

Summary of empirical research results of managerial ownership

Author	Research method	Results	Country of analysis
Morck et al. (1988)	Piece-wise linear (OLS) regression	Positive relation between 500 Fortune companies and Tobin's Q and accounting profit when Director's ownership is between 0-5% and above 25%. Negative when in 5-25%. Ignored endogeneity issue	US 500 Fortune companies
McConnell, Servaes (1990)	OLS quadratic model, Piece-wise linear regression	Relationship between insider ownership and firm performance is curvilinear. It slopes upward until insider ownership reaches 40-50 % and then slopes downwards.	US
Wright et al. (1996)	Piece-wise linear (OLS) regression	The relationship of insider ownership and firm performance is non-monotonic as low levels of managerial ownership affect positively corporate risk taking and high levels negatively. Though this relation holds significant only for companies with growth prospects.	US
Florackis et al. (2009)	Semi-parameter estimation approach	There is positive relation between performance and low levels (less than 15%) of ownership and negative relation to high levels of ownership. It was valid analyzing performance with both – Tobin's Q and accounting profitability ratios.	UK
Kaserer, Moldenhauer (2005)	OLS, 2SLS, piece-wise linear regression	Positive and significant relationship between corporate performance — as measured by stock price performance, market-to-book ratio and return on assets — and insider ownership	Germany
Himmelberg et al. (1999)	quadratic and linear piecewise (OLS) regression, instrumental variables	Firm heterogeneity determines large fraction of managerial ownership variation. Controlling for endogeneity with panel data and instrumental variable, authors did not find any significant evidence to conclude that there is relationship between insider ownership and firm performance	US
Demset, Villalonga (2001)	OLS, 2SLS	First research to count for endogeneity of ownership structure. It found no statistically significant relation between ownership structure and firm performance	US
Loderer and Martin (1997)	2SLS	Insider (Director's) ownership does not predict performance (Tobin's Q) but performance is a negative predictor of ownership. Ownership is counted as endogenous variable	US
Cho (1998)	OLS, 2SLS	Building 3-equation model where insider ownership, firm performance (Tobin's Q) and investment determining each other together with other control variables, the 2SLS results indicate that firm performance (Tobin's Q) effect insider ownership level.	US

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Rose (2005)	Three-stage least squares (3SLS)	There is a significant relation between insider ownership (by all managers and Board members) and firm performance, although it runs from insider ownership to firm performance (measured by Tobin's Q). The evidence casts doubt on the formulated hypotheses, as insider ownership does not significantly impact agency costs.	Denmark
Drakos, Bekiris (2008)	OLS, 2SLS, 3SLS	Treating managerial ownership as endogenous variable, it holds true for Greek companies with higher managerial stake improves corporate value.	Greece
Mandaci, Gumus (2010)	Multiple regression analysis	Concentrated ownership is significantly positively related to firm value (Tobin's Q) and profitability (ROA), but managerial ownership is related to negative impact to firm value	Turkey

Sources: compiled by author according to (Cho, 1998; Demsetz, Villalonga, 2001; Drakos, Bekiris, 2010; Florackis et al., 2009; Himmelberg et al., 1999; Kaserer, Moldenhauer, 2007; Loderer, Martin, 1997; Mandaci, Gumus, 2010; McConnell, Servaes, 1990; Morck et al., 1988; Rose, 2005; Wright et al., 1996)