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Role of Finance in Firm Innovation and Growth: Evidence from African Countries

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Abstract: Firms in Africa experience less financial market in comparison to other emerging and developed countries, thus lagging behind the rest of the world in terms of innovation and growth. Though there are different factors to be considered, underdeveloped financial systems take the lion's share in hindering firm innovation and growth in Africa. Insufficient capacity to innovate is one of the problems facing African businesses. Moreover, a critical challenge faced by firms in Africa is access to finance and the inability of financially constrained firms to grow. Only little is known about how different sources of finance affect firm innovation and growth in Africa, specifically the formal and informal finance effect on firm innovation and growth. This study's aim is to address this gap by using formal and informal finance for working capital and fixed capital and its role in firm innovation and firm growth using firm-level data from the World Bank enterprise survey 2006-2019 with a total of 5661 sample firms from 14 countries based on available data on the selected variables. Additionally, this study examines factors for accessing credit from a formal financial institution. The logit model is used to examine the effect of finance on a firm's innovation and factors to access formal finance, while the Ordinary List Square (OLS) regression mode is used to investigate the effect of finance on firm growth. 2SLS instrumental variables are used to address the possible endogeneity problem in firm growth and finance-innovation relationships. A result from the logistic regression indicates that both formal and informal finance used for working capital and investment in fixed capital was found to have a significant positive association with product and process innovation. In the case of finance and growth, finding show that positive association of both formal and informal financing to working capital and new investment in fixed capital though the informal has positive relations to firm growth as measured by sale growth but no significant association as measured by employment growth. Formal finance shows more magnitude of effect on innovation and growth when firms use formal finance to finance investment in fixed capital, while informal finance show less compared to formal finance and this confirms previous studies as informal is mainly used for working capital in underdeveloped economies like Africa. The factors that determine credit access: Age, firm size, managerial experience, exporting, gender, and foreign ownership are found to have significant determinant factors in accessing credit from formal and informal sources among the selected sample countries.

Keywords: formal finance, informal finance, innovation, growth

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