行政院國家科學委員會專題研究計畫 成果報告

服務品質關鍵因素之探討--結合顧客與管理者觀點之兩階段模式
研究成果報告(精簡版)

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1. INTRODUCTION

Service quality is a critical driver of business performance. Most researchers indicated that service quality increases customer satisfaction and customer loyalty (Bruhn and Grund, 2000; Gronholdt et al., 2000; Martensen et al., 2000; Cassel and Eklof, 2001). Accordingly, the means to identify the key practices of service quality in each management system remain to be an important research issue. However, according to relevant researches, most decision-making approaches depend on making service quality improvement strategies from customers' perception (Schvaneveldt, Enkawa, & Miyakawa, 1991; Reichheld, 1993; Garver, 2003; Bei & Shang, 2006). For example, two practical approaches which have been widely used to search for service quality practices that need to be improved are Gap Analysis (GA) (Burns, Graefe, & Absher, 2003; McCain, Jang, & Hu, 2005; Tontini & Silveira, 2007) and Importance-Performance Analysis (IPA) (Matzler, Bailom, & Hinterhuber, 2004; Tam & Lam, 2004; Aigbedo & Parameswaran, 2004; Breiter & Milman, 2006; Levenburg & Magal, 2005). The concept of using GA is to determine if a certain practice should be improved immediately based on the existence of the difference between the customers' perception and expectation (negative gap). On the other hand, IPA focuses on clarifying the improving priorities for practices from customers' perception. Furthermore, to validate these two approaches, Lin, Chan, and Tsai (2009) developed two transformation functions to integrate individual emphasis of IPA and GA in their research, and this new revised model was then called as the IPGA model. The main concept of which is the replacement of the subjective measurement of performance with the service quality gap as recognized by customers and deciding on the priority in improving practice based on the pair relationship of service quality gap and importance. Although the IPGA model was verified to redefine quality practices which truly need improvement in the service system and be valid in terms of reducing the risk of misleading decisions, it is still a decision-making approach which depended on investigating customer's perception.

In today's customer-oriented market, there is no doubt that understanding the customer's perception has to be considered as top priority. However, it remains a question whether the manager needs to adjust all quality practices which are regarded by customers as needing improvement in all aspects of practical operation. For example, the decision maker will possibly query does the firm have enough resources or capabilities for global adjustment? Is the global adjustment cost effective? Especially in a market environment with limited resources, it is difficult for firms to meet all the needs with the same level of completeness (Panizzolo, 2008; Ba & Johansson, 2008). Therefore, how the decision maker can find and adopt powerful practices which have the greatest influences on improving customer satisfaction among many customer demands becomes a central issue of concern (Garver, 2003; Stan, Evans, Wood, Stinson, 2007). In other words, the decision maker's accumulation of management experiences and judgment (manager's perception) is the key to influence the final decision making (Santos & Garcı´a, 2006; Cacioppe, Forster, & Fox, 2008). To this end, Battelle Geneva Institute developed the Decision-Making Trial and Evaluation Laboratory (DEMATEL) approach which is based on experts'/managers' perception to help look for powerful

practices, and this approach has been widely used in various fields (Seyed-Hosseini, Safaei, & Asgharpour, 2006; Huang, Shyu, & Tzeng, 2007).

Accordingly, the main purpose of this study is to develop a two-phase decision-making model by considering perceptions of customer and manager to help the latter frame a comprehensive project on improving customer satisfaction effectively. In this model, the customer's perception is firstly presented by the IPGA model to understand primarily the customer's demands. Second, the manager's perception is analyzed through the DEMATEL to assist him/her in further looking for powerful practices among many customer demands. Since the two-phase decision-making model was developed by combining IPGA model and DEMATEL approach, this study calls it as the IPGA-DEMATEL Model.

The rest of this study is organized as follows. Section 2 reviews the relevant literatures, particularly on IPGA and DEMATEL. To elucidate the actual determinant of improving customer satisfaction, section 3 introduces the IPGA-DEMATEL model proposed in this study. To confirm the suitability and practicality of this new proposed decision-making model, an empirical study of Taiwanese online declaration service was implemented in section 4. Finally, section 5 draws the conclusions.

2. IPGA-DEMATEL MODEL

It is necessary for managers to find means to improve customer satisfaction under an environment of limited resources. Therefore, it is important to identify the *powerful* practices that can affect other practices and improve customer satisfaction significantly. In other words, the *powerful* practices are those which have the higher return on investment. To this end, this study integrated DEMATEL with IPGA to develop a two-phase decision-making model which is called the IPGA- DEMATEL Model (Figure 1).

<Take in Figure 1)>

As shown in Figure 1, the IPGA-DEMATEL Model is a two-phase model which can help make comprehensive decisions by considering both customers' and managers' perception. The main purpose of *Phase 1* is to use the IPGA model to discover the practices that need to be improved based on the customers' perception (the detailed processes of the IPGA model are shown in the "IPGA Model section"). As shown in Figure 1(a), if the practices are drawn in Quadrant II of the IPGM, these practices are then taken as the priorities because of their higher importance and the existence of negative service quality gaps.

After identifying those practices that need to be improved from customers' perception, managers have to further clarify the powerful ones among these practices based on their practical experiences. The DEMATEL method is used in *Phase 2* to this end (the detailed processes of executing the DEMATEL method are shown in the "DEMATEL section"). As shown in Figure 1(b), both the interrelations among practices and the influences of each practice on others can be easily recognized by depicting the IDM and IRM. Then managers can use this valuable information to make effective decisions. For example, a practice may be considered as a cause factor of a service

system while it has a positive and higher *net effect*. This implied that this practice may become a priority when managers want to improve customer satisfaction effectively. Moreover, a practice with higher *total effect* demonstrates that it plays a critical role in monitoring the executive performance of the service system. Therefore, managers can take the performance of this practice as the criterion of judging whether the service practices provided by the system are sufficient.

3. EMPIRICAL RESEARCH

The Taiwanese Online Tax Declaration System provides services to taxpayers by means of the Electronic Tax Declaration and Payment Service Web site. It is an electronic system which validates the ID through the person's certificate, financial certificate, ID number, and household number, then transmits and declares the information through the Internet. Since the Online Tax Declaration System is the first e-government policy promoted by the Taiwanese government, the government has been working hard to improve the system's service quality since its trial operation in 1998. Therefore, the Online Tax Declaration service in Taiwan was selected as the example to demonstrate the application of the proposed IPGA-DEMATEL Model. The results will then be provided as reference for the tax authority to improve the service quality of the online tax declaration system in the future.

3.1 Research Design

Based on previous studies (Chang, Hung, & Hwang, 2005; Jiang, Klein, & Carr, 2002; DeLone & McLean, 2003), the current research evaluated the service quality of the online tax declaration service from three dimensions: System Service Quality (SSQ), Information Service Quality (ISQ), and General Service Quality (GSQ), including 29 items (Table 1). The *System Service Quality* focused on evaluating the processing capability of the online tax declaration system, such as ease of use, responsibility, access capability, and so on. The *Information Service Quality* focused on evaluating the output quality of the online tax declaration system, such as information timeliness, accuracy, availability, and so on. Meanwhile, the *General Service Quality* focused on evaluating the received service level during the interactive processes, such as reliability, assurance, empathy, and so on. All these practices were used to understand both customers' perception and expectation with a five-point Likert scale.

A pretest was employed by 30 experts from several accounting firms and marketing faculty to validate the usage of the hybrid scale, and the results suggested that there were no items to be deleted and that the Cronbach's α of each dimension was higher than 0.9, indicating accepted internal consistency. For the data collection, this study first conducted face-to-face interviews in HsinChu (Taiwan) National Tax Administration Office and 246 questionnaires were completed. To increase the sample size, the online questionnaires were sent out and 110 additional questionnaires were returned. After deleting invalid questionnaires, there were a total of 268 usable questionnaires returned. The Cronbach's α were between 0.9160 and 0.9302 for all service quality dimensions, indicating high internal consistency and good reliability. Then the IPGA model can be used to determine the practices that need to be improved from the customers' perception.

In Phase II, the DEMATEL questionnaire was then designed based on this finding". Three tax

authority directors and three directors of faculties who have a background in financial management in universities were chosen as the experts to identify the casualty between practices.

3.2 Results and Discussion

According to the two-phase model proposed in this study, the IPGA and DEMATEL were employed to help make a comprehensive decision on improving customer satisfaction. The results of each phase are stated as follows:

Phase 1: IPGA -- Find practices that need to be improved

According to the results shown in Phase 1 (Table 1), the service quality of the online tax declaration service was accepted because of the level of perceived performance ranging between 3.70 and 3.96 on a five-point scale (1 = extremely low performance). However, this study believed that the service quality of the online tax declaration service has to be improved due to the higher level of perceived importance ranging between 4.30 and 4.52 on a five-point scale (1 = extremely low importance) than perceived performance.

This study used paired t-test to understand the existence of a service gap for each practice. According to Table 1, there are significant differences between the customers' perception and the expectation for all practices, suggesting that the provided service of the Taiwanese online declaration system cannot satisfy customers. Therefore, this study further explores which practices need to be improved from the customers' perception by using the IPGA model.

<Take in Table 1>

According to the processes stated in the IPGA model, this study transformed the performance and importance value into RP and RI (Table 1). Next, the IPGM can be depicted by taking RP as the *x*-axis and RI as the *y*-axis.

<Take in Figure 2)>

As shown in Figure 2, 10 practices (situated at the upper left area) having higher relative importance are the top priorities in improving customer satisfaction. Of these practices, two practices relevant to System Service Quality are such as "the functions provided are completed" and "the system can save a lot of time." Five practices, namely, "the information provided is correct," "the information provided can meet users' needs," "the trial balance and return receipt provided are complete," "the information delivery process is safe," and "personnel information is kept confidential," are relevant to Information Service Quality. Meanwhile, three practices, namely, "the usage time is free," "the system can provide the best calculation reference," and "the system always provides timely service," are relevant to General Service Quality. As a summary, according to customers' perception, the online tax declaration system needs to strengthen its functional integrity to save the user's tax declaration time as much as possible and improve efficiency for the aspect of system service. As for information service, it shall consider how to provide the users with correct, necessary, and adequate information, strengthen information safety and users' privacy, provide adequate and valid data to users, and prevent information leakage. Meanwhile, the key to improve the general service quality is to ensure convenience in terms of service time, best formula, and

service stability, provide users with convenient and efficient services, and avoid users' wastage of time due to service interruptions.

According to these results presented, the customers considered that there were 10 practices should be improved immediately in order to enhance customer satisfaction. In view of this, this study used DEMATEL to help managers determine which practices have the higher return on investment among the 10 practices.

Phase 2: DEMATEL -- Clarify the most powerful practices

Ten practices obtained in Phase 1 became the bases for designing the DEMATEL questionnaire. Six experts chosen for this study were asked to fill out the questionnaire according to their working experiences and indicate the degree of influence they believe each practice has on other practices. This was done for all 10 practices. The degree of influence was assessed by scores ranging from 0 to 4, which represent "No influence" to "Very high influence." After averaging these six experts' scores, the *initial average direct-relation matrix* was obtained.

According to Equation (3) as shown in the previous section, this study transformed the initial average direct-relation matrix into a total direct-relation matrix, T in order to present the interrelations among 10 service practices within the online tax declaration system and to map out the IRM. To simplify the IRM, only the practices whose effect in matrix *T* is greater than the threshold value of *0.35* are shown in an IRM (Figure 3).

<Take in Figure 3)>

To determine the ***powerful*** practices that have the higher return on investment, this study adopted Equation (4) and Equation (5) to obtain the sum of both given and received influences for each practice and to produce their net effects and total effects (Table 2). Finally, $(r_i - c_i)$ is graphed on the *y*-axis, and $(r_i + c_i)$ is graphed on the *x*-axis. The IDM can be produced as shown in Figure 2.

<Take in Table 2>

Based on the above results, ISQ1 has the highest positive *net effects*, followed by ISQ2, ISQ8, GSQ3, GSQ10, and ISQ3, respectively. This demonstrates that these six practices are the main cause factors which have the highest return on investment of the online tax declaration system. For example, the investment on ISQ1 may affect the executive performance of SSQ6, SSQ7, and GSQ2, therefore when the manager regards "maximizing the benefits of improvement" as the main target, the manager can plan this practice as the top priority for improvement. Therefore, the provision of valid data (correct, necessary, and adequate) in this online tax declaration system is the priority in strengthening the system. Second, information safety is a key concern of the public when using the online tax declaration system. Increasing the public's use of the system shall start from information safety. Moreover, if the public understands that the system can provide the most beneficial formula, the public may be willing to use this system in the long-term and their satisfaction in using it can be enhanced. Finally, heavy traffic in the online tax declaration system will cause collapse of this online system and delay of completing the necessary processes of tax declaration. Therefore, strengthening the stability of the service system is also an important work for the online tax declaration system.

With regard to the overall effects, functional integrity is top priority, followed by service stability, time convenience, data conformance, adequacy, and correctness. The result indicates that this item plays an important role in improving service quality. Continuous improvement is a very important task for the manager to monitor in the improvement framework. The manager can examine whether the functional integrity is improved, the service system is stable, the public is satisfied with the timeliness and convenience of service delivery, and the data provided are correct, necessary, and adequate to review the effect of system improvement.

4. CONCLUSION

Service quality is the primary concern in improving customer satisfaction. However, under a complex mutual influence between and among practices, identifying those with the highest improvement benefits is the basis for the manager to make decisions. Given a firm's limited resources, however, how could the manager properly use the firm's limited resources, identify the practices with the best effects on quality improvement, and strengthen them? These are the major issues which this study aimed to solve. Hence, the research proposed a decision-making model to identify the powerful service practices by employing both IPGA model and DEMATEL approach, which can help the manager work out a comprehensive program to improve customer satisfaction. This two-phase decision-making model includes two major concepts: (1) Analyzing the customer's perception of quality practices using the IPGA model, and identifying the service quality practices that need to be improved: (2) Understanding the causality between practices by managers/experts through DEMATEL in order to judge the practice with the higher improvement effect.

The two-phase model proposed in this study cannot only respond to the challenging environment faced by the firm; it can likewise assist the manager in working out a comprehensive policy to improve customer satisfaction. This two-phase model has three theoretical and practical arguments:

(1) *Integration of the perception of customers and managers*: Because all practices are designed and provided to meet customers' needs, understanding customer's perception of the service quality is extremely important. However, the practical managers are directly responsible for determining which practices need extreme improvement. As indicated by Cacioppe, Forster, and Fox (2008), managers have clear views about the companies and this affects their attitudes which in turn have an impact on their intended behavior towards resources allocation. Therefore, to consider both customer and manager's perception, the new proposed two-phase model initially uses the customer's perception to identify the practices that need to be improved and then involve the conduct of an in-depth discussion on practice based on the experience of the practical experts.

(2) *Clarification of the possible causality between practices*: Judging the practice's importance to the improvement of overall customer satisfaction based on the assumption of mutually independent relationship between practices is actually not cost-effective for a firm with limited resources. Therefore, this study adopts the DEMATEL method in second phase to

determine the causality between practices. In other words, clarifying the interaction between practices will help improve the firm's use of resources.

To study the validity of this new proposed model to practical management decisions, an empirical case of Taiwanese online tax declaration service was performed. The application of this new model does not entail a complex calculation process and the results can be presented by graphs. Therefore, the illustration can help the manager understand more clearly the customers' opinion on services. Moreover, the method can help examine the quality of the service system and make service improvement decisions effectively to enhance customer satisfaction under the resource-limited situation. For example, although the user thinks that there are 10 practices that need to be improved in the case of Taiwanese online tax declaration service, this study finds from the analysis of the manager's perception in the second phase that improving ISQ8, ISQ9, and GSQ3 cannot result in the expected benefits. This demonstrated that considering manager's perception is necessary for making more effective decisions. Therefore, this two-phase model has high accessibility and validity and further researches can use this model to make practicable decisions.

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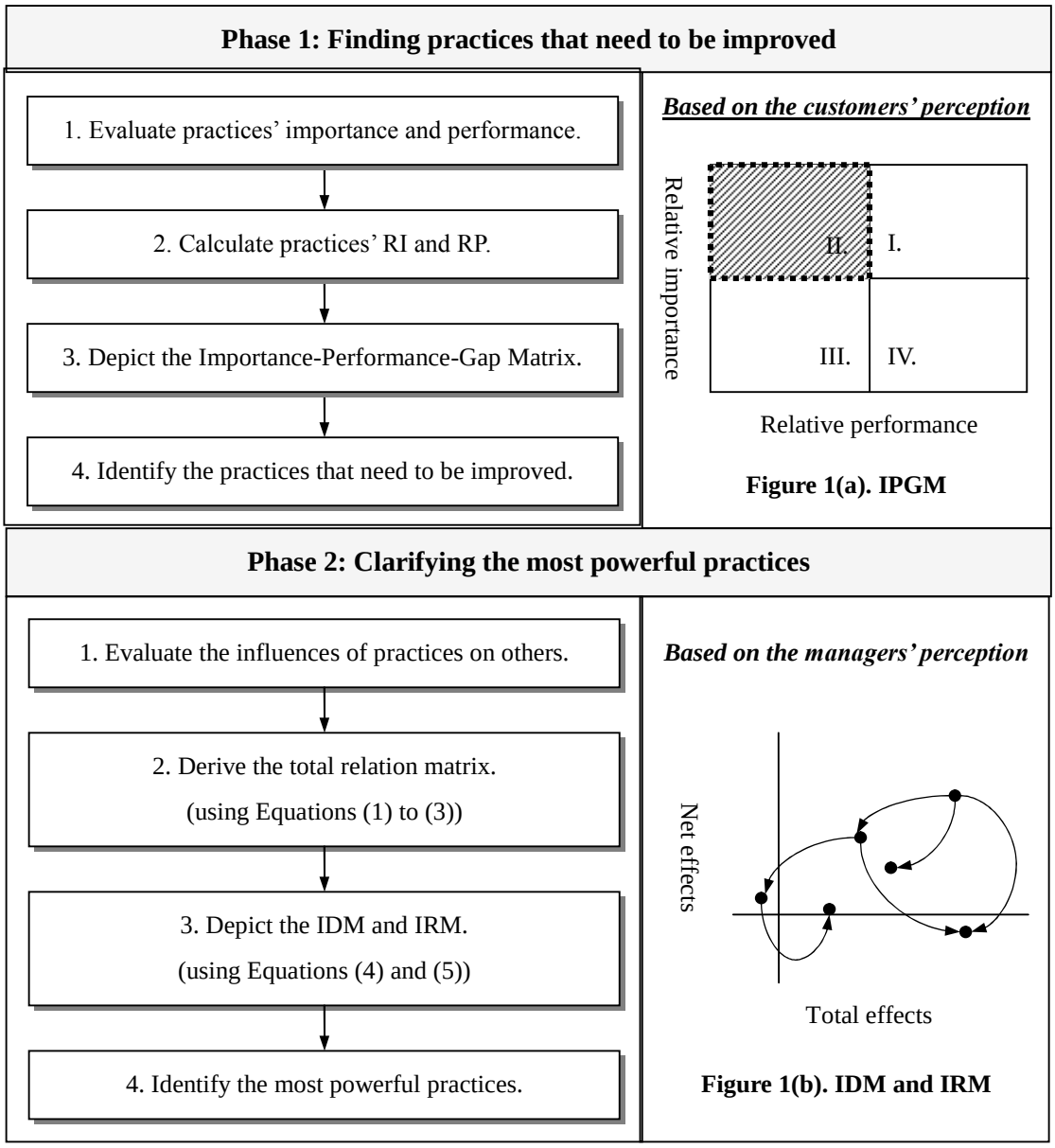

Figure 1. IPGA-DEMATEL Model

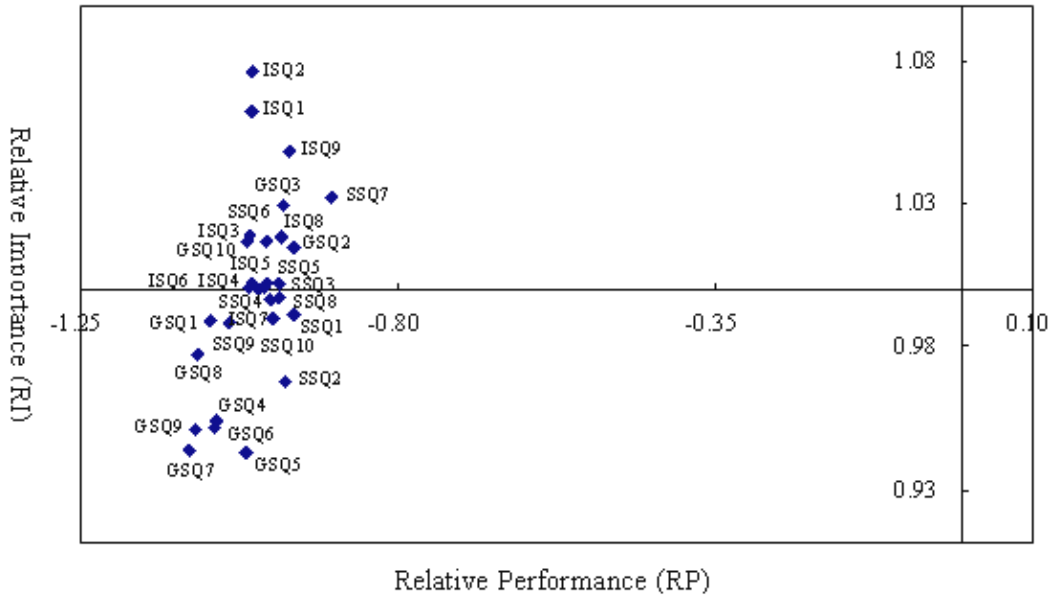

Figure 2. IPGM of the online tax declaration system

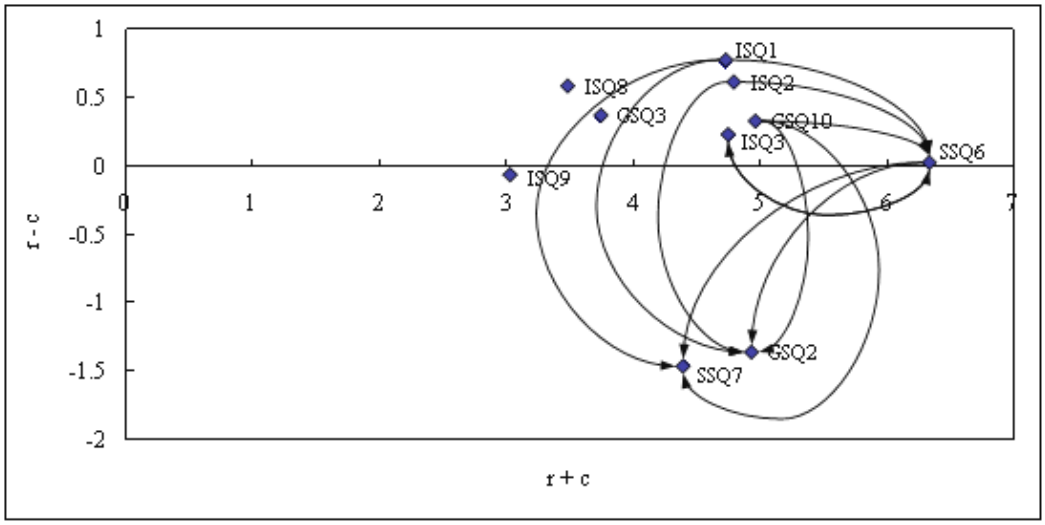

Figure 3. The IDM and IRM of the 10 practices

Table 1. Results of descriptive statistics, t-test, and transformed values

Dimensions and Items		Performance	Important	t-test	RI	RP
System Service Quality		3.9590	4.4015			
SSQ1	program for using online Tax declaration system is easy to get	4.0513	4.3663	5.699*	0.99	-0.95
SSQ2	download speed is fast	4.0037	4.2637	4.172*	0.97	-0.96
SSQ3	processes of program installation, setup, and operation are easy	3.9670	4.4139	7.311*	1.00	-0.97
SSQ4	Tax declaration online system is easy to understand	3.8828	4.4103	8.243*	1.00	-0.99
SSQ5	the pictures provided by the system are clear and easy to understand	3.8974	4.4322	8.443*	1.01	-0.99
SSQ6	the system provides complete functions	3.8974	4.4798	8.602*	1.02	-0.99
SSQ7	the system can save lots of time versus alternative tax filing systems	4.2930	4.5458	4.275*	1.03	-0.90

Dimensions and Items		Performance	Important	t-test	RI	RP
SSQ8	download of income data is fast	3.9670	4.3919	6.527*	1.00	-0.97
SSQ9	instant windows offer clear assistance and warnings	3.6996	4.3516	10.060*	0.99	-1.04
SSQ10	upload speed is fast	3.9304	4.3590	7.044*	0.99	-0.98
Information Service Quality		3.8685	4.5189			
ISQ1	the system provides correct information regarding income data	3.8059	4.4872	11.712*	1.06	-1.01
ISQ2	the information provided by the system meets user's needs	3.8022	4.4286	11.067*	1.08	-1.01
ISQ3	the information provided by the system is helpful for completing a Tax declaration	3.8498	4.4396	9.708*	1.02	-1.01
ISQ4	the information provided by the system is clear and easy to understand	3.8132	4.4139	10.009*	1.01	-1.01
ISQ5	the downloaded information is relevant	3.9194	4.3846	8.150*	1.01	-1.00
ISQ6	the system acknowledges the submission of the tax declaration	3.9744	4.4835	9.307*	1.00	-1.01
ISQ7	the results are accurate	4.0256	4.6154	10.736*	1.00	-0.98
ISQ8	the delivery of information is safe	3.8132	4.6777	13.930*	1.02	-0.97
ISQ9	secrecy of personal information is maintained	3.8132	4.7399	14.377*	1.05	-0.96
General Service Quality		3.7077	4.3040			
GSQ1	the system provides a detailed guide to help solve problems	3.6044	4.3553	12.863*	0.99	-1.07
GSQ2	open hour are very convenient	4.0586	4.4725	7.277*	1.02	-0.95
GSQ3	the system provides calculation references in the best interests of the tax filer	3.9927	4.5311	8.803*	1.03	-0.96
GSQ4	the system can be customized	3.6337	4.2015	9.330*	0.95	-1.06
GSQ5	government provides lots of advertisement to introduce this system	3.7875	4.1538	5.534*	0.94	-1.02
GSQ6	the system informs about the declaration date and provides free consulting lines	3.6227	4.1941	9.007*	0.95	-1.06
GSQ7	it is easy to make contact using the customer service line	3.5018	4.1575	10.025*	0.94	-1.10
GSQ8	people in customer service have the knowledge and capability to solve people's problems immediately	3.5421	4.3040	12.077*	0.98	-1.09
GSQ9	people in customer service can provide specific service to meet customer needs	3.5385	4.1905	10.028*	0.95	-1.09
GSQ10	the system always provides service during promised times	3.7949	4.4799	10.387*	1.02	-1.01
Total mean		*4.4043*	*3.8442*			

Note: *: $p < 0.05$

Table 2. Total effects and net effects of the 10 practices

Service practices		Total effects ($r_i + c_i$)	Rank	Net effects ($r_i - c_i$)	Rank
SSQ6	the system provides complete functions	6.336	1	0.023	7
SSQ7	the system can save lots of time versus alternative tax filing systems	4.412	7	-1.452	10
ISQ1	the system provides correct information regarding income data	4.717	6	0.751	1
ISQ2	the information provided by the system meets user's needs	4.796	4	0.612	2
ISQ3	the information provided by the system is helpful for completing a Tax declaration	4.747	5	0.221	6
ISQ8	the delivery of information is safe	3.487	9	0.584	3
ISQ9	secrecy of personal information is maintained	3.029	10	-0.060	8
GSQ2	open hour are very convenient	4.933	3	-1.365	9
GSQ3	the system provides calculation references in the best interests of the tax filer	3.746	8	0.366	4
GSQ10	the system always provides service during promised times	4.960	2	0.320	5

國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估 ∨達成目標 □ 未達成目標（請說明，以 100 字為限） □ 實驗失敗 □ 因故實驗中斷 □ 其他原因 說明：
2. 研究成果在學術期刊發表或申請專利等情形： 論文：∨已發表 □未發表之文稿 □撰寫中 □無 專利：□已獲得 □申請中 □無 技轉：□已技轉 □洽談中 □無 其他：(以 100 字為限)
3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）(以 500 字為限) 本次計畫係發展一兩階段服務品質關鍵因素之模式，此模式結合了顧客與管理者觀點，能確實找出服務品質關鍵缺失所在，此研究結果已於七月發表於 2010 International Conference on Business and Information (Tsai Ming-Chun, Lin Shu-Ping, Chan Ya-Hui, Integrating Perceptions of Customer and Manager to Identify the Powerful Service Quality, International Conference on Business and Information (Kitakyushu, Japan), 2010.)。目前亦已藉由研討會所參與之心得，將論文修改調整投稿於 AFRICAN JOURNAL OF BUSINESS MANAGEMENT(Tsai Ming-Chun, Lin Shu-Ping, Chan Ya-Hui, Service Failures Identification: The Involvement of the Interrelation Effect in Service Practices. Submitted)。此研究結果將可作為未來服務品質管理領域，探討服務品質關鍵因素之參考，後續研究者亦可採用相同模式探討不同服務業服務品質之關鍵因子，亦可接續本研究找出改善服務品質關鍵因素之具體作法。相信此研究對管理實務與學術研究均有一定的貢獻程度。

國科會補助專題研究計畫項下出席國際學術會議心得報告

日期：99 年 07 月 14 日

計畫編號	98-2410-H-216-001-		
計畫名稱	服務品質關鍵因素之探討--結合顧客與管理者觀點之兩階段模式		
出國人員姓名	蔡明春	服務機構及職稱	中華大學企管系暨經管所 副教授
會議時間	99 年 7 月 5 日至 99 年 7 月 7 日	會議地點	日本-北九州(Kitakyushu, Japan)
會議名稱	(中文) (英文) 2010 International Conference on Business and Information		
發表論文題目	(中文) (英文) 三篇論文: 1. Expectations and perceptions in restaurant services: three dimension gap analysis. 2. A study of online customer satisfaction model: the mediation role of customer inertia. 3. Integrating perceptions of customer and manager to identify the powerful service quality.		

一、參加會議經過

此次研討會本人與本校科管系林淑萍教授帶領多位博士班學生與二位碩士班學生赴日參加此次研討會，其中本人所指導的學生有博士班林千鈴、碩士班有黃倩伶及邱禕涵同學三位同學參與此次研討會。在此次行程中，我們於 7 月 3 日出發抵達日本福岡，於當天住宿於博多全日空飯店；7 月 5 日抵達小倉 Rihga Royal Hotel 參加此次學術研討會，此次會議共舉行 3 天，而我帶領所指導的學生參與行銷(Marketing)相關研究主題之議程；7 月 7 日 8:20~10:00 首先由博士班林千鈴同學發表第一篇論文、10:20~12:00 由碩士班黃倩伶同學發表第二篇論文，15:20~16:30 由

我自己發表第三篇論文，每場次參與之學者約有 20 人，會議中我們與多位學者針對發表之論文進行討論。此次學術會議於 7 月 7 日 6:00 結束，而本人與學生於 7 月 8 日中午搭機返台。

二、與會心得

此次國際學術研討會之性質是屬商管(Business)與資訊(Information)領域議題研討會，而個人研究專長領域屬於商管領域之行銷管理(Marketing)，此次會議議程中每個時段均安排有一個 session 為行銷管理(Marketing) ，特別是 7 月 7 日個人發表論文當天，本人所發表三篇論文分別安排於三個不同時段的行銷管理(Marketing)的 session 當中，會議中有許許多多論文發表內容是我所感興趣的研究議題，其中有幾篇文章的想法概念是很值得學習的。在會議中我認識來自印尼、香港及台灣有共同興趣的學者，而且針對我們於此次研討會所發表之論文，會議中的 session chair 均給予高度肯定，並提供寶貴的建議，其中對於第二篇論文的發表，與會的學者亦提供許多的問題與建議，未來我們將依此次研討會所得之建議與心得修改後投稿於國際期刊。另外，此次會議，我與我的兩位研究生(博二林千鈴、研二黃倩伶)共同參與此次學術研討會，在投稿過程中，學生學習英文論文之撰寫；在研討會之論文發表為英文簡報與英文溝通之環境，因此學生與我均能在英文發表與英文學術討論的氛圍中體驗與學習。再者，兩位研究生在此次研討會中不但增加了國際觀，亦在充分準備簡報後，英語語言能力表達上有所成長。此次會議我們得到了國際學術互相交流的機會，協助我們突破研究的瓶頸，亦提升了學生的國際視野與學習的信心，因此相信此次參與國際研討會的經驗對我與兩位研究生在未來的學術研究與英文溝通表達上將有很大助益。

四、建議

五、攜回資料名稱及內容

國際學術研討會之論文光碟及研討會註冊收據。

六、其他

為證明本人及學生出席本次國際學術研討會，僅附上相關照片以茲佐證。

蔡明春與博士生林千鈴

蔡明春與碩士生黃倩伶

蔡明春、林淑萍、詹雅慧、林千鈴、黃倩伶

蔡明春論文發表時

蔡明春論文發表後

無研發成果推廣資料

98 年度專題研究計畫研究成果彙整表

計畫主持人：蔡明春	計畫編號：98-2410-H-216-001-
計畫名稱：服務品質關鍵因素之探討--結合顧客與管理者觀點之兩階段模式	

成果項目			量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）
			實際已達成數（被接受或已發表）	預期總達成數(含實際已達成數)	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%		
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	1	1	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	1	1	100%		
		專書	0	0	100%	章/本	
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)	無

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

國科會補助專題研究計畫成果報告自評表

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1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

■達成目標

□未達成目標（請說明，以 100 字為限）

□實驗失敗

□因故實驗中斷

□其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形：

論文：■已發表 □未發表之文稿 □撰寫中 □無

專利：□已獲得 □申請中 ■無

技轉：□已技轉 □洽談中 ■無

其他：(以 100 字為限)

此研究結果已於 2010 年 7 月發表於 2010International Conference on Business and Information。目前亦已藉由研討會所參與之心得，將論文修改調整投稿於 AFRICAN JOURNAL OF BUSINESS MANAGEMENT。

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以 500 字為限）

本次計畫係發展一兩階段服務品質關鍵因素之模式，此模式結合了顧客與管理者觀點，能確實找出服務品質關鍵缺失所在，此研究結果已於七月發表於 2010International Conference on Business and Information。目前亦已藉由研討會所參與之心得，將論文修改調整投稿於 AFRICAN JOURNAL OF BUSINESS MANAGEMENT。此研究結果將可作為未來服務品質管理領域，探討服務品質關鍵因素之參考，後續研究者亦可採用相同模式探討不同服務業服務品質之關鍵因子，亦可接續本研究找出改善服務品質關鍵因素之具體作法。相信此研究對管理實務與學術研究均有一定的貢獻程度。