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Signals' Influence on Crowd Funding Investment Decisions: A comparison of Taiwan and India

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Abstract

Crowd funding faces a number of significant obstacles despite its rapid growth and popularity, with the main one being the possible asymmetric information between fundraisers and potential supporters. A study taxonomy based on signalling theory has been created to compare projects originating from Taiwan and India. This was made possible by obtaining a dataset from the crowd funding website, Kickstarter (Global platform). To make the project effective, the study's goal is to look into how signals (e.g., goal-setting, comments, and updates) might be used to reduce the problem of information asymmetry. Thus, we applied an Ordinary Least Squares (OLS) regression. Both Taiwan and India demonstrated signal mitigation of information asymmetry, but Taiwan showed a stronger relationship between ambitious goals and successful projects than India. The relative importance of project comments has been found to be stronger in Taiwan than in India; the relative importance of project updates has been found to be weaker and negatively correlated with project success in India, in contrast to Taiwan. Notably, our findings provide a theoretical and practical framework for understanding and using signals in successful crowd funding campaigns and activities in these two emerging countries.

Keywords: Crowd-funding, Information Asymmetry, MSMEs, Signaling Theory, Emerging Nations.

1. INTRODUCTION

The crowd funding model has emerged as an effective and dynamic method for sustaining and supporting micro, small and medium-sized enterprises (MSMEs) by supporting their activities and improving the risk sharing process, especially when traditional financial institutions are struggling to support them [1,2]. The International Finance Corp. (IFC) guesses that 65 million enterprises, or 40% of legal MSMEs in third world nations, have an unmet funding requirement of \$5.2 trillion USD annually, which is 1.4 times the sum of MSME borrowing as it stands today. The worldwide economic gap (15%) is mainly determined by 23% in Middle America and the Caribbean, 46% in European and Central Asian nations, and 46% in Eastern Asian

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and the Pacific region. The World Bank also predicts that, by the end of 2025, the crowd funding sector will have helped developing nations obtain approximately \$96 billion USD in financing [3]. Of this amount, \$50 billion USD will come from China; the rest will come from Eastern Asia, Europe, America / Caribbean, and Southeast Asia. What is more, numerous factors and events impact Taiwan's rapidly growing crowd financing market. Taiwan ranks sixth among the freest economies as reported in the 2022 Index with a value of 80.1 [4]. Taiwan also ranks third out of 39 nations in the Asia-Pacific, and its total score is greater compared to the benchmark for both the area and globally [4]. Taiwan's prolonged diplomatic isolation by China threatens its presence on the global stage and hinders its economic progress. In addition to technology, equipment, petrochemical products, and ICT, Taiwan's economy depends heavily on trade.

India was chosen for this empirical investigation during the same period for a number of reasons. India is seen to have the capacity to become a global superpower. During the 2000s, India's economy grew at the fastest rate globally. Furthermore, it has the fifth-largest nominal GDP on the planet [5]. Agriculture used to be a significant source of income and revenue for India but, in 2020, it only comprised around 18.32% of GDP [6]. Approximately 850 million internet users will be using the internet in India by 2025, more than the combined population of all the G-7 nations. Peer-to-peer lending (P2P) is the most popular method of investing; at \$25 billion USD, donations are worth \$2.9 billion, rewards are worth \$2.7 billion, and equity crowd funding is worth \$2.5 billion [7]. India's robust growth strategy will create the solid foundation and enriched atmosphere required for the crowd fundraising sector's growth. For these reasons, India and Taiwan have been chosen to compare their respective countries' crowd funding markets.

Crowd funding is not only an innovative form of financing but also it is a crucial source for economic growth [8,9]. In accordance with above asymmetry in information between fundraisers and potential backers is one of the main issues that a crowd-funding face as it continues to grow and gain popularity [10]. As a result of signals reducing levels of uncertainty and apparent information asymmetries, signaling thus becomes crucial in potential sponsors' decision-making process for each specific campaign [11-13]. However, some of the previous research has revealed erratic outcomes while examining the function, significance, and results of signals. These earlier studies have been conducted with and have concentrated on analyzing the function that signals cooperation in determining the difficulty of information asymmetry on crowd funding platforms.

The study's hypothesis was developed in response to these gaps in the academic literature to shed light on such inconsistent results. To investigate the outcomes and the force of signals (e.g., goal-setting, project comments, and updates) as they pertain to campaign success, we have thus gathered data from the crowd fundraising platform, Kickstarter [12], [14-19].

For analysis, we have considered reward-based crowd funding [20] because equity- and debt-based crowd funding have received much attention in the past few years. Moreover, previous researchers have examined signal dynamics primarily in relation to the performance of a single economy; as such, there have been no empirical studies comparing and examining signal dynamics across two emerging countries [21- 28].

The study will thus examine how information asymmetry can be reduced by using signals (e.g., goal-setting, project comments, and updates).

2. LITERATURE REVIEW

2.1 Cultural Disparities

Cultural distinctions between the two nations make them especially pertinent to our study. [29], a specialist on cultural differences among nations, discovered that cultural differences affect how people view and comprehend the world. This keeps transforming people's employment and living arrangements throughout communities, resulting in a variety of management practices and organisational structures [30]. Earlier studies on supporters' choices for each project and identifying factors that contribute to project success in the crowd funding market have revealed cultural distinctions between these two markets [31,32]. [32] have further concluded that cultural disparities may account for at least part of the gap between the

crowd funding markets in India and Taiwan. When considering the importance of signalling dynamics in a crowd funding scenario, and how the qualitative signals of a campaign might work as a method in appealing to probable supporters, it is vital to take cultural variables into account.

2.2 The Dynamics of the Digital Alternative–Financing Market in Taiwan and India

There are many digital alternative financing prototypes currently being looked at. Additionally, these models unlock even more interesting and vibrant pathways for possible customers by giving them the chance to lend or borrow money, thereby generating tricky tasks, fostering innovation, and funding social causes on a superior scale. Below, Table 1 shows the market dynamics in Taiwan and India.

Table 1. Market dynamics in Taiwan and India

| Crowd funding Prototypes | Taiwan | India |
|---------------------------|--|--|
| Overall market growth | A total volume of \$51.7 million USD in 2016. | With a total volume of \$124.16 million USD in 2016, India maintained its dominance in South and Central Asia's online alternative finance market. |
| Reward-based platform | A total of \$7.11 million USD in 2016. | The market for reward-based crowd funding in India reached \$1.45 million USD in 2016. |
| Donation-based platform | In the Taiwanese alternative finance sector in 2016, donation-based crowd funding was barely present (\$0.07m USD). | A total of \$15.05 million USD in 2016. |
| Equity-based platform | This year's poll did not include a section on equity-based crowd funding, but there was likely much unreported market activity. | The market for equity-based crowd funding in India reached \$17.22 million USD in 2016. |
| Lending-based platform | With \$42.5 million USD raised in 2016, peer-to-peer consumer lending was by far the most popular alternative finance strategy. Peer-to-peer lending for businesses raised \$2.09 million USD. | Peer-to-peer consumer lending and peer-to-peer business lending-based crowd funding accounted for only \$42.52million USD and \$2.4 million USD, respectively. |
| Total number of platforms | There are five active CF sites valid in Taiwan. | There are 10 active and operational CF platforms available in India. |

*Source: The 2nd Asia Pacific Region Alternative Finance Industry Report (2017)

3. HYPOTHESIS DEVELOPMENT

3.1 Goal-setting

In a crowd funding context, the project creator must specifically and properly describe the establishing of goals in advance. According to the most recent research, defining appropriate goals is a proven way to guarantee a project's successful start and outcomes [33, 34]. Thus, we may assert that setting goals is a crucial component of motivation, which may, in turn, improve performance [35], [54]; [56]; [58].

Based on the aforementioned claims and the contradictory results regarding campaign success in the process of goal-setting, we oppose that the impact of more goal-setting on project success is more substantial by nature. However, the campaign's success is unlikely to be significantly impacted by low or moderate goal-setting levels. As such, the following is our hypothesis:

Hypothesis-1 (H1). Setting higher/more demanding goals is positively related to campaign success in Taiwan than India.

3.2 Project Comments

Any project's crowd of prospective investors' comments reveal the community's interest in that project. This, in turn, emphasises the request of that specific project. Additionally, this request might be seen as a sign of the community's trust in the project [36, 37]. Additionally, responding to comments made by potential supporters during the project might offer details and show the project's supporters that they are actively involved in the effort to raise funds [38].

Therefore, it is suggested that a crowd funding campaign would have a greater success rate if it were to receive more responses (in the form of comments) from potential backers. Thus, we have constructed the following hypothesis:

Hypothesis-2 (H2). Getting more comments is positively related to crowd funding campaign success in Taiwan, but not in the Indian crowd funding market.

3.3 Project Updates

It is agreed that when the creator(s) distributes such information in the form of news about current accomplishments and improvement chances, the updated information about the campaign conveys a sense of support. Updates are a popular way for founders to inform potential backers of the campaign's status [39]. They can also take the shape of separate pop-ups on the campaign page or as a personalised message sent to every potential backer who has already decided to donate money.

Frequently updated information is viewed favourably and interpreted as a symbol of intensified funding efforts [14]. As a result of this, researchers may gain more understanding of how the dynamics between the audience and the founder influence the founder's or entrepreneur's decisions about crowd funding. The interchange of information and communication throughout a project's lifespan, in the form of updates, might result in a cohesive rapport/conformity, which may ignite the supporters' zeal and excitement. Thus, this exchange of information can aid in minimising information asymmetries among the people concerned [15]. As such, we propose the following hypothesis:

Hypothesis-3 (H3). Updating higher/more campaign updates is positively related to a crowd funding project's success in the Taiwanese market, but not in India's market.

4. METHODOLOGY

4.1 Measures

Dependent Variables

Project Success: The ratio of the campaign's pledge amount to its goal-setting amount served as the project's success indicator. The following is a presentation of the equation:

$$\text{Project Success} = \text{Pledge Amount} / \text{Goal-Setting amount}$$

Independent Variables

Goal-Setting: Every campaign founder establishes an aim goal for the campaign that the creator would like to realise. As a result, the targeted total was a representation of the whole sum that the author specified as the ultimate goal.

Project Comments: The total number of comments made during the funding activity served as the definition of the campaign comments.

Project Updates: The overall number of updates made during the fundraising effort was known to as the campaign updates.

Control Variables

Additionally, we gathered data on five control variables. **The amount pledged:** The total funds raised by the initiative through fund-raising efforts will be used to calculate the amount that was promised. The following criteria will be used to assess the **media's role:** Projects without either videos or photos were coded as 0; projects with images only were coded as 1; projects with only videos were coded as 2; and projects containing both video and images were coded as 3. The quantity of campaigns a project founder had previously launched was used to gauge the level of **experience as a creator.** The project creator's **experience as a supporter** was determined by the overall number of campaigns he or she had contributed to. The overall number of contributors to the project during the financing activity was referred to as the **number of backers.**

4.2 Data Collection & Methods

For cross-comparison, we accessed and collected data from Kickstarter crowd funding platforms (both in Taiwan and India). The All-or-Nothing (AON) approach was used by this reward-based platform, which makes it a global platform, given that it accepts campaigns from different areas. We used manually-entered variables for the data-collection process for each campaign and adopted a random sample technique. Furthermore, we collected a total of 470 projects on Taiwan and 477 projects in India from Kickstarter for the time period between June and July 2022, using the methodology of earlier crowd funding research [40, 41]; [21]; [23]. Our final dataset, which included 460 projects in Taiwan and 426 in India from Kickstarter, was comprised of projects with incomplete and erroneous information after being removed as outliers from our dataset.

Throughout this study, data interpretation and analysis were performed using the Ordinary Least Squares regression framework. Additionally, the statistical software, SPSS, was used. The below research model was created:

$$\text{Project Success} = \alpha_0 + \beta_1 * \text{Goal-Setting} + \beta_2 * \text{Project Comments} + \beta_3 * \text{Project Updates} + \beta_4 * \text{Goal-Setting}^2 + \text{Controls} + \varepsilon$$

Goal-setting, in the formula above, relates to the overall feasibility that the project's designer specified. The total number of comments a campaign has gotten throughout its crowd funding activity is referred to as campaign comments. The total number of updates for a certain campaign during its fundraising activity is referred to as campaign updates. Goal-Setting squared (i.e., "Goal-Setting²") is referred to as goal-setting².

5. RESULTS ANALYSIS AND DISCUSSIONS

5.1 Descriptive Statistics

A sample of 886 projects, 465 of which are successful and 421 of which are unsuccessful, were taken from among the projects in Taiwan and India. Two hundred and eighty-eight schemes from the Taiwanese sample and 177 campaigns from India are among the 465 successful projects. All the data from the studied projects, including the descriptive statistics, are accurate and based on the obligation or pledged amount. All the variables in the Taiwanese sample's correlation matrix have coefficients between -0.026 and 0.775, whereas all of the variables in that of India have coefficients between -0.004 and 0.940. As a result, at 1% and 5%,

respectively, the correlation coefficients among all the variables in the projects of the two countries are statistically significant. The descriptive statistics and correlation analysis for both nations are displayed in Table 2.

Table 2. Descriptive analysis and correlation matrix

| Variables | M(SD) India | M(SD) Taiwan | Project Success | Goal- Setting | Project Commens ts | Project Updates | Pledge d Amoun t | Experien ce as a Backer | Experien ce as a Creator | Medi a Role | Numb er of Backe rs |
|----------------------------|-------------------------|-----------------------------|--------------------|------------------|--------------------------|--------------------|---------------------------|-------------------------------|--------------------------------|-------------------|------------------------------|
| Project Success | 0.85 (2.05) | 5.64 (11.69) | 1 | 0.107* | 0.552** | 0.312** | 0.675** | 0.076 | 0.015 | 0.099 * | 0.541 ** |
| Goal-Setting | 44258.54 (489101.82) | 19100.34 (37929.98) | -0.031 | 1 | 0.096* | 0.099* | 0.147** | -0.026 | -0.128** | 0.092 * | 0.129 ** |
| Project Comments | 18.03 (152.10) | 121.70 (303.15) | 0.506** | -0.004 | 1 | 0.544** | 0.541** | 0.064 | 0.007 | 0.070 | 0.775 ** |
| Project Updates | 4.59 (8.18) | 9.59 (11.91) | 0.482** | -0.028 | 0.384** | 1 | 0.374** | 0.133** | 0.160** | 0.098 * | 0.562 ** |
| Pledged Amount | 6673.92 (24923.32) | 60282.42 (193796.51) | 0.511** | -0.004 | 0.940** | 0.464** | 1 | 0.090 | -0.050 | 0.083 | 0.460 ** |
| Experience as a Backer | 3.00 (11.20) | 4.71 (17.11) | 0.335** | -0.017 | 0.580** | 0.409** | 0.625** | 1 | 0.083 | -0.10 2* | 0.075 |
| Experience as a Creator | 0.48 (1.00) | 2.76 (4.88) | 0.259** | 0.078 | 0.134** | 0.186** | 0.119* | 0.234** | 1 | 0.054 | 0.033 |
| Media Role | 2.38 (0.82) | 2.85 (0.50) | 0.196** | -0.088 | 0.084 | 0.278** | 0.166** | 0.069 | -0.014 | 1 | 0.086 |
| Number of Backers | 93.40 (525.937) | 383.62 (799.99) | 0.483** | -0.005 | 0.887** | 0.370** | 0.853** | 0.313** | 0.109* | 0.115 * | 1 |

5.2 Regression Analysis

We based the investigation of our findings and the development of our study model on the tasks of authors like [41-42], [32]. An Ordinary Least Square (OLS) regression has been carried out to check our assumption. The outcomes of the project success predictors are shown in Table 3. Additionally, Table 3 provides information on the OLS regression outcomes using six models: The values represented by Models 1, 2, and 3 are those of India; Models 4, 5, and 6 are those of Taiwan. The major outcomes of goal-setting, campaign comments, and updates are examined in Models 1 and 4. The control outcomes, such as previous experience as a supporter and creator, the media's role, and the number of backers, are covered in Models 2 and 5. Models 3 and 6 discuss the main effects as well as the control effects.

Table 3. Regression results

| Independent Variable | India | | | Taiwan | | |
|---------------------------|---------------------|--------------------|----------------------|-----------------------|-----------------------|-----------------------|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| Constant | 0.414*** (4.338) | -0.361 (-1.387) | -0.154 (-0.609) | 4.380*** (6.512) | -0.085 (-0.040) | 0.596 (0.293) |
| Goal-Setting | -0.547* (-1.944) | | -0.612** (-2.171) | -0.328*** (-3.777) | | -0.464*** (-6.612) |
| Project Comments | 0.377*** (8.929) | | 0.281*** (2.002) | 0.554*** (12.162) | | 0.104** (2.034) |
| Project Updates | 0.336*** (7.957) | | 0.289*** (6.218) | 0.025 (0.555) | | -0.096** (-2.510) |
| Goal-Setting ² | 0.533* (1.892) | -0.019 (-0.461) | 0.589*** (2.093) | 0.184** (2.117) | -0.158*** (-4.956) | 0.259*** (3.737) |
| Pledged Amount | | 0.223* (1.960) | 0.062 (0.463) | | 0.549*** (15.310) | 0.563*** (15.489) |
| Experience as a Backer | | 0.068 (1.066) | -0.052 (-0.803) | | 0.002 (0.053) | 0.010 (0.311) |

| | | | | | | |
|-------------------------|-----------|---------------------|---------------------|-----------|---------------------|---------------------|
| Experience as a Creator | | 0.194*** (4.641) | 0.171*** (4.243) | | 0.022 (.693) | -0.001 (-0.016) |
| Media Role | | 0.129*** (3.138) | 0.076 (1.852) | | 0.033 (1.029) | 0.062** (2.012) |
| Number of Backers | | 0.235** (2.528) | 0.065 (.608) | | 0.305*** (8.501) | 0.275*** (5.571) |
| Observations | 426 | 426 | 426 | 460 | 460 | 460 |
| R ² | 0.359 | 0.326 | 0.393 | 0.337 | 0.549 | 0.597 |
| Adj R ² | 0.353 | 0.317 | 0.379 | 0.332 | 0.543 | 0.589 |
| F-test | 58.911*** | 33.809*** | 29.881*** | 57.913*** | 91.802*** | 73.981*** |
| Durbin-Watson | 1.892 | 1.777 | 1.925 | 1.708 | 2.192 | 2.067 |

Notes: The standardised coefficients and standard error are listed; the symbols ***, **, * denote that the respective values are $p < 0.001$, $p < 0.01$, and $p < 0.05$.

The R² value for each of the aforementioned models shows that, in terms of predictive power, our independent variables effectively explain a significant portion of the dependent variable. According to the Taiwan sample, the highest value of R² is 59.7% and the lowest is 33.7%. Thus, we can validate that Models 4 and 6 have adequate explanatory power in the context of Taiwanese crowd funding. However, the Indian market had R² values ranging from 35.9% to 39.3% (see Models 1 to 3). As a result, we have sufficient data to conclude that the level of suitability of crowd funding projects from Taiwan is greater or better than those from India.

The outcomes of all Models (Models 1 through 6 in Table 3) are used to test H1 for the empirical findings of goal-setting. Due to the dependent variable's continuous nature, OLS regressions are utilised to analyse models 1–6. In Models 4 and 6, the effect is statistically significant ($\beta = 0.184$, $p < 0.001$ and $\beta = 0.259$, $p < 0.001$). High levels of goal-setting have a more pronounced and positive impact on project success; nevertheless, the quadratic term between goal-setting and campaign success is not continuous. In Model 5, the outcomes are the opposite; specifically, they have a negative result ($\beta = -0.158$, $p < 0.001$). The impact on project success is therefore less significant while goal-setting is minimal. Goal-setting has a positive but statistically significant contribution to the campaign's success, as shown by Models 1 and 3, with the one exception of Model 2. For Model 2, the outcome is negative but insignificant. Thus, we accept H1 because the findings show a more significant and positive association between project success in the crowd funding projects of Taiwan than those of India.

Models 1, 3, 4, and 6 are used to test for H2 and H3. In terms of Table 3's outcomes, campaign comments have a favourable and noteworthy effect on campaign success in Models 1, 3, 4, and 6 ($\beta = 0.377$, $p < 0.01$; $\beta = 0.281$, $p < 0.05$ and $\beta = 0.554$, $p < 0.01$, $\beta = 0.104$, $p < 0.05$). In light of the situation for Taiwanese projects, H2 is neither rejected nor supported.

Comparing the project updates for Indian and Taiwanese projects has revealed mixed outcomes. Project updates regarding Taiwanese projects affect project success in Models 4 and 6 positively and insignificantly, and negatively and significantly, respectively. Project upgrades, however, in India have a positive impact on the success of Model 1 and Model 3 projects. However, given that H3 demonstrates a detrimental and insignificant link between Models 1 and 3, we have sufficient justification to reject it. Hypothesis 3 is thus not accepted, and the Indian sample supports it even though the Taiwanese one does not.

5.3 Robustness Test

We also investigated the robustness of the first six models to prevent the problem of exogenous variables involving goal-setting and campaign success, which would lead to reverse causality. The robustness analysis outcomes are displayed in Table 4. If we utilise Log Pledges as a dependent variable to assess crowd funding success in two different nations, as shown in Table 4, our outcomes are still reliable in the suggested Models 7 through 12. This evidence supports our findings and demonstrates our estimates' reliability.

Models 7–9 are for the Indian projects; Models 10–12 are for the Taiwanese projects. It has been proven that goal-setting has a significant impact on campaign success throughout Models 7 to 12. By greatly outperforming Models 10 and 11, where we assessed the control consequence and major impact of campaign success ($\Delta R^2 = 0.142$ and 0.072), Model 12 offers the strongest prediction influence on campaign success by a margin of 51.7% in Taiwan. Models 7 and 8, where we assessed the control outcome and major impact of

campaign success (with ΔR^2 values of 0.275 and 0.126, respectively), and the greatly improved Model 9, also represent the range of project success to an extent of 49% in India.

Table 4. Robustness outcomes

| Independent Variable | India | | | Taiwan | | |
|---------------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|
| | Model 7 | Model 8 | Model 9 | Model 10 | Model 11 | Model 12 |
| Constant | 5.970*** (41.990) | 2.606*** (7.658) | 2.986*** (9.603) | 7.785*** (61.436) | 4.881*** (10.566) | 4.735*** (10.942) |
| Goal-Setting | -0.395 (-1.269) | | -0.704*** (-2.723) | 0.185** (2.196) | | 0.043 (.566) |
| Project Comments | 0.049 (1.048) | | -1.002*** (-7.791) | 0.266*** (6.014) | | -0.015 (-0.273) |
| Project Updates | 0.430*** (9.180) | | 0.193*** (4.538) | 0.415*** (9.370) | | 0.339*** (8.120) |
| Goal-Setting ² | 0.312 (1.001) | -0.052 (-1.330) | 0.648** (2.510) | -0.153* (-1.814) | -0.018 (-.506) | -0.066 (-0.867) |
| Pledged Amount | | 0.491*** (4.433) | 1.012*** (8.242) | | 0.320*** (8.050) | 0.271*** (6.814) |
| Experience as a Backer | | -0.052 (-0.844) | 0.018 (0.302) | | -0.010 (-0.273) | -0.036 (-1.067) |
| Experience as a Creator | | 0.034 (0.834) | 0.015 (0.411) | | -0.003 (-0.074) | -0.048 (-1.409) |
| Media Role | | 0.462*** (11.586) | 0.355*** (9.454) | | 0.269*** (7.570) | 0.252*** (7.521) |
| Number of Backers | | -0.199 (-2.210) | 0.168* (1.720) | | 0.366*** (9.203) | 0.216*** (3.991) |
| Observations | 426 | 426 | 426 | 460 | 460 | 460 |
| R ² | 0.215 | 0.364 | 0.490 | 0.375 | 0.445 | 0.517 |
| Adj R ² | 0.207 | 0.355 | 0.479 | 0.370 | 0.437 | 0.508 |
| F-test | 28.756*** | 39.946*** | 44.357*** | 68.348*** | 60.428*** | 53.606*** |
| Durbin-Watson | 1.610 | 1.596 | 1.580 | 0.581 | 0.470 | 0.651 |

Notes: The standardised coefficients and standard error are listed; the symbols ***, **, * denote that the respective values are $p < 0.001$, $p < 0.01$, and $p < 0.05$.

6. CONCLUSIONS

In summation, we focused on signals, such as goal-setting, campaign comments, and updates, using the theory of signaling to assess the impact and influence of signaling dynamics on project success. Based on signals, we have constructed hypotheses that relate independent and dependent variables. To test these hypotheses, we gathered a total of 886 projects.

First, our findings show that, in the Taiwan sample, setting more goals has a positive association with the campaign's success, indicating that setting higher goals can draw in more participants.

Second, from the point of view regarding Taiwanese and Indian crowd funding, we looked at the impact of comments on campaign success. According to our empirical results, comments have a better effect on a project's success for the Taiwanese sample than for the Indian sample.

Third, when comparing the projects from Taiwan and those from India, our empirical data show that campaign updates have a favourable and noteworthy outcome regarding the success of a project.

7. THEORETICAL AND PRACTICAL IMPLICATIONS

Recent research offers a wide range of theoretical and practical consequences. First, relying on signaling theory, this work makes a strong contribution to crowd funding research by providing a vivid overview of a project's success [25]; [47, 48]; [45]. The majority of previous research has looked only at signaling trends

that are specific to one economy. To further the existing research on crowd funding in the context of different economies, this study is the first to attempt examining signaling dynamics [31, 32]; [49-53]; [55]; [57].

Second, regarding a reward-based platform, recent research contributes to the theoretical understanding of the relationship among goal-setting, campaign comments, updates, and their impact on campaign success.

Third, from a practical standpoint, it is quite likely for prospective stakeholders in such diverse economies to make the connection between increased goal-setting and campaign success.

Fourth, campaign comments serve as an example of particular signals relating to campaign quality and, as a result, they have a significant impact on supporters' choices. As a result, authors ought to pay closer attention to feedback. A key component of successful crowd funding is encouraging potential supporters to post reviews of the project.

Fifth, campaign development updates are also identified as a crucial element of project quality, and they also demonstrate the creators' positive attitudes. Therefore, campaign designers should regularly notify potential supporters of essential campaign advancements so that supporters can have thorough knowledge of the campaign. This will, in turn, minimise information asymmetry, boost supporters' trust, and increase the likelihood of campaign success.

8. LIMITATIONS AND FUTURE DIRECTIONS

The present study does, however, have a few limitations, which should be made known for future reference and research. First, because only the behavioural characteristics of the Indian and Taiwanese supporters have been studied, these findings are context-specific. We cannot therefore assume that the present findings can be generalised to other settings and models, given that the platforms employed for data gathering are primarily based on reward-based and All-or-Nothing crowd funding models.

Second, we looked at the impact of only one project quality component—goal-setting—on the project's success. Thus, it is recommended that other conditional elements, such as social return, cultural aspects, and so on, which influence the effectiveness of reward-based fundraising, should be looked at.

Third, the sample for the present study is quite small compared to big data analyses. Insignificant results are therefore predicted, which would prevent a more complete picture of signaling patterns in the crowd funding industry from emerging. Because of this, the current results may not apply to different crowd funding contexts, although they have demonstrated an area of interest for the participants of both platforms.

Fourth, the study highlights how changes affect a campaign's success after the campaign is posted on a platform website. As a result, this reduces information asymmetry and increases backers' trust. A project's success is significantly impacted by these revisions to the project details. However, taking things a step further, it is indicated that more substantial outcomes may be seen if current data are provided, and this would be yet another topic to be explored in future research.

Fifth, given the increased interest researchers are showing in other factors linked to crowd funding, such as allocating capital, economic progress, capital structure, social conscience, and organisation performance, we believe that including these ideas in future work will give the academic literature on crowd funding even more weight. Additionally, this would offer a more comprehensive justification for the characteristics of the crowd funding industry.

Sixth, rather than assessing web-based qualitative sources, alternative methodological procedures can be utilised to increase the importance of the current findings, including administering surveys and conducting in-person interviews. These methods would establish the many reasons why people from various economic backgrounds would support a given project.

Last but not least, we had no influence over the individual and demographic traits of potential supporters, including their gender, age, educational status, income, and area of interest. All these traits may impact how they make judgements. Therefore, it is advised that future studies and other researchers take the aforementioned factors into account when examining project performance in the crowd funding marketplace.

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REFERENCES

- [1] Benson D, Ziedonis RH, "Corporate venture capital and the returns to acquiring portfolio companies," *J financ econ*, 98(3):478–99, 2010. Available from: <https://doi.org/10.1016/j.jfineco.2010.07.003>
- [2] Kortum S, Lerner J, "Assessing the Contribution of Venture Capital to Innovation," *RAND J Econ*, 31(4):674, 2000. Available from: <https://www.jstor.org/stable/2696354>
- [3] Short JC, Ketchen DJ, McKenny AF, Allison TH, Ireland RD, "Research on Crowdfunding: Reviewing the (Very Recent) Past and Celebrating the Present," *Entrep Theory Pract*, 41(2):149–60, 2017. Available from: <https://doi.org/10.1111/etap.12270>
- [4] Tsai P, Foundation USH, Feulner E. SA-TAIWAN eNews. 2022;(2). Available from: https://www.roc-taiwan.org/uploads/sites/224/2022/03/SA-Taiwan_Enews_February_2022.pdf
- [5] weforum, www.weforum.org [Internet]. Available from: <https://www.weforum.org/agenda/2020/02/india-gdp-economy-growth-uk-france/>
- [6] GoI, Agriculture & Food Management, 2021. Available from: <https://www.indiabudget.gov.in/budget2022-23/economicsurvey/doc/eschapter/echap07.pdf>
- [7] Bharadwaj S, D. Gangurde R, "The Need for Regulation of Equity Crowdfunding in India," *Int J Adv Res*, 8(5):1351–5, 2020. Available from: <http://dx.doi.org/10.21474/IJAR01/11054>
- [8] King RG, Levine R, "Finance and growth: schumpeter might be right," *Q J Econ*, 108(3):717–37, 1993. Available from: <https://doi.org/10.2307/2118406>
- [9] Block JH, Colombo MG, Cumming DJ, Vismara S, "New players in entrepreneurial finance and why they are there," *Small Bus Econ*, 50(2):239–50, 2018. Available from: <https://doi.org/10.1007/s11187-016-9826-6>
- [10] Carpenter RE, Petersen BC, "Is the growth of small firms constrained by internal finance?," *The Review of Economics and Statistics*, 84(2):298–309, 2002. Available from: <https://www.mitpressjournals.org/doi/pdf/10.1162/003465302317411541>
- [11] Herzenstein M, Dholakia UM, Andrews RL, "Strategic Herding Behavior in Peer-to-Peer Loan Auctions," *J Interact Mark* [Internet], 25(1):27–36, 2011. Available from: <http://dx.doi.org/10.1016/j.intmar.2010.07.001>
- [12] Lin M. Judging Borrowers by the Company They Keep, 59(1):17–35, 2013. Available from: <https://doi.org/10.1287/mnsc.1120.1560>
- [13] Moysidou K, Hausberg JP, "In crowdfunding we trust: A trust-building model in lending crowdfunding," *J Small Bus Manag* [Internet], 58(3):511–43, 2020. Available from: <https://doi.org/10.1080/00472778.2019.1661682>
- [14] Mollick E, "The dynamics of crowdfunding: An exploratory study," *J Bus Ventur* [Internet], 29(1):1–16, 2014. Available from: <https://www.sciencedirect.com/science/article/pii/S088390261300058X>
- [15] Moss TW, Neubaum DO, Meyskens M, "The Effect of Virtuous and Entrepreneurial Orientations on Microfinance Lending and Repayment: A Signaling Theory Perspective," *Entrep Theory Pract*, 39(1):27–52, 2015. Available from: <https://doi.org/10.1111/etap.12110>
- [16] Agrawal A, Catalini C, Goldfarb A, "Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions," *J Econ Manag Strateg*, 24(2):253–74, 2015. Available from: <https://doi.org/10.1111/jems.12093>
- [17] Bapnaa S, "Complementarity of signals in early-stage equity investment decisions: Evidence from a randomized field experiment," *Manage Sci*, 65(2):933–52, 2019. Available from: <https://doi.org/10.1287/mnsc.2017.2833>
- [18] Colombo MG, Franzoni C, Rossi-Lamastra C, "Internal social capital and the attraction of early contributions in crowdfunding," *Entrep Theory Pract*, 39(1):75–100, 2015. Available from: <https://doi.org/10.1111/etap.12118>
- [19] Lin M, Viswanathan S, "Home bias in online investments: An empirical study of an online crowdfunding market," *Manage Sci*, 62(5):1393–414, 2016. Available from: <https://doi.org/10.1287/mnsc.2015.2206>
- [20] Cholakova M, Clarysse B, "Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments?," *Entrep Theory Pract*, 39(1):145–72, 2015. Available from:

<https://doi.org/10.1111/etap.12139>

- [21] Clauss T, Breitenecker RJ, Kraus S, Brem A, Richter C, "Directing the wisdom of the crowd: the importance of social interaction among founders and the crowd during crowdfunding campaigns," *Econ Innov New Technol* [Internet], 27(8):731–51, 2018. Available from: <https://doi.org/10.1080/10438599.2018.1396660>
- [22] Vismara S, "Sustainability in equity crowdfunding," *Technol Forecast Soc Change* [Internet], 141(September 2017):98–106, 2019. Available from: <https://doi.org/10.1016/j.techfore.2018.07.014>
- [23] Petitjean M, "What explains the success of reward-based crowdfunding campaigns as they unfold? Evidence from the French crowdfunding platform KissKissBankBank," *Financ Res Lett* [Internet], 26:9–14, 2018. Available from: <https://doi.org/10.1016/j.frl.2017.11.005>
- [24] Lelo de Larrea G, Altin M, Singh D, "Determinants of success of restaurant crowdfunding," *Int J Hosp Manag* [Internet], 78(October 2018):150–8, 2019. Available from: <https://doi.org/10.1016/j.ijhm.2018.10.003>
- [25] Courtney C, Dutta S, Li Y, "Resolving Information Asymmetry: Signaling, Endorsement, and Crowdfunding Success," *Entrep Theory Pract*, 41(2):265–90, 2017. Available from: <https://doi.org/10.1111/etap.12267>
- [26] Alfiero S, Casalegno C, Indelicato A, Rainero C, Secinaro S, Tradori V, et al, "Communication as the Basis for a Sustainable Crowdfunding: The Italian Case," *Int J Humanit Soc Sci* [Internet] 4(5):46–55, 2014. Available from: http://www.ijhssnet.com/journals/Vol_4_No_5_1_March_2014/7.pdf
- [27] Piva E, Rossi-Lamastra C, "Human capital signals and entrepreneurs' success in equity crowdfunding," *Small Bus Econ*, 51(3):667–86, 2018. Available from: DOI: 10.1007/s11187-017-9950-y
- [28] Hong Y, Hu Y, Burtch G, "Embeddedness, prosociality, and social influence: Evidence from online crowdfunding," *MIS Q Manag Inf Syst*, 42(4):1211–24, 2018. Available from: <https://ssrn.com/abstract=3125936>
- [29] Hofstede G, "A European in Asia," *Asian J Soc Psychol*, 10(1):16–21, 2007. Available from: <https://doi.org/10.1111/j.1467-839X.2006.00206.x>
- [30] Westwood RG, Everett JE, "Culture's consequences: A methodology for comparative management studies in Southeast Asia?," *Asia Pacific J Manag*, 4(3):187–202, 1987. Available from: <https://doi.org/10.1007/BF01732388>
- [31] Cho M, Kim G, "A cross-cultural comparative analysis of crowdfunding projects in the United States and South Korea," *Comput Human Behav* [Internet], 72:312–20, 2017. Available from: <http://dx.doi.org/10.1016/j.chb.2017.03.013>
- [32] Zheng H, Li D, Wu J, Xu Y, "The role of multidimensional social capital in crowdfunding: A comparative study in China and US," *Inf Manag* [Internet], 51(4):488–96, 2014. Available from: <https://www.sciencedirect.com/science/article/pii/S0378720614000305>
- [33] Chernev A, Böckenholt U, Goodman J, "Choice overload: A conceptual review and meta-analysis," *J Consum Psychol* [Internet], 25(2):333–58, 2012. Available from: <http://dx.doi.org/10.1016/j.jcps.2014.08.002>
- [34] Cumming DJ, Leboeuf G, Schwienbacher A, "Crowdfunding models: Keep-It-All vs. All-Or-Nothing," *Financ Manag*, 49(2):331–60, 2020. Available from: <https://doi.org/10.1111/fima.12262>
- [35] Yang J, Liu L, Yin C, "A non-linear decision model for green crowdfunding project success: Evidence from China," *Int J Environ Res Public Health*, 16(2), 2019. Available from: doi:10.3390/ijerph16020187
- [36] Dwyer P, "Building trust with corporate blogs," *ICWSM 2007 - Int Conf Weblogs Soc Media*, 2007;(2006). Available from: <https://www.icwsml.org/blog/2007/03/building-trust-with-corporate-blogs.html>
- [37] Butticiè V, Colombo MG, Wright M, "Serial Crowdfunding, Social Capital, and Project Success," *Entrep Theory Pract*, 41(2):183–207, 2017. Available from: <https://doi.org/10.1111/etap.12271>
- [38] Cordova A, Dolci J, Gianfrate G, "The Determinants of Crowdfunding Success: Evidence from Technology Projects," *Procedia - Soc Behav Sci* [Internet], 181:115–24, 2015. Available from: <http://dx.doi.org/10.1016/j.sbspro.2015.04.872>
- [39] Kunz MM, Bretschneider U, Erler M, Leimeister JM, "An empirical investigation of signaling in reward-based crowdfunding," *Electron Commer Res* [Internet], 17(3):425–61, 2017. Available from: <https://doi.org/10.1007/s10660-016-9249-0>
- [40] Oba B, Atakan S, Kirezli O, "Value Creation in Crowdfunding Projects-Evidence From an Emerging Economy," *J Innov Econ Manag*, 26(2):37–62, 2018. Available from: <https://doi.org/10.3917/jie.pr1.0028>
- [41] Bukhari FAS, Usman SM, Usman M, Hussain K, "The effects of creator credibility and backer endorsement in donation crowdfunding campaigns success," *Balt J Manag*, 15(2):215–35, 2020. Available from: <https://doi.org/10.1108/BJM-02-2019-0077>
- [42] Shahab Y, Ye Z, Riaz Y, Ntim CG, "Individual's financial investment decision-making in reward-based crowdfunding: evidence from China," *Appl Econ Lett* [Internet], 26(4):261–6, 2019. Available from: <https://doi.org/10.1080/13504851.2018.1464643>
- [43] Hakenes H, Schlegel F, "Exploiting the Financial Wisdom of the Crowd -- Crowdfunding as a Tool to Aggregate Vague Information," *SSRN Electron J*, 2014. Available from: <http://dx.doi.org/10.2139/ssrn.2475025>

- [44] Burtch G, Ghose A, Wattal S, "An empirical examination of the antecedents and consequences of contribution patterns in crowd-funded markets," *Inf Syst Res*, 24(3):499–519, 2013. Available from: <https://www.jstor.org/stable/42004279>
- [45] Wang N, Li Q, Liang H, Ye T, Ge S, "Understanding the importance of interaction between creators and backers in crowdfunding success," *Electron Commer Res Appl [Internet]*, 27:106–17, 2018. Available from: <https://doi.org/10.1016/j.elerap.2017.12.004>
- [46] Borst I, Moser C, Ferguson J, "From friendfunding to crowdfunding: Relevance of relationships, social media, and platform activities to crowdfunding performance," *New Media Soc*, 20(4):1396–414, 2018. Available from: <https://doi.org/10.1177/146144481769459>
- [47] Usman SM, Bukhari FAS, Usman M, Badulescu D, Sial MS, "Does the role of media and founder's past success mitigate the problem of information asymmetry? Evidence from a UK crowdfunding platform," *Sustain*, 11(3), 2019. Available from: <https://doi.org/10.3390/su11030692>
- [48] Ngoc TN, "Crowdfunding in Vietnam: The Impact of Project and Founder Quality on Funding Success," (August 2017):1–83, 2017. Available from: <https://purl.utwente.nl/essays/73270>
- [49] Ashta D, "A Critical Comparative Analysis of the Emerging and Maturing Regulatory Frameworks: Crowdfunding in India, USA, UK," *J Innov Econ Manag*, 26(2):113–36, 2018. Available from: <https://doi.org/10.3917/jie.pr1.0031>
- [50] Bao Z, Huang T, "External supports in reward-based crowdfunding campaigns A comparative study focused on cultural and creative projects," *Online Inf Rev*, 41(5):626–42, 2017. <https://doi.org/10.1108/OIR-10-2016-0292>
- [51] Chu DD, "A comparative study on crowdfunding in the United States and the United Kingdom [Internet]," *Emporium*, 2017. Available from: <http://eprints.lincoln.ac.uk/id/eprint/29901/%0Ahttp://eprints.lincoln.ac.uk/id/eprint/29901/1/29-185-1-PB.pdf>
- [52] Hoque, M.M. and Saumi, B.H, "Sharing economy services in Dhaka: a change towards women's perception of commuting", *Rajagiri Management Journal*, Vol. 16 No. 2, pp. 144-163, 2022. Available from: <https://doi.org/10.1108/RAMJ-08-2020-0048>
- [53] Rahman, M. M, Hoque, M.M, "An analysis of employee job satisfaction: A study on united commercial bank limited," *International Journal of Ethics in Social Sciences*, 2(2), 1-15, December, 2014. Available from: 10.13140/RG.2.2.25274.54728
- [54] Hoque, M.M, Bappy, N.M, Hossain, M.P, "Financial performance analysis of selected banks in Bangladesh: a study on Islamic and conventional banks," *International Journal of All Research Writings*, 2(6), 15-30, 2019. Available from: DOI: 10.13140/RG.2.2.31998.54089/1
- [55] Rahman, M. M, Hoque, M.M, "Foreign exchange risk management in banks: a comparative study of some selected banks in Bangladesh," *International Journal of Ethics in Social Sciences*, 3(1), June, 2015. Available from: DOI: 10.13140/RG.2.2.10590.95043/1
- [56] Hoque, M.M, Bakar, R, Talukder, A. A, "Green banking initiatives of some selected PCBs in Bangladesh : A special focus on Islami bank Bangladesh limited," *International Journal of Ethics in Social Sciences*, 3(1), June, 2015. Available from: DOI: 10.13140/RG.2.2.36176.20489/1
- [57] Jin, Dong-Su, "Analysis of Success Factors of Mobile Shared Economic Platforms using ID3 Algorithm-based Inductive Method," *The Journal of The Institute of Internet, Broadcasting and Communication*, vol. 17, no. 1, pp. 261–268, Feb. 2017. Available from: <https://doi.org/10.7236/JIIBC.2017.17.1.261>
- [58] Hoque, M.M, Rahman, M. M, "Islamic Banks' Stepping into Securities Business of Bangladesh : A Case of Islami Bank Bangladesh Ltd. (IBBL)," *International Journal of Ethics in Social Sciences*, 2(2), December, 2014. Available from: DOI: 10.13140/RG.2.2.26109.87526/1