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BOOK OF ABSTRACTS

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Assessing capabilities of the hub organisations of Innovation Support Services Ecosystems: an evaluation grid for researchers and practitioners

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Short abstract

Transition towards agroecology is an issue both complex and compulsory to tackle. Innovation will be key to respond to the different challenges of this transition and innovators need support to bring their innovation to their full potential. In sub-Saharan Africa, a wide range of organisations provide Innovation Support Services but collaboration between them is still scarce even if some organisations see the potential interest of gathering to provide a more adequate service offer to innovators. These gatherings of services providers are usually orchestrated by one of its members called the hub organisation.

We assume that this organisation relies on specific capabilities to create a fully functioning ecosystem of innovation support services. Identifying the hub organisation and being able to characterize its capabilities would allow to enhance weak capabilities and make the ecosystems more efficient in their service offer thus creating a more favourable environment for innovation. We propose an evaluation grid of the hub organisation capabilities, based on literature review and interviews.

This tool will be useful for development projects and members of hub organisations to characterise their capabilities and implement the necessary activities to enhance them. It will also be useful for researchers to deepen knowledge on hub organisations, identifying the necessary capabilities for their functioning.

Extended abstract

Purpose

Transition towards agroecology is absolutely necessary yet difficult to support: problematics are complex, actors are diverse with both different objectives and skills, the problem is global but solutions need to be found at different scales, solutions need to be found through collaborative innovation, etc. (Côte et al., 2019; A. Toillier et al., 2019). Innovation will be a key component of this transition (technical innovation but also social and organisational). However, the level of innovation in the global South remains insufficient and innovators need a wide variety of services to support them in the innovation process. These services are called Innovation Support Services (ISS) (Faure et al., 2019; Mathé et al., 2016; Ndah et al., 2020). Innovators can turn to a large range of organisations providing these ISS (incubators, research centres, development projects, etc.). Actors and organisations supporting this agroecological transition seek to work together in order to improve their service offer but meet various issues: lack of time and resources, difficulties to gather around a common objective, difficulties to overcome rivalries and competition in order to work together, etc.

Throughout times, these gathering of organisations have been described differently in the literature: as networks, communities, meta-organisations, ecosystems, etc. But one aspect is found in every theoretical stream: the need for one of the organisations to take a leading role, orchestrating the relationships in the ecosystem and the activities conducted. We call it the hub organisation of the ecosystem.

We believe that the notion of ecosystem is the most relevant to describe the phenomenon we observe in ISS for agriculture in Africa. The term was first used by Moore (1993) making an analogy with biological ecosystems in order to describe business ecosystems. These ecosystems are very heterogeneous in terms of members (big companies, start-ups, universities, institutions, projects, etc.), which are gathered around a common objective of increasing value of their products and services (Fréry et al., 2012) around a vision and ideas (Moore, 2006). Ecosystems consider better the dynamic aspect (actors coming in and going out) than network theories (Frow et al., 2016), interaction between members and collaboration in ecosystems are more thorough than in communities. To study these interactions, we will therefore rely on previous work on

services ecosystems (Vargo & Lusch, 2011) that we will complement with relevant inputs from the other theoretical trends (networks, communities, meta-organisations, platforms, etc.). Business ecosystems theories were also enriched by Teece (2007) who associates ecosystems with the notion of dynamic capabilities, considering that ecosystems evolve capabilities over time and align them with the vision of the ecosystem.

In a business ecosystem, firms can be working in different fields of activity but they usually gather around a leader (often called keystone firms or pivotal organization) who succeeds in imposing its technology (Daidj, 2011) or his commercial vision (Torrès-Blay, 2000). These organizations have specific roles in the ecosystem: they connect members of the ecosystem, they animate it, they have bigger power in decisions made by the ecosystem and usually have a role in representing the ecosystem to politicians and donors. It is important to identify which organisation can undertake this role of orchestrator because supporting this organisation and leaning on it would allow to improve efficiency of the use of funds and development projects. Moreover, hub organisations in sub-Saharan Africa could usually benefit from capabilities enhancement: it is thus necessary to have an evaluation grid allowing to assess the capabilities of hub organisations. This is the main contribution of this paper.

Design/Methodology/Approach

We conducted a review of scientific and grey literature to identify the different methods used to assess capabilities of organisations and the classifications of capabilities. We then added some capabilities identified during field work and that we thought were lacking (for example the performance of the services provided to innovators like the capacity to support several innovators, to provide numerous and diversified types of innovation support services, etc.).

In a second step, we consulted with the professionals and hub organisations that we previously identified to collect their opinion on the grid (were there any missing capabilities, is the choice of words understandable to practitioners, which member of the organisations would be the most appropriate to answer questions about the organisation's capabilities of, etc.). Finally, we tested the grid with several hub organisations in western Africa.

Findings

Literature review allowed us to divide the capabilities of organisations in three different groups: the capabilities related to the internal organisation of the institution, the ones related to production and delivery of services for innovators and finally those related to the way the organization relates to other members of the ecosystem. Each group includes several subgroups (cf *Figure 7*), themselves including several dynamic capabilities (cf *Table 1*). For example, the group "internal organisation" gathers the subgroups "leadership", "investment from the staff and in the staff", "structure", "culture", "missions and vision", "resources management" and "internal communication"; and the subgroup "leadership" includes the dynamic capabilities "manage power balance between members", "anticipate and manage competition", "having an inspiring leadership", "capacity to share governance", "capacity to make governance evolve".

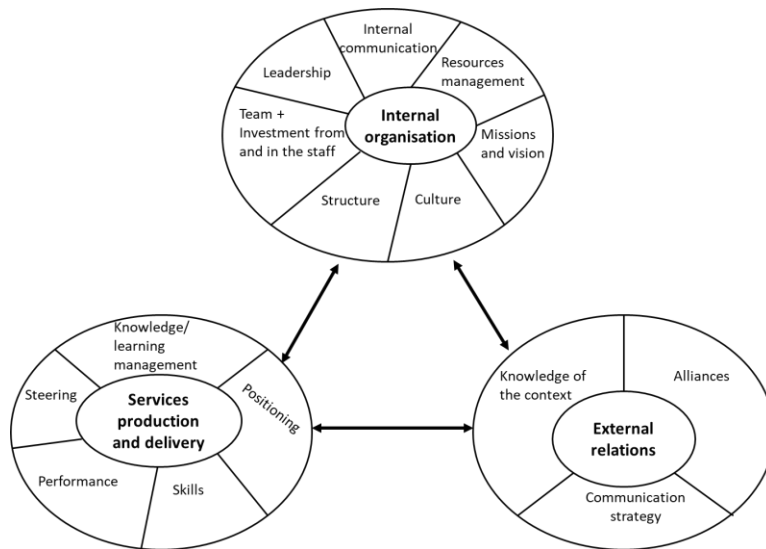


Figure 7: Groups and sub-groups of dynamic capabilities of the hub organisation of innovation support services ecosystems

Group	Sub-group	Capability	Reference
Organising	Leadership	Manage power balance between members of the ecosystem	Author
		Anticipate and manage competition (financial) between members	3
		Have an inspiring leadership	12
		Capacity to share governance	Author
		Capacity to make governance evolve	6
	Team + Investment from and in the staff	Capacity to choose members and partners of the ISSE	3 ; 7
		Complementarity between members	7 ; 12
		Capacity to face organizations coming in and going out of the ISSE	Author
		Generate interest from the staff of the member organisations	12
		Implement policies of skill enhancement in the ISSE	12
		Ensure appropriation of activities and decisions by the members of the ISSE and their employees	12
	Culture	Learn from experience	3 ; 12; 13
		Culture of collaboration and partnerships	12
		Culture of risk taking	12
		Align members' culture and ways of working	8
	Resources management	Capacity to identify capacities and resources at each partner	9
		Capacity to identify resources of the ISSE and look for financing	Author
		Capacity to allocate resources between members in an acceptable way	7

Group	Sub-group	Capability	Reference
Organising	Mission and vision	Build and implement a strategic vision	9 ; 10
		Make the strategy available and sensitize members	12
	Structure	Capacity to modify the functioning of the ISSE to make it work better	2 ; 7

		Capacity to choose an adequate functioning for the ISSE (and the type of relations between members and with other partners)	1 ; 4; 8
	Internal communication	Agree on division of roles and tasks between members of the ISSE	7
		Efficient communication to reduce risks of misunderstandings between members	7
		Capacity to transfer relevant information to other members	7
Service production and delivery	Positioning	Capacity of the ISSE to propose services “at the right time”	9
		Identify unmet needs in support / services	2 ; 3 ; 5 ; 7; 8 ; 9 ; 12
		Identify existing services (at other members of the ISSE or in the environment)	5 ; 9
		Monitor services provided by other ISSEs in other countries	3 ; 5 ; 6 ; 8
	Skills	Make the service range evolve	Author
		Organise and implement new services (without redundancies)	3 ; 6; 7
		Redesign the service offer (by unit, in package, etc.)	3 ; 7
		Capacity to involve beneficiaries in the innovation process	5 ; 8 ; 10 ; 12;
	Knowledge/ learning management	Implement mechanisms of co-learning, document lessons learned	3 ; 12
		Enhance skills by other members of the ISSE or others	Author
		Implement feedback mechanisms / monitoring and evaluations	6; 12
		Capacity to adapt after feedback	12
		Formalise knowledge (through manuals, decision tools, etc.)	13
	Steering	Exercise flexibility of innovation financing	2
		Implement mechanisms to test innovation and prototypes, etc.	2
	Performance	Capacity to support a large number of innovators	Author
		Capacity to provide several ISS	Author
		Capacity to provide several types of ISS	Author
External relations	Communication strategy	Implement mechanisms of communication towards beneficiaries	Author
		Implement mechanisms of lobbying and advocacy	2 ; 9
		Implement mechanisms to upscale the ISSE model	Author
		Make relevant choices of communication media	12
	Knowledge of the context	Being aware of the institutions supporting innovation in the country	8 ; 12
		Being aware of organisations / ISSE providing similar services	8 ; 12
		Anticipate evolutions of the environment	Author
	Alliances	Capacity to identify and mobilize new partners and structures able to support ISSE (networks, donors, etc.)	3; 6 ; 7 ; 12
		Participate to strategic events	8 ; 12
		“Contractualise” services absent of the organisation	6 ; 12

Table 1 : Dynamic capabilities of the hub organisation of innovation support services ecosystems (adapted from: 1. Argyres & Mayer, 2007; 2. Day & Schoemaker, 2016; 3. den Hertog et al., 2010; 4. Hennart & Zeng, 2005; 5. Kindström et al., 2013; 6. Lichtenthaler & Lichtenthaler, 2009; 7. Linde et al., 2021; 8. Lütjen et al., 2019; 9. Nenonen et al., 2018; 10. A. Toillier & Kola, 2018; 11. A. (OINR) Toillier et al., 2020; 12. Wopereis-Pura et al., 2019; 13. Zollo & Winter, 2002)

First, our results confirm the applicability of the different domains of capabilities that were explored. Meetings with hub organisations allowed us to add new capabilities and refine capabilities from the literature. Moreover, some capabilities were found to be more important than others in order to act as a hub organisation of an innovation support services ecosystem.

Practical Implications

This evaluation grid was designed to be useful to a wide range of actors: researchers who will be able to determine the necessary capabilities to endorse the role of hub organisation, donors who will then be able to identify the best organisation to rely on and support, and managers of development projects who will be able to identify capabilities needing enhancement and provide adequate activities to do so.

This evaluation grid will also be made available directly to hub organisations and their members in order for them to self-evaluate their capabilities and identify actions for capability enhancement and actors able to support them in this process.

Theoretical Implications

Different types of literature have been used to design this dynamic capabilities evaluation grid: the combination of scientific and grey literature allowed us to build an integrative framework of the different ways to analyse dynamic capabilities (DC). Moreover, theoretical streams of service ecosystems and dynamic capabilities have yet rarely been used jointly, this tool will thus allow us to deepen previous works on hub organizations by characterizing the necessary dynamic capabilities for the ecosystem to function and their level of mastering by organisations.

References

- Argyres, N., & Mayer, K. J. (2007). Contract design as a firm capability : An integration of learning and transaction cost perspectives. *Academy of Management Review*, 32(4), 1060-1077. <https://doi.org/10.5465/amr.2007.26585739>
- Côte, F.-X., Rapidel, B., Sourisseau, J.-M., Affholder, F., Caron, P., Deguine, J.-P., Faure, G., Hainzelin, E., Malézieux, E., Poirier-Magona, E., Roudier, P., Scopel, E., Tixier, P., Toillier, A., & Perret, S. (2019). Agroecological transition of agriculture in the countries of the Global South : Taking stock and perspectives. In F.-X. Côte, E. Poirier-Magona, S. Perret, P. Roudier, B. Rapidel, & M.-C. Thirion (Éds.), *The agroecological transition of agricultural systems in the Global South* (Quae, p. 327-349). éditions Quae. <https://doi.org/10.35690/978-2-7592-3057-0>
- Daidj, N. (2011). Les écosystèmes d'affaires : Une nouvelle forme d'organisation en réseau ? *Management & Avenir*, n° 46(6), 105-130. <https://doi.org/10.3917/mav.046.0105>
- Day, G. S., & Schoemaker, P. J. H. (2016). Adapting to Fast-Changing Markets and Technologies. *California Management Review*, 58(4), 59-77. <https://doi.org/10.1525/cmr.2016.58.4.59>
- den Hertog, P., van der Aa, W., & de Jong, M. W. (2010). Capabilities for managing service innovation : Towards a conceptual framework. *Journal of Service Management*, 21(4), 490-514. <https://doi.org/10.1108/09564231011066123>
- Faure, G., Knierim, A., Koutsouris, A., Ndah, H. T., Audouin, S., Zarokosta, E., Wielinga, E., Triomphe, B., Mathé, S., Temple, L., & Heanue, K. (2019). How to Strengthen Innovation Support Services in Agriculture with Regard to Multi-Stakeholder Approaches. *Journal of Innovation Economics*, 28(1), 145. <https://doi.org/10.3917/jie.028.0145>
- Fréry, F., Gratacap, A., & Isckia, T. (2012). Les écosystèmes d'affaires, par-delà la métaphore. *Revue française de gestion*, 38(222), 69-75. <https://doi.org/10.3166/rfg.222.69-75>
- Frow, P., McColl-Kennedy, J. R., & Payne, A. (2016). Co-creation practices : Their role in shaping a health care ecosystem. *Industrial Marketing Management*, 56, 24-39. <https://doi.org/10.1016/j.indmarman.2016.03.007>
- Hennart, J.-F., & Zeng, M. (2005). Structural determinants of joint venture performance. *European Management Review*, 2(2), 105-115. <https://doi.org/10.1057/palgrave.emr.1500034>
- Kindström, D., Kowalkowski, C., & Sandberg, E. (2013). Enabling service innovation : A dynamic capabilities approach. *Journal of Business Research*, 66(8), 1063-1073. <https://doi.org/10.1016/j.jbusres.2012.03.003>

- Lichtenthaler, U., & Lichtenthaler, E. (2009). A Capability-Based Framework for Open Innovation : Complementing Absorptive Capacity. *Journal of Management Studies*, 46(8), 1315-1338. <https://doi.org/10.1111/j.1467-6486.2009.00854.x>
- Linde, L., Sjödin, D., Parida, V., & Wincent, J. (2021). Dynamic capabilities for ecosystem orchestration A capability-based framework for smart city innovation initiatives. *Technological Forecasting and Social Change*, 166, 120614. <https://doi.org/10.1016/j.techfore.2021.120614>
- Lütjen, H., Schultz, C., Tietze, F., & Urmetzer, F. (2019). Managing ecosystems for service innovation : A dynamic capability view. *Journal of Business Research*, 104, 506-519. <https://doi.org/10.1016/j.jbusres.2019.06.001>
- Mathé, S., Faure, G., Knierim, A., Koutsouris, A., Ndah, T., Temple, L., Triomphe, B., Wielinga, E., & Zarakosta, E. (2016). *AgriSPIN Deliverable 1.4 : Typology of innovation support services*. 19.
- Moore, J. F. (1993). Predators and Prey : A new ecology of competition. *Harvard Business Review*, 71(3), 75-86.
- Moore, J. F. (2006). Business Ecosystems and the View from the Firm. *The Antitrust Bulletin*, 51(1), 31-75. <https://doi.org/10.1177/0003603X0605100103>
- Ndah, H. T., Knierim, A., Gerster-Bentaya, M., Mathé, S., Audouin, S., Crestin-Billet, S., Randrianarison, N., Toillier, A., Melachio, M., Fongang, G., & Temple, L. (2020). *Guidelines for applying the methodology and tools for characterizing innovation support services and providers, SERVInnov project, Deliverable 1.2* (p. 33). Universität Hohenheim.
- Nenonen, S., Gummerus, J., & Sklyar, A. (2018). Game-changers : Dynamic capabilities' influence on service ecosystems. *Journal of Service Management*, 29(4), 569-592. <https://doi.org/10.1108/JOSM-02-2017-0025>
- Teece, D. J. (2007). Explicating dynamic capabilities : The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350. <https://doi.org/10.1002/smj.640>
- Toillier, A., & Kola, P. (2018). *Renforcer les capacités des organisations fournissant des services support à l'innovation*. CDAIS.
- Toillier, A., Kola, P., Mathé, S., Tsafak, S., Dabiré, D., & Triomphe, B. (2019). The ecologisation of agriculture through the prism of collaborative innovation. In F.-X. Côte, E. Poirier-Magona, S. Perret, P. Roudier, B. Rapidel, & M.-C. Thirion (Éds.), *The agroecological transition of agricultural systems in the Global South* (QUAE, p. 251-270). éditions Quae. <https://doi.org/10.35690/978-2-7592-3057-0>
- Toillier, A. (OINR), Sempore, A., Kola, P., Segda, Z., & Yameogo, G. (2020). *Developing capacities for the agricultural innovation system in Burkina Faso : Outputs and outcomes of the CDAIS project* (p. 38). FAO - MESRI - CIRAD.
- Torrès-Blay, O. (2000). *Économie d'entreprise : Organisation et stratégie à l'aube de la nouvelle économie*. Paris : Economica, DL 2000, cop. 2000.
- Vargo, S. L., & Lusch, R. F. (2011). It's all B2B...and beyond : Toward a systems perspective of the market. *Industrial Marketing Management*, 40(2), 181-187. <https://doi.org/10.1016/j.indmarman.2010.06.026>
- Wopereis-Pura, M., Kola, N. P., Toillier, A., Ekong, J., Hawkins, R., Eshetu, S., & Dobson, H. (2019). *Organisational strengthening—A Guide to the coaching process* (p. 52) [Manuals and Guidelines / CDAIS]. Agrinatura, FAO. <https://cdais.net/publications/guides-manuals/>
- Zollo, M., & Winter, S. G. (2002). Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science*, 13(3), 339-351. <https://doi.org/10.1287/orsc.13.3.339.2780>