

ABSTRACT

Research and Technology Organisations (RTOs) are facing new challenges and changes in their environment that test their ability to survive. In the literature there are few studies that have tackled strategic, organizational and performance aspects, basic features in order to understand better what RTOs are doing to respond the new challenges and changes in their environments.

This work is based on the differences between two models of RTOs present in the Valencia Region and the Basque Country and aims to propose a contingent model linking context, organisational and performance variables, identify barriers that RTOs face to cooperate with SMEs, as well as best practices that RTOs carry out to develop competitive advantages and adapt to turbulent environments

The methodology used consisted of applying the proposed model to the 27 RTOs of both autonomous regions; then a factor analysis was performed to determine whether exist groups of related (correlated) variables; and finally, we proceeded to carry out a hierarchical cluster analysis to observe how the 27 CCTT are distributed according to their ability to adapt and respond to environmental turbulence.

The results of statistical analysis allowed to establish that RTOs embedded in turbulent or high tech environments develop more proactive strategies and more organic organizational structures than those RTOs integrated in mature or low tech environments. The latter are more reactive and tend to have more mechanical organizational structures.

The study also attempts to establish the relationship between the source and percentage of funding, the barriers that RTOs find to work with SMEs and their innovative performance. Nevertheless, the limitation of data prevents from generalizing results. The research also concludes that there is no relationship between volume of sales and the innovative performance of RTOs.

The results of the factor analysis and hierarchical cluster techniques have showed that there are three groups of RTOs according to their ability to adapt and respond in their environments. The first cluster consists of some RTOs in low innovative and mature sectors, the second cluster is made of RTOs going through a transition process that allows them to adapt in less turbulent environments. Finally, the third cluster is made of highly innovative RTOs working with horizontal technologies and presenting a better ability to adapt and respond to environmental turbulence.