

Analysis of Small and Medium-sized Enterprises' Insolvent Probability by Financial Statements using Probit Kink Model: Manufacture Sector in Songkhla Province, Thailand

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Abstract. The ineffective financial control in small and medium-sized enterprises in Thailand is an important factor that could cause the businesses' shutdown. Therefore, this study is conducted to examine the impact of financial statements on the enterprises' insolvent probability with a special concern in the small and medium sized manufacturing enterprises in Songkhla Province, Thailand. To estimate the marginal effects of the financial statements, this study develops the Probit kink regression model which can explain an asymmetric impact of the considered financial statement variables on the SMEs' close-down probability. The estimated results show that the manufacturing SMEs' insolvent probability depends on account receivable turnover, inventory turnover and current ratio. However, due to a kink effect, the current ratio, as a proxy for liquidity, is significant in both regimes, generating an asymmetry effect on the insolvent probability. That is, the current ratio could decrease the enterprises' insolvent probability if it is over 160.5069, which is a kink value, but the ratio less than that kink value could lead to higher chance of businesses to go bankrupt.