

Impact of Platform on Customer Participation Intention: Co-creation of Open Platform and Closed Platform

Youngmi Han
Korea University Business school
South Korea
Email: djqwnd@korea.ac.kr

Hosun Rhim
Korea University Business school
South Korea
Email: hrhim@korea.ac.kr

Received Oct. 29, 2019, Revised Nov. 28, 2019, Accepted Dec. 29, 2019

ABSTRACT

It is widely known that open platforms have a positive influence on performance (Chesbrough, 2003; Almirall et al., 2010). However, on the contrary, the argument that closed platforms have a positive influence on performance also exists (open-first, 2010). In this sense, this paper questions whether a platform should be chose into open one or closed. This research claims that both open platform and closed platform can influence to performance. In addition, Identifies and understands the effect of between open platform and closed platform and customer participation intention.

Keywords: Open platform, Closed platform, Customer Participation intention, Co-creation

INTRODUCTION

Companies around the world are competing to survive in the uncertainty of the 4th industrial revolution (Kyung and David, 2018). On the other hand, consumers' demands are increasing. So companies must acquire suitable strategies for immediate flow of product and information (Rohita, 2009). In this regard, the advent of the Internet and platform business have been acknowledged as successful. According to Kuttner (1998) and the Internet is a nearly perfect market because information is instantaneous and buyers can compare the offerings of sellers worldwide (Ki-Han & Jae-Ik, 2008).

In addition, traditional firms that fail to learn new strategic principles by creating platforms have a difficult time, and if a platform enters into an identical marketplace, the platform mostly succeeds (Van Alstyne, Parker & Choudary, 2016). Calibrating the right level of openness is undoubtedly one of the most complex as well as one of the most critical decisions that a platform business must make, and the decision affects usage, developer participation, monetization, and regulation. In addition, platforms that manage in analogous field can differentiation by apply various levels and kinds of openness (Parker et al., 2016).

In recently papers, there were numerous studies of platform. However, empirically study is rarely happened. Likewise, the prior empirical studies of open platform or closed platform have little experience. Hence, this research suggests empirically study about open platform and closed platform. The objective of this study is identify the effect of between open platform, closed platform and customer participation intention. Our results can become a standard of judgment to platform companies or companies which are adopting their own platform businesses.

This paper is organized into five chapters. Chapter one provides an overview of the field of this research. In chapter two, this research indicates literature review. Chapter three defines theoretical framework. In chapter four, this paper provides discussion and propositions. Lastly, chapter five presents conclusion.

LITERATURE REIIEW

Platform is a business ecosystem that matches buyers with suppliers, who transact directly with each other using system resources (Parker, Alstyne & Choudary, 2016). According to Eisenmann, et al. (2008) opening a platform can spur adoption by harnessing network effects, typically reduces users' switching costs and stimulating production of differentiated goods that meet the needs of user segments. However, on the other hand, West (2003) argues that the most successful platforms were owned by proprietary sponsors that controlled platform evolution and appropriated associated rewards. In this sense, this paper questions whether a platform should be divided only into open one or closed. And this research presents that adamantly regarding a platform as open one or closed could cause confusion. The option between open and closed is not black and white (Parker, et al., 2016).

This research claims that both open platform and closed platform can influence to performance. For the study, firstly this paper investigated precedent studies and measurements of open platform and closed platform (Table 1).

Table 1: Preceding researches of open platform and closed platform

Research topic	Author (year)	Finding
Open platform	Chesbrough (2003)	The open innovation model has many advantages over the closed model.
	Eisenmann, et al. (2008)	Opening a platform can spur adoption by harnessing network effects, typically reduces users' switching costs. And stimulating production of differentiated goods that meet the needs of user segments.
	Almirall et al., (2010)	Open platforms have a positive influence on performance.
Closed platform	West (2003)	The most successful platforms were owned by proprietary sponsors that controlled platform evolution and appropriated associated rewards.
	Open-First (2010)	Developer satisfaction and user loyalty are higher in closed environments.
	Song, Park & Kim (2013)	Closed platform generates higher levels of app sales than open platform, and is more effective.

Prior studies might regarded the closed platform to the opposite of open, nevertheless, both open and closed are undoubtedly

different being. Thus, this paper claims both platform openness and closed-ness, and proceeds as like this: Both open platform and closed platform will have a positive effect on performance of platform.

In addition, this paper argues that brand awareness of platform company can adjust influence between platform and customer participation intention. According to Hellofs & Jacobson (1999), Customers mostly want to get popular brands when lacking product experience because they “incur psychological benefits from using brands that are popular”.

THEORETICAL FRAMEWORK

Open platform

For free participation, a prior research of platform openness regards non-limiting participation of each stakeholder to open. For usefulness of information exchange, a platform is basically an infrastructure for facilitate interaction among supply-side user and demand-side users of value, and these two stakeholder connect with each other and exchanges through participation in platform- an exchange of information, products or services. Through this interaction, increased utility and further, the platform company can attract other participants (Parker et al., 2016). For open source, an open means that platform creators are willing to give up some of their own profits in order to seed interest, increase overall value and build an ecosystem through others (Parker, 2012).

Closed platform

For, distinctiveness of restrictions, according to Choudary, et al. (2016), a platform is “open” to the extent that: 1) No restrictions are placed on participation in its development, commercialization or use. 2) The limits (e.g. pay licensing fees) are reasonable and

non-discriminatory, that is, they are applied uniformly to all potential platform participants. However, this paper ascribed the criteria to closed-ness. For product pre-screening, according to Song (2013), pre-screening of product reduces consumer uncertainty about product quality. On the other hand, in case of a firm doesn't pre-screen their product, and any product can be accepted openly, the firm will increase risk. For customer participation intention, one of the features of successful platform is structure which can generate a series of word of mouth as a network effect by interactions between groups of user (Eisenmann, et al., 2008). Network effect (Shapiro & Varian, 1998) means the more user numbers who spend on same products increase, the utility that gets by consuming the product.

PROPOSITIONS DEVELOPMENT

Figure shows theoretical framework of the effect of between open platform and closed platform with customer participation intention.

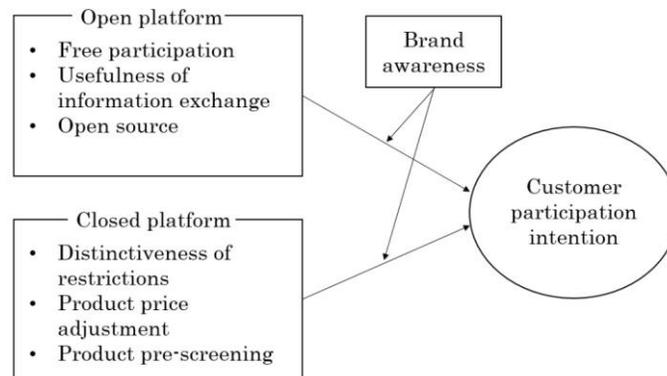


Figure 1: Theoretical framework of the effect of between open platform and closed platform with customer participation intention

Based on the literature review and study model, propositions are suggested as follows: .

P1. Open platform has a positive effect on customer participation intention.

P2. Closed platform has a positive effect on customer participation intention.

P3. The association between open platform and customer participation intention is mediated by the brand awareness.

P4. The association between closed platform and customer participation intention is mediated by the brand awareness.

CONCLUSION

This paper examined the determinants of open platform and closed platform based on the literature review. Firstly, open platform has a positive effect on customer participation intention. Secondly, closed platform has a positive effect on customer participation intention. Thirdly, the association between open platform and customer participation intention is mediated by the brand awareness. Fourthly, the association between closed platform and customer participation intention is mediated by the brand awareness. Our research can become a standard of judgment to platform companies or companies which are adopting their own platform businesses.

REFERENCES

Almirall, E., & Casadesus-Masanell, R. (2010). Open versus closed innovation: A model of discovery and divergence. *Academy of Management Review*, 35(1), 27–47.

- Chung, K.-H, & Shin, J-I, S. (2008). The relationship among e-retailing attributes, e-satisfaction and e-loyalty. *Management Review: An International Journal*, 3(1), 23-45.
- Choudary, S. P., Parker, G., & Van Alstyne, M. (2016, April). Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*, 94(4), 54-62. Retrieved from http://www.hbrkorea.com/magazine/article/english/article_no/733
- Eisenmann, T., Parker, G., & Van Alstyne, M. (2006). Strategies for two sided markets. *Harvard Business Review*, 84(10), 92-101.
- Eisenmann, T., Parker, G., & Van Alstyne, M. (2007). Platform envelopment. *Strategic Management Journal*, 32(12), 1270-1285.
- Eisenmann, T., Parker, G., & Van Alstyne, M. (2008). Opening platforms: How, when and why? Harvard Business School, Aug. 31, 09-030.
- Gawer, A., & Cusumano, M. A. (2002). Platform leadership: How Intel, Microsoft, and Cisco drive industry innovation. New York, Harvard Business School Press.
- Gawer A., & Henderson. R. (2007). Platform owner entry and innovation in complementary markets: Evidence from Intel. *Journal of Economics and Management Strategy*, 16(1), 1-34.
- Gawer, A. (2009). Platforms, markets and innovation. Cheltenham, UK & Northampton, US:Edward Elgar.
- Hellofs, L.L. & Jacobson, R. (1999). Market share and customers' perceptions of quality: When can firms grow their way to higher versus lower quality. *Journal of Marketing*, 63, 16-25.
- Herzberg, F., Mausner, B. & Snyderman, B.B. (1967). *The Motivation to Work*, 2nd ed., Wiley, New York, NY.
- Hind, B., & Van Alstyne, M. (2011). How to find answers within your company. *MIT Sloan Management Review*, 52(2), 66-77.

- Oh, H. (2000). The effect of brand class, brand awareness, and price on customer value and behavioral intentions. *Journal of Hospitality & Tourism Research*, 24(2), 136-162.
- Open-First. (2014, March 27). Mobile application markets: Developer satisfaction. Retrieved from <http://www.scribd.com/doc/38328618/Market-Comparison-Nokia-Ovi-Store-Google-Android-Marketplace-Apple-App-Store>.
- Kabin, B. (2016). Open platform strategies and innovation: Granting access vs. devolving control. *Management Science*, 56(10), 1849-1872.
- Roh, K.H. & Martin, D.G. (2018). A study on the effect of quality management activities on productivity. *Management Review: An International Journal*, 13(2), 81-102.
- Parker, G., & Van Alstyne, M. (2005). Two-sided network effects: A theory of information product design. *Management Science*, 51(10), 1494-1504.
- Parker, G., & Van Alstyne, M. (2012). A digital postal platform: Definitions and a roadmap. *MIT Sloan School of Management*, 10, 1-31.
- Parker, G., & Van Alstyne, M. (2013). Innovation, openness, and platform control. SSRN.com Working Paper, Abstract 1079712.
- Parker, G., Van Alstyne, M., & Choudary, S.P. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. New York, W. W. Norton & Company.
- Rohita, K.M. (2009). Strategic framework for supply chain management. *Management Review: An International Journal*, 4(2), 93-103.
- Shapiro, C. & Varian, H. R. (1998). *Information Rules*. Harvard Business Review Press, 13.

- Selam, A., & Jorn, A. (2015). IT service platforms: Their value creation model and the impact of their level of openness on their adoption, *Procedia Computer Science* 68, 173 – 187.
- Thomas, L.D.W., Autio, E., & Gann, D.M. (2014). Architectural leverage: Putting platforms in context. *Academy of Management Perspectives*, 28(2), 198-219.
- West, J. (2003). How open is open enough? Melding proprietary and open source platform strategies. *Research Policy*, 32(7), 1259–1285.