

Emergence of Service Systems. The case of mobile payment systems in Nigeria

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Purpose – The purpose of this paper is to identify rationale and evidence of key processes driving the emergence of service systems.

Design/Methodology/approach – The study builds on a theory driven case study (Eisenhardt & Graebner, 2007; Ridder, 2017; Siggelkow, 2007; Yin 2018) of Paga, a mobile payment service with main operations in Nigeria. Building on the philosophy of social emergence (Sawyer 2001, 2005) we propose two key emergent processes: (1) Technological colonialization of resources through the investment in IT infrastructures for the operation of mobile payments driving the liquification of information (Norman 2001; Vargo et al. 2017) and (2) social institutionalization through the formation of business eco-systems, most notably through building a network of retailing and service partnerships connecting the system to end-users. We conduct a longitudinal study capturing the development of Paga collecting archival data and interviews with key informants from the company top management, partner-ship management and eco-system stakeholders like retailers and service providers.

Findings – 1) Infrastructure service gap: The lack of infrastructure for payment operation offered a strategic window for Paga, working as a pioneer for financial services for hitherto unserved rural communities of an emerging economy. Paga invested in institutional work activities focusing on gaining local businesses i.e. retailers as service providers for mobile payment services. (2) System reproduction: Here, gaining critical mass became important. Institutional work of Paga focused on network formation, such as partner conferences, co-branding and advertising driving positive network effects and attractiveness for all stakeholders, (3) Emergent general-purpose system: At this stage, the mobile service system has gained autonomy from its initiator Paga. The advent of 4G technologies opens the system for novel competitors and forces Paga to re-position itself.

Research limitations/implications – The study identifies rational and evidence for two key processes – (1) IT-driven colonialization and (2) business-driven institutionalization of business eco-systems. As a major conceptual contribution, the study shows the potential of the emergence perspective (Peters 2016; Sawyer 2001, 2005) to study the interaction of market agents in shaping physical and social structures change and thereby driving the emergence of a market system (see Vargo et al. 2017).

Practical implications– The study shows evidence for key activities for launching infrastructure services at the bottom of the pyramid (BoP).

Originality/value – The study introduces an emergence perspective for the study of service systems and shows rationale and evidence through a longitudinal study of the development of a mobile service system at the bottom-of-the-pyramid.

Key words (max 5): Service Systems, Philosophy of emergence, Emerging Economies, Bottom of the Pyramid (BoP)

Paper type – Research paper

References (max 1 page)

Agnihotri, A. 2015, "Low-cost innovation in emerging markets", *Journal of Strategic Marketing*, vol. 23, no. 5, pp. 399-411.

Barile, S., Lusch, R., Reynoso, J., Saviano, M. & Spohrer, J. 2016, "Systems, networks, and ecosystems in service research", *Journal of Service Management*, vol. 27, no. 4, pp. 652-674.

Eisenhardt, K.M. & Graebner, M.E. 2007, "Theory Building from Cases: Opportunities and Challenges", *Academy of Management Journal*, vol. 50, no. 1, pp. 25-32.

Gawer, A. & Phillips, N. 2013, "Institutional Work as Logics Shift: The Case of Intel's Transformation to Platform Leader", *Organization Studies*, vol. 34, no. 8, pp. 1035-1071.

Normann, R. 2001: *Reframing business: When the map changes the landscape* John Wiley & Sons, New York (2001).

Peters, L.D. 2016, "Heteropathic versus homopathic resource integration and value co-creation in service ecosystems", *Journal of Business Research*, vol. 69, no. 8, pp. 2999-3007.

Reynoso, J., Kandampully, J., Fan, X. & Paulose, H. 2015, "Learning from socially driven service innovation in emerging economies", *Journal of Service Management*, vol. 26, no. 1, pp. 156-176.

Ridder, H. 2017, "The theory contribution of case study research designs", *Business Research*, vol. 10, no. 2, pp. 281-305.

Sawyer, R.K. 2005, *Societies as Complex Systems*, Cambridge University Press, Cambridge, United Kingdom.

Sawyer, R.K. 2001, "Emergence in Sociology: Contemporary Philosophy of Mind and Some Implications for Sociological Theory¹", *American Journal of Sociology*, vol. 107, no. 3, pp. 551.

Siggelkow, N. 2007, "Persuasion with Case Studies", *Academy of Management Journal*, vol. 50, no. 1, pp. 20-24.

Vargo, S. L., Koskela-Huotarib, K., Baron, S., Edvardsson, B., Reynoso, J., Colurcio, M., 2017: "A systems perspective on markets—Toward a research agenda. ", *Journal of Business Research* Volume 79, October 2017, Pages 260-268.

Yin, R.K. 2018, *Case study research and applications: design and methods*, Sixth edn, Sage, Los Angeles.