

Association for Information Systems

AIS Electronic Library (AISeL)

WHICEB 2023 Proceedings

Wuhan International Conference on e-Business

Summer 5-28-2023

How Characteristics of Creator and Campaign Shape Crowdfunding Performance: Using Hierarchical Linear Modeling

Baihui Shi

Jiangsu University of Science and Technology, Zhenjiang, China

Nianxin Wang

Jiangsu University of Science and Technology, Zhenjiang, China, wangnianxin@163.com

Qingxiang Li

Jiangsu University of Science and Technology, Zhenjiang, China

Follow this and additional works at: <https://aisel.aisnet.org/whiceb2023>

Recommended Citation

Shi, Baihui; Wang, Nianxin; and Li, Qingxiang, "How Characteristics of Creator and Campaign Shape Crowdfunding Performance: Using Hierarchical Linear Modeling" (2023). *WHICEB 2023 Proceedings* . 15. <https://aisel.aisnet.org/whiceb2023/15>

This material is brought to you by the Wuhan International Conference on e-Business at AIS Electronic Library (AISeL). It has been accepted for inclusion in WHICEB 2023 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

How Characteristics of Creator and Campaign Shape Crowdfunding Performance: Using Hierarchical Linear Modeling

Baihui Shi, Nianxin Wang and Qingxiang Li

Jiangsu University of Science and Technology, Zhenjiang, China

wangnianxin@163.com (NianXin Wang, corresponding author)

1. INTRODUCTION AND RESEARCH TOPIC

Crowdfunding that intends to raise a small amount of funding from a large number of individuals via digital platforms has attracted much attention from industry practitioners and academic researchers. Although Crowdfunding market has grown rapidly, the success rate of crowdfunding is relatively low. Given that, extant researchers attempt to figure out how attributes of campaigns and their creators influence crowdfunding success [1-3]. However, past studies on determinants of crowdfunding has suffered from a level bias, with researchers studying determinants at single levels of analysis only (e.g., the project or creator level). Although single-level research can be useful, the past research implicitly assumes that campaigns that initiated by the same creator are independent [4], which may lead to an incomplete and disjointed view of how campaign and creator information affect crowdfunding success.

Besides, from the data structure perspective, the campaigns we analyze in this study belong to different serial creators, namely the data structure is nested. And when a hierarchy exists, an analysis of data aggregated from different levels may produce inaccurate and unreliable results [5]. More important, with nested structures, the assumption of independent errors is violated and the traditional OLS regression approaches that rely on this assumption inadequate [5].

Based on the two reasons (linkage between campaigns and serial creators as well as the nested data structure), this paper uses a hierarchical linear model to analyze the impact of factors at different levels on crowdfunding performance and focus on the moderation effect of serial creator social capital.

2. THEORY AND RESEARCH FRAMEWORK

The hypotheses and research model are shown in Figure 1.

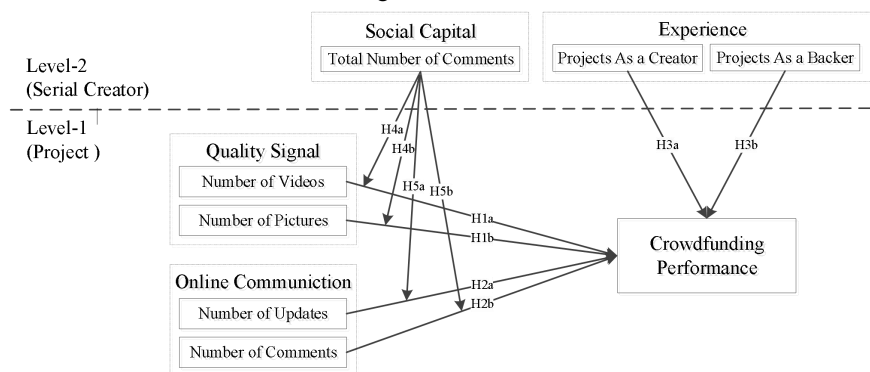


Figure 1. Research framework

This data set is derived from the Indiegogo crowdfunding platform, and the final sample is 2,394 serial creators and 6,286 projects initiated by them.

3. RESULTS AND MAJOR FINDINGS

Research results of this paper show that project quality (videos and pictures) and project online communication (updates and comments) positively affect crowdfunding performance; The experience of serial creator (experience as a creator, experience as a backer) has a positive cross-level effect on crowdfunding performance; The social capital of the

serial creator (total comments on Indiegogo) positively moderates the relationship between pictures, project comments and performance across levels, but it is negative when moderating the relationship between the updates and performance.

Table 1. Results of hierarchical linear analysis.

	Model 1		Model 2		Model 3		Model 4	
	Coef	P	Coef	P	Coef	P	Coef	P
Level-1 (Project)								
VI	0.093**	0.005			0.085**	0.010	0.129**	0.004
PIC	0.144**	0.000			0.120**	0.000	0.129**	0.000
UP	0.227**	0.000			0.249**	0.000	0.186**	0.000
CO	0.251**	0.000			0.259**	0.000	0.175**	0.000
Level-2 (Serial creator)								
AFP			0.250**	0.005	0.174*	0.035	0.150*	0.035
AFB			0.264**	0.000	0.228**	0.000	0.236**	0.000
FCO			0.303**	0.000	0.306**	0.000	0.312**	0.000
Interactive terms								
FCO×VI							-0.022	0.830
FCO×PIC							0.286**	0.000
FCO×UP							-0.139*	0.049
FCO×CO							0.110*	0.032
Tips: **p≤0.01, *p≤0.05; Results of control variables and other terms are not shown.								

4. CONTRIBUTIONS

Our study contributes to crowdfunding research by highlighting the multilevel analysis. Specifically, we introduce multilevel modeling (HLM) to analyze the determinants of crowdfunding success. Although extant research has explored many factors that may influence crowdfunding performance, they may suffer a level bias due to a single level analysis. In fact, projects launched by the same creator are not independent and the performance will be affected by environmental variables (experience of serial creators). In other word, the projects are nested within serial creators. Thus, we apply the HLM to generate deeper understanding of how the effect of project quality on crowdfunding success varies across each serial creator.

ACKNOWLEDGEMENT

This research is supported by National Science Foundation of China (grant number: 72272066), and Postgraduate Research & Practice Innovation Program of Jiangsu Province (grant number: KYCX22_3736).

REFERENCES

1. Mollick, E.: The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing* 29(1), 1-16 (2014).
2. Kunz, M. M., Bretschneider, U., Erler, M., et al.: An Empirical Investigation of Signaling in Reward-Based Crowdfunding. *Electronic Commerce Research* 17(3), 425-461 (2017).
3. Wang, N., Li, Q., Liang, H., et al.: Understanding the importance of interaction between creators and backers in crowdfunding success. *Electronic Commerce Research and Applications* 27(1), 106-117 (2018).
4. Yang, L., Hahn, J.: Learning from prior experience: an empirical study of serial entrepreneurs in IT-enabled crowdfunding (2015).
5. Hox, J. J.: Multilevel Analysis: Techniques and Applications. *Journal of the American Statistical Association* 98(462) (2003)