

**UNIVERSITY OF TAMPERE**

School of Management

**PUBLIC SERVICE QUALITY AND CITIZENS' SATISFACTION: EVIDENCES  
FROM THE ADMINISTRATIVE CENTER OF LAMDONG PROVINCE**

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### **Abstract**

*Administrative reforms and the quality of public services have been an emerged issue of Vietnamese Government and citizens in recent years. The aims of this study are measure and explore the factors affecting the satisfaction of people using the One-Stop Service (OSS) of Administrative Center of Lamdong province. This thesis, with the title: "Public service quality and citizens' satisfaction: Evidences from the administrative center of Lamdong province", reaches those objectives by developing and testing a model of service quality in the field of public administration. Data were collected from 236 individuals and organizations who have used the OSS in Lamdong province's Administrative Center. Structural Equation Model (SEM) Analysis indicates that the quality of the one-stop service includes four components: quality of officers, facilities, accessibility and service processes. In particular, staff quality (professional skills and service attitude) has the strongest effect to the satisfaction of people. Besides, the facility additionally affects significantly the citizens' satisfaction of the OSS. Implications for managers are drawn from the results of this study.*

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## **Chapter 1: Introduction**

### **1.1 Relevance and motivation of the research**

Administrative reforms have been a tough problem attracting the attention of Vietnamese Government and citizens recently. In Vietnam, administrative reform is a vital mission that can be easily found in many national documents, orientation activities' messages which are suggested by the government and law makers. Many projects have been running to improve the quality of administrative services, to bring satisfaction and loyalty to people using administrative services. According to Nguyen Thien Nhan, the chairperson of Vietnam Fatherland Front, in a speech dated August 9, 2014, he said that measuring satisfaction is a breakthrough to refine administrative activities. The objective of administrative agencies is to improve public services' quality and ensure over 80% of citizens and businesses satisfied when using these services until up to 2020. A recent project of Ministry of Home Affairs in 2014 assessed the effectiveness of aspects' administrative reform to retain users' satisfaction on public administration services. This project's title is "Building measures to improve people and organizations' satisfaction of state administrative bodies' services"<sup>1</sup>.

Regarding to every administrative office, with the goal of providing better administrative services to citizens and organizations, they were applying quality management system to handle the job provided, enabling head to control the process of settling the work in the agency. The efforts that have contributed to significantly improve people's quality of service. Following numerous preliminary and final review and evaluate the initial results of this renewal process. Some localities such as Ho Chi Minh City, Da Nang has also organized many surveys, consultation with the organizations and citizens to assess the quality of services of CCAS authorities.

In Lam Dong province, the People's Committee of Da Lat city is one of the agency initiated the application of quality management system according to ISO for some administrative services through the creation of Office in receipt and return the results of the Office of the people's Committee of Da Lat city since 2002. The report of the people's Committee of Da Lat city on the implementation of the application of the quality management system (according to the criteria ISO 9000: 2000) in the city of Dalat period 2002-2005 outlined the results of the application "has

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<sup>1</sup>Decision 1383 / QD-BNV December 28, 2012 "Building measures to improve people and organizations' satisfaction of state administrative bodies' services"

achieved some encouraging results". However, the annual summary report shows the evaluation results based primarily on the volume of work achieved, the percentage of records on time and late, the reasons for the influence ..., mostly from the perspective of the service provider. The other side is more important, is the beneficiary of the service - the people - have to feel happy or satisfied how they have not been evaluated and fully understood.

Worldwide, there have been many studies on the quality of public administration services. One of them, apart from the studies using the traditional model of Parasuraman's SERVQUAL is the research on "Service improvements in public services using SERVQUAL" with 5 dimensions measuring service quality including *Tangibles, Reliability, Responsiveness, Assurance, Empathy* (Alexandria & Adrienne, 2001). Besides, a study conducted by Agus Arawati raised to 9 dimensions including *Tangibility, Reliability, Responsiveness, Competence, Courtesy, Credibility, Access, Communication, Understanding* (Agus, Barker, & Kandampully, 2007). On the other hand, Zahari Wan Yusoff Wan author additionally supplement another variable named professionalism to five dimensions of traditional SERVQUAL (Zahari Wan Yusoff, Ismail, & Newell, 2008). Furthermore, Wallin Andreassen author proposed a model for other variables related to *satisfaction* such as *reputation* and *loyalty* (Wallin Andreassen, 1994).

Public services are in comparatively monopoly situation in Vietnam generally and in Lamdong province particularly, but the more citizens' literacy level develops the more public services increasingly perambulate judicious customers who can espouse another alternative apart from public services. Admittedly, the mentioned researches have not been compatible for Vietnam in general and for Lamdong Province in particular. In fact, the public services provided in Vietnam are monopoly so that the results of above researches may be irrelevant in Vietnam. Furthermore, the concept of Loyalty is irrelevant for public administrative services. In connection this context, this study was undertaken to supplement the relevant knowledge on this issue. We conducted a survey from people who used the Public Administration Services in Lamdong province to reach the below objectives.

## **1.2 Research objectives and design**

Firstly, this study aims to measure the satisfaction of the people using the one-stop services of an Administrative Center of Lamdong province. To be more specific, the author wants to investigate

the determinants of OSS users' satisfaction. The One- Stop Service (OSS) is particularly the effective solution for minimizing the troubles that the citizens have to face to. By this way, all of the documents of the citizens are collected and gathered at OSS and then processed by the public servants without the citizens' participation. The OSS has been applied in a variety of provinces in Vietnam including Lamdong Province. However, until up to date, there has not been any survey that focused on the resident's level of satisfaction of OSS in Administrative Center of Lamdong Province. Therefore, it is necessary to conduct a new research focused on the users' satisfaction of OSS in Lamdong Province. More importantly, there are a variety of reports produced by some departments, state agencies or People's committee of Lamdong province to estimate the efficiency of public services. However, those reports are made by the services providers, not by the services users. This research examines the satisfaction of the citizens and adds certain knowledge related to this field.

Secondly, this study wants to explore the factors built the quality of public service and affect the satisfaction of the people using the one-stop services of an Administrative Center of Lamdong province. The quality of public services is no exception to these general characteristics as described above. Research on this topic mostly based on SERVQUAL and SERVPERF scale (Market & Opinion Research International-MORI, 2002; Rodriguez & CTG, 2009). Consider two studies showed that most of the criteria are the same contents of SERVPERF components and restructured, adjusted for a better fit. This provides the basis for applying to study in Vietnam. Based on the works of Rodriguez & CTG., Combined with the qualitative preliminary studies were conducted in Dalat initially showed 6 ingredients featured in public service (1) The quality of the staff, including employee services (competence in) and service attitude (attentiveness), (2) in infrastructure (Tangible), (3) easy access (Accessibility), (4) process services (procedure), (5) on time (Timeliness) and (6) Handling of feedback (feedback). From the above analysis, the proposed preliminary quality public services consists of 6 components are Process service, easy accessibility, quality staff, on time, feedback and Handling Facility material. In which "quality staff" is the concept underlying level 2 include "Professional staff" and "service attitude". Some of these components interact with each other. The specific structure of the component will be determined by the results of EFA and CFA.

Finally, this study aims to suggest the necessary solutions for improving the citizens' satisfaction of the One-Stop Services of Administrative Center of Lamdong province. Basing on the revealed results, this study will provide some potentially feasible suggestion for enhancing the satisfaction of the existing and potential citizens who use OSS. Those solutions can be practiced in short- term or long- term period.

In order to reach the aforementioned objectives, the research's process consists of two sequential stages (i.e. preliminary research and formal research). The former is conducted by using qualitative method and the quantitative method is utilized for the latter.

To be more specific, in the preparative study, the literatures associated with the research were reviewed. After that, the residents, public servants as well as some experts in public administration are interviewed by using the qualitative questionnaire. Note that this questionnaire is previously prepared to determine, adjust and supplement some factors having influences on users' satisfaction of the one-stop service. Lastly, the items measuring these latent variables or factors will be organized. Data are collected based on the questions sheet, which is emerged after completing the preliminary stage. Separately, the formal research uses quantitative method to resolve the study's aims, test the model and the hypotheses (assumptions).

The remainder of this study is structured as follows. Section 2 provides a brief literature review from which research hypotheses are developed. Section 3 introduces the research methodology, and descriptions of our data collection and variable definitions. Empirical results and discussion are presented in Section 4. The final section concludes the study and indicates its limitations.



## **Chapter 2: Literature Review and Hypotheses**

### **2.1 Literature Review**

#### **2.1.1 Quality**

Recently, the controversial debate related to the definition of quality as well as the association between prospects, experience and fulfillment. They are necessary for resolving the difficulties originated from the formation of some basic definitions. The academic definition of quality in the services literature focuses on the quality, which is based on customer's perception (i.e. perceived quality).

Until up to date, there have been plenty of definitions of quality under customer's perception, or in other word, perceived quality. However, all of them have common meaning that it is the customer's appraisal about an estimated object (A Parasuraman, Zeithaml, & Berry, 2002). Considerably, this kind of quality does not concern to products or services' features. Likewise, Perceived quality can be understood as a sort of attentiveness concerning to, but not completely same at fulfillment/satisfaction. Therefore, it is established from the considering between customer's expected and delivered quality in using the services.

Olshavsky (1985) defines quality as a kind of universal appraisal of a certain thing such as service or commodity. Similarly, Holbrook and Corfman (1985) suppose that quality plays a key role as a general value evaluation. Furthermore, a study conducted by Ananthanarayanan Parasuraman, Zeithaml, and Berry (1994) also supports the statement that service quality plays a role which is similar to attentiveness.

The control of quality of service in general and of administrative service in particular requires full awareness of the distances between users' prospects and perceived values as the part of management, supplying organizations, and clients. Rowley (1998) considers that the most significant gap is the distance between clients' prospects of service and their perceived value in process of delivering services. It is important to note that customer's prior experience or negotiations, those of other customers, and service supplier's promises as well influence their expectation. As a result, government would be subject to expectations formed from a customer's

final experience. Sometimes, these prospects are unbelievable because of media coverage (Rowley, 1998).

However, it is essential to identify the other differences: (1) the gap between what service users look forward and what service providers think users to expect. Understanding properly customer's expectations would help managers have adequate arrangement of priorities as well as effective policies to meet users' need. Admittedly, the emergence of this gap may arise from wrongful study on users' need, ineffective communication or irrelevant management structure. It follows therefore that this gap is "the understanding gap". (2) The gap between what management discerns and users look forward and the quality descriptions set for supplying service. Realistically, the managers can precisely conceive the users' expectations, but they can wrongfully translate them into relevant quality identifications and performance criteria. As a result, this gap namely "the design gap" is probably resulted by imprecise claims offered by service providers, improper target setting or suppliers who do not much experience in this area. (3) The gap with name "the delivery gap" is the gap between the quality identifications set for service supply and the real service quality. It is clear that this difference derives from lack of capacities in main parts of processing, and shortage of liability and motivating forces, the irrelevant process of controlling quality, and deficit of trained service workers. (4) Finally, the communication difference. The gap between real quality of performances and the commitments declared.

Whilst academic researches tend to concentrate on the difference between what is expected and what is perceived, there will be cases when it is essential to estimate and later to resolve the other differences in the supply of service quality. Quality is delineated with respects to what clients perceive and what they expect. Clearly, it is necessary to understand fully of who the client/customer is. This definition of client is very complex and strenuous to understand clearly in the public area. The public area consists of a number of participants or stakeholders having a variety of experience of the single public service or the accumulative impact of public services like for instance, educational or healthy services. Concerned people in this area include users, their relatives, the local community, society, local governing organization, servant, etc. These participants entirely play particular role in service specification, appreciation of performance and embarkation in the service delivery. A good example for this is that all of these persons are related

to the “end-product” in education. These ones are associated with the system of producing the performance.

In the public service sector, it is feasible or practicable to recognize the following roles for clients, and these would be necessary in identifying the different significances of the distinct concerned persons: (1) users, who realistically consume the delivered services. (2) Influencers are who have experience in using the service before. (3) Deciders, the persons realistically make decision of using the services. (4) Approvers are persons who have right to approve the contracts, decision in a body supplying the services. (5) Purchasers, the part with the official right to purchase or run as gatekeepers for buying within the body. The first three of concerned people are probably relevant in the role of the end-consumer. Meanwhile, local governing organizations may be more likely to play role of one of the remaining stakeholders.

### **2.1.2 Service and Service quality**

Services are activities or benefits that businesses can offer to customers to establish, strengthen and extend the relations and long-term cooperation with customers (Kotler & Armstrong, 2004). In addition, services are also considered acts and processes, how to do a certain job in order to create value for customer use, to satisfy the needs and expectations of customers (Zeithaml & Bitner, 2000).

Services play an increasingly important role in every economy and academic research interests around the world since the early 1980s (Grönroos, 1988). Unlike the assessment of the quality of the physical product, assessing and measuring the quality of products and services is more difficult due to the basic distinctive features: intangible, heterogeneous, and can not be separated (Robinson, 1999; (Caruana, A. & Pitt, L., 1997); (Svensson, 2002)). His invisible attributes of service were identified as customers can not feel the service through the senses. More specifically, a pure commodity will have the shape, size, color and even smell, customers can fully review and assess the suitability of the goods for the private use through its existing characteristics of the goods. Meanwhile, the service completely without these characteristics and customer service can not be perceived through the senses without using it. Customers fall prey to hard to figure out the service, the service can not try before you buy leads to difficult to assess the quality of service. Services can not be provided in bulk, concentrated as commodity production. Therefore, suppliers find it difficult in quality control according to a uniform standard. On the other hand, the customer's perception of

service quality is strongly affected by the skills and attitudes of the service provider (the caring, dedicated staff of service providers may change on morning or afternoon). Therefore, the service is hard to achieve uniformity of quality in a specific time period. Services serving more people, the more difficult to ensure uniformity in quality. Additionally, the service providers and service consumers happen simultaneously. Service providers and customers have contact with each other to provide and consumer services at the place and time that works for both parties. For some services, the customer must be present during the process of service delivery. For example, clinical cases, doctors can not cure if the patient is absent. Thus, unable to separate the provision and use of services for the centralized production and transport goods to where they are needed. Service providers can hardly achieve economies of scale compared to the production of concentrate, as well as difficult to manage quality and supply and demand of services.

The concern on quality focuses on the quality of commodities, which are visible products. Nevertheless, quality of service has become more and more essential in short period of time because of quick growth up of service industries. Many economists have tried to define and measure quality of service in a variety of different perspectives. Lehtinen (1982) for the quality of services must be assessed on two aspects is the provider of the service and results. Grönroos (Grönroos, 1988) also suggested that the two components of quality of service, that is (1) the technical quality, which is what the customer receives, and (2) the quality of functions, interpreting services what is provided. In view of the customer-oriented, quality of service means that meet the expectations of customers, satisfy customer needs. Therefore, quality is determined by the customer, as the customer wishes. Because customer needs are diverse, so the quality will also be several levels, depending on the customer. Quality customer service is so decided. Thus, the quality is subjective categories, depending on the needs, expectations of customers. The same quality but different customers will have different feelings, and even the same customer has different feelings at different stages. On the side of service providers, the quality depends on the service provider staff, so it is difficult to ensure stability. Also, the quality that customers perceive highly dependent on external factors: environment, facilities and equipment, catering, attitudes of service personnel.

Practically, these services' quality plays an essential role for enhancing company's competitive advantages, thus, differentiates that company from other competitors in the market. There have been evidence which suggests that quality may contribute to creating client's repurchase intention

as well as potential customers through effects of word-of-mouth that are relatively beneficial. In the research of Booms and Bitner (1981), there is an idea that an enlarging of marketing mix for services illustrated the concentration of the service burden in the marketing of services. To be more specific, some physical factor such as the physical surroundings, all tangible cues, participator insisting of servants and users, and flow of works. Briefly, customer's perception of service quality ought to be as a core factor.

When appreciating service quality, it is no undoubted that there are some arduous/tough problems caused by followings as: (1) service quality is not estimated through its visible features. In other word, customer's experience is important factor for appreciating performance of service delivery; (2) With invisible attribute, services is not be stored, likewise, the processes of producing and trading happen concurrently. Because of this characteristic, the consumer becomes an important component of the process of providing services; (3) Deriving from the invisible feature, distinct users probably have completely different experiences despite of consuming the same services. In summary, it would be said that the nature of service is difficulty of measurement.

Overall, both of provider and consumer's services have important role in appreciating the service quality. Apparently, to estimate service and service quality requires participation of suppliers and users as well. Zeithaml (2000) supposed that meeting customer's satisfaction is main obligation of this process. Compared with visible product, service quality virtually faces difficulties in measuring and identifying. In the same way, the customer's experience is a prime factor affecting the service quality. Besides, because of unintelligible features and difficulty of service quality appraisal, many models have been created to estimate the quality of service performance in short period of time between 1984 and 2003 (Seth, Deshmukh, & Vrat, 2005). However, there have been variety of models, the scientists suppose that there are only two intentions including the school of Northern Europe- Nordic (Grönroos, 1984) and school of American (Arun Parasuraman, Zeithaml, & Berry, 1988). It follows therefore that during process of using the services; customers determine their evaluation of service quality. However, it is necessary to adjust the models when applying in a specific context (Llosa, Orsingher, Carrillat, Jaramillo, & Mulki, 2007).

### **2.1.3 The quality of Public Administration Service**

Up until today, there have been plenty of endeavors to divide services into distinct categories. One of the results of these efforts is Dotchin and Oakland (1994). Dotchin and Oakland (1994) embarked on using these features to classify specific fields of service. As can be seen from their analysis, there are five different categories identified including Personal service, Service shops, Professional service, Mass services, and Service factory. Public services accommodate services in all of these classifications. It is necessary to concede these distinct categories of service when seeking to analyze consumer perceptions of service quality. Grönroos (1984) recognized a group of effects on user's prospect including marketing activities; traditional thought; beliefs and ideas; interaction with other users; former experience of the same services.

In a study conducted by Dunleavy and Hood (1994), these authors mentioned a definition namely "New public management" that punctuates rivalry, diversity and incentive. This definition has transformed the public services, most issues of these services' supply have become closer and closer those in private sectors. Moreover, the study additionally argues that measuring the users' feedback is necessary to improve the quality of these public services. In addition, Rowley (1998) also propounded that the quality of public services is especially essential, as it is not merely related to client retention and fame as well, but is solely concerned with service to the community. Apparently, public services ought to give a hand in developing the society as well as improving users' experience. Public services in the United Kingdom have approximately five million staffs, this number occupies about one fifth of workforce, and consists of every educational institution, infirmary, police station, town hall, local agency and utility firm. The organizations' clients include civilians, users, and corporations both private and public. Admittedly, these services are truly a main part of the field of service Rowley (1998). Public service is an activity related to the scope of the functions, responsibilities of the state administrative apparatus. It is a kind of service directly carried by the administrative agencies (or being authorized under the monitor of the Government) in order to meet the demand of the citizens and society.

The Public Administration Service is delineated as a type of service that related to the law enforcement activities, not for profit purposes. This type of service aims to provide the citizens the valid documents or certifications, which are in the field of management of the administrative agencies/ departments. Apparently, the SERVQUAL tool emerges to offer remarkable notation to

the administrators and other policy-makers of public areas in the seeking for meticulous/strict appreciation of service quality. This apparatus provides the possibility for appraising not only users' estimation of existing service supply but also users' prospects of what public services should be. Likewise, different users have distinct priorities and estimations in respect with these dimensions, and this can bring potential knowledge to decision-makers. In Wisniewski (1996), this author argues that the concentration of management ought to be concerned with service properties directly impacting visible factors (tangibles) as well as trustworthiness. In addition, it is important to note that users capture more momentousness to trustworthiness features than to Tangibles. Some methods to develop the users' trustworthiness of service delivery ought to be in advance. Apparently, other approaches to manage quality can be applied later. Like for instance, the deployment of flows of process may give a detailed implications and understanding into where innovations may have benefits, and where main systems should be reformed to become more relevant.

The quality of Public Administration Service has the same characteristic with the mentioned concepts. The researches related to this topic conducted by Market & Opinion Research International- MORI (2002) using the SERVQUAL scale of measurement. Besides, Rodríguez, Burguete, Vaughan, and Edwards (2009) applied the SERVQUAL scale of measurement to survey 400 people in 76 different regions in Spain about the quality of service at the Town Hall administrative center. Looking at the two mentioned researches, almost all of the criteria have the similar content with the factors of SERVPERF and the criteria are structured for the more relevant. This is the foundation for the further researches in Vietnam. Based on the research of Rodríguez et al. (2009) and the preliminarily qualitative research carried in Lamdong Province, there are 6 elements that are typical in the Public Administration Services including (1) The Quality of Officer (with two sub-components: Competence and Attentiveness); (2) Tangible facilities, in other words; (3) Accessibility; (4) Procedure; (5) Timeliness and (6) Feed back processing.

From the above analysis, the proposed model of service quality of public administration consists of 6 components including Procedure, Accessibility, Officer's quality, Timeliness, Feedback processing and tangible facilities. Among them, the quality of officers is a two- order construction including Competence and Attentiveness. Some of them have the correlation each other and will be determined by EFA and CFA's results.

#### **2.1.4 Satisfaction**

Nowadays, there have been many concepts of satisfaction including client/user/staff established in different issues such as marketing, commerce and management. Like for instance, the good example for this is fulfillment of working in Locke (1976), which is initial and important definition of satisfaction. To be more specific, this author suggests that satisfaction is a kind of positive attitude, a comfortable or affirmative feeling led by the estimation of job performance. Moreover, in the study of Oliver (1981), this researcher also developed this definition in the area of consumption. Specifically, Oliver defined that customer's fulfillment is the generalization of total psychological emotion forming from the comparison of the customer's expectation and experience in using the services.

It can be seen that both definitions emphasize a psychological or affective state related to and resulting from a cognitive appraisal of the expectation performance discrepancy "confirmation" (Bhattacharjee, 2001). In this study, the satisfaction of citizens is defined as a pleasurable or positive emotional state resulting from the appraisal of using OSS to achieve the citizen's personal task. Customer satisfaction with the service provided is determined by a comparison between the perception of the customer after using the service and customer expectations about service. Customer satisfaction is a state in which what customers need, want, and expect the product; and service packs have been met or exceeded satisfaction, resulting in repeat purchase, loyalty and word of mouth value of excitedly. Satisfaction is the degree to meet customer requirements (Brown, 1992). Customer satisfaction is a psychological state that customers feel about a company when their expectations are met or satisfied surpassing expectations through consumer products or services (Oliver, 1997). Zeithaml & Bitner or under (Zeithaml & Bitner, 2000), customer satisfaction is the customer reviews about a product or service has met the needs and expectations of them.

Normally the service business is often said that the quality of service is the level of customer satisfaction. However, many studies show that the quality of service and customer satisfaction is a general concept, said to their satisfaction as a service consumer. Meanwhile, the quality of services focused on specific components of the service. In fact, in the services sector, both the concept of "customer satisfaction" and "quality of services" differ substantially based on the analysis of the causal relationship between them. Customer satisfaction is generally a broader concept of service



quality. With this view we can see the quality of service as a factor affecting the level of customer satisfaction.

There are controversial issues about the link between citizens' satisfaction and quality of public services. Besides, whether applying market model in public sectors is relevant. However, it is necessary to focus on managerial aspect as accountability to users for performances (Kelly, 2005). According to Hoàng and Hậu (2012), factor "human" was confirmed on its important role in create service satisfaction in general, public service satisfaction in particular. Besides, that paper also shows that residents using these services estimated two aspects belonging to human factor including professional knowledge and attitude very low. As a result, the users felt that the arrangement of processing works was probably irrelevant. In service industry, "The Ease of Access" helps the customer access the services and therefore, the services ought to be improved. Related to the public administrative services, the two factors that are concerned by the citizens in Dalat city are "The ease of Communication with the officers" and "Remote Communication". These two factors have the low average level of perceive so that the public service providers in Dalat city seem to slowly apply the new technologies in order to make the citizens satisfied. The factor namely "Services Procedure" is one of the most important factors that affect on the satisfaction of the citizens. In fact, in public administrative services, the factor that causes troubles to the citizens is the procedures. Recent years, the improvement of administrative procedures has lowered the requiring documents and the administrative offices have noticed publicly the procedure of inquiries processing.

## **2.2 Research model and Hypotheses**

There have been many studies proving the role of service workers in service industry. One being cited by following authors of them is Anantharathan Parasuraman, Zeithaml, and Berry (1985) that recognized ten important of perceived service quality including ease of access, interaction between the provider and the customer, plenitude/competency, servants' polite attitude, trustworthiness, reliability, making a prompt response to users' need, security, tangibles and sympathy for users. After the work by Anantharathan Parasuraman et al. (1985), the above identified factors continue to be confirmed into the SERVQUAL scale (Arun Parasuraman et al., 1988).

Definition and characteristics and factors relating to the above services suggests that service quality measurement is a difficult problem for the economy. One of the quality measurement model

popular, a lot of researchers around the world appreciate the model has been started by Parasuraman et al (Parasuraman, 1985), often referred to as SERVQUAL. The model is derived from the two words SERVQUAL and Quality Service. This scale was founded based on the definition of quality of service is "the gap between the expectations of the customer service and their perceptions when using services". Apparently, a certain kind of service always has some typical features that others do not have; however, the establishers of SERVQUAL propound that there are five general dimensions of service quality which used for any service including: (1) Tangibles is visible supports in service delivery such as physical facilities, apparatus, staff/service workers, and material/document. (2) Reliability/trustworthiness is the ability to accomplish the committed service reliably and exactly. (3) Responsiveness/reactivity is understood as the readiness to supply relevant service and to give a hand to users. (4) Assurance means as the awareness and politeness of workers/servants as well as their capacity to create customer's trust and credence. (5) Empathy that points the provider's individual attention to a certain user.

Truly, the initial target in the improvement of SERVQUAL is to attempt to introduce a device for estimating service quality that would be applied for wide scope of industries with only slight adaptation or reformation. It is effortlessly seen that SERVQUAL has been virtually used in private sector (Babakus & Boller, 1992; Bouman & Van der Wiele, 1992; Candlin & Day, 1993), and has been limitedly applied in nonprofit operations (Babakus & Mangold, 1992; Vandamme & Leunis, 1993; Walbridge & Delene, 1993). Faraway improvements of the SERVQUAL scale have carried on finding out realistic achievements and new theories (Arun Parasuraman, Berry, & Zeithaml, 1991). The model is depended on the proposition that users may articulate their prospect of the common features and determinants of service quality and additionally identify these from their experience of existing service quality for a certain supplier. It follows therefore that the study creates not only a method to show users' appraisal on current service quality but also a measuring device in relation to users' prospects.

SERVQUAL given 22 pairs of the research question, the first 22 questions intended to assess the expectations of customers of the provider's service by asking survey participants scored on a scale of 7 properties according to the need of the services offered. 2 sets 22 questions to determine the participants' perception survey on the level of assessment services. In each pair of questions, when analyzed, it will calculate the difference between the expectations and perceptions of the

classification by the service, the average points difference will be the overall quality according SERVQUAL. The detail observed variables or questions for each factors list as following.

Trust (reliability): voice service capable of performing consistent and timely right the first time

- When the company xyz promised to do something at a certain time, they will do.
- When you encounter obstacles, the company xyz show concern really want to tackle that hurdle.
- Company XYZ service performance right the first time.
- Company XYZ service providers as they promised time.
- Company XYZ note to not happen misrepresentation.

The feedback (responsiveness): speak the desire and willingness of service personnel to provide services for customers

- The employee xyz let you know when the service implementation.
- The employee xyz quickly perform services for you.
- The employee xyz is always ready to help you.
- The employee xyz never too busy to meet your requirements.

The guarantee (assurance): speaks the ability to create customer confidence, make customers trust the company. This ability is reflected in the names and reputation of the company, the personality of the service personnel to communicate directly with customers.

- Employee behavior xyz cause your confidence.
- Do you feel safe in their dealings with the company xyz.
- The employee xyz always affable with you.
- The employee xyz have enough understanding to answer your questions.

Sympathy (empathy): voice service with a smile personality, respect and customer friendly staff.

- Company XYZ always pay special attention to you.
- Company XYZ has the staff cares about you.
- Company XYZ grab your interest is their mind.
- The employee xyz understand your needs.
- Company XYZ working at convenient hours.

The tangible (tangibility): shown through appearance, attire service personnel, equipment and support services.

- Company XYZ has very modern equipment.

- The facilities of the company xyz look very nice.
- The employee xyz very decent dress.
- The introduction of the company's image-related xyz looks very nice service.

In an endeavor to appraisal the role of the SERVQUAL scale for the public services, the initial scale consisting of 22 items was reformed and used to a sample of readers of a public library in the UK. This organization serves approximately 80,000 people living in an area of more than 800 square miles through a number of unchanged and movable libraries. In this survey, 368 answerers completed totally questionnaires that were analyzed applying the SERVQUAL scale. The result of this work illustrates that *Tangibles* and *Reliability* are two dimensions depended on organization's resources namely budgets and systems. While three remaining factors including *Responsiveness*, *Assurance*, and *Empathy* virtually directly bases on service workers' attentiveness, obligation and competence. SERVQUAL was the author continually tested and proven to be valuable and achieve reliability. This scale can be applied in many different environments and services components of the quality of services also varies by different contexts (Babakus & Mangold, 1992); (Robinson, 1999). In Vietnam, SERVQUAL used inheriting quite common in various types of measurement of different services such as quality of service restaurants, hotels, supermarkets, library services, health services, etc. Hoàng and Hậu (2012) moderated original SERVQUAL scale consisting of 22 items to estimate citizens' appreciation for public administrative service in Lamdong province. The result of Confirmative Factor Analysis illustrated that the scale suggested by Hoàng and Hậu (2012) is relevant to measure as well as identify factors having influences on civilians' perceived service quality in public service sectors.

As above reviewed literatures, in this study, the author attempt to verify association between citizens' satisfaction and public administrative services' quality in market model perspective. The model used in the study is inherited from Hoàng and Hậu (2012). In 2012, these authors conducted a survey to measure some factors that affect users' fulfillment on public administrative services in general. In this work, the author additionally uses this model, but test for OSS particularly, after provincial administration center is established and deploy OSS to serve citizens.

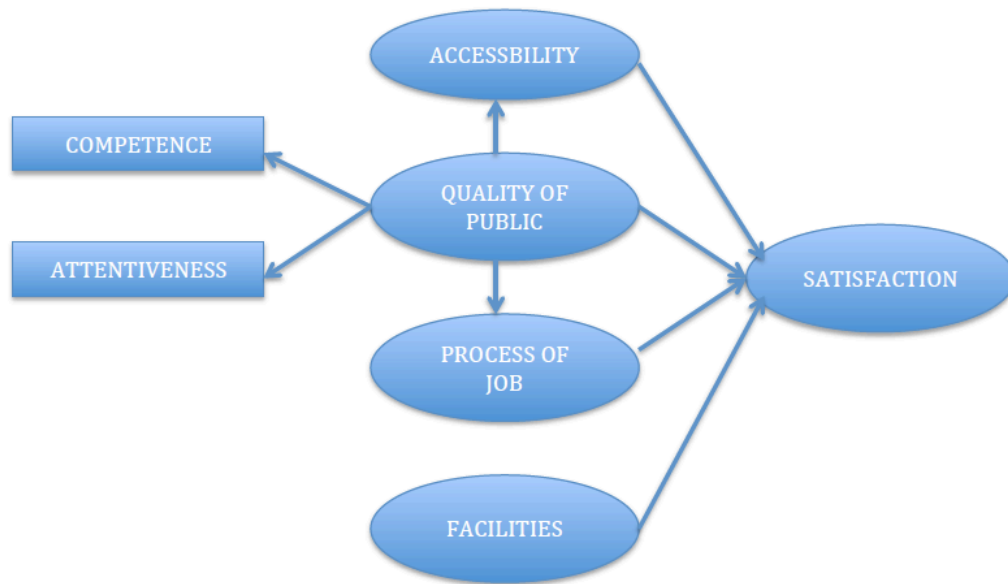


Figure 2.1: Research model

From the mentioned analysis of the literature, this study states some following hypotheses:

Hypothesis 1: The more accessible one-stop service is the higher citizens' satisfaction is.

Hypothesis 2: The higher quality of public servants is the higher citizens' satisfaction is.

Hypothesis 3: The higher quality of OSS process is the higher citizens' satisfaction is.

Hypothesis 4: The better tangible facilities are the higher citizens' satisfaction is.

Hypothesis 5: There is a positive impact of staff's quality on the accessibility.

Hypothesis 6: There is a positive impact of staff's quality on the OSS process.

## **Chapter 3: Research methodology**

### **3.1 Research procedure**

In this study, the author uses a combination of both qualitative research and quantitative research. The previous part introduced the essence of the satisfaction of customer to the quality of public services provided by the Administration Center. The main objective of this symposium is designed to measure the scale of the concepts in theoretical models have been proposed in the previous topic, and discuss the research methods used to test the base model theory. Accordingly, the main contents that this symposium will perform including interpretation overview of the research process, and interpretation of the measurement scale design concepts will be tested in the research model. The study was conducted through two steps: Preliminary research using qualitative methods; and the main survey using quantitative methods. To be more specific, the qualitative method is used in the preparative stage, and the quantitative one is used in the authentic stage.

#### **3.1.1 Preliminary research:**

In the preliminary research, some knowledge concerning the research's objects is reviewed to identify the gap of research, and to build the theory research model as well. Moreover, in this period, the author conducted in-depth interviews, group discussions some people using the OSS services as well as experts in public administration to modify the theory model and the scales measuring the collected factors. Through qualitative stage, questionnaires are prepared in advance in order to determine, adjust and supplement the factors affecting customer satisfaction, then build and develop variable factors observers expected, while building final questionnaire for quantitative research process of the formal study. SERVQUAL scale is applied in this study and also apply quite common in the study to measure the level of satisfaction for many different types of services, and the researchers said the finding that they provide high reliability. This study uses SERVQUAL scale to measure satisfaction levels of customer and from which assessed customer satisfaction in provided public services.

The result of this stage is a questionnaire ready for public survey. Research subjects using forms closed questions, the team gave answers to selected respondents. Qualitative research was undertaken to explore other factors in addition to the factors included in the proposed research model. Also calibrate and supplement the observed variables measuring concepts in this research

model, as well as examine how to use words, adjusted to suit the context of the study to those surveyed (disease workers) understand and respond accurately to collect information. Except for categorical variables included demographic variables such as gender, objects have health insurance or not, age, income, number of visits and specific departments, educational attainment. The remaining variables were measured by Likert scale - 5 levels with: (1) Totally disagree, (2) Partially disagree, (3) Uncertain/unknown; (4) Partially agree, (5) Totally agree.

The qualitative research was ended when the questions for discussion are repeatable results with the previous results that do not find the new changes. After qualitative research, generally the opinion of experts, customers were interviewed agreed with the statement about the quality of public services impacting customer satisfaction. There are also a number of proposals to change some wording for clarity and more relevant, while others proposed to change the order of the observed variables in the scale and design of speech more comprehensive brief to reach audiences more easily survey. Through preliminary research results, the team was eliminated the variables do not fit the context of research in the provincial hospitals and revise some statements to conform and easier to understand. Qualitative research results helped the team calibrated scale for components in the model study. At this point, researchers have used models 7 theoretical concepts, and a total of 23 observed variables.

### **3.1.2 Main stage of the research:**

In the authentic research, the author dispatches the questionnaire established from the prior step to answerers. Finishing the survey, the author uses multivariable analysis to test the theory model and the suggested assumptions as well. Main stage of the study uses quantitative research methods to answer the question that was posed topic. Through questionnaires have been developed from the qualitative research, the team will make the process of data collection through questionnaire tool. Then, the researchers input conducted and processed by SPSS 16.0 statistical software to produce results with statistical significance. Using these results, the team will be through a technical analysis of statistical data and scientific studies to regulate research model to suit the reality of Lam Dong. From the research model was calibrated, the research team analyzed the multivariate regression model, then, the team conducted testing of hypotheses and conclusions, as well as discuss related topics research. The process of quantitative research was conducted after preliminary calibration scales from the results obtained from the qualitative research. Finally completing the official survey

questionnaire. The questionnaire was delivered to every object of study in the study sample was designed to collect data necessary for processing by SPSS 16.0 statistical software. Through the techniques of traditional data analysis team has come up with some results found in this study.

The questionnaire used in the quantitative study is designed in two parts: (1) Part A includes the question (observed variables) corresponding to the scale used in the study (including the observed variables measured by Likert scale of 5 levels). This is a form of questions used to measure the level of agreement or disagreement of the study subjects with pre-designed speech. This section is divided into two parts, one that raised the coded speech and the observed variables, the rest given the level from "Totally disagree" to "Strongly agree". Corresponding to each speech, subjects were interviewed marked circle on the corresponding option. (2) Part B: Consists of questions describing characteristics of samples, some of the personal information of respondents such as gender, age, income, accupation, etc. in order to collect representative samples for overall and considering the characteristics that form the level different impact on the factors examined or not. Subjects were interviewed tick the corresponding option.

After successfully designed a questionnaire official study conducted preliminary survey of about 150 patients for examination and treatment, then use the coefficient Cronbach's alpha and factor analysis EFA to adjust the questionnaire and found positive results: subjects were interviewed clearly understand and correct the concept to be measured. Therefore, the research team conducted sampling and official questionnaires to collect official data for this study.

Since the study researches on the citizens' satisfaction on the OSS, the surveyed objects are people using the OSS of the Public Administrative Center of Lamdong province. To ensure the reliability of data, the respondents are who using the OSS within three months before the answer sheets sent. In order to reach the study's purposes, the author applies the non-probability sampling, specifically the convenient. With the master thesis, this is a relevant decision to reduce time and cost for collecting data.

To achieve the research objectives set out at the beginning of the research, the convenience sampling was used in this study. The reason is because of convenience sample of respondents easy reach, ready to answer the questions in the survey questionnaire, saving time and costs. The questionnaire will be sent directly to the patient to answer. The questionnaire was sent to



respondents in the survey form. In the Exploratory Factor Analysis tool, the number of sample must meet the minimum requirement to apply this device. Specifically, the sample's size is five times more than observable variables (Hair, Black, Babin, Anderson, & Tatham, 2006). In detail, the sample size should correspond observe conditions:  $N \geq \max [5x, 50 + 8m]$

+ For the EFA factor analysis:  $N \geq 5x$  (Hair et al., 2006)

+ For multivariate regression analysis are:  $N \geq 50 + 8m$  (Tabachnick & Fidell, 2007)

Where: x: is the total number of observed variables

m: is the independent variable

Each study has a total of 23 observed variables, the sample size needed is  $n \geq \text{expected } 5 \times 23 = 115$  (Bollen, 1989). For multivariate regression analysis, the model has a total of 5 independent variables, so the sample size  $n \geq$  must be at least  $50 + 8 \times 5 = 90$ . In conclusion, the sample size for the study to ensure minimum 115 observers. However, the larger the sample size the reliability of research results will be higher. Therefore, the author dispatched 250 answer sheets over a 3-month period from June 2015 to September 2015) and collected 246 sheets. Among them, there were 9 ones irrelevant that were eliminated. Eventually, the pertinent ones used for the analytical process were 237. As a result, the respondent rate was 94.8%.

Before using the collected data, the scale measuring the selected factors in the theory model have to be tested about the reliability and validity. To be more specific, the technique namely Cronbach's Alpha is deployed to test the scales' preparative reliability, and then Exploratory Factor Analysis is used to extract some initial factors. However, to confirm the scales' appropriate level, the author implements the technique named Confirmatory Factor Analysis. Through this tool, the author calculates the scales' composite reliability and extracted variance. Finally, the method named Structural Equation Model (SEM) was used to test hypotheses of the research model. All above techniques were done by statistical software namely SPSS 22.0 and AMOS 22.0.

### **3.2 Measurement scale**

To help respondents easy to answer the question, the questionnaire consists of closed questions. In the other word, the questionnaire offers available answers for recipients. In the preliminary study,

this questions/indicators are chosen from previous works and supplemented as well to fit the research context.

As presenting in Chapter 1, the items that affect the satisfaction of the citizens who use the Public Administrative Services are Officers’ Quality; Procedure; Tangible Facilities; and Accessibility. As a consequence, the combination of the scale of Rodríguez et al. (2009) and the qualitative research creates the final draft questionnaire.

Latent Variables		Items	Resource of Scale
Officers’ Quality	Competence	Professional Proficiency	Rodríguez et al. (2009)
		Instruction	Rodríguez et al. (2009)
		Explain	Rodríguez et al. (2009)
		Feedback Processing	Rodríguez et al. (2009)
	Attentiveness	Enthusiasm	Rodríguez et al. (2009)
		Concern	Rodríguez et al. (2009)
		<i>Well behavior</i>	<i>Qualitative Research</i>
	Timeliness	Rodríguez et al. (2009)	
Procedure		Standardization of forms	Rodríguez et al. (2009)
		Ease of appliance	Rodríguez et al. (2009)
		Clear Instruction	Rodríguez et al. (2009)
		<i>Process in right orders</i>	<i>Qualitative Research</i>
Tangible Facilities		<i>Proficient Square</i>	<i>Qualitative Research</i>
		<i>Cleanliness</i>	<i>Qualitative Research</i>
		Facilities	Rodríguez et al. (2009)
		<i>Car park</i>	<i>Qualitative Research</i>
Accessibility		Easy Accessibility	Rodríguez et al. (2009)
		<i>Remote Communication</i>	<i>Qualitative Research</i>
		<i>Book for working</i>	<i>Qualitative Research</i>
Satisfaction		Be satisfied when using	Oliver (1997)
		The One- stop service is	
		The One- stop service is	
		The officers try to satisfy	

**Table 3.1: Measurement scale**

### 3.3 Sampling and data collection

The users of one-stop services in Lamdong Province are the enterprises who want to apply the applications or inquiries to the provincial departments. The denoted applications include the procedure of real estate transferring, business registration, construction registration, birth registration, mortgage contracts notarizing. In Lamdong province, when the citizens have more

complicated inquiries (i.e. legal issues, lawsuit), they have to liaise with People's Committee or specific state departments instead of contacting the OSS.

The target population for the proposed study is intended to include the enterprises' officers who have worked with the OSS officers in recent 6 months. In the first phase, in-depth interviews will be conducted with 5-10 enterprises' leaders chosen from purposeful sampling procedure. The second stage consists of a pretest (pilot) study with small sample of 30-50 participants and a main survey of 250 participants using a structured questionnaire to collect the data. The survey is conducted by various ways: directly give the questionnaires to the citizens waiting or finishing the appointment with OSS's officers; distribute the questionnaires to the people who have used OSS services in recent six months.

Both the pretest and the main survey will use the quota sampling. Despite of the limitations of this non-random sampling method, the method is used due to the lack of sampling frame as well as well as the tight timeline and budget.

### **3.4 Technique for analysing data**

To use the scale for the statistic analysis in the study, we examined the reliability of the scale. The reliability of the scale is checked by means of internal consistency with Cronbach Alpha coefficients. Cronbach Alpha coefficients greater the observed variations in the scales more closely correlated with each other. However, the analysis results for Cronbach's alpha does not tell us if the observed variables are appropriate and inappropriate, therefore, to consider "if the left variable Coefficient Alpha observations are considered" to check and remove the observed variables are not matching elements to be measured (Trọng & Ngọc, 2008). Many researchers believe that the Cronbach Alpha from 0.8 to 1, the scales close at hand as well, from 0.7 to nearly 0.8, the scale can be used. Researchers also suggest from 0.6 upwards can be used in case the concept is new or measure is new to the respondents in the research context ((Nunally & Bernstein, 1994); (Peterson, 1994), (Slater & Narver, 2000); Hoang T. & Chu N., 2008). Additionally, the Alpha factor if turns dropping each variable were observed smaller overall Cronbach's alpha should not eliminate observed variables that were discarded. In the study, we selected scales Cronbach Alpha coefficients greater than 0.6.

The second step of the analysis process is exploring factor analysis (EFA). EFA is a group of procedures, methods of statistical analysis are used to shrink and to reduce a data set consisting of

many variables are interdependent observations into a variable (also called factors) less meaningful to them but still contains most of the information content of the original collective variables (Hair et al., 2006). The studied model consists of 23 observed variables measuring 6 component concept, the authors use the method of Principal Components extract elements with Promax rotation matrix so that the rotation of factors, from which determine the number of factors were extracted as well as the number of variables of initial observations about the factors.

We applied the evaluation criteria from a study of Trong & Ngoc (2008). In detail, KMO Index is an index used to examine the appropriateness of factor analysis to explore. KMO index is from 0.5 to 1 is sufficient to evaluate the method of factor analysis is appropriate. Inspection Bartlett is used to consider the hypothesis of no correlation variables in the overall, if testing for statistical significance level ( $\text{sig} < 0.05$ ), it can be concluded the variables are correlated with each other in the overall, the factor analysis is appropriate for the data set in question. Eigenvalue represents the fraction of variation explained by each factor. Only eigenvalue factor greater than 1 is retained in the new analysis model. The coefficient of variance extracted the whole percentage of variance explained by these factors. Variance to reach the standard deduction of 60% or up to the percentage of the variation of the factors that may explain the variation percentage of the observed variables. System load factor is the simple correlation coefficient between variables and factors. Factor load factor greater than or equal to 0.5 to ensure the practical significance of the discovery factor analysis. Multiply the number is measured by Factor Scores which are calculated by taking the average of the observed variables of factors to carry out further analysis.

To test the quality of the overall satisfaction of the divided according to certain characteristics of testing Independent Samples T-test and One - way ANOVA was used. Specifically to test the equality of the satisfaction of patients by sex, method of testing is testing the Independent samples T-test. Similarly, to test for the equality of the satisfaction of patients by age, income verification methods One - Way ANOVA was used. Also, Leneve Test is also done to test the properties before the normal distribution of the overall variance of the test prior to the equality of the average value.

In summary, this section presents the content of the research steps in detail through two major phases is preliminary research and formal study. Preliminary research process is done based on technical depth interviews some experts in the medical field and patients about the preliminary scales drawn from theoretical basis, thereby adjusting the scale to build Construction survey

questionnaire for quantitative research. Qualitative research results for the model study results of 23 observed variables measuring 6 component concept. Specifically, each component concept, also known as the factor measured by the average score of the observed variables explain factors. It is expected the study will analyze the factors 5 independent variables and the dependent variable. Symposium also presents technical analysis of quantitative data that researchers will perform with the necessary statistical standards include: Assessing the reliability of the scale with Cronbach Alpha coefficients, factor analysis discover - EFA, regression analysis, testing the equality of the overall figure by demographic variables. The sampling technique and the scope of study has also been mentioned. The next section presents the results of the study are: describe the data collected, evaluated and verified scales, testing the hypotheses of the research model.

## **Chapter 4: Result of the data analysis**

This chapter provides the retained results such as the tests of scales' reliability and validity (by running the techniques including EFA, CFA); and the tests of the proposed hypotheses based on the data analysis.

### **4.1 Cleaning and recoding the collected data**

As mentioned above, the final draft questionnaires derived from the preliminary study were sent to respondents consisting of organizations and individuals using the OSS in the Lamdong province's administrative center. The process of collecting data happens over a period from June 2015 to September 2015. Finishing the process of collecting data, there are 246 questionnaires come back in 250 delivered ones. However, among the collected answer sheets, there are nine irrelevant. In summary, 237 questionnaires are available to run next analyses.

### **4.2 The tests of the scales**

As previous reviewing from literature, there are four factors selected to do research on the satisfaction of the OSS in the Lamdong province administrative center, including Public servants, Accessibility, Facility, Process and Satisfaction. Among them, the factor named Public servants is 2-order construction. The observable variables are derived from the preliminary qualitative stage and from the previous studies of Rodríguez et al. (2009), Oliver (1997). As a consequence, it is required for testing the scales' reliability and validity. The analysis is going through two steps. Firstly, this study goes to analyse the Cronbach's Alpha index to estimate preparative reliability and Exploratory Factor Analysis to extract factors from the previous indicators. Later, the Confirmative Factor Analysis is runed to confirm again the reliability (composite reliability) and the validity.

#### **4.2.1 The scales' reliability and the EFA**

Reliability is the extent to which measurements can avoid the random error, related to the accuracy and consistency of results. Method for testing the reliability to perform reassessment of the scale reliability of each factor, Cronbach's alpha coefficient was used as the standard for removal of garbage variable. These variables have a correlation coefficient of total variable (Corrected Item - Total Correlation) is less than 0.3 will be eliminated along with Cronbach's coefficient conditions must be greater than 0.6 Alpha (but preferably greater than 0.7), according to (Nguyen D.T., 2011).

Following the idea of the standard for the scales' reliability of Trọng & Ngọc (2008), this study removed the items which have the corrected item-total correlation less than 0.3 and the factor's reliability is less than 0.6. The Exploratory Factor Analysis is also applied and the minimum standard for those factors is the correlations are from 0.3 (Hair et al., 2006). For the Bartlett test, the hypotheses are supposed to be rejected if the test probability is less than 5 percent and vice versa. The required sample' size is supposed to be large as a minimum of 50 or a better amount of 100 or over (Hair et al. 2006). In this study, we reach that required number with a sample of over 200 observations. There are four factors with 22 items exploring from the EFA and Cronbach's Alpha analysis as following:

Public servants: including 7 indicators:

PROF01: The offices are professionally proficient

PROF02: The officers guide the users clearly and detail.

PROF03: The officers quickly answer the inquiries.

PROF04: The officers appropriately process the complaint.

ATT05: The officers have the enthusiastic attitude.

ATT06: The officers show the excessive interest in the service users.

ATT07: The officers behave correctly towards service users.

- Process: including 4 indicators:

PROC09: The forms are standardized and widely public.

PROC10: The procedure is easy to apply.

PROC11: The procedures are clearly guided.

PROC12: The inquiries are processed with right procedures.

- Facility: including 4 indicators:

FAC13: The service area is large.

FAC14: The service area is clearly cleaned.

FAC15: The service area is well equipped.

FAC16: The service area has the convenient car park.

- Accessibility: including 3 indicators:

ACC17: The users can easily communicate with the officers who process the information.

ACC18: The users can communicate with the officers by mobile phone or e-mail.

ACC19: The users can easily make an appointment with the officers who process the information.

- Satisfaction: including 4 indicators:

SAT20: I am satisfied when using the service at the OSS of Lamdong Administrative Center.

SAT21: I consider that the One- stop service is useful for the users.

SAT22: I consider that the One- stop service is necessary for the users.

SAT23: The officers in One-stop service always try to satisfy the users.

Structure after running EFA		Items	Resource of scale	Factor loading	Accept or	Cronbach's Alpha
Quality of Public servants	Competence	Professional	Rodríguez et al.	0.723	Accept	0.849
		Instruction	Rodríguez et al. (2009)	0.747	Accept	
		Explain	Rodríguez et al.	0.745	Accept	
		Feedback Processing	Rodríguez et al.	0.666	Accept	
	Attentiveness	Enthusiasm	Rodríguez et al.	0.725	Accept	0.816
		Concern	Rodríguez et al.	0.743	Accept	
		Well behavior	Qualitative Research	0.695	Accept	
Timeliness		Rodríguez et al.	<0.4	Reject		
Process		Standardization of	Rodríguez et al.	0.849	Accept	
		Ease of appliance	Rodríguez et al.	0.921	Accept	
		Clear Instruction	Rodríguez et al.	0.860	Accept	
		Process in right orders	Qualitative Research	0.777	Accept	
Facility		Proficient Square	Qualitative Research	0.858	Accept	0.896
		Cleanliness	Qualitative Research	0.896	Accept	
		Facilities	Rodríguez et al.	0.796	Accept	
		Car park	Qualitative Research	0.686	Accept	
Accessibility		Easy Accessibility	Rodríguez et al. (2009)	0.902	Accept	0.812
		Remote Communication	Qualitative Research	0.565	Accept	
		Book for working schedules	Qualitative Research	0.699	Accept	
Satisfaction		Be satisfied when using the OSS	Oliver (1997)	0.850	Accept	0.870
		The One- stop service is useful		0.769	Accept	
		The One- stop service is necessary		0.905	Accept	
		The officers try to satisfy the users		0.876	Accept	

**Table 4.1: The results of the EFA and Cronbach's Alpha**



Exploring factor analysis (EFA) on the basis of the relationship between the variables of measurement, so before deciding factor analysis discovered (EFA) need to consider the relationship between this measurement variables . Using the correlation matrix can recognize the extent of relationship between variables (Nguyen Dinh Tho, 2011). If the correlation coefficient is less than 0.3, the discovery factor analysis (EFA) mismatch (Hair & CTG, 2006). There are many factors chosen method, also called select stops, worth noting that the researchers did not use a particular method for determining the number of factors that they often combine multiple criteria together (ie (Hair & CTG, 2006)). There are three commonly used methods are: (1) criteria eigenvalue, (2) criteria scree test criterion break points (Cattell 1996) and (3) a predetermined number of factors. In this study, the performance of exploring factor analysis (EFA) with factor extraction method is: Principal component; Rotations: Promax. Causes selected team Promax rotation is because: First, the team is not known with certainty the relationship between independent factors, Second, because of the linear correlation analysis between factors researchers found a linear correlation between independent factors, so if using Varimax rotations may lead to the elimination of a number of factors and no apparent relationship Contacts between factors theory.

#### **4.2.2 The Confirmative Factor Analysis**

After running the Exploratory Factor Analysis as well as Cronbach's Alpha in prior step, the indicators satisfying the standards continuously transfer into the technique namely Confirmative Factor Analysis to confirm the compatibility of the study's factors.

The following table and figure illustrate the performance of CFA, computing factors' composite reliability and extracted variance as well.

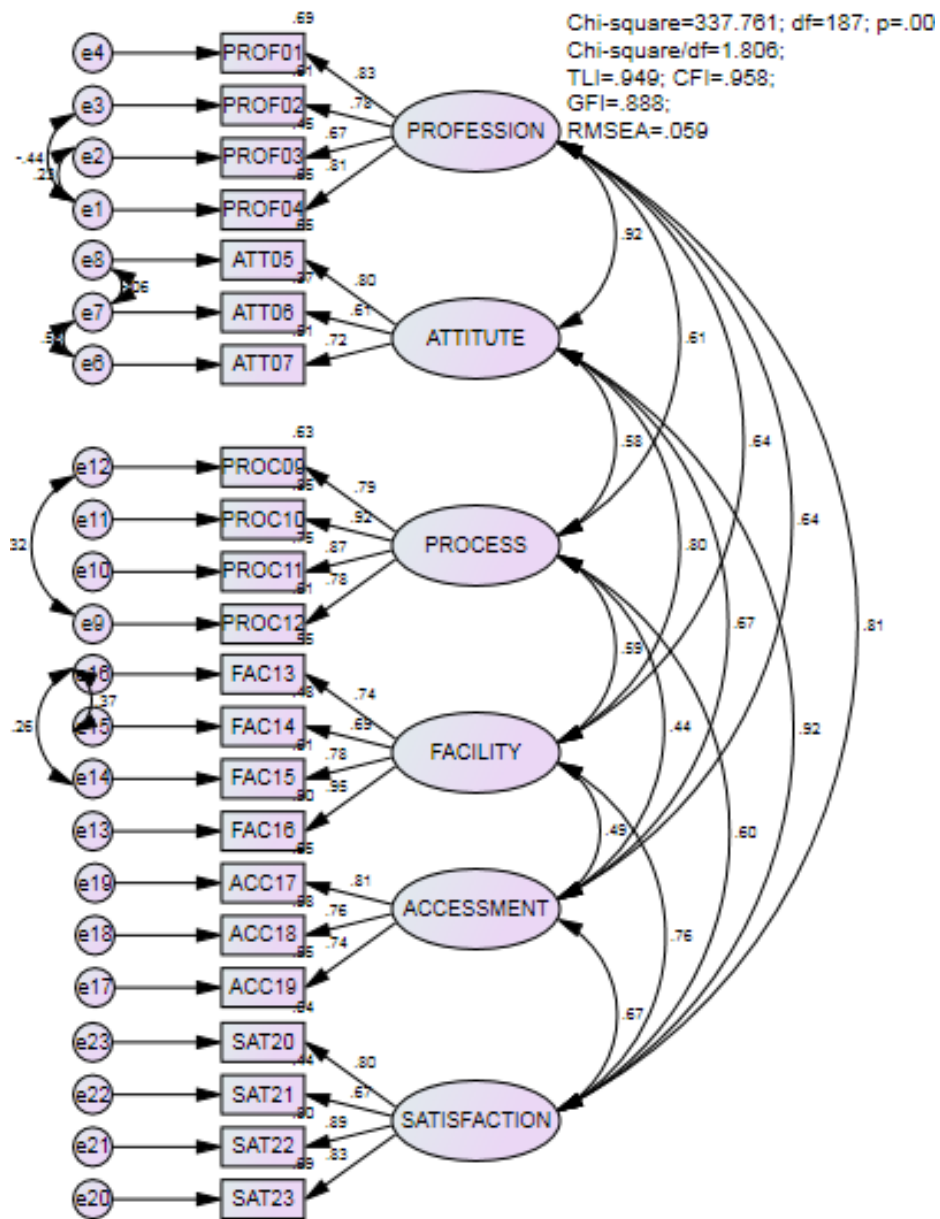


Figure 4.1: The result of CFA

The constructions	Factor loading	Composite	Extracted
<b>Competence</b>		<b>0.857</b>	<b>0.602</b>
Professional Proficiency	0.833		
Instruction	0.784		
Explain	0.672		
Feedback Processing	0.805		
<b>Attentiveness</b>		<b>0.755</b>	<b>0.510</b>
Enthusiasm	0.803		
Concern	0.609		
Well behavior	0.717		
<b>Process</b>		<b>0.907</b>	<b>0.710</b>
Standardization of forms	0.794		
Ease of appliance	0.921		
Clear Instruction	0.866		
Process in right orders	0.783		
<b>Facility</b>		<b>0.873</b>	<b>0.636</b>
Proficient Square	0.741		
Cleanliness	0.695		
Facilities	0.781		
Car park	0.949		
<b>Accessibility</b>		<b>0.815</b>	<b>0.595</b>
Easy Accessibility	0.806		
Remote Communication	0.763		
Book for working schedules	0.743		
<b>Satisfaction</b>		<b>0.877</b>	<b>0.643</b>
Be satisfied when using the OSS	0.800		
The One- stop service is useful	0.666		
The One- stop service is necessary	0.894		
The officers try to satisfy the users	0.829		

*Notation: All factor loadings in above table have the statistical significance with the level of confidence at 99%. Chi-square/df=1.806; TLI=0.949; CFI=0.958; GFI=0.888; RMSEA=0.059*

**Table 4.2: the results of CFA, computing factors' composite reliability and extracted variance**

From everything demonstrated in the above table, the scales' reliability and validity probably expect to meet the requirements. In other word, they may be used to do next analyses.

### 4.3 Testing the research’s model and the hypotheses

#### 4.3.1 Correlation analysis and the users’ estimation on the factors

According to many documents, it is necessary to test the linear relationship between the factors in the model through the correlation index before implementing the regression technique. This work is to identify reasonable level of the regression, and build some alternative models.

Moreover, the descriptive statistics aims at understanding citizens’ evaluation to existent situation of researched aspects. The following table and figure show the averages, variance levels of aspects appreciated, and correlation indexes of the factors.

Order	Concepts	Mean	Standard deviation	Correlation						
				1	2	3	4	5	6	
1	Competence	4.0045	0.60153	1						
2	Attentiveness	3.255	0.68986	0.925	1					
3	Process	3.7159	0.72532	0.613	0.582	1				
4	Facility	3.6353	0.62642	0.642	0.797	0.594	1			
5	Accessibility	3.4413	0.70495	0.639	0.666	0.435	0.486	1		
6	Satisfaction	3.8943	0.659	0.807	0.918	0.603	0.765	0.672	1	
<i>Notation: All correlation indexes in the table have statistical significance with the level of confidence at 99%.</i>										

Table 4.3: the means, standard deviation and the correlations between the factors

According the performances illustrated in the above table, the independent variables and the dependent ones have the linear relationship being high enough to continue running the Regression technique. In addition, from the results represented in the column named Mean, we can see that the users underestimate the quality of servants, especially servants’ attitude, valued at 3.255. The second lowest position is factor “Accessibility” with nearly 3.5. Others are estimate higher but still low (less than 4 point), except the professional proficiency with approximately 4 point. Generally, the users are not absolutely satisfied with OSS, proved by 3.89 point.

### 4.3.2 Testing the research's model and hypotheses

As illustrated in the chapter 3, to test the theory model and the research hypotheses, the Structural Equation Model is used through the software named AMOS 20. The following figure and table show the results of this technique.

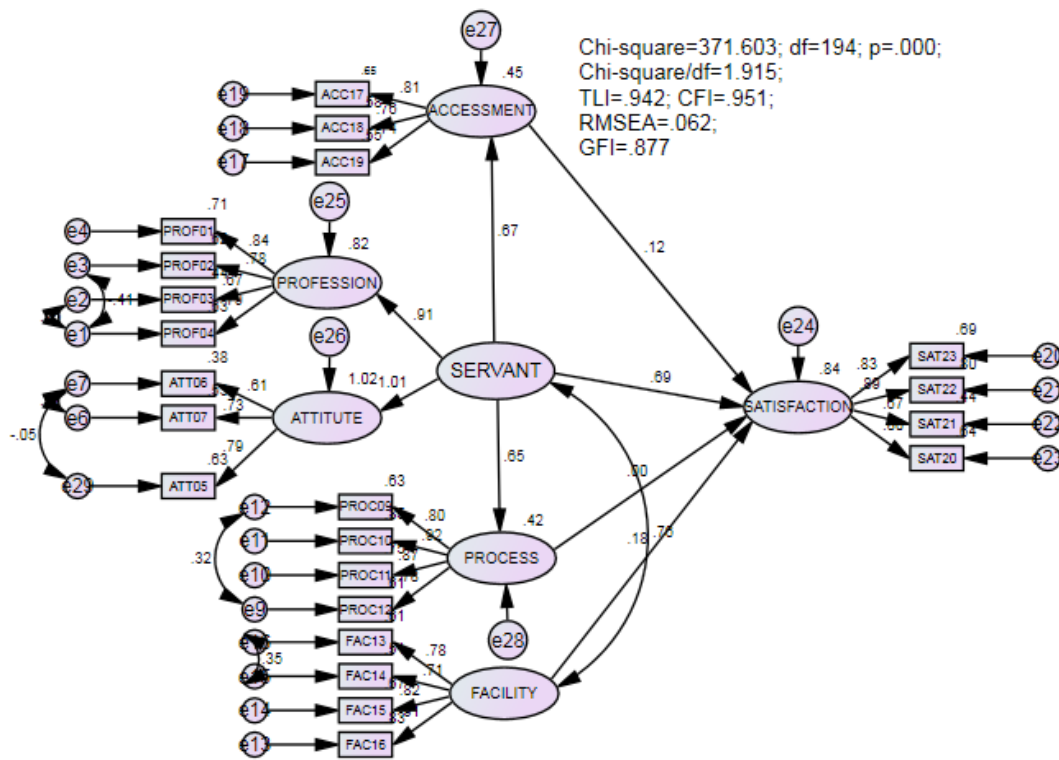


Figure 4.2: The completed research model

			Standardized coefficient	P
ACCESSIBILITY	<---	SERVANT	.673	***
PROCESS	<---	SERVANT	.650	***
PROFESSION	<---	SERVANT	.908	
ATTITUDE	<---	SERVANT	1.010	***
SATISFACTION	<---	SERVANT	.686	***
SATISFACTION	<---	PROCESS	-.001	.993
SATISFACTION	<---	FACILITY	.179	.019
SATISFACTION	<---	ACCESSIBILITY	.123	.063

Table 4.4: The outcome of SEM

According to the performance of conducting Structural Equation Model, among the independent variables, the quality of staff has the most influence the users' satisfaction of the OSS (0.686); the second is the tangible facility with point of 0.179. Furthermore, when interpreting the population's parameter, these factors have statistical significance with level of confidence at 99%. Meanwhile, the other factors including Process and Accessibility do not have statistical significance in inferring the population.

In addition, quality of servants also has significant impacts on the process and the accessibility of OSS with standardized coefficients being 0.65 and 0.67 respectively. Moreover, both factors have statistical significance with level of significance at 1%.

Briefly, the results are illustrated as follows:

Hypothesis	Causal relationship	Standardized coefficients	p-value	Results (Level of confident at 95%)
H1	ACCESSIBILITY → SATISFACTION	0.123	0.063	Unsupported
H2	QUALITY OF PUBLIC SERVANTS → SATISFACTION	0.686	***	Supported
H3	PROCESS → SATISFACTION	-0.01	0.993	Unsupported
H4	FACILITY → SATISFACTION	0.179	0.019	Supported
H5	QUALITY OF PUBLIC SERVANTS → PROCESS	0.65	***	Supported
H6	QUALITY OF PUBLIC SERVANTS → ACCESSIBILITY	0.67	***	Supported

Table 4.5: The summary of estimated result of the theory model

## Chapter 5: Conclusions and discussions

### 5.1 Conclusions

This study bases on the perspective of functional quality in research on services, and incorporates with exploratory qualitative researches to build and test the model of service quality in the field of public services, specifically one-stop service as well as its impacts on residents' satisfaction in Lamdong province. The annual reports of the state agencies, departments or People's committee in Lamdong province give the assessment of the quality of public services. However, those reports are produced by the services' providers. This paper shows the estimation of the quality of OSS which is estimated by the citizens who used the services in OSS.

According to the results of the study, the quality of OSS includes 4 components namely *Quality of servants, Facility, Accessibility, and Procedure of processing*. With *Quality of servants*, it contains two sub dimensions including *Competence* and *Attentiveness*, and it has the most prime impacts on the users' satisfaction (Table 4.5/ Standardized regression coefficient = 0.686;  $p=0$ ) as well as plays an important role in setting up the procedure of processing (Table 4.5/ Standardized regression coefficient = 0.65;  $p=0$ ) and making the accessibility of OSS becoming easier (Table 4.5/ Standardized regression coefficient = 0.67;  $p=0$ ). The factor **Facility** has an impact on the satisfaction of users but the standardized regression coefficient is insignificant (0.179).

In this study, the element **Accessibility** is unsupported (Table 4.5/ Standardized regression coefficient = 0.123;  $p>0.05$ ) and so is the element **Process** (Table 4.5/ Standardized regression coefficient = -0.01;  $p>0.05$ ). This result reveals that the hypothesis 1 and 3 are rejected at 95% confidence and the 2 denoted elements insignificantly impact the users' satisfaction. On the view of the citizens, the Process is promulgated by the government for the practising of public servants and the users cannot assess or "feel" whether the administrative is good or bad. They can only interact with the staff and the Process element, consequently, cannot immediately be assessed. Similarly, **Accessibility** depends on the citizens' demand in specific time and specific area (*for example: the people in some areas are unfamiliar with making online appointment*). However, Accessibility still needs the completion for future increasing demand of users and administration system of the government.

The outcomes of this study demonstrate the importance of human factor (*Quality of servants*). This is the policy implication for the supervisory authorities and state leaders to have more effective solutions for better serving the taxpayers. In this study, it is effortlessly seen that the users underestimate the quality of servants, especially servants' attitude, valued at 3.255. So that, there is an urgent need of the improvement of staff's attitude because the citizens haven't been satisfied when interacting with the officers in OSS. In summary, the result of this study provides an important basis for Lamdong province's authorities in order to amend the quality of public administration services and making citizens more satisfied in the near future.

## **5.2 Implications**

Basing on the results, there is a need of providing potential suggestion for improving OSS customers' satisfaction. The suggestions are presented separately as follows:

### ***The quality of servants***

The outcome identifies that the users are not totally satisfied with the services in OSS. The result of this paper shows that the users are underestimating the quality of servants, especially servants' attitude. Obviously, the quality of public officers is the most significant factor that affects the service users' satisfaction. In Vietnam, the improvement of the quality of staff in government agencies is the important mission of administrative reform and the government, in fact, has been sending various messages related to the necessity of staff's quality improvement. At provincial level, many cities are relatively successful in the shortened administrative procedures like Danang city and their key solution is the improvement of servants' quality and attitude.<sup>2</sup> Nevertheless, the assessment of civil officers is considered to be inexact and formalistic. Every year, the officers are required to produce self- assessed reports instead of being assessed by the citizens. The results, therefore cannot reflect the reality of contribution as well as the competence of each officers. In 2008, the law of civil servants dedicated a long chapter for regulating the responsibilities of official and civil servants. More recently, the project provided by the government which aims to recruit 600 young intellectuals to be vice president in 62 poorest districts in the country has some certain success.

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<sup>2</sup> People's Committee of Danang city provided an official website for administrative reform in order to better serve the citizens. You can find the information at <http://cchc.danang.gov.vn/>



In order to improve the quality of government officers, there is a need of producing both short and long term solutions. However, those solutions can only be handled by the combination of both the leaders and the individual officers. Practically, there is a need of providing short-term courses for training necessary soft-skills for the public servants. They are communication skills, teamwork and collaboration, adaptability, problem solving, etc. This is a useful method to improve officer's attentiveness toward citizens as well as their colleagues. After finishing courses, the staff is expected to have the ability of handling difficult situation and probably satisfies the services users and maintains citizens' satisfaction. Besides, the government should apply the public servant examination every five years like some of the developed countries in the world. This will be another basis for the rejection of the officers who do not have professional qualifications or bad moral quality. Moreover, the initial working environment should be improved for creating the comfortable office hour for every single staff. This feature aims to ensure that the officers are always happy when receiving and processing the inquiries from users.

The process of recruitment should be more transparent to attract skillful people to work in public sector. In long- term, skillful and well- educated staff is an undoubted demand of government agencies in general and Lamdong Administrative Center in specific. As can be seen, Lamdong Administrative Center will spend less time to train the new staff and therefore, save a significant budget that is come from citizens' taxes. In Vietnam, many provinces such as Da Nang, Binh Duong, Hai Duong, Bac Lieu, etc. has been providing various documents in order to attract intellectuals, well- qualified officers.

Besides, salary is an important factor that impacts the attention of high- qualified people to work in public sector. Significantly, better amount of income can prevent corruption happened during the time of processing requests. In views corporations, the corruption has the negative impacts on the financial performance of companies in Vietnam (Van Vu, Tran, Van Nguyen, & Lim). On the other hand, in view of the citizens, corruption can slow down the administrative process and create the bad behavior for not only the users but also the public servants. This activity make the administrative reform becomes meaningless and erode the government's determination presented in some legal documents<sup>3</sup>.

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<sup>3</sup> See also at the Resolution of the 12th National Congress of the Communist Party of Vietnam and many laws promulgated by Vietnamese Government.

Furthermore, the necessity of building a Key Performance Indicator (KPI) for the staff in Lamdong Administrative Center in general and in OSS in specific is foreseeable. This indicator is helpful and is able to recognize the officers who do not have enough enthusiasm to serve the citizens. Basing on the annual KPI results, the leaders can have the specific strategy of recruitment/ reward and discipline. More importantly, the officers in OSS will try to fulfill their responsibilities when being monitored and assessed by the citizens. Consequently, users' satisfaction would be ameliorated. Together with the application of KPI, a system which provides the rating of government officers is necessary. It allows the citizens to directly assess the attitude and efficiency of the officers after finishing the appointment. This is an economical solution and is effective in short term. By using this system, the OSS director will have the general vision of the citizens' assessment and have solutions or suggestions for the low ranked officers. By this way, the leaders can also have right policies for the promotion, firing of specific staff.

In long- term, the strategy of training and retraining the young officers who have the potential to be future leaders calls for more attention. Those denoted officers who are well- qualified and graduated from overseas are expected to bring the significant chances for not only Lamdong administrative Center and OSS but also for the general society.

### ***Tangible facilities***

Although facility is the factor that has smaller impacts than others components on citizens' satisfaction but the citizens are not totally satisfied with the facility in OSS (Table 4.3, the mean of "Facility" is approximately 3.6). This is the significant feature that needs the careful consideration from the state leaders because Lamdong Administrative Center has just opened for serving the citizens for approximately one year with the construction cost is over one trillion Vietnam Dong (approximately \$44.8 millions). So that this factor still needs the necessary improvement for the better services in the future.

In the survey, many people claimed that they hardly find the one stop service in Lamdong Administrative Center. Thus, it is necessary to set up new notice system for the citizens (especially the elderly) feel more convenient when finding the direction from the car parking area to the OSS. The notice system that suggested by the author should be applied because it does not cost a big sum of money and can be carried in several weekends. Furthermore, the detailer amenities like waiting

benches and tables should be paid more attention. To be more specific, the users often feel tired or nervous when spending a long time to wait for their turns. So it is obvious that better amenities will make them feel more comfortable.

### *Accessibility*

Although in this study, the impact of Accessibility on users' Satisfaction is not statistically significant but in the future, this element is one of the features that need consideration and improvement. An effective Accessibility is vital when the diversified demand of the citizen increases by time. Moreover, this is the effective way to administrate the activities of government agencies and this will help to provide statistics about users for further purposes.

In Lamdong province, making appointment online is a very strange concept because all of the government agencies do not have the online appointment system. However, at the very beginning stage, Lamdong Administrative Center can provide a more convenient way of making appointment by enable booking via emails or phone calls. This system is very useful especially for the citizens who know exactly their plan and schedule in a working week and also for the staff when he or she can arrange the fixed timetable for himself/herself. When applying this in the future, the providers should not only pay attention to the ease of use of system but also the security when the users have to provide personal information.

### *Process*

In this study, the impact of Process on users' satisfaction is unsupported and can be explained. However, the Process of state agencies is an element that attracts big attention of Vietnamese people. Reforming administrative procedures importantly contributes to the improvement of business investment environment, enhances national competitiveness - this is a vital element of the country in the context of fierce competition and international integration extensive<sup>4</sup>. The administrative reform reduces costs, saves time for the citizens and businesses; enhances the effectiveness and efficiency of state management; perfects the market economic institutions,

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<sup>4</sup> See also the speech of Prime Minister Nguyen Tan Dung at a meeting with leaders of some ministries and central agencies to review and evaluate the implementation of administrative reform (administrative procedures) on 31/3/2015.

thereby increasing the trust of both citizens and organizations in the business environment of the country and the trust of the people for the state apparatus.

### **5.3 The research's limitations and future directions**

This study contains certain drawbacks as following. Firstly, by using convenient sampling method in collecting data, this study faces the issues of missing random characteristics of the results. Secondly, The difference of sub-populations divided by demographic features is still explored by this study. Thirdly, as presented before, the “users” in this study are the citizens who applied for the procedure of real estate transferring, business registration, construction registration, birth registration, mortgage contracts notarizing. Some of the more complicated purposes still need to cover in further study to provide the more comprehensive views about the citizens' Satisfaction.

In the future, the author aims at conducting a research which focuses on the satisfaction of the users in specific purposes (i.e. construction registration, legal consulting) in order to determine the pros and cons of each department involved in the process and suggest the more advanced procedure.

Besides, the satisfaction of specific class of users (e.g. customers in agricultural sectors) will be considered to do further research. As stated above, the future intentions of researches ought to focus on downsides to develop and embrace full awareness of quality of service in general and quality of OSS in particularly.

## References

- Agus, A., Barker, S., & Kandampully, J. (2007). An exploratory study of service quality in the Malaysian public service sector. *International Journal of Quality & Reliability Management*, 24(2), 177-190.
- Alexandria, B., & Adrienne, C. (2001). Service improvements in public services using SERVQUAL. *Managing Service Quality: An International Journal*, 11(6), 389-401.  
doi:doi:10.1108/09604520110410601
- Babakus, E., & Boller, G. W. (1992). An empirical assessment of the SERVQUAL scale. *Journal of Business research*, 24(3), 253-268.
- Babakus, E., & Mangold, W. G. (1992). Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health services research*, 26(6), 767.
- Bhattacharjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, 351-370.
- Booms, B. H., & Bitner, M. J. (1981). Marketing strategies and organization structures for service firms. *Marketing of services*, 25(3), 47-52.
- Bouman, M., & Van der Wiele, T. (1992). Measuring service quality in the car service industry: building and testing an instrument. *International Journal of Service Industry Management*, 3(4), 4-16.
- Candlin, D., & Day, P. (1993). *Introducing TQM in a service industry*. Paper presented at the Quality Forum.
- Dotchin, J. A., & Oakland, J. S. (1994). Total quality management in services: Part 3: Distinguishing perceptions of service quality. *International Journal of Quality & Reliability Management*, 11(4), 6-28.
- Dunleavy, P., & Hood, C. (1994). From old public administration to new public management. *Public money & management*, 14(3), 9-16.

- Grönroos, C. (1984). A service quality model and its marketing implications. *European journal of marketing*, 18(4), 36-44.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6): Pearson Prentice Hall Upper Saddle River, NJ.
- Hoàng, C. D., & Hậu, L. N. (2012). Chất lượng dịch vụ hành chính công và sự hài lòng của người dân—một nghiên cứu tại thành phố Đà Lạt. *Tạp chí Phát triển Khoa học và Công nghệ*, 14(2Q), 73-69.
- Holbrook, M. B., & Corfman, K. P. (1985). Quality and value in the consumption experience: Phaedrus rides again. *Perceived quality*, 31(2), 31-57.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36.
- Kelly, J. M. (2005). The dilemma of the unsatisfied customer in a market model of public administration. *Public Administration Review*, 65(1), 76-84.
- Llosa, S., Orsingher, C., Carrillat, F. A., Jaramillo, F., & Mulki, J. P. (2007). The validity of the SERVQUAL and SERVPERF scales: A meta-analytic view of 17 years of research across five continents. *International Journal of Service Industry Management*, 18(5), 472-490.
- Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of industrial and organizational psychology*, 1, 1297-1343.
- Norušis, M. J. (1994). *SPSS advanced statistics 6.1*: Spss Incorporated.
- Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of retailing*.
- Oliver, R. L. (1997). Satisfaction: A behavioral perspective on the customer. *New York*.
- Olshavsky, R. W. (1985). Perceived quality in consumer decision making: an integrated theoretical perspective. *Perceived quality*, 4, 3-29.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing*, 67(4), 420.

- Parasuraman, A., Zeithaml, V., & Berry, L. (2002). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. *Retailing: critical concepts*, 64(1), 140.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing*, 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual. *Journal of retailing*, 64(1), 12-40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: implications for further research. *The Journal of Marketing*, 111-124.
- Rodríguez, P. G., Burguete, J. L. V., Vaughan, R., & Edwards, J. (2009). Quality dimensions in the public sector: municipal services and citizen's perception. *International Review on Public and Nonprofit Marketing*, 6(1), 75-90.
- Rowley, J. (1998). Quality measurement in the public sector: Some perspectives from the service quality literature. *Total Quality Management*, 9(2-3), 321-333.
- Seth, N., Deshmukh, S., & Vrat, P. (2005). Service quality models: a review. *International journal of quality & reliability management*, 22(9), 913-949.
- Trọng, H., & Ngọc, C. N. M. (2008). *Phân tích dữ liệu nghiên cứu với SPSS*: NXB Thống Kê.
- Van Vu, H., Tran, T. Q., Van Nguyen, T., & Lim, S. Corruption, Types of Corruption and Firm Financial Performance: New Evidence from a Transitional Economy. *Journal of Business Ethics*, 1-12.
- Vandamme, R., & Leunis, J. (1993). Development of a multiple-item scale for measuring hospital service quality. *International Journal of Service Industry Management*, 4(3), 30-49.
- Walbridge, S. W., & Delene, L. M. (1993). Measuring physician attitudes of service quality. *Marketing Health Services*, 13(1), 6.

- Wallin Andreassen, T. (1994). Satisfaction, loyalty and reputation as indicators of customer orientation in the public sector. *International Journal of Public Sector Management*, 7(2), 16-34.
- Wisniewski, M. (1996). Measuring service quality in the public sector: the potential for SERVQUAL. *Total Quality Management*, 7(4), 357-366.
- Zahari Wan Yusoff, W., Ismail, M., & Newell, G. (2008). FM-SERVQUAL: a new approach of service quality measurement framework in local authorities. *Journal of Corporate Real Estate*, 10(2), 130-144.
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. *Journal of the academy of marketing science*, 28(1), 67-85.





## APPENDIX

### 3.5 APPENDIX 1: THE FINAL DRAFT QUESTIONNAIRE FOR THE QUANTITATIVE RESEARCH

#### QUESTIONNAIRE

Dear Sir/ Madam,

I am conducting a research related to the public services' quality at the one stop service in Lamdong Administrative Center. The research's results would provide necessary information for the Government Agencies in order to improve the quality and better serve the citizens.

Please spend some time to fill this form. In this form, your viewpoint is neither right nor wrong, all of the information is useful for my research. Your answers are carefully secure with us.

Thank you very much.

#### I. CONTENT OF SURVEY

Do you agree with the statements below?			<b>Totally disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Totally Agree</b>
Please mark (X) in order to choose (from 1 to 5).							
1: Totally disagree;							
2: Disagree							
3: Neutral							
4: Agree							
5: Totally agree							
Items	No.	Content					
<b>OFFICERS' COMPETENCE</b>							
PROF01	1	The offices are professionally proficient	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PROF2	2	The officers guide the users clearly and detail.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PROF03	3	The officers quickly answer the inquiries.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

PROF04	4	The officers appropriately process the complaint.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>OFFICERS' ATTENTIVENESS</b>							
ATT05	5	The officers have the enthusiastic attitude.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
ATT06	6	The officers show the excessive interest in the service users.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
ATT07	7	The officers behave correctly towards service users.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
ATT08	8	The officers are on time.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>PROCEDURES</b>							
PROC09	9	The forms are standardized and widely public.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PROC10	10	The procedure is easy to apply.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PROC11	11	The procedures are clearly guided.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
PROC12	12	The inquiries are processed with right procedures.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>TANGIBLE FACILITIES</b>							
FAC13	13	The service area is large.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
FAC14	14	The service area is clearly cleaned.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
FAC15	15	The service area is well equipped.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
FAC16	16	The service area has the convenient car park.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
<b>EASY ACCESSIBILITY</b>							
ACC17	17	The users can easily communicate with the officers who process the information.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
ACC18	18	The users can communicate with the officers by mobile phone or e-mail.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
ACC19	19	The users can easily make an appointment with the officers who process the information.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**SATISFATION**

SAT20	20	I am satisfied when using the service at the One-stop service of Lam Dong Administrative Center.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
SAT21	21	I consider that the One- stop service is useful for the users.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
SAT22	22	I consider that the One- stop service is necessary for the users.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
SAT23	23	The officers in One-stop service always try to satisfy the users.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**II. SUGGESTION**

**1. Would you mind please telling me about the difficulties and disadvantages when using the services at Lamdong Administrative Center?**

.....  
.....  
.....  
.....  
.....

**2. Do you have any suggestion related to the attentiveness and competence of the officers in Lamdong Administrative Center?**

.....  
.....  
.....  
.....  
.....

**3. Do you have any suggestion related to the tangible facilities in Lamdong Administrative Center?**

.....  
.....  
.....  
.....

Thank you very much.

## APPENDIX 2: THE RESULTS OF RUNNING EFA, CRONBACH'S ALPHA

### Factor Analysis

#### 3.6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	2876.011
	df	171
	Sig.	.000

Communalities

	Initial
PROF01	.649
PROF02	.582
PROF03	.523
PROF04	.669
ATT05	.657
ATT06	.604
ATT07	.675
ATT08	.091
PROC09	.673

PROC10	.760
PROC11	.724
PROC12	.669
FAC13	.686
FAC14	.601
FAC15	.657
FAC16	.752
ACC17	.541
ACC18	.517
ACC19	.502

Extraction Method: Principal  
Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total
1	8.321	43.794	43.794	6.865
2	1.872	9.852	53.645	5.600
3	1.584	8.336	61.982	5.577
4	1.119	5.890	67.872	4.159
5	.981	5.164	73.037	
6	.873	4.594	77.630	
7	.630	3.317	80.947	
8	.492	2.589	83.536	
9	.458	2.412	85.948	
10	.433	2.277	88.225	
11	.385	2.028	90.253	
12	.345	1.815	92.069	
13	.306	1.610	93.679	
14	.247	1.300	94.979	
15	.234	1.231	96.210	
16	.225	1.186	97.396	
17	.203	1.069	98.466	



18	.159	.838	99.303	
19	.132	.697	100.000	

Extraction Method: Principal Axis Factoring.

- a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix<sup>a</sup>

	Factor			
	1	2	3	4
PROF02	.748			
PROF03	.736			
ATT06	.733			
PROF01	.728			
ATT05	.723			
ATT07	.686			
PROF04	.661			
ATT08				
PROC10		.913		
PROC11		.854		
PROC09		.846		
PROC12		.768		
FAC14			.906	
FAC13			.869	
FAC15			.796	
FAC16			.702	
ACC17				.897

ACC19				.697
ACC18				.561

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.

## Factor Analysis

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	2858.488
	df	153
	Sig.	.000

Communalities

	Initial
PROF01	.645
PROF02	.581
PROF03	.523
PROF04	.668
ATT05	.654
ATT06	.604
ATT07	.675
PROC09	.669
PROC10	.759
PROC11	.722
PROC12	.665
FAC13	.685
FAC14	.601
FAC15	.655
FAC16	.747
ACC17	.540
ACC18	.515
ACC19	.501

Extraction Method: Principal  
Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total
1	8.299	46.105	46.105	6.867
2	1.867	10.371	56.476	5.637
3	1.562	8.679	65.155	5.504
4	1.116	6.199	71.354	4.191
5	.878	4.875	76.229	
6	.633	3.516	79.745	
7	.498	2.768	82.513	
8	.465	2.582	85.095	
9	.435	2.416	87.511	
10	.386	2.144	89.655	
11	.346	1.920	91.575	
12	.306	1.700	93.275	
13	.250	1.389	94.664	
14	.234	1.300	95.964	
15	.226	1.254	97.219	
16	.203	1.129	98.348	
17	.163	.908	99.256	
18	.134	.744	100.000	

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix<sup>a</sup>

	Factor			
	1	2	3	4
PROF02	.747			
PROF03	.745			
ATT06	.743			
ATT05	.725			
PROF01	.723			
ATT07	.695			
PROF04	.666			
PROC10		.921		
PROC11		.860		
PROC09		.849		
PROC12		.777		
FAC14			.896	
FAC13			.858	
FAC15			.796	
FAC16			.686	

ACC17				.902
ACC19				.699
ACC18				.565

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 6 iterations.

## Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.819
Bartlett's Test of Sphericity	Approx. Chi-Square	489.288
	df	6
	Sig.	.000

Communalities

	Initial
SAT20	1.000
SAT21	1.000
SAT22	1.000
SAT23	1.000

Extraction Method:  
Principal Component  
Analysis.

Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.901	72.516	72.516
2	.520	13.008	85.524
3	.342	8.561	94.085
4	.237	5.915	100.000



Extraction Method: Principal Component Analysis.

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.849	4

### Item Statistics

	Mean	Std. Deviation	N
PROF01	3.9788	1.07366	236
PROF02	3.9025	1.05741	236
PROF03	3.7203	1.16973	236
PROF04	3.8051	1.05394	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PROF01	11.4280	7.574	.738	.788
PROF02	11.5042	8.055	.652	.824
PROF03	11.6864	7.442	.670	.818
PROF04	11.6017	7.849	.698	.805

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.816	3

### Item Statistics

	Mean	Std. Deviation	N
ATT05	4.0000	1.01897	236
ATT06	3.5508	1.10008	236
ATT07	3.6822	1.02970	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATT05	7.2331	3.984	.550	.860
ATT06	7.6822	3.307	.686	.731
ATT07	7.5508	3.278	.784	.628

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.913	4

### Item Statistics

	Mean	Std. Deviation	N
PROC09	3.3432	1.13212	236
PROC10	3.4661	1.13499	236
PROC11	3.4110	1.08202	236
PROC12	3.3051	1.12616	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PROC09	10.1822	9.188	.791	.892
PROC10	10.0593	8.941	.836	.876
PROC11	10.1144	9.429	.798	.889
PROC12	10.2203	9.253	.785	.894

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.896	4

### Item Statistics

	Mean	Std. Deviation	N
FAC13	4.0678	1.15393	236
FAC14	3.7754	1.19413	236
FAC15	4.0085	1.09929	236
FAC16	3.9110	1.01715	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FAC13	11.6949	8.545	.797	.856
FAC14	11.9873	8.634	.740	.879
FAC15	11.7542	8.961	.773	.865
FAC16	11.8517	9.369	.779	.865

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.812	3

### Item Statistics

	Mean	Std. Deviation	N
ACC17	3.6695	1.11512	236
ACC18	3.6186	1.02662	236
ACC19	3.3814	1.15901	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ACC17	7.0000	3.651	.713	.687
ACC18	7.0508	4.227	.628	.776
ACC19	7.2881	3.695	.650	.757

## Reliability

### Reliability Statistics

Cronbach's Alpha	N of Items
.870	4

### Item Statistics

	Mean	Std. Deviation	N
SAT20	3.8220	.93746	236
SAT21	3.5847	1.05851	236
SAT22	3.9661	.96255	236
SAT23	3.7458	1.07336	236

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SAT20	11.2966	7.222	.720	.836
SAT21	11.5339	7.118	.618	.877
SAT22	11.1525	6.760	.808	.801
SAT23	11.3729	6.439	.760	.818

### 3.7 APPENDIX 3: THE RESULTS OF RUNNING CFA

Covariance: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PROFESSION	<-->	ATTITUDE	.578	.075	7.736	***	par_17
PROFESSION	<-->	PROCESS	.458	.069	6.611	***	par_18
PROFESSION	<-->	FACILITY	.525	.073	7.232	***	par_19
PROFESSION	<-->	ASSESSMENT	.466	.072	6.430	***	par_20
PROFESSION	<-->	SATISFACTION	.608	.077	7.851	***	par_21
ATTITUDE	<-->	PROCESS	<u>.377</u>	.063	5.971	***	par_22
ATTITUDE	<-->	FACILITY	.566	.074	7.681	***	par_23
ATTITUDE	<-->	ASSESSMENT	.421	.068	6.171	***	par_24
ATTITUDE	<-->	SATISFACTION	.601	.077	7.845	***	par_25
PROCESS	<-->	FACILITY	.504	.074	6.850	***	par_26
PROCESS	<-->	ASSESSMENT	.329	.066	4.976	***	par_27
PROCESS	<-->	SATISFACTION	.471	.071	6.624	***	par_28
FACILITY	<-->	ASSESSMENT	.402	.072	5.609	***	par_29
FACILITY	<-->	SATISFACTION	.655	.080	8.207	***	par_30
ASSESSMENT	<-->	SATISFACTION	.513	.076	6.707	***	par_31
e9	<-->	e12	.152	.041	3.715	***	par_32

			Estimate	S.E.	C.R.	P	Label
e7	<-->	e8	-.033	.031	-1.072	.284	par_33
e6	<-->	e7	.361	.056	6.488	***	par_34
e1	<-->	e2	.125	.049	2.553	.011	par_35
e1	<-->	e3	-.178	.035	-5.128	***	par_36
e15	<-->	e16	.245	.049	4.992	***	par_37
e14	<-->	e16	.137	.039	3.558	***	par_38



Correlations: (Group number 1 - Default model)

			Estimate
PROFESSION	<-->	ATTITUDE	.925
PROFESSION	<-->	PROCESS	.613
PROFESSION	<-->	FACILITY	.642
PROFESSION	<-->	ASSESSMENT	.639
PROFESSION	<-->	SATISFACTION	.807
ATTITUDE	<-->	PROCESS	.582
ATTITUDE	<-->	FACILITY	.797
ATTITUDE	<-->	ASSESSMENT	.666
ATTITUDE	<-->	SATISFACTION	.918
PROCESS	<-->	FACILITY	.594
PROCESS	<-->	ASSESSMENT	.435
PROCESS	<-->	SATISFACTION	.603
FACILITY	<-->	ASSESSMENT	.486
FACILITY	<-->	SATISFACTION	.765
ASSESSMENT	<-->	SATISFACTION	.672
e9	<-->	e12	.317
e7	<-->	e8	-.063

		Estimate
e6	<--> e7	.578
e1	<--> e2	.231
e1	<--> e3	-.436
e15	<--> e16	.373
e14	<--> e16	.261

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PROFESSION	.720	.102	7.044	***	par_39
ATTITUDE	.543	.090	6.040	***	par_40
PROCESS	.775	.111	6.967	***	par_41
FACILITY	.928	.100	9.292	***	par_42
ASSESSMENT	.738	.120	6.135	***	par_43
SATISFACTION	.789	.103	7.641	***	par_44
e1	.390	.051	7.671	***	par_45
e2	.748	.078	9.617	***	par_46
e3	.429	.051	8.393	***	par_47
e4	.351	.042	8.337	***	par_48
e6	.513	.055	9.269	***	par_49
e7	.758	.077	9.850	***	par_50
e8	.367	.049	7.497	***	par_51
e9	.488	.053	9.135	***	par_52
e10	.291	.038	7.712	***	par_53
e11	.195	.037	5.312	***	par_54
e12	.471	.052	9.019	***	par_55

	Estimate	S.E.	C.R.	P	Label
e13	.102	.034	3.046	.002	par_56
e14	.470	.052	9.079	***	par_57
e15	.735	.074	9.906	***	par_58
e16	.589	.061	9.708	***	par_59
e17	.599	.073	8.181	***	par_60
e18	.439	.056	7.821	***	par_61
e19	.434	.064	6.823	***	par_62
e20	.358	.041	8.809	***	par_63
e21	.186	.026	7.138	***	par_64
e22	.620	.061	10.122	***	par_65
e23	.315	.034	9.217	***	par_66

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	66	337.761	187	.000	1.806
Saturated model	253	.000	0		
Independence model	22	3853.614	231	.000	16.682

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.050	.888	.849	.656
Saturated model	.000	1.000		
Independence model	.505	.183	.105	.167

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.912	.892	.959	.949	.958
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.810	.739	.776
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	150.761	103.225	206.138
Saturated model	.000	.000	.000
Independence model	3622.614	3425.055	3827.474

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.437	.642	.439	.877
Saturated model	.000	.000	.000	.000
Independence model	16.398	15.415	14.575	16.287

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.059	.048	.068	.080
Independence model	.258	.251	.266	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	469.761	484.082	698.374	764.374
Saturated model	506.000	560.896	1382.349	1635.349
Independence model	3897.614	3902.387	3973.818	3995.818

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.999	1.797	2.235	2.060
Saturated model	2.153	2.153	2.153	2.387
Independence model	16.586	15.745	17.457	16.606

## HOELTER

Model	HOELTER	HOELTER
	.05	.01
Default model	154	164
Independence model	17	18



APPENDIX 4: THE RESULTS OF RUNNING SEM

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ASSESSMENT	<---	SERVANT	.760	.096	7.879	***	par_22
PROCESS	<---	SERVANT	.752	.091	8.247	***	par_23
PROFESSION	<---	SERVANT	1.000				
ATTITUDE	<---	SERVANT	1.071	.091	11.833	***	par_17
SATISFACTION	<---	SERVANT	.801	.143	5.592	***	par_18
SATISFACTION	<---	PROCESS	-.001	.059	-.009	.993	par_19
SATISFACTION	<---	FACILITY	.172	.073	2.349	.019	par_20
SATISFACTION	<---	ASSESSMENT	.127	.068	1.860	.063	par_21
PROF04	<---	PROFESSION	1.000				
PROF03	<---	PROFESSION	.928	.077	11.979	***	par_1
PROF02	<---	PROFESSION	.989	.092	10.764	***	par_2
PROF01	<---	PROFESSION	1.075	.080	13.491	***	par_3
ATT07	<---	ATTITUDE	.925	.078	11.878	***	par_4

			Estimate	S.E.	C.R.	P	Label
ATT06	<---	ATTITUDE	.834	.089	9.417	***	par_5
PROC12	<---	PROCESS	1.000				
PROC11	<---	PROCESS	1.064	.073	14.541	***	par_6
PROC10	<---	PROCESS	1.187	.077	15.377	***	par_7
PROC09	<---	PROCESS	1.023	.064	15.984	***	par_8
FAC16	<---	FACILITY	1.000				
FAC15	<---	FACILITY	.972	.060	16.260	***	par_9
FAC14	<---	FACILITY	.918	.071	12.838	***	par_10
FAC13	<---	FACILITY	.975	.065	14.988	***	par_11
ACC19	<---	ASSESSMENT	1.000				
ACC18	<---	ASSESSMENT	.911	.086	10.553	***	par_12
ACC17	<---	ASSESSMENT	1.047	.096	10.948	***	par_13
SAT23	<---	SATISFACTION	1.000				
SAT22	<---	SATISFACTION	.968	.057	16.870	***	par_14
SAT21	<---	SATISFACTION	.793	.071	11.147	***	par_15
SAT20	<---	SATISFACTION	.847	.059	14.396	***	par_16
ATT05	<---	ATTITUDE	1.000				

Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
ASSESSMENT	<--- SERVANT	.673
PROCESS	<--- SERVANT	.650
PROFESSION	<--- SERVANT	.908
ATTITUDE	<--- SERVANT	1.010
SATISFACTION	<--- SERVANT	.686
SATISFACTION	<--- PROCESS	-.001
SATISFACTION	<--- FACILITY	.179
SATISFACTION	<--- ASSESSMENT	.123
PROF04	<--- PROFESSION	.794
PROF03	<--- PROFESSION	.665
PROF02	<--- PROFESSION	.784
PROF01	<--- PROFESSION	.840
ATT07	<--- ATTITUDE	.726
ATT06	<--- ATTITUDE	.612
PROC12	<--- PROCESS	.782
PROC11	<--- PROCESS	.866
PROC10	<--- PROCESS	.921

		Estimate
PROC09	<--- PROCESS	.796
FAC16	<--- FACILITY	.912
FAC15	<--- FACILITY	.820
FAC14	<--- FACILITY	.713
FAC13	<--- FACILITY	.783
ACC19	<--- ASSESSMENT	.742
ACC18	<--- ASSESSMENT	.763
ACC17	<--- ASSESSMENT	.807
SAT23	<--- SATISFACTION	.828
SAT22	<--- SATISFACTION	.894
SAT21	<--- SATISFACTION	.666
SAT20	<--- SATISFACTION	.803
ATT05	<--- ATTITUDE	.793

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
FACILITY	<-->	SERVANT	.537	.071	7.540	***	par_29
e9	<-->	e12	.152	.041	3.693	***	par_24
e6	<-->	e7	.351	.056	6.312	***	par_25
e1	<-->	e2	.142	.050	2.848	.004	par_26
e1	<-->	e3	-.170	.035	-4.878	***	par_27
e7	<-->	e29	-.029	.032	-.914	.361	par_28
e15	<-->	e16	.211	.050	4.201	***	par_30

Correlations: (Group number 1 - Default model)

			Estimate
FACILITY	<-->	SERVANT	.763
e9	<-->	e12	.317
e6	<-->	e7	.573
e1	<-->	e2	.255
e1	<-->	e3	-.406
e7	<-->	e29	-.055
e15	<-->	e16	.353

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
FACILITY	.856	.098	8.746	***	par_31
SERVANT	.577	.092	6.276	***	par_32
e27	.402	.074	5.433	***	par_33
e28	.446	.069	6.458	***	par_34
e24	.125	.029	4.289	***	par_35
e25	.123	.033	3.776	***	par_36
e26	-.012	.038	-.331	.741	par_37
e1	.410	.052	7.857	***	par_38
e2	.760	.079	9.654	***	par_39
e3	.429	.051	8.377	***	par_40
e4	.338	.042	8.075	***	par_41
e6	.499	.055	9.032	***	par_42
e7	.753	.077	9.721	***	par_43
e9	.490	.054	9.116	***	par_44
e10	.292	.038	7.662	***	par_45
e11	.194	.037	5.222	***	par_46
e12	.468	.052	8.970	***	par_47

	Estimate	S.E.	C.R.	P	Label
e13	.174	.033	5.338	***	par_48
e14	.394	.047	8.444	***	par_49
e15	.699	.073	9.565	***	par_50
e16	.513	.057	8.949	***	par_51
e17	.602	.073	8.193	***	par_52
e18	.439	.056	7.804	***	par_53
e19	.432	.064	6.784	***	par_54
e20	.362	.041	8.839	***	par_55
e21	.186	.026	7.146	***	par_56
e22	.621	.061	10.125	***	par_57
e23	.311	.034	9.184	***	par_58
e29	.384	.050	7.631	***	par_59

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
ASSESSMENT	.453
PROCESS	.423
SATISFACTION	.841
ATTITUDE	1.019
PROFESSION	.825
ATT05	.629
SAT20	.644
SAT21	.443
SAT22	.798
SAT23	.685
ACC17	.651
ACC18	.582
ACC19	.550
FAC13	.613
FAC14	.508
FAC15	.672
FAC16	.831



	Estimate
PROC09	.633
PROC10	.849
PROC11	.750
PROC12	.612
ATT06	.375
ATT07	.527
PROF01	.705
PROF02	.615
PROF03	.442
PROF04	.631

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	59	371.603	194	.000	1.915
Saturated model	253	.000	0		
Independence model	22	3853.614	231	.000	16.682

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.059	.877	.840	.673
Saturated model	.000	1.000		
Independence model	.505	.183	.105	.167

### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.904	.885	.951	.942	.951
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.840	.759	.799
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	177.603	126.950	236.062
Saturated model	.000	.000	.000
Independence model	3622.614	3425.055	3827.474

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.581	.756	.540	1.005
Saturated model	.000	.000	.000	.000
Independence model	16.398	15.415	14.575	16.287

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.062	.053	.072	.018
Independence model	.258	.251	.266	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	489.603	502.405	693.969	752.969
Saturated model	506.000	560.896	1382.349	1635.349
Independence model	3897.614	3902.387	3973.818	3995.818

## ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	2.083	1.868	2.332	2.138
Saturated model	2.153	2.153	2.153	2.387
Independence model	16.586	15.745	17.457	16.606

## HOELTER

Model	HOELTER .05	HOELTER .01
Default model	144	154
Independence model	17	18