用新混合多評準決策法來探討電子商務(B2B2C)之績效評估

－以賣家使用蝦皮購物平台為例

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摘要

從1995年開始，在美國有第一家純粹以網路方式經營的平台，可稱網路購物平台始祖「亞馬遜」Amazon。透過網路行為，興起各國電子商務紛紛設立網路購物平台，不僅改變人類生活型態，也更新了消費模式。在台灣電子商務平台擁有較多用戶者，過去，有許多學者是針對消費者對使用電子商務平台的使用行為做相當多的研究，僅有少部分是以電子商務業者為研究對象且大都是質性研究，而缺乏探討影響因素之量化分析。

本研究是採用三種量化分析方法，DEMATEL方法重視在相互影響分析，DANP方法在探討因素的權重大小，VIKOR方法是比較達到理想解的優劣（採個案方式）分析出重要性與績效評估，有此三個面向的量化分析，更能作為整體性思維和評估，並提出合理地改善策略之建議。

因此，本研究流程從文獻分析和專家訪談以及專家問卷（德菲法），建構出四個構面(Dimension)與16項準則(Criteria)，利用DEMATEL方法來研究各構面和準則間之因果相互影響，並繪製因果關係圖做分析，再使用DANP方法來計算各準則的權重大小，透過VIKOR方法進行個案實證分析，以探討台灣網路購物平台之績效評估，以供電子商務業者作參考。

在 DEMATEL 分析中，根據關聯度值（r_i+c_i），發現「D_3 網路口碑」（＝4.32）具有最高影響及被影響的總關聯度，為最重要的影響構面，反之，「D_4 物流配置」

（＝3.83）為最低影響及被影響之總關聯度的構面；根據原因度值（r_i-c_i），發現「***D₄*** 物流配置」原因度為正而且最大（＝0.09），表示此構面最容易影響其他構面，反之，「***D₃*** 網路口碑」原因度為負而且最小（＝-0.10），為最容易被影響之構面。

在 DANP 分析中，得出的 Global weight 值排序中，在構面部分，發現「***D₃*** 網路口碑」（＝0.2711）的權重最大，反之，「***D₄*** 物流配置」（＝0.2295）的權重最小，權重排序為「***D₃*** 網路口碑」＞「***D₂*** 服務品質」＞「***D₁*** 介面設計」＞「***D₄*** 物流配置」。

在 VIKOR 分析中，在缺口中值越小，表示須改善的部分較少，蝦皮購物平台缺口最小（＝0.227）；在綜合指標(R_k)績效表現最小，表示績效越好，蝦皮購物平台（＝0.308）為最佳方案，而 PCHMOE 平台（＝0.344）為最差且急需改善的方案。

本研究發現，先從構面「***D₂*** 服務品質」，取績效最差（缺口最大）之準則提出策略建議。再改善構面內部的「***D₁*** 介面設計」、「***D₄*** 物流配置」，以「***C₄*** 維護修改」、「***C₁₄*** 資訊能力」為優先改善的準則，因此，對 ***C₃***、***C₁₃*** 為關鍵影響準則對此提出策略建議，可直接改善「***D₂*** 服務品質」。

關鍵字：蝦皮購物、網路購物平台、DEMATEL、DANP、VIKOR

Abstract

Since 1995, there has been the first platform in the United States to operate exclusively on the Internet. It can be called Amazon, the ancestor of online shopping platform. Through the Internet behavior, the rise of e-commerce in various countries has set up an online shopping platform, which not only changes the human life style, but also updates the consumption pattern. In Taiwan, there are many users in the e-commerce platform. In the past, many scholars have done a lot of research on the use behavior of e-commerce platforms. Only a small number of e-commerce companies are research objects and most of them are qualitative. Sexual research, but lack of quantitative analysis of the influencing factors.

This study uses three quantitative analysis methods. The DEMATEL method emphasizes the interaction analysis. The DANP method discusses the weight of the factors. The VIKOR method compares the advantages and disadvantages of the ideal solution (using the case method) to analyze the importance and performance evaluation. The three-oriented quantitative analysis is more likely to be a holistic thinking and assessment, and to propose a reasonable improvement strategy.

Therefore, this research process constructs four facets (Dimension) and 16 criteria (Criteria) from literature analysis and expert interviews and expert questionnaires (Delphi method), using the DEMATEL method to study the causality between various facets and criteria. Mutual influence, and draw the causal relationship diagram for analysis, then use the DANP method to calculate the weight of each criterion, and use the VIKOR method to conduct empirical analysis of the case to explore the performance evaluation of the online shopping platform in Taiwan for reference by e-commerce operators.

In the DEMATEL analysis, based on the correlation value (r_i+c_i), it was found that "D_3 Internet Word of Mouth" (= 4.32) has the highest impact and the total degree of influence affected, which is the most important influence facet. Conversely, "D_4 Logistics" "Configuration" (= 3.83) is the facet of the lowest impact and the total degree of influence affected; according to the reason value (r_i-c_i), it is found that the cause of

"D_4 Logistics Configuration" is positive and maximum (= 0.09), indicating this structure The face is most likely to affect other facets. Conversely, the "D_3 Internet Word of Mouth" reason is negative and the smallest (= -0.10) is the most easily affected facet.

In the DANP analysis, in the ranking of the Global weight value, in the facet part, it is found that the weight of "D_3 Internet Word of Mouth" (= 0.2711) is the largest. Otherwise, the weight of "D_4 Logistics Configuration" (= 0.2295) is the smallest, and the weight is the smallest. Sorted as "D_3 Internet Word of Mouth" > "D_2 Service Quality" > "D_1 Interface Design" > "D_4 Logistics Configuration".

In the VIKOR analysis, the smaller the median value of the gap, the smaller the part that needs to be improved, the smallest gap in the shrimp skin shopee platform (= 0.227), and the lowest performance in the comprehensive index (RK), indicating the better performance, the shrimp skin shopee platform (= 0.308) is the best solution, while the PCHMOE platform (= 0.344) is the worst and urgently needed solution.

This study found that we proposed strategic recommendations from the facet of "D_2 service quality" and the worst performance (maximum gap). We will improve the "D_1 interface design" inside the facet, "D_4 logistics configuration", "C_4 maintenance modification" and "C_{14} information capability" as the criteria for priority improvement. Therefore, C_3 and C_{13} are the key impact criteria to propose strategies. It is recommended to directly improve the "D_2 service quality".

KeyWords: *shopee, Online shopping platform, DEMATEL,DANP,VIKOR*