

# Competitiveness of Sarawak's Manufacturing Industries

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## ABSTRACT

This paper estimates the level of technical efficiency obtained from the Data Envelopment Analysis (DEA) approach using time series data of nineteen main industries in Sarawak's manufacturing sector. DEA provides a mean of calculating apparent efficiency levels within a group of industries. The efficiency of an industry is calculated relative to the group's observed best practice. The objective of this research is to examine the efficiency of manufacturing sector by determining the technical efficiency and the scale efficiency of the industries and to compare the composition as well as overall efficiency level among the industries. The paper is divided into three parts. First, it examined the overall efficiency level of nineteen main industries. Second, it compared the level of efficiency among the industries and lastly, it recommended some policy considerations that should be taken by the authorities concerned.

**Key Words:** Manufacturing Sector, Sarawak, Data Envelopment Analysis

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## INTRODUCTION

The economic structure of Sarawak is largely export-oriented and primary commodities dominated. Rapid expansion of the manufacturing sector has transformed Sarawak from an agricultural based economy to an industrialization state in Malaysia. In 1970, the sector contributed a mere 3.6% to the state's Gross Domestic Product (GDP) and increased to 23.6% in 1999. Wee (1995) explains that the manufacturing sector contributed for 17 percent by Sarawak's GDP as compared with 27 percent for Peninsular Malaysia in 1990. Manufacturing is the second largest contributor towards Sarawak's economic growth after mining and quarrying sector. The sector has surpassed the agriculture and forestry sector, which has been traditionally the state's major income earner.

Table 1: Manufacturing Sector Contribution to Sarawak Gross Domestic Product

Year	Value Added (RM Million)	Share of Value Added (%)	GDP Growth Rate Share (%)
1990	856 (9997)		7.1
1991	2 605	23.81	9.4
1992	2 481	22.19	2.2
1993	2 962	26.23	1.0
1994	3 116	26.30	4.9
1995	3 783	28.66	11.4
1996	4 474	30.65	10.6
1997	5 439	34.67	7.5
1998	na	na	Na
1999	7 579	45.86	1.1
2000	12 515	71.91	5.3

Source: Extracted from Yearbook of Sarawak, various issues