

ESSAYS ON THE STATUS AND DETERMINANTS OF EFFICIENCY AND INFORMALITY IN MANUFACTURING FIRMS OF BANGLADESH

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The manufacturing firms in Bangladesh are surging with impressive growth for past few decades and are powering the nation to become a middle income country through industrialization. The firms have survived financial crisis in recent past but are now facing a new era of competition both domestically and internationally. Under this circumstance, chapter-2 explores technical efficiency and its determinants for these firms. At the same time, the manufacturing sector is dominated by informal firms similar to other developing countries under industrialization. But surprisingly, informal manufacturing firms are mostly overlooked in literature mainly for data unavailability. Chapter-3 utilizes a focused survey data to investigate the determinants and impact of informality among manufacturing firms. First study uniquely used heteroscedastic ‘true’ random effect model of stochastic frontier analysis to estimate exogenous determinants of efficiency in a robust single-step estimation process. The discussion of marginal impact of determinants in this advanced model is a valuable contribution to related literature. This study has found that human capital of top manager and access to financial services are the most influential factors in attaining higher efficiency. Export and innovation are found to affect the production frontier significantly.

High average efficiency score measured from the true random effect model, while compared to competing models, reveals the extent of heterogeneity among sample firms and the role of firm specific effect in efficiency analysis. The informality study argues and statistically shows that formalization (or informality) is a continuous phenomenon and firms range from very informal to very formal. Principal component analysis (PCA) is used to define this continuous spectrum of formalization. A very rich set of variables is used to find the impact and determinants of formalization. This study has found that formal firms are more productive than informal firms and degree of informality has impact on marginal productivity. Owner's human capital and family background, firm's age, number of paid worker, distance from registration authority, inspection rate and location effect are found as the main determinants of formalization. It is discussed that the existence of informality in sample firms can be explained partially by dual economy model and partially by rational exit model. Formal firms are found to have higher usage of intermediate inputs, especially machinery and ICT and have better access to utility services and wider customer segments.