

應用灰關聯法探討全球主要 TFT-LCD 大廠營運財務指標關鍵成功因素

Using Grey Relation Method to Analyze the Key Success Factors of World's Major TFT-LCD Manufactures with Finance Indexes

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摘要

歷經 2007 年至 2009 年金融海嘯，其效應對全球面板產業影響極深，目前薄膜電晶體-液晶顯示器現有大廠，主要生產廠商依然集中在韓國、台灣及日本，且佔全球總產值之銷售額約 80% 以上，2009 年台灣顯示器面板產業產值達 9,283 億元佔總體國內生產毛額(GDP)7%。隨著景氣逐漸復甦以及大陸對面板需求逐年提高，可以預期面板產業將進入另一階段的生產潮。因此本研究之目的經由過全球 TFT-LCD 廠商曾投入與產出財務指標數據，分析比較全球 TFT-LCD 廠商之 2002 年至 2009 年財務報表及經營績效；運用灰關聯分析評估全球 TFT-LCD 及探討前 10 大廠商影響企業營運績效之關鍵成功因素。經由實證結果發現，影響營收的投入項主要為研發費用與股本；影響稅前淨利的投入項主要為股本；影響股東權益報酬率的投入項主要為無形資產；影響資產報酬率的投入項主要為固定資產、無形資產及現金。因此若要有效掌握實際收益，提高營收及稅前淨利兩個產出項，則股本對於此兩個產出項佔有較大的重要性。若要掌握投資的效率，提高股東權益報酬率及資產報酬率兩個產出項，則無形資產對於此兩個產出項佔有較大的重要性。

關鍵字：薄膜電晶體-液晶顯示器、灰關聯、關鍵成功因素

ABSTRACT

The global recession from 2007 to 2009 has impacted on TFT-LCD industry dramatically. Korea, Taiwan and Japan are currently the major suppliers for TFT-LCD panels, and these key players contribute more than eighty percent of global sale. In 2009, the production value of Taiwan's TFT-LCD industry reached NT\$ 928.3 billion, which accounted for 7% of Taiwan's GDP. This research aims to analyze TFT-LCD business performance through the analysis based on input and output primarily from financial indicators with the timeframe from 2007 to 2009. Grey relational analysis is applied to evaluate the key success factor. The research findings reveal that R&D expenses and capital stock are two major inputs to influence revenue generation. The capital stock plays an important role to income before tax. The intangible asset is the main input for high ROE. Capital assets, intangible asset and cash are primary inputs to increase ROA. To sum up, capital stock plays an important role in increasing real return whereas intangible asset owns the greatest influence on investment efficiency.

Keyword: Thin film transistor-liquid crystal display(TFT-LCD), Grey relation method, Key success factors