應用 ROQ 模式衡量及評估服務品質改善方案之財務影響 —以國道客運業為例

研究生：郭又菁　　　　　　　　　指導教授：任維廉、郭秀貴

國立交通大學運輸科技與管理學系碩士班

摘要

隨著所得水準與品味的提高，消費者對於企業推出的各類商品與服務之期望不斷提高，國道客運公司為期獲得顧客的青睞與市場競爭優勢，面臨著要不斷提升服務品質的壓力，但是品質改善必須考量投入成本，而且品質改善到達一定程度後，再多的投入不必然會帶來利潤。

本研究回顧相關文獻後發現，服務品質、顧客滿意、再購意願與利潤之間是具有顯著的影響關係。然從以往的研究中亦發現，大多研究僅著重在探討如何提高服務品質與顧客滿意度，或瞭解顧客滿意度、顧客保留、市場佔有率等之影響因素為何，卻甚少探討服務品質的提升會產生多大的獲利力。但就企業而言，在經營上為了要確認品質改善是否值得投資，提供管理者服務品質改善獲利上的證明卻是相當重要的。

Rust、Zahorik 及 Keiningham 三位學者在 1994 年所提出「品質報酬」(Return on Quality, ROQ)的模式及方法，即認為品質改善支出是一項投資，應在投資前評估其財務效益。本研究認為在公司資源有限的情況下，可擴展 Martilla 及 James 在 1977 年提出的重要度與績效分析(Importance-performance Analysis, IPA)，分別找出使顧客感到不滿意及愉悅的因素，以對顧客做分群管理並決定優先改善的因素，將投資鎖定在與顧客最為攸關的事物上，使投資效益最大化。

本研究以國道客運 A 公司為例，利用顧客滿意度調查及 IPA 分析，瞭解顧客需求，找出影響整體顧客滿意度的決定性因素，再應用 ROQ 模式估計其服務品質改善方案之報酬率，以協助國道客運業管理者做品質改善之評估與決策，以降低投資的風險及增加獲利機會。

根據研究結果，改善方案一「候車站設施與空間的裝潢設計」部份，在只預估提升保留顧客所帶來的效益之情況下，其 ROQ = -27.66 %，投資報酬率為負，故不值得投資，應保持現況即可；改善方案二「車內的個人視訊娛樂系統之選擇多樣化」部份，其 ROQ = 14.88 %，投資報酬率為正，且大於管理者的最低報酬率 8%，故值得投資。兩個方案經兩母體平均數檢定後，發現其顧客滿意度均有顯著的提高，但方案一卻是不值得投資的，可見管理者只要求提高服務品質，增加顧客滿意度是不夠的，必須進一步考量其所帶來的效益是否大於投入的成本。

關鍵詞：服務品質，顧客滿意度，品質報酬，國道客運

Applications of ROQ Model to Measuring and Evaluating the Financial
Impact of Quality-improvement Programs – Case of Intercity Coach

Student: Yu-Ching Kuo   Advisor: William Jen & Hsiu-Kuei Kuo

Department of Transportation Technology and Management
National Chiao Tung University

Abstract

With the level of the income and improvement that sampled, consumer's expectation to all kinds of goods and service which enterprises introduce is improving constantly.   Intercity Coach Company confronts the pressure of constantly improving serving quality, because they hope to obtain customer and advantage of marketing competition.   But quality-improvement must consider the cost, and after quality improves to reach a certain degree, a lot more of input will not inevitably bring profits.

This study find that the service quality, customer satisfaction, repurchase intentions, and profits have signal influence relations after reviewing related references. However, we find most studies that only focus on discussion about doing something to improve service quality and customer satisfaction or understanding the influence factor of customer satisfaction, customer retention and market share. There were few studies exploring the profitability of service quality improvement. But as industries, in order to confirm that quality improvement is valuable to invest. It's very important to offering administrator the identification of service quality improvement profitability.

Rust, Zahorik and Keiningham provide the model and approach of Return on Quality in 1994 and think quality is an investment and need to evaluate the financial benefits of quality before investing. This research is thought in a situation that company resources are limited, can expand the Importance-performance Analysis that Martilla and James were put forward it in 1977, it makes the customer feel dissatisfied and delight factor to find out separately, by managing customer and deciding to have priority the improved factor, make the investment on the things that concern with the customer most, will make benefit of investment maximize.

This research takes A Company of intercity coach as an example, utilize the customer satisfaction investigation and IPA analysis, understand customer's demand,

find out the decisive factor of influencing whole customer satisfaction, and then use ROQ model to estimate the profitability of service quality improvement for programs. In order to help the administrator of intercity coach industry to evaluate and decision the programs of quality improvement, and reduce the risk of investment and increase the profit-making chance.

According to the result of study, improvement program one ' waits station facility and decoration of the space and designs ', in a situation that only estimate the benefit of improving customer retention, its ROQ = -27.66 %, the rate of returns of investment is negative. So not worth being invested in, should keep the present situation. Improvement program two ' the choice diversification of the personal video-information amusement system in the car ', its ROQ =14.88 %, the rate of returns of investment is positive, and is greater than 8% of minimum rate of returns of the administrator, so worth being invested in. Two programs after the Average of Two group Independent-Samples Test find that the customer satisfaction of two programs both increase. But improvement program one is not worth being invested in. It is obvious that the administrator not only improves the service quality to increase customer satisfaction but also must consider whether the benefit brought by it greater than the cost invested further.
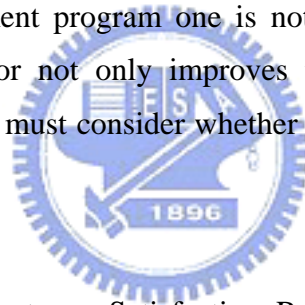
Keywords: Service Quality, Customer Satisfaction, Return on Quality, Intercity
Coach