

**DETERMINANTS OF SUCCESS FOR R&D COLLABORATION: PERCEPTIONS IN A
PUBLIC RESEARCH INSTITUTION**

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Introdução

Collaboration between public research institutions and companies is vital for innovation and technological development. These partnerships facilitate the transfer of knowledge and technology between the public and private sectors, promoting learning in emerging areas and the direct application of innovations. This study explores how the determinants of success in collaborative projects vary according to different Technology Readiness Levels (TRLs), offering insights on how to adapt collaborative approaches to maximize the benefits of these inter-organizational partnerships.

Problema de Pesquisa e Objetivo

The research problem is to understand how the determinants of success in R&D collaborations vary according to different Technology Readiness Levels (TRLs). The objective is to identify and analyze these determinants based on the perceptions of researchers from a public research institution, aiming to adapt collaborative strategies and practices according to the technological development stage of the projects to maximize the success of these partnerships.

Fundamentação Teórica

Inter-organizational collaboration combines distinct resources and knowledge to create innovations. Social capital, with its structural, relational, and cognitive dimensions, facilitates knowledge exchange and cooperation. Market orientation aligns R&D initiatives with market demands. Literature highlights the importance of trust, commitment, and effective communication for successful collaborations, addressing challenges such as intellectual property protection and the need for effective governance.

Metodologia

A mixed-methods approach was adopted, combining quantitative and qualitative analyses. The study population included 2,085 researchers from Embrapa, with 603 valid responses to a structured questionnaire. Content analysis of responses utilized predefined categories of social capital and market orientation, alongside emerging codes. Quantitative analysis evaluated the frequency of success determinants at each TRL level, while qualitative analysis explored detailed participant perceptions.

Análise dos Resultados

Results indicate that social capital, especially relational and cognitive dimensions, and market orientation are crucial across all TRL levels. Emerging determinants such as bureaucratic efficiency, personal skills, and financial issues were also identified. The importance of these determinants varies with technological development stages, with trust and commitment highlighted in advanced stages and operational efficiency and flexibility essential in early and intermediate stages.

Conclusão

The study underscores the multifaceted importance of social capital and market orientation in R&D collaborations, varying across TRL levels. Integrating these elements with emerging determinants provides a holistic approach to maximizing partnership success. Adapting collaboration strategies to different technological development stages is essential for promoting effective and commercially viable innovations. Future research may explore these dynamics in diverse cultural contexts and industrial sectors.

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