



FIGURE 2: INTERACTION AMONG DEMOCRATIZATION, TECHNOLOGICAL WAVES AND ECONOMIC GROWTH BOOST

The political regime, like all social bodies, is a living entity, adaptive and responsive to external environment changes. Several researches have showed that political regimes based on democracy have been increasing over time (Modelski and Perry III, 2002; Norris, 2008). In fact, by a Darwinian process of natural selection, democracy is the best political regime suited to absorb socio-economic-technological changes in face of an accelerating environmental turbulence (Kauffman, 1995; 2001)³. Modelski and Perry III (2002) consider the democratization as a long-run process of social innovation that has taken 120 years to travel from 10% saturation to 50% (roughly in year 2000), whereas 90% of institutional democratization will be achieved in the 2110s or thereabouts. Linstone (2007) argues that although the number of electoral democracies is increasing, such democracies may elect on authoritarian leadership that undermines democratic institutions. Democratization is not a continuous, smooth process but rather it moves forward in discrete increments that could be subject to shocks due to, for instance, terrorist, nuclear and spatial warfare (Linstone, 2007).

Although there is a heated debate concerning the relationship between wealth and democratization, this research shows that democracy is the determinant of technical change as well as of technological progress.

An essential aspect of democratization must be considered:

Why does democratization have positive effects on technological innovation? Which are the underlying elements within democratic countries that boost the technological

innovation production and diffusion?

The determinant of this effect of democratization on technological innovation and in general technical change is due to higher levels of literacy, schooling, education and media access, broadening the middle classes and reducing the extremes of poverty, as theorized by Lipset (1959). As a matter of fact, Lipset emphasizes that more egalitarian conditions, and in particular the expansion of the educated middle class, facilitate mass participation. Norris (2008) states that wealth is positively associated with each measure of democracy. This hypothesis is confirmed by Barro (1999), Przeworski *et al.* (2000) as well as by Lipset and Lakin (2004). To sum up, the underlying causes of this relationship can be based on the hypothesis by Lipset who places considerable emphasis on the role of human capital in the democratization process. In fact, democratization and technological innovation have a common denominator represented by growing levels of literacy, schooling and education. Norris (2008) suggests that each of these factors proves a significant predictor of democratization and – I add – of technological change. Several studies confirm that societies that invest in the human capital of their population are more likely to sustain democratization because literacy and education help generate access to information. Furthermore, these factors are important determinants of technological innovation and economic growth. In fact, the new growth theory in the Romer (1990) version introduces endogenous technological change (as a function of the level of human capital) into the Solow model.

Therefore, what is needed now for countries to improve democratization is to increase the education of human capital and, as a consequence, the intangible capital

³ "Dictatorship naturally arises out of democracy, and the most aggravated form of tyranny and slavery out of the most extreme liberty" Plato, Greek Philosopher 427BC-347 BC.