

Service Development by using Servqual and Quality Function Deployment in Private Banking Industry

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Abstract. This study aimed to analyse and investigate the various factors responsible for the quality of banking services and various other factors which are responsible to pull down the service level to some extent. In crux, improvement of quality of banking services using Quality Function Deployment is the motto of the study. QFD matrix has two main requirements. One is Customer requirement which captures the Voice of the customers and the second is technical requirements which in turn capture the technical aspect for the same. SERVQUAL model of quality gap has been used to identify the Service requirement from the customer through a well structured questionnaire. A team of banking personnel who has rich experience in the field have been identified and interviewed to come up with the technical requirement which could satisfy the customer requirement. The study population was customers of Axis, ICICI and HDFC branches in Chennai. Using multi-stage sampling method, 100 questionnaires were distributed among the population. The instrument used in this study was standard SERVQUAL questionnaire and interview method. The correlation between various technical requirements was identified using the "roof" of QFD which is otherwise called as correlation matrix. After identifying the Correlation, the relationship between customers' requirements and technical service specifications were examined in QFD matrix. Finally absolute weights and relative weights were calculated by multiplying the level of importance value with the strength of relationship for every technical specification. In the end, the absolute and relative weights of the technical specifications of banking services were prioritized. The Service requirements were classified into five different categories based on the weights obtained by them for easy and clear interpretation. Category 1 with high importance to category 5 with low importance. SR 14, Separate counters for different services fell in Category 1 (>500) with the highest score of 570 and SR 17- Wishes on special occasions with 106 points fell in category V with score ranges from > 100 to 200. The extended part of the QFD matrix gives us the Competitor analysis. Based on the results of the study it has been observed that ICICI tops the list among three in various Service requirement. The prioritization and competitor analysis shows us as well as the bankers the roadmap and the scope for further development in banking sphere

Keywords: Quality of private Banking Services, QFD Technique, SERVQUAL.

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1. INTRODUCTION:

Service quality acts as mandate for the organization to survive in today's competitive, aggressive and fierce condition, those associations will be progressively effective in the field of rivalry that exceed different contender to address customers' issues and requests. In different words, clients are engaged and issues are considered from the point of view of clients. The target of all administration establishments is to furnish fitting administrations with high calibre and fulfilled by the custom. In the current scenarios, quality is characterized as per the client's needs and that client assumes a focal job in controlling the exercises of the organization. Thus, the nature of administrations depends on client's desires and observations. In most of the organizations and banks, clients and their conclusions are most certainly not efficiently and deliberately considered to enhance the nature of services. In the present examine, the QFD strategy has been used in enhancing the nature of services in the parts of the bank and its component is analyzed. In this way, if QFD method is utilized in the field of the quality of banking administrations, it very well may be anticipated such that the procedure will prompt characterize and distinguish the fundamental needs of customers. The nature of administrations likewise incorporates numerous parts and models proposed by numerous researchers. In any case, in this investigation, the parts of SERVQUAL show as components and parts demonstrated, affirmed and generally utilized in the field of the nature of keeping banking administrations and the same will be utilized to find out the wants and importance of various factors from the customer view point.

2. LITERATURE REVIEW

2.1 SERVQUAL

In the business sectors worldwide a steady battle is being battled to meet or even to surpass clients' expectations, a mind boggling undertaking however for larger part of firms (Berry et al. 1985). World-class showcase execution in conveying high performance and cost aggressive service is basic for survival in the present business condition (Cook and Verma 2002). Be that as it may, because of a few

fundamental attributes of services, it is a lot harder to gauge the service quality than goods. Despite the broad development of the service segment there were insufficient investigations which had put an accentuation on service quality (Parasuraman et al. 1985). The fundamental reason is the construct was hard to characterize and gauge (Parasuraman et al. 1985).

Before the foundation service quality model three vital attributes of services, which separate them from products were considered – intangibility, heterogeneity and inseparability (Parasuraman et al. 1985). Intangibility, in services, implies that "they are exhibitions as opposed to objects, and exact assembling determinations concerning uniform quality can seldom be set and not at all like merchandise that can't be tallied, estimated, stocked, tried and confirmed ahead of time of offer" which makes them progressively hard to be assessed or their quality to be estimated (Parasuraman et al. 1985, p. 42). Heterogeneity implies that Services' execution "frequently shifts from maker to maker, from client to client and from everyday" (Parasuraman et al. 1985, p. 42). "While physical merchandise are being delivered in a manufacturing plant, services are created in a process in which buyers cooperate with the various resources of the service firm" (Gronroos 1998, p. 322). Thusly, utilization of an service is considerably more "process utilization instead of result utilization" (Gronroos 1998, p. 322). This is really the third normal for services which could be characterized as inseparability. It is conceivable that a piece of the service might be set up before the customers enter the process of service utilization yet the basic piece of the service process, for the service quality recognition, happens in collaboration with actual customers in real time basis (Gronroos 2001).

Moreover, customer's satisfaction with respect to service quality is consequence of looking at perception before encountering service and after genuine encounters from the service. If a service provider doesn't meet customer's expectation, the outcome will be a dissatisfied client and if the company surpasses client's expectations, the outcome would be a satisfied customer (Berry et al. 1985). Customers will assess service quality and the result will be in scope of either fulfilment or disappointment (Swartz and Brown 1989).

The five dimensions of service quality are – reliability, assurance, tangibles, empathy, and responsiveness. Zeithaml et al. (1990) suggest 22 questions (items) that relate specifically to these five dimensions, on which we base the design of our study. The way in which the service is delivered, is progressively vital since it impacts to a more noteworthy degree in making service quality discernments (Gronroos 2001).

Estimating and assessing service quality are not considered as additional items to the general assessment of service quality and the literatures in the field is in abundance especially in connection to customer expectancies. The significance of service quality may fluctuate in various settings (Ghobadian et al., 1994)SERVQUAL is a standout amongst the most generally utilized scales by and by that estimates customer 'impression of SERVQUAL, and it has

been appeared to be pertinent for a wide scope of service industries (Rosenbaum and Wong, 2009).

2.2 QFD

Griffin and Hauser (1992) trust that there are in excess of 100 noteworthy organizations utilizing QFD in the USA. To discover organizations willing to utilize the QFD system in their basic decision making process one ought to allude to the yearly USA Quality Function Deployment Symposium exchanges. QFD is utilized in different fields for deciding client needs (Stratton, 1989), creating needs (Han et al., 1998), detailing yearly arrangements (Philips et al., 1994), producing methodologies (Crowe and Cheng, 1996; Jugulum and Sefik, 1998), benchmarking (Kochhar and Eguia, 1998; Kochhar and Saeed, 1999; and ecological cantered decision making (Berglund, 1993)

QFD isn't in every case simple to execute, and organizations have confronted issues utilizing QFD, especially in expansive, complex frameworks (Harding et al., 2001). Govers (2001) accentuated that "QFD isn't only a device however needs to wind up a method for the executives". He likewise arranged issues of QFD in three gatherings as: methodological issues, authoritative issues and Problems concerning product policy.

Quality function deployment is an organized way to deal with search out customers, comprehend their requirements, and guarantee that their needs are met. QFD is presumably the most vital administration tool created to guarantee quality in new or enhanced products and services (Han et al., 2001).

The use of the client window quadrant (CWQ) and the activity plan lattice in the examination of customer and service components comprise an alternate methodology for QFD. A few advantages and drawbacks of the QFD procedure are talked about when contrasted with surviving serving quality and customer ideal models. At long last, proposals and bearings are offered for future applications, with specific enthusiasm for service management in e-bank issues. (Marvin E. González, 2004)

Wanga and Xionga (2011) broke down the restrictions of customary techniques by utilizing the item arranging HOssQ; the accessible semantic terms dependent on specialists' learning, and with the counterfeit neural system, were acquainted with acknowledge neural system based fluffy thinking. The last significance of the specialized prerequisites was assessed sensibly and effectively. This display considered market intensity and specialized aggressiveness. The significance of specialized necessity was resolved through four stages: (1) obtaining of client prerequisites and positioning of their significance measures, (2) foundation of specialized necessities and their relations with client prerequisites, (3) foundation of market intensity and specialized aggressiveness, and (4) assessment of specialized prerequisite significance with intensity.

3. METHODOLOGY OF THE STUDY

This study is done with the objective to determine the customer's satisfaction from banking services as per different constituent factors. Further, the study is also undertaken to assess the impact of each service quality dimension on the customer satisfaction. This will help in knowing the most and least impacting factor with respect to the customer satisfaction. The SERVQUAL five dimensions (Parasuraman, 1988) are used in this study. The variables are Assurance, Empathy, Reliability, Responsiveness and Tangibility (Parasuraman, 1994). Total 90 respondents have been surveyed for the study using a judgmental sampling method. Each respondent is selected on the basis of fulfilling two conditions. 1) Respondent should be customer of banking service and 2) Respondent should be resident of Chennai. A set of 28 structured questions consists of Likert scale has been used to collect the data.

The main goal is to determine the level of service quality as perceived by customers of the case-in-study bank by using the SERVQUAL tool. In this section, the main features of the way this survey was conducted will be presented. A structured questionnaire, a standard 22 item SERVQUAL questionnaire with five RATER dimensions, was used for this research effort. In order to avoid interviewing the "wrong customers" (Newman 2001, p.134), the questionnaires were given to active customers i.e. to customers that have ordered one or more transactions in the previous three months period. Moreover, the survey was anonymous and the customers were not asked to provide any personal data (e.g. name, income, investments). Each bank (different branches) was asked for 33 completed interviews, which means that maximum of 99 completed interviews was expected (3 banks x 33 interviews). Once the survey was completed, there were 90 interviews that could be used for further analysis. The questionnaire consisted of two sections: the first section contained 22 SERVQUAL items divided into expectations in the first section and perceptions parts in the second section and on a 5-point Likert scale, with 1 meaning "totally satisfied" and 7 meaning "totally agree". SERVQUAL questionnaires were administered to major branches that were all "A" type branches meaning that they were among the largest branches in their area and similar in terms of number of customers and size (number of joint teller places, client advisors, small business operations, etc.). Furthermore, the questionnaires were handed to the customers by their client advisors, who, while providing a short explanation regarding the survey, gave the questionnaires to the customers and asked them to fill them. Here, it must be underlined that the client advisors were instructed to leave the customer to fill the questionnaire alone. Additionally, the client advisors were instructed to stress out, in communication with customers involved in the survey, the importance of customers' objective opinion. Also, the client advisors put an emphasis on the fact that the data will be used for statistical purposes only and that the customers' responds would directly be forwarded to the central unit in charge of conducting the survey without "interference" of the branch staff.

S.No	Attributes	Code	Customer Requirements
1	RELAIBILITY	VC1	Job is done perfectly
2		VC2	Job progress is informed to customers
3		VC3	Customers queries and requests are solved
4		VC4	Timely service is given
5		VC5	Customers requests are solved right at first time
6	ASSURANCE	VC6	Employees are good at know-how's
7		VC7	Well maintained security system
8		VC8	Employees are courteous
9		VC9	Employees instil confidence in customers
10		VC10	On time Service to customers
11	RESPONSIVENESS	VC11	Employees readily help customers
12		VC12	short waiting time to solve customer requests
13		VC13	Customers are given Individual attention
14		VC14	Employees are Caring while respond to customers
15		VC15	Have customers best interest at heart
16	EMPATHY	VC16	Employees understand the needs of the customer
17		VC17	Employees willing to solve customer requests
18		TANGIBLES	VC18

19	VC19	Facilities are visually appealing
20	VC20	Waiting lounge is clean and easy to move
21	VC21	The materials are kept neatly and easy to read ((Brochure, various chalans)
22	VC22	Branches are easily accessible

Table 4.1: CUSTOMER REQUIREMENTS

4. ANALYSIS AND INETRPRETATION:

Table 4.1 shows the customer requirements .A structured questionnaire has been designed with 22 items based on SERVQUAL models. These 22 items are termed as customer requirements or Voice of the customer. These 22 items were categorized under five broad categories such as Reliability, Assurance, responsiveness, Empathy and Tangibles. The number of items varies from one category to the other. There are five items in reliability, four items in assurance, three items in responsiveness, five items in empathy and five tangibles.

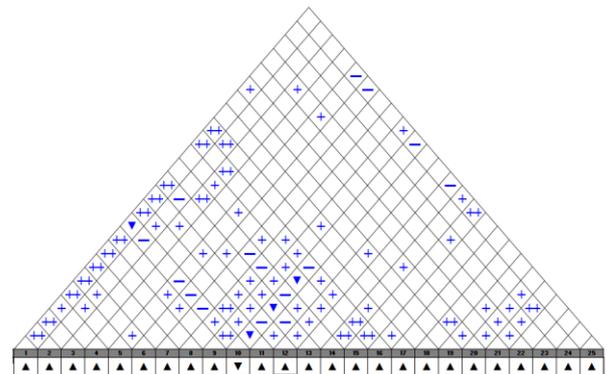
Table 4.2: Service Requirement:

Service Requirements	Service Characteristics
SR 1	computer system
SR 2	SMS alerts
SR 3	token system
SR 4	electronic cheque drop box
SR 5	cash deposit machine
SR 6	ATM
SR 7	Passbook printers
SR 8	online DD facility
SR 9	employee training
SR 10	Work loads
SR 11	Secured internet banking
SR 12	Separate Assistance for customer enquiries
SR 13	customer service call center
SR 14	separate counters for different services
SR 15	number of employees
SR 16	categorization of customers(senior citizen/priority/normal)
SR 17	Wishes on Special dates of customers
SR 18	Dress code
SR 19	Branch layout
SR 20	Branch Interior
SR 21	Proper house keeping
SR 22	Display boards
SR 23	Voucher tables
SR 24	Air conditioning , more chairs and water facility
SR 25	more branches

Table 4.2 shows 25 Service characteristics that were obtained by several interviews and Brainstorming sessions. Three financial experts were involved in this from the banking industry. The 25 Service requirements generated were directly related to Customer requirements.

Figure 4.1 represents the “Roof” of the standard House of Quality framework. This part of HOQ is called correlation matrix and used to identify the correlation between any pair of identified Service requirements. There were 25 Service requirements identified by the decision makers. Standard notations are used to represent the type and level of correlation. The symbol ++ was used to represent strong positive correlation, + was used to represent positive correlation, – was used to represent negative correlation and ▼ was used to represent strong negative correlation.

Fig 4.1: Correlation matrix



The decision makers agreed upon 91 possible correlations. Out of these 91 correlations, 23 pairs of Service characteristics were correlated strongly positive, 49 were correlated positively, 15 were correlated negatively and only 4 pairs were correlated strongly negative. The decision makers considered that SR 1, Computer systems have a strong positive correlation with many of the service characteristics. For example, it has a positive correlation with SMS alerts, Token system, Secured internet banking, Customer service call center and the list goes. On the other hand, it has a strong negative correlation with workloads. The cluster of different correlation has been observed from Service characteristic 8- 17. Three strongly negative correlations, more than 50 percent of positive correlation among the possible correlation, 5 negative correlations fell in this zone. SR 10, Workload has a strong negative correlation with secured internet banking, customer service call center and a number of employees. That is the increased use of internet banking facility for various purposes such as online DD, to send/receive money, to open/close FD/RD accounts and to make scheduled transactions, which in turn reduced the workload of the employees. Similarly, the increase in the number of employees will, in turn, reduce the overburden of jobs. The call center also played a significant role in reducing the workload of employees since a majority of customers in busy urban life prefer to solve their queries/problems through call centres rather than visiting the branches as it was time-consuming for them. ATM,



pass book printers has negative correlation with separate assistance for customer enquiries. Both the facilities are now available in plenty, and these facilities reduced the customer’s dependency on the employees. Furthermore, a small cluster has been observed between SR 19- SR 24. Branch interior has a strong positive correlation with Air-conditioning.

Fig 4.2: Relationship matrix

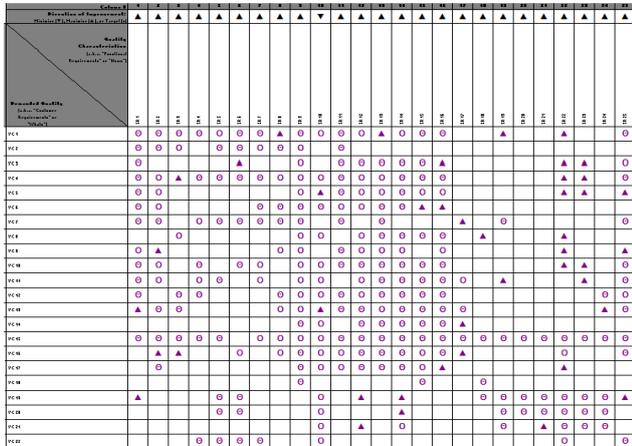


Table 4.3: Category classification

Category	no., of SR's	Range
I	1	>500
II	7	>400 to 500
III	4	>300 to 400
IV	8	>200 to 300
V	5	>100 to 200

The relationship between Voice of customer/ Customer requirements and technical/service requirements were captured in Figure 4.2. Figure 4.2 is called as relationship matrix. Symbols were used to indicate the strength of relationship between each pair of VC and SR. Symbol "●"

represents a strong relationship with 9 points, the symbol "O" represents moderate relationship with 3 points and symbol "▲" represents weak relationship with 1 point. The importance value and relative weight are shown in Table 4.4. The Service requirements were classified into five different categories based on the weights obtained by them for easy and clear interpretation which is shown in table 4.3. Category 1 with high importance and extends to category 5 with low importance. SR 14, Separate counters for different services fell in Category 1 (>500) with the highest score of 570. Seven service requirements which includes SR 11 -Secured internet banking with 500 points, SR 13 – Customer service call centre with 499 points, SR 1 – Computer system with 484 points, SR 15 – number of employees with 481 points, SR 16- categorization of customers (senior citizen/priority/normal) with 445 points, SR 9 - employee training with 432 points, SR 25 - more branches with 426 points fell category II with score ranges from > 400 to 500. Four service requirements which includes SR 12 –Separate assistance for customer enquiries with 392 points, SR 6 – ATM with 367 points, SR 5– Cash deposit machine with 360 points, SR 2– SMS alerts with 328 points, fell in category III with score ranges from > 300 to 400. Eight service requirements which includes SR 4 – Electronic cheque box with 288 points, SR 7 – Passbook printers with 282 points, SR 8 – Online DD facility with 243 points, SR 10 – Work load with 242 points, SR 22- Display boards with 232 points, SR 19 – Branch layout with 223 points, SR 24 – Air conditioning facility with 211 points, SR 3- Token system with 201 points fell category IV with score ranges from > 200 to 300. Five service requirements which includes SR 23 –Voucher help desk with 189 points, SR 21 –Proper house keeping with 129 points, SR 20 – Branch interior with 124 points, SR 18– Dress code with 121 points, SR 17– Wishes on special occasions with 106 points fell in category V with score ranges from > 100 to 200.

Table 4.5: Relative weight and Normalized Importance Weight

SR's	Weight/Imp	Relative Weight	Normalized Imp. weight	SR's	Weight/Imp	Relative Weight	Normalized Imp. weight
SR 14	570	7.2	100	SR 7	282	3.6	49
SR 11	500	6.4	88	SR 8	243	3.1	43
SR 13	500	6.3	88	SR 10	242	3.1	43
SR 1	484	6.1	85	SR 22	232	2.9	41
SR 15	481	6.1	84	SR 19	223	2.8	39
SR 16	445	5.6	78	SR 24	211	2.7	37
SR 9	432	5.5	76	SR 3	201	2.6	35
SR 25	426	5.4	75	SR 23	189	2.4	33
SR 12	392	5	69	SR 21	129	1.6	23
SR 6	367	4.7	64	SR 20	124	1.6	22
SR 5	360	4.6	63	SR 18	121	1.5	21
SR 2	328	4.2	58	SR 17	106	1.3	19
SR 4	288	3.7	51				

Table 4.5 shows the relative weight and normalized importance weight in the descending order .From the table it is inferred that, bankers should introduce separate counters for different services, bankers have to improve and

tightening the secured internet banking services, bankers have to make sure that they provide round the clock and



hassle free support of customer call center since customers considered these as important which tops the list in relative weight as well as normalized importance weight. At the same time, bankers can give less importance in maintaining very close human relationships with customers such as sending Wishes on special dates, their employee's dress

code and the ambiance of the branch in terms of interior since it is preferred least by the customers

Table 4.6: Quality gap between Importance and Satisfaction

CR's	Level of Importance	Satisfaction level - AXIS	Satisfaction level - ICICI	Satisfaction level - HDFC	deviation from importance / Axis	deviation from importance / ICICI	deviation from importance / HDFC
VC1	4.5	3.90	4.13	4.17	0.6	0.4	0.3
VC2	3.8	3.53	4.23	3.83	0.3	-0.4	0.0
VC3	3.8	3.80	4.20	3.87	0.0	-0.4	-0.1
VC4	4.4	4.07	4.20	3.87	0.3	0.2	0.5
VC5	4.1	3.50	4.07	3.53	0.6	0.0	0.6
VC6	4.0	3.83	4.30	3.77	0.2	-0.3	0.2
VC7	4.6	4.13	4.40	4.00	0.5	0.2	0.6
VC8	3.6	3.90	4.23	4.07	-0.3	-0.6	-0.5
VC9	4.0	3.83	4.13	3.87	0.2	-0.1	0.1
VC10	3.7	3.93	4.03	3.77	-0.2	-0.3	0.0
VC11	3.8	3.57	4.03	3.93	0.2	-0.2	-0.1
VC12	3.9	3.63	3.93	3.67	0.3	0.0	0.2
VC13	3.7	3.57	4.30	3.43	0.1	-0.6	0.3
VC14	3.5	3.57	4.13	3.70	-0.1	-0.6	-0.2
VC15	3.9	3.73	4.03	3.57	0.2	-0.1	0.3
VC16	3.9	3.83	4.23	3.90	0.1	-0.3	0.0
VC17	3.6	3.73	4.07	3.93	-0.1	-0.5	-0.3
VC18	3.3	3.90	4.53	4.13	-0.6	-1.2	-0.8
VC19	4.1	3.60	4.30	4.10	0.5	-0.2	0.0
VC20	4.0	3.33	3.83	3.97	0.7	0.2	0.0
VC21	4.0	3.60	4.20	3.77	0.4	-0.2	0.2
VC22	4.6	3.60	4.33	3.87	1.0	0.3	0.7

Figure 4.3: Comparison between Importance and level of satisfaction

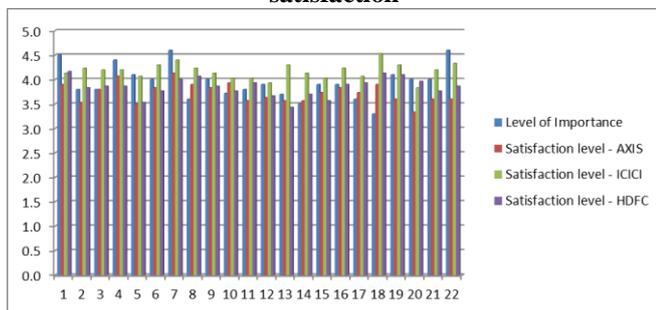


Table 4.6 and Chart 4.3 shows that Customers need The aim of this section is to analyze the items with the highest service quality gaps, in terms of establishing what exactly caused them as well as to provide directions for narrowing them down, i.e. to provide directions for improvements. Information obtained from customer satisfaction surveys as well as customers' complaints will be combined together with SERVQUAL results (in cases where it is possible and/or necessary) in order to gain more complete picture about service quality shortfalls or actions that need to be taken

5. CONCLUSION

The exploration of the requirements of banking customers allowed the definition of service criteria to ensure customer satisfaction at the time of implementation and thus the factors that regulate the quality of banking services. The construction of the banking quality house highlighted the critical technical attributes that reveal the quality of the services, the remarkable strengths and the positioning on the current market through competitive benchmarking. The bank cannot avoid strategic change in understanding the importance of a customer's voice as an individual. If the methodology is not applied accurately and correctly, it does not show its real value, it does not yield the expected return on time and investments in capital and data processing is waste of resources. Only systematic and permanent monitoring of customer requirements in all banking processes and a system of prioritization will guarantee future benefits and lead to all business efforts corresponding to the real structure of customer requirements and needs. It is well known how important it is to properly assess customer requirements and integrate them into each business process. It is strongly recommended that QFD application be designed as a complex project management



preceded by practical training in order to gain all QFD benefits. The training will introduce QFD methodology; it will demonstrate the use of QFD tools and the most important aspect of the training is that it will lead practitioners to understand the problem of QFD methodology. By using QFD, we have demonstrated the potential of this technique for defining customer expectations and translating them into the design specifications to ensure that the customer is satisfied

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