

Influence of Agricultural Virtual Platforms on Information Sharing. A Case of M-Omulimisa

Namuli Racheal

Abstract

Agricultural Virtual Platforms (AVPs) have gained prominence as a strategy for connecting sector actors and facilitating the exchange of information responsive to farmers' needs. However, there is limited empirical understanding of how platforms such as M-Omulimisa enhance information sharing among these actors. The study sought to assess the diversity of actors and roles played for a functional AVP, explain how the architecture of the AVP facilitates or hinders information sharing, and to examine how the interaction of actors on the AVP influenced information sharing. A qualitative case study was conducted involving four key informant interviews, 21 in-depth interviews, three focus group discussions and document reviews. Data analysis integrated the Agricultural Innovation Systems (AIS) framework to address objectives one and two and applied Social Network Analysis to map network dynamics in objective three. Results showed that actors' attributes based on enrolment, interests and capabilities varied, they belonged to different AIS domains, and played diverse roles. All five AIS domains: education and research, enterprise, intermediary, demand, and support structures, were represented. However, there was limited diversity within domains and absence of several key actors, especially from the livestock sector which limited information diversity. The majority of actors enrolled on the AVP by invitation and had capabilities and interests focused on crop enterprises. Three role categories emerged largely due to actors' interests: assigned and played, assigned but not played, and not assigned yet played. The architecture of the AVP comprised the institutions, the knowledge and technology infrastructure, and the practices at each stage of information flow. Though the infrastructure was adequate and appropriate, the informal institutions imposed restrictions on actors' involvement in information sharing, which compromised the validation of information shared and social learning amongst farmers on the AVP. Results from SNA revealed interactions among 29 actors belonging to the five AIS domains. The interactions were predominantly through strong ties (98.78%) among multidisciplinary actors. This facilitated sharing of eight types of information focussed largely on crop enterprises (91.95%): support services, agronomy, market, weather, post-harvest management, livestock husbandry, insurance, and finance. Conversely, the network comprised sparse and indirect linkages with low cohesiveness (11.3%). This showed a weak, structurally fragmented network with limited intra- and inter-domain connections which inhibited multidimensionality and validation of information shared across the AVP network. Regarding actor positions, only two actors, the farmers and the AVP administrator, occupied critical positions on the AVP network, and this limited the information shared. This study concluded that the AVP successfully engaged actors across all five AIS domains, but it failed to achieve internal domain diversity and had very limited representation of actors from the livestock sector. Secondly, the informal institutions restricted information sharing on the AVP though the infrastructure was adequate, thereby compromising information validation, and hindering experiential sharing among actors. Thirdly, there were strong ties among multidisciplinary actors that supported information sharing, however, network cohesion was limited, and connections were sparse. Lastly, the AVP's network's heavy reliance on two central actors constrained communication as it restricted both the diversity of information exchanged and its independent verification. To enhance information sharing, the AVP should ensure actor diversity within each domain, with particular attention to livestock sector actors. Furthermore, its informal institutions should also be flexible enough to allow the direct involvement of multiple actors, thereby strengthening the multidimensionality and validation of shared information as well as experiential learning. The AVP should strengthen cross-domain linkages and broaden actor interactions to further improve information shared and resilience of the AVP.