

Service Quality: A Study of Students Satisfaction in Higher Institution

Noorimah Misnan*

Faculty of Law, UiTM Cawangan Terengganu 23000 Dungun Terengganu

Zainuddin Zakaria

Faculty of Business Management, UiTM Cawangan Terengganu 23000 Dungun Terengganu

Wan Anisabanum Salleh

Faculty of Business Management, UiTM Cawangan Terengganu 23000 Dungun Terengganu

Abstract

For a higher educational institution, students' satisfaction plays an important part in the measurement of customer satisfaction in assessing service quality. Student satisfaction measures how well the expectations of a student relating to a service provided by the university. The purpose of this paper is to investigate the elements of service quality process and the learning outcome and its relationship to students' satisfaction level. The researcher conducted the research based on the SERVQUAL model to measure the gap between students' expectation for the service and their perception of actual service delivered. The five dimensions of service quality are studied, which include assurance, responsiveness, empathy, reliability, and tangibility. Several satisfaction levels were also evaluated include the student's satisfaction level on the service quality of the lecturers, physical facilities, the learning outcome and their demographic profiles. The data were analysed using the SPSS software. The result indicated that the students are satisfied with the quality of the lecturers, physical facilities and the learning outcome but there are certain elements in the service delivery that need to be improved. These are indicated by the gaps between students' expectation and their actual experience. The finding helps the management of the university understand both student expectations and perceptions of specific services, and areas that need to be improved.

Keywords: Service quality; Satisfaction; student's satisfaction.



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1. Introduction

Service quality is a comparison of expectations about a service with performance. It is used to measure the quality of the service in the manufacturing sector and service sector (Pariseau and McDaniel, 1997). To comprehend what does quality mean, the elements related to quality have to be grasped. Ghobadian *et al.* (1994) classify the definition of quality into five broad categories as transcendent; product led; process or supply led; customer led, and value led. The quality of a service leads to the measure of the extent to which the service delivered meets the customer's expectations. Into the bargain, many researchers and scholars agreed that in today's world of fierce competition, a basis for survival and success lies on quality service Parasuraman *et al.* (1988); Reichheld and Sasser (1990); Zeithaml *et al.* (1990); J. and Gbolahan (2013). At the same time as service quality has proven to be seemingly related to costs (Crosby, 1980), profitability (Rust and Zatorik, 1993), customer satisfaction (Bolton and Drew, 1991), customer retention (Reichheld and Sasser, 1990) and positive word of mouth. The subsequent work on SERVQUAL by Parasuraman *et al.* (1988) sought to develop a broad instrument for measuring service quality. The five dimensions of service quality defined include:

- Tangibility: Physical facilities, teaching equipment, ambience and appearance of the teaching staff
- Reliability: Ability to perform the promised service dependably and accurately
- Responsiveness: Willingness to help the students and provide prompt service in terms of solving the student's problem.
- Assurance: Knowledge and courtesy of the teaching staff and their ability to inspire trust and confidence
- Empathy: Caring individualised attention the teaching staff provides to the students.

The SERVQUAL model proposed is best known for its definitions of 5 gaps between customers' expectations and perceptions. It includes the gap between expected services and management perceptions of the expectations (gap 1), service quality specifications and management perceptions (gap 2), service quality specifications and service delivery (gap 3), service delivery and external communications to consumer (gap 4) and customer expected service and their perception of actual service (gap 5).

Only Gap 5 or the satisfaction gap is the researcher's concentration since both parties out of the five gaps pinpointed in the model; the teaching staff and the students must work hand in hand with each other in ensuring the quality of the service rendered. This satisfaction gap, as defined by Parasuraman *et al.* (1988) is the discrepancy between customers' expected service and perceived service delivered. In this study, the students are the customers to the teaching staff and management. Parasuraman *et al.* (1988) further append that customers' expectations are influenced by experience, personal needs and word of mouth communications. Hence students will develop certain

level of expectations based on their past knowledge of the university, their personal needs and promotional or publicity created by the management of the university. In addition to the SERVQUAL dimensions proposed as the measuring instrument, the researchers included an 'outcome' measurement scale which consists four items proposed by [Devinder and Biplab \(2003\)](#). The items used are 'knowledge and skills gained during the lecture, availability of class notes and reading materials, teacher's feedback on assessed work and depth of the lecture' [Devinder and Biplab \(2003\)](#)

2. Literature Review

Satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectation. Satisfaction will also depend on product and service quality ([Kotler and Ketter, 2006](#)). Satisfaction is also postulated as a person's attitude toward an object. It represents a complex assemblage of cognition (beliefs or knowledge), emotions (feelings, sentiments or evaluations) and behavioural tendencies. When a person states that he is satisfied with something, he is regarded as having a positive attitude toward that specific object. Conversely, a person may be dissatisfied with the object ([Aldemir and Gulcan, 2004](#)) but, positive perception on quality of services only occurs when the quality exceeded customers' expectation [Jalal et al. \(2011\)](#)

Consumers perspective on satisfaction has been defined as the consumer's judgement and evaluation pertaining to feeling of pleasure derived from the fulfilment of a pre-determined consumption level ([Oliver, 1989](#)) and the customer's intellectual evaluation of being rewarded accordingly for the investments and sacrifices made in order to obtain the reward ([Howard and Seth, 1969](#)). The service quality in the education field higher learning education is not only essential and important but also as a parameter of educational excellence [Jalal et al. \(2011\)](#). Furthermore, satisfaction can be defined as an 'attitude-like judgment' following a purchase act or a series of consumer-product interactions ([Lovelock, 2001](#)).

For a higher educational institution, students' satisfaction is a vital aspect of the measurement of customer satisfaction. Customer requirements and customer satisfaction as an integral part of the ISO standards ([Idrus, 2001](#)). Hence, students' satisfaction is also an important part that shouldn't be ignored in assessing service quality. Researchers on students' satisfaction encompass not only traditional teaching but include courses that are web-based and offered online ([Strickland and Butler, 2005](#)) as today's higher education students comprise full time and part time students and more mature from a working-class people. [J. and Gbolahan \(2013\)](#).

Students' satisfaction can be an indicator of the service quality and important to influence student's satisfaction level ([Wade, 2000](#)); ([Lee and Chen, 2006](#)). High level of satisfaction is also related to good communication skills and excellent relationship between the lecturers and the students ([Howarth, 2003](#)). It is also determining that learning styles are positively related to students' overall satisfaction and perception of service quality ([Lashley, 2002](#)). In addition, students' satisfaction or dissatisfaction with a university or faculty affects student performance ([Aldemir and Gulcan, 2004](#)); ([Hanna, 2005](#)). The students will more satisfy if the institution cares and provide better service quality ([Chuah and Subramaniam, 2011](#)).

On the other hand, low level of satisfaction is believed to surface as a result of three main factors – a limited number of friends, insufficient information received prior to enrolment and perceived discrimination ([Sam, 2001](#)). The study indicates that administrators and management should take steps to identify students' need and fulfil them to ensure high level of student's satisfaction. Students' satisfaction plays a significant role in determining the efficient delivery of service quality ([Ali et al., 2016](#)). In addition, students' satisfaction is always linked with service quality rendered [Jalal et al. \(2011\)](#). This means that higher education institutions should be managed with the students' satisfaction and raising their perceived service quality. Achieving student satisfaction thus provides a key competitive advantage for higher education institutions that want to place themselves as world-class university. Students are likely to be satisfied when their perception on service provided exceeds their expectation and completely satisfied when they receive more than they expect ([Jalal et al. \(2011\)](#)). The most important factors in creating knowledge value are the quality of the academic staff and the curriculum including the structure and delivery of programs. Service quality includes academic aspects, non-academic aspects, program issues, reputation and access [Jalal et al. \(2011\)](#)

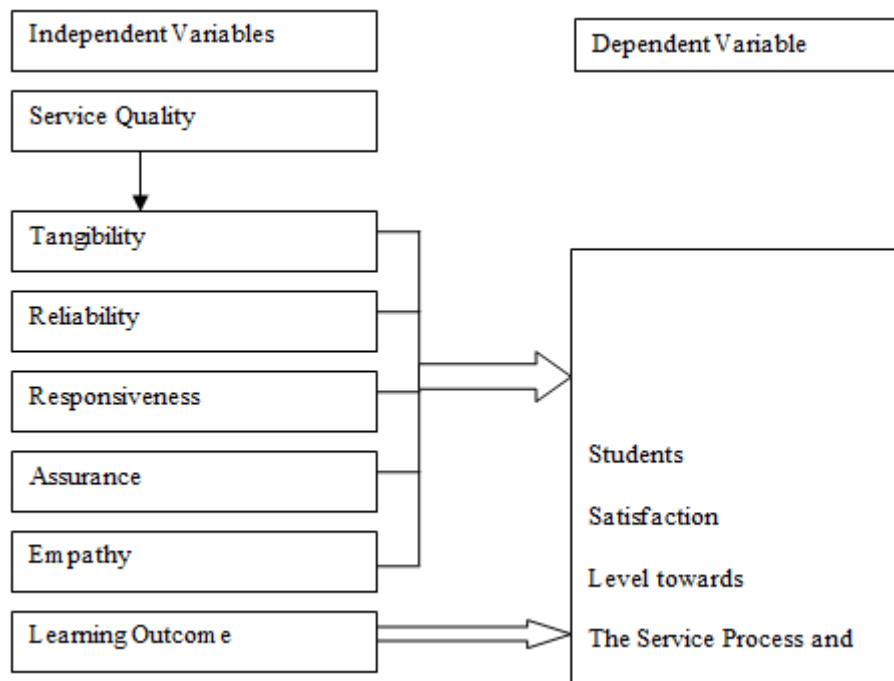
Based on literature review and the discussions above, it can be summarized that the university administrators should give serious attention on the issues of education delivery from the producer (lecturers) to the customers (students). It is, therefore important to ensure that the service delivered by lectures is vital in helping a university to maintain and attracting students.

3. Methodology

The study is concerned with the perceptions (actual experiences) of Bachelor's Degree students on service quality. In the present study, the data were obtained from an established university located in the east coast of Malaysia. In line with the research objectives, perceptions and expectations of students towards the quality of physical facilities provided by the management of university are also determined. In this study, the theoretical framework of service quality conceptualised by [Parasuraman et al. \(1988\)](#) is employed. The five dimensions of service quality are studied, which include assurance, responsiveness, empathy, reliability and tangibility. In this study, the levels of students' satisfaction are also verified.

3.1. Research Framework

Figure-1. Research Framework



3.2. Instrument

The theoretical framework of service quality conceptualised by Parasuraman *et al.* (1988) is used in this study. However, the items were modified to suit the context of the study based on the empirical research conducted by Devinder and Biplab (2003). Tangibility, reliability, responsiveness, assurance and empathy are the five dimensions stated in the framework. From a total population of 200 students, a sample of 125 students was spotted. Nevertheless, there were just 118 valid questionnaires as they were properly filled. Questionnaires were constructed with the objective of determining whether there are any gaps between the “expectations” and “perceptions” (actual experience) among the students. The gaps are expected to be in three scenarios. These were either be positive or negative or no gaps (perceptions equal expectations). Paired sample t-test and correlation analysis were used for data analysis. As mentioned earlier, items used in the questionnaires are adopted from the work of (Devinder and Biplab, 2003) which comprises of the adopted five SERVQUAL dimensions plus a 4 item Outcome dimension. The items are shown in appendix 1. In addition, the student’s demographic profile, courses, grades and previous education were measured using 6 closed ended questions and 5 open ended questions.

4. Result and Finding

The reliability test was conducted for all the items in the questionnaires, distinguished by 4 areas, performance, expectation and importance. Hence, 26 items measuring the student’s perceptions on actual performance, expectation and importance of the teaching staff were subjected through the Cronbach’s alpha reliability test based on six dimensions; physical condition, reliability, responsiveness, assurance, empathy and learning outcome. In addition, seven items in measuring the satisfaction level of students were also tested for its’ reliability. The result of the Cronbach’s alphas revealed that all items measuring the student’s perception on actual performance, expectation and importance based on the six dimensions are greater than 0.60 indicating that the scales and items used in the questionnaire satisfactorily measured the constructs. To examine the gaps analysis, two main analyses are used. The first test chosen is the Paired Sample t-Test and the second analysis chosen for the study is linear Regression analysis. The purpose of using the test is to help in identifying whether there is any difference in the data distribution of the expectations and perceptions of students for the Mean of each element (tangibility, reliability, responsiveness, assurance and empathy) in the service quality dimensions. In addition, the difference (gap) between the students’ perception and expectation on the learning outcome was also analysed using the same analysis. A 5-point Likert scale is applied in the questionnaires. From the score of the mean values, the overall gap (Perceptions minus Expectations) of each element was determined. Each item was tested for its reliability using the Cronbach Alpha reliability test.

4.1. Paired Sample t-Test

These are the results of the Paired Sample t-test. The perceptions of the students are lower than their expectations for all elements of the service quality dimensions and for the learning outcome. Moreover, the gaps were significant at the 95% confidence level. All results are shown in table 1 until table 6. The dimension on tangibility for example, showed in table 1 reveals that all 5 items had negative paired mean difference between 0.383 and 0.718. Items such as ambience of room, legibility of teaching, lecturer’s physical appearance, voice and articulation were included in this dimension

Table-1. Paired Sample t-Test for Tangibility

Tangibility		Paired Differences		t	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Condition and Ambience of Rooms and Equipment	-0.718	0.927	-8.377	0.000
Pair 2	Organisation and legibility of Presentation	-0.530	0.877	-6.539	0.000
Pair 3	Appearance of the Teacher	-0.145	0.686	-2.292	0.024
Pair 4	Audibility and Articulation	-0.383	0.801	-5.122	0.000

The same result was shown for the reliability shown by the lecturers which range from being sincere to the students to give clear explanation of the concept. The means in the paired difference between the expectation and the actual performance of the lecturers indicates that the expectation of students was significantly higher than their perceptions of the lecturer's actual delivery. All results are shown in table 2

Table-2. Paired Samples t-Test for Reliability

Reliability		Paired Differences		t	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Sincerity	-0.360	0.649	-5.979	0.000
Pair 2	Ability to Solve Problems	-0.365	0.667	-5.875	0.000
Pair 3	Emphasis on Relevance and Practicality of Subject	-0.488	0.784	-6.725	0.000
Pair 4	Punctuality	-0.371	0.727	-5.479	0.000
Pair 5	Clear Explanation of Concepts	-0.362	0.796	-5.084	0.000

A similar result was revealed for the responsiveness dimension as illustrated in table 3. Item ranges from the pace of delivery to the ease of communicating with the lecturer's outside of lecture hours. The means in the paired difference between the expectation and the actual performance of the lecturers indicates that the expectation of students was significantly higher than their perceptions on the lecturer's actual delivery.

Table-3. Paired Samples t-Test for Responsiveness

Responsiveness		Paired Differences		t	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Pace of Teaching	-0.154	0.690	-2.412	0.017
Pair 2	Speed in Answering Questions	-0.379	0.820	-4.983	0.000
Pair 3	Willingness to Help Students	-0.274	0.750	-3.945	0.000
Pair 4	Convenience in Communicating Outside Lecture Hours	-0.479	0.896	-5.776	0.000

The paired sample t-test on items in the assurance dimension also revealed that the mean difference indicates that the students' perception of assurance shown by lecturer was significantly lower than what they initially expected. Items in this dimension comprise of questions such as encouragement to think and provide opinions, courtesy and kindness and giving satisfactory answers to student's questions.

Table-4. Paired Samples t-Test for Assurance

Assurance		Paired Differences		t	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Encouragement to Think and Provide Opinions	-0.282	0.775	-3.936	0.000
Pair 2	Ease in Interacting with the Lecturer	-0.453	0.905	-5.415	0.000
Pair 3	Courtesy and Kindness	-0.282	0.797	-3.828	0.000
Pair 4	Answer to Questions Asked Satisfactory	-0.308	0.771	-4.318	0.000

In terms of empathy, results of the means in the paired difference between the expectation and the actual performance of the lecturers indicates that the expectation of students were significantly higher than their perceptions of the lecturer's actual delivery. Items in this dimension include questions such as individual attention

given by lecturer, lecturers understanding of the student's need enthusiasm in teacher's attitude towards teaching. The mean difference can be observed in table 5.

Table-5. Paired Samples t-Test for Empathy

Empathy		Paired Differences		t	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Individual Attention	-0.526	0.964	-5.874	0.000
Pair 2	Personal Attention	-0.487	0.887	-5.942	0.000
Pair 3	Teacher's Understanding of Student's Needs	-0.539	0.905	-6.433	0.000
Pair 4	Enthusiasm in Lecturer's Attitude Towards Teaching	-0.379	0.718	-5.689	0.000
Pair 5	Suitability of Lecture Time	-0.397	0.950	-4.496	0.000

The result shown for the 'learning outcome' dimension showed a similar outcome. The paired mean difference between the expectation and the actual performance indicates that students' perceptions were significantly higher than their perceptions of what they received in terms of the learning outcome. Four items were included in this dimension. Items in this dimension include questions such as the knowledge and skills acquired, getting note and learning material, receiving feedback on assessed work and lecturer's covering suitable learning scope and depth of lecture.

Table-6. Paired Samples t-Test for Learning Outcome

Learning Outcome		Paired Differences		T	Sig. (2-tailed)
		Mean	Std. Deviation		
Pair 1	Knowledge and Skill	-0.487	0.857	-6.148	0.00
Pair 2	Note and Learning Material	-0.470	0.761	-6.683	0.00
Pair 3	Feedback on Assessed Work	-0.427	0.780	-5.924	0.00
Pair 4	Scope and Depth of Lecture	-0.427	0.711	-6.502	0.00

4.2. Satisfaction level

Based on 7 items which are Quality of Physical Facilities, Lecturer's Physical Appearance, Lecturer's Responsiveness, Assurance and Empathy shown by the lecturers and the Learning Outcome, the satisfaction level of the students is also analysed. Once more, a 5-point Likert scale was applied, where a score of 1 indicates that the students are extremely dissatisfied and a score of 5 indicates extreme satisfaction. The researcher uncovers that most students had given a score between 3 and 4 indicating high satisfaction level based on the Median and Mode value. On average the students are satisfied with the services that they received from the teaching staff. This is the general satisfaction level found. It is shown by the mean value of between 3.03 and 3.81 which are above the average score of 2.50. All results are shown in table 7 and 8.

Table-7. The Statistics Analysis of the Students Satisfaction Level for Physical Facilities, Physical Appearance, Reliability and Responsiveness of Lecturer

Elements of Satisfaction	Quality of Physical Facilities	Lecturer's Physical Appearance	Reliability of Lecturer	Responsiveness of Lecturer
Mean	3.03	3.90	3.96	3.81
Median	3.00	4.00	4.00	4.00
Mode	3.00	4.00	4.00	4.00

Table-8. The Statistical Analysis of the Students Satisfaction Level for Assurance, Empathy and Learning Outcome

Elements of Satisfaction		Assurance Shown by Lecturer	Empathy Shown by Lecturer	Learning Outcome
N	Valid	116	116	116
	Missing	2	2	2
Mean		3.70	3.66	3.93
Median		4.00	4.00	4.00
Mode		4.00	4.00	4.00

4.3. Correlations Analysis

For all service quality items used in the questionnaire, a correlation analysis is also performed between the general satisfaction and the mean gaps (perceptions minus expectations). Results of the test indicate that there is a positive and linear relationship between the gaps and the Mean satisfaction level of the Bachelor's Degree students. This is shown by the significant value of less than 0.05. This indicates that as the gaps become more positive

(Perception higher than Expectation), the satisfaction level would also increase. On the other hand, the mean gaps (perception minus expectations) for all the service quality items listed in table 9 have a low correlation with the overall satisfaction level as shown by the correlation value between 0.185 and 0.225. These are the indications shown by the Spearman Rho Correlation. These results can be noted in table 9.

Table-9. Correlations Analysis between Satisfaction Level and the perception of the Service Quality Items

	Satisfaction	Tangibility	Reliability	Responsiveness	Assurance	Empathy
Tangibility	.419** .000					
Reliability	.435** .000	.471** .000				
Responsiveness	.445** .000	.495** .000	.420** .000			
Assurance	.433** .000	.444** .000	.544** .000	.420** .000		
Empathy	.405** .000	.506** .000	.535** .000	.495** .000	.604** .000	
Learning Outcome	.430** .000	.520** .000	.435** .000	.426** .000	.543** .000	.587** .000

* Correlation is significant at the 0.05 level (2-tailed). P= perceptions. E=Expectation

4.4. Regression Analysis

A regression analyses was conducted to measure the relationship between the students' satisfaction level and the five SERVQUAL dimensions and the learning outcome dimension, where the student's average satisfaction level is considered as the dependent variable. The student's satisfaction level was regressed against both their perception of the lecturer's actual performance and their expectation of the lecturer's performance using the step wise method. The result in table 10 and 11 demonstrates that the students' satisfaction level is related positively to their perceptions of the actual performance of the lecturer's responsiveness, assurance and reliability. This means that the lecturers' responsiveness, assurance and reliability are more critical in influencing the student's satisfaction relative to the other SERVQUAL dimensions and the outcome of their learning experience.

Table-10. Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.548 ^c	.300	.281	.32140

Table-11. Coefficients (a)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.568	.318		4.929	.000		
Responsiveness	.216	.072	.270	2.996	.003	.770	1.299
Assurance	.152	.071	.210	2.158	.033	.663	1.509
Reliability	.192	.092	.205	2.096	.038	.653	1.532

a. Dependent Variable: Students Satisfaction

5. Conclusion and Recommendations

There is a significant difference between the expectations and the perceptions of students towards the actual services delivered by the teaching staff and the management. The Paired Sample t-test revealed that a substantial number of students experienced negative gaps; which denotes that the management and teaching staff are unable to meet or exceed the students' expectations for all the items in the SERVQUAL dimensions and the learning outcome variable.

The paired sample t-test illustrated several areas of the teaching and physical aspects that need to be improved significantly by the management. In terms of the tangibility, conditions and ambience of rooms and equipment should be the priority of the university management. In fact, this aspect experiences the largest gap difference relative to the other items in the SERVQUAL dimensions. As for the non-tangible elements, several elements of the service require drastic improvements. The top ten elements are lecturer's emphasis on relevance and practicality of subject thought, lecturer's punctuality, convenience in communicating outside lecture hours, ease in interacting with the lecturer, individual and personal attention given to students, lecturer's understanding of student's needs, enthusiasm in lecturer's attitude towards teaching and suitability of lecture time. As for the learning outcome dimension, the largest gap is shown by the perceptions of student's regarding the knowledge and skills obtained during lecture hours.

For this, the management has much to do in improving their services to at least match the expectations of students that are unique, complex and unpredictable. Without a doubt, it is a daunting duty, but it must be carried out

to ensure a high satisfaction level. Some recommendations are offered that they may give a hand to the management in enhancing the services.

The gap in punctuality, speed in answering question, willingness to help students, courtesy and kindness and personalised attention has a significant influence in determining the average satisfaction level of the students. This is revealed in the correlation analysis. Even though the correlation value is low, these are the areas of the services that need to get better to ensure a higher satisfaction level among the students.

Results gathered through the regression analysis revealed that the lecturers' actual service delivery in terms of reliability, responsiveness and assurance quality has a positive and significant influence on the student's level of satisfaction. The combination of these three dimensions provided the best model to explain the variability of the student's satisfaction level ($r^2 = 0.30$). However, only the student's expectation on the dimension of tangibility had a positive and significant influence on their satisfaction level.

The research and findings may benefit both the university and students. It will help the university to know the level of student satisfaction and to serve students more effectively in the future in order to ensure that the university remains competitive. Such findings should help the university to improve the service quality and make a better strategic plan to achieve a world class status.

5.1. Limitation of Study

The finding from this study suggests some limitations and a number of areas for further studies. As this research is only using the SERVQUAL model, there are other factors such as facilities, constant upgrade of IT structure, bettered the environment, etc. that are not included in the study. The study also does not represent the whole population of the students. For future studies, the researcher might expand the scope of the survey and larger sample size.

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