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RESOLVING DIGITAL TECHNOLOGIES MISFITS IN A RURAL MICROBUSINESS – AN ACTION RESEARCH STUDY

TREO Paper

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Abstract

Despite the widely acknowledged potential benefits of using digital technologies in organisations, the adoption of these technologies presents significant challenges for resource-constrained rural microbusinesses (MBs). A key issue is the misfit between available digital technologies and the unique characteristics and local business processes of rural MBs, thus hindering their full participation in the contemporary information society. Moreover, existing research lacks specific guidelines for these particular businesses. In this research in progress study, we argue for the use of action research to deliver a pragmatic method for the diagnosis and resolution of misfits between rural MB organisational processes and digital technologies resources. We draw upon the resource orchestration view (ROV) to contribute toward the implementation of resolution methods that are well-suited to the context of these misfit issues.

Keywords: Digital Technologies Misfits, Rural Microbusinesses, Resource Orchestration View, Action Research.

1 Introduction and Theoretical Foundations

Bharadwaj (2000) argued that the "effective and efficient use of information technology is a key factor differentiating successful firms from their less successful counterparts (p. 169)". Researchers have highlighted that widely accessible digital technologies, including internet technology, e-commerce platforms, and social media, can provide organisations with opportunities to address societal and economic challenges (Elia et al., 2021). However, despite their potential medium- and long-term benefits, the use of digital technologies presents significant challenges for the resource-constrained microbusinesses (MBs) sector, especially for rural areas. These include such as the difficulty in building up capabilities that are new for the organisation (Cui et al., 2022), the potential for service exclusion due to a lack of technology proficiency (Park, 2017), the risk of worsening social disadvantage (Lythreatis et al., 2022), and increased vulnerability to climate change (Li et al., 2023). These matters are some of the obstacles in rural areas in terms of access to and the use of, digital technologies.

In this context, the concept of misfit between rural MBs processes and digital technologies is among the causes often associated with such obstacles (hereafter called RMB-DTs misfit). For example, MBs in rural areas are often focused on local markets and locally oriented trade, which explains their lower use of digital technology for digital environments, such as the internet or e-commerce platforms (Galloway et al., 2011). Due to the distinctiveness of rural MBs in the organisational dimension, the design of digital technologies must have a proper "fit" with the environment and organisations, not only in terms of external "fit", but also, in relation to alignment between its subsystems (Livari, 1992). Inadequate adaptation of digital technologies in rural organizational environments can lead to misfits and trigger

unplanned responses that are not formally mandated (Alter, 2014). However, existing research lacks specific guidelines for these particular businesses. Therefore, given the highly contextual nature of MBs in rural areas and the limited academic research on this topic, this study addresses the following research question:

RQ: How do rural MBs solve misfits in RMB-DTs in order to drive business sustainability?

To address the above question, we propose drawing upon the resource orchestration view (ROV) (Sirmon et al., 2007; 2011), which involves the digital resource orchestration actions of rural MBs in a strategic manner to effectively manage and overcome misfits. Sirmon et al. (2011) further elaborated that organisations' orchestrating resources for competitive advantage may consider three key aspects: breadth (scope of the firm), depth (levels within the firm), and life cycle (stages of firm maturity). We argue that these three aspects affect how rural MBs manage their digital resources to maximize the likelihood of resolving the RMB-DTs issue. When contextualised within our research context, the breadth aspect emphasises the need for effective digital resources to factor in the orchestration of a variety of rural business processes in response to diagnosis misfit conditions. With regard to the depth aspect, we sought to understand how rural MBs act as leading actors to engage diverse stakeholders in the resource orchestration action to drive business sustainability. For the current study, we expanded ROV by leveraging the concept of life cycle to explain the prioritisation of resource orchestration actions in managing business concerns at different stages to reduce misfit conditions. For instance, considering the context of rural MBs with their diverse geographical and environmental characteristics, these firms may need to adapt their processes and resource operations to the changing seasons.

2 Research Methodology and Setting

To address the RQ in this study, a canonical action research (CAR) method was conducted (Baskerville and Myers, 2004). In line with its pragmatic roots, action research aims to "solve current practical problems while expanding scientific knowledge" (Baskerville and Myers, 2004, p. 329). This action research study suited our purposes, because we intended to diagnose and resolve a specific organisational issue in rural MBs, with the active participation of key stakeholders, including our research team and a rural MB with 5 members. More specifically, we conducted a series of iterations through planned and executed cycles of activities allowing us to develop an increasingly detailed understanding of the misfit issue that involves 1) problem diagnosis, 2) action planning, 3) action taking, 4) evaluation, and 5) reflection (Baskerville and Myers, 2004).

The research setting for this study was a rural MB named Royalty (to maintain the organisation's anonymity) located in South East Asia, where we conducted a CAR *intervention* (refers to all actions taken to test the misfit resolution method described in the previous section.) Royalty, rooted in tea farming, was founded by a married couple, has evolved to include their three college student children and specialises in the sale of locally cultivated agricultural products. Specifically, it specialises in the marketing of locally grown agricultural produce, while also providing support to local farmers in enhancing their cultivation methods. Despite its agricultural heritage and promotion of local products, Royalty has recognized that maintaining competitiveness in the current landscape is challenging. They seek to undergo business sustainability to remain competitive, yet encounter hurdles specific to the rural context. These challenges include the inherent contradiction between local production and the economies of scale typical in larger enterprises. With highly variable production and delivery schedules, Royalty struggles to conform to the standardized procedures required by existing digital platforms. Moreover, the challenges stem from the aging population in rural areas, resulting in lower adaptability to technology, particularly in Royalty's customer base, which include a higher proportion of elderly residents than in other settings. In seeking to address these challenges, Royalty serves as a poignant illustration of the misfit between rural MBs' processes and digital technologies. For this study, the aim was to take action to resolve these misfit issues in the context of the rural MBs sector, by exploring the effective utilisation of digital technology resources and revealing potential methods for resolution.

3 Conclusion and Implications

The purpose of this study was based on an emerging idea and practical research problem to address the issue of misfits in using digital technologies, as encountered by a rural MB. This not only contributes to our understanding of the phenomenon itself, but also, seeks to "generate useful knowledge with the goal of building a better future" (Markus and Mentzer, 2014, p. 365). In our research project, we argue for a return to the essence of AR, namely focusing on problem, action, and reflection to propose a pragmatic method for the diagnosis and resolution of misfits between rural MB organisational processes and digital technologies resources. We expect the use of ROV as contributing toward the implementation of resolution methods that are well-suited to the context of RMB-DTs issues. As we continue our research, we anticipate uncovering valuable insights and potential strategies that can contribute to the advancement of rural MBs in the digital landscape.

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