

碳排放績效與企業經營績效之關係

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文獻回顧顯示，近期國內探討碳排放績效與公司經營績效關係的研究有限，且缺乏針對兩者分段線性關係的討論。因此，本研究擬以近幾年數據為基礎，實證探討台灣企業碳排放績效與公司經營績效之間的分段線性關係，並分析肺炎疫情期間對該結果是否產生變化。本研究旨在釐清何種情況下能達成較高的經營績效，並依產業別提供分析結果，以作為企業和主管機關制定碳排放績效政策之參考依據。首先線性研究模型結果顯示，「非高碳排企業」所代表的一般公司呈現負向顯著，因此，代表較低的碳排放績效與較高的公司經營績效有關，亦即就企業而言，市場有多少需求、企業就去生產多少而不去考慮碳排放量。該結果可能是由於不同產業所面臨的環境政策和市場壓力不同，在此類樣本中絕大多數公司可能未受到強烈的碳排放績效限制，導致公司更專注於提高產能，而未直接受到排放成本的約束，且無論是全樣本期間抑或肺炎疫情期間皆成立。第二，在分段線性關係方面，以「全部企業」為代表的全產業樣本呈現分段線性關係結果。這表明當企業碳排放績效較低時，提升碳排放績效確實有助於提升公司經營績效。也就是說，在這個階段，企業注重碳排放績效可以帶來正面的效益。然而，當碳排放績效提升到一定程度後，繼續提升反而可能降低公司經營績效。這種情況下，企業可能會因為看不到明顯的效益而失去對碳排放績效的重視。

關鍵詞：碳排放績效、公司經營績效、分段迴歸。

JEL 分類代號：C12, F31, G13, G14

「政策與管理意涵」

管理意涵方面，企業應積極投入資源於提升碳排放績效，藉此提高自身的經營績效。政策意涵方面，企業初期可以盡可能提高碳排放績效，然而，當碳排放績效達到一定程度後，應使用補貼或稅務減免，讓企業繼續達到減少碳排放的功效。此外，企業應密切關注政策動態，及早因應未來可能面臨的碳排放管制措施。

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The Relationship between Carbon Performance and Corporate Performance

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The literature review reveals limited recent domestic research exploring the relationship between carbon emission performance and corporate operating performance, with a lack of discussion on their piecewise linear relationship. Therefore, based on data from recent years, this study empirically investigates the piecewise linear relationship between carbon emission performance and corporate operating performance of Taiwanese enterprises and analyzes whether the COVID-19 pandemic has caused any changes to this result. This study aims to clarify the circumstances under which higher operating performance can be achieved and provides analysis results by industry to serve as a reference for enterprises and competent authorities in formulating carbon emission performance policies. First, the linear research model results show a significant negative correlation for "non-high carbon emission enterprises" representing general companies. Therefore, lower carbon

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emission performance is associated with higher corporate operating performance, meaning that for businesses, they produce as much as the market demands without considering carbon emissions. This result may be due to the different environmental policies and market pressures faced by different industries. The vast majority of companies in this sample may not be subject to strong carbon emission performance restrictions, leading them to focus more on increasing production capacity without being directly constrained by emission costs, and this holds true both for the full sample period and the COVID-19 pandemic period. Second, in terms of the piecewise linear relationship, the results for the "all enterprises" sample, representing all industries, show a piecewise linear relationship. This indicates that when an enterprise's carbon emission performance is low, improving it does help to enhance corporate operating performance. In other words, at this stage, enterprises focusing on carbon emission performance can bring positive benefits. However, when carbon emission performance improves to a certain level, further improvement may instead reduce corporate operating performance. In this case, enterprises may lose their focus on carbon emission performance due to a lack of obvious benefits.

Key Words: Carbon Performance, Corporate Performance, Piecewise Regression.