

國立臺灣師範大學管理學院管理研究所

碩士論文

Graduate Institute of Management

College of Management

National Taiwan Normal University

Master's Thesis

服務失誤分析：以台灣某一家語言學院為例

An analysis of service failures: using a language institute
in Taiwan as an example

塔麗

Nataliia Sharypova

指導教授：沈永正 博士

Advisor : Yong-Zheng Shen, Ph.D.

中華民國 109 年 7 月

July 2020

Acknowledgments

I would like to say many thanks to my thesis advisor, Prof. Shen Yong-Zheng (沈永正) who played a decisive role in choosing this topic and had a profound belief in my work. During working on my project, Prof. Shen helped me a lot with insightful suggestions and useful advice on how to structure my work. His guiding cannot be underestimated in terms of received results. Thanks also to Prof. Shen's help in arranging me a place at information center for successfully conducting my observation.

I'm deeply indebted to Prof. Wang, Shih-Ju (王仕茹) for her clear instructions and patience during marketing research classes. The completion of my dissertation would not have been possible without her guidelines on how to run SPSS and what aspects of analyses a researcher should keep in mind.

I would like to extend my sincere thanks to committee for giving me insights and practical suggestions on how to improve my work. And I am also grateful to the secretary who helped me to solve organizational issues.

I have spent 2 outstanding years of my life at NTNU and, hence, I would like to thank every single Professor at NTNU for sharing their knowledge with students, without their help I would not be able to graduate.

Additional thanks to my friends and family members, especially, to my husband, Vitalii Osnach, who never stopped supporting, encouraging and believing in me.

Thank all of you for giving me a chance to work on this wonderful project.

Abstract

Front desk service at educational institutions is poorly explored, therefore researcher wanted to work on this topic and adjust the information about educational spheres. This study analyzes service failures at MTC and investigates how to reach service recovery. To answer this question, the author conducted observation at Chinese language center and observed 147 cases. The data was reviewed in accordance with service blueprint, customer's journey, SERVQUAL and gaps model, and it was found out, that mostly MTC faces Design and standard and Performance gaps. The results obtained from observation form showed the existence of several critical service failures: promptness of responding student's question, long queue, shifting responsibilities among the employees and relevance of front desk's answers. It is advised to follow 5 steps to improve its service quality at MTC: provide standardized guidelines for each employee in the office, arrange training for employees, set additional clear signage in the office, consider rewarding system by using customer satisfaction devices and make some rearrangements with employees' responsibilities and office space.

Key words: service failure, service recovery, gaps model, service encounter, customer journey, service blueprint, customer satisfaction, Mandarin Training Center.

Table of Contents

Acknowledgments	i
Abstract	ii
List of Tables	v
List of Figures	vi
Chapter 1 Introduction	1
1.1 Research Motivation	1
1.2 Research Objectives and Questions	2
1.3 Research Scope and Limitations.....	2
Chapter 2 Literature Review	4
2.1 Three Ps.....	4
2.2 Gaps Model	4
2.2.1 Listening gap.....	5
2.2.2 Design and standards gap.....	5
2.2.3 Performance gap.....	6
2.2.4 Communication gap.....	7
2.2.5 Customer gap	8
2.3 SERVQUAL.....	8
2.4 Service encounter.....	8
2.4.1 Pre-core service encounter	9
2.4.2 Core service encounter	10
2.4.3 Post-core service encounter	10
2.5 Service failure and recovery.....	11
Chapter 3 Research Methodology	12
3.1 Research Concept	12
3.2 Research methods and steps	12
3.2.1 Service blueprint.....	12
3.2.2 Service failure types	15

3.2.3	Observation form.....	16
3.2.4	Hypotheses	16
3.2.5	Interpreting results.....	18
Chapter 4 Results		19
4.1	Testing hypotheses.....	19
4.2	Eliciting service failures.....	36
4.3	Solving service failures	39
4.3.1	Promptness	39
4.3.2	Queue.....	39
4.3.3	Shifting responsibilities	40
4.3.4	Relevance	40
4.3.5	Others.....	40
Chapter 5 Conclusion		42
5.1	Summary	42
5.2	Recommendations.....	43
References		44
Appendix 1		46
Appendix 2		47
Appendix 3		50
Appendix 4		52

List of Tables

Table 1	Problems included less than 5 people	20
Table 2	Problems included more than 5 people.....	20
Table 3	H_1.1 Model Summary.....	21
Table 4	H_1.1 ANOVA.....	21
Table 5	H_1.1 Coefficients.....	22
Table 6	H_1.1 Receptionist's name	23
Table 7	H_1.1 Correlations.....	24
Table 8	H_2.2 ANOVA.....	25
Table 9	H_2.3 Model Summary.....	26
Table 10	H_2.3 ANOVA.....	26
Table 11	H_2.3 Coefficients.....	27
Table 12	H_3.1 Correlations.....	28
Table 13	H_3.2 ANOVA.....	29
Table 14	H_3.3 Model Summary.....	30
Table 15	H_3.3 ANOVA.....	30
Table 16	H_3.3 Coefficients.....	30
Table 17	Nature of students' problem	31
Table 18	H_4.1 ANOVA.....	32
Table 19	H_4.2 Model Summary.....	33
Table 20	H_4.2 ANOVA.....	33
Table 21	H_4.2 Coefficients.....	34
Table 22	How many employees were involved into solving the problem	35
Table 23	Correlations	35
Table 24	Summary of service failures.....	38
Table 25	Pareto chart "Service failures"	38

List of Figures

Figure 1	Gaps model of service failure	5
Figure 2	The services marketing triangle	6
Figure 3	Conceptual model of service encounters throughout the service experience ..	9



Chapter 1 Introduction

1.1 Research Motivation

Based on the service quality researches in 2019 it is shown that one third of clients would think about switching the company if they face poor-quality service, rather than continuing using the service of previous company. (Nextiva, 2019) However, these results do not show the real picture of educational sphere. Educational institutions have always been underestimated in terms of service industry. By checking the definition of service industry there are shown examples of banking and sales spheres while education is not considering as service. (The Editors of Encyclopaedia Britannica, 2020). Even if a manager wants to improve service quality at his/her educational institution, he/she will face a problem with the literature, as most of them cover only sales/banking spheres. Education sector is highly important and valuable in terms of researching, there are still so many physical interactions among the staff and students. Nowadays, every sphere in the world is looking for an opportunity to sell their goods or services online, educational institutions also are moving in the same directions. However, this sphere has hundreds years of history and experience, therefore, it is more conservative than others (banking or sales). While education still faces physical communications every day, it has to be evaluated and improved if necessary. Furthermore, being inspired to go deeper in terms of service at educational center this survey is planned to research the core problems at Mandarin Training center (MTC).

MTC is one of the best Chinese language centers in whole Taiwan. It definitely has its service quality, which is evaluated regularly, however, the results show that clients (students of MTC) are dissatisfied with service provided by information center. Moreover, the author herself had an experience of studying at Chinese language center. And during the studying process the author founded herself dissatisfied with some services provided by front desk and decided to find the core of this problem and the solution for it.

This study combines two ideas: first one is to study service problems at educational sphere while there are so few researches on this topic. And the second one – find the source of service failure at MTC and try to solve it.

1.2 Research Objectives and Questions

The main purpose of this study is to identify service failures at educational institution and find solutions to solve them. These solutions can be used to prove the existence of service failure and therefore improve the service quality. The results of this study can be analyzed by MTC and discussed upon further development of the institution. For reaching the main goal it is necessary to answer following questions:

RQ1: What kind of service failures have been faced during observation?

RQ2: What kind of strategy might be used at MTC after revealing the existence of service failure?

Based on the main aim of this study and related questions objectives can be formulated as follows:

O1: Conduct observation at information center at MTC

O2: According to the observation results describe service failure types

O3: Provide a solution to solve each service failure

RQ1 is related to O1 and O2, starting with performing (reaching) O1 and O2. O1 is the core of the entire research, therefore based on the results of observation other questions should be answered in accordance with it, besides, O2 should be analyzed according to the data obtained in O1. RQ2 shows answers to the O3, which is also related to the main goal of this research. It can be used as recommendation for MTC.

1.3 Research Scope and Limitations

The results of this study are made in accordance with theory and observation. The theoretical part is based upon SERVQUAL, service encounters and service gaps. The observation part is held at MTC by the author herself, and the duration of the observation took one month. This study will focus on defining service failure at MTC at information center and on providing an efficient solution for solving the problems. MTC is chosen for representing information desks at educational institutions, therefore the results of this study might be analyzed by other schools in case of need.

The population is presented by the students to whom the service was delivered. It might be discussing any problems or simply asking a question to the staff, all the cases were recorded and analyzed by the author. However, this study is limited due to collection method process and

the time of observation, recording was held only for several hours per day which means that not all cases were analyzed in a given period of time, therefore, it led to the shortage of respondents' number. As the observation was taken by one person, it did not exclude the personal factor. As a result, it leads to cultural difference, because all of the problems were analyzed on the basis of author's perception. Therefore, the result might be different if the observation would be conducted by another person. And the last problem is limitations of literature, as most of the studies investigate service recoveries and service failures in the different spheres (not at the educational ones).



Chapter 2 Literature Review

2.1 Three Ps

Service is an action or an activity delivered by one party to another one (Kotler, 1997), it is a measurable unit, and as a result the company can observe service quality. This study will focus on customer based service sphere, as educational institution (information desk) gathers customer requests or complaints and helps with answering questions.

The four Ps is well-known as marketing mix, however, in addition to Product, Price, Promotion, and Place there are should be added other three Ps, which are: people, process, and physical evidence (Zeithaml, Bitner, & Gremler, Service Marketing Strategy, 2010). These concepts are the parts of service itself, therefore, they are highly important in customer's service delivering process. For example, "people", this aspect combines employees' attitude, their appearance and behavior, everything may help a customer to interpret a service. The term "physical evidence" refers to the environment where service delivery takes place, so every single detail of surroundings should be taken into account, because they refer to tangible offerings. According to psychological tests intangible offerings are less evaluated by people (customers), while tangible ones are easy to being interpreted, therefore, physical evidence is highly important in service marketing. The last one among these three aspects is "process", it includes all procedures, activities, communication, etc., which are the elements of entire service delivering process. Since the solutions are provided in accordance with the results of observation, consequently these additional three Ps will be mainly evaluated at MTC.

2.2 Gaps Model

Gaps model shows what is necessary to fulfill customer needs, or in other words, it shows the tasks that company should reach for meeting customer expectations and perceptions (Zeithaml, Bitner, & Gremler, Service Marketing Strategy, 2010). Gaps are used as a framework for better understanding what aspect of service delivery may be improved. The main goal of this model is to meet customer expectations or even exceed them, the whole model is shown on the next page – Figure 1, which illustrates the basic interaction between customer and company and highlights possible areas where the gaps may occur. If the service does not meet customer's expectation, the customer feels dissatisfied, if he/she feels dissatisfaction, one or even more gaps occur during service delivering process.

2.2.1 Listening gap

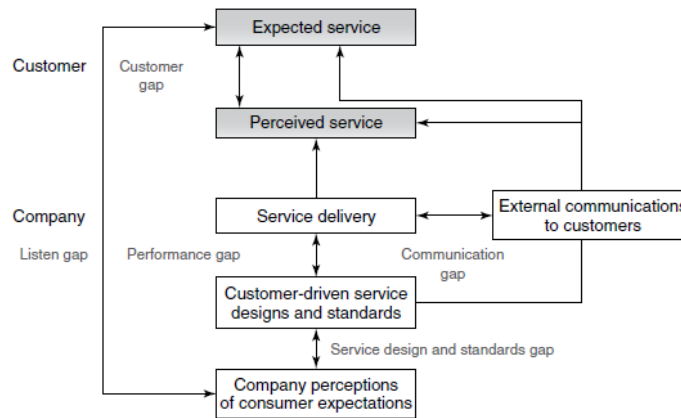


Figure 1 Gaps model of service failure

The first gap is listening one, which occurs when customer expectations or perceptions differ from company's understanding of those expectations. It may arise when a company does not have enough knowledge about what its customers need. The sources of this problem may be different, for example, lack of interaction with the customers, lack of comprehension of customers' need or even unavailability to meet them. To avoid occurrence of listening gap management team needs to gather more accurate information about what customer wants and analyze it, whether existing service does match with customer expectations. For reaching this goal it is necessary to follow three basic strategies. The first one is about listening customers' opinion, it may be done through different researches or simply by evaluating their communication with the staff. The received feedback should be focused on distinguishing what exactly customer needs and when he/she feels dissatisfied and why.

The second strategy focuses on building relationships with a customer, hence the company needs to understand more about their customers, have interpersonal contact. And the last one is to reach service recovery. If the gap exists, it means that the company faces service failure and it is necessary to find a source of the failure and way out of it. It may include analyzing complaints of the customers and taking measures for reaching the customer again.

2.2.2 Design and standards gap

For avoiding another service failure, it is necessary to pay attention how customers' expectations meet in reality during service delivery, how actual service operations follow

customers' will. It can be accomplished by innovative service development in designing service, which means that R&D is also important in service sphere as in manufacturing one, their job is to investigate new plans and formulas for improving service operations. Also it is necessary to create customer-defined standards, as they show what exactly customer wants and create a frame describing the service from customer's point of view. Designing service experience's blueprint is another way to reach it, because through understanding the whole process from customer's prospective, the company may highlight interaction, environment and other specific elements of service delivering process, which are the main units of constructing service image. There is one more step which is important in service design which is paying attention to the tangibles, for example, equipment, facilities, even business cards, as every single detail represents the physical evidence of service delivering process.

2.2.3 Performance gap

If the company fails to deliver the service or cannot support service standards, then it faces performance gap, which is necessary to cover by checking the availability of all resources company has for delivering service. It is recommended to start with the human resources, check their motivation and capability to participate in service delivery process. Service competency and inclination are the fundamental skills that employees should have. Another aspect is the services triangle shown on Figure 2, described by Bitner and Kotler (Zeithaml, Bitner, & Gremler, Service Marketing Strategy, 2010).

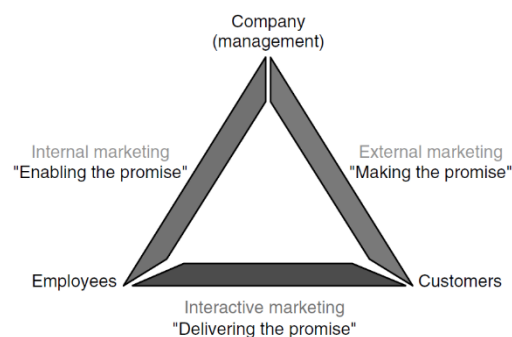


Figure 2 The services marketing triangle

The triangle explains how the interaction inside the company and with the customer should be arranged and what types of marketing should be applied to succeed in service delivery.

Service marketing addresses to the promises made and kept to the customers. External marketing refers to “making promises” process which is crucial because it helps to create customers’ expectations about what will be delivered later. Everyone who helped to communicate with the customer before service delivered is considered as a part of this process. After the promise is made, it is necessary to keep it, which adds the next step – interactive marketing, corresponding to keeping or broking the promise. This is the core of the whole triangle; if the promise is broken, the company loses the customer. The last side shows internal marketing which is responsible for delivering the service, if the employees are unable to deliver the service, then the service delivering process collapses, as the last step has not been made. It is important to add that all key players should work in agreement with each other, otherwise, the service failure occurs.

Customers play an essential role in service delivery, they can influence on the process itself, thus the company should define the roles for the customers. It will help to avoid misunderstanding with the customer and helps him/her to comprehend their position. The next step is effectiveness of service delivery, which can be reached by using technologies and modernization, sometimes customers can be more involved into the process if they are being educated by the company. While technologies simplify the delivering process, some other parties could be involved too – intermediaries, who help to deliver the service, however at the same time they also should be controlled by the management, hence it makes the delivering process more difficult and complicated.

2.2.4 Communication gap

When the difference between what is delivered and what has been advertised or described occurs, thus it leads to a communication gap, which ends up with the service failure. What customer expects and what customer receives should be equal, therefore communication channels should work effectively. Even if there are several people are responsible for one customer, their answers (messages) should be the same and should not overlap each other. The second source to solve communication gap is to learn on its mistakes by analyzing all previous service failure cases and finding a solution for them, it may cause changes in future services. For avoiding losing a customer during communication process, it is necessary to build a vertical communication strategy, which makes service providers and the company itself be in touch with each other, it will help to make customer expectations and perceptions be equal and standardize the whole process.

2.2.5 Customer gap

The customer gap which is located at the central area, shows the difference between what customer expected and received in service delivery process. Others gaps are called provider gaps, by meaning the area where the company may occur service failure. If the company does not face any problems with service delivery, therefore customer expectations will be met and the customer gap will not occur. Customer gap combines all other gaps, which are as follows: listening gap, service design and standards gap, performance gap and communication gap. Even though one of the gaps occurs, the customer will not be satisfied and it will lead to the customer gap i.e. service gap. Therefore, the main aim of any firm is to close these gaps (service gap) or narrow them as much as possible.

2.3 SERVQUAL

Service quality (SERVQUAL) is about customer expectations and perceptions; it shows high standard of service delivery. During this process the quality of service is being measured, so it can satisfy and dissatisfy the customer, hereat Parasuraman calls it as “a moment of truth” (Parasuraman, Zeithaml, & Berry, 1985). Service quality can be measured through five dimensions’ scale, which are as follows: reliability, responsiveness, assurance, empathy, tangibles (Zeithaml, Bitner, & Gremler, Services Marketing, 2012).

Reliability represents consistency and dependability of service performed, in other words, the company can accurately keep the promise and deliver the service. Responsiveness shows how the company well prepared and how it is willing to deliver the service, it is an essential aspect of timing in service quality. Assurance refers to interaction between employees and customer, how they are competent and confident with the service provided. The staff should be polite, friendly, confident. Empathy is about the feeling of being in someone’s shoes, therefore the company should understand customers’ needs and care about them, moreover the service should be accessible for each customer. Tangibles may be distinguished into two categories: equipment and facilities, personnel and communication materials. The firm should be able to manage these tangibles in order to meet customer’s expectations.

2.4 Service encounter

Service encounter is an interaction or contact between customer and service provider, it helps to build relationship between the parties. If a customer successfully passes all service

encounters, it will lead to his service delivery satisfaction, which is the aim of the whole process. Service experience includes three stages of encounters, which are pre-core, core and post-core service encounters (Voorhees, et al., 2017), the figure 3 illustrates the entire process. The encounters are the units of the entire service delivering framework, each defining as a discrete element but at the same time cumulating the effect of each other. Understanding all three stages helps the firm to avoid the risks of dissatisfaction and service failure consequently.

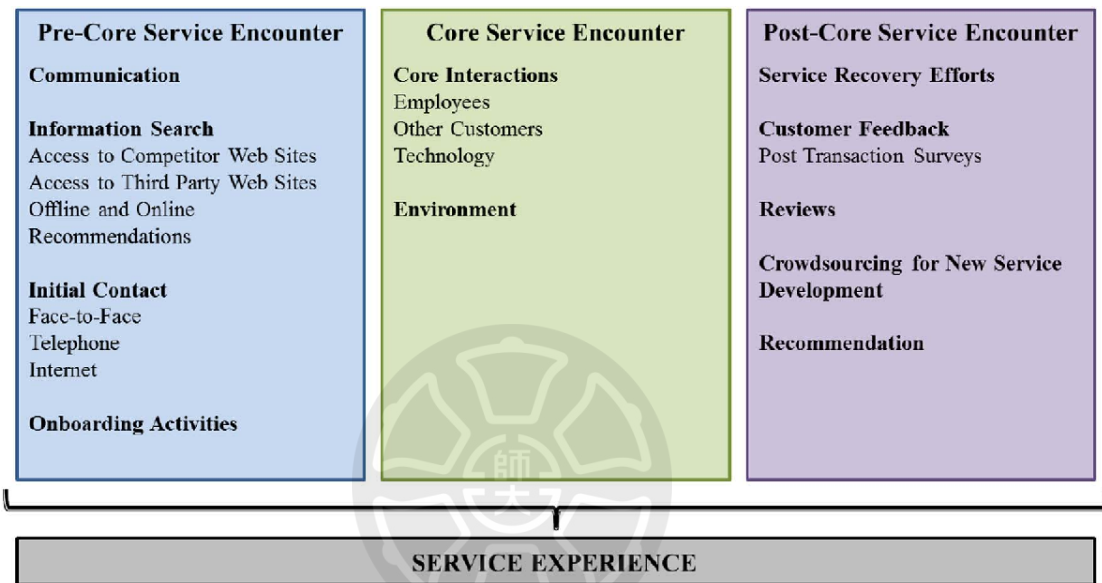


Figure 3 Conceptual model of service encounters throughout the service experience

2.4.1 Pre-core service encounter

Pre-core service encounter precedes and connects a customer with the core phase. The examples of pre-core encounter or initial contact might be seeking information, reading reviews, calling the information desk prior to meet with the employees. To make this process more effective it is necessary to increase brand awareness. Service provider can emphasize on brand equity through the current knowledge of brand that customer can find by him/herself. As a matter of fact, the company could also provide more information about the core service process, it will help to lower expectation for a customer, which increases the chances of customer satisfaction. By combining these two aspects together, it helps to familiarize the customer with the company itself and services provided. The importance of initial contact obviously means a lot, hence, a firm may find the ways how to reach its customer and how to influence on him/her by

information search. The company may find the channels which have impact on customers' mind and make him/her buy a service.

2.4.2 Core service encounter

The core service relates to the customer-firm interaction, the main goal of which is to deliver the service. This phase is related to customer journey, that represents the process of making a promise and keeping the promise; it starts by meeting the customer and ends by delivering a service to him/her. This phase is the core of whole service delivering process, in this stage the company gets an answer whether its customer is satisfied or not. For being efficient, the firm should link each stage of encounters, make them become a united process. Customer journey map can become a great help in making it smoothly, since it helps to visualize the entire process and pay attention to each stage

2.4.3 Post-core service encounter

Post-core encounter starts right after delivering the service, during this stage customer can answer company's survey, send a feedback, look for after-sales communication with a company (in case he/she faces any problems after the service has been delivered). According to Sridhar and Srinivasan (Sridhar & Srinivasan, 2012) it is stated when customer shares feedback of service delivery based on pre-core service experience.

If customer feels dissatisfied in post-service stage, the company can take into account co-creation attribute. By meaning it, the company can create more options to interact with a customer after delivering a service and involve him/her into finding an answer for the problem. It may help to reach the customer and with the help of different settings provided by the firm the customer can bring some favorable outcomes and it even can lead to service recovery, which is the main aim after facing service failure. Therefore, it is important to understand not only how to solve customer's problem, but also evaluate emotional aspect of the customer and find the ways how to influence on it. By combing these two factors the company is able to recover.

Mostly researches focus only on core service encounter, underestimating the pre- and post-core encounters. It narrows their comprehension of the whole service experience and leads to service gaps. As this study is held upon the results of observation, therefore, only the core-service encounter will be researched, while others will be just shortly covered by the author.

2.5 Service failure and recovery

Service failure is a breakdown in service delivering process which means that the service does not meet customer's expectations and customer feels dissatisfied. As this research is based upon the results of observation form, therefore all service failures will be recorded only in the core service encounter. Core service failure has a greater impact on negative responses for satisfaction, emotional, and behavioral responses. (Walton & Hume, 2012)

When the company faces service failure, it tries to reach the customer again and restore their relationship, hence after facing the failure, the company's aim is to reach next stage – recovery. Service recovery is an important step in complaints resolution, the main purpose of which is to reach customer satisfaction. From company's perspective service recovery includes actions and activities to perform for amending, rectifying or restoring bad experience faced by the customer during service delivery process.



Chapter 3 Research Methodology

3.1 Research Concept

MTC is one of the best and innovative Chinese language schools in Taiwan. They provide a range of services in learning Mandarin, but among them there is also one more service highly underestimated in terms of importance – information desk. Plenty of students every day goes and seeks for a help or advice at the center, therefore, the staff faces hundreds of different problems. The quality of answers and the interaction between the staff and students is often lower than desirable, hence the information center meets service failure. To prove the existence of service failure and find the types of it the researcher conducts observation, by analyzing the data the author can easily interpret the results and try to find the solutions for reaching service recovery.

3.2 Research methods and steps

3.2.1 Service blueprint

Before starting collect any data it is necessary to create a blueprint, and in accordance with it conduct an observation. Blueprint shows visible guidelines for a firm including all operations or processes a customer and a company both face during service delivering process. Clear blueprint helps to reach better understanding of customer's perceptions and reduce the risk of service failure. For service evaluation at MTC following detailed blueprint of three stages is used.

I stage: pre-core service encounter

- Students search information via FB, website; ask teacher' or friend's advice

II stage: core service encounter

Internal factors:

❖ Service provider:

- Mood / emotions
- Distraction
- Personal factor
- Desire to answer
- Knowledge (ability) to answer

- Clear instructions
- ❖ Service receiver:
 - Mood / emotions
 - Language barrier
 - Desire to understand
 - Prior knowledge (false or true)

External factors:

- Environmental factors (weather, temperature, surroundings, colleagues / friends (waiting behind))
 - Number of employees serving at that moment
 - Long queue
 - Time pressure (friends waiting outside, lunch time, break time)
- Identifying the question → searching solution → answering / not answering → end of service delivery

III stage: post-core service encounter

- Long term (survey for students)
- Short term (feedback, reminder email)

As it was mentioned above pre-core service encounter is highly important in service delivering process, as it helps to get an image of the entire institution and it creates customer expectations. A student may face pre-core encounter by asking a question to the teacher or friend, by searching information via the Internet, etc. However, as the time limits this survey will not focus on this stage, the information above is given to create a better understanding of the whole service delivery process.

During second stage there is a formation of the main process, which starts when a staff identifies a question and then tries to find a solution and explains it to the student. Depending on staff's answer the entire system of service delivery leads to success or failure. The results rely on external and internal factors mentioned above. This phase is the main purpose of observing, therefore, further analyses and conclusions will be given according to the information gathered in this stage.

The third stage completes the entire picture, as it helps to understand what students received during interaction and what they feel about the system. There are two ways how to keep

the communication, the first one is by running surveys, asking students opinion and their experience. The second one, keep in touch with a student and remind him/her about details which probably have not been covered during first interaction. Due to the narrow and specific purpose of this study, post-counter stage will not be covered either, and given information is for evaluation purposes only.

This scheme gives a brief overview of the whole process rather than shows detailed picture, therefore, following blueprint with emphasizes on customer's journey and concerning only the second stage, is created (please, check Appendix 1). The explanation of this blueprint will be given based on customer journey. Blueprint consists totally of 6 steps and includes Gaps row, where all the gaps are written in numerical order, where 1 is Listening, 2 is Design and Standards, 3 is Performance, 4 is Communication, and 5 is Customer Gap.

To make interaction between service recipient and receiver more successful, it is necessary to take into account the importance of office location, entrance, doorbell, as they function is to make a signal of a new service delivery process. When a client enters information center, employee should welcome a newcomer and be ready to help. During this first step Performance Gap might occur, for example, when the staff is not trained enough how to greet the clients. In this step the employees should be ready to start the communication and therefore, catch customer's attention.

Right after entering the office, a student is looking for a desk he/she might ask a question, therefore, to avoid feeling of perplexity, it is better to arrange employees seats and internal signage, which help to indicate whom the client should ask, otherwise Design & Standards Gap can arise. Another way is to install a queue ticket machine, which helps not only distribute the flows of clients, but to avoid the next problem which is queue. In the office there should be proper signs where the queue starts and where need to line up, at the same time employees might help students to find their required desk, this is also a highly useful technique for avoiding Performance Gap. Standing in a line happens only in case there is at least on more student in the office otherwise, this step can be omitted.

When student starts to ask a question, a staff has several option how deal with it, the first one, directly answer student's question, the second way is to ask related clarifying question(s) and manage the answer(s), then solve student's problem. The third way is more complicated, because it involves participations of backstage employees. When a staff from front

desk has not enough knowledge or responsibility to deal with a problem, he/she might ask other employees to help, therefore it is highly important that the first staff passes information along to backstage employees. It will help to respond quickly and avoid repeating information by the service receiver. At the same time to avoid shifting responsibilities the company could provide its employees printed materials or install a database where the staff him/herself can search required information for their references. And the lack of these materials might cause the second gap – Design and Standard one. Online chat or phone calls may speed up the answering process if some clarifications are required, therefore company could also consider communication tools among the employees for avoiding Performance Gap. As students need to pay for their study or join any activities, the company should have enough devices to manage payment process.

After the solution is provided the employee should make sure the student received information successfully, if not, then repeat previous steps by asking questions and clarifying them. This step is highly valuable for the company, because any wrong action might cause one of four gaps, there might be Listening gap, if the company does not know how to deal with the student's request, they did not study that issue properly. Same as in previous steps, there can be Design and Standards, and Performance Gaps, however, there can arise even Communication Gap if the company does not meet customer's expectations.

When both parties agreed that the solution is final, the service delivery is about to end. It is highly important to arrange office space in such a way that when a student leaves the office, he or she will not interfere with other students standing in a line or sitting at the desk. It will help to avoid any inconveniences during service delivery process and also avoid 2 gaps: Design and Standards and Performance ones.

3.2.2 Service failure types

Before starting observation, it is necessary to highlight some problems that may arise in service companies. The author checked different spheres, where the staff provided various services. For example, in hotel or museums there have been analyzed several complaints faced with the staff. Clients highlighted rudeness of the employees, providing incorrect information, language barrier (inability to communicate in English), and etc. Long lines, unclear working hours, unclear instructions about refunds or how to get the money back caused clients' dissatisfaction too (Sua & Teng, 2018).

Several researchers talked about team work in the company. Staff should work as a team, when several people involved into solving the problem, they all should focus on customer satisfaction. If they do not reach uniting feeling about customer's satisfaction, it leads to service failure (Flanagan & Horowitz, 2000).

All the problems mentioned above have internal characteristics except for working hours and lines, however, there are some other external ones when service provider cannot control the process or unable to solve it due to some circumstances. Highly useful ideas are mentioned in study about openings at university, i.e. how the staff should welcome the students. It is said, that depending on how a staff greets a student, the whole conversation might be different. Therefore, the service failure might occur when the service providers are not ready to welcome the students under different situations, for example: when student is making a line, when student waits for a staff or when student is going directly to the staff (Spencer & Mortensen, 2014). All these situations require different spatial arrangements and opening interactions. From this paper it can be concluded that wrong spatial arrangements could be considered as external service failure, as it may lead to long lines or unprepared openings with the staff.

3.2.3 Observation form

Research method used in this study is conducting structured observation at the information center, the researcher can collect primary and mostly quantitative data; the results can help to understand why the service failure happened in the natural environment (without any interferes). All the data are necessarily to be coded before running any analyses, therefore, all qualitative data should be coded into quantitative. The framework of observation form and its coding are fully described in Appendix (Please, check Appendix 2 for more details).

3.2.4 Hypotheses

To demonstrate the results in more graphical way, it is better to divide the hypotheses into 4 sections: general, receptionist, language and nature of the problem. As satisfaction level refers to the quality criteria, therefore, all analyses will be done in accordance with satisfaction level as main variable.

1. General

General section focuses on the basic results, explaining the data distribution, mean score of each variable, i.e. using descriptive statistics for comparing the data.

Hypothesis 1.1

First hypothesis helps to find the correlation among the variables and whether the satisfaction level can be explained by them or not:

(H_1.1) The satisfaction level can be explained by following variables: helpful answer, prompt answer, polite answer, the length of queue (measured in minutes) and how the problem is solved.

2. Receptionist

In this section it is advised to check how chosen variables are related to the Receptionist, therefore, it helps to show the difference in employees' work and attitude to the students. The results might be used to analyze the existence of performance gap and to evaluate different receptionists in terms of the service they provide.

(H_2.1) There is a strong association among satisfaction level, helpful answer, prompt answer and polite answer controlled by receptionist.

(H_2.2) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of who provided the service (receptionist).

(H_2.3) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the receptionist who provided the service.

3. Language

This section checks the difference in providing the service in different languages. It is necessary to find whether language can cause real service failures as an internal factor of service communication.

(H_3.1) There is a strong association among satisfaction level, helpful answer, prompt answer and polite answer controlled by the language used during service delivery.

(H_3.2) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of what language is used during service delivery.

(H_3.3) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the language used during service delivery.

4. Nature of the problem

In this section the analyses focus on the nature of problem, it is important to find which problem leads to lower/higher satisfaction level. It might be used for analyzing existence of performance gap and what kind of internal factors led to undesirable results.

(H_4.1) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of what problem the students faced.

(H_4.2) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the problem's type the students faced.

(H_4.3) There is a strong association among satisfaction level, helpful answer, prompt answer, polite answer and number of employees involved into communication process and explained by the problem's type.

3.2.5 Interpreting results

Interpreting the results involves two sub-steps: classifying the service failure, which is an object of entire study, and finding a solution for it.

After the second step of the research (observational data collection) is finished, and all hypotheses are tested (which is the third step), the researcher should combine and summarize received results. This summary should be used for selecting and classifying service failures. In this phase of the research variable "Notes" might be used, as it shows the qualitative data and all the references for the author.

Classifying service failures should be done in accordance with to their priority. When ranking is finished, Pareto chart should be used to obtain which service failures are the most valuable in this study. The values of each service failure are to be presented by descending order and cumulative total is to be shown by the line. In accordance with the chart the most valuable failures should be chosen by 80/20 rule: values under 80% of cumulative line should be considered as highly important, by solving these failures, the company can get a quick recovery. While other 20% are not considered highly significant and they might be settled by solving other 80% problems. All service failure types will be described in the chapter 4 after the previous steps are finished.

The second sub-step is to find a way how to solve each service failure. After receiving all necessary results, the author should provide a solution for solving each service failure based on theoretical and practical knowledge and then make a conclusion by summarizing all received data. The conclusion should be made as a clear example of what should be done to avoid further service failures, get service recovery and as a result improve the service.

Chapter 4 Results

In this chapter all the hypotheses mentioned above will be tested and the results will be explained and combined with the service failure types. It is advised to follow the previous consequence of hypotheses sections: general, receptionist, language and nature of the problem.

First, it is important to briefly mention some descriptive statistics. The researcher totally observed 147 cases, however, it does not represent the number of students or problems studied, and there are several reasons for it. The first reason is that sometimes several people came together to information center and communicated with the staff. As the author observed gender and the language used during the interaction, thus, related cases should be divided into 2 or 3, depending on how many students came together. The second reason is the number of problems. There have been quite a lot of cases when a student asked 1~3 problems. The researcher insists on dividing this case into several rows, as it helps to analyze each particular problem. The last reason for dividing is number of employees served. In this research there are some hypotheses evaluating quality of each employee's work. After doing all data clearance, this study received 256 cases following the rule that 1 case always has 1 service provider, 1 service receiver and 1 problem being observed.

After conducting the observation some key coding were added, for example, as the author herself helped to communicate with the students, she was coded as "0".

4.1 Testing hypotheses

1. General

First of all, it is necessary to check descriptive statistics. Total 13 employees including the author were analyzed and 15 types of problems were recorded during observation.

Pivot table shows how the data are distributed among the problems: which receptionist is responsible for solving particular problem. Additional factor is added showing how many problems each receptionist solved and did not solve. It helps to have a graphical idea of entire situation among problems and receptionists. From Appendix 3 (Please, refer to the page 50) it is clear that too many employees were responsible for the same problems. The author divides the results from Pivot table into 2 parts and summarizes them. These results reflect only descriptive statistics and do not show any causal effects. According to researcher's personal experience under normal conditions there were 1~4 people in front line, therefore, it is advised to think that

if more than 5 persons (4 people in front plus 1 person from back office) are responsible for solving the same problem, it shows that delegating responsibilities' level is too high and too many employees are working on the same problem.

Table 1 Problems included less than 5 people

Problem	Number of people worked on this problem
General question	4
ARC & Visa	4
Attendance list	4
Stamp	4
Scholarship	5
Group problem	4
Unstated	2

From Table 1 it is analyzed what problems include less than 5 persons to work on. Some of the problems, for example, general questions, attendance list, stamp, group problem are quite wide-ranging, therefore, employees from the front line can easily solve them without including back office into communication process. However, some narrow problems like ARC & Visa, scholarship shows that only limited number of employees could work on that problem. These results show good delegating level, when people know what they are responsible for and know whom they might ask to help.

Table 2 Problems included more than 5 people

Problem	Number of people worked on this problem
Card problem	7
Refund	6
Special docs	9
Payment	8
TOCFL	6
Personal problems	10
Choose courses	6
Study at MTC for newcomers	8

In Table 2 it is reported what kind of problems include more than 5 persons for solving them. These results show that employees face some difficulties with managing this type of problems, probably, they need more guidelines or time for solving the problems. These problems focus on specific situations, therefore, more guidelines should be provided for the staff, as for now they do not have enough knowledge to manage it.

In most cases personal problems and refunds were not solved by the employees, it might have happened due to the misunderstanding from the students' side or the staff was not capable to answer.

Hypothesis 1.1

(H_1.1) The satisfaction level can be explained by following variables: helpful answer, prompt answer, polite answer, the length of queue (measured in minutes) and how the problem is solved.

To test the hypothesis mentioned above it is advised to run regression, because it helps to evaluate whether these variables have any influence on entire Satisfaction from the service.

Table 3 H_1.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	.707	.701	.589

a. Predictors: (Constant), How the problem is solved, Length of queue (measured in minutes), Polite answer, Prompt answer, Helpful answer

According to the Table 3, R and R square are both high enough for further analyses, therefore, it is necessary to check significance level.

Table 4 H_1.1 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	208.755	5	41.751	120.414	.000 ^b
	Residual	86.682	250	.347		
	Total	295.437	255			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Rate how the problem was solved, How long was queue (measure in minutes), How polite the answer is, How prompt the answer is, How helpful the answer is

From Table 4 Significance level $\alpha < 0.05$, therefore it shows highly significant result meaning that there at least one variable has significant meaning and can be analyzed.

Table 5 H_1.1 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.913	.326		2.798	.006
Helpful answer	.645	.058	.614	11.079	.000
Prompt answer	.108	.033	.153	3.242	.001
Polite answer	.003	.058	.002	.053	.958
Length of queue (measured in minutes)	-.149	.037	-.140	-4.065	.000
How the problem is solved	.114	.026	.180	4.327	.000

a. Dependent Variable: Satisfaction

From the table 5 it is clear that all the variables have meaningful results except for “polite answer”, which α level > 0.05 and cannot be used. It means that polite answer has no impact on satisfaction while other variables have. Therefore, H_1.1 can be accepted, excluding “polite answer” from this model.

It can be concluded that more helpful and prompt answers can reach higher satisfaction level. Moreover, the less time the receptionist needs for contacting with the client, the more the client feels satisfied. Also, longer queue can badly influence on satisfaction, therefore, the language center needs to arrange more space for the students or arrange more staff at the front desk.

2. Receptionist

In this section the author expects to find some relationship between receptionist and satisfaction level, therefore, first, it starts with checking the association level between them. There are totally 12 employees being observed at information center and as the author herself helped to communicate with the students, she also included herself into the dataset. From the

table 6 it is shown that person 1, 2 and 4 more than others helped the student (excluding the author). According to the researcher's observation person 1 and 2 are most often have been seen at the information desk, therefore, they got more observed cases. Person 4 has a lot of communications with the students, because she is responsible for payment (check the table "Nature of student's problem" for more details), and this type of problem has been recorded 63 times, which is an absolute maximum among the problems.

Table 6 H_1.1 Receptionist's name

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	35	13.7	13.7	13.7
person 1	56	21.9	21.9	35.5
person 2	23	9.0	9.0	44.5
person 3	2	.8	.8	45.3
person 4	53	20.7	20.7	66.0
person 5	10	3.9	3.9	69.9
person 6	23	9.0	9.0	78.9
person 7	12	4.7	4.7	83.6
person 8	14	5.5	5.5	89.1
person 9	3	1.2	1.2	90.2
person 10	7	2.7	2.7	93.0
person 11	6	2.3	2.3	95.3
person 12	12	4.7	4.7	100.0
Total	256	100.0	100.0	

(H_2.1) There is a strong association among satisfaction level, helpful answer, prompt answer and polite answer controlled by receptionist.

Table 7 H_1.1 Correlations

Control Variables			Satisfaction	Helpful answer	Prompt answer	Polite answer
Receptionist's name	Satisfaction	Correlation	1,000	.808	.614	.464
		Significance (2-tailed)	.	.000	.000	.000
		df	0	253	253	253
Helpful answer		Correlation	.808	1.000	.663	.547
		Significance (2-tailed)	.000	.	.000	.000
		df	253	0	253	253
Prompt answer		Correlation	.614	.663	1.000	0.479
		Significance (2-tailed)	.000	.000	.	.000
		df	253	253	0	253
Polite answer		Correlation	.464	.547	.479	1.000
		Significance (2-tailed)	.000	.000	.000	.
		df	253	253	253	0

From the table 7 all the data illustrates highly significant results, but the first row is the most important for this research. It shows the more helpful answer for a client, the higher level of satisfaction a client can have comparing it within receptionist variable set. Correlation shows 0.808, which is quite close to 1 and represents high correlation between the variables. Prompt answer score cannot be counted as highly correlated, however, there is still a positive correlation among the variables and as the result is >0.5, thereafter, this variable can also prove the hypothesis alongside with helpful answer. Even though polite answer has high significance level, however, it is score <0.5, then it again shows less impact on satisfaction, and this variable cannot prove this hypothesis.

To sum it up, H_2.1 can be accepted, excluding “Polite answer” variable from the final results.

(H_2.2) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of who provided the service (receptionist).

For testing this hypothesis, it is required to run one-way ANOVA, the results are as follows:

Table 8 H_2.2 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Satisfaction	Between Groups	50.371	12	4.198	4.162	.000
	Within Groups	245.067	243	1.009		
	Total	295.438	255			
Helpful answer	Between Groups	35.008	12	2.917	3.049	.001
	Within Groups	232.519	243	.957		
	Total	267.527	255			
Prompt answer	Between Groups	75.226	12	6.269	2.939	.001
	Within Groups	518.383	243	2.133		
	Total	593.609	255			
Polite answer	Between Groups	41.199	12	3.433	7.260	.000
	Within Groups	114.910	243	.473		
	Total	156.109	255			

All the variables from Table 8 show highly significant results, because α level < 0.05 . ANOVA states that there is at least one pair of means showing significantly different results, therefore, among all 13 receptionists there is at least 2 of them whose data are different in terms of satisfaction, helpful / polite / prompt answers. This hypothesis can be accepted.

(H_2.3) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the receptionist who provided the service.

To check how satisfaction can be explained by other variables, it is necessary to run regression. In this case variable “receptionist” is not metric, therefore, it cannot be directly entered into the model, it is advised to add dummy variables. According to the formula $(n-1)$, the

dataset requires to add 12 dummy variables. All the data will be compared with the first receptionist, who is the author herself, it is coded 0 and is not entered into variables list.

It is advised to use “enter” method, as it helps to check all the variable and it does not exclude them from the model.

Table 9 H_2.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.844 ^a	.712	.694	.595

a. Predictors: (Constant), Person 12, Person 3, Person 9, Person 11, Person 10, Person 5, Person 8, Person 8, Person 6, Person 2, Prompt answer, Person 4, Polite answer, Person 1, Helpful answer

From Table 9 both R and R square are high enough for further analyses, as both of them are close to 1.

Table 10 H_2.3 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210.384	15	14.026	39.577	.000 ^b
	Residual	85.053	240	.354		
	Total	295.437	255			

a. Dependent Variable: satisfaction (1 to 7)

b. Predictors: (Constant), Person 12, Person 3, Person 9, Person 11, Person 10, Person 5, Person 8, Person 8, Person 6, Person 2, Prompt answer, Person 4, Polite answer, Person 1, Helpful answer

Table 10 shows that the level of significance is high and the data can be analyzed. The next table will show how the data distributed among the variables. In this model it is used 12 dummy variables (out of 13 receptionists).

Table 11 H_2.3 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.481	.404		3.662	.000
Helpful answer	.769	.053	.732	14.415	.000
Prompt answer	.073	.035	.103	2.097	.037
Polite answer	-.036	.065	-.026	-.556	.579
Person 1	-.346	.128	-.133	-2.692	.008
Person 2	-.779	.161	-.207	-4.840	.000
Person 3	-.295	.434	-.024	-.679	.498
Person 4	-.110	.131	-.042	-.844	.400
Person 5	-.434	.221	-.078	-1.960	.051
Person 6	-.277	.170	-.074	-1.635	.103
Person 8	-.079	.200	-.016	-.395	.693
Person 8	-.170	.189	-.036	-.900	.369
Person 9	-.130	.360	-.013	-.362	.717
Person 10	.173	.248	.026	.697	.487
Person 11	-.488	.264	-.069	-1.852	.065
Person 12	-.533	.211	-.105	-2.531	.012

a. Dependent Variable: Satisfaction

From the table 11 except for polite answer, prompt and helpful answers show significant results, meaning that only they can explain satisfaction level in terms of mentioned above receptionists. Moreover, most of the receptionist do not show any significant difference in terms of satisfaction level. There is person 1, 2 and 12 only can be different by how the clients feel satisfied with the service, as their significance level < 0.5 .

There is high probability why other receptionists do not have any difference, it might happen because sample size is not enough for analyzing the data. Nevertheless, this hypothesis should be rejected and null hypothesis should be accepted, meaning that satisfaction level cannot be explained by helpful answer, prompt answer, polite answer and the receptionist who provided the service.

From this section it can be concluded that satisfaction level differs in terms of who provided the service, because there is a strong correlation. However, it cannot be fully explained

by receptionist, as there are other factors, such as helpful and prompt answer, which are more important in service delivery process.

3. Language

After checking the relationship between receptionist and satisfaction, it is possible to find whether language barrier influenced on service delivery's perception.

(H_3.1) There is a strong association among satisfaction level, helpful answer, prompt answer and polite answer controlled by the language used during service delivery.

Table 12 H_3.1 Correlations

Control Variables			Satisfaction	Helpful answer	Prompt answer	Polite answer
Language	Satisfaction	Correlation	1.000	.807	.609	.466
		Significance (2-tailed)	.	.000	.000	.000
		df	0	253	253	253
Helpful answer	Correlation		.807	1.000	.659	.552
	Significance (2-tailed)		.000	.	.000	.000
	df		253	0	253	253
Prompt answer	Correlation		.609	.659	1.000	.478
	Significance (2-tailed)		.000	.000	.	.000
	df		253	253	0	253
Polite answer	Correlation		.466	.552	.478	1.000
	Significance (2-tailed)		.000	.000	.000	.
	df		253	253	253	0

The results in Table 12 show quite same results as hypothesis H_2.1, presenting that if language is controlled, there is high correlation between satisfaction and helpful answer (0.807) and between satisfaction and prompt answer (0.609). Since polite answer shows low positive correlation 0.466 (< 0.5) it is advised not to include into the final results. Summarizing all the notes above, H_3.1 can be accepted, however “Polite answer” is advised not to include into the results.

(H_3.2) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of what language is used during service delivery.

Table 13 H_3.2 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Satisfaction	Between Groups	6.297	2	3.149	2.755	.066
	Within Groups	289.140	253	1.143		
	Total	295.438	255			
Helpful answer	Between Groups	6.581	2	3.290	3.190	.043
	Within Groups	260.947	253	1.031		
	Total	267.527	255			
Prompt answer	Between Groups	27.223	2	13.612	6.080	.003
	Within Groups	566.386	253	2.239		
	Total	593.609	255			
Polite answer	Between Groups	2.602	2	1.301	2.144	.119
	Within Groups	153.508	253	.607		
	Total	156.109	255			

Unfortunately, after checking the table 13, only prompt answer shows highly significant results ($0.003 < 0.05$), by meaning that promptness depends on the language used during conversation, however, it does not have any impact on satisfaction, meaning that satisfaction level does not change in terms of chosen language, only change by the speed of the answer. There is also one more variable which shows slightly significant result, it is helpful answer ($0.043 < 0.05$). It might mean that using one language might be easier for a staff (or student) to provide an answer (or listen to the answer). Therefore, this hypothesis should be changed and accepted as helpful answer and prompt answer differ in terms of what language is used during service delivery. Besides, language does not affect entire satisfaction (which is important) and has no connection with polite answer. Speed and helpfulness can be kept in mind for further discussion.

(H_3.3) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the language used during service delivery.

Regression is required to test this hypothesis, however, language cannot be directly used for this test, because it is not a continuous variable. Firstly, language should be coded into dummies. During observation there have been used 2 languages: English and Chinese, and also mixture of English and Chinese during the same conversation. The last one should not be entered

into the model, and other two variables could be compared with it. As a result, there are 2 dummies: D1 – English and D2 – Chinese.

Table 14 H_3.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818 ^a	.669	.662	.625

a. Predictors: (Constant), Chinese, Polite answer, Prompt answer, Helpful answer, English

From table 14 both R and R square are less than in previous cases, however, these results can still be used for further analyses.

Table 15 H_3.3 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	197.665	5	39.533	101.083	.000 ^b
	Residual	97.773	250	.391		
	Total	295.437	255			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Chinese, Polite answer, Prompt answer, Helpful answer, English

ANOVA shows (check table 15) that the data can be used for further testing, there is a difference in the means.

Table 16 H_3.3 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.017	.429		2.371	.018
	Helpful answer	.752	.055	.715	13.633	.000
	Prompt answer	.098	.036	.138	2.749	.006
	Polite answer	.007	.062	.005	.119	.905
	English	-.112	.231	-.052	-.485	.628
	Chinese	-.132	.229	-.062	-.578	.564

a. Dependent Variable: Satisfaction

The main purpose of this test (Table 16) is to show the difference in satisfaction by using 2 languages, however, as the data shows highly insignificant results (both > 0.05), therefore, this hypothesis should be rejected and null hypothesis should be accepted: the satisfaction level cannot be explained by helpful answer, prompt answer, polite answer and the language used during service delivery.

4. Nature of the problem

The last section remained is the problem's type, the aim is to test hypotheses in this section and to find some differences in satisfaction level among the nature of the problems.

Table 17 Nature of students' problem

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Card problem	22	8.6	8.6	8.6
General question	7	2.7	2.7	11.3
Refund	15	5.9	5.9	17.2
ARC & Visa	8	3.1	3.1	20.3
Attendance list	6	2.3	2.3	22.7
Stamp	11	4.3	4.3	27.0
Special docs	16	6.3	6.3	33.2
Payment	63	24.6	24.6	57.8
Scholarship	12	4.7	4.7	62.5
TOCFL	6	2.3	2.3	64.8
Group problem	11	4.3	4.3	69.1
Personal problem	26	10.2	10.2	79.3
Choose courses	12	4.7	4.7	84.0
Study at MTC for newcomers	39	15.2	15.2	99.2
Unstated	2	.8	.8	100.0
Total	256	100.0	100.0	

As it is shown in Table 17, there are totally 14 problems that have been recorded, plus 1 problem which is unstated and does not have any naming, it will be considered as missing value in some analyses. The most common problem happened is "Payment", following by "Study at MTC for newcomers" and then by "Personal problem". Payment includes payment itself and getting confirmation that the office received student's payment. Study at MTC for newcomers

includes a variety of problems: applying for the courses, MTC online, one-on-one courses, short-term courses, questions about studying process, summer camp, and etc. Those question are combined together under general idea of studying at MTC. Personal problem also has a large scale of questions: bank account, changing some personal information in school database, printing, forgetting some personal belongings at school, and etc.

(H_4.1) Satisfaction level, helpful answer, prompt answer and polite answer differ in terms of what problem the students faced.

Table 18 H_4.1 ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Satisfaction	Between Groups	74.632	14	5.331	5.818	.000
	Within Groups	220.806	241	.916		
	Total	295.438	255			
Helpful answer	Between Groups	68.872	14	4.919	5.968	.000
	Within Groups	198.656	241	.824		
	Total	267.527	255			
Prompt answer	Between Groups	146.462	14	10.462	5.638	.000
	Within Groups	447.148	241	1.855		
	Total	593.609	255			
Polite answer	Between Groups	46.465	14	3.319	7.295	.000
	Within Groups	109.644	241	.455		
	Total	156.109	255			

From Table 18 all the variables show highly significant level (< 0.05) and therefore it means that there at least on pair of problems which are different in satisfaction / helpful / prompt / polite answer. As there are no restrictions in this analysis, even polite answer has some meaningful mean difference, it is concluded as accepting hypothesis H_4.1.

(H_4.2) The satisfaction level can be explained by helpful answer, prompt answer, polite answer and the problem's type the students faced.

Same with previous regression analyses, it is compulsory to change nonmetric variables into metric ones by using dummies. In this case, problem "unstated", which is initially coded as "99", would not be entered into the model and would be considered as missing value. This type

of problem was not properly observed by the author, but it was not excluded from the data set, as it still has some meaningful data for language and receptionist's sections. Therefore, after excluding "unstated", there are 14 types of problems, and the first problem related to the card would be counted as 0 and not be included into regression. All other 13 problems would be compared with "Card problem".

Table 19 H_4.2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.843 ^a	.711	.691	.598

a. Predictors: (Constant), Newcomers, Prompt answer, TOCFL, General, Scholarship, Attendance, Courses, Refund, Docs, ARC & Visa, Stamp, Group, Personal, Polite, Helpful answer, Payment

From Table 19 R and R square are quite high and represent meaningful results.

Table 20 H_4.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	209.964	16	13.123	36.694	.000 ^b
	Residual	85.473	239	.358		
	Total	295.437	255			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Newcomers, Prompt answer, TOCFL, General, Scholarship, Attendance, Courses, Refund, Docs, ARC & Visa, Stamp, Group, Personal, Polite, Helpful answer, Payment

According to the Table 20, the results are highly significant, meaning there is at least one pair has significantly different means.

Despite all the tables are advisable for further testing, but significance level for majority of problems are > 0.05 (Please, check Table 21). There are only few types, for example: general, payment and personal problems that can be differentiated in terms of satisfaction level. It might be explained that for this problems staff has more structured guidelines or they are more prepared for working on these problems. The reason why others do not show significant results might be the size of sample, it is too small for comparing. The data is not enough for the program

to compare results, therefore, it is advised to keep in mind this hypothesis for further researchers. Nevertheless, this time H_4.2 should be rejected and null hypothesis should be accepted as follows: the satisfaction level cannot be explained by helpful answer, prompt answer, polite answer and the problem's type the students faced.

Table 21 H_4.2 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.884	.420		2.107	.036
	Helpful answer	.740	.056	.704	13.320	.000
	Prompt answer	.083	.037	.118	2.243	.026
	Polite answer	.005	.066	.004	.074	.941
	General	-.591	.263	-.090	-2.249	.025
	Refund	-.221	.200	-.048	-1.107	.270
	ARC & Visa	-.283	.245	-.046	-1.153	.250
	Attendance	.321	.277	.045	1.160	.247
	Stamp	.321	.222	.061	1.444	.150
	Docs	.266	.195	.060	1.363	.174
	Payment	.322	.151	.129	2.138	.034
	Scholarship	.356	.213	.070	1.666	.097
	TOCFL	.404	.274	.057	1.472	.142
	Group	.307	.236	.058	1.300	.195
	Personal	.382	.173	.107	2.210	.028
	Courses	.116	.212	.023	.547	.585
	Newcomers	.205	.157	.069	1.304	.194

a. Dependent Variable: Satisfaction

(H_4.3) There is a strong association among satisfaction level, helpful answer, prompt answer, polite answer and number of employees involved into communication process and explained by the problem's type.

From the table 22 under normal conditions there are 1~2 persons being responsible for communicating with a student, however, there are 31 cases when 3 persons have been involved and even 4 cases with 4 persons.

Table 22 How many employees were involved into solving the problem

Number of employees	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	78	30.5	30.5	30.5
2	143	55.9	55.9	86.3
3	31	12.1	12.1	98.4
4	4	1.6	1.6	100.0
Total	256	100.0	100.0	

Table 23 Correlations

Control Variables		Satisfaction	Helpful answer	Prompt answer	Polite answer	Number of employees
Nature of students' problem	Satisfaction	1.000	.811	.619	.473	-.217
	Correlation Significance (2-tailed)	.	.000	.000	.000	.000
	df	0	253	253	253	253
Helpful answer	Correlation	.811	1.000	.664	.558	-.307
	Significance (2-tailed)	.000	.	.000	.000	.000
	df	253	0	253	253	253
Prompt answer	Correlation	.619	.664	1.000	.487	-.477
	Significance (2-tailed)	.000	.000	.	.000	.000
	df	253	253	0	253	253
Polite answer	Correlation	.473	.558	.487	1.000	-.385
	Significance (2-tailed)	.000	.000	.000	.	.000
	df	253	253	253	0	253
Number of employees	Correlation	-.217	-.307	-.477	-.385	1.000
	Significance (2-tailed)	.000	.000	.000	.000	.
	df	253	253	253	253	0

The aim of the table 23 is test the correlation between number of employees and satisfaction, controlled by the problem's type. All the data are highly significant and can be analyzed. First of all, it is necessary to check the variable "Number of employees", its r coefficient is extremely low (-0.217), so the correlation with satisfaction is not strong enough. However, as it was expected, it can be noted, that "Number of employees" has negative correlation with satisfaction, meaning that the less people involved into delivering process, the higher level of satisfaction can be. Number of employees also has low negative correlation with helpful / prompt / polite answer, therefore, it is better to communicate with less people for solving one problem. However, the correlation is not strong enough.

Helpful answer shows the highest level of correlation (0.811) with satisfaction. It means that even among the different problem helpful answer is always highly correlated with satisfaction.

After checking all these results, the author advises to accept this hypothesis, by emphasizing that there is low correlation among number of employees and all other variables in terms of problem types.

4.2 Eliciting service failures

In this phase the researcher is going back to original database of 147 case, otherwise, some failures would be recorded several times and it could mislead the entire research.

After testing all hypotheses there can be found some variables having highly significant impact on satisfaction, so according to the accepted hypotheses following variables have been chosen: helpful answer, prompt answer as they have been always accepted by the results. If Likert scale is used for rating the variable, therefore, the score from 1 to 4 would be considered for existence of service failure, as 1 defines to "Strongly Disagree" and 4 is still considered as not reached customer's satisfaction ("Neither Agree or Disagree"), the rates higher than 4 would not be entered into counting service failures.

Helpful answer will be renamed as service failure "Relevance", only the data low than 4 would be counted for this problem. Totally, there are 7 cases when staff did not reach at least "slightly helpful" rate. For the prompt answer there are totally 17 cases when the answer was rated from 1 to 4. Prompt answer would be renamed to "Promptness".

Polite answer the author still recommends to include, despite the fact it has been rejected by regression model several times, but there is still positive correlation with the satisfaction. It shows only 4 cases and would be renamed to “Politeness”.

Next one is Number of employees, as it has negative impact on satisfaction, more people involved into communication process also make the students wait longer, therefore, he or she feels less satisfied with the service. Under normal conditions there are 1 or 2 employees help the student (the best example could be 1 person from the front desk and 1 person from the back office), exceeding 2 persons (in this study it has been recorded 3 and 4 persons) means facing service failure. During observation process there are 9 cases being recorded. This variable would be named as “Shifting responsibilities” as it means that the staff is looking for someone’s help instead of answering by her own.

Language barrier is another problem, it will be counted according to the researcher’s notes, where it was highlighted that the staff could not express her thoughts in English, therefore “Language barrier” has 3 cases.

There are 18 cases when the service was not delivered (problem was not solved), besides, in most cases why the problem was not solved happened due to students’ mistake, for example, there have been several situations when students came too early for registering or paying, therefore, research herself excluded such cases in accordance with qualitative data (Notes). At the end, there are only 4 cases remaining when the staff faced service failure. It would be renamed to “Inability to answer”.

As the variable “How long was queue (measure in minutes)” got highly significant results and it is highly correlated with satisfaction, therefore, the existence of queue would be also considered as service failure. “Queue” totally has 14 cases.

The last variable will be “Out of office” meaning that the staff was not at the office when the student came to her. The author recorded several situations when the clients were asked to wait several minutes for staff to come back or even asked to come the next day, because at that time the staff had a day-off. It means that there are no other colleagues could help to solve the problem, and due to the that situation the language center is unable to deliver the service. According to the qualitative data, there have been 6 cases when the staff was out of the office.

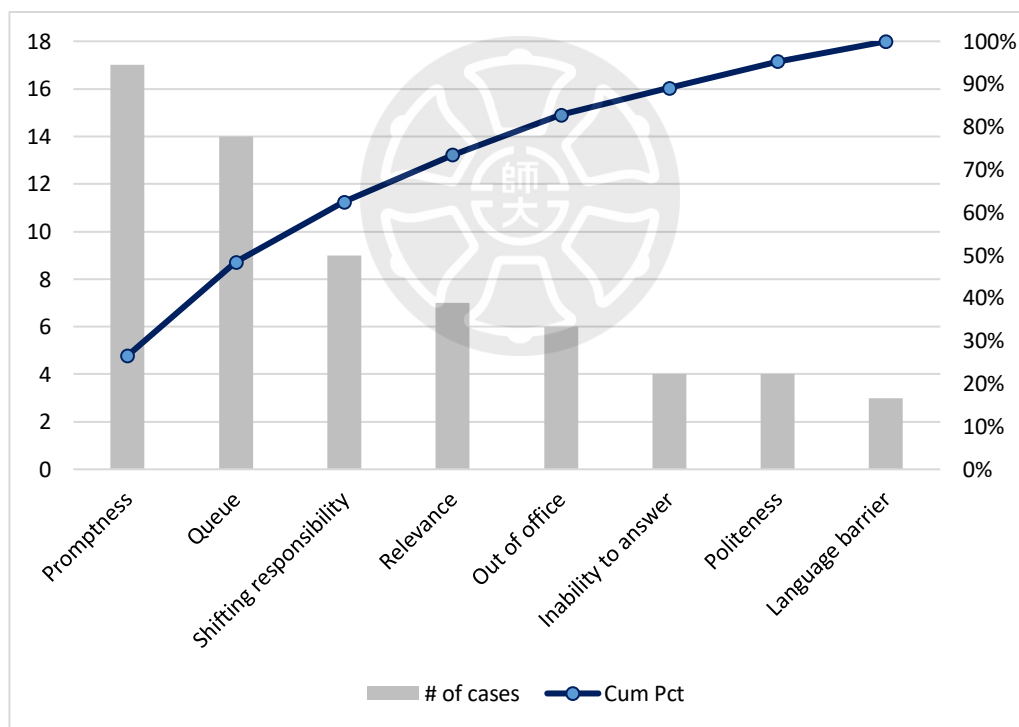
To sum it up, it is necessary to check the Table 24, showing service failures mentioned above in a descending order.

Table 24 Summary of service failures

Service failures	# of cases
Promptness	17
Queue	14
Shifting responsibility	9
Relevance	7
Out of office	6
Inability to answer	4
Politeness	4
Language barrier	3
Total	64

By using Pareto chart the value of each service failure is as follows (check Table 25)

Table 25 Pareto chart "Service failures"



Applying 80-20 rule, “Promptness” and “Queue” become the most critical service failures to the MTC followed by “Shifting responsibility” and “Relevance”, therefore, the company should firstly focus on solving these 4 problems, and other 20% of problems might be solved at the same time with others.

4.3 Solving service failures

All the possible solutions are presented at the table, please, check Appendix 4 for having clearer picture.

4.3.1 Promptness

Promptness is a broad question, and according to the results, is most common at MTC, hence, the company is advised to spend more resources on solving this type of service failure. It is necessary to highlight, “promptness” might occur in view of several existing gaps. To avoid Design and standards gap, it is necessary for a company to provide clear customer-defined standards, for example, there might be guidelines or an advice how long the conversation between the customer and staff should be. Advise employees to spend their time efficiently. The next issue in this gap is providing clear instructions for the staff, increasing its awareness of the questions the client might ask and how to answer it. Having on hand clear service guidelines, the staff would spend less time on looking for an answer / solution, and as a result, the time of conversation would become less.

Next gap is performance; to avoid it the company should consider how to increase employees’ motivation. It might be some training for service providers on how to meet service position demands. The next option is rewarding. However, the company should clearly understand whom to reward, therefore, the company should consider evaluating every single staff’s performance. Performance record can be based on customer satisfaction and evaluated by the service receivers directly. The company might weight installing customer satisfaction survey devices, as they help to evaluate staff’s performance immediately after the service is delivered.

And the third gap which is also connected to the service speed is communication gap. In case information desk does not know how to reply, they should know whom they might ask to help. Hence, the company should provide clear instructions on each employees’ responsibilities and where/how to find right person in the office. It would decrease the time of searching for a person and helps to find the right one.

4.3.2 Queue

The institution faces “Queue” service failure due to Design and standard gap. The company should reconsider its spatial arrangements, making it more easy for a customer to line up without front desk’s help. It is advised to rearrange entrances and exits. At the present

moment, MTC has 2 entrances/exits, and it misleads customer which door he/she should choose. These misunderstanding also cause lines interfering. As a result, the front desk employees spend their time on arranging the student proper lines instead of responding directly to the student's request and consequently increase their time on service delivery process. It is advised to rearrange entrances, dividing the clients before they enter the office into right place. Next step is to add clear queue and front desk signs. It will help the clients to find the proper line and wait for desired desk without employees help.

4.3.3 Shifting responsibilities

This service failure is connected to communication gap mostly, because, employees do not understand who is responsible for particular problem and spend more time on finding the right person. The company should provide clear guidelines with each staff's responsibilities. Moreover, each problem, for example, ARC & Visa should have at least 2 responsible persons in the office, it would deal with the situation when one person is out, and front desk employee has to spend more time on finding a substitution.

4.3.4 Relevance

Relevance is related to the design and standards and performance gaps. For reaching service recovery in design gap, it is required to help the employees with guidelines or printed materials on how to respond to the student's question. It would increase its relevance and importance of an answer, at the same time, the student would consider the service more helpful. About performance gap, it is advised to train employees on how to answer and what materials to provide to the students. The information should be standardized among all employees, so no matter who talks to a student, staff from information desk or back office, all of them should provide helpful answers to a client. Rewarding also might be considered as a tool for encouraging staff to provide highly helpful answers.

4.3.5 Others

As it was mentioned in Chapter 3, author recommends to focus only on 80% of the service failures, meaning that other 20% of them would be reached by solving prior 80%. For example, if company would share similar responsibilities among 2 or even more employees successfully, it would eliminate the possibility of "out of office" problem, because, even if one staff takes personal leave, another staff would be able to help the students. Or "inability to answer" is related to "relevance", therefore, training and proper guidelines would also exclude

this service failure. Author's personal opinion, that due to proper training, the courtesy topic might also arise, because, this is an important issue how to communicate with a client. There is only language barrier left. This service failure is related to several gaps, and one of them is design and standard one, hence the company should focus on speaking foreign languages ability when hiring new employees. However, this problem was faced only several times during observation, and sometimes student's ability is also far from desirable, therefore, author recommend not to focus much on this service failure at the present moment. But for future improvements to increase the level of mutual understanding it is advised to use APPs for bilingual translation (for example, Google Translate). If a student is not able to speak neither English, nor Chinese, the staff can use online APP for translating the conversation from client's mother tongue to Chinese and vice versa. It would increase the level of satisfaction, because using translation APP could make the process of service delivery easier.



Chapter 5 Conclusion

5.1 Summary

By analyzing service failures at MTC the researcher came to conclusion that definitely there are several problems that language center should take into consideration. After analyzing and reviewing the data, researcher summarized service failures and steps how to reach service recovery as following:

Author advises MTC to focus on solving following service failures: Promptness, Queue, Shifting responsibility and Relevance. However, language institute should not underestimate other problems: out of office, inability to answer, politeness and language barrier. At the present moment these failures do not have a critical impact onto entire customer's satisfaction, however, it might arise in the future, so it is recommended to recheck the existence of these problems after doing some steps on improving service quality at MTC.

To reach service recovery it is advised to follow 5 steps:

1 step: Guidelines

Provide clear standardized guidelines for every single staff in the office, provided instructions should include the information below based on customer's journey:

- ✓ Advised timing of conversation
- ✓ Each staff's responsibilities and contact information
- ✓ List of counseling issues and how to work on them

2 step: Training

Conduct proper training for employees on following topics:

- ✓ Employees motivation
- ✓ How to respond student's questions

3 step: Rewarding

Consider rewarding customer for reaching best customer satisfaction and receiving feedback from every staff in the office by:

- ✓ Install customer satisfaction survey devices

4 step: Additional signage

Adding necessary tangibles to increase familiarity with the office internal structure:

- ✓ Add signage for every line showing where queue starts and ends for every serving desk working on different issues
- ✓ Add signage for every table serving: naming the service and staff's name tag

5 step: Rearrangements

The company should consider following actions and imply these changes in the office:

- ✓ Rearrange spatial arrangements: Entrances should have clear signs for different information desks (and lines) to avoid line interferences
- ✓ Reallocate responsibilities: at least 2 persons should share similar responsibilities and be aware whom each of them should substitute in case one of them is out of the office

5.2 Recommendations

This study evaluated what kind of service failures exists at educational institution and how to work on them, therefore, in the future these results might be used mainly in educational spheres or in studies covering front desks service. However, at the present moment, as the main idea was to observe service failure at MTC, it is advised for the management team of MTC to consider obtained results and evaluate possibility of implying them in language center.

Due to the variety of limitations in this study: number of methods used (only one method – observation), time of observation, shortage of respondents, personal factor of researcher, cultural differences, it is advised for the future researchers to take into considerations problems that author herself faced and to increase the scope of study. It is recommended to work with other institutions and evaluate the service quality at different information centers. Also, as the author covered only core service encounter, for future studies it is advised to consider pre- and post-core encounters too.

References

- Flanagan , P., & Horowitz, L. R. (2000). Exploring new service models: Can consolidating public service points improve response to customer needs? *The Journal of Academic Librarianship*, 329-338. doi:10.1016/s0099-1333(00)00139-7
- Kotler, P. (1997). *Marketing Management: Analysis, Planning, Implementation, and Control* (9th ed.). Upper Saddle River: Prentice Hall.
- Module 15: Customer Service Strategies. The Gap Model of Service Quality.* (n.d.). Retrieved from Lumen Learning: <https://courses.lumenlearning.com/wmopen-retailmanagement/chapter/the-gap-model-of-service-quality/>
- Nextiva. (2019). *Customer service statistics*. Retrieved from Nextiva: <https://www.nextiva.com/blog/customer-service-statistics.html>
- Parasuraman, A. P., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implication for Future Research (SERVQUAL). *Journal of Marketing*, 41-50.
- Paul, J., & Sahadev, S. (2016). Service failure and problems: Internal marketing solutions for facing the future. *Journal of Reatiling and Consumer Services*, 304-311. doi:10.1016/j.jretconser.2016.08.007
- Spencer, H., & Mortensen, K. (2014). Moving into interaction---Social practices for initiating encounters at a help desk. *Journal of Pragmatics*, 46-67.
- Sridhar, S., & Srinivasan, R. (2012). Social influence effects in online product ratings. *Journal of Marketing*, 70-88.
- Sua, Y., & Teng, W. (2018). Contemplating museums' service failure: Extracting the service quality. *Tourism Management*, 214-222.
- The Customer Service Gap Model.* (n.d.). Retrieved from Brainmates : <https://brainmates.com.au/brainrants/the-customer-service-gap-model/>
- The Editors of Encyclopaedia Britannica. (2020). *Service industry*. Retrieved from Encyclopaedia Britannica: <https://www.britannica.com/topic/service-industry>
- Voorhees, C. M., Fombelle, P. W., Gregoire, Y., Bone, S., Gustafsson, A., Sousa, R., & Walkowiak, T. (2017). Service encounters, experiences and the customer journey: Defining the field and a call to expand our lens. *Journal of Busines Research*, 269-280.

Walton, A., & Hume, M. (2012). Examining Public Hospital Service Failure: The Influence of Service Failure Type, Service Expectations, and Attribution on Consumer Response. *Journal of Nonprofit & Public Sector Marketing*, 202-221.

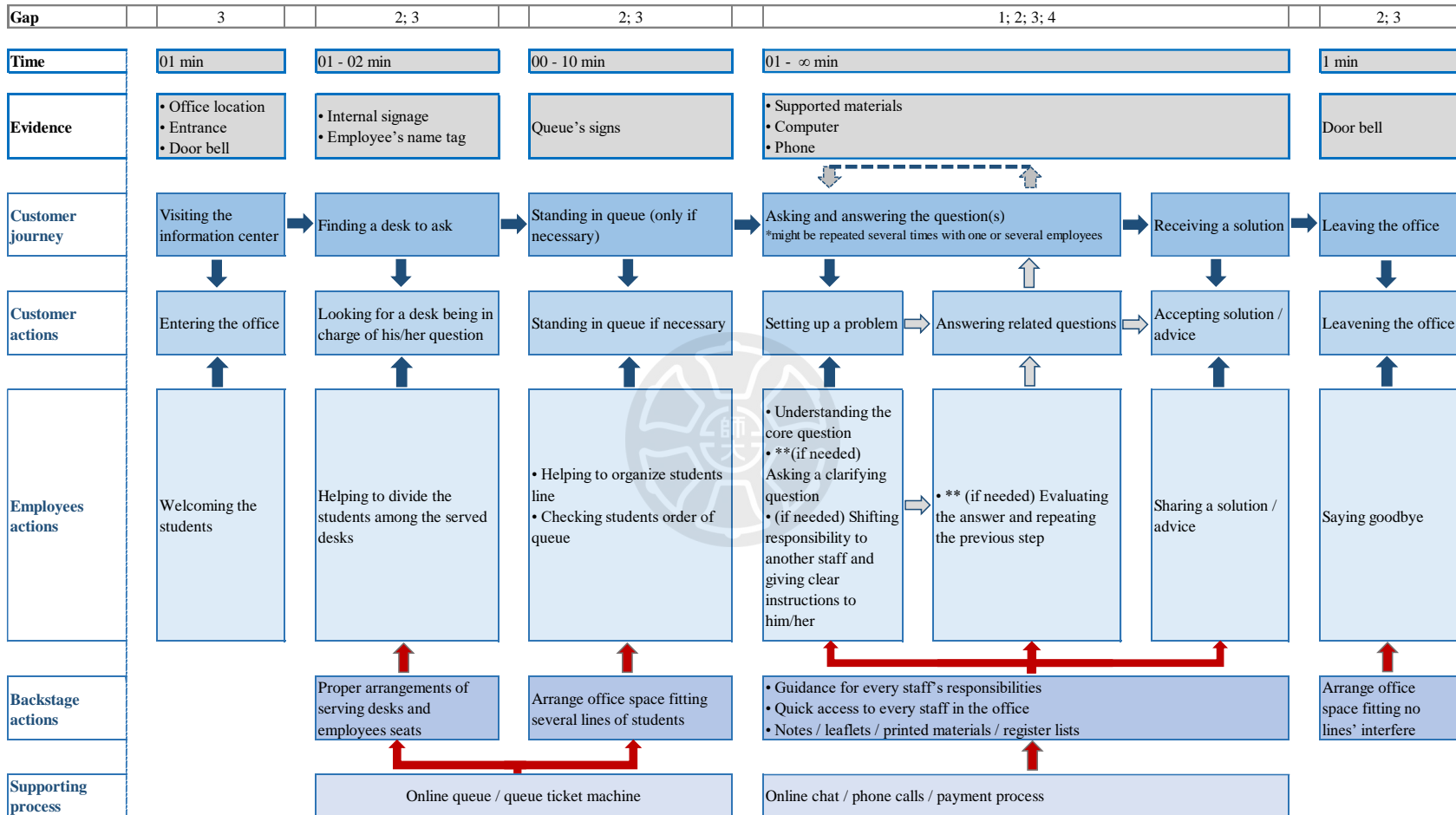
doi:10.1080/10495142.2012.705179

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2010). Service Marketing Strategy. *Wiley International Encyclopedia of Marketing: Marketing Strategy, 1*, 208-218.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2012). *Services Marketing* (6th ed.). London: McGraw-Hill Education.



Appendix 1



Appendix 2

Variable	Characteristics (Label)	Coding
No	Reference number of each case	Using numerical ordinal number per each case
Date	Date when the observation is made	Using date format as dd.mm.yy
Time	Time when the observation is made	Using time format as hh:mm
Gender	Client's (Student's) gender: male or female	Male coded "0"; Female coded "1"
Language	The language used during communication process, it might be English, Chinese or both English and Chinese used during the same case	English coded "1"; Chinese coded "2"; Both coded "3"
Receptionist	Receptionist's name who is involved into communication process	To avoid privacy interference, all observed members are given a number based on nominal scale
Problem	Nature of students' problem	Each problem is coded based on nominal scale
Solved	Showing whether the problem is solved by receptionist or not	"No" coded "0"; "Yes" coded "1"
Problem Solved Rate	Evaluate how the problem is solved according to the Likert scale	Strongly Disagree "1" Moderately Disagree "2" Slightly Disagree "3" Neither Agree or Disagree "4" Slightly Agree "5" Moderately Agree "6" Strongly Agree "7"
Queue	Showing whether there is a queue during service delivering process	"No" coded "0"; "Yes" coded "1"
Queue measure	Evaluate how long is queue	Measured in minutes

Variable	Characteristics (Label)	Coding
Satisfaction	Evaluate how the client feels satisfied with the service based on Likert scale	Strongly Disagree “1” Moderately Disagree “2” Slightly Disagree “3” Neither Agree or Disagree “4” Slightly Agree “5” Moderately Agree “6” Strongly Agree “7”
Clear answer	Showing whether the answer is clear or not	“No” coded “0”; “Yes” coded “1”
Helpful answer	Evaluate how the answer is helpful the client based on Likert scale	Strongly Disagree “1” Moderately Disagree “2” Slightly Disagree “3” Neither Agree or Disagree “4” Slightly Agree “5” Moderately Agree “6” Strongly Agree “7”
Prompt answer	Evaluate how prompt the answer is based on Likert scale	Strongly Disagree “1” Moderately Disagree “2” Slightly Disagree “3” Neither Agree or Disagree “4” Slightly Agree “5” Moderately Agree “6” Strongly Agree “7”



Variable	Characteristics (Label)	Coding
Polite answer	Evaluate how polite the answer is based on Likert scale	Strongly Disagree “1” Moderately Disagree “2” Slightly Disagree “3” Neither Agree or Disagree “4” Slightly Agree “5” Moderately Agree “6” Strongly Agree “7”
Number of employees	How many employees are involved into particular service delivering process?	Using numerical ordinal number (minimum number should be 1)
Distraction staff	Showing whether there is any sources of distraction for the staff	“No” coded “0”; “Yes” coded “1”
Distraction client	Showing whether there is any sources of distraction for the clients (students)	“No” coded “0”; “Yes” coded “1”
Notes	Qualitative data which helps the author to briefly summarize the interaction process	No coding used

Appendix 3

				Receptionist's name												
					person	person	person	person	person	person	person	person	person	person	person	person
				0	1	2	3	4	5	6	7	8	9	10	11	12
				Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
Nature of students' problem	card problem	problem solved (Yes/No)	No	0	0	0	0	0	0	0	0	0	0	0	0	0
			Yes	3	5	4	0	2	1	0	0	2	0	0	5	0
	general question	problem solved (Yes/No)	No	0	0	0	0	0	0	2	1	0	0	0	0	0
			Yes	0	1	1	0	0	0	1	1	0	0	0	0	0
	refund	problem solved (Yes/No)	No	0	1	0	0	2	0	0	0	1	0	0	0	1
			Yes	1	3	0	0	5	0	1	0	0	0	0	0	0
	ARC & visa	problem solved (Yes/No)	No	0	1	0	0	0	0	0	0	0	0	0	0	0
			Yes	0	1	3	0	1	2	0	0	0	0	0	0	0
	attendance list	problem solved (Yes/No)	No	0	0	0	0	0	0	0	0	0	0	0	0	0
			Yes	0	1	2	0	0	1	2	0	0	0	0	0	0
	stamp	problem solved (Yes/No)	No	0	0	0	0	0	0	0	0	0	0	0	0	0
			Yes	3	5	0	0	2	0	0	0	0	0	1	0	0
	special docs	problem solved (Yes/No)	No	1	1	0	0	0	0	0	0	0	0	0	0	0
			Yes	0	3	3	1	1	1	2	0	2	0	0	0	1
	payment	problem solved (Yes/No)	No	1	0	0	0	1	0	0	0	0	0	0	0	0
			Yes	8	7	3	0	35	1	2	4	1	0	0	0	0
	scholarship	problem solved (Yes/No)	No	1	0	0	0	1	0	0	0	0	0	0	0	0
			Yes	3	3	0	0	0	0	1	0	0	3	0	0	0

TOCFL	problem solved	No	0	0	0	0	0	0	0	0	0	0	0	0	0
	(Yes/No)	Yes	1	0	1	0	0	0	1	1	1	0	0	1	0
group problem	problem solved	No	0	0	0	0	0	1	1	0	0	0	0	0	0
	(Yes/No)	Yes	1	0	0	0	0	1	5	0	0	0	0	0	2
personal problem	problem solved	No	0	1	2	0	0	0	0	0	0	0	1	0	0
	(Yes/No)	Yes	4	5	0	1	3	1	2	0	1	0	2	0	3
choose courses	problem solved	No	2	2	0	0	0	0	0	0	0	0	0	0	0
	(Yes/No)	Yes	0	1	2	0	0	1	1	0	0	0	2	0	1
study at MTC for newcomers	problem solved	No	0	0	0	0	0	0	0	0	0	0	0	0	0
	(Yes/No)	Yes	6	15	1	0	0	0	2	5	6	0	1	0	3
Unstated	problem solved	No	0	0	0	0	0	0	0	0	0	0	0	0	0
	(Yes/No)	Yes	0	0	1	0	0	0	0	0	0	0	0	0	1

Appendix 4

Promptness	Queue	Shifting responsibilities	Relevance
Guidelines	Rearrangements	Guidelines	Guidelines
Advised timing of conversation	Rearrange spatial arrangements: Entrances should have clear signs for different information desks (and lines)	Each staff' responsibilities and contact information	List of counseling issues and how to work on them
Guidelines	Additional signage	Rearrangements	Training
List of counseling issues and how to work on them	Add signage for every line showing where queue starts and ends for every serving desk	Reallocate responsibilities: 2 persons (at least) should share similar responsibilities and be aware whom each of them should substitute in case one of them is out of the office	How to respond student's questions
Training	Additional signage		Rewarding
Employees motivation	Add signage for every table serving: naming the service provided and staff's name tag		Customer satisfaction survey devices
Rewarding			
Customer satisfaction survey devices			
Guidelines			
Each staff' responsibilities and contact information			
Information provided to employees should be standardized among all of them			