

An investigation into the impact of advance manufacturing technologies implementation in SMEs manufacturing plastic packaging products- A case study of Pakistan

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Abstract

Plastics industry is from one of the oldest and important industries of Pakistan. The entire industry is self-financed into small and medium scale enterprises (SMEs) which play an important role in economy of the country. Quality and productivity are highly important for the survival and economic growth. In its early years, the plastics industry was ill-organized and producing low quality products. Increasing national competitiveness leads the use of AMT important for companies. Purpose of this research is analyze impact and critical factors that influence development by adoption of AMTs experienced by thirty SMEs companies producing plastics packaging products in Sindh province. The research is presented in two stages. The first stage interviews from ten companies' managers were conducted to identify the impact variables of AMT implementation. In second stage question for Survey was designed on basis of literature and preliminary interviews. This study reveals that analyzed SMEs producing plastic packaging products only adopt AMTs of hardware form but none of the SMEs adopt soft AMTs such as 3-sigma, 5-sigma and manufacturing cells. Study also showed that "consistency of quality" and "Decrease in production time" were the high impact variables introducing AMT. Research concluded that AMTs are as important as cost for small companies and also concluded that they are failing in selecting technologies and their impact.