ANTECEDENTS OF PROJECT IMPLEMENTATION SUCCESS IN CROWDFUNDING

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ANTecedents of Project Implementation Success
in Crowdfunding

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Abstract

Crowdfunding is emerging as a booming financing channel for entrepreneurs to raise money for their projects. However, crowdfunding project implementation has been a major challenge which does not gain enough attention in the current literature. This paper developed a research model to investigate the antecedents of crowdfunding project success measured in three dimensions, i.e., award (product) delivery timeliness, the extent to which the award meets the specifications (meeting specifications), and sponsor overall satisfaction. We conducted a survey in Demohour, one of the famous crowdfunding platforms in China, to test the proposed model. The findings suggested that compared with delivery timeliness, meeting specifications is of more importance to increase overall satisfaction. The results also revealed that crowdfunding project difficulty significantly reduces the implementation success. In addition, team experience plays an important role in improving project success. Project planning is also a critical predictor for delivery timeliness. Both of theoretical research and crowdfunding industrial practice can draw some enlightenment from this study.

Keywords: Crowdfunding, Implementation success, Project management.
1 INTRODUCTION

As the Internet enables access to talents around the world, firms have recognized the value of external resource for product research and development (Howe 2008). Crowdsourcing is one typical model through which firms access external creative ideas by holding innovation contests among a large group of Internet users (Howe 2008; Doan et al., 2011). The applications of crowdsourcing are not limited to solve innovation problems. Individuals or firms could also get fund from the crowd for their entrepreneurial projects using crowdfunding (Howe, 2008). Crowdfunding is one creative financing channel which “involves an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights” (Belleflamme et al. 2010; Ordanini et al. 2011).

Crowdfunding includes diverse models such as debt-based crowdfunding (Lin & Viswanathan, 2013) and equity-based crowdfunding (Ahlers et al. 2012). This study focuses on reward-based crowdfunding in which the sponsors get non-monetary returns for their investments, such as products, service, or even a thank-you letter from the entrepreneurs (Ahlers et al. 2012). According to the Massolution report (2013), reward-based crowdfunding is developing rapidly with a growth rate of 524%. According to Kickstarter.com, one of the most popular reward-based crowdfunding sites, more than 5 million people have pledged over $843 million to fund 50,000 projects which cover a wide range of projects including film, video, games, design, technology, food, fashion, photography, and publishing.

Despite the rapid growth of reward-based crowdfunding, there also exists some risk of project failure faced by sponsors. Mollick (2014) found that projects which get investments which far exceed their funding goal are more likely to be late to deliver the award to sponsors. A report by Sina Finance also found similar results: larger scale crowdfunding projects with higher funding targets often experienced delays, for reasons other than the crowdfunding platform (finance.sina.com.cn/chuangye/internet/20120919/095413178241.shtml). To reduce the risk faced by sponsors, some crowdfunding platforms such as Kickstarter require the entrepreneurs to present the risk and challenges in their crowdfunding projects description.

Most of the studies on crowdfunding focus on fund raising, such as motivations of sponsors and entrepreneurs (e.g., Gerber et al. 2012; Ordanini et al. 2011), and funding success (e.g., Lambert and Schwienbacher, 2010; Mollick, 2014). Compared with funding processes, successful implementation of crowd-funded projects has not gained much attention (Mollick 2014). One exception is Mollick (2014) who studied project implementation success using the timeliness of award delivery as a proxy. Other dimensions of project success (e.g., award quality) were not included in their analysis. Besides, Mollick (2014) did not study the factors affecting project implementation.

To identify the antecedents for project success, this paper developed a research model based on project management studies, and collected data from Demohour.com, a famous crowdfunding platform in China, to test the hypotheses. The remainder of this paper is organized as follows. First, we reviewed the relevant literature in crowdfunding. Second, we developed our theoretical model. Third, we described the research method including data collection, measurement, and data analysis. At last, we concluded the paper by drawing implications for research and practice.
2 LITERATURE REVIEW

There are two categories of players in crowdfunding, entrepreneurs who seek funds for their projects, and sponsors who provide funding. As for entrepreneurs, they can use crowdfunding platforms to get funds, expand awareness of their work, connect with others, gain approval for their work and themselves, maintain project control, and learn new skills (Gerber et al. 2012). For sponsors, getting creative products (awards) is a motivation but not the only one. Helping others and being part of a community for supporting creative products also motivate them to invest in the projects (Gerber et al. 2012; Ordanini et al. 2011). The benefit of the experience in the community is termed as community benefit in Belleflamme et al. (2011). Only if the sponsors feel community benefit, crowdfunding can be considered as a better financing channel for entrepreneurs (Belleflamme et al. 2011).

Funding performance is another research issue of great interests. For most crowdfunding platforms, a successful crowdfunding project is defined as the one that reaches its capital raising goals. For example, Lambert and Schwienbacher (2010) found that non-profit crowdfunding projects tend to be more successful, and projects which produce tangible products rather than service tend to attract larger amounts of capital. In addition, the number of entrepreneur’s fans or friends in online social networks (e.g., Facebook and Twitter) is a significant predictor for the funding success.

Compared with capital-raising performance, few researches pay attention to crowdfunding project implementation success. Currently, we only find one paper, Mollick (2014), which investigated implementation success measured as whether the entrepreneur completes the project and deliver the award to the sponsors in time. The research on project management has found that project uncertainty is negatively associated with project implementation success (Liu et al. 2011). This study tends to extend the research about project implementation by introducing project uncertainty (Liu et al. 2011).

3 HYPOTHESES DEVELOPMENT

Based on the research on project management, we develop a research model as illustrated in Figure 1. Generally, the model consists of two parts. The first part is about crowdfunding project implementation success measured in three dimensions: sponsor overall satisfaction, delivery timeliness, and the extent to which the award meets the specifications described in the crowdfunding open call. The second part concerns crowdfunding project difficulty, team experience, and project planning. Mollick (2014) found that funding ratio, i.e., the ratio of pledge over goal, is negatively correlated with award delivery timeliness. Thus, funding ratio is included as a control variable.
3.1 Project implementation success

This paper focused on process and product performance as two key dimensions of project implementation success (Liu et al. 2011; Nidumolu 1996; Wallace et al. 2004). Process performance refers to the extent to which a project is delivered on schedule and within budget. As for process performance, we focus on award delivery timeliness. Product performance refers to the quality of product. We studied the extent to which the award meets the specifications as product performance in this study. In addition to award delivery timeliness and meeting specifications, we also introduced another evaluation criteria, sponsor overall satisfaction, as a measurement of project implementation success.

3.1.1 Delivery timeliness

Delivery timeliness refers to whether the sponsor received the award as promised by the entrepreneur. In reward-based crowdfunding, the money is raised without any enforced legal obligation for the entrepreneurs to deliver their promised rewards. Some entrepreneurs might behave opportunistically to misuse the money raised from crowdfunding, thus leading to a project failure. For honest entrepreneurs, it is hard for them to design a completely perfect schedule plan to produce and deliver the awards. For example, they may alter the plans as new knowledge is acquired to improve their projects (Delmar & Shane 2003; Kirsch et al. 2009; Shah & Tripsas 2007). Mollick (2014) found that only 24.9% of projects delivered awards on time based on the sample collected from Kickstarter. Delivery timeliness can be viewed as a service quality, which might affect sponsor’s satisfaction which is an affective response to crowdfunded projects (Oliver 1993; Lam et al. 2004). Based on these analyses, the following hypothesis can be derived:

H1: sponsor overall satisfaction is positively associated with award delivery timeliness.

3.1.2 Meeting specifications

Meeting specifications is defined as the extent to which the award sponsor received meets the functional specifications and technical specifications defined in the crowdfunding open call (Dvir et al. 2003). One incentive for sponsor to invest in the project is to get creative award (Gerber et al. 2012; Ordanini et al. 2011). Like traditional online shopping, the utilitarian value (the award in crowdfunding) is an important part of the sponsor value (Kim et al. 2012). The research on marketing has found that value positively increases consumers’ satisfaction (e.g., Kim et al. 2012). Based on these arguments, we hypothesize:

H2: sponsor overall satisfaction is positively associated with meeting specifications, i.e., the extent to which award meets the specifications.

3.2 Project difficulty, team experience and project plan

In the crowdfunding open call, an entrepreneur presents his objectives, team, budget, and a schedule. The sponsors can assess the project’s difficulty, whether the team has relevant experience, and whether the project plan is detailed. Thus, this study focuses on three concepts from the project management perspective: project difficulty, team experience, and project plan.
3.2.1 Project difficulty

Project difficulty, one dimension of project complexity, refers to the difficulty of project objectives or the level of task performance required (Tatikonda & Rosenthal 2000). To inform the sponsors of the project difficulty, some crowdfunding platforms (e.g., Kickstarter) require the entrepreneurs to present the potential challenges and risk. Tatikonda and Rosenthal (2000) found that project difficulty is negatively correlated with project success (e.g., time to market). Projects with high difficulty might result in undesirable project outcomes, such as late time-to-market, high product unit-cost, and/or low product quality and functionality. In contrast, projects with low difficulty would execute successfully including early time-to-market and high product quality. The rules of project difficulty may also work in the crowdfunding context. Thus, an increase in the difficulty level could lead to a delay of award delivery, and reduce the award quality. Mollick (2014) also proposed that project complexity is one potential explanation of the delivery delays. Based on these discussions, we hypothesize:

H3a: delivery timeliness is negatively associated with project difficulty.
H3b: meeting specifications is negatively associated with project difficulty.

3.2.2 Team experience

Team experience refers to the extent to which the project team members have the relevant experience and skills to implement the project tasks. Team experience can be considered as competency which is one important dimension of resource uncertainty in project management (Rice et al., 2008). Many scholars have founded that project team plays a key role in project success (Liu et al. 2011; Huckman & Staats 2011). The lack of collaboration between team members would affect the quality of the product delivered (Liu et al. 2011). Huckman and Staats (2011) hold that the accumulated experience of the team members could help to solve the problems encountered in new projects. Meanwhile, increasing a team's flexibility is an effective way of tackling project change, and a team’s experience is an important channel to improve flexibility (Huckman & Staats 2011). In crowdfunding, projects with rich team experiences especially with successful project experiences are more likely to be successful. Thus, we have the following hypotheses:

H4a: team experience is positively associated with delivery timeliness.
H4b: team experience is positively associated with product quality.

3.2.3 Project planning

The implementation of product development project usually consists of seven stages: definition of goals, feasibility study, development, design, process planning, manufacturing and assembly, delivery (Kusar et al. 2004). The definition of goals and feasibility study are considered an integral part of project planning and project planning is the core factor of project management. As for crowdfunding, we defined project planning as the elaboration degree to which the entrepreneurs present the activities to produce products, budget and schedule.

Though many scholars hold that too much project planning is harmful to project founders’ creation (Bart 1993), some degree of project planning is necessary. Project planning reduces project uncertainty and increases the probability of project success. Poor planning would lead to project failure. Rigorously tracking and monitoring a project according to a project plan can ensure that the
final product is delivered within budget and on schedule (Liu et al. 2011). The empirical results of Dvir et al. (2003) confirmed that project success is positively correlated with project planning, such as requirements’ definition and development of technical specifications. In crowdfunding context, a detailed project plan also helps the entrepreneur implement the project successfully. Thus, the following hypotheses can be derived:

H5a: project planning is positively associated with delivery timeliness.
H5b: project planning is positively associated with product quality.

4 RESEARCH METHOD

4.1 Data Collection

We conducted a survey of the sponsors in Demohour (www.demohour.com), a famous reward-based crowdfunding platform in China. We excluded the non-profit projects and the completely pre-order projects for the survey. At last, there are 114 left for us to design the questionnaires. For each project, about ten sponsors were randomly selected as the respondents.

Online questionnaires for all of the 114 projects were designed in www.sojump.com which is one of the famous online survey platforms in China. We use 5-Likert scale for the measure, i.e., 1 means completely disagree and 5 indicates completely agree. Each questionnaire includes an introduction, in which we presented the hyperlink of the project the respondents have invested in. In addition, in the introduction part we also inform the respondent the award to fill out the questionnaire. The first section of the questionnaire is about the characteristics of the project, such as the project difficulty, project team experience, and project plan. In the second part, we survey the project implementation success including the sponsor’s overall satisfaction, award delivery timeliness, and the extent to which the award meetsthe specifications as planned, to interpret sponsor’s utilitarian value.

Each questionnaire was sent to the sponsors in diverse ways, such as the mailbox in Demohour, Douban (a reviews community in China), weibo.com and t.qq.com (Chinese twitter websites). At last, we invited 1353 sponsors to fill out the questionnaires. There are 180 responses for the survey leading to a response rate of 13.3%. Though the rate seemed lower than conventional survey research, it was consistent with other electronic commerce studies (Ke & Zhang 2009; Sen et al. 2008). After removing incomplete and inappropriate responses, 170 usable responses were left for further analysis.

There are 90 questionnaires (i.e., crowdfunding projects) get at least one response. To increase research validity, we removed the projects which just received one response. Finally, there are 51 projects which get at least two responses were left for the data analysis. The descriptive statistics of the 51 projects are shown in Table 1.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project_goal (Chinese Yuan)</td>
<td>8500.90</td>
<td>9849.69</td>
</tr>
<tr>
<td>Project_pledge (Chinese Yuan)</td>
<td>12650.04</td>
<td>13896.49</td>
</tr>
<tr>
<td>Project_duration (day)</td>
<td>32.96</td>
<td>22.79</td>
</tr>
<tr>
<td>Category</td>
<td>Frequency</td>
<td>Percentage (%)</td>
</tr>
</tbody>
</table>
### Table 1. Descriptive statistics of crowdfunding projects

<table>
<thead>
<tr>
<th>Concept</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
</table>
| Overall satisfaction | 1. My experience with this project is very pleasing  
2. Sponsoring this project makes me happy  
3. Sponsoring this project makes me unpleasant  
4. Overall, I am satisfied with the experience of sponsoring this project | Li et al. (2006); Yoon (2010) |
| Delivery timeliness | 1. The entrepreneur completed this project on schedule  
2. I received the product of this project on time | Dvir et al. (2003) |
| Meeting specifications | 1. I think the product of this project does not meet the specifications defined in the crowdfunding open call  
2. I think the product of this project fails | Dvir et al. (2003) |
| Project difficulty | 1. It is difficult for the entrepreneur to realized the project plan  
2. It is hard for the entrepreneur to complete this project on schedule  
3. Overall, the difficulty of this project is high | Tatikonda & Rosenthal (2000) |
| Team experience | 1. The entrepreneur is experienced in carrying out this project  
2. The entrepreneur has competence to complete this project  
3. The entrepreneur has corresponding knowledge to implement this project | Liu et al. (2011) |
| Project plan | 1. The entrepreneur attaches importance to the project plan  
2. The entrepreneur draws up tasks and objectives for each project phase  
3. The entrepreneur describes the product or service in detail  
4. The entrepreneur describes the budget detailedly  
5. The entrepreneur presents the detailed schedule planning | Liu et al. (2011); Dvir et al. (2003) |

4.2 Measures

Five-point Likert scales were used to measure each of the constructs in the research. All of the scales were borrowed from prior literature with minor modifications in wording to make them relevant to the context of crowdfunding. The measurement items contained in the questionnaire and their sources are shown in Table 2. The research unit in this study is project rather than sponsor. Following Dvir et al. (2003), we integrated the responses for each project. Equal weights were assigned to each response, and the means for each item were calculated for further analysis from the project perspective.
Table 2. Measures

Note: # indicates the items which were removed in the data analysis because of the low outer loading.

4.3 Data Analysis and Results

In consideration of the small sample size of 51, we run SmartPLS 2.0 with bootstrapping to assess the significance of factor loadings and path coefficients. Though the PLS structural equation model has little requirements of sample size, researchers should follow some rules of thumb, such as 10 times rule which indicates that sample size of PLS analysis should be larger than the largest number of structural paths directed at a particular construct in the model (Hair et al. 2013). The sample size 51 is greater than 40 (the largest number of paths 4 times 10). Thus, the sample size in this study meets this requirement of 10-times rule.

4.3.1 Scale Validation: The Measure Model

Reliability was assessed by means of composite reliability which takes into account the different outer loadings of the indicator variables (Fornell & Larcker 1981). As shown in Table 3, except one item of project plan all composite reliabilities (C.R.) were above 0.8 which are higher than the suggested cut-off value of 0.7 (Nunnally 1978).

Convergent validity was assessed by examining factor loadings of the indicators, as well as the average variance extracted (AVE). Fornell and Larcker (1981) proposed factor loadings greater than 0.7 and AVE at least 0.5. As shown in Table 5, except one item of project plan all the other factor loadings are greater than 0.7. We retain the item 2 in the measure because removing this item does not lead to an increase of the composite reliability (Hair et al. 2013). As for the AVE, the results in Table 3 indicated that all of the AVEs are greater than 0.5, suggesting sufficient convergent validity.

We tested discriminant validity by comparing a construct’s AVE to its variance shared with other variables. Fornell and Larcker (1981) proposed AVE of the construct higher than the variance shared with other variables. Table 4 indicates we had satisfactory discriminant validity. Examining cross-loadings of the indicators is also one method to assess discriminant validity. An indicator’s outer loading should be larger than all of its cross loadings on other constructs (Hair et al. 2013). The cross-factor loadings in Table 5 suggested satisfactory discriminant validity.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Loading</th>
<th>Std. error</th>
<th>T-value</th>
<th>C.R.</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>Satisfaction_1</td>
<td>0.72</td>
<td>0.21</td>
<td>3.43</td>
<td>0.87</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Satisfaction_2</td>
<td>0.85</td>
<td>0.15</td>
<td>5.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction_4</td>
<td>0.92</td>
<td>0.09</td>
<td>10.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery timeliness</td>
<td>Timeliness_1</td>
<td>0.95</td>
<td>0.02</td>
<td>46.73</td>
<td>0.95</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>Timeliness_2</td>
<td>0.95</td>
<td>0.01</td>
<td>63.86</td>
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<td></td>
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<tr>
<td>Meeting specifications</td>
<td>MSpecifications_1</td>
<td>0.86</td>
<td>0.08</td>
<td>10.25</td>
<td>0.85</td>
<td>0.74</td>
</tr>
<tr>
<td>Construct</td>
<td>Item</td>
<td>Loading</td>
<td>Std. error</td>
<td>T-value</td>
<td>C.R.</td>
<td>AVE</td>
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<tr>
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<td>---------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>MSpecifications_2</td>
<td>0.87</td>
<td>0.05</td>
<td>18.09</td>
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<tr>
<td>Project difficulty</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Project_difficulty_1</td>
<td>0.75</td>
<td>0.15</td>
<td>4.92</td>
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<td></td>
<td>Project_difficulty_2</td>
<td>0.92</td>
<td>0.06</td>
<td>16.19</td>
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<tr>
<td></td>
<td>Project_difficulty_3</td>
<td>0.94</td>
<td>0.03</td>
<td>36.53</td>
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<tr>
<td>Project plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project-plan-1</td>
<td>0.73</td>
<td>0.20</td>
<td>3.68</td>
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<td></td>
<td>Project-plan-2</td>
<td>0.60</td>
<td>0.26</td>
<td>2.32</td>
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<td></td>
<td>Project-plan-4</td>
<td>0.77</td>
<td>0.19</td>
<td>3.98</td>
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<td></td>
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<tr>
<td></td>
<td>Project-plan-5</td>
<td>0.75</td>
<td>0.15</td>
<td>5.07</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Measures statistics

Note: team experience was not included in this table because this becomes a single-item construct after dropping two items.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>Satisfaction (1)</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery timeliness (2)</td>
<td>0.33</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meeting specifications (3)</td>
<td>0.48</td>
<td>0.72</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project difficulty (4)</td>
<td>-0.23</td>
<td>-0.45</td>
<td>-0.53</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team experience (5)</td>
<td>0.18</td>
<td>0.40</td>
<td>0.49</td>
<td>-0.26</td>
<td>n.a.</td>
<td></td>
<td></td>
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<tr>
<td>project plan (6)</td>
<td>0.28</td>
<td>0.41</td>
<td>0.28</td>
<td>-0.03</td>
<td>0.34</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td>Funding ratio (7)</td>
<td>0.10</td>
<td>0.05</td>
<td>0.21</td>
<td>-0.25</td>
<td>0.24</td>
<td>0.23</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Table 4. Inter-construct correlations

Note: square root of AVE shown on the diagonal. n.a.: sing-item scale.
### Hypothesis Testing: The Structural Model

We run SmartPLS 2.0 with bootstrapping procedures to test the statistical significance of each hypothesized path. The results are shown in Figure 2 and Table 6. As for the relationships between the success measures, delivery timeliness does not significantly affect overall evaluation, i.e., overall satisfaction (path coefficient = -0.02, t value=0.08). So H1 was not supported. The other insignificant path is between project plan and meeting specifications (path coefficient =0.16, t value=1.17). Thus, H5b was not supported. Except these two hypotheses, all of the other hypotheses were supported. The model explained 22.9% of the variance in overall satisfaction, 42.0% of the variance in award delivery timeliness, and 44.3% of the extent to which the award meets the specifications.

#### Table 5. Factor loadings and cross-loadings

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-statistics</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: delivery timeliness -&gt; overall satisfaction</td>
<td>-0.02</td>
<td>0.08</td>
<td>No</td>
</tr>
<tr>
<td>H2: meeting specifications -&gt; overall satisfaction</td>
<td>0.49</td>
<td>2.07*</td>
<td>Yes</td>
</tr>
<tr>
<td>H3a: project difficulty -&gt; delivery timeliness</td>
<td>-0.43</td>
<td>4.13 ***</td>
<td>Yes</td>
</tr>
<tr>
<td>H3b: project difficulty -&gt; meeting specifications</td>
<td>-0.45</td>
<td>3.25 **</td>
<td>Yes</td>
</tr>
<tr>
<td>H4a: team experience -&gt; delivery timeliness</td>
<td>0.21</td>
<td>1.96 *</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Notes:** * p < 0.05; ** p< 0.01; *** p< 0.001.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
<th>t-statistics</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4b: team experience -&gt; meeting specifications</td>
<td>0.33</td>
<td>2.86 **</td>
<td>Yes</td>
</tr>
<tr>
<td>H5a: project plan-&gt; delivery timeliness</td>
<td>0.37</td>
<td>2.41 *</td>
<td>Yes</td>
</tr>
<tr>
<td>H5b: project plan -&gt; meeting specifications</td>
<td>0.16</td>
<td>1.17</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 6. Hypotheses testing

Notes: * p < 0.05; ** p< 0.01; *** p< 0.001.

5 DISCUSSION AND IMPLICATIONS

The results showed that delivery timeliness does not significantly affects sponsors overall evaluations, i.e., sponsor satisfaction. In contrast, the extent to which the award meets the specifications defined in the crowdfunding open call is a significant predictor for sponsor overall satisfaction. One reason for the insignificant relationship between delivery timeliness and overall satisfaction is that we did not include the crowdfunding projects which expiries without any awards delivered to the sponsors in the sample. We cannot simply conclude that award delivery timeliness is not an important issue in crowdfunding (Mollick 2014). For the projects which delivered awards, the sponsors were concerned more about the product quality, rather than whether or not the entrepreneur completed the project on schedule.

From the analysis, we found that project success is negatively related with project difficulty, which is consistent with our intuition and the finding of Tatikonda and Rosenthal (2000). In addition, the team experience plays an important role in improving crowdfunding project implementation success. As for project planning, it only has influence on award delivery timeliness. One reason accounting for this result might be that project planning cannot assure the project success (e.g., product quality) without high level of implementation of management processes and procedures (Dvir et al. 2003). This finding does not mean that project planning is not important in any phases of crowdfunding. For example, a detailed planning may attract more sponsors to invest in the project in the money-raising stage.

This study extended current research in the following ways. First, multiple dimensions of project success, award delivery timeliness, meeting specifications, and sponsor overall satisfaction, were introduced to investigate crowdfunding implementation which has not gained much attention. Second, we identified and tested the antecedents of crowdfunding implementation success based on the studies in project management (e.g., Liu et al. 2011). The relative importances of these factors were compared in terms of their influence on award delivery timeliness and meeting specifications.

The findings in this study also provided implications for crowdfunding platforms to screen projects. First, evaluating and controlling the level of project difficulty is necessary for risk reduction. Second, evaluation of team experience is an effective method to distinguish good projects from the bad ones. Third, crowdfunding platforms should encourage the entrepreneurs to present a detailed planning because it could improve the award delivery timeliness. Finally, diverse dimensions of project success should be adopted to build a reputation feedback system in crowdfunding platforms.
Acknowledgements

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References


