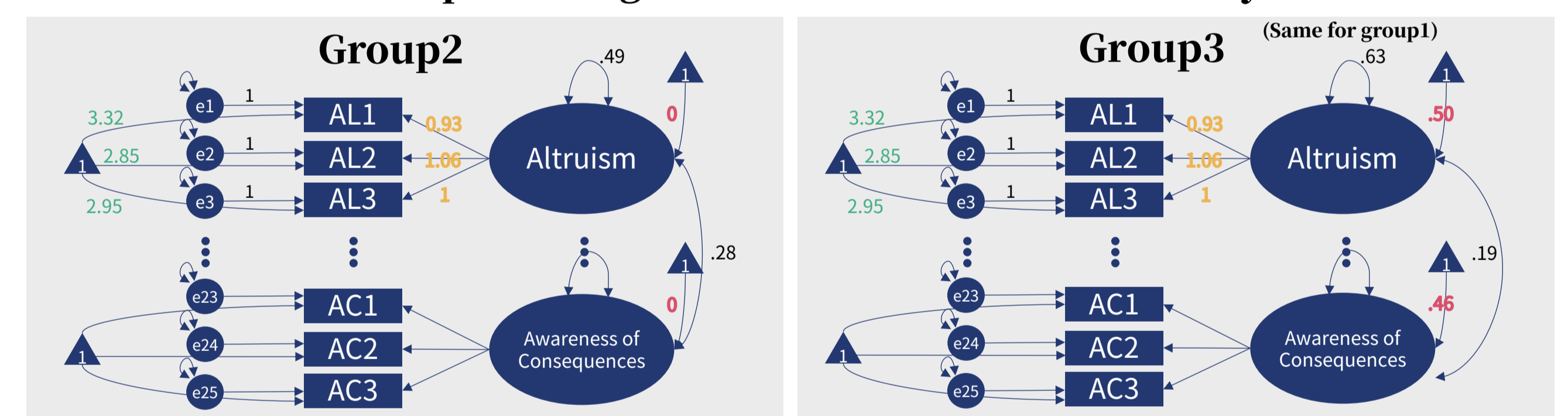
Estimated by **Maximum Likelihood Estimation**.

- Model Assumptions / Specification:
  - **Configural Invariance: factor structure equivalence**
  - **Metric Invariance: equal factor loadings**
  - **Scalar Invariance: equal intercepts**
- Error term means = 0 (distributional assumption)
- Latent means of Group 2 = 0

#### Results of Fit Indices:

- $\chi^2/df = 2.859 (< 3)$
- CFI = 0.929 (> 0.90)
- RMSEA = 0.039 (< 0.05)
- **Acceptable fit**
- \* Parentheses indicate recommended cutoff values (Kline, 2005).

### Conceptual Diagram of the MGCFA in This Study



**Table3. The Estimated Differences in Factor Means between Group 2 & the Other Groups**

Factor	Group1- Group2			Group3- Group2		
	Est.	p	Result	Est.	p	Result
AL	-0.35	***		0.50	***	
SS	-0.51	***	✓	0.37	***	✓
Lob	-0.30	***		0.83	***	
Con	0.31	***	Not-Using	0.02	0.82	Hybrid > Reward
TR	-0.44	***	✓	0.56	***	✓
SI	0.16	***		-0.02	0.76	
Rew	0.03	0.56	✗	-0.66	***	Hybrid < Reward
AC	-0.39	***	✓	0.46	***	Hybrid > Reward

## CONCLUSIONS

- ✓ H1. 5/8 supported → Both intrinsic and extrinsic motivations contribute to reward-based CF.
- ✓ H2. 6/8 supported

**Answer to Research Question**

**Impacts of lower reward expectations under identical CF platform:**

Extrinsic personal (Reward) motivation.

Intrinsic & extrinsic social motivation. (i.e. AL, SS, Lob, TR, AC)

## REFERENCES

Masahiro Honda, Takahiro Hoshino (2024). Donor's Motivation for Hometown Tax Donation and Crowdfunding Based Hometown Tax Donation : Analysis of Real Donor Data from the Perspective of Crowdfunding Research, *The Japanese Journal of Behaviormetrics*, 51(2), 137-150

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