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Recommended Citation

Pu, Shaolin and Srinivasan, Karthik, "Are Project Narrative Attributes Indicative of Pre-order Campaign Success on Crowdfunding Platforms? – A Text-Mining Approach" (2022). *MWAIS 2022 Proceedings*. 24. <https://aisel.aisnet.org/mwais2022/24>

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Are Project Narrative Attributes Indicative of Pre-order Campaign Success on Crowdfunding Platforms? – A Text-Mining Approach

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EXTENDED ABSTRACT

Emerging business entities such as freelancers and small enterprises often pre-launch their products on crowdfunding platforms as a project for seed funding. Success in fundraising boosts confidence in the creator to mass produce their products and sell them through traditional sales channels. A pre-order campaign is a type of reward-based project where crowdfunders fund a certain amount for a project with an expectation that the project creators will send them the finished product as rewards before it is formally launched in the market (Belleflamme et al., 2015). The phenomenon of pre-order sales via crowdfunding platforms raises several interesting questions. For example, it would be interesting to learn about factors influencing the success of a pre-order crowdfunding project. Understanding the project-funder dynamics would also throw light into why people choose to pre-order products through crowdfunding platforms instead of purchasing comparable alternatives from traditional e-commerce platforms.

Pre-order products posted in crowdfunding projects are distinct from e-commerce platforms in three ways. First, pre-order crowdfunding projects provide novel products that feed users interested in next generation products that may not be available on regular e-commerce platforms. Second, pre-order crowdfunding projects position themselves to provide better products than existing products towards addressing specific problems. Third, pre-order crowdfunding projects describe their products differently as they are seeking funders as audiences instead of the bigger population of online consumers (Chen et al., 2021; Park et al., 2005). Product descriptions in traditional e-commerce platforms mainly convey basic information of the product, such as distinctive features of the product, its selling price, discounts, etc., while not always presenting the product as a problem-solving entity (Szymanski, 1988). On the other hand, pre-order crowdfunding projects point out specific problem(s) their product seeks to address, then enumerate the features of the product directed towards solving the customer pain point(s). The online users or funders consuming products via crowdfunding platforms are also different from the users of e-commerce platforms. Funders assume that the creators are able to complete the manufacturing of products in time and are able to send it to them as per the original project description, unlike customers of e-commerce platforms who expect the product in a shorter time frame with lower uncertainty.

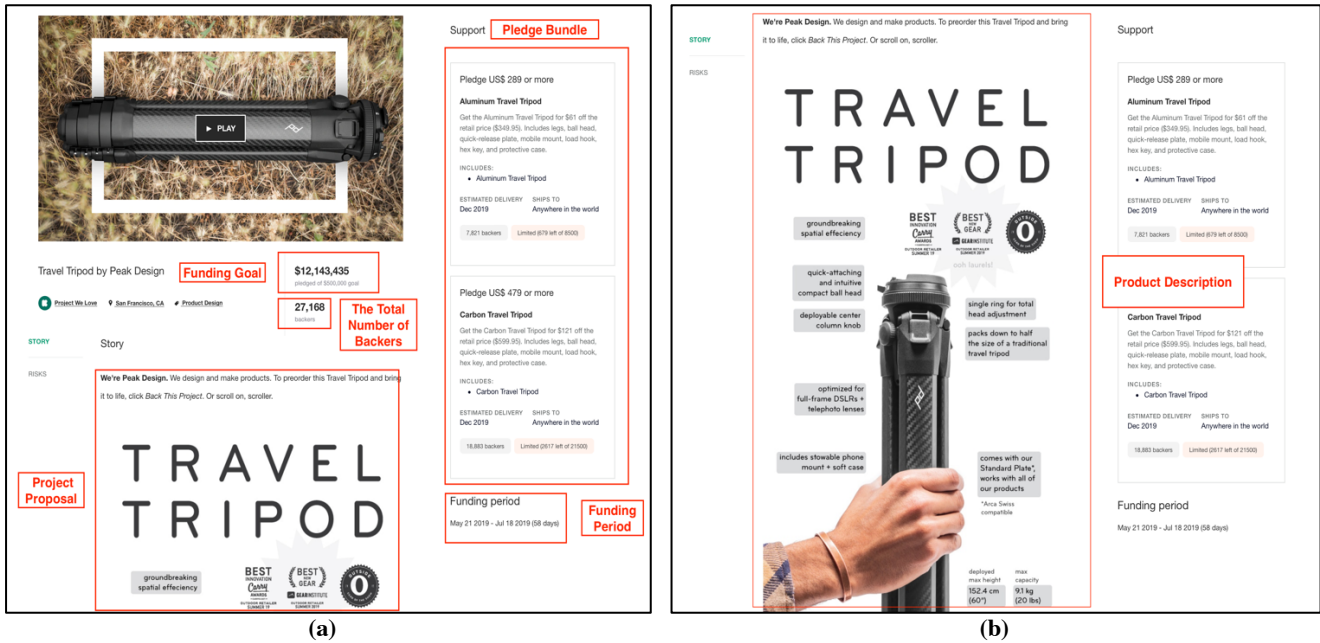
The project description page is a critical component of the pre-order products sales pipeline as it is the primary channel through which funders can learn about different aspects of the product such as customer needs, distinct features, and business proposition. Multiple factors have been shown to impact the success of a crowdfunding project, including but not restricted to location, nature of reward, fund request amount, and general project characteristics (Jiang et al., 2021; Petitjean, 2018; Roma et al., 2018). However, project narrative attributes such as clarity in problem specification, market differentiation, product innovation, and extent of product design specification have not been well studied in terms of their role in project funding success. Our study explores the association between multiple narrative attributes and funding success of reward-based projects on crowdfunding platforms.

In our research, we identify two types of project narrative attributes – product-related and project-related (Moradi & Badrinarayanan, 2021; Weinmann et al., 2022). Product-related attributes include problem specification, market differentiation, product innovation, product design, and extensiveness of the product specification. Project-related attributes include pledge goal, the total number of backers, project duration, price of pledge bundle, discount offered in pledge bundle, estimated delivery date, and shipping cost. Product-related attributes carry the information of product uniqueness and value (Chen et al., 2021). Problem specification explains whether project creators point out specific problems and how detailed the questions are presented. Market differentiation specifies whether project creators present a comparison between current products in market and the proposed product as well as the extent of comparison. Product innovation shows whether creators claim innovation and how detailed the information description is. Product design is about whether project creators describe a design of a product and how detailed product design is. The extensiveness of product specification tells whether project creators provide a use case and

future developing plan and how detailed the information is. Project-related attributes contain all marketing incentives information. We hypothesize that the above listed product-related attributes have a positive impact on the success of pre-order crowdfunding projects.

As part of data collection, we plan to parse description webpages of completed reward-based projects from a well-known crowdfunding platform called Kickstarter. We will analyze a sample of successfully and unsuccessfully funded pre-order crowdfunding projects on the platform. We plan to employ natural language processing (NLP) such as regular expression, sentence embedding, document summarization, and sentiment analysis for data processing. Following this, we plan to use an appropriate modeling method such as regularized logistic regression for making inferences. Figure 1 shows screenshots of data elements we plan to extract from the Kickstarter platform for our analysis. Figure 1 (a)-(d) show visual annotation of project-related, product-related, problem specification, and market differentiation respectively. Each of these attributes is hypothesized to be related to project success as described in the earlier paragraph.

Our study contributes to crowdfunding literature in information systems (IS) by examining the association between project description characteristics and product utility. It is geared towards informing researchers as well as different stakeholder entities of crowdfunding markets about the relationship between project narrative attributes and funding success in crowdfunding platforms. Existing project creators can use our inferences to draft project descriptions towards improving their prospects of getting funded. Investors can use our inferences to identify successful and reliable projects. Not only crowdsourcing platforms, but traditional e-commerce platforms can also benefit from learning about narrative and description attributes related to higher funding and purchase propensity. Crowdfunding platforms can benefit from our analysis as increasing the investment propensity of platform benefactors towards projects will ensure sustained growth of the platforms. Traditional e-commerce platforms can seek to reduce the gap between the projection of novelty in their current offerings and those in crowdfunding platforms.



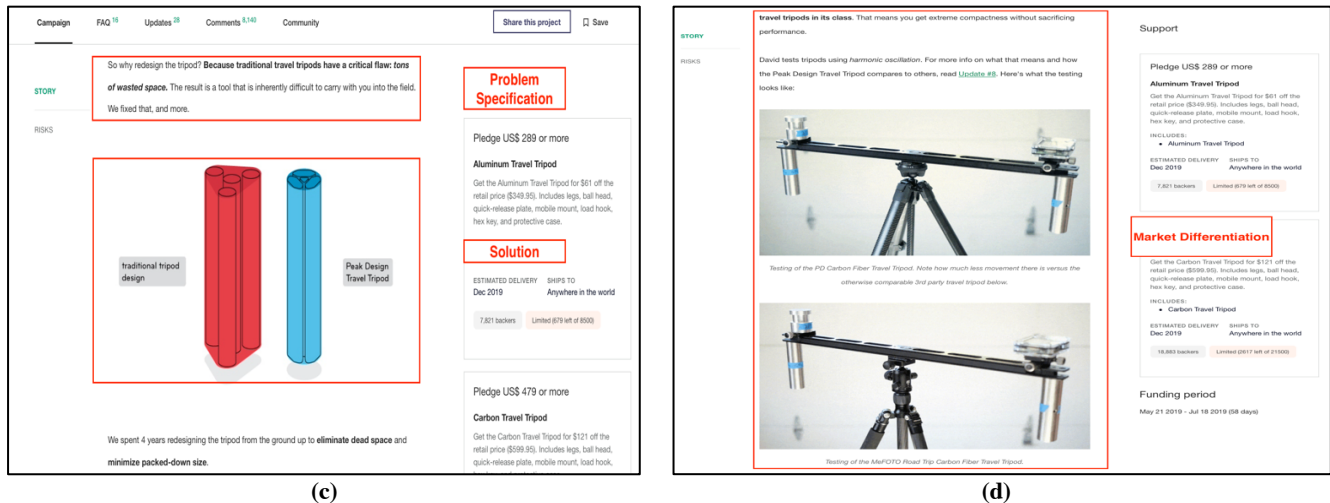


Figure 1. Screenshots of the following sub-sections of a sample Kickstarter project: (a) main description; (b) product description; (c) problem specification; and (d) market differentiation

Keywords

Reward-based Crowdfunding, Project Description Attributes, Information Richness

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