

IMPROVING SPONSOR'S EXPERIENCE IN REWARD-BASED CROWDFUNDING: A PSYCHOLOGICAL OWNERSHIP PERSPECTIVE

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Abstract

Psychological ownership brings new perspective to understand individual behaviors in organization, team, and the information system areas. In this research we use this theory to investigate how to improve sponsor experience in the context of reward-based crowdfunding. We propose that psychological ownership is one important mental state for sponsors in crowdfunding. The research model in this study shows that psychological ownership could predict sponsor's commitment to project and continuous intention to contribute to it. Sponsors can develop the feeling of psychological ownership through three routes, i.e., perceived control, intimate knowing, and self-investment. In addition, social capital (sponsor expertise, social trust in entrepreneur and social ties) and social interaction (sponsor participation and entrepreneur activeness) are hypothesized to be important antecedents to the routes to psychological ownership in crowdfunding. The research model and hypotheses will be tested with survey data from www.zhongchou.cn, a famous crowdfunding platform in China. The expected research findings would provide interesting implications for research and practice.

Keywords: reward-based crowdfunding, psychological ownership, social capital, social interaction.

1 INTRODUCTION

It is difficult for start-up entrepreneurs to get fund from traditional financial institutions, such as banks and venture capitalists in their early stages (Schwienbacher & Larralde 2010). To overcome this barrier, entrepreneurs are trying crowdfunding 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). Since 2013, crowdfunding has gained rapid growth. The report released by the United Kingdom-based Crowdfunding Centre indicated that in March 2014, more than 60,000 US dollars were raised hourly via global crowdfunding initiatives (Clifford 2014). This study focuses on reward-based crowdfunding in which the sponsors get product or service as a return for their investment. According to Clifford (2014), reward-based crowdfunding is one of the primary crowdfunding models currently. The statistics on Kickstarter, the famous reward-based crowdfunding platform in US, shows that 77,515 projects received 1.49 billion dollars from 2,325,629 sponsors by January 21, 2015.

The boom of crowdfunding has drawn much attention from academics. Most of the research focused on participants’ motivations (e.g., Lambert and Schwienbacher 2010; Gerber et al. 2012; Belleflamme et al. 2014) and factors affecting project funding performance (e.g., Mollick 2014; Zheng et al. 2014). Previous research found that sponsors are motivated to back the entrepreneurs who have the similar value, interests, and expertise. In addition to investment in the crowdfunding projects, they also share their knowledge and business ideas with the entrepreneurs (Gerber et al. 2012), and involve in the funding process and project implementation stage (Belleflamme et al. 2014). Belleflamme et al. (2014) proposed that the major benefit of crowdfunding over traditional funding approaches is that crowdfunding can involve sponsors and thereby enhance their hedonic experiences.

Besides sponsor motivations, how to improve funding performance is also a hot topic (Lambert and Schwienbacher 2010; Mollick 2014; Zheng et al. 2014). Crowdfunding projects that are focused on non-profit purposes are more likely to be more successful, and projects that aim to produce tangible products rather than provide service tend to attract more capital (Lambert and Schwienbacher 2010). In addition, entrepreneur social capital is also important to crowdfunding performance (Mollick 2014; Zheng et al. 2014). 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 (Mollick 2014). Zheng et al. (2014) found that entrepreneur’s social network ties, obligations to fund other entrepreneurs, and the shared meaning of the crowdfunding project between the entrepreneur and sponsors have significant effects on crowdfunding performance in both China and the U.S.

This study extends the previous research by investigating sponsor behavior from psychological ownership perspective. Based on the theory of psychological ownership, we developed a research model which proposed that sponsors could get a psychological ownership of the crowdfunding project, which is a mental state that the individuals feel as though the project is ‘theirs’ (Pierce et al. 1991; Pierce et al. 2003), through involving themselves in crowdfunding through diverse forms (Belleflamme et al. 2014).

2 RESEARCH ON CROWDFUNDING

Based on the return forms, crowdfunding includes diverse models, such as donation, loan, equity-based, or reward-based crowdfunding (Ahlers et al. 2012; Belleflamme et al. 2014). The donation model involves sponsors who act as philanthropists and the funding behaviour is driven mainly by altruism. The lending model refers to peer-to-peer lending platforms where funders invest with an expectation of high-rate interest return. The equity-based model offers funders a small equity stake in the future company in return for their funding contributions (Ahlers et al. 2012). This study focuses on reward-based crowdfunding in which the sponsors make investments to get reward in the forms of product or service, or even a thanks letter from entrepreneurs (Lambert & Schwienbacher 2010).

Currently the research on reward-based crowdfunding is still in the initial stage. Through analysis of 31 most related papers we found that the most frequently used methods for crowdfunding researches are concept framework and second-hand data analysis. 50% of the research papers are working papers and conference papers. And the research is in the following aspects: concept definition (Qiu 2013), participants' behaviors and motivations (e.g., Gerber et al. 2012; Ordanini et al. 2011; Belleflamme et al. 2014), factors that contribute to the fundraising (e.g., Balboni et al. 2014; Belleflamme et al., 2010), and regulation issues (e.g., Bradford 2012; Kim, 2012; Stemler 2013).

For sponsors' behavior and motivations, 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 drive 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. (2014). Only if the sponsors feel community benefit, crowdfunding can be considered as a better financing channel for entrepreneurs (Belleflamme et al. 2014). These studies indicated that sponsor experience is critical to reward-based crowdfunding. This study aims at improving sponsor's experience in crowdfunding in the view of psychological ownership. Based on the psychological ownership theory, we try to explore the factors contributing to sponsor's feeling of psychological ownership, and the effects of this feeling on sponsor's commitment and continuous intention to invest in crowdfunding.

3 RESEARCH MODEL AND HYPOTHESES

The theoretical model shown in Figure 1 is developed based on the conceptual framework of psychological ownership. The model shows the relationship between psychological ownership, commitment and sponsors' continuous intention to invest in crowdfunding projects. The central part of the model is three routes to psychological ownership, i.e., perceived control, intimate knowing, and self-investment. We propose that social capital (sponsor expertise, social trust in entrepreneur and social ties) and social interaction (sponsor participation and entrepreneur activeness) are the antecedents to the routes to psychological ownership in crowdfunding.

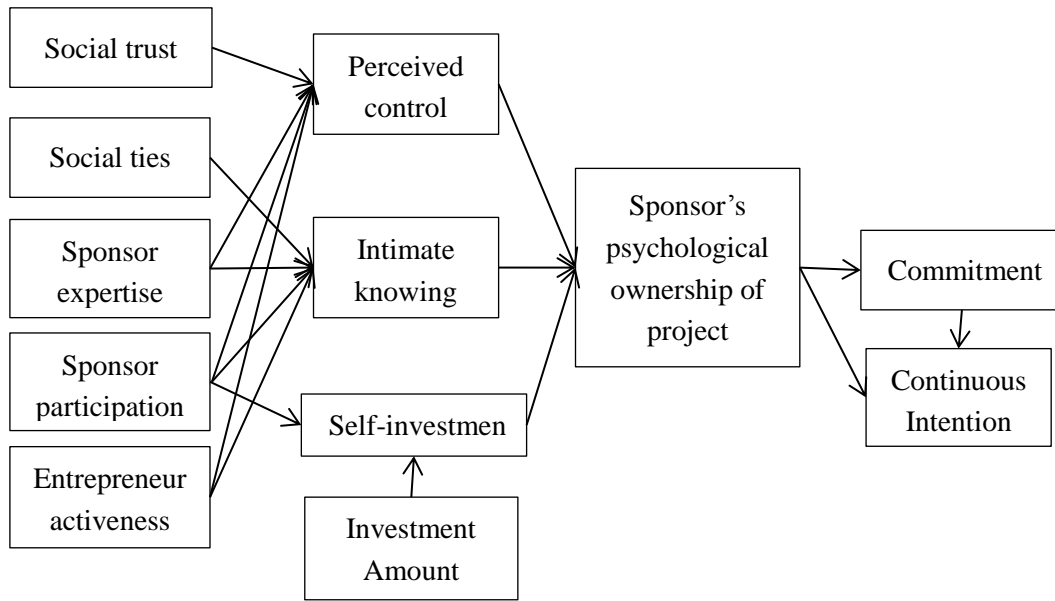


Figure 1. Research model

3.1 Psychological Ownership

Psychological ownership has been broadly thought to have great effects on individual's attitudes and behaviour such as organization commitment, job satisfaction, organization-based self-esteem and so on (Dyne & Pierce 2004; Mayhew et al. 2007; O'Driscoll et al. 2006). Organizational commitment refers to that employees identify organizational goals and invest themselves in the organization (Meyer & Allen, 1984). Commitment is characterized by value congruence, intention in the relationship, and an interest in the welfare of the other party (Gundlach et al. 1993; Kelley & Mark 1994; Mowday et al. 1979). In this study, we define commitment to a crowdfunding project as the loyalty of sponsors to the project. Dyne (2004) suggested that feeling of possession toward an organization (psychological ownership) lead to the high level of intention to maintain the membership with the organization (organizational commitment). Han et al. (2010) also indicated that psychological ownership is positively related to organizational commitment. In crowdfunding, with the mental state of ownership sponsors would commit to the relationship with the project. Thus, we propose that a sponsor's psychological ownership of crowdfunding project would lead to the commitment to the project.

H1: Sponsor's psychological ownership of project is positively related to his/her commitment to it.

Continuous intention is another important outcome of psychological ownership. Lee (2011) proposed that after individuals have done a lot (which is defined as territorial behaviors including active use, decoration, and protection of the object) to develop the psychological ownership over an object, they would be likely to take actions to maintain this feeling. In crowdfunding, we expect that when sponsors have psychological ownership toward the target project, they have a strong desire to stay in the project in the future. They tend to continuously invest their talents and time, or contribute more ideas to the project.

H2: Sponsor's psychological ownership of project is positively related to his continuous intention to contribute to it.

Commitment is the direct and powerful predictor of persistence in a relationship (Rusbult, 1983). Highly committed individuals have a long-term orientation toward relationships in the future (Li 2006). With commitment, users will have an intention to stick to (i.e., use) a website (Li 2006). Organizational behaviour studies also found that commitment is positively related to the retention to stay (or not leave) (Morgan & Hunt 1994; O'Reilly & Chatman 1986), and leads to decreased employee turnover (Porter et al. 1974). In crowdfunding, if a sponsor develops a strong sense of commitment to the target project, he will tend to continuously involve in the project in the future.

H3: Commitment is positively related to sponsor's continuous intention in the project.

3.2 Routes to Psychological Ownership

3.2.1 Perceived control

An essential feature of psychological ownership is perceived control. Rudmin and Berry (1987) found that ownership mainly means the ability to use and control the usage of objects. One would regard the object that he can control as part of the self (McClelland 1951); On the contrary, people will not consider objects that he is unable to control as part of the self (Seligman 1975). It has been found that the extent to which individuals experience control over the job and work environment is positively associated with feeling of ownership for their job and organization (Pierce et al. 2004). Accordingly, once the sponsors in crowdfunding perceive that the project is in control or they can influence the decisions of the project, they will consider the project as if they own it. Thus, we propose that:

H4: Perceived control is positively related to sponsor's psychological ownership of crowdfunding project.

3.2.2 Intimate knowing

Psychological ownership cannot be separated from the association one holds with an object. An individual's association gives rise to feelings of psychological ownership (Sartre 1969). James (1890) suggests that individuals develop feelings of ownership toward objects through a living relationship with them. Through association, they acquire information about the object and come to know it intimately (Beggan & Brown 1994). The intimate knowing of a target object in crowdfunding refers to the sponsor's comprehensive understanding of the project or intimately knowing what is going on regarding to it. The more information a sponsor intimately knows the closer relationship he will develop to the project and will have a more profound sense of psychologically owning it. Thus, we propose that:

H5: Intimate knowing is positively related to sponsor's psychological ownership of crowdfunding project.

3.2.3 Self-investment

The concept of self-investment is easy to understand. People often feel they own what they create, shape, or produce. When you devote your time or energy to an object, you have integrated some of

your own characteristics in the same way, thus it will be a part of your extended self. Thus we propose that the more a sponsor has devoted to a project, the stronger the feeling of ownership to the project. .

H6: Self-rated investment is positively related to sponsor's psychological ownership of crowdfunding project.

3.3 Effects of social capital

3.3.1 Structural dimension (social ties)

Structural dimension of social capital refers to the overall pattern of connections between actors (Nahapiet & Ghoshal 1998). One of the most important facets of this dimension is the presence or absence of network ties between actors (Scott 1991; Wasserman & Faust 1994). In this study, we focus on the sponsors' social ties with others in the project of crowdfunding, including the relationship they developed with other sponsors or with the entrepreneur. With the social ties, sponsors get channels to obtain information over the project from other sponsors and entrepreneur; entrepreneurs can also convey their values or goals through the social ties. Thus sponsors will develop a comprehensive knowing about the project. We propose that:

H7: Sponsor social tie is positively related to intimate knowing of the project.

3.3.2 Relational dimension (social trust)

As opposed to structural dimension, the relational dimension of social capital refers to those assets created and leveraged through relationships which is often evaluated using trust (Fukuyama 1995), norms (Coleman 1990; Putnam 1995), obligations and expectations (Burt 1992; Coleman 1990). In this paper, we apply social trust to evaluate social capital in relational dimension. In the context of crowdfunding, once the sponsors believe the entrepreneur is trustworthy, or they believe entrepreneur approach project activities with professionalism and dedication, they will tend to believe the information and value entrepreneur convey to them and perceive that the project is in control. Thus we propose that:

H8: Sponsor trust in entrepreneur is positively related to sponsor's perceived control of the project.

3.3.3 Cognitive dimension (sponsor expertise)

The third dimension of social capital, cognitive dimension refers to resources providing shared representations, interpretations, and systems of meaning among parties (Cicourel 1973). Karahanna (2013) thought that the cognitive social capital acts as drivers of knowledge exchange since it facilitates interaction, makes information held by others accessible, and aids in the assimilation of new knowledge through a common vocabulary and cognitive frames. Compared with sponsors who have no idea about the project, sponsors with expertise knowledge will have little barrier with the project and will build a relationship with it more quickly and effectively. It is easier for them to understand the common vocabulary and cognitive frames in the group of peer sponsors and entrepreneur. Thus they get to know the project better and have a sense of control over the project.

H9: Sponsor expertise is positively related to perceived control of the project.

H10: Sponsor expertise is positively related to intimate knowing of the project.

3.4 Effects of social interaction

3.4.1 Sponsor participation

In crowdfunding sponsors not only financially invest in the project, they can also involve themselves in the whole process from fund raising to product design (Belleflamme et al. 2010). Their participation in this process may take forms like sharing ideas with entrepreneur, making comment on entrepreneur's updates of project, responding to other sponsors' comments, recommending the project to friends or relatives and suggesting ideas to entrepreneur. Sponsor's financial or nonfinancial participation could increase his/her self-rated investment. Thus, we propose that:

H11: Sponsor participation (e.g., feedback, advocacy) in the project is positively related to self-rated investment in the project.

H12: Sponsor's investment amount is positively related to self-rated investment in the project.

In addition, sponsors devote their time and energy to the project as they actively participate in it. The more time one spends on one subject, he/she will be more probably know the knowledge well and thus behave well at this subject. In crowdfunding, when sponsors participate in the project, they get to know more about the project. At the same time, the sponsors who participate more in the project and have more knowledge about it would have more sense of control over the project. Thus, we propose that:

H13: Sponsor participation (feedback, advocacy) in the project is positively related to intimate knowing of the project.

H14: Sponsor participation (feedback, advocacy) in the project is positively related to perceived control of the project.

3.4.2 Entrepreneur activeness

It has been proved by some research that entrepreneur's active participation is positively related to the performance of a crowdfunding project (Balboni 2014; David et al. 2014; Mollick 2014). Entrepreneur may frequently update the project, respond to sponsors feedback or back other projects. The activities by entrepreneurs help achieve the funding goals and shed light on the success of project. (David et al. 2014). Entrepreneurs' actions, such as updating and responding to sponsors' feedback will also convey the information and value of the project to sponsors, which will enable them to get a comprehensive understanding of the project. Thus we propose:

H15: Entrepreneur activeness (updating, response) is positively related to sponsor's intimate knowing of the project.

When entrepreneur frequently update the project and actively respond to sponsors' feedback, sponsors will hold the view that the entrepreneur really cares about his project and they think the entrepreneur is reliable. They can rely on the entrepreneur to make the project successful. Besides, sponsor's uncertainty about the project will be reduced as entrepreneur actively conveys information of the project to them. Thus, we can propose that:

H16: Entrepreneur activeness (updating, response) is positively related to sponsor's perceived control of the project.

4 RESEARCH METHOD

4.1 Data Collection

We are conducting a survey on www.zhongchou.cn, one of the famous reward-based crowdfunding platforms in China. The sponsors of ongoing projects will be potential respondents to our questionnaire. We have two channels to send the questionnaire to the qualified sponsors. The first one is through message box on www.zhongchou.cn. The second way is showing links to our questionnaire in the project pages on www.zongchou.cn to invite sponsors to answer the questionnaire. As of March 17, 2015, there are 93 sponsors filled out the questionnaires.

4.2 Data Analysis Method

We will choose the partial least squares (PLS) method for data analysis. PLS is a structural equation modelling technique that simultaneously assesses the reliability and validity of the measures of constructs and estimates the relationships among the constructs (Hair et al. 2013). PLS is preferred to other SEM techniques, such as LISREL, because the goal of the model is to predict (improve) the sponsor psychological ownership. In addition, PLS does not require normal distribution for the manifest variables. We will follow the Anderson and Gerbing (1988)'s two-step approach in examining the measurement model and structural model.

5 CONCLUSIONS

This study built a research model based on the psychological ownership theory to investigate how to improve sponsors' experiences in crowdfunding. We proposed that sponsors could gain the psychological ownership through three ways, i.e., perceived control on the project, intimate knowing of the project, and self-investment in the project. In addition, sponsor's social capital and the interaction in the crowdfunding community are effective antecedents of the roots to psychological ownership in crowdfunding. This research is the first one to study sponsor's behavior from the perspective of psychological ownership. As a research-in-progress, we are conducting the survey on www.zhongchou.cn to collect data for hypotheses testing. The expected results could make implications for crowdfunding research and practice.

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References

- Ahlers, G.K.C., Cumming, D., Guenther, C. and Schweizer, D. (2012). Signaling in equity crowdfunding. Working Paper. Available at:
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2564121
- Anderson, J.C. and Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Balboni, B., Kocollari, U. and Pais, I. (2014). How can social enterprises develop successful crowdfunding campaigns? An empirical analysis on Italian context. In the 14th EURAM Conference, Waves and Winds of Strategic Leadership for Sustainable Competitiveness, Valencia 4-7.
- Beggan, J. K. and Brown, E. M. (1994). Association as a psychological justification for ownership. *Journal of Psychology*, 128, 365-380.
- Belleflamme, P., Lambert, T. and Schwienbacher, A. (2010). Crowdfunding: an industrial organization perspective, In Proceedings of Workshop on ‘Digital Business Models: Understanding Strategies’, Paris. Available at: http://economix.fr/pdf/workshops/2010_dbm/Belleflamme_al.pdf
- Belleflamme, P., Lambert, T. and Schwienbacher, A. (2014). Crowdfunding: tapping the right crowd. *Journal of Business Venturing*, 2014, 29(5), 585-609
- Bradford, C.S. (2012). The new federal crowdfunding exemption: Promise unfulfilled. *Securities Regulation Law Journal*, 40(3), 195-249.
- Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Qiu, C. (2013). Issues in crowdfunding: Theoretical and empirical investigation on Kickstarter. Working Paper. Available at:
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2345872&rec=1&srcabs=2442954&alg=1&pos=4.
- Chen, P. and Hitt, L. M. (2002). Measuring switching costs and the determinants of customer retention in Internet-enabled business: A study of the online brokerage industry. *Information Systems Research*, 13(3), 255-274.
- Cicourel, A. V. (1973). *Cognitive sociology*. Harmondsworth, England: Penguin Books.
- Clifford, C. (2014). Crowdfunding Generates More Than \$60,000 an Hour (Infographic). *Entrepreneur*. Entrepreneur Media, Inc. Retrieved 25 May 2014.
- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, MA: Belknap Press of Harvard University Press.
- David, Z., Yael, I. and Ohad, B. (2014) *Playing Both Sides of the Market: Success and Reciprocity on Crowdfunding Platforms*.
- Dittmar, H. (1992). *The social psychology of material possession: To have is to be*, New York: St. Martin's Press.
- Dyne, L. V. and Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior*, 25(4), 439–459.
- Fukuyama, F. (1995). *Trust: Social virtues and the creation of prosperity*. London: Hamish Hamilton.

- Gerber, E.M., Hui, J.S. and Kuo, P.Y. (2012). Crowdfunding: Why people are motivated to participate, Northwestern University, Segal Design Institute, Technical Report No.2.
- Gundlach, G. T., Ravi S. A., and John T. M. (1995). The structure of commitment in exchange, *Journal of Marketing*, 59, 78-92.
- Hackman, J. R. and Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal Applied Psychology*, 60, 159-170.
- Hair JF, Hult GTM, Ringle, C.M. and Sarstedt, M. (2013). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, SAGE Publications Inc. Thousand Oaks, CA.
- Han, T.-S., Chiang, H.-H. and Chang, A. (2010). Employee participation in decision making, psychological ownership and knowledge sharing: Mediating role of organizational commitment in Taiwanese high-tech organizations. *The International Journal of Human Resource Management*, 21(12), 2218.
- Heidegger, M. (1967). *Being and time*, (Translated by J. Macquarrie & E. Robinson). Oxford: Basil Blackwell.
- James, W. (1890). *The principles of psychology*. New York: Holt.
- Karahanna, E. and Preston, D. S. (2013). The effect of social capital of the relationship Between the CIO and top Management team on firm performance. *Journal of Management Information Systems*, 30(1), 15-55.
- Kelley, S. W. and Mark A. D. (1994). Antecedents to customer expectations for service recovery. *Journal of the Academy of Marketing Science*, 22(1), 52-61.
- Kim, Y.M. (2012). Venture startup and crowdfunding. *Journal of Korea Information Law*, 16(2), 1-21.
- Kleemann, F., Voss, G. G. and Rieder, K. (2008). Un(der)paid innovators: The commercial utilization of consumer work through crowdsourcing. *Science, Technology & Innovation Studies*, 4(1), 5-26.
- Lambert, T. and Schwienbacher, A. (2010). *An Empirical Analysis of Crowdfunding*.
- Lee, Y. and Chen, A. N. K. (2011). Usability design and psychological ownership of a virtual world. *Journal of Management Information Systems*, 28(3), 269-307.
- Li, D., Browne, G.J. and Wetherbe J.C. (2006). Why do internet users stick with a specific web site? A relationship perspective. *International Journal of Electronic Commerce*, 10 (4), 105-141.
- Mayhew, M. G., Ashkanasy, N. M., Bramble, T. and Gardner, J. (2007). A Study of the antecedents and consequences of psychological ownership in organizational settings. *Journal of Social Psychology*, 147(5), 477-500.
- McClelland, D. (1951). *personality*, New York: Holt, Rinehart & Winston,
- Mead, G.H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.
- Meyer, J. P. and Allen, N. J. (1984). Testing the "side-bet theory" of organizational commitment: some methodological considerations. *Journal of Applied Psychology*, 69, 372-378.
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1-16.
- Moon, J., Md. Hossain, D., Sanders, G.L., Garrity, E.J. and Jo, S. (2013). Player commitment to massively multiplayer online role-playing Games (MMORPGs): An integrated model. *International Journal of Electronic Commerce*, 17(4), 7-38.
- Morgan, R.M. and Hunt, S.D. (1994). The Commitment-trust theory of relationship marketing. *Journal of Marketing*. 58 (3), 20.

- Mowday, R. T., Lyman W. P. and Richard M. S. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Nahapiet, J. and Ghoshal, S. (1998). Social capital, intellectual capital and the organizational advantage. *Academy of Management Review*, 23, 242-266.
- O'Reilly, C. and Chatman, J. (1986). Organizational commitment and psychological attachment: The Effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 1986. 71(3), 492-499.
- O'Driscoll, M.P., Pierce, J.L. and Coghlan, A.M. (2006). The psychology of ownership: Work environment structure, organizational commitment and citizenship behavior. *Group & Organization Management*, 31, 388-416.
- Ordanini, A., Miceli, L., Pizzetti, M. and Parasuraman, A. (2011). Crowd-funding: transforming customers into investors through innovative service platforms, *Journal of Service Management*, 22 (4), 443-470.
- Paré G., Sicotte, C. and Jacques, H. (2006). The effects of creating psychological ownership on physicians' acceptance of clinical information systems. *Journal of the American Medical Informatics Association*, 13(2), 197-205.
- Pierce, J. L., Kostova, T. and Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *Academy of Management Review*, 26(2), 298-310.
- Pierce, J. L., O'Driscoll, M. P. and Coghlan, A. M. (2004). Work environment structure and psychological ownership: The mediating effects of control. *Journal of social psychology*, 144(5), 507-534.
- Pierce, J.L., Kostova, T. and Dirks, K.T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology*, 7, 84-107.
- Pierce, J.L., Rubenfeld, S. and Morgan, S. (1991). Employee ownership: A conceptual model of process and effects. *Academy of Management Review*, 16, 121-144.
- Polanyi, M. (1962). Home: The territorial core. *Geographical Review*, 66, 383-390.
- Porter, L.W., Steers, R. M., Mowday, R. T. and Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6, 65-78.
- Rudmin, F.W. and Berry, J.W. (1987.) Semantics of ownership - A free-recall study of property. *Psychological Record*, 37(2), 257-268.
- Rusbult, C.E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, 45(1), 101-117.
- Sartre, J.P. (1951). *Being and nothing: A phenomenological essay on ontology*.
- Schwiebacher, A. and Larralde, B. (2010). *Crowdfunding of Small Entrepreneurial Ventures*. Handbook of Entrepreneur, France, Oxford University Press.
- Scott, J. (1991) *Social network analysis. A handbook*, London.
- Seligman, M.E.P. (1975). *Helplessness*, San Francisco: Freeman.
- Stemler, A.R. (2013). The JOBS Act and crowdfunding: Harnessing the power-and money-of the masses. *Business Horizons*, 56(3), 271-275.

- Wagner, S. H., Parker, C. P. and Christianson, N. D. (2003). Employees that think and act like owners: Effects of ownership beliefs and behaviors on organizational effectiveness. *Personnel Psychology*, 56, 847–871.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge, England: Cambridge University Press.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297-330.
- Zheng, H., Li, D., Wu, J. and Xu, Y. (2014). The role of multidimensional social capital in crowdfunding: A comparative study in China and US. *Information & Management*, 51(4), 488-496.