

# The Role of Physical, Human and Social Capital in Regional Financial Development Differences: An Analysis of Turkish Provinces

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## Abstract

With the undeniable importance of the financial markets in the economy, the factors stimulating financial development have started to be researched, particularly in recent times in a more intensive way. Starting from this point, the driving force of this study is both to contribute to international literature in this field and to fill a gap in the literature related to Turkey.

The main purpose of this study is to explain the causes of regional financial development differences on the basis of capital accumulation. In order to answer the question ‘What is the effect and degree of importance of physical, human and social capital on the differences in regional financial development?’, in this study some indexes for financial development and each type of capital accumulation will be calculated using kernel principle components analysis and depending on the annual data of 81 provinces covering the period 2005 – 2009. Financial development index for province of  $i$  is calculated by using total deposits, credits to private sector, number of bank branches per thousand people, number of total investors, etc. as dependent variable. Physical capital accumulation index for province of  $i$  is calculated by using fixed capital investments per capita, asphalt-paved road length per square km, electricity consumption per capita, etc. Human capital accumulation index for province of  $i$  is calculated by using life expectancy, number of doctors/hospitals/beds per thousand people, enrolment rates, literacy rates, etc. Social capital accumulation index for province of  $i$  is calculated by using blood donation rates, newspaper circulation per capita, participation to

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referendums, crime rates, participation of non-governmental organizations and civil society entities. Set of other independent variables are inflation, distance from financial center, population density, etc.

As an index, the capital measurements can be seen in a comprehensive form allowing for more accurate measurement and evaluation of both the capital accumulation and financial development. By using the calculated indexes, then, financial development differences are evaluated with spatial panel data methods developed by Elhorst (2003). In this context, to our knowledge, this study is the first to take into account the effects of each type of capital on financial development in a model simultaneously.

*Keywords: Financial development, physical capital, human capital, social capital, spatial panel data analysis.*