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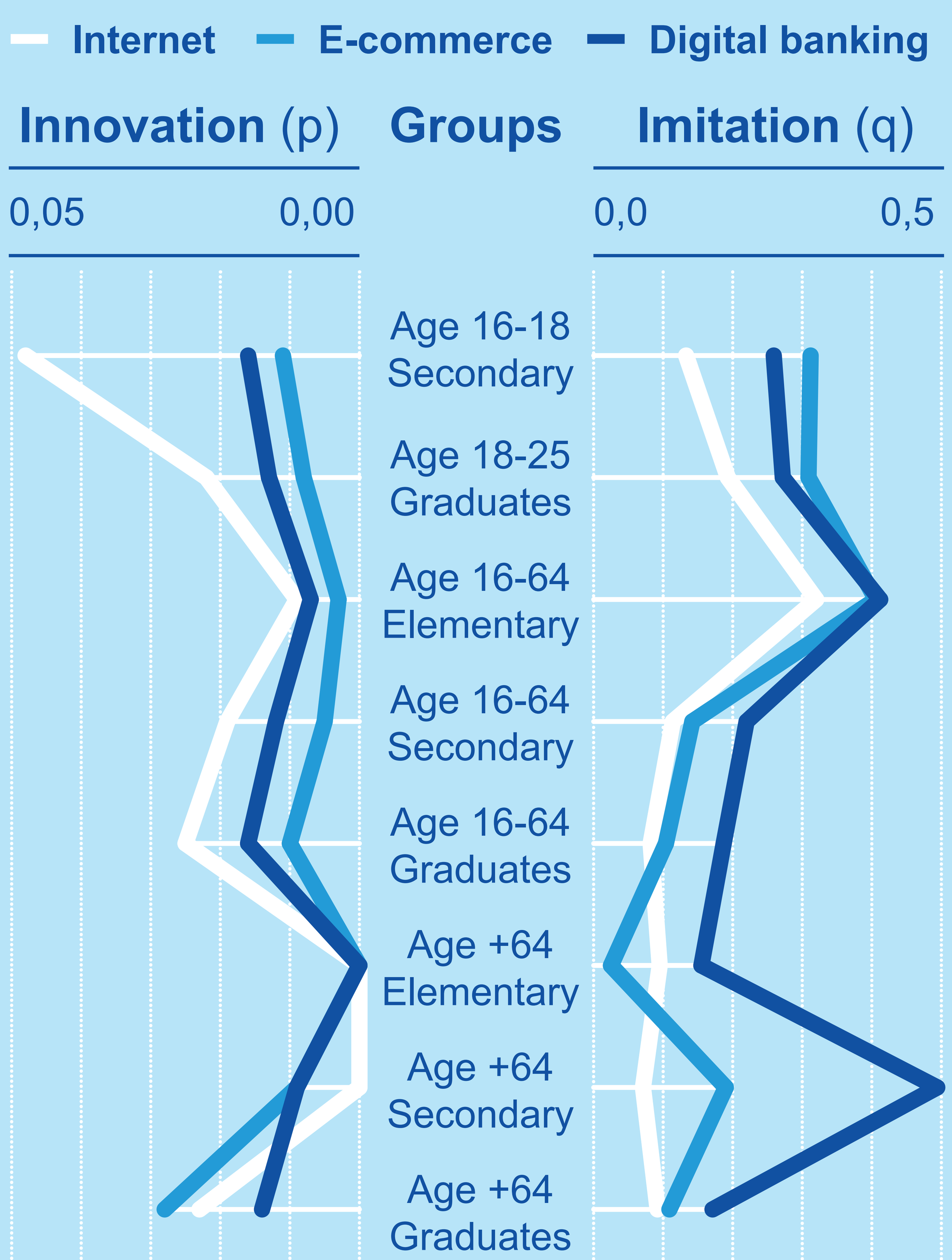
Heterogeneity and diffusion of the digital economy: Spain's case

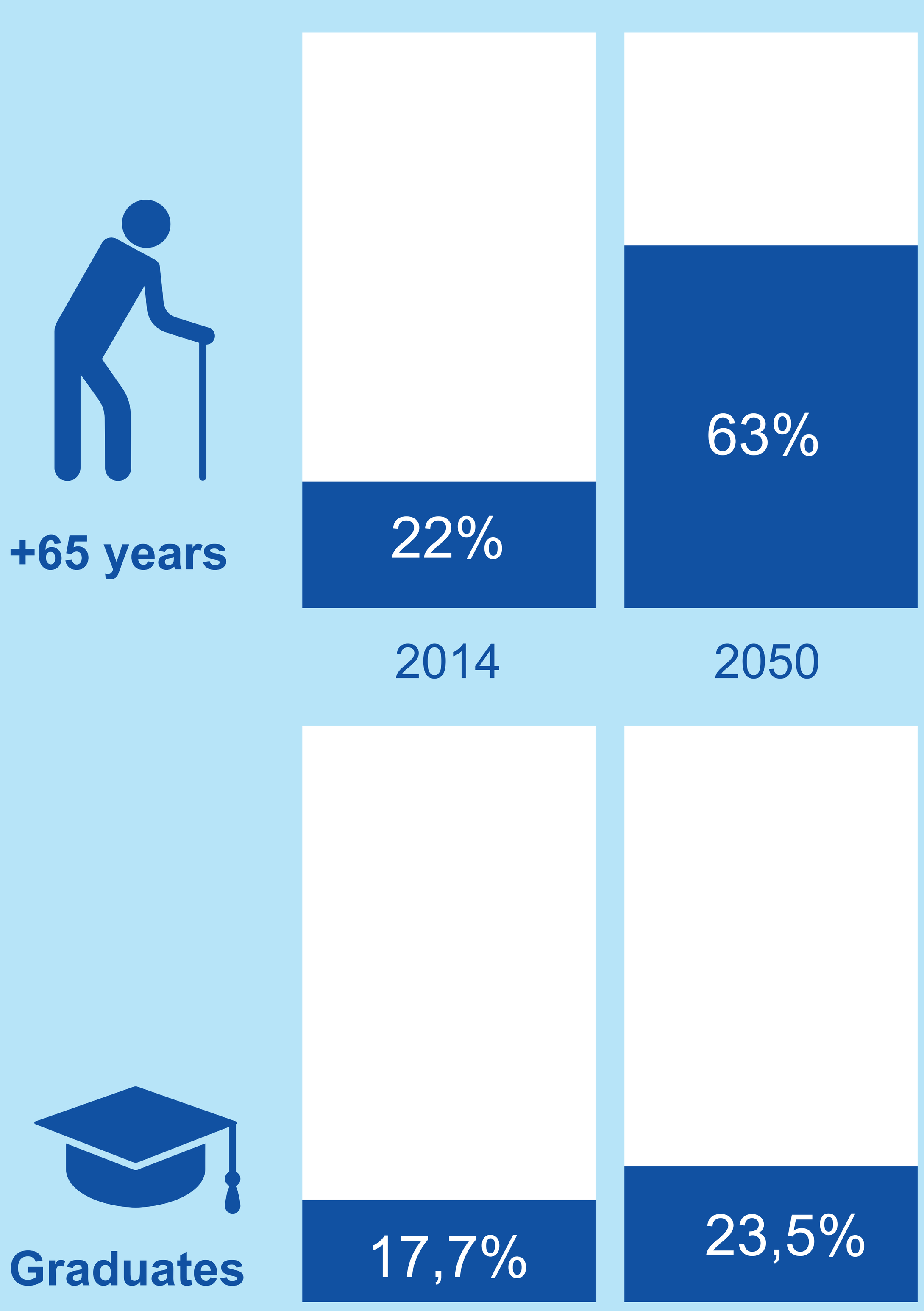
Bass (1969) models could be improved if they are conducted by segmenting the target populations to control for heterogeneity. The coefficients of innovation and imitation differ among different types of people as well for digital products.

Data and model

Innovation and imitation parameters using NLLS

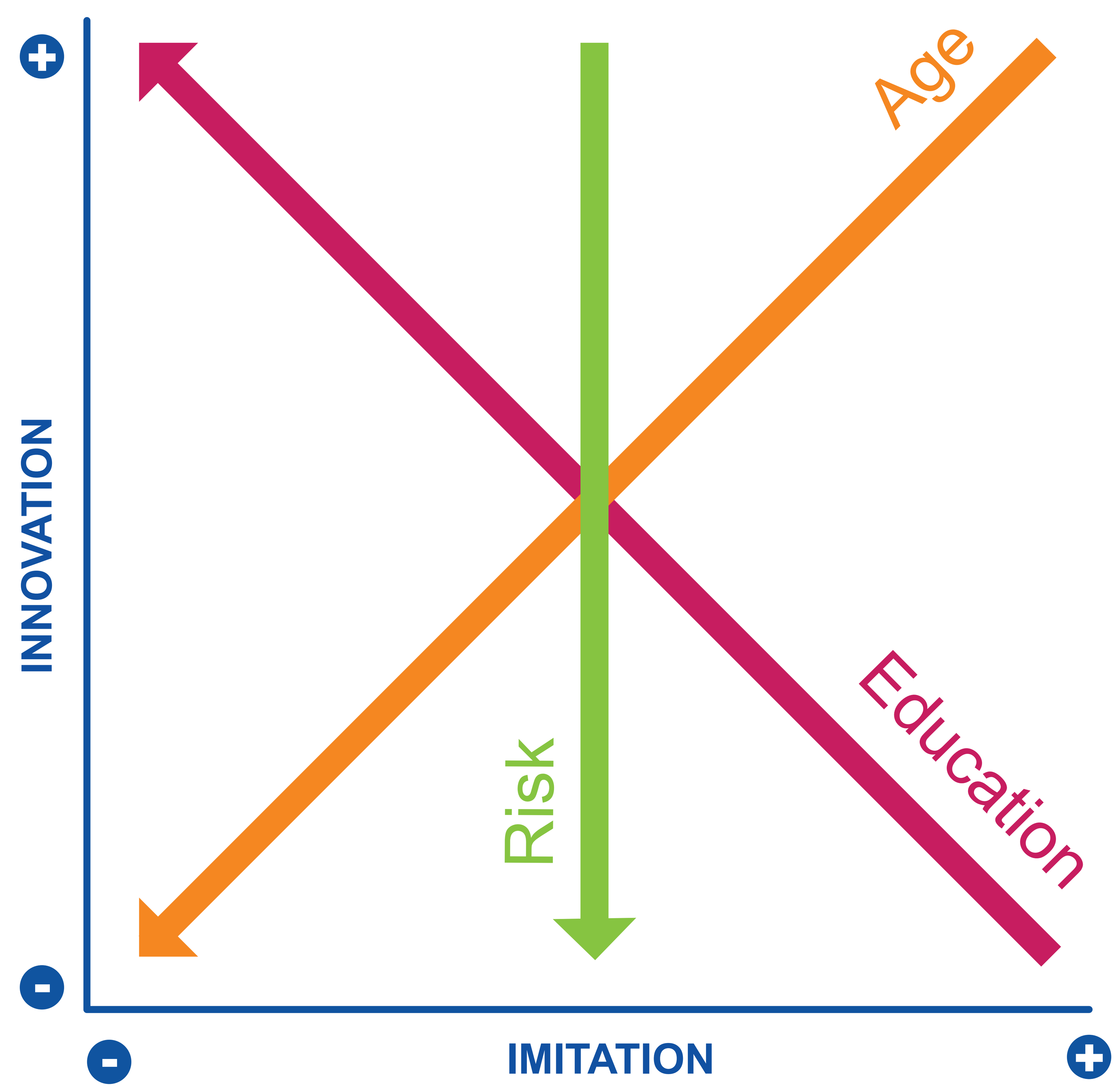


Demographic and socioeconomic dynamics



Results

Age, education and risk

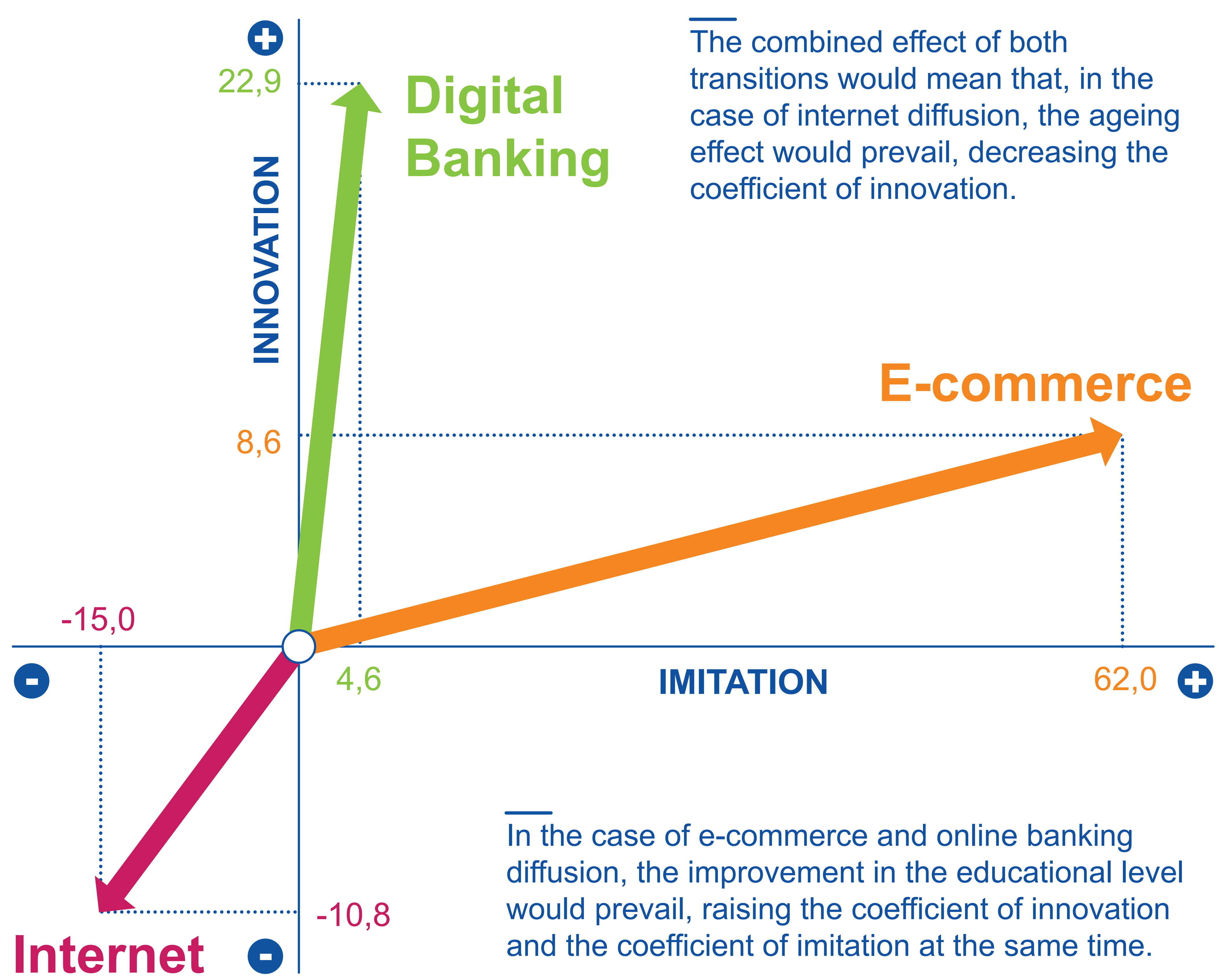


Innovation increases with educational level and decreases with the person's age.

Imitation decreases with educational level and decreases with age.

Innovation decreases when the product consumed includes a high risk component or requires specific knowledge to use it (financial expertise).

Long-term effects on innovation and imitation parameters (variation in percentual points)



The combined effect of both transitions would mean that, in the case of internet diffusion, the ageing effect would prevail, decreasing the coefficient of innovation.

In the case of e-commerce and online banking diffusion, the improvement in the educational level would prevail, raising the coefficient of innovation and the coefficient of imitation at the same time.