

Merging vSa and SS. An ABSA for a Smart Tourism Ecosystem

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Purpose – The territorial complexity and the large quantities of data generated by users makes central the innovative governance models (Troisi et al., 2016, 2017), more geared towards the value co-creation process among the various social actors and technology platforms (Lusch and Vargo, 2006). In this regard, this work, adopting an ecosystem perspective, aims to offer a decision-making model for the smart tourism ecosystem (STE), able to provide a representation of the variety of expectations, perspectives and interests of the actors, allowing for greater awareness of the interventions that could be aimed at solving urban problems.

Methodology– The work is developed by merging the Viable Systems Approach, the Service Science frameworks and the Aspect Based Sentiment Analysis methodology, offering a possible framework able to integrate successfully service and systems theories. To extract, analyse and elaborate data, in particular, we used the ABSA, in order to carry out an advanced sentiment analysis in the tourist context.

Findings – The study leads to an exposition of shared evaluations on the levels of "sentiment" as perceived by the actors of different level in relation to a tourism point of interest. The result is a model of government comparable to a service ecosystem in which people, technology and institutions are appropriately combined to generate value (Schaffers et al., 2011).

Research implications – The Viable Systems combined with ABSA offers interesting implication regarding the processes of value co-creation (Barile and Polese, 2010). The vSa, in fact, recognizing the complexity of social phenomena, in general, and of the territorial decision-making processes, specifically, pushes to evaluate numerous information, without losing a systems perspective, in order to co-create value through an increasingly dynamic interaction with ecosystem actors (Barile et al., 2012).

Practical implications – The work offers interesting insights for improving the results pursued in different areas of administrative life. In fact, value co-creation processes underline that an adequate combination of activities carried out by managers, citizens-users, technology and other players in social life leads to improved performance. The model can be a valid support for the decision maker, proposing, in a flexible way, shared evaluations on the levels of "sentiment" perceived by the community with respect to the touristic area of interest.

Originality – The innovative nature of the work arises from the authors' choice to analyze the decision making processes in terms of co-created value through the interpretative lens of vSa, enabling to achieve results steeped in value for scholars and practitioners interested in both business management and technology engineering in the tourist destinations context.

Key words Value co-creation; Viable Systems Approach; Aspect Based Sentiment Analysis; Service Ecosystem;

Paper type – Research paper



References

- Barile, S. (2009). The dynamic of informative varieties in the processes of decision making. *The* 3rd.
- Barile, S., & Calabrese, M. (2011). Business Design and Context Consonance (Business Design e Consonanza di Contesto).
- Barile, S., & Polese, F. (2010). Linking the viable system and many-to-many network approaches to service-dominant logic and service science. *International Journal of Quality and Service Sciences*, 2(1), 23-42.
- Barile, S., & Polese, F. (2010). Smart service systems and viable service systems: Applying systems theory to service science. *Service Science*, 2(1-2), 21-40.
- Barile, S., & Saviano, M. (2014). Resource integration and value co-creation in cultural heritage management. In *Handbook of Research on Management of Cultural Products: E-Relationship Marketing and Accessibility Perspectives* (pp. 58-82). IGI Global.
- Barile, S., Calabrese, M., Polese, F., & Saviano, M. (2013). Il governo dei sistemi complessi tra competenze attuali e capacità potenziali. *Barile S., Eletti V., Matteuzzi M.(a cura di), Decisioni e scelte in contesti complessi, Cedam-Kluwer, Lavis*.
- Barile, S., Ciasullo, M. V., Troisi, O., & Sarno, D. (2017). The role of technology and institutions in tourism service ecosystems: Findings from a case study. *The TQM Journal*, 29(6), 811-833.
- Barile, S., Pels, J., Polese, F., & Saviano, M. (2012). An introduction to the viable systems approach and its contribution to marketing.
- Irvin, R. A., & Stansbury, J. (2004). Citizen participation in decision making: is it worth the effort?. *Public administration review*, 64(1), 55-65.
- Lusch, R. F., & Vargo, S. L. (2006). Service-dominant logic: reactions, reflections and refinements. *Marketing theory*, 6(3), 281-288.
- McAfee, A., Brynjolfsson, E., Davenport, T. H., Patil, D. J., & Barton, D. (2012). Big data: the management revolution. *Harvard business review*, 90(10), 60-68.
- Medhat, W., Hassan, A., & Korashy, H. (2014). Sentiment analysis algorithms and applications: A survey. *Ain Shams Engineering Journal*, *5*(4), 1093-1113.
- Nam, T., & Pardo, T. A. (2011, June). Conceptualizing smart city with dimensions of technology, people, and institutions. In *Proceedings of the 12th annual international digital government research conference: digital government innovation in challenging times* (pp. 282-291). ACM.
- Pang, B., & Lee, L. (2008). Opinion mining and sentiment analysis. *Foundations and Trends® in Information Retrieval*, 2(1–2), 1-135.
- Pellicano, M., Maione, G., Loia, F., & Calabrese, M. (2019). Value Co-Creation Practices in Smart City Ecosystem. *Journal of Service Science and Management*. 12(1), 34-57.
- Troisi, O., Carrubbo, L., Maione, G., & Torre, C. (2016). The more, the merrier: Co-Working as practical expression of Value Co-Creation in Sharing Economy. In *XXVI RESER conference* (pp. 1130-1144).
- Troisi, O., Sirianni, C. A., Monda, A., & Grimaldi, M. (2017). ICTS and engagement platforms in resource integration: threat or opportunity for value co-creation?. *Esperienze d'Impresa*.
- Vargo, S. L., & Akaka, M. A. (2012). Value cocreation and service systems (re) formation: A service ecosystems view. *Service Science*, 4(3), 207-217.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of marketing*, 68(1), 1-17.
- Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European management journal*, 26(3), 145-152.
- Wang, H., Can, D., Kazemzadeh, A., Bar, F., & Narayanan, S. (2012, July). A system for real-time twitter sentiment analysis of 2012 us presidential election cycle. In *Proceedings of the ACL 2012 System Demonstrations* (pp. 115-120). Association for Computational Linguistics.